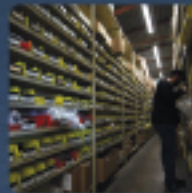
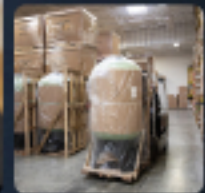


NELSEN

C O R P O R A T I O N [™]

FAMILY OWNED
FAMILY OPERATED
FAMILY FOCUSED



Ohio
800.362.9686

Arizona
866.445.4299

Texas
855.674.0357

FL-Tampa
866.712.6796

FL-Ft. Myers
813.712.2272

PROFESSIONAL
DEALER CATALOG

NELSEN

C O R P O R A T I O N™

Dear Professional Dealer:

Thank you for requesting our full-line catalog! I am pleased to provide this catalog as a means for you to become more familiar with the wide array of products Nelsen Corporation has to offer. My commitment is to ensure that the products you need are readily available to you and are priced competitively. I remain devoted to serving you with the expertise, knowledge, and the understanding it takes to help you make informed decisions.

As you can see, our catalog is packed with the best the industry has to offer! In addition to more than 4,000 products from over 200 vendors Nelsen offers these other important advantages:

- Same Day Shipping! 95% of all orders placed are shipped out the very same day.
- Accessing your Dealer Account online is easy with the Nelsen Corporate website 24/7 access.
- Nelsen Corporation's mobile app is available for download to your iPhone or Android™ device for account access or ordering anywhere!
- Our warehouses are strategically located in Ohio, Arizona, Texas and Florida. In many cases, our shipments will arrive within one or two days from the time you place your order!
- Custom Built Equipment - All systems are custom built to your specifications.
- We can take your exact specifications and create custom builds in our system with your part number.
- Order online anytime of the day including your custom builds, visible only to you.
- Order by TOLL-FREE Phone, Fax or e-mail!
 - Ohio Toll Free Phone: 800.362.9686 – FAX: 888.544.8780
 - Arizona Toll Free Phone: 866.445.4299 – FAX: 602.442-0447
 - Texas Toll Free Phone: 855.674.0357 – FAX: 210.714.2571
 - Florida-Tampa Toll Free Phone: 866.712.6796 – FAX: 813.712.2274
 - Florida-Ft. Myers Phone: 813.712.2272

Great customer service is the cornerstone of any business and I'm passionate about providing you a superior customer experience. It's a vital part of everything we do at Nelsen—from keeping you up to date with the latest technology to delivering the best value.

Have a question? Need assistance? Looking for information? I've attached my business card with all my contact information so that you can reach me by telephone or e-mail.

My aim is to build a long-term relationship with you.

Sincerely,

NELSEN

C O R P O R A T I O N™

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In the early 1950's, Emil Nelsen was working at Alcoa as a Stationary Engineer. He started selling part-time for a water treatment dealer during the Cleveland area housing boom following World War II. At 18 his son, Ron Nelsen, joined him as they sold, serviced and installed water treatment and water well equipment.

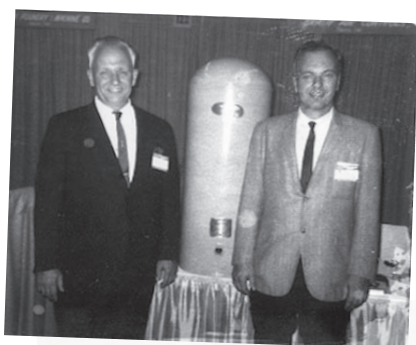
In 1954, Emil and Ron started their own company Century Water Conditioning Company. Originally located in Emil Nelsen's residence in North Royalton, Ohio, operations were conducted from an enclosed back-porch office and a small barn that served as the warehouse. The company evolved from retail to wholesale as submersible pumps began replacing the traditional working head and jet pumps of the day. At that time pumps were sold primarily through hardware wholesalers to hardware stores. The wholesalers weren't interested in selling submersibles or providing the help dealer's needed to install and service them. The manufacturers of this new product had to find another way to the market and were looking for companies interested in specializing

in the distribution of this new technology. They offered both inventory

and financial support. Ron expressed an interest, built relationships with other manufacturers of water well related products and our wholesale business was born.

In 1956, the business was moved to a rented commercial building in North Royalton, Ohio and then moved again in 1964 to a larger facility in Broadview Heights, Ohio. This location allowed further expansion of wholesale sales to area dealers. In 1975, the business moved to its present location in Norton, Ohio and became 100% wholesale.

Today, Nelsen Corporation's operation features over \$10,000,000 in inventory from more than 200 vendors. Our Arizona, Texas and Florida operations serve the professional water treatment dealers located in the Southwest, South Central and Southeast markets. While our company has seen substantial growth over the years, Nelsen Corporation remains family-owned and operated.



Same Day Shipping

In most cases, your order will ship the same day it's placed. Our warehouses are strategically located in Ohio, Arizona, Texas and Florida. In many cases, our shipments will arrive within one or two days from the time you place your order!

Nelsen Corporation ships your order utilizing the best and most economical way of delivery, UPS, FedEx, US Postal Service or freight carrier.



Custom Built to Your Specs

Let's face it - business can be tough. You know what's best for your customer, your business and your company's future. Your equipment supplier plays an important role in the success of your company. With the best the industry has to offer from Fleck, Structural, Enpress, Clack and over 200 other vendors, Nelsen custom builds every water conditioner to your exact specifications! This gives you the opportunity to fully customize your product offerings to your customer, set yourself apart from the competition AND still have it shipped the same day you place your order!



Product Consistency

We can take your exact specifications and create custom builds, with your part number, within our order entry system. No need to worry if your salesperson is out of the office, you order your part numbers from anyone of the sales team. With this system you also have the ability to order your part numbers from our website 24/7. Your part numbers are only visible to you and no other dealers.

Your Partner on the Web

Nelsen Corporation Can Help You Develop Your Website & Service in the Following Ways:

Product Photo's & Descriptions: We have an extensive library for your use.

Our Four Locations: (Ohio, Arizona, Texas and Florida) help minimize the time your customers order is in transit. In most cases, your customer will have their order one to two days after they place it with your company!

Custom Equipment: All of our equipment is built to your specifications. While we can help with system design, we'll ship your equipment the way you want it every time.

Custom Packaging: Use our packaging or design your own. We can stock cartons and labels specifically designed by you promoting your company and/or brand.

Freight Options: All shipments leave via UPS, FedEx, US Mail or Common Carrier. Use our account or establish your own with one of our carriers.

Custom Packing Lists: We can customize the packing list that your customer receives with your logo and company information.

Order Acknowledgements: We can set up your account to receive Order Acknowledgments via email allowing you to verify receipt and the accuracy of your order prior to shipment.

Tracking Numbers: We can set up your account to receive Tracking Numbers via email after your order has been picked up by one of our freight carriers.

Technical Support: Our sales staff can work with you to provide technical support for our products with your customer.

Monthly News & Specials

It's easy to sign up, log-in to your account on our website, NelsenCorp.com, or call your salesperson!

Sign up for Nelsen eNews to receive current news and industry updates – delivered to your e-mail – FREE. Stay informed on all new product announcements, product updates and special sale items!

Access to Your Account Online!

Accessing your Dealer Account online is easy with the Nelsen Corporation website. The site is fully responsive with mobile devices, making it easy to navigate on a wide range of web browsers and portable devices. With your online account you have access to your Orders, Back-orders, Quotes, Invoices, Statements and more.

For each account you have the ability for multiple log-ins to the same account with unique email addresses. Meaning your service techs, as well as accounts payable, sales people, purchasing and others can each have a log-in to your account. We can set permissions to control what they see when they login...

To take advantage of account permissions just let your salesperson know and we can limit who sees what in your account online.

- Current Backorders
- Invoice Information
- Purchase History
- Recent Orders
- Current Statement
- Restrict Order Templates
- Disable Pricing and Purchasing

N Dealer Mobile App

Nelsen Corporation's very own mobile app is available to download for your iPhone or Android™ device! The mobile experience is designed to give dealers access to their Nelsen account from anywhere.

Just like the website, the Mobile App offers dealers access to their Nelsen account, online ordering and to view Statements, history, quotes and more as well as support materials including manuals, literature, SDS sheets, videos, spec sheets and more!

Download the new mobile app, sign on quickly with your fingerprint or facial recognition for eligible devices, and simplify the way you shop.



Our Sales Team

At Nelsen Corporation, we realize that when it comes to satisfying our customers, there is only one thing more important than Quality Products — the quality of our people. Nelsen Corporation has the best sales team assembled in the industry.

Our team, each averaging over 20 years experience in the water treatment business, and collectively over 300 years, has the knowledge and expertise to assist you in sizing and treating the most demanding of problem water.

Our Sales Reps work together as a team to provide you the answers and the confidence you need that the equipment you are providing your customer is the right equipment for the correct water conditions. They're all focused on one thing: powering your business, we are only as successful as you are.



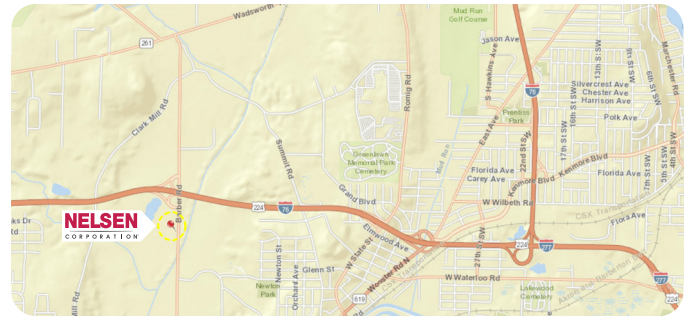
We encourage all of our customers and prospective customers to attend our seminars, meetings and to pay us a visit. Just let us know ahead of time when you'll be arriving so that we can meet and spend some time with you. The

maps below should provide you with enough information necessary to find us. If you need any additional information, please call us at the numbers listed.

Ohio Corporate Office & Warehouse



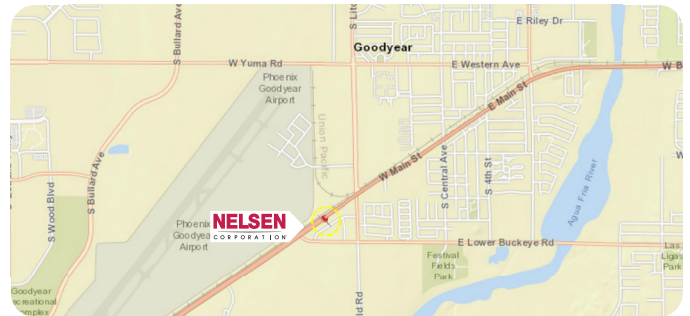
3250 Barber Rd. Norton, OH 44203
800.362.9686 • 330.745.6000



Arizona Office & Warehouse



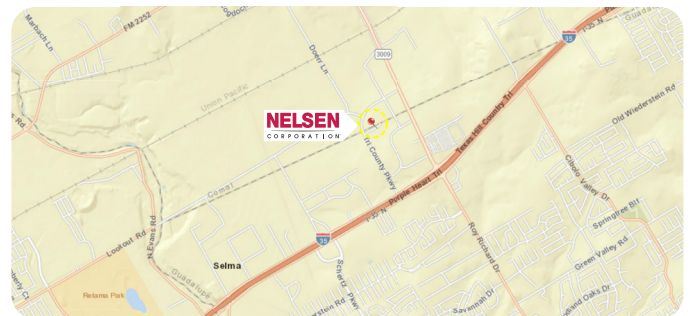
14035 W. El Cielo, Goodyear, AZ 85338
866.445.4299 • 602.442.0203



Texas Office & Warehouse



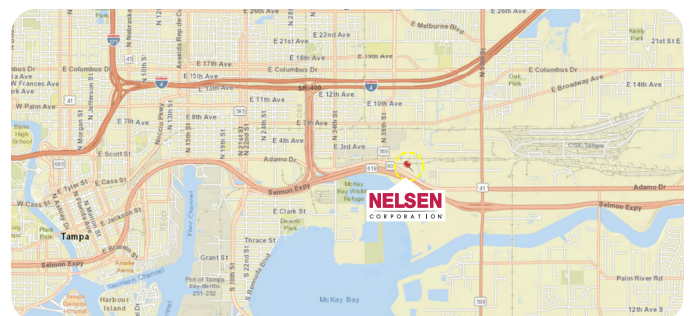
1012 Assembly Circle #100, Schertz, TX 78154
855.674.0357 • 210.714.2566



Tampa Florida Office & Warehouse



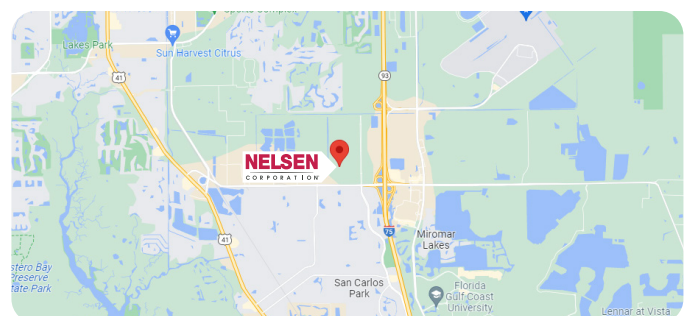
4410 E. Adamo Dr. Suite 102, Tampa, FL 33605
866.712.6796 • 813.712.2270



Ft. Myers Florida Office & Warehouse



16810 Oriole Road - Suite 5, Ft. Myers, FL 33912
813.712.2272



Returns

To return any merchandise whatever the reason, contact your salesperson for an RGA (Returned Goods Authorization) number. Write the number on the packing list and the outside of the package to be returned.

Most importantly! Carefully wrap and pack all parts and equipment you're returning to prevent damage, (and possible credit refusal) during shipping.

Damaged or Lost Shipments

Check your order immediately upon receipt. All damages must be noted on the packing slip and bill of lading. All shipping discrepancies must be reported to Nelsen Corporation within 5 days of receipt of your order. Keep all damaged goods for inspection.

Tracking Orders

How to Track Your Orders: Go to "My Account" and open your invoice. When viewing your invoice, if there is a tracking number next to the order date, the package has shipped. If the tracking number is highlighted, click on the number. The carriers website should open with the tracking info already showing.



NELSEN

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NELSEN

C O R P O R A T I O N

Residential Softeners

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NOTES





Residential Water Softeners

GENERAL SPECIFICATIONS FOR MOST OF THE UNITS IN THIS SECTION

(Call us for detailed specifications on specific units)

Grains Capacity	24,000	32,000	40,000	48,000	64,000	80,000	110,000
Grains Capacity (1)	22,500	30,000	37,500	45,000	60,000	75,000	105,000
Grains Capacity (2)	18,000	24,000	30,000	36,000	48,000	60,000	84,000
Cubic Ft. Material	0.75	1.00	1.25	1.50	2.00	2.50	3.50
Pounds Material	38	50	63	75	100	125	175
SVC Flow Rate, GPM*	7	9	10	12	13	18	22
Overall Height	51"	55"	51"	61"	55"	61"	71"
Floor Space Required	25" x 17"	26" x 17"	27" x 17"	27" x 17"	29" x 17"	30" x 17"	31" x 17"
Approximate Weight	83#	98#	111#	124#	152#	219#	292#

UNITS WITH STANDARD MESH RESIN

Mineral Tank Size	8" x 44"	9" x 48"	10" x 44"	10" x 54"	12" x 48"	13" x 54"	14" x 65"
Backwash Flow (3)	1.5	2.0	2.4	2.4	3.5	4.0	5.0
Backwash Flow (4)	2.0	2.4	3.0	3.0	5.0	5.0	7.0

UNITS WITH FINE MESH RESIN

Mineral Tank Size	8" x 44"	9" x 48"	10" x 44"	10" x 54"	12" x 48"	13" x 54"	14" x 65"
Backwash Flow (3)	1.2	1.5	2.0	2.0	2.4	2.4	3.5
Gravel Underbed (5)	10#	12#	16#	16#	20#	35#	50#

(1) At 15 pounds per cubic foot = 30,000 Grains/Cubic Foot Resin

(3) Backwash flow with standard basket distributor

(5) Gravel underbed is optional with standard mesh resin units under 80,000 grain and included with fine mesh units

(2) At 9 pounds per cubic foot = 24,000 Grains/Cubic Foot Resin

(4) Backwash flow with turbulator

*Note - due to varying water conditions, water pressures and assembly materials the service flow rate should be used only as a guideline.





Residential Water Softeners

You and your family deserve the finest quality water available. Quality, soft water you can feel each time you shower or feel in the softness of the towel when drying after that shower. Each Nelsen Water Solutions (NWS) Water Conditioner is designed to specifically address the water quality issues that are unique to your home providing your family with outstanding water. Your investment will reward you with quality water at every faucet in your home.



Residential Softeners

Nelsen Water Solutions 1" Electronic Systems

Systems include NWS series electronic meter valve, bypass valve, black polyglass mineral tank and standard mesh resin. Includes 15" x 17" x 36" charcoal brine tank (except as noted) with Clack 474 safety valve. Larger brine tanks require 484 safety valve.

Order plumbing connections separately on page 1-11.

NWS 1" ELECTRONIC METER SYSTEMS

NWS-24B-C474	24,000	\$1,633.00
NWS-32B-C474	32,000	\$1,751.00
NWS-40B-C474	40,000	\$1,841.00
NWS-48B-C474	48,000	\$1,953.00
NWS-64B-C474	64,000 (18" x 33" Brine Tank)	\$2,182.00
NWS-80B-C474	80,000 (18" x 40" Brine Tank)	\$2,368.00
NWS-110B-C484	110,000 (24" x 41" Brine Tank)	\$3,738.00
NWS-120B-C484	120,000 (24" x 50" Brine Tank)	\$4,119.00
NWS-150B-C484	150,000 (24" x 50" Brine Tank)	\$5,083.00
NWS-210B-C484	210,000 (24" x 50" Brine Tank)	\$5,907.00



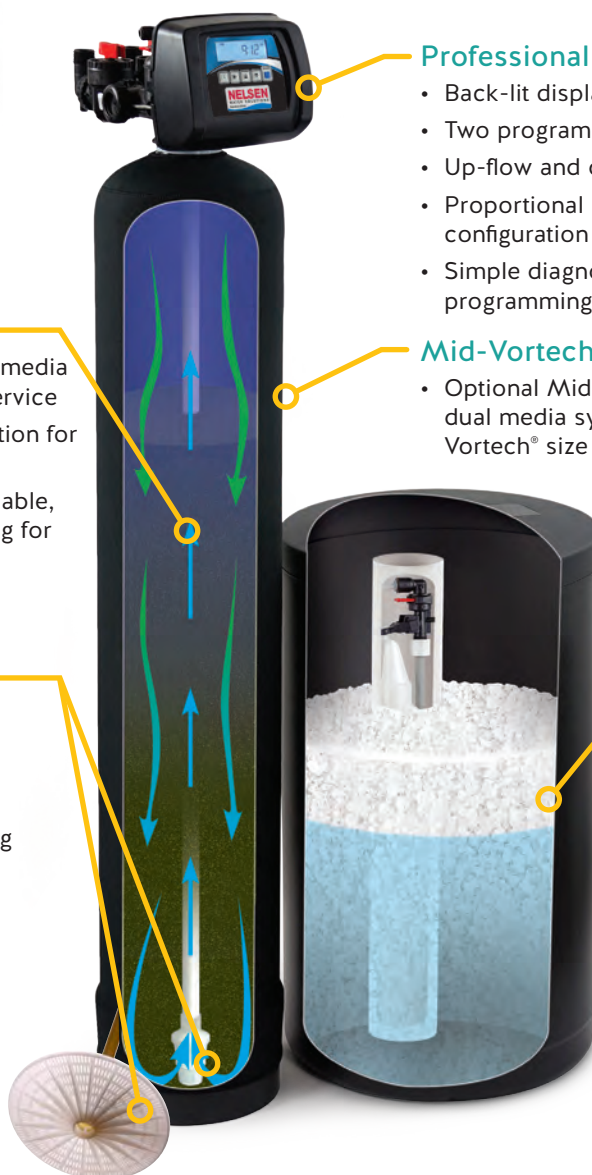
SIGNATURE SERIES SYSTEM
(Shown with Optional Neoprene Jacket)

Exclusive Media Bed

- High quality, chlorine resistant media bed, for years of continuous service
- Uniform bead size and distribution for optimum flow rates
- Optional Softening Resins available, refer to SECTION 4 of the catalog for choices

Basket Style Distribution System

- Delivers evenly distributed and high quality flows
- Enpress Vortech® plate style tanks available, Vortech creates better backwashing and cleaning action of medias and shorter backwashing requirements resulting in water savings
- Gravel support bed shown used on larger systems



Professional Series Control Valve

- Back-lit display
- Two programmable relay switches
- Up-flow and down-flow configurations available
- Proportional brining available in up-flow configuration
- Simple diagnostics and design provide for easy programming

Mid-Vortech® Tanks

- Optional Mid-Vortech® plate tanks available for dual media systems, See SECTION 10 for Mid-Vortech® size availability and color
- Dress up your system with optional Tank Jackets, see SECTION 10

High Quality Brine Tank

- High quality, durable construction
- Safety float system helps prevent overflow of the brine tank
- Constructed of corrosion-free materials
- Larger brine tank sizes, colors and shapes are available to choose from, see SECTION 11



Residential & Light Commercial Twin Softeners

You and your family deserve the finest quality water available. Quality you can feel each time you shower or feel the soft towel when drying after that shower by having soft water. Unlike a single tank water softener, a twin tank system allows for continuous soft water 24/7. Each Nelsen Water Solutions (NWS) Water Conditioner is designed to specifically address the water quality issues that are unique to your home providing your family with outstanding water. Your investment will reward you with quality water at every faucet in your home.



Residential Twin Softeners

NWS 1" Twin Alternating Systems

Systems include NWS series electronic meter valve, bypass valve, black polyglass mineral tanks and standard mesh resin. Includes 15" x 17" x 36" charcoal brine tank (except as noted) with Clack 474 safety valve. Larger brine tanks require 484 safety valve.

Order plumbing connections separately on page 1-11.

NWS 1" ELECTRONIC METER SYSTEMS

NWS-24B-TWIN-C474	24,000	\$2,776.00
NWS-32B-TWIN-C474	32,000	\$2,998.00
NWS-40B-TWIN-C474	40,000	\$3,187.00
NWS-48B-TWIN-C474	48,000	\$3,404.00
NWS-64B-TWIN-C474	64,000 (18" x 33" Brine Tank)	\$3,963.00
NWS-80B-TWIN-C474	80,000 (18" x 40" Brine Tank)	\$4,331.00
NWS-110B-TWIN-C484	110,000 (24" x 41" Brine Tank)	\$6,430.00
NWS-120B-TWIN-C484	120,000 (24" x 50" Brine Tank)	\$7,085.00
NWS-150B-TWIN-C484	150,000 (24" x 50" Brine Tank)	\$8,795.00
NWS-210B-TWIN-C484	210,000 (24" x 50" Brine Tank)	\$10,432.00



NWS TWIN-ALT SYSTEM
(Shown with optional Tank Jackets)

Hi-Capacity Resin

- High quality, chlorine resistant media bed, for years of continuous service
- Uniform bead size and distribution for optimum flow rates
- Optional Softening Resins available, refer to SECTION 4 of the catalog for choices

Basket Style Distribution System

- Delivers evenly distributed and high quality flows
- Enpress Vortech® plate style tanks available, Vortech creates better backwashing and cleaning action of medias and shorter backwashing requirements resulting in water savings
- Gravel support bed shown used on larger systems

Professional Series Twin-Tank Control Valve

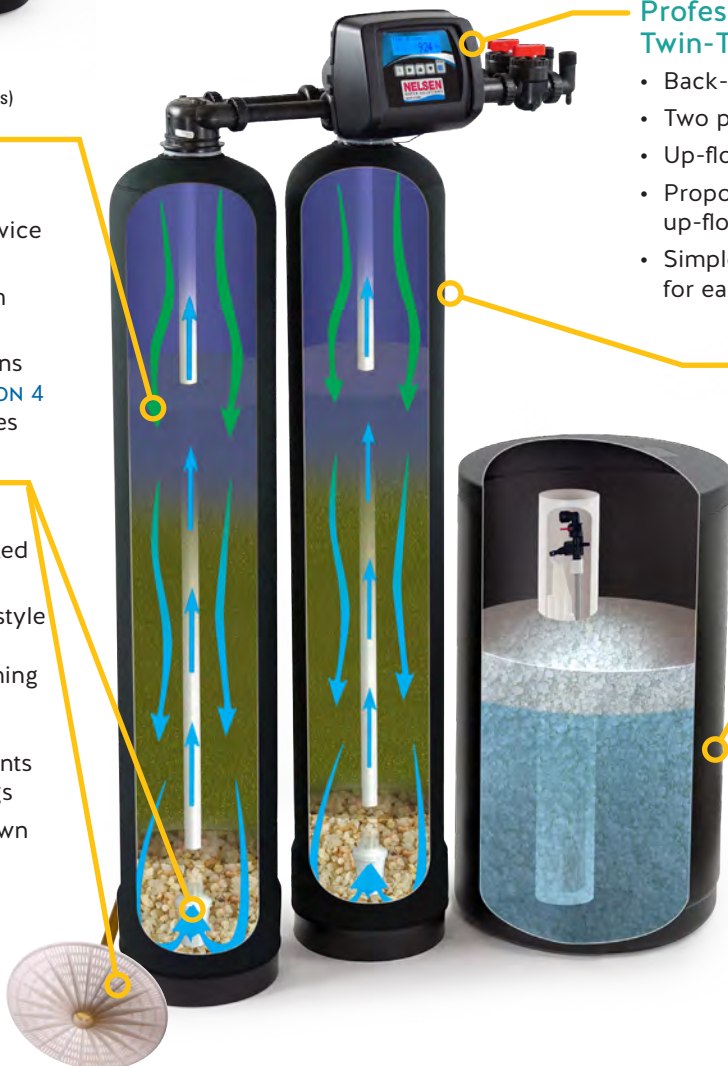
- Back-lit display
- Two programmable relay switches
- Up-flow or down-flow regeneration
- Proportional brining available in up-flow configuration
- Simple diagnostics and design provide for easy programming

Mid-Vortech® Tanks

- Optional Mid-Vortech® plate tanks available for dual media systems, See SECTION 10 for Mid-Vortech® size availability and color
- Dress up your system with optional Tank Jackets, see SECTION 10

High Quality Brine Tank

- High quality, durable construction
- Safety float system helps prevent overflow of the brine tank
- Larger brine tank sizes, colors and shapes are available to choose from, see SECTION 11





C-SERIES

Residential/Light Commercial Softeners

You and your family deserve the finest quality water available. Quality you can feel each time you shower or feel the soft towel when drying after that shower by having soft water. Each Nelsen Water Solutions (NWS) Water Conditioner is designed to specifically address the water quality issues that are unique to your home providing your family with outstanding water. Your investment will reward you with quality water at every faucet in your home.



System Features & Options



C-SERIES EE CONTROL VALVE

- All C-Series controls feature solid state microprocessors with easy access front panel settings
- EE control features a 6-cycle control with fully adjustable cycle times
- Double backwash feature, offers optimum regeneration, cleaning ability, and efficiency
- Down-flow/up-flow regeneration
- Stores system configuration and operation data in non volatile memory
- Capacitor back-up with 8-hour power carry over
- 12 volt transformer provides safe and easy installation
- Treated water regenerant refill

Nelsen Water Solutions C-Series 1" Electronic Systems

Softeners include Nelsen C-Series EE electronic meter control valve, bypass valve, black polyglass mineral tank and standard mesh resin. Includes 15" x 17" x 36" charcoal brine tank (except as noted) with Clack 474 safety valve. Larger brine tanks require 484 safety valve.

Order plumbing connections separately on page 1-11.

NELSEN C-SERIES 1" ELECTRONIC METER SYSTEMS

CM-24B-C474	24,000	\$1,649.00
CM-32B-C474	32,000	\$1,745.00
CM-40B-C474	40,000	\$1,861.00
CM-48B-C474	48,000	\$1,960.00
CM-64B-C474	64,000 (18" x 33" Brine Tank)	\$2,208.00
CM-80B-C474	80,000 (18" x 40" Brine Tank)	\$2,427.00
CM-110B-C484	110,000 (24" x 41" Brine Tank)	\$3,798.00
CM-120B-C484	120,000 (24" x 50" Brine Tank)	\$4,159.00



Professional Series Control Valve

- Water use is monitored for peak efficiency (Metered Controls)
- Built in backup of settings during power outages
- Simple diagnostics and design provide for easy maintenance
- Regenerates only when necessary saving salt and water

Basket Style Distribution System

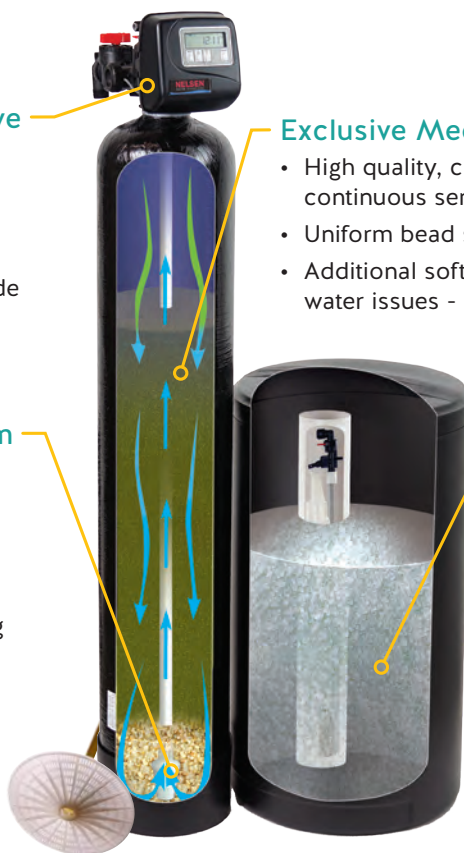
- Delivers evenly distributed and high quality flows
- Optional Enpress® Vortech® Plate Tank style distribution system, providing increased backwash efficiency using less water and saving money, see SECTION 10
- Gravel support bed shown used on larger systems

Exclusive Media Bed

- High quality, chlorine resistant media bed, for years of continuous service
- Uniform bead size and distribution for optimum flow rates
- Additional softening resins available to target specific water issues - See SECTION 4

High Quality Brine Tank

- High quality, durable construction
- Safety float system helps prevent overflow of the brine tank
- Constructed of corrosion-free materials
- Larger brine tank sizes available, see SECTION 11





C-SERIES

Residential/Light Commercial Twin Softeners

You and your family deserve the finest quality water available. Quality, soft water you can feel each time you shower or feel in the softness of the towel when drying after that shower. Unlike a single tank water softener, a twin tank system allows for continual soft water 24/7. Each Nelsen Water Solutions (NWS) Water Conditioner is designed to specifically address the water quality issues that are unique to your home providing your family with outstanding water. Your investment will reward you with quality water at every faucet in your home.

NELSEN[™]
WATER SOLUTIONS

Since 1954

Nelsen C-Series 1" Twin Alternating Electronic Systems

Softeners include Nelsen C-Series Twin Alternating electronic meter valve, bypass valve, black polyglass mineral tank and standard mesh resin. Includes 15" x 17" x 36" charcoal brine tank (except as noted) with Clack 474 safety valve. Larger brine tanks require 484 safety valve.

Order plumbing connections separately on page 1-11

NELSEN C-SERIES 1" ELECTRONIC METER SYSTEMS

CM-24B-TWIN-C474	24,000	\$2,881.00
CM-32B-TWIN-C474	32,000	\$3,066.00
CM-40B-TWIN-C474	40,000	\$3,300.00
CM-48B-TWIN-C474	48,000	\$3,503.00
CM-64B-TWIN-C474	64,000 (18" x 33" Brine Tank)	\$4,107.00
CM-80B-TWIN-C474	80,000 (18" x 40" Brine Tank)	\$4,523.00
CM-110B-TWIN-C484	110,000 (24" x 41" Brine Tank)	\$6,888.00
CM-120B-TWIN-C484	120,000 (24" x 50" Brine Tank)	\$7,511.00
CM-150B-TWIN-C484	150,000 (24" x 50" Brine Tank)	\$9,263.00
CM-210B-TWIN-C484	210,000 (24" x 50" Brine Tank)	\$10,936.00



Hi-Capacity Resin

- High quality, chlorine resistant media bed, for years of continuous service
- Uniform bead size and distribution for optimum flow rates
- Optional Softening Resins available, refer to Section 4 of the catalog for choices

Basket Style Distribution System

- Delivers evenly distributed and high quality flows
- Optional Enpress Vortech Tank available, Vortech® creates better backwashing and cleaning action of medias due to increased lift and mixing from swirling action created by Vortech®, providing shorter backwashing requirements, (up to 30% less backwashing required)

Professional Series Twin-Tank Control Valve

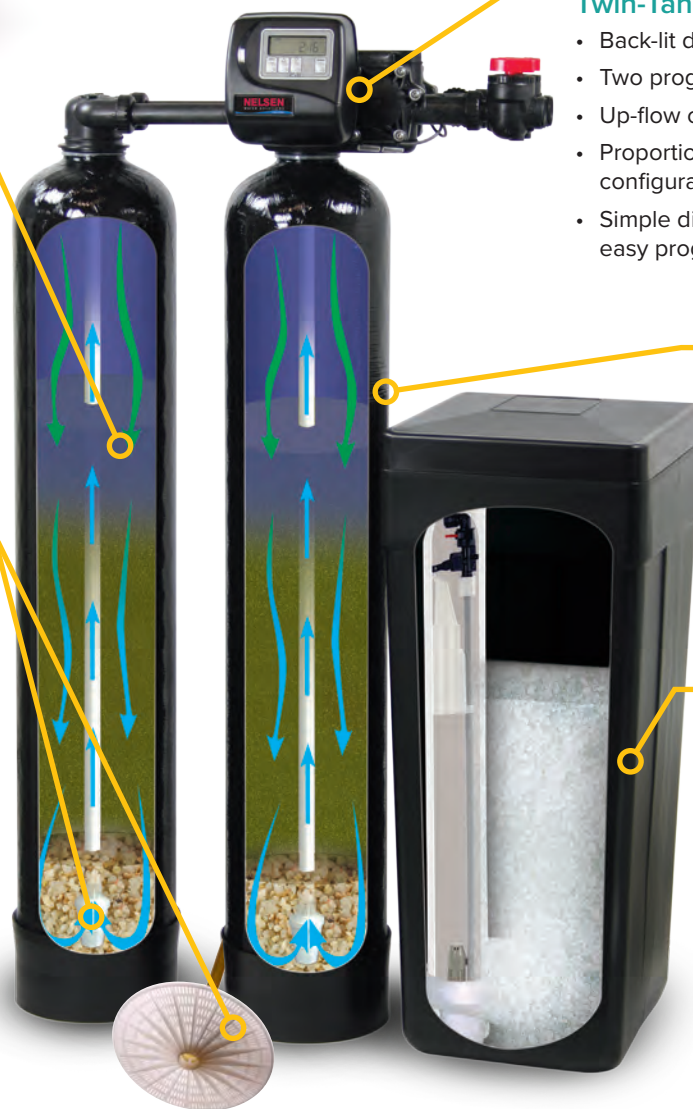
- Back-lit display
- Two programmable relay switches
- Up-flow or down-flow regeneration
- Proportional brining available in up-flow configuration
- Simple diagnostics and design provide for easy programming

Mid-Vortech® Tanks

- Optional Mid-Vortech® plate tanks available for dual media systems, See Section 10 for Mid-Vortech® size availability and color
- Dress up your system with optional Tank Jackets, see Section 10

High Quality Brine Tank

- High quality, durable construction
- Optional safety float system helps prevent overflow of the brine tank
- Larger brine tank sizes, colors and shapes are available to choose from, see Section 11



Nelsen C-Series 1-1/4" Electronic Systems



C-SERIES 1-1/4" CONTROL VALVE WITH "EE" PROGRAM BOARD

The C-Series control equipped with the "EE" electronic control board is a 6-cycle control with fully adjustable cycle times delivering controlled backwash, down-flow brining/slow rinse, second backwash, fast rinse, refill and down-flow service with flow rates of 34 gpm and backwash capabilities of 32 gpm. Four methods to initiate regeneration; meter immediate, meter delayed, time clock delayed or pressure differential. A coin cell lithium battery offers back-up with a 8 hour carry over. The 12-volt output AC adapter provides safe and easy installation. Reliable and proven DC drive. Economical stainless steel optional meter assembly.

Softeners include Nelsen C-Series 1-1/4" electronic metered valve, 1-1/4" PVC straight tube adapters, bypass valve, polyglass mineral tank and standard mesh resin. Includes charcoal brine tank (sizes noted) with Clack 474 safety valve. Larger brine tanks require 484 safety valve.

Order plumbing connections separately on page 1-11.

NELSEN C-SERIES 1-1/4" ELECTRONIC METER SYSTEMS

CM12-80B-C474	80,000 (18" x 40" Brine Tank)	\$3,332.00
CM12-110B-C484	110,000 (24" x 41" Brine Tank)	\$4,819.00
CM12-120B-C484	120,000 (24" x 50" Brine Tank)	\$5,074.00
CM12-150B-C484	150,000 (24" x 50" Brine Tank)	\$6,027.00
CM12-210B-C484	210,000 (24" x 50" Brine Tank)	\$6,890.00

NELSEN C-SERIES 1-1/4" TWIN ALTERNATING SYSTEMS

Systems include two Nelsen C-Series 1-1/4" electronic "EE" controlled metered valve, 4 1-1/4" x 1-1/2" PVC tube adapters, bypass valve, 2 polyglass mineral tanks, standard resin and brine tank with Clack 474 safety valve. Larger brine tanks require 484 safety valve.

CM12-80-TA-C474	80,000 (18" x 40" Brine Tank)	\$6,140.00
CM12-110-TA-C484	110,000 (24" x 41" Brine Tank)	\$8,456.00
CM12-120-TA-C484	120,000 (24" x 50" Brine Tank)	\$9,067.00
CM12-150-TA-C484	150,000 (24" x 50" Brine Tank)	\$10,844.00
CM12-210-TA-C484	210,000 (24" x 50" Brine Tank)	\$12,661.00





CL-BYPASS



CL07-CT



CL10-CT



CL1215-CT

Plumbing Adapters for Bypass Valves

CL-BYPASS	By-Pass Assembly
CL07-JG	3/4" Elbow Adapters w/John Guest Fitting
CL10-JG	1" Straight Adapters w/John Guest Fitting
CL07-CT	3/4" Brass Sweat Adapters
CL10-CT	1" Brass Sweat Adapters
CL07-SHARK	3/4" Brass Adapters w/Shark Bite Fitting
CL10-SHARK	1" Brass Adapters w/Shark Bite Fitting
CL1215-CT	1 1/4" x 1 1/2" Brass Sweat Adapters
CL10-PVC	1" PVC Male NPT Elbow Adapters
CL10S-PVC	1" PVC Male NPT Straight Adapters
CL10-90-PVC	1" 90° Bypass Vertical Adapters
CL12S-PVC	1 1/4" PVC Male NPT Straight Adapters
CL0710-PVC	3/4" x 1" PVC Solvent Elbow Adapters
CL1215-PVC	1 1/4" & 1 1/2" PVC Solvent Assembly

Included	
	\$42.75
	\$59.50
	\$23.75
	\$30.25
	\$49.50
	\$70.25
	\$94.50
	\$12.25
	\$17.50
	\$24.00
	\$18.75
	\$12.25
	\$26.25



CL07-JG



CL07-SHARK



CL0710-PVC



CL10-PVC



CL10S-PVC



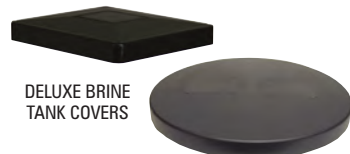
CL1015-PVC



18X33 ROUND BRINE TANKS



11X11 SQUARE BRINE TANKS



DELUXE BRINE TANK COVERS

Options for Nelsen Water Solution & C-Series Systems

Rectangular Brine Tank, 15"x17"x36" (Charcoal)		STANDARD	
Rectangular Brine Tank, 15"x17"x36" (Blue, White, Platinum or Almond)	Add		\$0.00
Square Brine Tank, 11"x11"x38" (Blue, White, Almond or Charcoal)	Deduct		\$(10.00)
Round Brine Tank, 18"x33" (Blue, White, Almond, Platinum or Charcoal)	Deduct		\$2.50
Round Brine Tank, 18"x40" (Blue, White, Almond or Charcoal)	Add		\$16.50
2300 Fleck Safety Shut-off in Brine Tank	Add		\$53.50
2310 Fleck Safety Shut-off in Brine Tank	Add		\$26.50
474 Clack Safety Shut-off in Brine Tank		STANDARD	
Autotrol Turbulator	Add		\$54.60
Tank Jacket (Blue, White, Almond or Chrome)		SEE SECTION 10	
Deluxe Brine Tank Cover, 15"x17" Black	Add		\$9.30
Deluxe Brine Tank Cover, 18" Black	Add		\$15.60
Deluxe Brine Tank Cover, 11" Black	Add		\$18.20
Brine Deck For 18" Round Brine Tanks	Add		\$15.00
Brine Deck For 15"x17" Brine Tanks	Add		\$16.35
Brine Deck For 11"x11" Brine Tanks	Add		\$16.35



2510 SERIES

Residential/light Commercial Softeners

You and your family deserve the finest quality water available. Quality you can feel each time you shower or feel the soft towel when drying after that shower by having soft water. Each Nelsen Water Solutions (NWS) Water Conditioner is designed to specifically address the water quality issues that are unique to your home providing your family with outstanding water. Your investment will reward you with quality water at every faucet in your home.





Fleck 2510 Automatic Softener Systems

Softeners include Fleck 2510 time clock or meter valve with 1600 time brining, environmental backplate and cover, polyglass mineral tank, 3/4" stainless steel bypass and standard mesh resin. Includes 15" x 17" x 36" brine tank with Clack 474 safety valve. Larger brine tanks require 484 safety valve. *See Page 1-21 for Additional System Options.*



FLECK 2510 MECHANICAL TIME CLOCK VALVE



FLECK 2510 METER VALVE



FLECK 2510 METER VALVE WITH SXT ELECTRONICS

FLECK 2510/16T AUTOMATIC TIMER SYSTEMS

2510/16TB-15-C474	16,000 Grain System	\$1,904.00
2510/16TB-24-C474	24,000 Grain System	\$2,073.00
2510/16TB-32-C474	32,000 Grain System	\$2,173.00
2510/16TB-40-C474	40,000 Grain System	\$2,275.00
2510/16TB-48-C474	48,000 Grain System	\$2,385.00
2510/16TB-64-C474	64,000 (18" x 33" Brine Tank)	\$2,612.00
2510/16TB-80-C474	80,000 (18" x 40" Brine Tank)	\$2,836.00
2510/16TB-110-C484	110,000 (24" x 41" Brine Tank)	\$4,183.00

FLECK 2510/16M AUTOMATIC METER SYSTEMS

2510/16MB-15-C474	15,000 Grain System	\$2,236.00
2510/16MB-24-C474	24,000	\$2,405.00
2510/16MB-32-C474	32,000	\$2,504.00
2510/16MB-40-C474	40,000	\$2,610.00
2510/16MV-48-C474	48,000	\$2,725.00
2510/16MB-64-C474	64,000 (18" x 33" Brine Tank)	\$2,958.00
2510/16MB-80-C474	80,000 (18" x 40" Brine Tank)	\$3,193.00
2510/16MB-110-C484	110,000 (24" x 41" Brine Tank)	\$4,560.00

UPGRADES FOR 2510 SXT ELECTRONICS

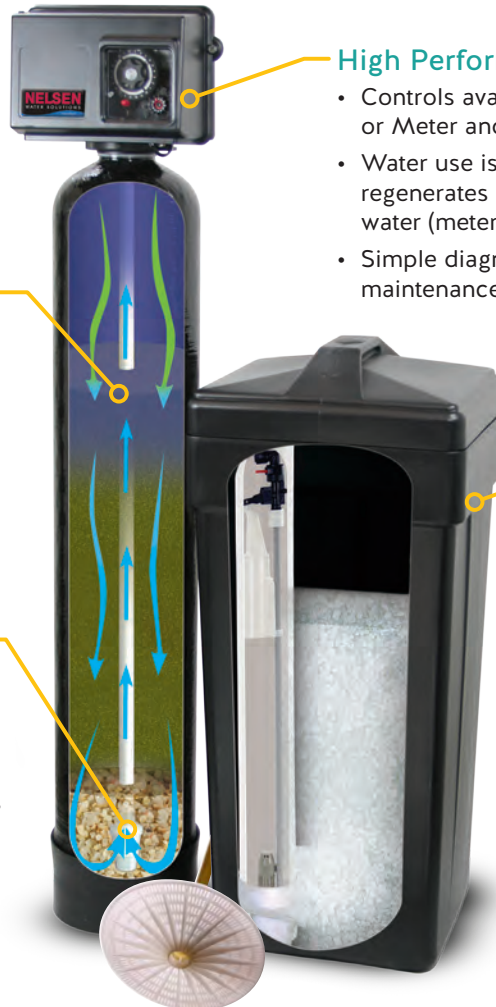
FL2510/16T SXT TIMER ADDER TO TIMER SYSTEM	ADD	\$107.00
FL2510/16M SXT METER ADDER TO METER SYSTEM	ADD	\$111.00

Media Bed

- High quality, chlorine resistant media bed, for years of continuous service
- Uniform bead size and distribution for optimum flow rates
- Optional resins to target and treat specific water problems available - see SECTION 4
- Gravel support bed shown used on larger systems

Basket Style Distribution System

- Delivers evenly distributed and high quality flows
- Optional Enpress® Vortech® Plate Tank style distribution system, providing increased backwash efficiency using less water and saving money



High Performance Control Valve

- Controls available in Mechanical Time Clock or Meter and Electronic Time Clock or Meter
- Water use is monitored for peak efficiency and regenerates only when necessary saving salt and water (metered controls only)
- Simple diagnostics and design provide for easy maintenance

High Quality Brine Tank

- High quality, durable construction
- Safety float system helps prevent overflow of the brine tank
- Constructed of corrosion free materials
- Optional larger brine tank sizes available
- Optional molded salt grid promotes uniform brining and reduces salt bridging
- Larger brine tank sizes, colors and shapes are available to choose from - see SECTION 11





5600 SERIES

Residential Softeners

You and your family deserve the finest quality water available. Quality you can feel each time you shower or feel the soft towel when drying after that shower by having soft water. Each Nelsen Water Solutions (NWS) Water Conditioner is designed to specifically address the water quality issues that are unique to your home providing your family with outstanding water. Your investment will reward you with quality water at every faucet in your home.

NELSEN[™]
WATER SOLUTIONS

Since 1954



FLECK
Pentair Water

Fleck 5600 Automatic Softener Systems

Softeners include the Fleck 5600 timer valve with 1600 time brining, 3/4" stainless steel bypass, polyglass mineral tank and standard mesh resin. Includes 15" x 17" x 36" brine tank with Clack 474 safety valve.

FLECK 56/16T AUTOMATIC TIMER SYSTEMS

56/16TB-24-C474	24,000 Grain System	\$1,551.00
56/16TB-32-C474	32,000	\$1,657.00
56/16TB-40-C474	40,000	\$1,757.00
56/16TB-48-C474	48,000	\$1,866.00
56/16TB-64-C474	64,000 (18" x 33" Brine Tank)	\$2,091.00

FLECK 56/16M AUTOMATIC METER SYSTEMS

56/16MB-24-C474	24,000	\$1,770.00
56/16MB-32-C474	32,000	\$1,874.00
56/16MB-40-C474	40,000	\$1,976.00
56/16MB-48-C474	48,000	\$2,087.00
56/16MB-64-C474	64,000 (18" x 33" Brine Tank)	\$2,314.00

UPGRADES FOR 5600 SOFTENER SYSTEMS

FL56/16T SXT TIMER ADDER TO TIME CLOCK SYSTEM	ADD	\$55.00
FL56/16M SXT METER ADDER TO METER SYSTEM	ADD	\$50.00
"L" Backplate ADDER	ADD	\$38.10

See Page 1-21 for Additional System Options.



FLECK 5600 TIME CLOCK CONTROL



FLECK 5600 METER CONTROL



OPTIONAL 5600 SXT ELECTRONIC CONTROL



OPTIONAL 5600 "L" BACK CONTROL

Control Valve

- Fiber-reinforced polymer valve body for superior strength and durability, non-corrosive, and UV-resistant
- Optional SXT model with an LCD display with 48 hours of internal backup power

Hi-Capacity Resin

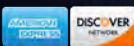
- High quality, chlorine resistant media bed, for years of continuous service
- Uniform bead size and distribution for optimum flow rates
- Optional Softening Resins available, refer to Section 4 of the catalog for choices

Basket Style Distribution System

- Delivers evenly distributed and high quality flows
- Optional Enpress Vortech Tanks available

High Quality Brine Tank

- High quality, durable construction
- Safety float system helps prevent overflow of the brine tank
- Constructed of corrosion-free materials
- Larger brine tank sizes, colors and shapes are available to choose from, see Section 11





Fleck 5800 Electronic Meter Systems

The 5800 SXT control valve is simple to service, as the valve has very few moving parts as well as using snap together plates and a single programming board. A LCD backlit display helps programming in low light conditions. The control setup of capacity, regeneration time, and days override is quick and easy. The SXT controller also allows for additional programming of up to 20 different cycle steps. The valve boasts excellent service rates (21 GPM continuous, 27 GPM peak) and backwash flow rate (17 GPM @ 25psi). Additional features include...

- Fast positioning reversible 10,000 RPM 12 volt DC drive motor
- Single piece seal and spacer cartridge for easy servicing
- LCD – Backlit display that helps during low light conditions
- Precision cycle positioning using optical sensor
- Soft water refill for better brine saturation and cleaner brine tank
- Three styles of electronic timers to choose from: LXT, SXT and XTR
- Programming is stored in memory and will not be lost due to power outages
- Time of day backup for up to 12 hours of power loss

Softeners include the Fleck 5800 SXT down-flow meter valve with 1600 time brining, 3/4" stainless steel bypass, polyglass mineral tank and standard mesh resin. Includes 15" x 17" x 36" charcoal brine tank with Clack 474 safety valve.



5800 SXT SYSTEM

58/16MB-32-C474	32,000	\$1,886.00
58/16MB-40-C474	40,000	\$1,990.00
58/16MB-48-C474	48,000	\$2,090.00
58/16MB-64-C474	64,000 (18" x 33" Brine Tank)	\$2,195.00
58/16MB-80-C474	80,000 (18" x 40" Brine Tank)	\$2,463.00
58/16MB-110-C474	110,000 (24" x 41" Brine Tank)	\$4,006.00

See Page 1-21 for Additional System Options.

5810/5812 BYPASS & QUICK CONNECTORS

FL5810/12P	Plastic Bypass Base Only, 5810 & 5812 Valve Only	Included
FL5810/12-E90-SET	Connector 90° Elbow Assembly Set	\$43.00
FL5810/12-10PVC	QC Connectors, 1" NPT Plastic, Set	\$28.20
FL5810/12-12PVC	QC Connectors, 1 1/4" NPT Plastic, Set	\$19.80
FL5810/12-0710CT	QC Connectors, 3/4" x 1" Sweat, Set	\$143.90
FL5810/12-1012CT	QC Connectors, 1" x 1 1/4" Sweat, Set	\$152.30
FL5810/12-1215CT	QC Connectors, 1 1/4" x 1 1/2" Sweat, Set	\$99.50

5810 XTR2 METER VALVE W/TOUCHSCREEN



FL5810/12P



FL5810/12-E90-SET



FL5810/12-10PVC

FL5810/12-12PVC



FL5810/12-0710CT

FL5810/12-1012CT

FL5810/12-1215CT



Fleck 2750 1" Automatic Systems

The Fleck 2750 valve is suitable for large residential/light commercial applications. Flow rates up to 26 gpm. Backwash capacity handles up to 24" softeners, 21" filters. Fully-adjustable cycles. 1" piping. Environmental backplates.

Softeners include Fleck 2750 1" timer or meter valve with 1600 time brining, environmental backplates and cover, polyglass mineral tanks, charcoal 15" x 17" x 36" brine tank (except 80,000 and 110,000 grain) with #500 air check and standard mesh resin.

FLECK 2750 TIME CLOCK SYSTEMS

275/16T-40-C474	40,000	\$3,033.00
275/16T-48-C474	48,000	\$3,110.00
275/16T-64-C474	64,000 (18" x 33" Brine Tank)	\$3,351.00
275/16T-80-C474	80,000 (18" x 40" Brine Tank)	\$3,641.00
275/16T-110-C484	110,000 (24" x 41" Brine Tank)	\$5,051.00

See Page 1-21 for Additional System Options.



FLECK 2750 TIME CLOCK SYSTEM
(Brine Tank not shown)



9000/9100 SERIES

Residential/Lt Commercial Twin Softeners

Many water supplies contain hardness minerals (calcium and magnesium), iron, rust, and sediment. These minerals form a scale and create problems in water heaters, washing machines, dishwashers, coffee makers, humidifiers and plumbing systems. Nelsen water conditioners and drinking water systems are designed to reduce these unwanted contaminants providing your family with a refreshing difference, saving you money now and in the years to come.





FLECK
Pentair Water

Fleck 9000 Automatic Meter Systems

Softeners include Fleck 9000 meter valve with 1600 time brining, 3/4" plastic yoke, polyglass mineral tanks and standard mesh resin. Includes 15" x 17" x 36" charcoal brine tank with Clack 474 safety valve. Larger brine tanks require 484 safety valve.



9000 MECHANICAL CONTROL



OPTIONAL SXT ELECTRONICS



OPTIONAL 1" CONTROL VALVE

FLECK 90/16M AUTOMATIC METER SYSTEMS

90/16MB-15-C474	15,000 GRAIN SYSTEM	\$4,091.00
90/16MB-24-C474	24,000	\$4,365.00
90/16MB-32-C474	32,000	\$4,498.00
90/16MB-40-C474	40,000	\$4,640.00
90/16MB-48-C474	48,000	\$4,800.00
90/16MB-64-C474	64,000 (18" x 33" Brine Tank)	\$5,231.00
90/16MB-80-C474	80,000 (18" x 40" Brine Tank)	\$5,506.00
90/16MB-110-C484	110,000 (24" x 41" Brine Tank)	\$7,419.00

UPGRADES FOR 9000 SOFTENER SYSTEMS

9000 VALVE w/1" METER	ADD	\$689.00
9000 w/1" METER & SXT ELECTRONICS	ADD	\$1,899.00

See Page 1-21 for Additional System Options.

Professional Series Twin-Tank Control Valve

- Continuous soft water available even during regeneration
- Choose from three models to best suit your water treatment needs

Mid-Vortech® Tanks

- Optional Mid-Vortech® plate tanks available for dual media systems, See SECTION 10 for Mid-Vortech® size availability and color
- Dress up your system with optional Tank Jackets, see SECTION 10

High Quality Brine Tank

- High quality, durable construction
- Optional safety float system helps prevent overflow of the brine tank
- Larger brine tank sizes, colors and shapes are available to choose from, see SECTION 11

Hi-Capacity Resin

- High quality, chlorine resistant media bed, for years of continuous service
- Uniform bead size and distribution for optimum flow rates
- Optional Softening Resins available, refer to SECTION 4 of the catalog for choices

Basket Style Distribution System

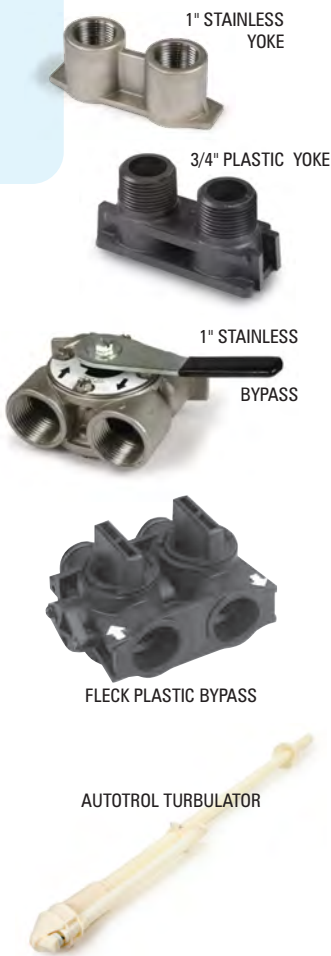
- Delivers evenly distributed and high quality flows
- Enpress Vortech® plate style tanks available, Vortech creates better backwashing and cleaning action of medias and shorter backwashing requirements resulting in water savings
- Gravel support bed shown used on larger systems



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Options For Systems With Fleck Residential Valves:



- Fleck Stainless Steel Yoke, 3/4"
- Fleck Stainless Steel Yoke, 1"
- Fleck Plastic Yoke, 3/4"
- Fleck Plastic Yoke, 1"
- Fleck By-pass, 3/4"
- Fleck By-pass, 1"

Fleck Plastic By-pass

- Autotrol Turbulator (Per Tank)
- Basket Distributors on Twin Units, 1.050
- Autotrol Turbulators on Twin Units (2)

Tank Jacket (Blue, White, Almond or Chrome)
Rectangular Brine Tank, 15x17x36 (Charcoal)

- Rectangular Brine Tank, 15x17x36 (Blue, White or Almond)
- Square Brine Tank, 11x11x38 (Charcoal Only)
- Round Brine Tank, 18x33 (Blue, White, Almond or Charcoal)
- Round Brine Tank, 18x40 (Blue, White, Almond or Charcoal)
(Blue, White, Almond or Charcoal)

- Deluxe Brine Tank Cover, 15x17 IM Black
- Deluxe Brine Tank Cover, 18" Gloss Black
- Deluxe Brine Tank Cover, 11" Gloss Black

- Brine Deck For 18" Round Brine Tanks
- Brine Deck For 15x17 Brine Tanks
- Brine Deck For 11x11 Brine Tanks

- 2300 Fleck Safety Shut-off in Brine Tank
- 2310 Fleck Safety Shut-off in Brine Tank

<i>Deduct</i>	\$ (69.85)
<i>Deduct</i>	\$ (31.50)
<i>Deduct</i>	\$ (107.45)
<i>Deduct</i>	\$ (107.45)
	STANDARD
<i>Add</i>	\$ 7.00
<i>Deduct</i>	\$ (59.95)
<i>Add</i>	\$ 73.85
	STANDARD
<i>Add</i>	\$ 147.70
	SEE SECTION 10
	STANDARD
<i>Add</i>	\$ -
<i>Deduct</i>	\$ (4.25)
<i>Add</i>	\$ 53.00
<i>Add</i>	\$ 28.00
<i>Add</i>	\$ 11.80
<i>Add</i>	\$ 19.75
<i>Add</i>	\$ 23.10
<i>Add</i>	\$ 19.00
<i>Add</i>	\$ 20.75
<i>Add</i>	\$ 20.75
<i>Add</i>	\$ 81.00
<i>Add</i>	\$ 9.00





Nelsen Connected Series Water Solutions

Setting up and monitoring the Connected Series Water Treatment System is easier than ever with a free down-loadable Bluetooth® app available for your Apple or Android™ device. The app allows you monitor all your current water usage information, current water flow or start a

regeneration or backwash cycle. All this and more in the palm of your hand.



Connected Series 

Nelsen Connected Series 1" Bluetooth Softener Systems

The Nelsen Connected Series of softeners feature simple set up through a Bluetooth® App. The fully adjustable 5-cycle meter control is 12v DC operation and has the ability for treated water refill with pre-brine option. Additional features include...

- Programming ease and options increase efficiency, save salt and water
- Strong, durable Noryl® valve body with weather and insect resistant one-piece slide cover
- Proprietary two valve bypass with 3/4" and 1" Connections
- 9V battery back-up (not included)
- Will advance to a drain line shut off position if power fails during regeneration
- Switched Power Output during:
 - Full Cycle Function
 - Backwash Function
- Limited 7 year warranty



CS-METERED SOFTENER CONTROL, COVER NOT SHOWN



The Legacy View App makes setting up and monitoring your Nelsen Connected Series system easier than ever. A free download of the phone app is available for your iPhone or Android™ device!



With Legacy View as part of the Control Valve, the user can perform the following functions:

- Conveniently view all valve settings and status
- Easily change valve settings
- View current water usage information
- Graphically view water usage history
- Start a regeneration or backwash cycle from a phone or tablet
- Better understand how the system is working and understand what settings are for
- Connect to all of your valves in your system (if they are all Legacy View Valves)
- The phone app also provides servicing water treatment dealer contact information.

Systems include the Nelsen Connected Series 1" Bluetooth® meter valve, black polyglass mineral tank, system bypass and standard mesh resin. Includes 15" x 17" x 36" charcoal brine tank (except as noted) with Clack 474 safety valve. Larger brine tanks require 484 safety valve.

Choose Plumbing Connections separately.

NELSEN CONNECTED SERIES 1" BLUETOOTH METER SYSTEMS

CS-24B-C474	24,000 Grain System	\$1,596.00
CS-32B-C474	32,000 Grain System	\$1,715.00
CS-40B-C474	40,000 Grain System	\$1,806.00
CS-48B-C474	48,000 Grain System	\$1,918.00
CS-64B-C474	64,000 Grain System (18" x 33" Brine Tank)	\$2,149.00
CS-80B-C474	80,000 Grain System (18" x 40" Brine Tank)	\$2,336.00
CS-110B-C484	110,000 Grain System (24" x 41" Brine Tank)	\$3,696.00

BYPASS & PLUMBING CONNECTIONS

CS-BYPASS	Connected Series Bypass Valve	Included
CS-10S-PVC-SLIP	Connector – 1" Female Straight Slip (set of 2)	\$30.00
CS-10E-PVC-MIPT	Connector – 1" Male NPT Elbow (set of 2)	\$37.00
CS-10S-PVC-MIPT	Connector – 1" Male NPT Straight (set of 2)	\$30.00
CS-10-90-PVC-BVA	Connector – 1" Elbow Vertical Adapter (set of 2)	\$48.00
CS-07S-PVC-MIPT	Connector – 3/4" Male NPT Straight (set of 2)	\$30.00
CS-07-SHARK	Connector – 3/4" Brass Sharkbite Straight (set of 2)	\$100.00



CS-BYPASS



CS-10S-PVC-SLIP



CS-10S-PVC-MIPT



CS-10E-PVC-MIPT



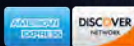
CS-10-90-PVC-BVA



CS-07S-PVC-MIPT



CS-07-SHARK





WATER SPECIALIST
CABINET SYSTEM

Water Specialist Cabinet Water Softeners

A water softener cabinet designed for use with the C-Series control valve. The top sliding cover opens to a large tapered chute for ease of adding salt to the system without removing the cover. The design offers a unique flip up access window that allows for valve programming without having to remove the cover. A brine valve/brine well system is incorporated in the design that allows full access to the 474 brine valve for servicing without having to disassemble the complete system.

Features include light grey cabinets with contrasting dark gray trim. System includes C-Series CS meter control valve, polyglass mineral tanks, bypass, high-capacity resin and Autotrol turbulators.

CABINET MODELS WITH C-SERIES METER VALVES

CWSCMB-15T	15,000 Grain Cabinet Model	\$2,038.00
CWSCMB-24T	24,000	\$2,110.00
CWSCMB-32T	32,000	\$2,143.00
CWSCMB-48T	48,000	\$2,314.00

Cabinet Water Softeners with Windsor Cabinets

Features include almond cabinet with dark brown salt cover, control valve shown, Fleck 2310 safety valve, polyglass mineral tank, standard mesh resin, Autotrol turbulator & bypass valve.

CABINET MODELS WITH FLECK 2510/1610 TIMER VALVES

WC2510/16TB-15T	15,000 Grain Cabinet Model	\$2,571.60
WC2510/16TB-24T	24,000	\$2,604.04
WC2510/16TB-32T	32,000	\$2,629.20

CABINET MODELS WITH FLECK 5600/1600 TIMER VALVES

WC5600/16TB-15T	15,000 Grain Cabinet Model	\$1,983.90
WC5600/16TB-24T	24,000	\$2,025.52
WC5600/16TB-32T	32,000	\$2,059.58

CABINET MODELS WITH FLECK 2510/1610 METER VALVES

WC2510/16MB-15T	15,000 Grain Cabinet Model	\$2,901.03
WC2510/16MB-24T	24,000	\$2,928.32
WC2510/16MB-32T	32,000	\$2,948.49

CABINET MODELS WITH FLECK 5600/1600 METER VALVES

WC5600/16MB-15T	15,000 Grain Cabinet Model	\$2,214.83
WC5600/16MB-24T	24,000	\$2,252.84
WC5600/16MB-32T	32,000	\$2,283.41

CABINET MODELS WITH AUTOTROL 255/460I MICROPROCESSOR VALVES

WC255/460B-15T	15,000 Grain Cabinet Model	\$2,671.91
WC255/460B-24T	24,000	\$2,702.78
WC255/460B-32T	32,000	\$2,726.42

CABINET MODELS WITH AUTOTROL PERFORMA 268/460 MICROPROCESSOR VALVES

WC268/460B-15T	15,000 Grain Cabinet Model	\$3,096.52
WC268/460B-24T	24,000	\$3,031.33
WC268/460B-32T	32,000	\$3,049.92

Pentair SoftFlo Cabinet Softeners

Includes Pentair SoftFlo cabinet, Fleck 5600 SE SoftFlo control valve integrated into the cabinet, Fleck 2310 safety valve, 3/4" stainless steel bypass, polyglass mineral tank, turbulator and standard mesh resin.

PENTAIR CABINET MODELS WITH FLECK 5600 SOFTFLO METER VALVES

PC56/16MB-SE-15T	15,000 Grain Cabinet Model	\$2,755.00
PC56/16MB-SE-24T	24,000	\$2,785.00
PC56/16MB-SE-32T	32,000	\$2,807.00



WINDSOR CABINET
SYSTEM WITH FLECK 5600
CONTROL VALVE



SOFTFLO CABINET SYSTEM

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NELSEN

C O R P O R A T I O N

Commercial Softeners

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NOTES



Commercial Equipment



Commercial Water Softeners

1

Nelsen Corporation's Commercial/Industrial water treatment equipment is designed for a wide variety of applications. Potential uses include apartment complexes, hospitals, factories, nursing homes and many other applications where high flow rates and capacities are a requirement. As a custom-assembler of water conditioning systems, we can offer an almost unlimited variety of equipment.

One of the requisites for a successful and profitable sale is the proper matching of equipment to the intended use. Water softening equipment must be designed and sized according to the job it must perform. This indicates the need for a carefully selected combination of tank sizes, capacities and flow rates.

The chart below lists the general specifications for units that we build.

GENERAL SPECIFICATIONS FOR MOST UNITS IN THIS SECTION

(Call us for detailed specifications on specific units)

GRAINS CAPACITY	120,000	150,000	210,000	300,000	450,000	600,000	900,000	1,200,000
Grains Capacity (1)	120,000	150,000	210,000	300,000	450,000	600,000	900,000	1,200,000
Grains Capacity (2)	96,000	120,000	168,000	240,000	360,000	480,000	720,000	960,000
Cubic Ft. Material	4	5	7	10	15	20	30	40
Pounds Mineral	200	250	350	500	850	1050	1500	2000
Gravel Bed, 1/4" x 1/8"	75#	100#	50#	100#	100#	150#	250#	300#
Gravel Bed, 1/2" x 1/4"	-	-	100#	150#	250#	350#	450#	600#
Mineral Tank Size	16" x 65"	18" x 65"	21" x 62"	24" x 72"	30" x 72"	36" x 72"	42" x 72"	48" x 72"
SVC Flow Rate, G.P.M.*	Varies	Varies	Varies	Varies	Varies	Varies	Varies	Varies
Backwash Flow	7	10	12	15	25	35	50	65
Commercial Brine Tank	24" x 41"	24" x 50"	24" x 50"	30" x 48"	39" x 48"	50" x 60"	50" x 60"	50" x 60"
Floor Space Required	24" x 42"	24" x 47"	24" x 47"	30" x 56"	39" x 71"	50" x 88"	50" x 94"	50" x 100"

(1) At 15 Pounds Per Cubic Foot = 30,000 Gr. C.F.

(2) At 9 Pounds Per Cubic Foot = 24,000 Gr. C.F.

*Please consult the following pages for sizing, flow rates, and pricing on all available models.

System 4 - Single Valves

Time Clock (1 Valve)

The control regenerates on the days set in Regeneration Day Override, at the Regeneration Time set in Regeneration Time.

Meter Delayed (1 Valve)

The control regenerates on the day the available volume of treated water drops to less than the reserve volume. Regeneration starts at the Regeneration Time.

Meter Immediate (1 Valve)

The control regenerates immediately when the available volume of treated water drops to zero (0).

System 5 (Fleck controls only)

Meter Immediate (Interlock) (2 – 4 Valves)

This is a 2 to 4 unit system, each unit having a meter, and all in service. Only one unit is allowed in regeneration at a time. A unit regenerates immediately when the available volume of treated water drops to zero (0) and no other unit is in regeneration.

System 6

Meter Immediate Series (2 – 4 Valves)

This is a 2 to 4 unit system, all in service, with one meter for the entire system. When the entire system volume of treated water drops to zero (0), it requests the first unit to go into regeneration. Then, when the first unit is done regenerating, the second follows, and so on.

System 7

Meter Alternating (2 Valves)

This is a 2 unit system, with only one unit having a meter and only one unit in service. When the volume of treated water drops to zero (0) in the unit in service, it requests regeneration. This causes the unit in standby to move to service. Then the unit requesting regeneration moves to standby and begins regeneration.

System 9

Meter Alternating (2 – 4 Valves)

This is a 2 or 4 unit system, each unit having a meter, one unit in standby and all other units in service. Only one unit is allowed in regeneration at a time. When the volume of treated water drops to zero (0) in the unit in service, it requests regeneration. This causes the unit in standby to move to service. Then the unit requesting regeneration moves to standby and begins regeneration.

System 14

Meter Progressive (2 – 4 Valves)

This is a 3 or 4 unit system, each unit having a meter, one unit in service and all other units in standby. As flow rates increase, units in standby go into service. As flow rates decrease units in service go back into standby until only one unit is in service. Only one unit is allowed in regeneration at a time. When the volume of treated water drops to zero (0) in the unit in service, it requests regeneration. This causes the unit in standby to move to service. Then the unit requesting regeneration moves to standby and begins regeneration.

Note:

- 1) All Simplex Units to have hard water bypass pistons (White).
- 2) All Duplex, Triplex and Quads to be NXT2 valves with No Hard Water bypass pistons (Black).





Clack WS1.5EE 1-1/2" Commercial Systems

Includes Clack WS1.5EE 1-1/2" control valve with commercial distributors, gravel bed, and high-capacity resin. Commercial brine tank(s) include(s) a Clack 484 Commercial Safety Valve, air check, overflow elbow, 5" brine well and cap.



WS1.5EE CONTROL

WS1.5EE AUTOMATIC TIME CLOCK SYSTEMS

WS1.5EET-120-C2441	120,00	\$3,257.00
WS1.5EET-150-C2450	150,000	\$3,681.00
WS1.5EET-210-C2450	210,000	\$4,187.00
WS1.5EET-300-C3048	300,000	\$5,730.00

FOR WS1.5EE AUTOMATIC METER SYSTEMS ADD

CL-15-EM	WS1.5 Meter Assembly Male x Female NPT	\$652.00
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Clack WS1.5EE 1.5" Twin Alternating Systems

Includes two base Clack Systems from above, one 1-1/2" Stainless Steel Electronic Meter, one Clack 1-1/2" MAV (Motorized Alternating Valve) and one Commercial brine tank equipped as follows. Clack 484 Commercial Safety Valve, air check, overflow elbow, 5" brine well and cap.



CL-15-EM

WS1.5EE-TA-120-C2441	120,000	\$8,754.00
WS1.5EE-TA-150-C2450	150,000	\$7,127.00
WS1.5EE-TA-210-C2450	210,000	\$7,963.00
WS1.5EE-TA-300-C3048	300,000	\$8,975.00

PRODUCT FEATURES

- 1.5" top mount control valve suited for mid-size commercial/industrial applications
- Lead free brass valve body
- Economical stainless steel optional meter assembly
- Service flow rate of 60 gpm, backwash 50 gpm
- Solid state microprocessor with easy access front panel settings
- Front panel display for time of day, days until next regeneration, volume remaining, current flow rate and total volume used (Totalizer)
- Methods to initiate regeneration; meter immediate, meter delayed, time clock delayed
- Optional double backwash feature offers optimum regeneration, cleaning ability and efficiency
- Fully adjustable cycle times with 6-cycle control delivers controlled backwash, down-flow brining/slow rinse, second backwash, fast rinse, refill and down-flow service
- Coin Cell Lithium battery back-up with a 8 hour carry over
- 12-volt output AC Adapter provides safe and easy installation
- Post treated water regenerant refill
- Reliable and proven DC drive



WS1.5EE TWIN ALTERNATING

Control Valve



Certified to NSF/ANSI 61 and 372.



Model Number	Tank Size		Capacity		Resin Cu Ft	Support Bed		Flow Rates		BKW	Salt Req'd		Space Req'd L x W x H	Shipping Weight
	Resin	Brine	Min	Max		1/2 x 1/4	1/4 x 1/8	Min	Max		9#	15#		
WS1.5EE-120	16 x 65	24 x 41	96k	120k	4	-	75	36	50	7	36	60	44 x 24 x 75	425
WS1.5EE-150	18 x 65	24 x 41	120k	150k	5	-	100	37	52	10	45	75	46 x 24 x 78	575
WS1.5EE-210	21 x 62	24 x 50	168k	210k	7	100	50	43	58	12	63	105	49 x 24 x 74	700
WS1.5EE-300	24 x 72	30 x 48	240k	300k	10	150	100	45	60	15	90	150	58 x 30 x 85	975

Commercial Water Softeners 3





CL15EE-0.0-SC



CL-CONTROLLER



CL-15-EM



CL-NHBP-15



CL-COM-36

CLACK WS1.5EE 1.5" TRIPLEX SYSTEM 6, 9 OR 14

Includes three base Clack Systems from above, the Clack System Controller with (3) Communication Cables, (3) Power Cables, (3) Meters, (3) NHWP valve and one Commercial brine tank equipped as follows, Clack 484 Commercial Safety Valve, air check, overflow elbow, 5" brine well and cap.

WS1.5EE-TRI-120-C2441	120,000	\$15,515.00
WS1.5EE-TRI-150-C2450	150,000	\$13,074.00
WS1.5EE-TRI-210-C2450	210,000	\$14,311.00
WS1.5EE-TRI-300-C3048	300,000	\$15,830.00

CLACK WS1.5EE 1.5" QUAD SYSTEM 6, 9 OR 14

Includes four base Clack Systems from above, the Clack System Controller with (4) Communication Cables, (4) Power Cables, (4) Meters, (4) NHWP valves and (2) Commercial brine tanks equipped as follows - Clack 484 Commercial Safety Valve, air check, overflow elbow, 5" brine well and cap.

WS1.5EE-QUAD-120-C2441	120,000	\$20,233.00
WS1.5EE-QUAD-150-C2450	150,000	\$16,978.00
WS1.5EE-QUAD-210-C2450	210,000	\$18,628.00
WS1.5EE-QUAD-300-C3048	300,000	\$20,653.00

CLACK WS1.5EE 1.5" 5-UNIT SYSTEM 6, 9 OR 14

Includes five base Clack Systems from above, the Clack System Controller with (5) Communication Cables, (5) Power Cables, (5) Meters, (5) NHWP valves and (2) Commercial brine tanks equipped as follows - Clack 484 Commercial Safety Valve, air check, overflow elbow, 5" brine well and cap.

WS1.5EE-FIVE-120-C2441	120,000	\$24,951.00
WS1.5EE-FIVE-150-C2450	150,000	\$20,882.00
WS1.5EE-FIVE-210-C2450	210,000	\$22,944.00
WS1.5EE-FIVE-300-C3048	300,000	\$25,476.00

CLACK WS1.5EE 1.5" 6-UNIT SYSTEM 6, 9 OR 14

Includes six base Clack Systems from above, the Clack System Controller with (6) Communication Cables, (6) Meters, (6) NHWP valves and (3) Commercial brine tanks equipped as follows - Clack 484 Commercial Safety Valve, air check, overflow elbow, 5" brine well and cap.

WS1.5EE-SIX-120-C2441	120,000	\$25,847.00
WS1.5EE-SIX-150-C2450	150,000	\$20,966.00
WS1.5EE-SIX-210-C2450	210,000	\$23,439.00
WS1.5EE-SIX-300-C3048	300,000	\$26,478.00



TYPICAL PLUMBING LAYOUT





Clack WS2EE 2" Commercial Systems

Includes Clack WS2EE 2" valve with commercial distributors, gravel bed, and high-capacity resin. Commercial brine tank includes a Clack 484 Commercial Safety Valve, air check, overflow elbow, 5" brine well and cap.

30" mineral tanks and above with a 6" flanged top opening use the WS2EE/QC control valve.



WS2EE CONTROL VALVE



CL-2-EM



WS2EE/QC CONTROL

WS2EE AUTOMATIC TIME CLOCK SYSTEMS

WS2EET-120-C2441	120,000 Grain System	\$4,077.00
WS2EET-150-C2450	150,000	\$4,350.00
WS2EET-210-C2450	210,000	\$4,884.00
WS2EET-300-C3048	300,000	\$6,093.00
WS2QCT-450-C3948	450,000	\$8,957.00
WS2QCT-600-C5060	600,000	\$11,191.00
WS2QCT-900-C5060	900,000	\$16,163.00
WS2QCT-1200-C5060	1,200,000	\$31,594.00

FOR WS2EE AUTOMATIC METER SYSTEMS ADD

CL-2-EM	WS2 Meter Assembly Male x Female NPT	\$667.00
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Clack WS2EE 2" Twin Alternating Systems

Includes Clack System from above, 2" Stainless Steel Electronic Meter, and Clack 2" MAV (Motorized Alternating Valve). Commercial brine tank includes a Clack 484 Commercial Safety Valve, air check, overflow elbow, 5" brine well and cap.

WS2EE-TA-120-C2441	120,000 Grain System	\$9,004.00
WS2EE-TA-150-C2450	150,000	\$9,539.00
WS2EE-TA-210-C2450	210,000	\$10,607.00
WS2EE-TA-300-C3048	300,000	\$13,025.00
WS2QC-TA-450-C3948	450,000	\$18,397.00
WS2QC-TA-600-C5060	600,000	\$22,546.00
WS2QC-TA-900-C5060	900,000	\$32,105.00
WS2QC-TA-1200-C5060	1,200,000	\$62,968.00

PRODUCT FEATURES

- 2" Top mount control valve suited for commercial/industrial applications
- Lead free brass construction
- Service flows
 - EE – service 115 gpm, backwash 80 gpm
 - QC – service 125 gpm, backwash 85 gpm
- Solid state microprocessor with easy access front panel settings
- Front panel display for time of day, days until next regeneration, volume remaining, current flow rate and total volume used (Totalizer)
- Post treated water regenerant refill
- Methods to initiate regeneration; meter immediate, meter delayed, time clock delayed
- Optional double backwash feature offers optimum regeneration, cleaning ability and efficiency
- Fully adjustable cycle times with 6-cycle control delivers controlled backwash, down-flow brining/slow rinse, second backwash, fast rinse, refill and down-flow service
- Coin Cell Lithium battery back-up with an 8 hour carry over
- 12-volt AC Adapter, safe & easy installation
- Reliable and proven DC drive



Control Valve Certified to NSF/ANSI 61 and 372.

Model Number	Tank Size		Capacity		Resin Cu Ft	Support Bed			Flow Rates		BKW	Salt Req'd		Space Req'd L x W x H	Shipping Weight
	Resin	Brine	Min	Max		1/2 x 1/4	1/4 x 1/8	Min	Max	9#		15#			
WS2EE-120	16 x 65	24 x 41	96k	120k	4	-	75	47	60	7	36	60	44 x 24 x 75	435	
WS2EE-150	18 x 65	24 x 50	120k	150k	5	-	100	53	69	10	45	75	46 x 24 x 78	585	
WS2EE-210	21 x 62	24 x 50	168k	210k	7	100	50	66	85	12	63	105	49 x 24 x 74	710	
WS2EE-300	24 x 72	30 x 48	240k	300k	10	150	100	73	94	15	90	150	58 x 30 x 85	985	
WS2QC-450	30 x 72	39 x 48	360k	450k	15	250	100	88	113	25	135	225	73 x 39 x 95	1485	
WS2QC-600	36 x 72	50 x 60	480k	600k	20	350	150	97	126	35	180	300	82 x 50 x 97	1995	
WS2QC-900	42 x 72	50 x 60	720k	900k	30	450	250	106	137	50	270	450	96 x 50 x 109	3090	
WS2QC-1200	48 x 72	50 x 60	960k	1200k	40	600	300	150	188	65	360	600	102 x 50 x 109	3890	





CL20EE-0.0-SC



CL-CONTROLLER



CL-20-EM



CL-NHBP-20



CL-COM-36

CLACK WS2EE 2" TRIPLEX SYSTEM 6, 9 OR 14

Includes (3) Clack Systems from above, the Clack System Controller with (3) 2" Meters, (3) 2" NHWPB Valves, (3) Communications Cables, and (1) Commercial brine tank equipped as follows - Clack 484 commercial Safety Valve, air check, overflow elbow, 5" brine well and cap.

WS2EE-TRI-120-C2441	120,000 Grain System	\$15,754.00
WS2EE-TRI-150-C2450	150,000	\$16,550.00
WS2EE-TRI-210-C2450	210,000	\$18,153.00
WS2EE-TRI-300-C3048	300,000	\$21,780.00
WS2QC-TRI-450-C3948	450,000	\$29,660.00
WS2QC-TRI-600-C5060	600,000	\$35,722.00
WS2QC-TRI-900-C5060	900,000	\$49,869.00
WS2QC-TRI-1200-C5060	1,200,000	\$96,164.00

CLACK WS2EE 2" QUAD SYSTEM 6, 9 OR 14

Includes (4) Clack Systems from above, the Clack System Controller with (4) 2" Meters, (4) 2" NHWPB Valves, (4) Communications Cables, and (2) Commercial brine tanks equipped as follows - Clack 484 Commercial Safety Valve, air check, overflow elbow, 5" brine well and cap.

WS2EE-QUAD-120-C2441	120,000 Grain System	\$20,313.00
WS2EE-QUAD-150-C2450	150,000	\$21,382.00
WS2EE-QUAD-210-C2450	210,000	\$24,171.00
WS2EE-QUAD-300-C3048	300,000	\$29,006.00
WS2QC-QUAD-450-C3948	450,000	\$39,751.00
WS2QC-QUAD-600-C5060	600,000	\$48,047.00
WS2QC-QUAD-900-C5060	900,000	\$67,165.00
WS2QC-QUAD-1200-C5060	1,200,000	\$128,892.00

CLACK WS2EE 2" 5-UNIT SYSTEM 6, 9 OR 14

Includes (5) Clack Systems from above, the Clack System Controller with (5) 2" Meters, (5) 2" NHWPB Valves, (5) Communications Cables, and (2) Commercial brine tanks equipped as follows - Clack 484 Commercial Safety Valve, air check, overflow elbow, 5" brine well and cap.

WS2EE-FIVE-120-C2441	120,000 Grain System	\$24,253.00
WS2EE-FIVE-150-C2450	150,000	\$25,583.00
WS2EE-FIVE-210-C2450	210,000	\$29,558.00
WS2EE-FIVE-300-C3048	300,000	\$35,602.00
WS2QC-FIVE-450-C3948	450,000	\$48,854.00
WS2QC-FIVE-600-C5060	600,000	\$59,065.00
WS2QC-FIVE-900-C5060	900,000	\$82,770.00
WS2QC-FIVE-1200-C5060	1,200,000	\$159,929.00

CLACK WS2EE 2" 6-UNIT SYSTEM 6, 9 OR 14

Includes (6) Clack Systems from above, the Clack System Controller with (6) 2" Meters, (6) 2" NHWPB Valves, (6) Communications Cables and (3) Commercial brine tanks equipped as follows - Clack 484 Commercial Safety Valve, air check, overflow elbow, 5" brine well and cap.

WS2EE-SIX-120-C2441	120,000 Grain System	\$28,812.00
WS2EE-SIX-150-C2450	150,000	\$30,415.00
WS2EE-SIX-210-C2450	210,000	\$35,575.00
WS2EE-SIX-300-C3048	300,000	\$42,828.00
WS2QC-SIX-450-C3948	450,000	\$58,945.00
WS2QC-SIX-600-C5060	600,000	\$71,389.00
WS2QC-SIX-900-C5060	900,000	\$100,066.00
WS2QC-SIX-1200-C5060	1,200,000	\$192,657.00





Clack WS2H 2" Heavy Commercial Systems

Includes Clack WS2H 2" commercial valve with commercial distributors, gravel bed, and high-capacity resin. Commercial brine tank includes a Clack 484 or 494 (30" tank & larger) safety valve, air check, overflow elbow, 5" brine well and cap.



CLACK WS2H CONTROL VALVE

WS2H AUTOMATIC METER SYSTEMS

WS2H-150-C2450	150,000 Grain System	\$7,202.00
WS2H-210-C2450	210,000	\$7,699.00
WS2H-300-C3048	300,000	\$8,874.00
WS2H-450-C3948	450,000	\$11,624.00
WS2H-600-C5060	600,000	\$13,680.00
WS2H-900-C5060	900,000	\$18,505.00
WS2H-1200-C5060	1,200,000	\$22,301.00

Clack WS2H 2" Multi Tank Systems

WS2H TWIN ALTERNATING SYSTEMS (SYSTEM 7)

Includes two base Clack Systems from the previous page and one Clack 2" MAV (Motorized Alternating Valve). A single commercial brine tank included.

WS2H-TA-150-c2450	150,000 Grain System	\$14,425.00
WS2H-TA-210-C2450	210,000	\$15,418.00
WS2H-TA-300-C3048	300,000	\$17,769.00
WS2H-TA-450-C3948	450,000	\$23,731.00
WS2H-TA-600-C5060	600,000	\$27,522.00
WS2H-TA-900-C5060	900,000	\$36,789.00
WS2H-TA-1200-C5060	1,200,000	\$44,381.00

WS2H TWIN ALTERNATING OR PROGRESSIVE FLOW SYSTEMS (SYSTEM 6, 9, OR 14)

Add an additional MAV Valve to the System 7 price above.

CL-MAV-20	WS2 2" Motorized Alternator Valve Rev 2	\$815.00
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Control Valve Certified to NSF/ANSI 61 and 372.

PRODUCT FEATURES

- 2" top mount or side mount control valve suited for commercial and industrial applications
- Epoxy coated lead free brass valve body
- Built-in Internal Flow Meter standard with all valves
- Service flow rate 125 gpm (473 lpm) (28.4 m3/h), Backwash flow rate 125 gpm (473 lpm) (28.4 m3/h)
- Solid state microprocessor with easy access front removable POD
- Front panel display for Time of Day, Current Flow Rate, Totalizer and Volume/Days until Regeneration
- Four methods to initiate the down-flow regen; meter delayed, meter immediate, time clock delayed, or pressure differential
- Fully programmable regeneration cycle sequences (maximum 9)



- Fully programmable regeneration cycle times
- Pre or Post treated water regenerant refill
- Days override feature; 1-28 days available
- 20-volt output AC adapter provides safe and easy installation
- Reliable and proven DC drive

Model Number	Tank Size		Capacity		Resin Cu Ft	Support Bed		Flow Rates		BKW	Salt Req'd		Space Req'd L x W x H	Shipping Weight
	Resin	Brine	Min	Max		1/2 x 1/4	1/4 x 1/8	Min	Max		9#	15#		
WS2H-150	18 x 65	24 x 41	120k	150k	5	-	100	53	69	10	45	75	46 x 24 x 82	560
WS2H-210	21 x 62	24 x 50	168k	210k	7	100	50	66	85	12	63	105	49 x 24 x 85	720
WS2H-300	24 x 72	30 x 48	240k	300k	10	150	100	73	94	15	90	150	58 x 30 x 89	1040
WS2H-450	30 x 72	39 x 48	360k	450k	15	250	100	88	113	25	135	225	73 x 39 x 96	1515
WS2H-600	36 x 72	50 x 60	480k	600k	20	350	150	97	126	35	180	300	90 x 50 x 98	1995
WS2H-900	42 x 72	50 x 60	720k	900k	30	450	250	106	137	50	270	450	96 x 50 x 109	3095
WS2H-1200	48 x 72	50 x 60	960k	1200k	40	600	300	150	188	65	360	600	102 x 50 x 106	3895

Commercial Water Softeners





CLACK 2" MAV VALVE

WS2H TRIPLEX ALTERNATING OR PROGRESSIVE FLOW SYSTEM 6, 9, OR 14

Includes Three Base Clack System from the previous page and 3 Clack 2" MAV (Motorized Alternating Valve). One commercial brine tank included in the prices below. Add any additional brine tanks needed for your specific system type.

WS2H-S9/S14-150-TRI-C2441	150,000 Grain System	\$22,054.00
WS2H-S9/S14-210-TRI-C2450	210,000	\$23,543.00
WS2H-S9/S14-300-TRI-C3048	300,000	\$27,085.00
WS2H-S9/S14-450-TRI-C3948	450,000	\$34,622.00
WS2H-S9/S14-600-TRI-C5060	600,000	\$40,148.00
WS2H-S9/S14-900-TRI-C5060	900,000	\$53,857.00
WS2H-S9/S14-1200-TRI-C5060	1,200,000	\$65,244.00

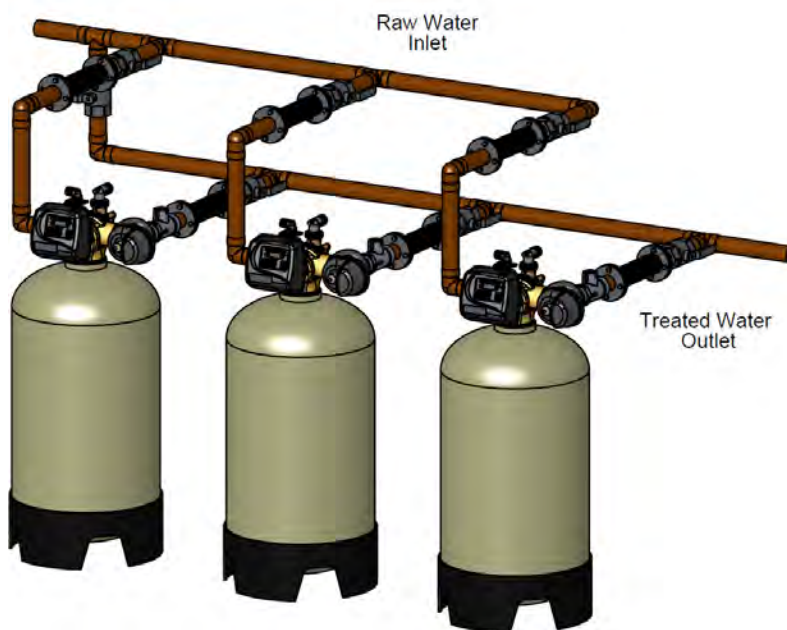
WS2H QUAD ALTERNATING OR PROGRESSIVE FLOW SYSTEM 6, 9, OR 14

Includes Four Base Clack Systems from the previous page and 4 Clack 2" MAVs (Motorized Alternating Valve). One commercial brine tank included in the prices below. Add any additional brine tanks needed for your specific system type.

WS2H-S9/S14-150-QUAD-C2441	150,000 Grain System	\$29,096.00
WS2H-S9/S14-210-QUAD-C2450	210,000	\$31,081.00
WS2H-S9/S14-300-QUAD-C3048	300,000	\$35,784.00
WS2H-S9/S14-450-QUAD-C3948	450,000	\$45,713.00
WS2H-S9/S14-600-QUAD-C5060	600,000	\$52,975.00
WS2H-S9/S14-900-QUAD-C5060	900,000	\$71,126.00
WS2H-S9/S14-1200-QUAD-C5060	1,200,000	\$86,309.00



CLACK WS2H CONTROL VALVE

**Example of a System Controller WS2 Triplex System Plumbing Layout**

Model Number	Space Req'd L x W x H	Shipping Weight	Model Number	Space Req'd L x W x H	Shipping Weight	Model Number	Space Req'd L x W x H	Shipping Weight
WS2H-TA-150	68 x 24 x 82	1075	WS2H-TRI-150	90 x 24 x 82	1595	WS2H-QUAD-150	112 x 24 x 82	2110
WS2H-TA-210	74 x 24 x 85	1395	WS2H-TRI-210	99 x 24 x 85	2070	WS2H-QUAD-210	124 x 24 x 85	2750
WS2H-TA-300	86 x 30 x 89	2015	WS2H-TRI-300	114 x 30 x 89	2995	WS2H-QUAD-300	142 x 30 x 89	3970
WS2H-TA-450	107 x 39 x 96	2950	WS2H-TRI-450	141 x 39 x 96	4685	WS2H-QUAD-450	175 x 39 x 96	5820
WS2H-TA-600	130 x 50 x 98	3865	WS2H-TRI-600	170 x 50 x 98	5740	WS2H-QUAD-600	210 x 50 x 98	7610
WS2H-TA-900	142 x 50 x 109	6065	WS2H-TRI-900	188 x 50 x 109	9040	WS2H-QUAD-900	234 x 50 x 109	12010
WS2H-TA-1200	152 x 50 x 106	7665	WS2H-TRI-1200	206 x 50 x 106	11450	WS2H-QUAD-1200	258 x 50 x 106	15210



Clack WS3 3" Heavy Commercial Systems

Includes Clack WS3 3" commercial valve with commercial distributors, gravel bed, and high-capacity resin. Commercial brine tank includes a Clack 494 Hi-Flow Safety Valve, air check, overflow elbow, 5" brine well and cap.



Control Valve Certified to NSF/ANSI 61 and 372.

WS3 AUTOMATIC METER SYSTEMS

WS3M-300-C3048	300,000 Grain System	\$12,382.00
WS3M-450-C3948	450,000	\$15,997.00
WS3M-600-C5060	600,000	\$19,985.00
WS3M-900-C5060	900,000	\$24,999.00
WS3M-1200-C5061	1,200,000	\$29,026.00



CLACK WS3 CONTROL VALVE



WS3 BACKSIDE



PRODUCT FEATURES

- 3" top mount or side mount control valve suited for commercial and industrial applications
- Lead free brass valve body
- Economical stainless steel optional meter assembly
- Service flow rate 250 gpm (946 lpm) (56.8 m3/h), Backwash flow rate 220 gpm (833 lpm) (50.0 m3/h)
- Solid state microprocessor with easy access front removable POD
- Front panel display for Time of Day, Current Flow Rate, Totalizer and Volume/Days until Regeneration
- Methods to initiate the down-flow regeneration; meter delayed, meter immediate, time clock delayed
- Fully programmable regeneration cycle sequences (maximum 9)
- Fully programmable regeneration cycle times
- Pre or Post treated water regenerant refill
- Days override feature; 1-28 days available
- Capacitor back-up with up to 24 hour carry over
- 20-volt output AC adapter provides safe and easy installation
- Reliable and proven DC drive

Model Number	Tank Size		Capacity		Resin Cu Ft	Support Bed		Flow Rates		BKW	Salt Req'd		Space Req'd L x W x H	Shipping Weight
	Resin	Brine	Min	Max		1/2 x 1/4	1/4 x 1/8	Min	Max		9#	15#		
WS3-300	24 x 72	30 x 48	240k	300k	10	150	100	98	126	15	90	150	58 x 30 x 90	1045
WS3-450	30 x 72	39 x 48	360k	450k	15	250	100	144	186	25	135	225	73 x 39 x 97	1520
WS3-600	36 x 72	50 x 60	480k	600k	20	350	150	172	222	35	180	300	90 x 50 x 99	2000
WS3-900	42 x 72	50 x 60	720k	900k	30	450	250	190	244	50	270	450	96 x 50 x 110	3100
WS3-1200	48 x 72	50 x 60	960k	1200k	40	600	300	194	251	65	360	600	102 x 50 x 107	3900





CLACK 3" MAV VALVE



CL-30-EM



CLACK WS3 CONTROL VALVE

Clack WS3 3" Multi Tank Systems

WS3 TWIN ALTERNATING OR PROGRESSIVE FLOW SYSTEMS (SYSTEM 6, 9, OR 14)

Includes Two Base Clack Systems from the previous page, two Clack 3" MAVs (Motorized Alternating Valve) and two 3" meter assemblies. A single commercial brine tank included.

WS3-S9/S14-300-C3048	300,000 Grain System	\$31,075.00
WS3-S9/S14-450-C3948	450,000	\$37,913.00
WS3-S9/S14-600-C5060	600,000	\$45,633.00
WS3-S9/S14-900-C5060	900,000	\$54,893.00
WS3-S9/S14-1200-C5060	1,200,000	\$62,946.00

WS3 TRIPLEX ALTERNATING OR PROGRESSIVE FLOW (SYSTEM 6, 9, OR 14)

Includes Three Base Clack Systems from the previous page, three Clack 3" MAVs (Motorized Alternating Valve) and three 3" meter assemblies. One commercial brine tank included in the prices below. Add any additional brine tanks needed for your specific system type.

WS3-S9/S14-300-TRI-C3048	300,000 Grain System	\$46,468.00
WS3-S9/S14-450-TRI-C3948	450,000	\$56,565.00
WS3-S9/S14-600-TRI-C5060	600,000	\$67,954.00
WS3-S9/S14-900-TRI-C5060	900,000	\$81,844.00
WS3-S9/S14-1200-TRI-C5060	1,200,000	\$93,923.00

WS3 QUAD ALTERNATING OR PROGRESSIVE FLOW (SYSTEM 6, 9, OR 14)

Includes Four Base Clack Systems from the previous page, four Clack 3" MAVs (Motorized Alternating Valve) and four 3" meter assemblies. One commercial brine tank included in the prices below. Add any additional brine tanks needed for your specific system type.

WS3-S9/S14-300-QUAD-C3048	300,000 Grain System	\$61,529.00
WS3-S9/S14-450-QUAD-C3948	450,000	\$74,885.00
WS3-S9/S14-600-QUAD-C5060	600,000	\$89,942.00
WS3-S9/S14-900-QUAD-C5060	900,000	\$108,462.00
WS3-S9/S14-1200-QUAD-C5060	1,200,000	\$124,568.00

Model Number	Space Req'd L x W x H	Shipping Weight	Model Number	Space Req'd L x W x H	Shipping Weight	Model Number	Space Req'd L x W x H	Shipping Weight
WS3-TA-300	86 x 30 x 90	2045	WS3-TRI-300	114 x 30 x 90	3045	WS3-QUAD-300	142 x 30 x 90	4045
WS3-TA-450	107 x 39 x 97	2995	WS3-TRI-450	141 x 39 x 97	4470	WS3-QUAD-450	175 x 39 x 97	5950
WS3-TA-600	130 x 50 x 99	3935	WS3-TRI-600	170 x 50 x 99	5875	WS3-QUAD-600	210 x 50 x 99	7810
WS3-TA-900	142 x 50 x 110	6075	WS3-TRI-900	188 x 50 x 110	9055	WS3-QUAD-900	234 x 50 x 110	12030
WS3-TA-1200	152 x 50 x 107	7675	WS3-TRI-1200	206 x 50 x 106	11455	WS3-QUAD-1200	258 x 50 x 106	15230

Clack Side Mount Fiberglass Tank Systems w/Brine Tanks

Features include Clack WS2QC 2" Side-Mount Control Valves, Commercial High Flow Distributors, Gravel Support Beds, High Capacity Resin, Clack Electronic Meters, Fiberglass Pressure Vessels, Schedule 80 PVC Face Piping, and Commercial Brine Tank with the Clack 484 Commercial Shutoff Valve. These multi-tank systems feature the Clack System Controller to connect all the control valves.

SIMPLEX systems include

- ONE** WS2QC Side-Mount System
- ONE** Electronic Meter
- ONE** Brine Tank

TWIN-ALT includes

- TWO** WS2QC Side-Mount System
- ONE** Electronic Meter
- ONE** Brine Tank

DUPLEX includes

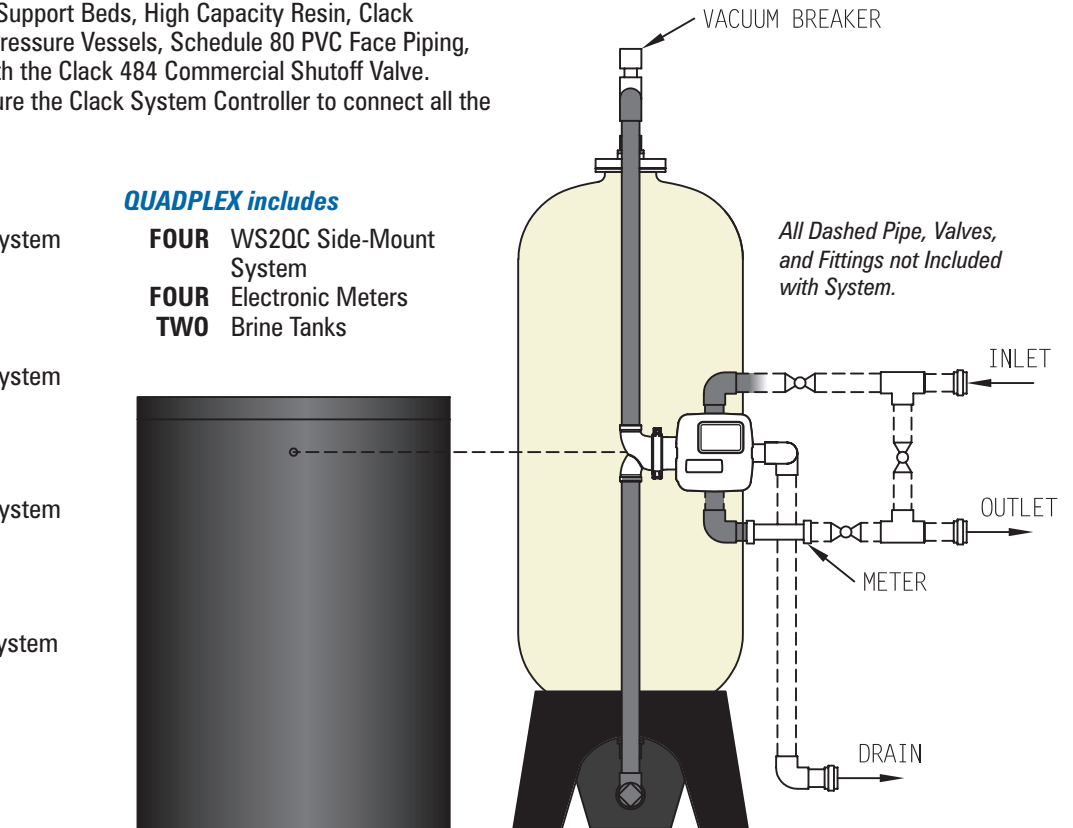
- TWO** WS2QC Side-Mount System
- TWO** Electronic Meters
- ONE** Brine Tank

TRIPLEX includes

- THREE** WS2QC Side-Mount System
- THREE** Electronic Meters
- TWO** Brine Tanks

QUADPLEX includes

- FOUR** WS2QC Side-Mount System
- FOUR** Electronic Meters
- TWO** Brine Tanks



CLACK WS2QC SIDE MOUNT SOFTENERS - FIBERGLASS TANKS W/BRINE TANK

NCSMF-WS2QC-210-C2450	210,000 Grain Unit w/24x50 Brine Tank	\$11,043.00
NCSMF-WS2QC-300-C3048	300,000 Grain Unit w/30x48 Brine Tank	\$12,087.00
NCSMF-WS2QC-450-C3948	450,000 Grain Unit w/39x48 Brine Tank	\$15,309.00
NCSMF-WS2QC-600-C5060	600,000 Grain Unit w/50x60 Brine Tank	\$17,246.00

CLACK WS2QC TWIN-ALT SIDE MOUNT SOFTENERS - FIBERGLASS TANKS W/BRINE TANK

NCSMF-WS2QC-TA-210-C2450	210,000 Grain Unit w/24x50 Brine Tank	\$21,727.00
NCSMF-WS2QC-TA-300-C3048	300,000 Grain Unit w/30x48 Brine Tank	\$23,453.00
NCSMF-WS2QC-TA-450-C3948	450,000 Grain Unit w/39x48 Brine Tank	\$29,571.00
NCSMF-WS2QC-TA-600-C5060	600,000 Grain Unit w/50x60 Brine Tank	\$33,055.00

CLACK WS2QC DUPLEX - SIDE MOUNT SOFTENERS - FIBERGLASS TANKS W/BRINE TANK

NCSMF-WS2QC-DUP-210-C2450	210,000 Grain Unit w/24x50 Brine Tank	\$23,897.00
NCSMF-WS2QC-DUP-300-C3048	300,000 Grain Unit w/30x48 Brine Tank	\$25,623.00
NCSMF-WS2QC-DUP-450-C3948	450,000 Grain Unit w/39x48 Brine Tank	\$31,741.00
NCSMF-WS2QC-DUP-600-C5060	600,000 Grain Unit w/50x60 Brine Tank	\$35,225.00

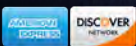
CLACK WS2QC TRIPLEX - SIDE MOUNT SOFTENERS - FIBERGLASS TANKS W/BRINE TANKS

NCSMF-WS2QC-TRI-210-C2450	210,000 Grain Unit w/24x50 Brine Tanks	\$35,418.00
NCSMF-WS2QC-TRI-300-C3048	300,000 Grain Unit w/30x48 Brine Tanks	\$38,189.00
NCSMF-WS2QC-TRI-450-C3948	450,000 Grain Unit w/39x48 Brine Tanks	\$47,529.00
NCSMF-WS2QC-TRI-600-C5060	600,000 Grain Unit w/50x60 Brine Tanks	\$52,950.00

CLACK WS2QC QUAD - SIDE MOUNT SOFTENERS - FIBERGLASS TANKS W/BRINE TANKS

NCSMF-WS2QC-QUAD-210-C2450	210,000 Grain Unit w/24x50 Brine Tanks	\$46,410.00
NCSMF-WS2QC-QUAD-300-C3048	300,000 Grain Unit w/30x48 Brine Tanks	\$49,863.00
NCSMF-WS2QC-QUAD-450-C3948	450,000 Grain Unit w/39x48 Brine Tanks	\$62,100.00
NCSMF-WS2QC-QUAD-600-C5060	600,000 Grain Unit w/50x60 Brine Tanks	\$69,068.00

CLACK WS2H SIDE MOUNT SOFTENERS - FIBERGLASS TANK W/BRINE TANK



Clack WS2H Side Mount Fiberglass Tank Systems w/Brine Tanks

Features include Clack WS2H 2" Side-Mount Control Valve w/built in meter, Commercial High Flow Distributors, Gravel Support Beds, High Capacity Resin, Fiberglass Pressure Vessels, Schedule 80 PVC Face Piping, and Commercial Brine Tank with the Clack 484 Commercial Shutoff Valve.

SIMPLEX systems include

- ONE** WS2H Side-Mount System
- ONE** Brine Tank

TWIN-ALT includes

- TWO** WS2H Side-Mount Systems
- ONE** Brine Tank

DUPLEX includes

- TWO** WS2H Side-Mount Systems
- TWO** Brine Tanks

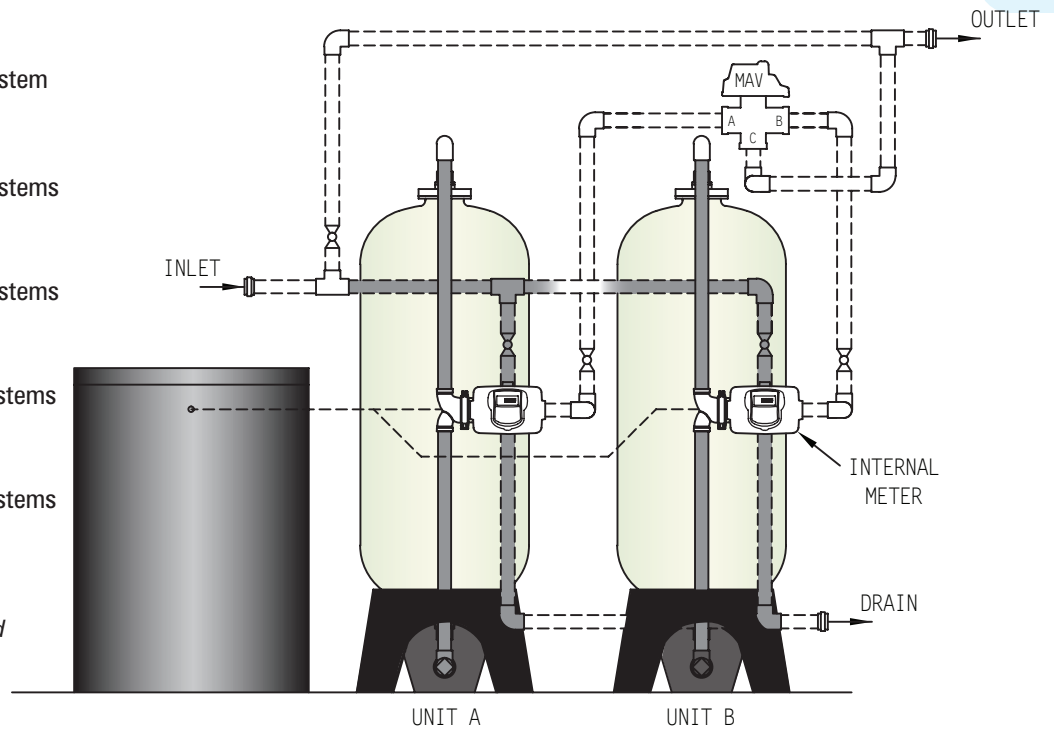
TRIPLEX includes

- THREE** WS2H Side-Mount Systems
- TWO** Brine Tanks

QUADPLEX includes

- FOUR** WS2H Side-Mount Systems
- TWO** Brine Tanks

All Dashed Pipe, Valves, and Fittings not Included with System.



NCSMF-WS2H-210-C2450	210,000 Grain Unit w/24x50 Brine Tank	\$13,503.00
NCSMF-WS2H-300-C3048	300,000 Grain Unit w/30x48 Brine Tank	\$14,518.00
NCSMF-WS2H-450-C3948	450,000 Grain Unit w/39x48 Brine Tank	\$17,974.00
NCSMF-WS2H-600-C5060	600,000 Grain Unit w/50x60 Brine Tank	\$19,963.00

CLACK WS2H TWIN-ALT - SIDE MOUNT SOFTENERS - FIBERGLASS TANKS W/BRINE TANK

NCSMF-WS2H-TA-210-C2450	210,000 Grain Unit w/24x50 Brine Tank	\$27,342.00
NCSMF-WS2H-TA-300-C3048	300,000 Grain Unit w/30x48 Brine Tank	\$28,993.00
NCSMF-WS2H-TA-450-C3948	450,000 Grain Unit w/39x48 Brine Tank	\$35,565.00
NCSMF-WS2H-TA-600-C5060	600,000 Grain Unit w/50x60 Brine Tank	\$39,134.00

CLACK WS2H DUPLEX - SIDE MOUNT SOFTENERS - FIBERGLASS TANKS W/BRINE TANK

NCSMF-WS2H-DUP-210-C2450	210,000 Grain Unit w/24x50 Brine Tank	\$27,398.00
NCSMF-WS2H-DUP-300-C3048	300,000 Grain Unit w/30x48 Brine Tank	\$29,049.00
NCSMF-WS2H-DUP-450-C3948	450,000 Grain Unit w/39x48 Brine Tank	\$35,620.00
NCSMF-WS2H-DUP-600-C5060	600,000 Grain Unit w/50x60 Brine Tank	\$39,190.00

CLACK WS2H TRIPLEX - SIDE MOUNT SOFTENERS - FIBERGLASS TANKS W/BRINE TANKS

NCSMF-WS2H-TRI-210-C2450	210,000 Grain Unit w/24x50 Brine Tanks	\$41,754.00
NCSMF-WS2H-TRI-300-C3048	300,000 Grain Unit w/30x48 Brine Tanks	\$44,420.00
NCSMF-WS2H-TRI-450-C3948	450,000 Grain Unit w/39x48 Brine Tanks	\$54,447.00
NCSMF-WS2H-TRI-600-C5060	600,000 Grain Unit w/50x60 Brine Tanks	\$60,006.00

CLACK WS2H QUAD - SIDE MOUNT SOFTENERS - FIBERGLASS TANKS W/BRINE TANKS

NCSMF-WS2H-QUAD-210-C2450	210,000 Grain Unit w/24x50 Brine Tanks	\$55,186.00
NCSMF-WS2H-QUAD-300-C3048	300,000 Grain Unit w/30x48 Brine Tanks	\$58,488.00
NCSMF-WS2H-QUAD-450-C3948	450,000 Grain Unit w/39x48 Brine Tanks	\$71,630.00
NCSMF-WS2H-QUAD-600-C5060	600,000 Grain Unit w/50x60 Brine Tanks	\$78,769.00

Clack WS3 Side Mount Fiberglass Tank Systems w/Brine Tanks

Commercial Water Softeners

CLACK WS3 SIDE MOUNT SOFTENERS - FIBERGLASS TANK W/BRINE TANK

Features include Clack WS3 3" Side-Mount Control Valve, MAV Valves on Multi-tank Systems, Commercial High Flow Distributors, Gravel Support Beds, High Capacity Resin, Fiberglass Pressure Vessels, Schedule 80 PVC Face Piping, and Commercial Brine Tank with the Clack 484 Commercial Shutoff Valve.

SIMPLEX systems include

- ONE** WS3 Side-Mount System
- ONE** Electronic Meters,
- ONE** Brine Tank

TWIN-ALT includes

- TWO** WS3 Side-Mount System
- ONE** Electronic Meters,
- ONE** Brine Tank

DUPLEX includes

- TWO** WS3 Side-Mount System
- TWO** Electronic Meters,
- ONE** Brine Tank

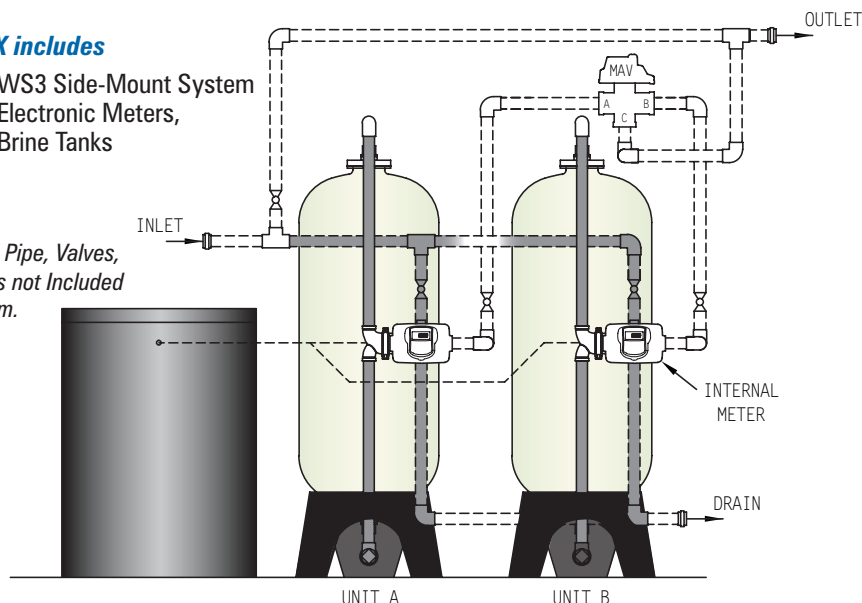
TRIPLEX includes

- THREE** WS3 Side-Mount System
- THREE** Electronic Meters,
- TWO** Brine Tanks

QUADPLEX includes

- FOUR** WS3 Side-Mount System
- FOUR** Electronic Meters,
- TWO** Brine Tanks

All Dashed Pipe, Valves, and Fittings not Included with System.



NCSMF-WS3-300-C3048	210,000 Grain Unit w/30x48 Brine Tank	\$20,566.00
NCSMF-WS3-450-C3948	300,000 Grain Unit w/39x48 Brine Tank	\$22,242.00
NCSMF-WS3-600-C5060	450,000 Grain Unit w/50x60 Brine Tank	\$24,292.00
NCSMF-WS3-900-C5060	600,000 Grain Unit w/50x60 Brine Tank	\$28,538.00
NCSMF-WS3-1200-C5060	1,200,000 Grain Unit w/50x60 Brine Tank	\$32,575.00

CLACK WS3 TWIN-ALT - SIDE MOUNT SOFTENERS - FIBERGLASS TANKS W/BRINE TANK

NCSMF-WS3-TA-300-C3048	210,000 Grain Unit w/30x48 Brine Tank	\$40,029.00
NCSMF-WS3-TA-450-C3948	300,000 Grain Unit w/39x48 Brine Tank	\$43,041.00
NCSMF-WS3-TA-600-C5060	450,000 Grain Unit w/50x60 Brine Tank	\$46,734.00
NCSMF-WS3-TA-900-C5060	600,000 Grain Unit w/50x60 Brine Tank	\$55,225.00
NCSMF-WS3-TA-1200-C5060	1,200,000 Grain Unit w/50x60 Brine Tank	\$63,299.00

CLACK WS3 DUPLEX - SIDE MOUNT SOFTENERS - FIBERGLASS TANKS W/BRINE TANK

NCSMF-WS3-DUP-300-C3048	210,000 Grain Unit w/30x48 Brine Tank	\$43,059.00
NCSMF-WS3-DUP-450-C3948	300,000 Grain Unit w/39x48 Brine Tank	\$46,071.00
NCSMF-WS3-DUP-600-C5060	450,000 Grain Unit w/50x60 Brine Tank	\$49,763.00
NCSMF-WS3-DUP-900-C5060	600,000 Grain Unit w/50x60 Brine Tank	\$58,255.00
NCSMF-WS3-DUP-1200-C5060	1,200,000 Grain Unit w/50x60 Brine Tank	\$66,329.00

CLACK WS3 TRIPLEX - SIDE MOUNT SOFTENERS - FIBERGLASS TANKS W/BRINE TANKS

NCSMF-WS3-TRI-300-C3048	210,000 Grain Unit w/30x48 Brine Tanks	\$65,123.00
NCSMF-WS3-TRI-450-C3948	300,000 Grain Unit w/39x48 Brine Tanks	\$69,812.00
NCSMF-WS3-TRI-600-C5060	450,000 Grain Unit w/50x60 Brine Tanks	\$75,554.00
NCSMF-WS3-TRI-900-C5060	600,000 Grain Unit w/50x60 Brine Tanks	\$90,088.00
NCSMF-WS3-TRI-1200-C5060	1,200,000 Grain Unit w/50x60 Brine Tanks	\$100,403.00

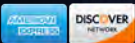
CLACK WS3 QUAD - SIDE MOUNT SOFTENERS - FIBERGLASS TANKS W/BRINE TANKS

NCSMF-WS3-QUAD-300-C3048	210,000 Grain Unit w/30x48 Brine Tanks	\$86,138.00
NCSMF-WS3-QUAD-450-C3948	300,000 Grain Unit w/39x48 Brine Tanks	\$92,162.00
NCSMF-WS3-QUAD-600-C5060	450,000 Grain Unit w/50x60 Brine Tanks	\$99,547.00
NCSMF-WS3-QUAD-900-C5060	600,000 Grain Unit w/50x60 Brine Tanks	\$116,529.00
NCSMF-WS3-QUAD-1200-C5060	1,200,000 Grain Unit w/50x60 Brine Tanks	\$132,679.00

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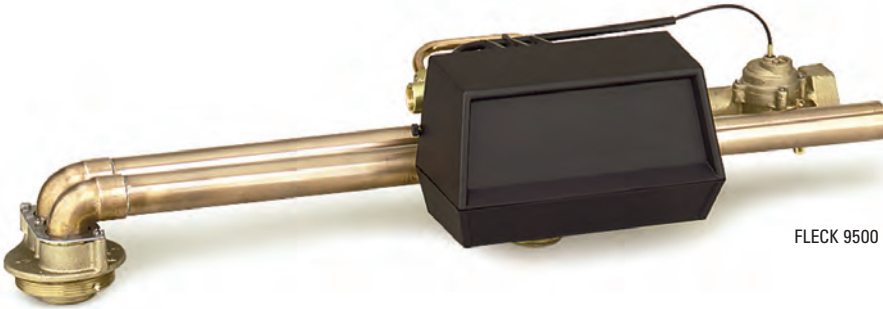




Fleck 9500/1700 1-1/2" Auto. Meter Systems

Includes Fleck 9500/1700 1-1/2 inch valve with 1700 time brining, commercial distributors, gravel bed, dual mineral tanks, commercial brine tank with air check and high-capacity resin.

95/17M-120-C2441	120,000 Grain System	\$6,939.00
95/17M-150-C2450	150,000	\$7,780.00
95/17M-210-C2450	210,000	\$8,717.00
95/17M-300-C3048	300,000	\$11,355.00



FLECK 9500

FLECK 9500 CONTROL VALVE FEATURES

- Lead free brass valve body for superior strength and durability
- Continuous service flow rate of 38 GPM with a backwash of 16 GPM
- Backwash capability accommodates softener tanks up to 24"
- Fully adjustable 5 cycle control for efficient and reliable water treatment system
- Time-tested, hydraulically-balanced piston for service and regeneration
- Rugged-built electromechanical timer designed with heavy duty 3/8" wide plastic gears
- Salt and water savings by using 100% capacity of the tank in service before switching to the second tank
- Regenerates immediately when needed for continuous soft water
- Regenerates with soft water keeping system clean for optimum operating efficiency and minimum maintenance
- XT- Offers a two-line, 16 character LCD backlit display for easy entering of master and user programming as well as view of diagnostics.
- SXT-Large LCD display and user selectable time clock or metered function; usable for filtration and softener systems.
- Electro-mechanical Timer- Simple to adjust and easy to service with quick access to all internal components.

Control Valve



TESTED and CERTIFIED by the WQA to NSF/ANSI Standard 61 Section 8 Material Safety Only.



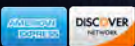
TESTED and CERTIFIED by the WQA to NSF/ANSI Standard 372 for Lead Free Compliance.



FLECK 9500 BACK

Model Number	Tank Size		Capacity		Resin Cu Ft	Support Bed		Flow Rates		BKW	Salt Req'd		Space Req'd L x W x H	Shipping Weight
	Resin	Brine	Min	Max		1/2 x 1/4	1/4 x 1/8	Min	Max		9#	15#		
95/17M-120	16 x 65	24 x 41	96k	120k	4	-	75	20	40	7	36	60	62 x 24 x 75	841
95/17M-150	18 x 65	24 x 50	120k	150k	5	-	100	25	50	10	45	75	68 x 24 x 76	1077
95/17M-210	21 x 62	24 x 50	168k	210k	7	100	50	35	55	12	63	105	75 x 24 x 77	1411
95/17M-300	24 x 72	30 x 48	240k	300k	10	150	100	40	55	15	90	150	84 x 30 x 85	2050

- Capacities are based on resin manufacturer's data • All units set at efficient salt settings • When sizing units, use efficient capacity • All flow rates are in Gallons Per Minute • All sizes and space required are in inches
- 1-1/2" Meter Range • Std. Range - 10,625 Gallons • Ext Range - 53,125 Gallons





FLECK
Pentair Water



Fleck 2815/1720 1-1/2" Commercial Systems

Includes Fleck 2815/1720 1-1/2" valve with 1700 time brining, commercial distributors, gravel bed, commercial brine tank with air check and high-capacity resin.

2815/1720 AUTOMATIC TIME CLOCK SYSTEMS

2815/17T-120-C2441	120,000 Grain System	\$3,495.00
2815/17T-150-C2450	150,000	\$3,908.00
2815/17T-210-C2450	210,000	\$4,439.00
2815/17T-300-C3048	300,000	\$5,935.00
2815/17T-450-C3948	450,000	\$8,798.00

2815/1720 AUTOMATIC METER SYSTEMS

2815/17M-120-C2441	120,000 Grain System	\$4,387.00
2815/17M-150-C2450	150,000	\$4,744.00
2815/17M-210-C2450	210,000	\$5,286.00
2815/17M-300-C3048	300,000	\$6,777.00
2815/17M-450-C3948	450,000	\$9,590.00

FLECK 2815 FEATURES

- 316 grade stainless steel valve body for strength and durability
- Continuous service flow of 70 GPM with a backwash of 70 GPM
- Backwash capability accommodates softener tanks up to 36" in diameter and filter tanks up to 30" in diameter
- Fully adjustable 3- or 5-cycle control for efficient and reliable water treatment system operation
- Designed for single or multiple tank systems
- Corrosion resistant, UV stabilized NEMA 3R rated cover provides protection against water intrusion
- Time-tested, hydraulically balanced piston for service and regeneration
- One-piece seal and spacer cartridge simplifies service
- Continuous service flow rate of 70 GPM with a backwash of 70 GPM
- Hot water rating of 150°F
- **XTR2** - Premium controller with large color LCD touch screen display offers intuitive navigation and a full complement of advanced features for system type 4 softeners and filters
- **SXT** - Large LCD display and user selectable time clock or metered functionality for softener and filter systems
- **Electromechanical Timer** - Simple to adjust and easy to service with quick access to all internal component
- **3200 Electromechanical Timer** - 7-day or 12-day time clock operation
- **3210 Electromechanical Timer** - Meter delayed operation

Control Valve



TESTED and CERTIFIED by the WQA to NSF/ANSI Standard 61 Section 8 Material Safety Only.



TESTED and CERTIFIED by the WQA to NSF/ANSI Standard 372 for Lead Free Compliance.



Model Number	Tank Size		Capacity		Resin Cu Ft	Support Bed			Flow Rates		BKW	Salt Req'd		Space Req'd L x W x H	Shipping Weight
	Resin	Brine	Min	Max		1/2 x 1/4	1/4 x 1/8	Min	Max	9#		15#			
2815/17-120	16 x 65	24 x 41	96k	120k	4	-	75	20	41	7	36	60	44 x 24 x 75	440	
2815/17-150	18 x 65	24 x 50	120k	150k	5	-	100	25	53	10	45	75	46 x 24 x 78	558	
2815/17-210	21 x 62	24 x 50	168k	210k	7	100	50	35	60	12	63	105	49 x 24 x 74	725	
2815/17-300	24 x 72	30 x 48	240k	300k	10	150	100	40	66	15	90	150	58 x 30 x 81	1054	
2815/17-450	30 x 72	39 x 48	360k	450k	15	250	100	45	75	25	135	225	73 x 39 x 88	1523	

- Capacities are based on resin manufacturer's data • All units set at efficient salt settings • When sizing units, use efficient capacity • All flow rates are in Gallons per Minute • All sizes and space required are in inches
- 1-1/2" Meter Range • Std. Range - 10,625 Gallons • Ext Range - 53,125 Gallons



Fleck 3150/1800 2" Commercial Systems

Includes Fleck 3150 2" top mount valve with 1800 time brining, hub and lateral distributor, gravel bed, and high capacity resin. Commercial brine tank(s) includes a Clack 484 Commercial Safety Valve, air check, overflow elbow, 5" brine well and cap.

Please Note: The piping from the brine tank to the mineral tank is NOT provided with these systems. One-inch connections are provided at the 1800 brine valve and brine tank. Local plumbing codes and flow rates dictate the type of piping used between the brine tank and mineral tank. Also note, the maximum flow rate for a 2350 safety valve is 10 gallons per minute. The recommended refill rate for a 1,200,000 grain system is 15 gallons per minute. A consideration should be made as to the type or number of air check(s)/safety(s) installed in the brine tank with these systems.



FLECK 3150 BACK VIEW

3150 AUTOMATIC TIME CLOCK SYSTEMS

315/18T-210-C2450	210,000 Grain System	\$6,170.00
315/18T-300-C3048	300,000	\$7,673.00
315/18T-450-C3948	450,000	\$10,553.00
315/18T-600-C5060	600,000	\$12,655.00
315/18T-900-C5060	900,000	\$16,872.00

FLECK 3150 FEATURES

- High programmability for commercial/industrial filter and softener applications.
- This product is manufactured in the United States of foreign and domestic parts.
- Lead-free brass valve body for superior strength and durability
- Continuous service flow rate of 95 GPM with a backwash of 105 GPM
- Backwash capability accommodates softener tanks up to 63" and filter up to 42" in diameter
- Fully adjustable 3- or 5-cycle control for efficient and reliable water treatment system
- Designed for single or multiple tank systems
- Environmental protective cover for water resistance, corrosion resistance, and UV stability
- Time-tested, hydraulically-balanced piston for service and regeneration
- Rugged-built electromechanical timer designed with heavy duty 3/8" wide plastic gears
- Electromechanical 7- or 12-day time clock, meter delayed, or meter immediate regeneration
- NXT- Network controller uses on-board communication capabilities to link multiple valves (via off-the-shelf CAT3, CAT5, or better cables) for system types 4,5,6,7,9, and 14
- XT- Offers a two-line, 16 character LCD backlit display for easy entering of master and user programing as well as view of diagnostics
- Electromechanical Timer- Simple to adjust and easy to service with quick access to all internal component



Control Valve



TESTED and CERTIFIED by the WQA to NSF/ANSI Standard 61 Section 8 Material Safety Only.

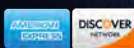


TESTED and CERTIFIED by the WQA to NSF/ANSI Standard 372 for Lead Free Compliance.

Model Number	Tank Size		Capacity Min Max	Resin Cu Ft	Support Bed			Flow Rates		BKW	Salt Req'd		Space Req'd L x W x H	Shipping Weight
	Resin	Brine			1/2 x 1/4	1/4 x 1/8	Min	Max	9#		15#			
315/18-210	21 x 62	24 x 50	168k 210k	7	100	50	55	77	12	63	105	49 x 24 x 74	821	
315/18-300	24 x 72	30 x 48	240k 300k	10	150	100	60	95	15	90	150	58 x 30 x 85	1150	
315/18-450	30 x 72	39 x 48	360k 450k	15	250	100	75	105	25	135	225	73 x 39 x 92	1615	
315/18-600	36 x 72	50 x 60	480k 600k	20	350	150	80	110	35	180	300	90 x 50 x 93	2150	
315/18-900	42 x 72	50 x 60	720k 900k	30	450	250	85	120	50	270	450	96 x 50 x 96	3050	

- Capacities are based on resin manufacturer's data
- All units set at efficient salt settings
- When sizing units, use efficient capacity
- All flow rates are in Gallons per Minute
- All sizes and space required are in inches
- 2" Meter Range
- Std. Range - 21,250 Gallons
- Ext Range - 106,250 Gallons

Commercial Water Softeners





Fleck 2900/1700 2" Commercial Systems

Includes Fleck 2900/1700 2" valve with 1700 time brining, commercial distributors, gravel bed, and high-capacity resin. Commercial brine tank(s) includes a Clack 484 Commercial Safety Valve, air check, overflow elbow, 5" brine well and cap.

2900/1700 3200 NXT TIME CLOCK MINERAL TANKS

MT29/17NXT-120	120,000 Grain Unit	\$4,204.00
MT29/17NXT-150	150,000	\$4,689.00
MT29/17NXT-210	210,000	\$5,172.00
MT29/17NXT-300	300,000	\$6,357.00
MT29/17NXT-450	450,000	\$9,184.00
MT29/17NXT-600	600,000	\$10,608.00

2900/1700 3200 NXT METERED MINERAL TANKS

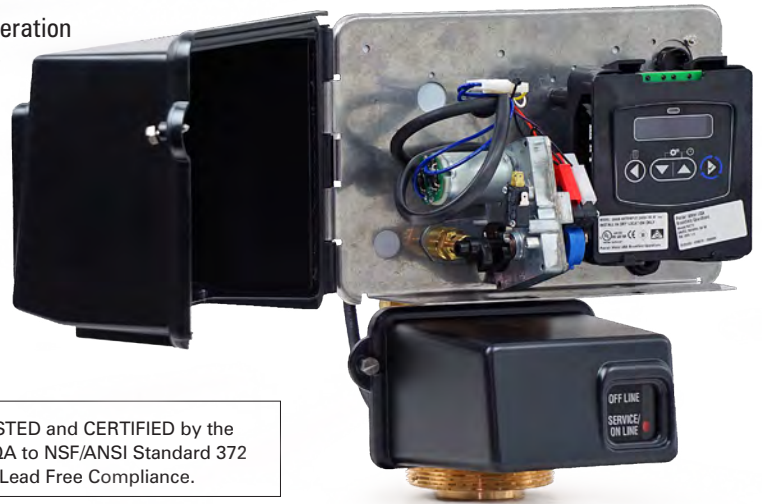
MT29/17NXT-M-120	120,000 Grain Unit	\$5,021.00
MT29/17NXT-M-150	150,000	\$5,505.00
MT29/17NXT-M-210	210,000	\$5,988.00
MT29/17NXT-M-300	300,000	\$7,174.00
MT29/17NXT-M-450	450,000	\$10,001.00
MT29/17NXT-M-600	600,000	\$11,425.00



SINGLE-PIECE CASTING SHOWN WITH TREATED WATER REGENERATION ADAPTER

PRODUCT FEATURES

- Incorporates 2 time-tested hydraulically balanced pistons to independently pilot service flow and regeneration
- Brings great performance and versatility to commercial/industrial applications
- For use with the single or multiple tank systems
- Softener Application Capabilities Up to 36" Tanks (5gpm/sq. ft.)
- Service Flow Rate 106 GPM (15 psi drop)
- Available with 7 or 12 day time clock or meter to control regeneration
- Lead-free brass valve body for superior strength and durability
- No hard water bypass piston
- Filter Application Capabilities Up to 24" Tanks (10gpm/sq. ft.)
- New Drain Size Fitting of 1" NPT
- Max Backwash Rate of 35 GPM (25 psi drop)
- Optional NXT2 controllers available



Control Valve



TESTED and CERTIFIED by the WQA to NSF/ANSI Standard 61 Section 8 Material Safety Only.



TESTED and CERTIFIED by the WQA to NSF/ANSI Standard 372 for Lead Free Compliance.

Model Number	Tank Size		Capacity		Resin Cu Ft	Support Bed			Flow Rates		BKW	Salt Req'd		Space Req'd L x W x H	Shipping Weight
	Resin	Brine	Min	Max		1/2 x 1/4	1/4 x 1/8	Min	Max	9#		15#			
29/17-120	16 x 65	24 x 41	96k	120k	4	-	75	40	57	7	36	60	44 x 24 x 75	435	
29/17-150	18 x 65	24 x 50	120k	150k	5	-	100	50	62	10	45	75	46 x 24 x 78	575	
29/17-210	21 x 62	24 x 50	168k	210k	7	100	50	55	77	12	63	105	49 x 24 x 74	740	
29/17-300	24 x 72	30 x 48	240k	300k	10	150	100	60	95	15	90	150	58 x 30 x 81	1125	
29/17-450	30 x 72	39 x 48	360k	450k	15	250	100	75	140	25	135	225	73 x 39 x 88	1580	
29/17-600	36 x 72	50 x 60	480k	600k	20	350	150	100	140	35	180	300	90 x 50 x 95	2115	

- Capacities are based on resin manufacturer's data • All units set at efficient salt settings • When sizing units, use efficient capacity • All flow rates are in Gallons per Minute • All sizes and space required are in inches
- 2" Meter Range • Std. Range - 21,250 Gallons • Ext Range - 106,250 Gallons



FLECK
Pentair Water



FLECK 2900 w/NXT2 CONTROL



FLECK NXT2 CONTROLLER

**For Triplex and Quad units
please call for additional pricing
and specifications.**

2900/1700-NXT2 SYSTEM 5 DUPLEX

Features include Fleck 2900/1700 3200NXT2 Simplex System with an electronic meter for each valve and includes two commercial brine tanks with the Clack 484 commercial shutoff valve.

29/17NXT5-120-C2441	120,000 Grain System	\$10,967.00
29/17NXT5-150-C2450	150,000	\$11,949.00
29/17NXT5-210-C2450	210,000	\$12,915.00
29/17NXT5-300-C3048	300,000	\$15,998.00
29/17NXT5-450-C3948	450,000	\$22,291.00
29/17NXT5-600-C5060	600,000	\$25,908.00

2900/1700-NXT2 SYSTEM 6 DUPLEX

Features include two Fleck 2900/1700 3200NXT2 Simplex Systems with one 2" electronic meter for the system, also includes two commercial brine tanks with the Clack 484 commercial shutoff valve.

29/17NXT6-120-C2441	120,000 Grain System	\$10,160.00
29/17NXT6-150-C2450	150,000	\$11,119.00
29/17NXT6-210-C2450	210,000	\$12,108.00
29/17NXT6-300-C3048	300,000	\$15,191.00
29/17NXT6-450-C3948	450,000	\$21,484.00
29/17NXT6-600-C5060	600000 (3" meter included)	\$25,101.00

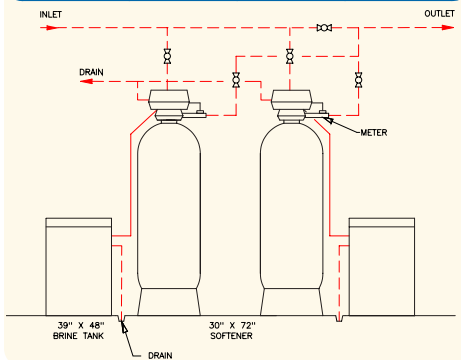
2900/1700-NXT2 SYSTEM 7 DUPLEX

Features include two Fleck 2900/1700 3200NXT2 Simplex Systems with one 2" electronic meter for the system, also includes one commercial brine tank with the Clack 484 commercial shutoff valve.

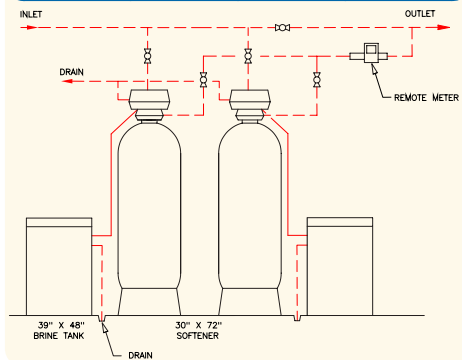
29/17NXT7-120-C2441	120,000 Grain System	\$9,650.00
29/17NXT7-150-C2450	150,000	\$10,620.00
29/17NXT7-210-C2450	210,000	\$11,586.00
29/17NXT7-300-C3048	300,000	\$14,313.00
29/17NXT7-450-C3948	450,000	\$20,285.00
29/17NXT7-600-C5060	600,000	\$23,519.00

Commercial Water Softeners

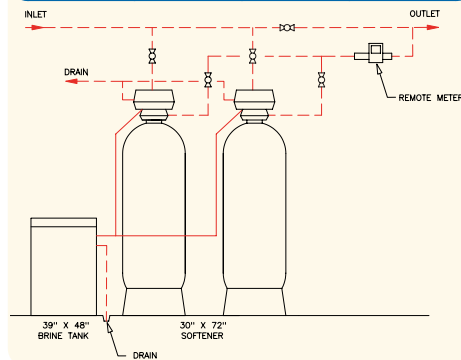
SYSTEM 5 UNITS



SYSTEM 6 UNITS



SYSTEM 7 UNITS

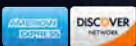


Model Number	Space Req'd L x W x H	Shipping Weight
29/17NT5-120	88 x 24 x 78	870
29/17NT5-150	92 x 24 x 79	1150
29/17NT5-210	98 x 24 x 79	1480
29/17NT5-300	116 x 30 x 86	2250
29/17NT5-450	146 x 39 x 93	3160
29/17NT5-600	176 x 50 x 95	4230

Model Number	Space Req'd L x W x H	Shipping Weight
29/17NT6-120	88 x 24 x 78	870
29/17NT6-150	92 x 24 x 79	1150
29/17NT6-210	98 x 24 x 79	1480
29/17NT6-300	116 x 30 x 86	2250
29/17NT6-450	146 x 39 x 93	3160
29/17NT6-600	176 x 50 x 95	4230

Model Number	Space Req'd L x W x H	Shipping Weight
29/17NT7-120	64 x 24 x 78	830
29/17NT7-150	68 x 24 x 79	1110
29/17NT7-210	74 x 24 x 79	1440
29/17NT7-300	86 x 30 x 86	2190
29/17NT7-450	107 x 39 x 93	3085
29/17NT7-600	126 x 50 x 95	4130

2" Meter Range • Std. Range - 21,250 Gallons • Ext Range - 106,250 Gallons
3" Meter Range • Std. Range - 63,750 Gallons • Ext Range - 318,750 Gallons





Fleck 3900/1800 3" Commercial Systems

Includes Fleck 3900/1800 3" valve with 1800 time brining, hub and lateral distributor, gravel bed, and high capacity resin. Commercial brine tank includes a Clack 494 Hi-Flow Safety Valve, air check, overflow elbow, 5" brine well and cap.

Please Note: The piping from the brine tank to the mineral tank is NOT provided with these systems. One-inch connections are provided at the 1800 brine valve and brine tank. Local plumbing codes and flow rates dictate the type of piping used between the brine tank and mineral tank. The recommended refill rate for a 1,200,000 grain system is 15 gallons per minute. A consideration should be made as to the type or number of air check(s)/safety(s) installed in the brine tank with these systems.

3900/1800 3200NXT2 SIMPLEX TIME CLOCK SYSTEMS

39/18NXT-300-C3048	300,000 Grain System	\$12,658.00
39/18NXT-450-C3948	450,000	\$14,756.00
39/18NXT-600-C5060	600,000	\$17,042.00
39/18NXT-900-C5060	900,000	\$21,567.00
39/18NXT-1200-C5060	1,200,000	\$25,448.00



FLECK 3900 VALVE BACK VIEW



FLECK 3900 CONTROL VALVE



TESTED and CERTIFIED by the WQA to NSF/ANSI Standard 61 Section 8 Material Safety Only.



TESTED and CERTIFIED by the WQA to NSF/ANSI Standard 372 for Lead Free Compliance.

PRODUCT FEATURES

- Fully adjustable 5-cycle control delivers controlled up-flow backwash, down-flow brining, slow rinse, rapid rinse and down-flow service
- Designed for single tank or multi-tank systems, alternating or interlocking
- Continuous flow rate of 250 GPM
- Protective NEMA 3R enclosure is water resistant, rain tight, corrosion resistant and UV stable
- Operational no hard water bypass during regeneration
- Choice of 7 or 12 day clock or meter initiated regeneration
- No hard water bypass
- Optional NXT2 controllers available



Model Number	Tank Size		Capacity		Resin Cu Ft	Support Bed		Flow Rates		BKW	Salt Req'd		Space Req'd L x W x H	Shipping Weight
	Resin	Brine	Min	Max		1/2 x 1/4	1/4 x 1/8	Min	Max		9#	15#		
39/18-300	24 x 72	30 x 48	240k	300k	10	150	100	120	170	15	90	150	58 x 30 x 92	1250
39/18-450	30 x 72	39 x 48	360k	450k	15	250	100	155	210	25	135	225	73 x 39 x 96	1700
39/18-600	36 x 72	50 x 60	480k	600k	20	350	150	185	250	35	180	300	90 x 50 x 98	2250
39/18-900	42 x 72	50 x 60	720k	900k	30	450	250	200	270	50	270	450	96 x 50 x 101	3405
39/18-1200	48 x 72	50 x 60	960k	1200k	40	600	300	205	280	65	360	600	102 x 50 x 106	4300

- Capacities are based on resin manufacturer's data • All units set at efficient salt settings • When sizing units, use efficient capacity • All flow rates are in Gallons per Minute • All sizes and space required are in inches
- 3" Meter Range • Std. Range - 63,750 Gallons • Ext Range - 318,750 Gallons



FLECK
Pentair Water



FLECK 3900NXT2 CONTROL VALVE



FLECK 3900NXT2 CONTROL VALVE

3900/1800-NXT2 SYSTEM 5 DUPLEX

Features include two Fleck 3900/1800 3200NXT2 Simplex Systems with a 3" electronic meter for each valve and includes two commercial brine tanks with the Clack 494 commercial shutoff valve.

39/18NXT5-300-C3048	300,000 Grain System	\$29,644.00
39/18NXT5-450-C3948	450,000	\$30,986.00
39/18NXT5-600-C5060	600,000	\$34,221.00
39/18NXT5-900-C5060	900,000	\$42,552.00
39/18NXT5-1200-C5060	1,200,000	\$47,270.00

3900/1800-NXT2 SYSTEM 6 DUPLEX

Features include two Fleck 3900/1800 3200NXT2 Simplex Systems with one 3" electronic meter for the system, also includes two commercial brine tanks with the Clack 494 commercial shutoff valve.

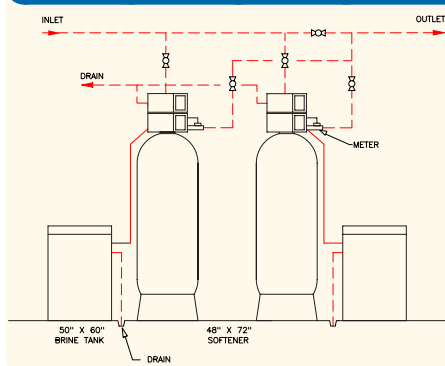
39/18NXT6-300-C3048	300,000 Grain System	\$27,392.00
39/18NXT6-450-C3948	450,000	\$31,600.00
39/18NXT6-600-C5060	600,000	\$36,186.00
39/18NXT6-900-C5060	900,000	\$45,235.00
39/18NXT6-1200-C5060	1,200,000	\$52,998.00

3900/1800-NXT2 SYSTEM 7 DUPLEX

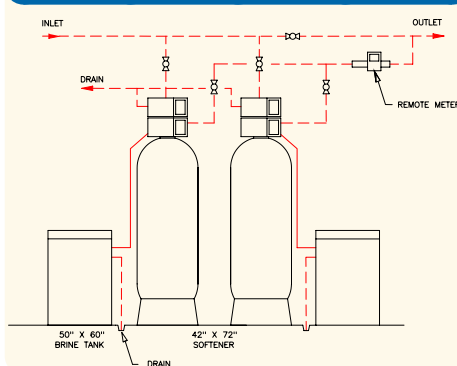
Features include two Fleck 3900/1800 3200NXT2 Simplex Systems with one 3" electronic meter for the system, also includes one commercial brine tank with the Clack 494 commercial shutoff valve.

39/18NXT7-300-C3048	300,000 Grain System	\$26,513.00
39/18NXT7-450-C3948	450,000	\$30,401.00
39/18NXT7-600-C5060	600,000	\$34,603.00
39/18NXT7-900-C5060	900,000	\$43,653.00
39/18NXT7-1200-C5060	1,200,000	\$51,415.00

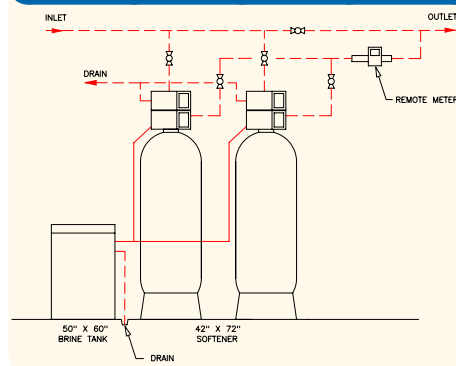
SYSTEM 5 UNITS



SYSTEM 6 UNITS



SYSTEM 7 UNITS



Model Number	Space Req'd L x W x H	Shipping Weight
39/18NT5-300	120 x 30 x 92	2500
39/18NT5-450	150 x 39 x 96	3400
39/18NT5-600	176 x 50 x 98	4500
39/18NT5-900	196 x 50 x 101	6810
39/18NT5-1200	208 x 50 x 106	8600

Model Number	Space Req'd L x W x H	Shipping Weight
39/18NT6-300	120 x 30 x 92	2500
39/18NT6-450	150 x 39 x 96	3400
39/18NT6-600	176 x 50 x 98	4500
39/18NT6-900	196 x 50 x 101	6810
39/18NT6-1200	208 x 50 x 106	8600

Model Number	Space Req'd L x W x H	Shipping Weight
39/18NT7-300	86 x 30 x 92	2440
39/18NT7-450	107 x 39 x 96	3320
39/18NT7-600	126 x 50 x 98	4395
39/18NT7-900	142 x 50 x 101	6690
39/18NT7-1200	154 x 50 x 106	8480





FLECK NXT2 CONTROLLER

Fleck NXT2 Electronic Systems

The NXT2 Network Controller uses on-board communication capabilities to link multiple commercial valves (via off-the-shelf CAT5, or better cables) for a variety of system types. The NXT2 is configured for use with Fleck® 2750, 2815, 2900s, 3150, & 3900 Control Valves, and also supports stager valves using butterfly or notched cams.

- On-screen multilingual support in English, Français, Deutsch, Italiano, Español, Nederlands, & Português
- Time of day super capacitor backup for 12-hour power loss
- 2 to 4 line scrolling text OLED display, high contrast easy to read in low light conditions and at a distance
- Full functional user interface with easy programming allowing forward and backwards menu navigation
- Network two to eight valves via CAT5 or better cables
- LED Status Indicator
 - Blue: In Service
 - Flashing Blue: Regeneration Queued
 - Green: Regeneration
 - Flashing Green: Standby
 - Red: Error condition present
- Reset to factory default settings or from savable custom settings
- Two Programmable Auxiliary relay outputs
 - Time-based
 - Volume based (Chemical pump)
 - Alarm-based
 - Cycle-based
 - Standby
- Remote input
 - Remote Lockout
 - Remote Regeneration
- Easy installation with plug-in wiring harnesses
- Assistance Name and Phone Number contact fields
- Error Log History
- Water Usage Daily (up to 13 weeks)
- Push Settings
- Capacitive Touch buttons
- Two Regeneration Lockout Windows
- Full calendar display
- Master Programming Lockout
 - Code-based
 - Time-based
 - Delayed
- Icons for easy system status identification
- Dynamic network addressing
- Diagnostics
 - Real-time Flow Rate
 - Peak Flow Rate (can be reset)
 - Totalizer (can be reset)
 - Reserve Capacity
 - Use Since Last Regeneration
 - Last Regeneration
 - Identifiable Software Version
 - Total Number of Regenerations
 - Regeneration Interval
 - Last Settings Change
 - Error Log History
 - Average Daily Usage (per weekday, 3 month history)



FL20M-SS

Fleck Stainless Steel Water Meters, Unions & Cables

Stainless Steel Meters with an all-in-one electronic and mechanical flow sensing, hot water rated to 150°F. Stainless Steel Unions make installations and servicing easier.



FL20M-SS-UNION

Fleck Electronic Water Meters

* FL10M-SS	1" Electronic & Mechanical Meter	\$746.00
* FL15M-SS	1-1/2" Electronic & Mechanical Meter	\$737.00
FL20M-SS	2" Electronic & Mechanical Meter	\$782.00
FL30M-SS	3" Electronic & Mechanical Meter	\$2,263.00

Fleck Stainless Steel Unions

* FL10M-SS-UNION	1" Stainless Steel Union, MxF	\$86.20
FL15M-SS-UNION	1-1/2" Stainless Steel Union, MxF	\$150.60
FL20M-SS-UNION	2" Stainless Steel Union, MxF	\$194.40

Fleck Electronic Meter Cables

FLM-SS-CABLE-30	30" Elec Meter Cable for Stainless Steel Meters	\$51.60
FLM-SS-CABLE-100	100" (8.3 ft) Elec Meter Cable for Stainless Steel Meters	\$51.90
FLM-SS-CABLE-304	304" (8.3 ft) Elec Meter Cable for Stainless Steel Meters	\$111.00



FLECK 3200 HOT WATER
BUTTERFLY VALVE



Fleck 2900/1700 2" Side-Mount Softener Systems

Features include Fleck 2900/1700 NXT2 2" Side-Mount Control Valves with 1700 Time Brining, Commercial High Flow Distributors, Gravel Support Beds, High Capacity Resin, Fleck Electronic Meters, Fiberglass Pressure Vessels, Schedule 80 PVC Face Piping, and Commercial Brine Tank with the Clack 484 Commercial Shutoff Valve.

SIMPLEX Systems include

- ONE** 2900 NXT2 Side-Mount System
- ONE** Fleck Electronic Meter
- ONE** Brine Tank

SYSTEM 7 Systems includes

- TWO** 2900 NXT2 Side-Mount Systems
- ONE** Fleck Electronic Meter
- ONE** Brine Tank

DUPLEX Systems includes

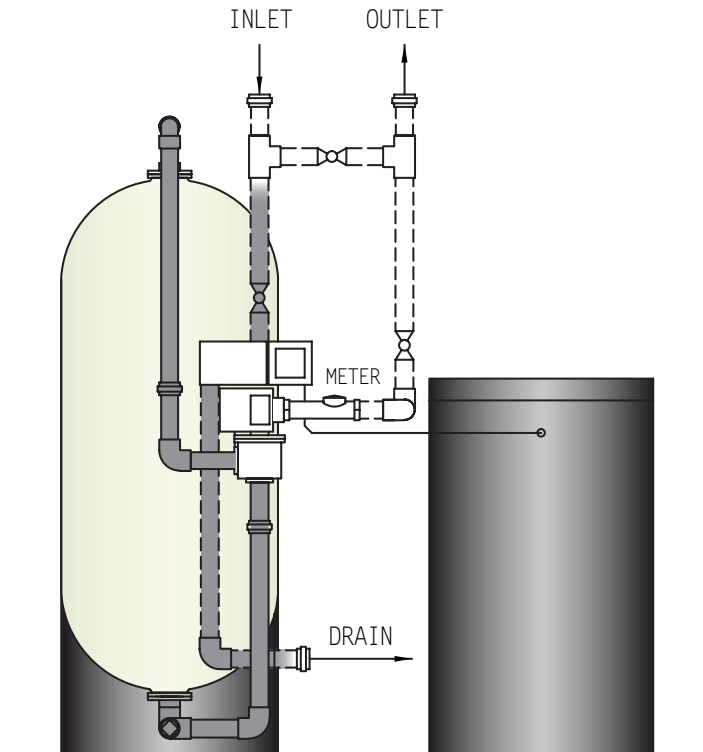
- TWO** 2900 NXT2 Side-Mount Systems
- TWO** Fleck Electronic Meters
- ONE** Brine Tank

TRIPLEX Systems includes

- THREE** 2900 NXT2 Side-Mount Systems
- THREE** Fleck Electronic Meters
- TWO** Brine Tanks

QUADPLEX Systems includes

- FOUR** 2900 NXT2 Side-Mount Systems
- FOUR** Fleck Electronic Meters
- TWO** Brine Tanks



FLECK 2900 SIDE MOUNT - SIMPLEX SOFTENERS - FIBERGLASS TANK W/BRINE TANK

NCSMF-29/17NXT-210-C2450	210,000 Grain Unit w/24x50 Brine Tank	\$12,054.00
NCSMF-29/17NXT-300-C3048	300,000 Grain Unit w/30x48 Brine Tank	\$13,330.00
NCSMF-29/17NXT-450-C3948	450,000 Grain Unit w/39x48 Brine Tank	\$15,810.00
NCSMF-29/17NXT-600-C5060	600,000 Grain Unit w/50x60 Brine Tank	\$17,595.00

2900/1700-NXT2 SYSTEM 7 TWIN ALT SOFTENERS - FIBERGLASS TANKS W/BRINE TANK

NCSMF-29/17NXT-TA-210-C2450	210,000 Grain Unit w/24x50 Brine Tank	\$22,835.00
NCSMF-29/17NXT-TA-300-C3048	300,000 Grain Unit w/30x48 Brine Tank	\$25,040.00
NCSMF-29/17NXT-TA-450-C3948	450,000 Grain Unit w/39x48 Brine Tank	\$29,687.00
NCSMF-29/17NXT-TA-600-C5060	600,000 Grain Unit w/50x60 Brine Tank	\$32,883.00

2900/1700-NXT2 SYSTEM 5, 9 & 14 DUPLEX SOFTENERS - FIBERGLASS TANKS W/BRINE TANK

NCSMF-29/17NXT-DUP-210-C2450	210,000 Grain Unit w/24x50 Brine Tank	\$23,622.00
NCSMF-29/17NXT-DUP-300-C3048	300,000 Grain Unit w/30x48 Brine Tank	\$25,827.00
NCSMF-29/17NXT-DUP-450-C3948	450,000 Grain Unit w/39x48 Brine Tank	\$30,475.00
NCSMF-29/17NXT-DUP-600-C5060	600,000 Grain Unit w/50x60 Brine Tank	\$33,670.00

2900/1700-NXT2 SYSTEM 5, 9 & 14 TRIPLEX SOFTENERS - FIBERGLASS TANKS W/BRINE TANKS

NCSMF-29/17NXT-TRI-210-C2450	210,000 Grain Unit w/24x50 Brine Tanks	\$35,676.00
NCSMF-29/17NXT-TRI-300-C3048	300,000 Grain Unit w/30x48 Brine Tanks	\$39,157.00
NCSMF-29/17NXT-TRI-450-C3948	450,000 Grain Unit w/39x48 Brine Tanks	\$46,285.00
NCSMF-29/17NXT-TRI-600-C5060	600,000 Grain Unit w/50x60 Brine Tanks	\$51,265.00

2900/1700-NXT2 SYSTEM 5, 9 & 14 QUAD SOFTENERS - FIBERGLASS TANKS W/BRINE TANKS

NCSMF-29/17NXT-QUAD-210-C2450	210,000 Grain Unit w/24x50 Brine Tanks	\$47,244.00
NCSMF-29/17NXT-QUAD-300-C3048	300,000 Grain Unit w/30x48 Brine Tanks	\$51,654.00
NCSMF-29/17NXT-QUAD-450-C3948	450,000 Grain Unit w/39x48 Brine Tanks	\$60,950.00
NCSMF-29/17NXT-QUAD-600-C5060	600,000 Grain Unit w/50x60 Brine Tanks	\$67,340.00

Fleck 3900/1800 3" Side-Mount Softener Systems

Features include Fleck 3900/1800 NXT2 3" Side-Mount Control Valves with 1800 Time Brining, Commercial High Flow Distributors, Gravel Support Beds, High Capacity Resin, Fleck Electronic Meters, Fiberglass Pressure Vessels, Schedule 80 PVC Face Piping, and Commercial Brine Tank with the Clack 484 Commercial Shutoff Valve.

SIMPLEX systems include

- ONE** 3900 NXT2 Side-Mount System
- ONE** Fleck Electronic Meter
- ONE** Brine Tank

SYSTEM 7 includes

- TWO** 3900 NXT2 Side-Mount System
- ONE** Fleck Electronic Meter
- ONE** Brine Tank

DUPLEX includes

- TWO** 3900 NXT2 Side-Mount System
- TWO** Fleck Electronic Meters
- ONE** Brine Tank

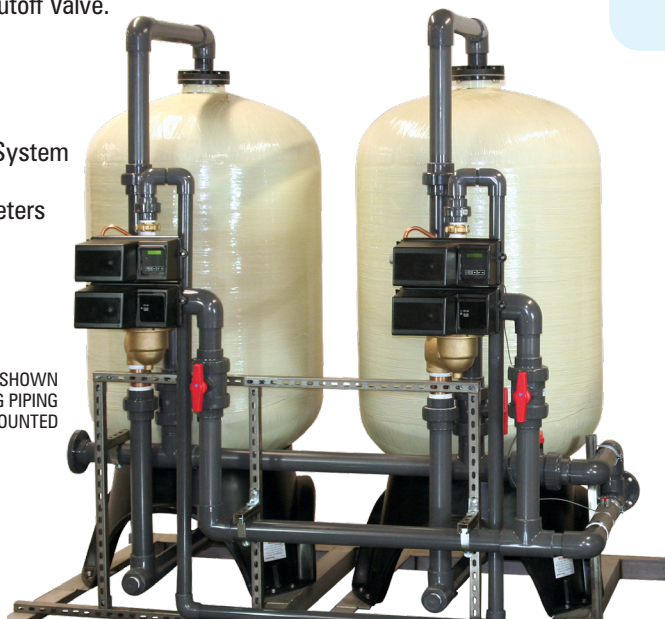
TRIPLEX includes

- THREE** 3900 NXT2 Side-Mount System
- THREE** Fleck Electronic Meters
- TWO** Brine Tank

QUADPLEX includes

- FOUR** 3900 NXT2 Side-Mount System
- FOUR** Fleck Electronic Meters
- TWO** Brine Tank

3900 SIDEMOUNT SHOWN
w/HEADER/INTERCONNECTING PIPING
AND SKID MOUNTED



3900/1800-NXT2 SIDE MOUNT - SIMPLEX SOFTENERS - FIBERGLASS TANK W/BRINE TANK

NCSMF-39/18NXT-300-C3048	300,000 Grain Unit w/30x48 Brine Tank	\$21,560.00
NCSMF-39/18NXT-450-C3948	450,000 Grain Unit w/39x48 Brine Tank	\$22,760.00
NCSMF-39/18NXT-600-C5060	600,000 Grain Unit w/50x60 Brine Tank	\$24,254.00
NCSMF-39/18NXT-900-C5060	900,000 Grain Unit w/50x60 Brine Tank	\$28,157.00
NCSMF-39/18NXT-1200-C5060	1,200,000 Grain Unit w/50x60 Brine Tank	\$31,954.00

3900/1800-NXT2 SYSTEM 7 TWIN ALT SOFTENERS - FIBERGLASS TANKS W/BRINE TANK

NCSMF-39/18NXT-TA-300-C3048	300,000 Grain Unit w/30x48 Brine Tank	\$41,885.00
NCSMF-39/18NXT-TA-450-C3948	450,000 Grain Unit w/39x48 Brine Tank	\$44,597.00
NCSMF-39/18NXT-TA-600-C5060	600,000 Grain Unit w/50x60 Brine Tank	\$47,959.00
NCSMF-39/18NXT-TA-900-C5060	900,000 Grain Unit w/50x60 Brine Tank	\$55,766.00
NCSMF-39/18NXT-TA-1200-C5060	1,200,000 Grain Unit w/50x60 Brine Tank	\$67,757.00

3900/1800-NXT2 SYSTEM 5, 9 & 14 DUPLEX SOFTENERS - FIBERGLASS TANKS W/BRINE TANK

NCSMF-39/18NXT-DUP-300-C3048	300,000 Grain Unit w/30x48 Brine Tank	\$44,084.00
NCSMF-39/18NXT-DUP-450-C3948	450,000 Grain Unit w/39x48 Brine Tank	\$46,796.00
NCSMF-39/18NXT-DUP-600-C5060	600,000 Grain Unit w/50x60 Brine Tank	\$50,158.00
NCSMF-39/18NXT-DUP-900-C5060	900,000 Grain Unit w/50x60 Brine Tank	\$57,965.00
NCSMF-39/18NXT-DUP-1200-C5060	1,200,000 Grain Unit w/50x60 Brine Tank	\$65,558.00

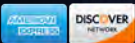
3900/1800-NXT2 SYSTEM 5, 9 & 14 TRIPLEX SOFTENERS - FIBERGLASS TANKS W/BRINE TANKS

NCSMF-39/18NXT-TRI-300-C3048	300,000 Grain Unit w/30x48 Brine Tanks	\$66,608.00
NCSMF-39/18NXT-TRI-450-C3948	450,000 Grain Unit w/39x48 Brine Tanks	\$70,832.00
NCSMF-39/18NXT-TRI-600-C5060	600,000 Grain Unit w/50x60 Brine Tanks	\$76,062.00
NCSMF-39/18NXT-TRI-900-C5060	900,000 Grain Unit w/50x60 Brine Tanks	\$87,773.00
NCSMF-39/18NXT-TRI-1200-C5060	1,200,000 Grain Unit w/50x60 Brine Tanks	\$99,162.00

3900/1800-NXT2 SYSTEM 5, 9 & 14 QUAD SOFTENERS - FIBERGLASS TANKS W/BRINE TANKS

NCSMF-39/18NXT-QUAD-300-C3048	300,000 Grain Unit w/30x48 Brine Tanks	\$93,592.00
NCSMF-39/18NXT-QUAD-450-C3948	450,000 Grain Unit w/39x48 Brine Tanks	\$93,592.00
NCSMF-39/18NXT-QUAD-600-C5060	600,000 Grain Unit w/50x60 Brine Tanks	\$100,316.00
NCSMF-39/18NXT-QUAD-900-C5060	900,000 Grain Unit w/50x60 Brine Tanks	\$115,930.00
NCSMF-39/18NXT-QUAD-1200-C5060	1,200,000 Grain Unit w/50x60 Brine Tanks	\$131,115.00

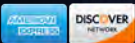
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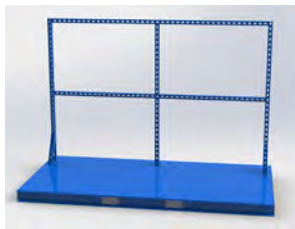


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SKID-42FG-SINGLE



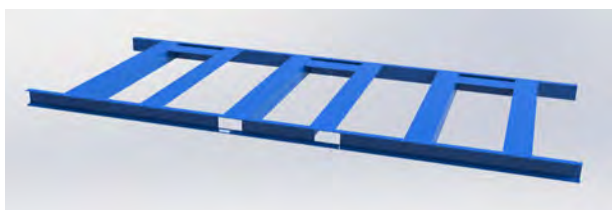
SKID-36FG-TWIN



SKID-36FG-TRIPLEX



SKID-42STL-SINGLE



SKID-36STL-TRIPLEX

Modular Skids for Top or Side Mount Commercial Systems

Choose the appropriate skid for the corresponding system. Fiberglass Tanks and Steel Tanks require different skids with different mounting locations for the tanks. The size of the skid is also dependent on the size of the tanks.

Triplex systems 42" and larger require a Single Unit Skid and Twin Unit Skid and are placed side by side at the installation site.

Quad systems require two Twin Skids.

Skids DO NOT provide room for brine tank on the skid. Skid choices should provide for brine tank positioning if desired.

FIBERGLASS TANK SKID OPTIONS

SKID-21FG-24FG-TWIN	21" & 24" Fiberglass Tanks - Twin Unit Skid	Call for Quote
SKID-21FG-24FG-TRIPLEX	21" & 24" Fiberglass Tanks - Triplex Unit Skid	Call for Quote
SKID-30FG-TWIN	30" Fiberglass Tanks - Twin Unit Skid	Call for Quote
SKID-30FG-TRIPLEX	30" Fiberglass Tanks - Triplex Unit Skid	Call for Quote
SKID-36FG-TWIN	36" Fiberglass Tanks - Twin Unit Skid	Call for Quote
SKID-36FG-TRIPLEX	36" Fiberglass Tanks - Triplex Unit Skid	Call for Quote
SKID-42FG-SINGLE	42" Fiberglass Tanks - Single Unit Skid for Triplex	Call for Quote
SKID-42FG-TWIN	42" Fiberglass Tanks - Twin Unit Skid	Call for Quote
SKID-48FG-SINGLE	48" Fiberglass Tanks - Single Unit Skid for Triplex	Call for Quote
SKID-48FG-TWIN	48" Fiberglass Tanks - Twin Unit Skid	Call for Quote

SIDE MOUNT FIBERGLASS TANK SKID OPTIONS

SKID-21FG-24FG-TWIN-SM	21" & 24" Fiberglass - Side Mount Twin Unit Skid	Call for Quote
SKID-21FG-24FG-TRIPLEX-SM	21" & 24" Fiberglass - Side Mount Triplex Unit Skid	Call for Quote
SKID-30FG-TWIN-SM	30" Fiberglass - Side Mount Twin Unit Skid	Call for Quote
SKID-30FG-TRIPLEX-SM	30" Fiberglass - Side Mount Triplex Unit Skid	Call for Quote
SKID-36FG-TWIN-SM	36" Fiberglass - Side Mount Twin Unit Skid	Call for Quote
SKID-36FG-TRIPLEX-SM	36" Fiberglass - Side Mount Triplex Unit Skid	Call for Quote
SKID-42FG-SINGLE-SM	42" Fiberglass - Side Mount Single Unit Skid for Triplex	Call for Quote
SKID-42FG-TWIN-SM	42" Fiberglass - Side Mount Twin Unit Skid	Call for Quote
SKID-48FG-SINGLE-SM	48" Fiberglass - Side Mount Single Unit Skid for Triplex	Call for Quote
SKID-48FG-TWIN-SM	48" Fiberglass - Side Mount Twin Unit Skid	Call for Quote

STEEL TANK SKID OPTIONS

SKID-20STL-TWIN	20" Steel Tanks - Twin Unit Skid	Call for Quote
SKID-20STL-TRIPLEX	20" Steel Tanks - Triplex Unit Skid	Call for Quote
SKID-24STL-TWIN	24" Steel Tanks - Twin Unit Skid	Call for Quote
SKID-24STL-TRIPLEX	24" Steel Tanks - Triplex Unit Skid	Call for Quote
SKID-30STL-TWIN	30" Steel Tanks - Twin Unit Skid	Call for Quote
SKID-30STL-TRIPLEX	30" Steel Tanks - Triplex Unit Skid	Call for Quote
SKID-36STL-TWIN	36" Steel Tanks - Twin Unit Skid	Call for Quote
SKID-36STL-TRIPLEX	36" Steel Tanks - Triplex Unit Skid	Call for Quote
SKID-42STL-SINGLE	42" Steel Tanks - Single Unit Skid for Triplex	Call for Quote
SKID-42STL-TWIN	42" Steel Tanks - Twin Unit Skid	Call for Quote
SKID-48STL-SINGLE	48" Steel Tanks - Single Unit Skid for Triplex	Call for Quote
SKID-48STL-TWIN	48" Steel Tanks - Twin Unit Skid	Call for Quote

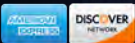
Skid Specifications & Dimensions

Top Mount - FIBERGLASS TANK SKID OPTIONS		Width	Depth	Height	Weight
SKID-21FG-24FG-TWIN	21" & 24" Fiberglass Tanks - Twin Unit Skid	78"	34"	64-3/16"	361 lbs.
SKID-21FG-24F-TRIPLEX	21" & 24" Fiberglass Tanks - Triplex Unit Skid	114"	34"	64-3/16"	485 lbs.
SKID-30FG-TWIN	30" Fiberglass Tanks - Twin Unit Skid	84"	40"	64-3/16"	425 lbs.
SKID-30FG-TRIPLEX	30" Fiberglass Tanks - Triplex Unit Skid	120"	40"	64-3/16"	560 lbs.
SKID-36FG-TWIN	36" Fiberglass Tanks - Twin Unit Skid	94"	46"	64-3/16"	510 lbs.
SKID-36FG-TRIPLEX	36" Fiberglass Tanks - Triplex Unit Skid	138"	46"	64-3/16"	748 lbs.
SKID-42FG-SINGLE	42" Fiberglass Tanks - Single Unit Skid for Triplex	54"	52"	64-3/16"	369 lbs.
SKID-42FG-TWIN	42" Fiberglass Tanks - Twin Unit Skid	104"	52"	64-3/16"	651 lbs.
SKID-48FG-SINGLE	48" Fiberglass Tanks - Single Unit Skid for Triplex	60"	58"	64-3/16"	415 lbs.
SKID-48FG-TWIN	48" Fiberglass Tanks - Twin Unit Skid	114"	58"	64-3/16"	756 lbs.
Side Mount - FIBERGLASS TANK SKID OPTIONS		Width	Depth	Height	Weight
SKID-21FG-24FG-TWIN-SM	21" & 24" Fiberglass Tanks - Side Mount Twin Unit Skid	78"	48"	64-3/16"	456 lbs.
SKID-21FG-24F-TRIPLEX-SM	21" & 24" Fiberglass Tanks - Side Mount Triplex Unit Skid	114"	48"	64-3/16"	604 lbs.
SKID-30FG-TWIN-SM	30" Fiberglass Tanks - Side Mount Twin Unit Skid	84"	60"	64-3/16"	566 lbs.
SKID-30FG-TRIPLEX-SM	30" Fiberglass Tanks - Side Mount Triplex Unit Skid	120"	60"	64-3/16"	738 lbs.
SKID-36FG-TWIN-SM	36" Fiberglass Tanks - Side Mount Twin Unit Skid	94"	60"	64-3/16"	618 lbs.
SKID-36FG-TRIPLEX-SM	36" Fiberglass Tanks - Side Mount Triplex Unit Skid	138"	60"	64-3/16"	894 lbs.
SKID-42FG-SINGLE-SM	42" Fiberglass - Side Mount Single Unit Skid for Triplex	54"	72"	64-3/16"	465 lbs.
SKID-42FG-TWIN-SM	42" Fiberglass Tanks - Side Mount Twin Unit Skid	104"	72"	64-3/16"	858 lbs.
SKID-48FG-SINGLE-SM	48" Fiberglass - Side Mount Single Unit Skid for Triplex	60"	72"	64-3/16"	505 lbs.
SKID-48FG-TWIN-SM	48" Fiberglass Tanks - Side Mount Twin Unit Skid	114"	72"	64-3/16"	916 lbs.
STEEL TANK SKID OPTIONS		Width	Depth	Height	Weight
SKID-20STL-TWIN	20" Steel Tanks - Twin Unit Skid	72"	45"	4"	225 lbs.
SKID-20STL-TRIPLEX	20" Steel Tanks - Triplex Unit Skid	102"	45"	4"	332 lbs.
SKID-24STL-TWIN	24" Steel Tanks - Twin Unit Skid	84"	48"	4"	253 lbs.
SKID-24STL-TRIPLEX	24" Steel Tanks - Triplex Unit Skid	124"	49"	4"	371 lbs.
SKID-30STL-TWIN	30" Steel Tanks - Twin Unit Skid	88"	55"	4"	284 lbs.
SKID-30STL-TRIPLEX	30" Steel Tanks - Triplex Unit Skid	132"	55"	4"	425 lbs.
SKID-36STL-TWIN	36" Steel Tanks - Twin Unit Skid	104"	67"	4"	313 lbs.
SKID-36STL-TRIPLEX	36" Steel Tanks - Triplex Unit Skid	156"	67"	4"	470 lbs.
SKID-42STL-SINGLE	42" Steel Tanks - Single Unit Skid for Triplex	62"	72"	4"	175 lbs.
SKID-42STL-TWIN	42" Steel Tanks - Twin Unit Skid	122"	72"	4"	347 lbs.
SKID-48STL-SINGLE	48" Steel Tanks - Single Unit Skid for Triplex	68"	78"	4"	204 lbs.
SKID-48STL-TWIN	48" Steel Tanks - Twin Unit Skid	130"	78"	4"	374 lbs.

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NELSEN

C O R P O R A T I O N

Filtration Equipment

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AIR INJECTION OXIDATION

Does your water smell like rotten eggs? Do your sinks & toilets have orange staining? The Nelsen Water Solutions (NWS) Signature Series AIO® Air Injection Oxidation Filter System may be the answer to your water problems. The NWS Signature Series AIO, as a single tank system, is an efficient and cost effective solution.



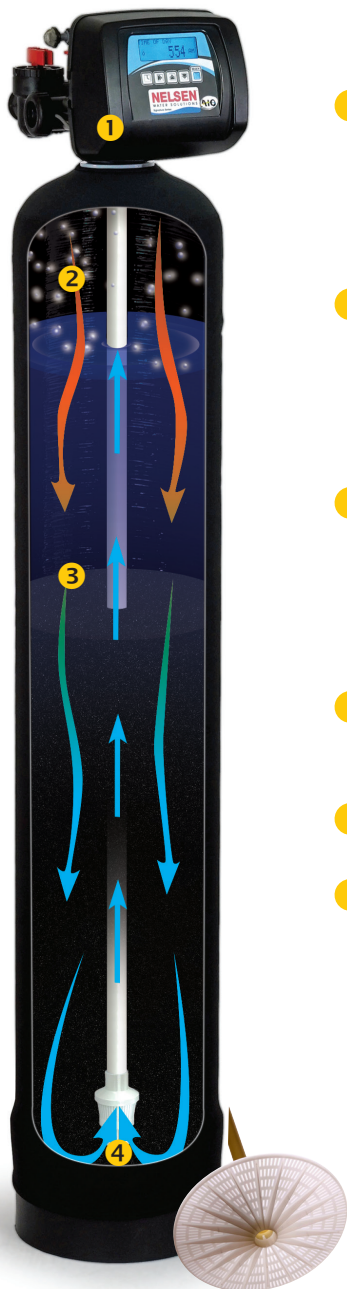


Nelsen Water Treatment Solutions AIO w/Control Flow Technology™

The Nelsen Water Treatment Solutions AIO w/Control Flow Technology system features the Nelsen proprietary air injection control valve with a patented process for a slow release of the air pocket and a delay of regeneration if water usage is detected.

The systems include NWTS Meter Control w/Control Flow Technology, bypass valve, Structural mineral tank and all necessary media and support bed for individual application.

Select Plumbing Connections Separately on Page 1-11



NWTS AIO™ SYSTEMS FOR IRON

AIO-CFM-NWTS-C10-FE	10" x 44" Iron System	\$1,217.00
AIO-CFM-NWTS-C10T-FE	10" x 54" Iron System	\$1,274.00
AIO-CFM-NWTS-C12-FE	12" x 52" Iron System	\$1,421.00
AIO-CFM-NWTS-C13-FE	13" x 54" Iron System	\$1,713.00
AIO-CFM-NWTS-C14-FE	14" x 65" Iron System	\$2,502.00

NWTS AIO™ SYSTEMS FOR SULFUR

AIO-CFM-NWTS-C10-S	10" x 44" Sulfur System	\$1,344.00
AIO-CFM-NWTS-C10T-S	10" x 54" Sulfur System	\$1,437.00
AIO-CFM-NWTS-C12-S	12" x 52" Sulfur System	\$1,645.00
AIO-CFM-NWTS-C13-S	13" x 54" Sulfur System	\$2,021.00
AIO-CFM-NWTS-C14-S	14" x 65" Sulfur System	\$2,853.00

NWTS AIO™ SYSTEMS w/KATALOX MEDIA

The Katalox systems include the Vortech™ mineral tank.

AIO-CFM-NWTS-C10T-KATALOX	10" x 54" System w/Katalox Media	\$1,436.00
AIO-CFM-NWTS-C12-KATALOX	12" x 52" System w/Katalox Media	\$1,705.00
AIO-CFM-NWTS-C13-KATALOX	13" x 54" System w/Katalox Media	\$1,955.00
AIO-CFM-NWTS-C14-KATALOX	14" x 65" System w/Katalox Media	\$2,693.00

NWTS TIME CLOCK CONTROL

A Time Clock Control Valve can be substituted for the Meter Control.

NWTSCF-10T-0.0	NWTS Time Clock Control Exchange	\$(36.00)
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VALVE OUTDOOR WEATHER COVER

CL-COVER-W-MID-PLATE	Mid-Plate White Weather Tight Valve Cover	\$21.00
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AIO Air Blocker

The Air Blocker traps water in its chamber to block the head of air from re-entering the control valve body. This helps reduce the iron oxidation that occurs in the control valve on AIO systems equipped with a NWTS AIO system. The Air Blocker will extend the valves service life and cleaning intervals over systems without an air blocker. It is designed with the twist lock feature that has an o-ring seal that will only work on Clack 1" control valves with 1.05" riser pilot.

AIO-AIR-BLOCKER-1050	AIO Air Blocker for Clack Controls, fits 1.05" Riser	\$25.00
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1 Professional Control Valve

- Patented technology provides a slow, quiet release to drain
- Control Valve delays the start of regeneration if water usage is detected
- Built in backup of settings during power outages
- Simple diagnostics and design provide for easy maintenance
- Easy to read back-lit display

2 Oxidation Air Pocket

- As water passes through the air pocket, iron, sulfur and manganese are oxidized. The media bed then removes the oxidized contaminants from the water, additionally, dissolved oxygen is added to the water

3 Exclusive Media Bed

- Custom blends of media for efficient reduction of iron, sulfur and manganese
- Custom blend of media used for support bed of filter media

4 Basket Style Distribution System

- Delivers evenly distributed and high quality flows
- Enpress® Vortech™ Plate tank style distribution system, provides increased backwash efficiency using less water and saving money, optional on Iron and Sulfur systems, standard on Katalox systems.



OZONE-NELSEN-KIT

1 Enhanced Oxidation Generator

- Mounts directly onto the control valve
- Uses the Ozotech Poseidon series corona discharge cell
- One year countdown meter alerts when the corona discharge cells needs cleaning
- Ozone disinfects the media bed as the system recharges the AIO air pocket

2 Professional Series AIO Control Valve

- Built in backup of settings during power outages
- Simple diagnostics and design provide for easy maintenance

3 Oxidation Air Pocket

- An Ozone air pocket is introduced into the top of the filter tank
- As water passes thru this pocket the iron and sulphur in the water are oxidized

4 Exclusive Media Bed

- High quality, chlorine resistant media bed, for years of continuous service
- Uniform bead size and distribution for optimum flow rates

5 Basket Style Distribution System

- Delivers evenly distributed and high quality flows

AIO3 OZONE GENERATOR	
Ozone Production Rate	220mg/liter
Current	1.2 Amps
Voltage	12VDC @ 600 Ma
Dimensions	7.5" L x 4-1/4" W x 2-3/8"D
Weight	1.3 lbs

AIO3 - Enhanced Oxidation Generator

Ozone is a triatomic oxygen (O3) which has high oxidation capabilities. It is produced from air and high voltage electricity, think lightning. Ozone is the most effective and rapidly acting primary disinfectant (media bed) available for drinking water treatment. Along with disinfection, the use of ozone for drinking water treatment has many other benefits such as improved taste and color removal, iron and manganese removal. Ozone's high oxidation potential gives it excellent germicidal properties. Ozone is 52% stronger than chlorine, and will oxidize much more rapidly without the use of harsh chemicals.

The Enhanced Oxidation Generator (EOG) from OZOTECH is easy to install and leverages the power of natural ozone technology to improve water quality without the use of chemicals. With minimal maintenance costs, the EOG helps to keep the NWTS Filter Control head clean, extending filter life saving you money. The EOG slides onto plastic clips that are designed for the control valve giving the system a professional look and installation. A removable front cover provides easy inside access to the system for yearly maintenance of the CD Cell. The Systems also features a countdown clock as a reminder for CD Cell cleaning with a reset button.

The EOG Unit is pre-wired and installed on AIO System, the compact EOG mounts directly onto the control valve. The system includes the patented stainless steel Ozotech CD cell and features an all-weather enclosure.

DO NOT install the EOG unit on any system using Birm® filter media. Ozone will strip the properties from the media rendering it useless.

AIO3 INSTALLED ON SYSTEMS

The EOG uses a single source 14VDC transformer to power the EOG and the control valve with an easy to install Interconnect Wire. The interconnect wire features a barrel style plug to insert into the Ozone unit and the same style fitting as the OEM power supply to plug directly into the control board of the valve. The AIO system is pre-programmed with the EOG installed and the system ready to install. (Media may need installed if shipped separately.)

NWTS AIO™ SYSTEMS w/KATALOX MEDIA & OZONE GENERATOR

Katalox Systems with the Ozone Generator pre-installed.

AIO-CFM-NWTS-OZ-C10T-KAT	10" x 54" System w/Katalox & Ozone Generator	\$2,793.00
AIO-CFM-NWTS-OZ-C12-KAT	12" x 52" System w/Katalox & Ozone Generator	\$2,385.00
AIO-CFM-NWTS-OZ-C13-KAT	13" x 54" System w/Katalox & Ozone Generator	\$2,630.00
AIO-CFM-NWTS-OZ-C14-KAT	14" x 65" System w/Katalox & Ozone Generator	\$3,363.00

AIO3 FIELD KITS

Use this kit to retrofit NWTS systems all ready in field service.

AIO3-OZONE-NELSEN-FIELD-KIT	Ozone Generator - Nelsen Single Plug - Dealer Install	\$650.00
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OZONE CD CELL CLEANING KIT

Nitric acid builds up in the CD Cell, Corona Discharge, over time and must be flushed from the cell. The Ozone Cleaning Kit makes annual maintenance of the CD Cell easy. Included in the kit is clear tubing, syringe and a can of Ozone safe compressed air.

OZONE-CLEANING KIT	Ozone CD Cell Cleaning Kit	\$73.00
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REPLACEMENT COMPONENTS

AIO3-NELSEN-TRANSFORMER	Ozone Generator Power Supply, 14VDC	\$58.00
AIO3-OZONE-PROGRAM GUIDE	Ozone Generator - Nelsen Single Plug Design	\$1.00
OZONE-CD CELL	Replacement CD Cell	\$218.00
OZONE-BARB CV	Ozone 3/16" X 3/16" Barb Check Valve	\$52.00
OZONE-BRINE CV	Ozone Brine Check Valve	\$12.00



OZONE-OZOTECH



OZONE-CLEANING KIT



AIO3-NELSEN-TRANSFORMER



OZONE-CD CELL



OZONE-BARB CV



OZONE-BRINE CV



ELIMINATE RUST STAINING, AS WELL AS SULPHUR “ROTTEN EGG” ODORS WITH THE NELSEN AIO™ AIR INJECTION OXIDIZING SYSTEMS.

Iron and Sulphur are two of the most common elements found in nature. While both are extremely important for every day life, both are a nuisance in water and can cost you money and frustration.

Iron staining is a common problem in homes today. It causes orange staining on fixtures, as well as dingy clothes and sometimes can have negative effects on both hair and skin. Sulfur is easily detected by the presence of a “rotten egg” odor, and is sometimes associated with yellow staining.

All of these problems can be eliminated with the Nelsen AIO™ Air Injection Oxidizing Filtration System.

Nelsen AIO®
AIR INJECTION OXIDIZING FILTER SYSTEM
FOR IRON AND SULPHUR REMOVAL





5600AIO SYSTEM



2510AIO SYSTEM

Nelsen AIO® Air Injection Oxidizing Filter Systems

The Nelsen AIO® Air Injection Oxidizing Filter System, as a single tank system, is an efficient and cost effective system for the removal of iron and sulphur. The Nelsen AIO maintains an “air pocket” in the top of the tank while the system is in service. As the water passes thru the air pocket, iron and sulphur are oxidized. Additionally, dissolved oxygen is added to the water. The Nelsen AIO filter media bed then removes the iron and sulphur from the water.

The Nelsen AIO can remove up to 8 ppm Hydrogen Sulfide and up to 7 ppm Iron. A daily backwash will remove accumulated iron and replenish the filter media bed. The regeneration process also adds a fresh air pocket to the system.

The Nelsen AIO system comes equipped with either a Fleck 2510SXT or 5600SXT air injection control head that automatically backwashes the system daily to clean the media and flush everything down the drain. The Nelsen AIO is able to put the whole oxidation process inside one tank, keeping maintenance costs and down time to a minimum.

The systems include 3/4" bypass valve, Structural mineral tank and all necessary media and support bed for individual application.

NELSEN 5600AIO SYSTEMS FOR IRON

AIO-5610-FE	10" x 44" Iron System	\$1,195.00
AIO-5610T-FE	10" x 54" Iron System	\$1,274.00
AIO-5612-FE	12" x 52" Iron System	\$1,469.00
AIO-5613-FE	13" x 54" Iron System	\$1,725.00

NELSEN 5600AIO SYSTEMS FOR SULFUR

AIO-5610-S	10" x 44" Sulfur System	\$1,344.00
AIO-5610T-S	10" x 54" Sulfur System	\$1,437.00
AIO-5612-S	12" x 52" Sulfur System	\$1,699.00
AIO-5613-S	13" x 54" Sulfur System	\$2,088.00

NELSEN 2510AIO SYSTEMS FOR IRON

AIO-10-FE	10" x 44" Iron System	\$1,467.00
AIO-10T-FE	10" x 54" Iron System	\$1,525.00
AIO-12-FE	12" x 52" Iron System	\$1,705.00
AIO-13-FE	13" x 54" Iron System	\$2,011.00

NELSEN 2510AIO SYSTEMS FOR SULFUR

AIO-10-S	10" x 54" Sulfur System	\$1,595.00
AIO-10T-S	10" x 54" Sulfur System	\$1,688.00
AIO-12-S	12" x 52" Sulfur System	\$1,932.00
AIO-13-S	13" x 54" Sulfur System	\$2,324.00

NELSEN 2510AIO SYSTEMS w/KATALOX MEDIA

AIO-10T-KATALOX	10" x 54" System w/Katalox Media	\$1,680.00
AIO-12-KATALOX	12" x 52" System w/Katalox Media	\$1,963.00
AIO-13-KATALOX	13" x 54" System w/Katalox Media	\$2,222.00

GENERAL SPECIFICATIONS FOR NELSEN AIO™ SYSTEMS

Model Type	Mineral Tank Size	Service Flow - Max.	Backwash Minimum	Ferrous Iron - ppm	Sulfur ppm	pH Minimum
IRON						
5600/2510	10" x 44"	7.0	5.0	7	4	6.8
5600T/2510T	10" x 54"	8.0	5.0	7	4	6.8
5600/2510	12" x 52"	11.5	7.0	7	4	6.8
5600/2510	13" x 54"	13.0	7.0	7	4	6.8
SULFUR						
5610/2510	10" x 54"	8.0	5.0	2	8	6.8
5610T/2510T	10" x 54"	8.0	5.0	2	8	6.8
5612	12" x 52"	11.5	7.0	7	4	6.8
5613	13" x 54"	13.0	7.0	7	4	6.8
2512	12" x 52"	11.5	7.0	2	8	6.8
2513	13" x 54"	13.0	7.0	2	8	6.8
KATALOX						
2510T	10" x 54"	8.0	5.0	2	8	6.8
2512	12" x 52"	11.5	7.0	2	8	6.8
2513	13" x 54"	13.0	7.0	2	8	6.8





by NELSEN CORPORATION



Bluetooth Enabled Controls Setup, Program & Monitor with Ease



CONNECTED SERIES SYSTEM SPECIFICATIONS

Filter Media Capacity (cu ft)	1.5	2.0	2.5
Mineral Tank Size	10" x 54"	12" x 48"	13" x 54"
Service Flow Rate - Peak	8 gpm	11.5 gpm	13 gpm
Service Flow Rate - Continuous	5.4 gpm	7.8 gpm	9.2 gpm
Backwash Flow Rate (gpm)	5.0 gpm	7.0 gpm	10 gpm
Approximate Dimensions	11" x 17" x 62"	13" x 17" x 57"	14" x 17" x 62"
Approximate Weight	120#	137#	195#

Connected Series Control Valve
Shown Without Cover

Connected Series AIO Plus Systems

The Nelsen Connected Series AIO™ Plus system features Bluetooth connectivity to program and view system settings all in the palm of your hand. The AIO Plus control valve features independently programmable air draw & backwash cycles, meaning an additional Air Pocket can be added to the system each day without having to backwash saving thousands of gallons of water each year. The control valve also features a slow release of the compressed air charge prior to backwash cycle eliminating the explosive blast that can dislodge the drain line as on other systems.

The Legacy View App makes setting up and monitoring your Nelsen Connected Series system easier than ever. A free download of the phone app is available for your iPhone or Android™ device!

With Legacy View as part of the Control Valve, the user can perform the following functions:

- Conveniently view all valve settings and status
- Easily change valve settings
- View current water usage information
- Graphically view water usage history
- Start a regeneration or backwash cycle from a phone or tablet
- Set/view the servicing water treatment dealer information
- Better understand how the system is working and understand what settings are for
- Connect to all of the valves in the system (if they are all Legacy View Valves)

The systems include Connected Series Air Draw Meter Control Valve, bypass valve, black polyglass mineral tank and all necessary media and support bed for individual application.

Select Plumbing Connections Separately on Page 3-15

Connected Series AIO Plus SYSTEMS FOR Iron

AIO-CS-10-FE	10" x 44" Iron System	\$1,157.00
AIO-CS-10T-FE	10" x 54" Iron System	\$1,215.00
AIO-CS-12-FE	12" x 52" Iron System	\$1,360.00
AIO-CS-13-FE	13" x 54" Iron System	\$1,649.00

Connected Series AIO Plus SYSTEMS FOR SULFUR

AIO-CS-10-S	10" x 44" Sulfur System	\$1,285.00
AIO-CS-10T-S	10" x 54" Sulfur System	\$1,378.00
AIO-CS-12-S	12" x 52" Sulfur System	\$1,584.00
AIO-CS-13-S	13" x 54" Sulfur System	\$1,957.00

Connected Series AIO Plus Systems w/Katalox Media

The Connected Series AIO Plus systems include Katalox Light and the Vortech™ mineral tank.

AIO-CS-10T-KATALOX	10" x 54" System w/Katalox Media	\$1,376.00
AIO-CS-12-KATALOX	12" x 52" System w/Katalox Media	\$1,643.00

1 Professional Series Control Valve

- Water use is monitored for peak efficiency
- Built in backup of settings during power outages
- Allows for additional air pockets between regenerations saving water
- Simple diagnostics and design provide for easy maintenance
- The control valve slowly releases compressed air charge prior to backwash cycle eliminating the explosive blast that can dislodge the drain line as on other systems
- Precise external air injection directly into the top of media tank to help reduce control valve fouling & for ease of service

3 Exclusive Media Bed

- Custom blends of media for efficient reduction of iron, manganese, & sulfur
- The media bed then removes the oxidized contaminants from the water

4 Distribution System

- Basket style distributor delivers evenly distributed and high quality flows
- Optional Enpress® Vortech™ Plate Tank style distribution system, providing increased backwash efficiency using less water and saving money

2 Air Pocket

- As water passes through the air pocket, iron, sulfur and manganese are oxidized. Additionally, dissolved oxygen is added to the water.





Nelsen Signature Series 1" Backwash Only Filters (Less Media)

Features include Nelsen Water Treatment Solutions 1" 3-cycle backwash filter valve, bypass valve, black polyglass mineral tanks, basket distributors (stack distributors or hub and laterals on larger tanks) and gravel bed. External flow control included on 12-inch units and larger.

Select Plumbing Connections Separately on Page 1-11

NWTS-AFB-10	10" x 44"	\$718.00
NWTS-AFB-10T	10" x 54"	\$731.00
NWTS-AFB-12	12" x 48"	\$815.00
NWTS-AFB-13	13" x 54"	\$958.00
NWTS-AFB-14	14" x 65"	\$1,197.00
NWTS-AFB-16	16" x 65"	\$1,332.00
NWTS-AFB-18	18" x 65"	\$1,605.00
NWTS-AFB-21	21" x 62"	\$1,754.00

Signature Series Product Features

- Solid state microprocessor with easy access front panel settings
- Two Relays to control additional equipment
- Control Valve delays the start of regeneration if water usage is detected (metered valve only)
- Easy to read back-lit display
- Service flow rate of 27 gpm, backwash 27 gpm
- Front panel display for time of day, days until next regeneration, volume remaining, current flow rate and total volume used (Totalizer)
- Four methods to initiate regeneration; meter immediate, meter delayed, time clock delayed or pressure differential
- Optional double backwash feature offers optimum regeneration, cleaning ability and efficiency
- Fully adjustable cycle times
- Coin Cell Lithium battery back-up with a 8 hour carry over
- Backwash ability to 21" diameter tanks
- Level VI 15-volt output DC power supply provides safe and easy installation
- Control valve design provides optimum service and backwash rates
- Post treated water regenerant refill
- Patented one piece expanding seal spacer stack assembly U.S. Patent 6,402,944
- Patented linearly reciprocating piston operation U.S. Patent 6,444,127
- Reliable and proven DC drive



Signature Series

NWTS 1" CONTROL																											
Mineral Tank Size	10 x 44			10 x 54			12 x 48			13 x 54			14 x 65			16 x 65			18 x 65			21 x 62					
Maximum Flow Rate, System - 27 GPM												Maximum Backwash Rate - 27 GPM															
FLOW RATES - Gallons Per Minute																											
	Min	Max	BKW	Min	Max	BKW	Min	Max	BKW	Min	Max	BKW	Min	Max	BKW	Min	Max	BKW	Min	Max	BKW	Min	Max	BKW	Min	Max	BKW
Greensand Plus	2.5	5.0	5.0	2.5	5.0	5.0	4.0	7.0	7.0	4.5	8.0	10.0	5.0	9.5	12.0	7.0	12.5	15.0	8.5	15.5	20.0	12.0	21.0	25.0			
Birm	2.5	5.0	5.0	2.5	5.0	5.0	4.0	7.0	7.0	4.5	8.0	10.0	5.0	9.5	12.0	7.0	12.5	15.0	8.5	15.5	20.0	12.0	21.0	25.0			
Activated Carbon	2.5	5.0	5.0	2.5	5.0	5.0	4.0	7.0	7.0	4.5	8.0	8.0	5.0	9.5	10.0	7.0	12.5	12.0	8.5	15.5	15.0	11.5	21.0	20.0			
Calcite/Corosex	3.0	5.5	5.0	3.0	5.5	5.0	4.5	7.5	7.0	5.5	9.0	10.0	6.0	10.5	12.0	8.0	14.0	15.0	10.5	17.5	20.0	14.0	24.0	25.0			
Multi-Media Depth	5.5	10.0	5.0	5.5	10.0	5.0	7.5	14.5	7.0	10.0	18.0	10.0	11.0	21.0	12.0	14.5	27.0	15.0	18.5	27.0	20.0	25.0	27.0	25.0			
Filter-Ag	2.5	5.0	5.0	2.5	5.0	5.0	4.0	7.0	7.0	4.5	8.0	10.0	5.0	9.5	12.0	7.0	12.5	15.0	8.5	15.5	20.0	11.5	21.0	20.0			
Filter Sand	4.0	6.5	5.0	2.5	5.0	5.0	6.0	9.0	7.0	7.0	11.0	10.0	8.5	12.5	12.0	11.0	16.5	15.0	14.0	21.0	20.0	19.2	27.0	25.0			
ChemSorb	5.5	10.0	7.0	5.5	10.0	7.0	7.5	14.5	10.0	10.0	18.0	12.0	11.0	21.0	15.0	14.5	27.0	20.0	18.5	27.0	25.0	X	X	X			
MTM	2.5	5.0	5.0	2.5	5.0	5.0	4.0	7.0	7.0	4.5	8.0	10.0	5.0	9.5	12.0	7.0	12.5	15.0	8.5	15.5	20.0	11.5	21.0	25.0			
Pyrolox	2.5	5.0	15.0	2.5	5.0	15.0	4.0	7.0	20.0	4.5	8.0	25.0	5.0	9.5	30.0	7.0	12.5	X	X	X	X	X	X	X			
KDF	5.5	10.0	15.0	5.5	10.0	15.0	7.5	14.5	20.0	10.0	18.0	25.0	11.0	21.0	30.0	14.5	27.0	X	X	X	X	X	X	X			
VALVE SPECIFICATIONS																											
Mineral Tank Size	10 x 44			10 x 54			12 x 48			13 x 54			14 x 65			16 x 65			18 x 65			21 x 62					
Pipe Size	3/4" and 1"			3/4" and 1"			3/4" and 1"			3/4" and 1"			3/4" and 1"			3/4" and 1"			3/4" and 1"			3/4" and 1"					
Drain Pipe Size	3/4" and 1"			3/4" and 1"			3/4" and 1"			3/4" and 1"			3/4" and 1"			3/4" and 1"			3/4" and 1"			3/4" and 1"					
Distributor Pilot 1"	1.05"			1.05"			1.05"			1.05"			1.05"			1.05"			1.05"			1.05"					
Tank Thread	2.5" - 8			2.5" - 8			2.5" - 8			2.5" - 8			4" - 8			4" - 8			4" - 8			4" - 8					
Overall Height, Inches	50.5			61			54.7			60.8			73			74			74			74					



Nelsen C-Series Automatic Iron Filters w/Media

Features include C-Series electronic time clock valve, bypass valve, black polyglass mineral tanks, basket distributors (stack distributors or hub and laterals on larger tanks) Manganese GreensandPlus, gravel bed and potassium tank. External flow control included on 12-inch units and larger.

Choose plumbing connections separately on Page 1-11.

CAIFB-10-MG	10" x 44"	\$1,074.00
CAIFB-10T-MG	10" x 54"	\$1,169.00
CAIFB-12-MG	12" x 48"	\$1,354.00
CAIFB-13-MG	13" x 54" (w/Comm. Pot Tank)	\$1,851.00
CAIFB-14-MG	14" x 65" (w/Comm. Pot Tank)	\$2,354.00
CAIFB-16-MG	16" x 65" (w/Comm. Pot Tank)	\$2,575.00
CAIFB-18-MG	18" x 65" (w/Comm. Pot Tank)	\$3,171.00

Nelsen C-Series 1" Backwash Only Filters (Less Filter Media)

Features include C-Series 1" 3-cycle backwash filter valve, bypass valve, black or natural polyglass mineral tanks, basket distributors (stack distributors or hub and laterals on larger tanks) and gravel bed. External flow control included on 12-inch units and larger.

Choose plumbing connections separately on Page 1-11.

CAFB-10	10" x 44"	\$715.00
CAFB-10T	10" x 54"	\$729.00
CAFB-12	12" x 48"	\$812.00
CAFB-13	13" x 54"	\$955.00
CAFB-14	14" x 65"	\$1,194.00
CAFB-16	16" x 65"	\$1,329.00
CAFB-18	18" x 65"	\$1,602.00
CAFB-21	21" x 62"	\$1,751.00



CAIF IRON FILTER

Product Features

- Backwash ability to 22" diameter tanks
- Solid state microprocessor with easy access front panel settings
- Double backwash feature offers efficiency and optimum regeneration and cleaning ability
- Days between regeneration feature: 1–99 days standard; 7-day optional
- Up-flow/Down-flow regeneration
- 10 selectable pre-programmed regeneration cycles
- Stores system configuration and operation data in nonvolatile memory



Control Valve Certified to NSF/ANSI 61 and 372.

C-SERIES 1" CONTROL

Mineral Tank Size	10 x 44			10 x 54			12 x 48			13 x 54			14 x 65			16 x 65			18 x 65			21 x 62		
	Maximum Flow Rate, System - 27 GPM									Maximum Backwash Rate - 27 GPM														
	FLOW RATES - Gallons Per Minute																							
	Min	Max	BKW	Min	Max	BKW	Min	Max	BKW	Min	Max	BKW	Min	Max	BKW	Min	Max	BKW	Min	Max	BKW	Min	Max	BKW
Greensand Plus	2.5	5.0	5.0	2.5	5.0	5.0	4.0	7.0	7.0	4.5	8.0	10.0	5.0	9.5	12.0	7.0	12.5	15.0	8.5	15.5	20.0	12.0	21.0	25.0
Birm	2.5	5.0	5.0	2.5	5.0	5.0	4.0	7.0	7.0	4.5	8.0	10.0	5.0	9.5	12.0	7.0	12.5	15.0	8.5	15.5	20.0	12.0	21.0	25.0
Activated Carbon	2.5	5.0	5.0	2.5	5.0	5.0	4.0	7.0	7.0	4.5	8.0	8.0	5.0	9.5	10.0	7.0	12.5	12.0	8.5	15.5	15.0	11.5	21.0	20.0
Calcite/Corosex	3.0	5.5	5.0	3.0	5.5	5.0	4.5	7.5	7.0	5.5	9.0	10.0	6.0	10.5	12.0	8.0	14.0	15.0	10.5	17.5	20.0	14.0	24.0	25.0
Multi-Media Depth	5.5	10.0	5.0	5.5	10.0	5.0	7.5	14.5	7.0	10.0	18.0	10.0	11.0	21.0	12.0	14.5	27.0	15.0	18.5	27.0	20.0	25.0	27.0	25.0
Filter-Ag	2.5	5.0	5.0	2.5	5.0	5.0	4.0	7.0	7.0	4.5	8.0	10.0	5.0	9.5	12.0	7.0	12.5	15.0	8.5	15.5	20.0	11.5	21.0	20.0
Filter Sand	4.0	6.5	5.0	2.5	5.0	5.0	6.0	9.0	7.0	7.0	11.0	10.0	8.5	12.5	12.0	11.0	16.5	15.0	14.0	21.0	20.0	19.2	27.0	25.0
ChemSorb	5.5	10.0	7.0	5.5	10.0	7.0	7.5	14.5	10.0	10.0	18.0	12.0	11.0	21.0	15.0	14.5	27.0	20.0	18.5	27.0	25.0	X	X	X
MTM	2.5	5.0	5.0	2.5	5.0	5.0	4.0	7.0	7.0	4.5	8.0	10.0	5.0	9.5	12.0	7.0	12.5	15.0	8.5	15.5	20.0	11.5	21.0	25.0
Pyrolox	2.5	5.0	15.0	2.5	5.0	15.0	4.0	7.0	20.0	4.5	8.0	25.0	5.0	9.5	30.0	7.0	12.5	X	X	X	X	X	X	X
KDF	5.5	10.0	15.0	5.5	10.0	15.0	7.5	14.5	20.0	10.0	18.0	25.0	11.0	21.0	30.0	14.5	27.0	X	X	X	X	X	X	X
	VALVE SPECIFICATIONS																							
Mineral Tank Size	10 x 44			10 x 54			12 x 48			13 x 54			14 x 65			16 x 65			18 x 65			21 x 62		
Pipe Size	3/4" and 1"			3/4" and 1"			3/4" and 1"			3/4" and 1"			3/4" and 1"			3/4" and 1"			3/4" and 1"			3/4" and 1"		
Drain Pipe Size	3/4" and 1"			3/4" and 1"			3/4" and 1"			3/4" and 1"			3/4" and 1"			3/4" and 1"			3/4" and 1"			3/4" and 1"		
Distributor Pilot 1"	1.05"			1.05"			1.05"			1.05"			1.05"			1.05"			1.05"			1.05"		
Tank Thread	2.5" - 8			2.5" - 8			2.5" - 8			2.5" - 8			4" - 8			4" - 8			4" - 8			4" - 8		
Overall Height, Inches	50.5			61			54.7			60.8			73			74			74			74		



Control Valve Certified to NSF/ANSI 61 and 372.

Nelsen C-Series 1-1/4" Backwash Only Filters (Less Filter Media)

Features include C-Series 1-1/4" 3-cycle backwash filter valve, bypass valve, black polyglass mineral tanks, basket distributors (stack distributors or hub and laterals on larger tanks) and gravel bed. External flow control included on 12-inch units and larger.

CAFB12-10	10" x 44"	\$808.00
CAFB12-10T	10" x 54"	\$821.00
CAFB12-12	12" x 48"	\$900.00
CAFB12-13	13" x 54"	\$1,052.00
CAFB12-14	14" x 65"	\$1,292.00
CAFB12-16	16" x 65"	\$1,426.00
CAFB12-18	18" x 65"	\$1,699.00
CAFB12-21	21" x 62"	\$1,848.00

Product Features

- Solid state microprocessor with easy access front panel settings
- Three modes of operation; meter immediate, meter delayed, or time clock delayed
- Double backwash feature offers optimum regeneration, cleaning ability and efficiency
- 73 selectable pre-programmed regeneration cycles
- Days override feature; 1 – 28 days available
- Backwash and brining ability to 21" diameter tanks
- Down-flow regeneration
- Stores system configuration and operation data in nonvolatile memory
- Coin Cell Lithium battery back-up with an 8 hour carry over
- Level VI 15-volt output DC power supply provides safe and easy installation
- Patented one piece expanding seal spacer stack assembly U.S. Patent 6,402,944
- Patented linearly reciprocating piston operation U.S. Patent 6,444,127
- Control valve design provides optimum service and backwash rates



C-SERIES 1.25" CONTROL

Mineral Tank Size	10 x 44	10 x 54	12 x 48	13 x 54	14 x 65	16 x 65	18 x 65	21 x 62
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Maximum Flow Rate, System - 34 GPM

Maximum Backwash Rate - 32 GPM

FLOW RATES - Gallons Per Minute

	10 x 44			10 x 54			12 x 48			13 x 54			14 x 65			16 x 65			18 x 65			21 x 62		
	Min	Max	BKW	Min	Max	BKW	Min	Max	BKW	Min	Max	BKW	Min	Max	BKW	Min	Max	BKW	Min	Max	BKW	Min	Max	BKW
Greensand Plus	2.5	5.0	5.0	2.5	5.0	5.0	4.0	7.0	7.0	4.5	8.0	10.0	5.0	9.5	12.0	7.0	12.5	15.0	8.5	15.5	20.0	12.0	21.0	25.0
Birm	2.5	5.0	5.0	2.5	5.0	5.0	4.0	7.0	7.0	4.5	8.0	10.0	5.0	9.5	12.0	7.0	12.5	15.0	8.5	15.5	20.0	12.0	21.0	25.0
Activated Carbon	2.5	5.0	5.0	2.5	5.0	5.0	4.0	7.0	7.0	4.5	8.0	8.0	5.0	9.5	10.0	7.0	12.5	12.0	8.5	15.5	15.0	11.5	21.0	20.0
Calcite/Corosex	3.0	5.5	5.0	3.0	5.5	5.0	4.5	7.5	7.0	5.5	9.0	10.0	6.0	10.5	12.0	8.0	14.0	15.0	10.5	17.5	20.0	14.0	24.0	25.0
Multi-Media Depth	5.5	10.0	5.0	5.5	10.0	5.0	7.5	14.5	7.0	10.0	18.0	10.0	11.0	21.0	12.0	14.5	27.0	15.0	18.5	27.0	20.0	25.0	27.0	25.0
Filter-Ag	2.5	5.0	5.0	2.5	5.0	5.0	4.0	7.0	7.0	4.5	8.0	10.0	5.0	9.5	12.0	7.0	12.5	15.0	8.5	15.5	20.0	11.5	21.0	20.0
Filter Sand	4.0	6.5	5.0	2.5	5.0	5.0	6.0	9.0	7.0	7.0	11.0	10.0	8.5	12.5	12.0	11.0	16.5	15.0	14.0	21.0	20.0	19.2	27.0	25.0
ChemSorb	5.5	10.0	7.0	5.5	10.0	7.0	7.5	14.5	10.0	10.0	18.0	12.0	11.0	21.0	15.0	14.5	27.0	20.0	18.5	27.0	25.0	X	X	X
MTM	2.5	5.0	5.0	2.5	5.0	5.0	4.0	7.0	7.0	4.5	8.0	10.0	5.0	9.5	12.0	7.0	12.5	15.0	8.5	15.5	20.0	11.5	21.0	25.0
Pyrolox	2.5	5.0	15.0	2.5	5.0	15.0	4.0	7.0	20.0	4.5	8.0	25.0	5.0	9.5	30.0	7.0	12.5	X	X	X	X	X	X	X
KDF	5.5	10.0	15.0	5.5	10.0	15.0	7.5	14.5	20.0	10.0	18.0	25.0	11.0	21.0	30.0	14.5	27.0	X	X	X	X	X	X	X

VALVE SPECIFICATIONS

Mineral Tank Size	10 x 44	10 x 54	12 x 48	13 x 54	14 x 65	16 x 65	18 x 65	21 x 62
Pipe Size	3/4" and 1"	3/4" and 1"	3/4" and 1"	3/4" and 1"	3/4" and 1"	3/4" and 1"	3/4" and 1"	3/4" and 1"
Drain Pipe Size	3/4" and 1"	3/4" and 1"	3/4" and 1"	3/4" and 1"	3/4" and 1"	3/4" and 1"	3/4" and 1"	3/4" and 1"
Distributor Pilot 1/4"	1.32" or 32mm	1.32" or 32mm	1.32" or 32mm	1.32" or 32mm	1.32" or 32mm	1.32" or 32mm	1.32" or 32mm	1.32" or 32mm
Tank Thread	2.5" - 8	2.5" - 8	2.5" - 8	2.5" - 8	4" - 8	4" - 8	4" - 8	4" - 8
Overall Height, Inches	50.5	61	54.7	60.8	73	74	74	74





FLECK
Pentair Water

Fleck 2510/16AIF Automatic Iron Filters w/Media

Features include Fleck 2510/1600 timer valves with PVC-injectors, environmental backplates and covers, 3/4" stainless steel bypass, black polyglass tanks, basket distributors, Manganese GreensandPlus, gravel bed and potassium solution tank.

2510/16AIFB-10-MG	10" x 44"	\$781.00
2510/16AIFB-10T-MG	10" x 54"	\$901.00
2510/16AIFB-12-MG	12" x 48"	\$983.00
2510/16AIFB-13-MG	13" x 54"	\$1,188.00

Fleck 2510AF Auto. Backwash Only Filters (less/Media)

Features include Fleck 2510 timer valves without injectors, environmental backplates and covers, 3/4" stainless steel bypass, black polyglass tanks, basket distributors and gravel bed.

2510AFB-10	10" x 44"	\$893.00
2510AFB-10T	10" x 54"	\$907.00
2510AFB-12	12" x 48"	\$975.00
2510AFB-13	13" x 54"	\$1,093.00



2510/16AIF SYSTEM

Product Features

- Fiber-reinforced polymer valve body for superior strength and durability, non-corrosive, and UV-resistant
- Continuous service flow rate of 19 GPM with a backwash of 17 GPM
- Backwash capability accommodates softener tanks up to 16" and filters up to 16" in diameter
- Fully adjustable 3- or 5-cycle control for efficient and reliable water treatment system
- Time-tested, hydraulically-balanced piston for service and regeneration
- Rugged-built electromechanical timer designed with heavy duty 3/8" wide plastic gears



FLECK 2510 CONTROL VALVE WITH ENVIRONMENTAL COVER

Control Valve



TESTED and CERTIFIED by the WQA to NSF/ANSI Standard 372 for Lead Free Compliance.



TESTED and CERTIFIED by the WQA to NSF/ANSI Standard 44 for Water Softener Performance.

FLECK 2510 CONTROL

Tank Size	10 x 44			10 x 54			12 x 48			13 x 54		
	Maximum Flow Rate, System - 19 GPM						Maximum Backwash Rate - 17 GPM					
	FLOW RATES - Gallons Per Minute											
	Min.	Max.	BKW	Min.	Max.	BKW	Min.	Max.	BKW	Min.	Max.	BKW
Greensand Plus	1.1	6.5	7.0	1.1	6.5	7.0	1.6	9.4	10.0	1.9	11.0	10.0
Birm	1.8	2.7	5.0	1.8	2.7	5.0	2.7	3.9	7.0	3.2	4.6	10.0
Carbon	2.7	5.4	5.0	2.7	5.4	5.0	3.9	7.8	8.0	4.6	9.2	10.0
Calcite/Corosex	1.6	3.2	5.0	1.6	3.2	5.0	2.3	4.7	7.0	2.8	5.5	10.0
Multi-Media	5.0	10.0	5.0	5.0	10.0	5.0	6.0	14.0	10.0	8.0	16.0	10.0
Filter Ag	2.7	5.4	5.0	2.7	5.4	5.0	3.9	7.8	8.0	4.6	9.2	10.0
Filter Sand	5.0	10.0	5.0	5.0	10.0	5.0	6.0	14.0	10.0	8.0	16.0	10.0
Chemsorb	7.0	9.7	7.0	7.0	9.7	7.0	10.0	14.0	10.0	12.0	17.0	12.0
MTM	2.7	5.4	5.0	2.7	5.4	5.0	3.9	7.8	8.0	4.6	9.2	10.0
Pyrolox	2.5	5.0	15.0	2.5	5.0	15.0	4.0	7.0	X	4.5	8.0	X
KDF	5.5	10.0	15.0	5.5	10.0	15.0	7.5	14.5	X	10.0	18.0	X
	VALVE SPECIFICATIONS											
Mineral Tank Size	10 x 44			10 x 54			12 x 48			13 x 54		
Pipe Size	3/4" and 1"			3/4" and 1"			3/4" and 1"			3/4" and 1"		
Drain Pipe Size	1/2"			1/2"			1/2"			1/2"		
Distributor Pilot	1.05			1.05			1.05			1.05		
Tank Thread	2.5"- 8			2.5"- 8			2.5"- 8			2.5"- 8		
Overall Height, Inches	50.5			61			54.7			60.8		

Filtration Equipment



Call Nelsen — OH - 800.362.9686, AZ - 866.445.4299, TX - 855.674.0357, FL-TAMPA - 866.712.6796 or FL-FT.MYERS - 813.712.2272

All prices and products subject to change without notice. ©Nelsen Corporation



FLECK
Pentair Water

Fleck 56/16AIF Automatic Iron Filters w/Media

Features include Fleck 5600/1600 filter valves with PVC injectors and special feeder pistons, 3/4" stainless steel bypass, black polyglass tanks, basket distributors, Manganese GreensandPlus, gravel beds and potassium solution tanks.

56/16AIFB-10-MG	10" x 44"	\$1,084.00
56/16AIFB-10T-MG	10" x 54"	\$1,179.00

Fleck 56/16AF Automatic Filters

Features include Fleck 5600/1600 filter valves with PVC injectors and special filter piston, 3/4" stainless steel bypass, black polyglass tank, basket distributor, and gravel bed.

56/16AFB-10	10" x 44"	\$729.00
56/16AFB-10T	10" x 54"	\$742.00

Fleck 56AF Auto Backwash Only Filters (less/Media)

Features include Fleck 5600 filter valves without injectors, 3/4" stainless steel bypass, black polyglass tanks, basket distributor and gravel beds.

56AFB-10	10" x 44"	\$668.00
56AFB-10T	10" x 54"	\$681.00

Product Features

- Simple mechanical design is easy to understand
- Two valve body designs: one for down-flow regeneration and one for Up-flow (covers every valve in the 5600 family - quick access to all internal components)
- Injector/drain modules containing the brine valve, flow controls and injector are removable from the valve's exterior
- Ruggedly built timer is designed with heavy-duty 3/8" wide plastic gears
- 5600 controls are user friendly and easy to program
- Non-corrosive, UV-resistant Noryl® valve body
- Choice of 7 or 12 day clock or demand regeneration with either mechanical or electronic meter
- Economical – small annual power consumption; keeps the time and activates the piston/valve mechanics with a single motor



OPTIONAL 5600
"L" BACK CONTROL



56/16AIF SYSTEM

FLECK 5600 CONTROL

Tank Size	10 x 44			10 x 54		
	Maximum Flow Rate, System - 20 GPM			Maximum Backwash Rate - 7 GPM		
FLOW RATES - Gallons Per Minute						
	Min.	Max.	BKW	Min.	Max.	BKW
Greensand Plus	1.1	6.5	7.0	1.1	6.5	7.0
Birm	1.8	2.7	5.0	1.8	2.7	5.0
Carbon	2.7	5.4	5.0	2.7	5.4	5.0
Calcite/Corosex	1.6	3.2	5.0	1.6	3.2	5.0
Multi-Media	5.0	10.0	5.0	5.0	10.0	5.0
Filter Ag	2.7	5.4	5.0	2.7	5.4	5.0
Filter Sand	5.0	10.0	5.0	5.0	10.0	5.0
Chemsorb	7.0	9.7	7.0	7.0	9.7	7.0
MTM	2.7	5.4	5.0	2.7	5.4	5.0
Pyrolox	2.5	3.5	15.0	2.5	3.5	15.0
KDF	5.5	8.0	15.0	5.5	8.0	15.0
VALVE SPECIFICATIONS						
Mineral Tank Size	10 x 44			10 x 54		
Pipe Size	3/4" and 1"			3/4" and 1"		
Drain Pipe Size	1/2"			1/2"		
Distributor Pilot	1.05"			1.05"		
Tank Thread	2.5"- 8			2.5"- 8		
Overall Height, Inches	51			61		



5810AFB-12 FILTER

Fleck 5810AF Automatic Filters less/Media

Features include Fleck 5810 SXT filter valve, 1" PVC NPT connections, polyglass tanks, basket distributor, bypass valve and gravel beds.

5810AFB-10	10" x 44"	\$823.00
5810AFB-10T	10" x 54"	\$837.00
5810AFB-12	12" x 48"	\$897.00
5810AFB-13	13" x 54"	\$1,038.00
5810AFB-14	14" x 65"	\$1,251.00
5810AFB-16	16" x 65"	\$1,375.00
5810AFB-18	18" x 65"	\$1,615.00

Add-On for 5810 Filter Systems

5810 XTR2 Filter Valve w/Touchscreen - Add	\$248.00
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Product Features

- Fiber-reinforced polymer valve body for superior strength and durability, non-corrosive, and UV-resistant
- Continuous service flow rate of 36 GPM with a backwash of 28 GPM
- Backwash capability accommodates softener tanks up to 21" and filters up to 21" in diameter
- Fully adjustable 3- or 5-cycle control for efficient and reliable water treatment system
- Time-tested, hydraulically-balanced piston for service and regeneration
- Optical sensor for precision cycle positioning
- Diagnostics for historical valve performance
- Programming stored in memory and will not be lost due to power outages

XTR2 - Premium touch screen LCD display with two programmable relay outputs for both normally opened and normally closed contacts

SXT - Large LCD display with one programmable relay output for both normally open and normally closed contacts



5810 XTR2 FILTER VALVE UPGRADE

Control Valve



TESTED and CERTIFIED by the WQA to NSF/ANSI Standard 44 for Water Softener Performance.



TESTED and CERTIFIED by the WQA to NSF/ANSI Standard 372 for Lead Free Compliance.

Fleck 5810 Control

Tank Size	10 x 44			10 x 54			12 x 48			13 x 54			14 x 65			16 x 65			18 x 65		
	Maximum Flow Rate, System - 27 GPM									Maximum Backwash Rate - 27 GPM											
FLOW RATES - Gallons Per Minute																					
	Min	Max	BKW	Min	Max	BKW	Min	Max	BKW	Min	Max	BKW	Min	Max	BKW	Min	Max	BKW	Min	Max	BKW
Manganese Greensand	2.5	5.0	5.0	2.5	5.0	5.0	4.0	7.0	7.0	4.5	8.0	10.0	5.0	9.5	12.0	7.0	12.5	15.0	8.5	15.5	20.0
Birm	2.5	5.0	5.0	2.5	5.0	5.0	4.0	7.0	7.0	4.5	8.0	10.0	5.0	9.5	12.0	7.0	12.5	15.0	8.5	15.5	20.0
Activated Carbon	2.5	5.0	5.0	2.5	5.0	5.0	4.0	7.0	7.0	4.5	8.0	8.0	5.0	9.5	10.0	7.0	12.5	12.0	8.5	15.5	15.0
Calcite/Corosex	3.0	5.5	5.0	3.0	5.5	5.0	4.5	7.5	7.0	5.5	9.0	10.0	6.0	10.5	12.0	8.0	14.0	15.0	10.5	17.5	20.0
Multi-Media Depth	5.5	10.0	5.0	5.5	10.0	5.0	7.5	14.5	7.0	10.0	18.0	10.0	11.0	21.0	12.0	14.5	27.0	15.0	18.5	27.0	20.0
Filter-Ag	2.5	5.0	5.0	2.5	5.0	5.0	4.0	7.0	7.0	4.5	8.0	10.0	5.0	9.5	12.0	7.0	12.5	15.0	8.5	15.5	20.0
Filter Sand	4.0	6.5	5.0	2.5	5.0	5.0	6.0	9.0	7.0	7.0	11.0	10.0	8.5	12.5	12.0	11.0	16.5	15.0	14.0	21.0	20.0
ChemSorb	5.5	10.0	7.0	5.5	10.0	7.0	7.5	14.5	10.0	10.0	18.0	12.0	11.0	21.0	15.0	14.5	27.0	20.0	18.5	27.0	25.0
MTM	2.5	5.0	5.0	2.5	5.0	5.0	4.0	7.0	7.0	4.5	8.0	10.0	5.0	9.5	12.0	7.0	12.5	15.0	8.5	15.5	20.0
Pyrolox	2.5	5.0	15.0	2.5	5.0	15.0	4.0	7.0	20.0	4.5	8.0	25.0	5.0	9.5	30.0	7.0	12.5	XX	8.5	15.5	XX
KDF	5.5	10.0	15.0	5.5	10.0	15.0	7.5	14.5	20.0	10.0	18.0	25.0	11.0	21.0	30.0	14.5	27.0	XX	18.5	27.0	XX
VALVE SPECIFICATIONS																					
Mineral Tank Size	10 x 44			10 x 54			12 x 48			13 x 54			14 x 65			16 x 65			18 x 65		
Pipe Size	1" and 1-1/4"			1" and 1-1/4"			1" and 1-1/4"			1" and 1-1/4"			1" and 1-1/4"			1" and 1-1/4"			1" and 1-1/4"		
Drain Pipe Size	1/2"			1/2"			1/2"			1/2"			1/2"			3/4"			3/4"		
Distributor Pilot	1.05 or 32mm			1.05 or 32mm			1.05 or 32mm			1.05 or 32mm			1.05 or 32mm			1.05 or 32mm			1.05 or 32mm		
Tank Thread	2.5" - 8			2.5" - 8			2.5" - 8			2.5" - 8			4" - 8			4" - 8			4" - 8		
Overall Height, Inches	50.5			61			54.7			60.8			73			74			74		



Bluetooth Enabled Controls Setup, Program & Monitor with Ease



Connected Series
Filter Control Shown
Without Cover

Connected Series **Connected Series Filters**



CS-AFB-10T (SHOWN WITH OPTIONAL CHROME TANK JACKET)

Features the Nelsen Connected Series Bluetooth enabled Filter Metered Control Valve

- Includes meter to provide water usage history
- Simple 9 volt battery(not included) back-up keeps electronic meter active and will advance control valve to drain shut off position in regeneration during power failure
- Adjustable cycle times
- High backwash flow capability
- Two valve bypass with a variety of plumbing connections are available to fit existing plumbing
- Weather and Insect resistant one-piece slide cover



The Legacy View App makes setting up and monitoring your Nelsen Connected Series system easier than ever. A free download of the phone app is available for your iPhone or Android™ device!

With Legacy View as part of the Control Valve, the user can perform the following functions:

- Conveniently view all valve settings and status
- Easily change valve settings
- View current water usage information
- Graphically view water usage history
- Start a regeneration or backwash cycle from your phone or tablet
- The phone app also provides servicing water treatment dealer contact information



Systems feature the Nelsen Connected Series metered filter valve, black polyglass tanks, basket riser and gravel support bed. Order media and plumbing connections separately.

CS-AFB-10	10" x 44"	\$797.00
CS-AFB-10T	10" x 54"	\$811.00
CS-AFB-12	12" x 52"	\$918.00
CS-AFB-13	13" x 54"	\$975.00

BYPASS & PLUMBING CONNECTIONS

CS-BYPASS	Connected Series Bypass Valve	\$67.00
CS-10S-PVC-SLIP	Connector – 1" Female Straight Slip (set of 2)	\$23.00
CS-10E-PVC-MIPT	Connector – 1" Male NPT Elbow (set of 2)	\$28.00
CS-10S-PVC-MIPT	Connector – 1" Male NPT Straight (set of 2)	\$23.00
CS-10-90-PVC-BVA	Connector – 1" Elbow Vertical Adapter (set of 2)	\$36.00
CS-07S-PVC-MIPT	Connector – 3/4" Male NPT Straight (set of 2)	\$23.00
CS-07-SHARK	Connector – 3/4" Brass Sharkbite Straight (set of 2)	\$73.00



CS-BYPASS



CS-10S-PVC-SLIP



CS-10S-PVC-MIPT



CS-10E-PVC-MIPT



CS-10-90-PVC-BVA



CS-07S-PVC-MIPT



CS-07-SHARK

NELSEN CONNECTED SERIES CONTROL

Tank Size	10 x 44			10 x 54			12 x 48			13 x 54		
	Maximum Flow Rate, System - 19 GPM						Maximum Backwash Rate - 17 GPM					
	FLOW RATES - Gallons Per Minute											
	Min.	Max.	BKW	Min.	Max.	BKW	Min.	Max.	BKW	Min.	Max.	BKW
Greensand Plus	1.1	6.5	7.0	1.1	6.5	7.0	1.6	9.4	10.0	1.9	11.0	10.0
Birm	1.8	2.7	5.0	1.8	2.7	5.0	2.7	3.9	7.0	3.2	4.6	10.0
Carbon	2.7	5.4	5.0	2.7	5.4	5.0	3.9	7.8	8.0	4.6	9.2	10.0
Calcite/Corosex	1.6	3.2	5.0	1.6	3.2	5.0	2.3	4.7	7.0	2.8	5.5	10.0
Multi-Media	5.0	10.0	5.0	5.0	10.0	5.0	6.0	14.0	10.0	8.0	16.0	10.0
Filter Ag	2.7	5.4	5.0	2.7	5.4	5.0	3.9	7.8	8.0	4.6	9.2	10.0
Filter Sand	5.0	10.0	5.0	5.0	10.0	5.0	6.0	14.0	10.0	8.0	16.0	10.0
Chemsorb	7.0	9.7	7.0	7.0	9.7	7.0	10.0	14.0	10.0	12.0	17.0	X
MTM	2.7	5.4	5.0	2.7	5.4	5.0	3.9	7.8	8.0	4.6	9.2	10.0
Pyrolox	2.5	5.0	X	2.5	5.0	X	4.0	7.0	X	4.5	8.0	X
KDF	5.5	10.0	X	5.5	10.0	X	7.5	14.5	X	10.0	18.0	X
	VALVE SPECIFICATIONS											
Mineral Tank Size	10 x 44			10 x 54			12 x 48			13 x 54		
Pipe Size	3/4" and 1"			3/4" and 1"			3/4" and 1"			3/4" and 1"		
Drain Pipe Size	1/2"			1/2"			1/2"			1/2"		
Distributor Pilot	1.05			1.05			1.05			1.05		
Tank Thread	2.5"- 8			2.5"- 8			2.5"- 8			2.5"- 8		
Overall Height, Inches	50.5			61			54.7			60.8		





COMPLETE SYSTEMS - EVERYTHING IS INCLUDED

Nelsen Scale Prevention Systems

FILTERSORB-SP3 ANTI-SCALING SYSTEMS

Nelsen Scale Prevention Systems features Filtersorb SP3 filter media to first remove the already existing scale from pipes and heat exchanger surfaces (descaling effect) and further to protect the system from future formation of scale (scale protection effect).

Filtersorb SP3 is based on a completely new technology. In this process the chemical structure of scale forming minerals is changed. This technology is so effective that it requires a contact time of only seconds.

The media is used in an up-flow system, therefore only an in-out head is needed.

The media transforms the dissolved calcium carbonate (temporary hardness) into non-charged, neutral chemical bonds.

These bonds are completely stable and cannot attach to any surfaces. The chemical bonds are rinsed away by the water flow. The size of the bonds is so small (in the range of nano-meters) that they can only be seen with a microscope. Therefore the effect is the same as if the water was free of temporary hardness (calcium carbonate). The chemical structures are heat resistant and do not fall apart. The media is used to clean pipes from already existing scale and to protect pipes and hardware from scale.

Tests with commercial coffee machines showed that those with Filtersorb-SP3 Hardness Stabilizer protection were much cleaner after a short time of use than the control systems which were cleaned monthly.

Filtersorb SP3 works great in front of RO membranes. It keeps these membranes from clogging with calcium-carbonate. A preexisting membrane's efficiency is improved after only 10 days if calcium carbonate was the reason for the blocking.

Included in 8", 9" and 10" systems - Filtersorb SP Filter Media, Enpress Mineral tank featuring the Vortech bottom distribution plate, C-Series in/out head, C-Series Bypass, 1" x 10" "Big Blue" housing with GAC pre-filter with mounting bracket.

12" and 13" systems include a 20" "Big Blue" Housing and GAC Pre-Filter in lieu of 10" housing & filter.

Select Plumbing Connections Separately on Page 1-11

NSPS-0844-RES	8" Saltless Anti-Scale Filtration System	\$1,212.00
NSPS-0948-RES	9" Saltless Anti-Scale Filtration System	\$1,491.00
NSPS-1054-RES	10" Saltless Anti-Scale Filtration System	\$1,635.00
NSPS-1252-RES	12" Saltless Anti-Scale Filtration System	\$2,227.00
NSPS-1354-RES	13" Saltless Anti-Scale Filtration System	\$2,495.00

Superior Water Conditioners

Superior Water Conditioners magnetically alter the natural characteristics of hard water minerals, making it difficult for them to bond together and form a hard brittle scale. Instead, they remain in a suspended state and will either flow on through, or can be easily purged from, water-using equipment and plumbing systems. Superior technology also has zero environmental impact because it requires no energy or chemicals to operate. The Superior Water Conditioner® is designed to leave the desirable things in the water such as calcium, magnesium and other minerals that are beneficial for human consumption.

The Superior Water Conditioner® is not a water softener and should not be represented as such. It does, however, physically condition the water in such a way that hard water minerals will remain suspended, rather than form a hard calcite scale on heat transfer surfaces. This chemical-free water treatment process will increase efficiency and extend the life of water heaters, dishwashers, ice makers, humidifiers and the over-all plumbing system.

The Superior Water Conditioner® also reduces surface tension of water, which naturally offers additional benefits. The application of a DU model in the distributor of a media type filter (shown to the right) not only treats the domestic water supply for scale control, but also provides a much more thorough and effective backwashing of filter media.

Superiorized® water is compatible with Green Sand, Birm, GAC, KDF, and even ion-exchange resins and will provide much better results than just filtering or softening alone. When backwashing a softener with Superiorized® water, the resin bed will remain loose and not pack over many years of use, which will obviously extend product life, increase efficiency, reduce salt consumption and conserve water.

Other benefits of reducing water surface tension include less spotting on dishes, silverware, and even shower doors. Superiorized® water is great for washing down house siding, windows and automobiles. It is also beneficial to irrigate with Superiorized® water, which will greatly reduce fertilizer requirements, as well as conserve water.

Dimensions: DU8 - 2" x 12-3/8", DU15 - 2-3/16" x 13-5/8"

DU8

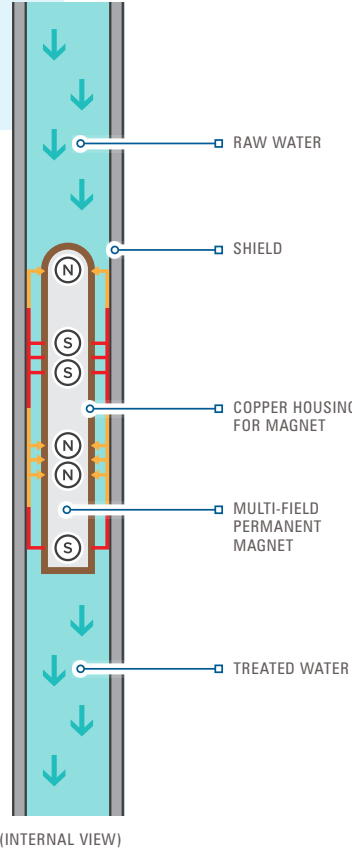
Flow-through Distributor Unit, 1.05" Dist, 8 gpm

\$473.00

DU15

Flow-through Distributor Unit, 1.05" Dist, 15 gpm

\$701.00



Up-flow/Down-flow Filters

These versatile filters can be used in Up-flow or Down-flow configurations simply by reversing the inlet and outlet. Systems include mineral tank, C-Series in-out head, C-Series bypass valve, upper basket & gravel under bed.

Select Plumbing Connections Separately on Page 1-11

Select media type for your specific application from Section 4.

UF-1044

10" x 44" 1 CuFt System

\$678.00

UF-1054

10" x 54" 1-1/2 CuFt System

\$693.00

UF-1248

12" x 48" 2 CuFt System

\$822.00

Filtration Equipment

17





Clack WS1.5EE Backwash Only Filters (L/Media)

Systems include the Clack WS1.5EE 1-1/2" control valve with 6 fully adjustable cycles. Also included are commercial distributors and gravel bed; choose from a variety of filter media.

WS15EE-AF14	14" x 65" Backwash Filter	\$2,111.00
WS15EE-AF16	16" x 65" Backwash Filter	\$2,182.00
WS15EE-AF18	18" x 65" Backwash Filter	\$2,466.00
WS15EE-AF21	21" x 62" Backwash Filter	\$2,628.00
WS15EE-AF24	24" x 72" Backwash Filter	\$3,434.00
WS15EE-AF30	30" x 72" Backwash Filter	\$5,220.00



Product Features

- 2" Top mount control valve suited for commercial/industrial applications
- Epoxy coated lead free brass valve body*
- Economical stainless steel optional meter assembly
- Service flow rate of 115 gpm, backwash 80 gpm
- Solid state microprocessor with easy access front panel settings
- Front panel display for time of day, days until next regeneration, volume remaining, current flow rate and total volume used (Totalizer)
- Four methods to initiate regeneration; meter immediate, meter delayed, time clock delayed or pressure differential
- Optional double backwash feature offers optimum regeneration, cleaning ability and efficiency
- Fully adjustable cycle times with 6-cycle control delivers controlled backwash, down-flow brining or up-flow brining, slow rinse, second backwash, fast rinse, refill and down-flow service
- Coin Cell Lithium battery back-up with an 8 hour carry over
- Level VI 15-volt output DC power supply provides safe and easy installation
- Post treated water regenerant refill
- Reliable and proven DC drive
- Patented one piece expanding seal spacer stack assembly U.S. Patent 6,402,944
- Patented linearly reciprocating piston operation U.S. Patent 6,444,127



Control Valve Certified to NSF/ANSI 61 and 372.

CLACK WS1.5EE CONTROL

TANK SIZE	14 x 65			16 x 65			18 x 65			21 X 62			24 X 72			30 X 72		
	Maximum Flow Rate, System - 60 gpm						Maximum Backwash Rate, System - 50 gpm											
FLOW RATES - Gallons Per Minute																		
	Min	Max	BKW	Min	Max	BKW	Min	Max	BKW	Min	Max	BKW	Min	Max	BKW	Min	Max	BKW
Greensand Plus	2.0	12.8	12.0	2.8	16.7	15.0	3.5	21.0	20.0	4.8	29.0	30.0	6.3	37.7	35.0	9.2	55.0	55.0
Birm	3.7	5.4	12.0	4.7	7.0	15.0	6.2	8.9	20.0	8.4	12.0	25.0	11.0	15.7	35.0	17.0	24.6	50.0
Carbon	5.0	10.0	10.0	7.0	14.0	15.0	9.0	18.0	20.0	12.0	24.0	25.0	15.0	30.0	30.0	25.0	50.0	50.0
Calcite/Corosex	3.2	6.4	12.0	4.1	8.3	15.0	5.3	10.6	20.0	7.2	14.5	25.0	9.4	18.8	35.0	14.7	29.5	50.0
Multi-Media	9.0	19.0	12.0	11.0	25.0	15.0	14.0	32.0	20.0	17.0	43.0	25.0	25.0	56.0	35.0	39.0	88.0	55.0
Filter Ag	5.0	10.0	10.0	7.0	14.0	15.0	9.0	18.0	20.0	12.0	24.0	25.0	15.0	30.0	30.0	25.0	50.0	50.0
Filter Sand	9.0	19.0	12.0	11.0	25.0	15.0	14.0	32.0	20.0	17.0	43.0	25.0	25.0	56.0	35.0	39.0	88.0	55.0
Chemsorb	13.0	21.0	13.0	17.0	28.0	20.0	22.0	33.0	25.0	30.0	50.0	30.0	38.0	62.0	40.0	60.0	75.0	50.0
MTM	5.0	10.0	10.0	7.0	14.0	15.0	9.0	18.0	20.0	12.0	24.0	25.0	15.0	30.0	30.0	25.0	50.0	50.0
KDF	5.0	16.0	32.0	7.0	14.0	30.0	9.0	18.0	35.0	12.0	24.0	50.0	X	X	X	X	X	X
Pyrolox	4.5	8.0	25.0	5.0	9.5	30.0	7.0	12.5	40.0	8.5	15.5	50.0	X	X	X	X	X	X
VALVE SPECIFICATIONS																		
Mineral Tank Size	14 x 65			16 x 65			18 x 65			21 x 62			24 x 72			30 x 72		
Pipe Size	1-1/2"			1-1/2"			1-1/2"			1-1/2"			1-1/2"			1-1/2"		
Drain Pipe Size	3/4"			3/4"			3/4"			3/4"			3/4"			3/4"		
Distributor Pilot	1-1/2"			1-1/2"			1-1/2"			1-1/2"			1-1/2"			1-1/2"		
Tank Thread	4" - 8			4" - 8			4" - 8			4" - 8			4" - 8			6" Flange		
Overall Height, Inches	74			74			75			75			82			90		



Clack WS2EE Backwash Only Filters (L/Media)

Includes the Clack WS2EE or WS2QC 2" control valve with 6 fully adjustable cycles. Optional double backwash feature offers optimum regeneration, cleaning ability and efficiency. Also included are commercial distributors and gravel bed; choose from a variety of filter media.



WS20EE-AF18	18" x 65" Backwash Filter	\$3,101.00
WS20EE-AF21	21" x 62" Backwash Filter	\$3,294.00
WS20EE-AF24	24" x 72" Backwash Filter	\$3,961.00
WS20EE-AF30	30" x 72" Backwash Filter	\$5,646.00
WS20EE-AF36	36" x 72" Backwash Filter	\$6,618.00
WS20QC-AF30	30" x 72" Backwash Filter	\$5,952.00
WS20QC-AF36	36" x 72" Backwash Filter	\$6,924.00

WS2EE/QC Features Include...

- 2" Top mount control valve suited for commercial/industrial applications
- Epoxy coated lead free brass valve body*
- Economical stainless steel optional meter assembly
- Service flow rate of 115 gpm, backwash 80 gpm
- Solid state microprocessor with easy access front panel settings
- Front panel display for time of day, days until next regeneration, volume remaining, current flow rate and total volume used (Totalizer)
- Four methods to initiate regeneration; meter immediate, meter delayed, time clock delayed or pressure differential
- Optional double backwash feature offers optimum regeneration, cleaning ability and efficiency
- Fully adjustable cycle times with 6-cycle control delivers controlled backwash, down-flow brining or up-flow brining, slow rinse, second backwash, fast rinse, refill and down-flow service
- Coin Cell Lithium battery back-up with an 8 hour carry over
- Level VI 15-volt output DC power supply provides safe and easy installation
- Post treated water regenerant refill
- Reliable and proven DC drive
- Patented one piece expanding seal spacer stack assembly U.S. Patent 6,402,944
- Patented linearly reciprocating piston operation U.S. Patent 6,444,127



Control Valve Certified to NSF/ANSI 61 and 372.



CLACK WS2EE/QC CONTROL

TANK SIZE	18 x 65			21 x 62			24 x 72			30 x 72			36 x 72		
	Maximum Flow Rate, System - 125 gpm						Maximum Backwash Rate, System - 85 gpm								
FLOW RATES - Gallons Per Minute															
	Min	Max	BKW	Min	Max	BKW	Min	Max	BKW	Min	Max	BKW	Min	Max	BKW
Greensand Plus	3.5	21.0	20.0	4.8	29.0	30.0	6.3	37.7	35.0	9.2	55.0	55.0	14.0	84.0	85.0
Birm	6.2	8.9	20.0	8.4	12.0	25.0	11.0	15.7	35.0	17.0	24.6	50.0	24.7	35.4	70.0
Carbon	9.0	18.0	20.0	12.0	24.0	25.0	15.0	30.0	30.0	25.0	50.0	50.0	35.0	70.0	70.0
Calcite/Corosex	5.3	10.6	20.0	7.2	14.5	25.0	9.4	18.8	35.0	14.7	29.5	50.0	21.2	42.4	70.0
Multi-Media	14.0	32.0	20.0	17.0	43.0	25.0	25.0	56.0	35.0	39.0	88.0	55.0	56.0	127.0	85.0
Filter Ag	9.0	18.0	20.0	12.0	24.0	25.0	15.0	30.0	30.0	25.0	50.0	50.0	35.0	70.0	70.0
Filter Sand	14.0	32.0	20.0	17.0	43.0	25.0	25.0	56.0	35.0	39.0	88.0	55.0	56.0	127.0	85.0
Chemsorb	22.0	33.0	25.0	30.0	50.0	30.0	38.0	62.0	40.0	60.0	75.0	50.0	80.0	125.0	85.0
MTM	9.0	18.0	20.0	12.0	24.0	25.0	15.0	30.0	30.0	25.0	50.0	50.0	35.0	70.0	70.0
KDF	9.0	18.0	35.0	12.0	24.0	50.0	X	X	X	X	X	X	X	X	X
Pyrolox	8.5	15.5	50.0	12.0	19.0	70.0	15.0	25.0	85.0	X	X	X	X	X	X
VALVE SPECIFICATIONS															
Mineral Tank Size	18 x 65			21 x 62			24 x 72			30 x 72			36 x 72		
Pipe Size	2"			2"			2"			2"			2"		
Drain Pipe Size	1-1/2"			1-1/2"			1-1/2"			1-1/2"			1-1/2"		
Distributor Pilot	2"			2"			2"			2"			2"		
Tank Thread	4" - 8			4" - 8			4" - 8			6" Flange			6" Flange		
Overall Height, Inches	79			79			86			93			95		

Clack™



WS3 CONTROL VALVE

Clack WS3 Backwash Only Filters (L/Media)

Systems feature the Clack WS3, 3" control valve with 9 fully adjustable cycles. Optional double backwash feature offers optimum regeneration, cleaning ability and efficiency. Also included are commercial distributors and gravel bed; choose from a variety of filter media.

WS3-AF24	24" x 72" Backwash Filter	\$8,810.00
WS3-AF30	30" x 72" Backwash Filter	\$10,014.00
WS3-AF36	36" x 72" Backwash Filter	\$10,946.00
WS3-AF42	42" x 72" Backwash Filter	\$13,852.00
WS3-AF48	48" x 72" Backwash Filter	\$16,182.00

Product Features

- 3" top mount or side mount control valve suited for commercial and industrial applications
- Lead free brass valve body
- Economical stainless steel optional meter assembly
- Service flow rate 250 gpm (946 lpm) (56.8 m³/h), Backwash flow rate 220 gpm (833 lpm) (50.0 m³/h)
- Solid state microprocessor with easy access front removable POD
- Front panel display for Time of Day, Current Flow Rate, Totalizer and Volume/Days until Regeneration
- Methods to initiate down flow regeneration; meter delayed, meter immediate, time clock delayed
- Fully programmable regeneration cycle sequences (maximum 9)
- Fully programmable regeneration cycle times
- Pre or Post treated water regenerant refill
- Days override feature; 1-28 days available
- Capacitor back-up with up to 24 hour carry over
- 20-volt output AC adapter provides safe and easy installation
- Reliable and proven DC drive



Control Valve Certified to NSF/ANSI 61 and 372.

CLACK WS3 CONTROL

TANK SIZE	24 x 72			30 x 72			36 x 72			42 x 72			48 x 72					
	Maximum Flow Rate, System - 250 gp m						Maximum Backwash Rate, System - 220 gpm											
	Min	Max	BKW	Min	Max	BKW	Min	Max	BKW	Min	Max	BKW	Min	Max	BKW			
Greensand Plus	6.3	37.7	35.0	9.2	55.0	55.0	14.0	84.0	85.0	19.0	115.0	115.0	25.0	150.0	150.0			
Birm	11.0	15.7	35.0	17.0	24.6	50.0	24.7	35.4	70.0	33.7	48.1	105.0	44.0	62.9	140.0			
Carbon	15.0	30.0	30.0	25.0	50.0	50.0	35.0	70.0	70.0	48.0	96.0	95.0	63.0	126.0	125.0			
Calcite/Corosex	9.4	18.8	35.0	14.7	29.5	50.0	21.2	42.4	70.0	28.9	57.7	105.0	37.7	75.4	140.0			
Multi-Media	25.0	56.0	35.0	39.0	88.0	55.0	56.0	127.0	85.0	77.0	173.0	115.0	100.0	226.0	150.0			
Filter Ag	15.0	30.0	30.0	25.0	50.0	50.0	35.0	70.0	70.0	48.0	96.0	95.0	63.0	126.0	125.0			
Filter Sand	25.0	56.0	35.0	39.0	88.0	55.0	56.0	127.0	85.0	77.0	173.0	115.0	100.0	226.0	150.0			
Chemsorb	38.0	62.0	40.0	60.0	75.0	50.0	80.0	125.0	85.0	115.0	173.0	115.0	150.0	226.0	150.0			
MTM	15.0	30.0	30.0	25.0	50.0	50.0	35.0	70.0	70.0	48.0	96.0	95.0	63.0	126.0	125.0			
KDF	15.0	45.0	90.0	25.0	75.0	150.0	35.0	105.0	210.0	X	X	X	X	X	X			
Pyrolox	15.0	25.0	85.0	25.0	40.0	140.0	35.0	57.0	200.0	X	X	X	X	X	X			

VALVE SPECIFICATIONS										
Mineral Tank Size	24 x 72		30 x 72		36 x 72		42 x 72		48 x 72	
Pipe Size	3"		3"		3"		3"		3"	
Drain Pipe Size	3"		3"		3"		3"		3"	
Distributor Pilot	3"		3"		3"		3"		3"	
Tank Thread	6" Flange		6" Flange		6" Flange		6" Flange		6" Flange	
Overall Height, Inches	90		94		96		107		105	



Clack WS2H Backwash Only Filters (L/Media)

STEEL TANKS

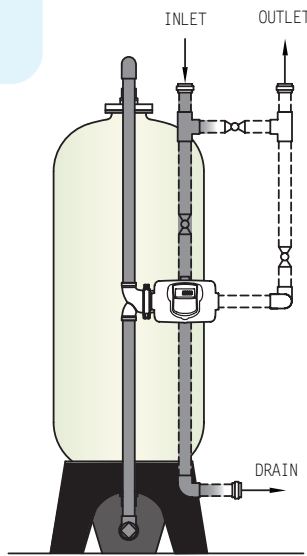
Systems feature the Clack WS2H, 2" control valve with 9 fully adjustable cycles. Optional double backwash feature offers optimum regeneration, cleaning ability and efficiency. Also included are commercial distributors and gravel bed; choose from a variety of filter media.

NFSMS-WS2H-AF24	24" x 60" Backwash Only Filter	\$12,049.00
NFSMS-WS2H-AF30	30" x 60" Backwash Only Filter	\$12,822.00
NFSMS-WS2H-AF36	36" x 60" Backwash Only Filter	\$14,695.00
NFSMS-WS2H-AF42	42" x 60" Backwash Only Filter	\$18,085.00

FIBERGLASS TANKS

Systems feature the Clack WS2H, 2" control valve with 9 fully adjustable cycles. Optional double backwash feature offers optimum regeneration, cleaning ability and efficiency. Also included are commercial distributors and gravel bed; choose from a variety of filter media.

NFSMF-WS2H-AF21	21" x 62" Backwash Filter	\$10,629.00
NFSMF-WS2H-AF24	24" x 72" Backwash Filter	\$11,474.00
NFSMF-WS2H-AF30	30" x 72" Backwash Filter	\$14,138.00
NFSMF-WS2H-AF36	36" x 72" Backwash Filter	\$15,873.00
NFSMF-WS2H-AF42	42" x 72" Backwash Filter	\$15,873.00



42" x 72"

Product Features

- 2" side mount control valve suited for commercial and industrial applications
- Epoxy coated lead free brass valve body
- Built-in Internal Flow Meter standard
- Service flow rate 125 gpm (28.4 m3/h), Backwash flow rate 125 gpm (28.4 m3/h)
- Solid state microprocessor with easy access front removable POD
- Front panel display for Time of Day, Current Flow Rate, Totalizer and Volume/Days until Regeneration
- Four methods to initiate the down flow regeneration; meter delayed, meter immediate, time clock delayed, or pressure differential
- Fully programmable regeneration cycle sequences (maximum 9)
- Fully programmable regeneration cycle times
- Days override feature; 1-28 days available
- 20-volt output AC adapter provides safe and easy installation
- Reliable and proven DC drive



Filtration Equipment

CLACK WS2H CONTROL

TANK SIZE	24 x 72 / 24 x 60			30 x 72 / 30 x 60			36 x 72 / 36 x 60			42 x 72 / 42 x 60			48 x 72 / 48 x 60		
	Maximum Flow Rate, System - 125 gpm						Maximum Backwash Rate, System - 125 gpm								
	Min	Max	BKW	Min	Max	BKW	Min	Max	BKW	Min	Max	BKW	Min	Max	BKW
Greensand Plus	6.3	37.7	35.0	9.2	55.0	55.0	14.0	84.0	85.0	19.0	115.0	115.0	X	X	X
Birm	11.0	15.7	35.0	17.0	24.6	50.0	24.7	35.4	70.0	33.7	48.1	105.0	X	X	X
Carbon	15.0	30.0	30.0	25.0	50.0	50.0	35.0	70.0	70.0	48.0	96.0	95.0	63.0	126.0	125.0
Calcite/Corosex	9.4	18.8	35.0	14.7	29.5	50.0	21.2	42.4	70.0	28.9	57.7	105.0	X	X	X
Multi-Media	25.0	56.0	35.0	39.0	88.0	55.0	56.0	127.0	85.0	77.0	173.0	115.0	X	X	X
Filter Ag	15.0	30.0	30.0	25.0	50.0	50.0	35.0	70.0	70.0	48.0	96.0	95.0	63.0	126.0	125.0
Filter Sand	25.0	56.0	35.0	39.0	88.0	55.0	56.0	127.0	85.0	77.0	173.0	115.0	X	X	X
Chemsorb	38.0	62.0	40.0	60.0	75.0	50.0	80.0	125.0	85.0	115.0	173.0	115.0	X	X	X
MTM	15.0	30.0	30.0	25.0	50.0	50.0	35.0	70.0	70.0	48.0	96.0	95.0	63.0	126.0	125.0
KDF	15.0	45.0	90.0	25.0	75.0	150.0	35.0	105.0	210.0	X	X	X	X	X	X
Pyrolox	15.0	25.0	85.0	25.0	40.0	140.0	35.0	57.0	200.0	X	X	X	X	X	X

VALVE SPECIFICATIONS										
Mineral Tank Size	24 x 72 / 24 x 60		30 x 72 / 30 x 60		36 x 72 / 36 x 60		42 x 72 / 42 x 60		48 x 72 / 48 x 60	
Pipe Size	2"		2"		2"		2"		2"	
Drain Pipe Size	2"		2"		2"		2"		2"	
Distributor Pilot	2"		2"		2"		2"		2"	
Tank Thread	4" - 8		6" Flange		6" Flange		6" Flange		6" Flange	
Overall Height, Inches	85"		88"		90"		90"		90"	





Clack WS3 Side Mount Backwash Only Filters (L/Media)

STEEL TANKS

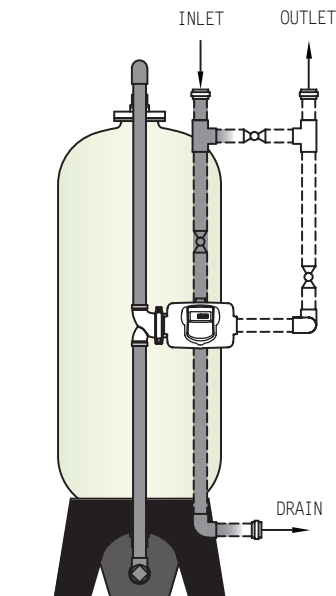
Systems feature the Clack WS3, 3" control valve with 9 fully adjustable cycles. Optional double backwash feature offers optimum regeneration, cleaning ability and efficiency. Also included are commercial distributors and gravel bed; choose from a variety of filter media.

NFSMS-WS3-AF24	24" x 60" Backwash Only Filter	\$18,044.00
NFSMS-WS3-AF30	30" x 60" Backwash Only Filter	\$19,760.00
NFSMS-WS3-AF36	36" x 60" Backwash Only Filter	\$22,833.00
NFSMS-WS3-AF42	42" x 60" Backwash Only Filter	\$25,883.00
NFSMS-WS3-AF48	48" x 60" Backwash Only Filter	\$29,828.00
NFSMS-WS3-AF60	60" x 60" Backwash Only Filter	\$29,828.00

FIBERGLASS TANKS

Systems feature the Clack WS3, 3" control valve with 9 fully adjustable cycles. Optional double backwash feature offers optimum regeneration, cleaning ability and efficiency. Also included are commercial distributors and gravel bed; choose from a variety of filter media.

NFSMF-WS3-AF24	24" x 72" Backwash Only Filter	\$17,355.00
NFSMF-WS3-AF30	30" x 72" Backwash Only Filter	\$18,388.00
NFSMF-WS3-AF36	36" x 72" Backwash Only Filter	\$20,145.00
NFSMF-WS3-AF42	42" x 72" Backwash Only Filter	\$23,412.00
NFSMF-WS3-AF48	48" x 72" Backwash Only Filter	\$26,438.00



42" x 72"

Product Features

- 3" side mount control valve suited for commercial and industrial applications
- Epoxy coated lead free brass valve body
- Economical stainless steel optional meter assembly
- Service flow rate 250 gpm (946 lpm) (56.8 m3/h), Backwash flow rate 220 gpm (833 lpm) (50.0 m3/h)
- Solid state microprocessor with easy access front removable POD
- Level VI 18-volt output DC power supply provides safe and easy installation
- Fully programmable regeneration cycle sequences (maximum 9)
- Fully programmable regeneration cycle times
- Days override feature; 1-28 days available
- Capacitor back-up with up to 24 hour carry over
- Reliable and proven DC drive



CLACK WS3 CONTROL

TANK SIZE	24 x 72 / 24 x 60			30 x 72 / 30 x 60			36 x 72 / 36 x 60			42 x 72 / 42 x 60			48 x 72 / 48 x 60		
	Min	Max	BKW	Min	Max	BKW	Min	Max	BKW	Min	Max	BKW	Min	Max	BKW
Greensand Plus	6.3	37.7	35.0	9.2	55.0	55.0	14.0	84.0	85.0	19.0	115.0	115.0	25.0	150.0	150.0
Birm	11.0	15.7	35.0	17.0	24.6	50.0	24.7	35.4	70.0	33.7	48.1	105.0	44.0	62.9	140.0
Carbon	15.0	30.0	30.0	25.0	50.0	50.0	35.0	70.0	70.0	48.0	96.0	95.0	63.0	126.0	125.0
Calcite/Corosex	9.4	18.8	35.0	14.7	29.5	50.0	21.2	42.4	70.0	28.9	57.7	105.0	37.7	75.4	140.0
Multi-Media	25.0	56.0	35.0	39.0	88.0	55.0	56.0	127.0	85.0	77.0	173.0	115.0	100.0	226.0	150.0
Filter Ag	15.0	30.0	30.0	25.0	50.0	50.0	35.0	70.0	70.0	48.0	96.0	95.0	63.0	126.0	125.0
Filter Sand	25.0	56.0	35.0	39.0	88.0	55.0	56.0	127.0	85.0	77.0	173.0	115.0	100.0	226.0	150.0
Chemsorb	38.0	62.0	40.0	60.0	75.0	50.0	80.0	125.0	85.0	115.0	173.0	115.0	150.0	226.0	150.0
MTM	15.0	30.0	30.0	25.0	50.0	50.0	35.0	70.0	70.0	48.0	96.0	95.0	63.0	126.0	125.0
KDF	15.0	45.0	90.0	25.0	75.0	150.0	35.0	105.0	210.0	X	X	X	X	X	X
Pyrolox	15.0	25.0	85.0	25.0	40.0	140.0	35.0	57.0	200.0	X	X	X	X	X	X

VALVE SPECIFICATIONS

Mineral Tank Size	24 x 72 / 24 x 60	30 x 72 / 30 x 60	36 x 72 / 36 x 60	42 x 72 / 42 x 60	48 x 72 / 48 x 60
Pipe Size	3"	3"	3"	3"	3"
Drain Pipe Size	3"	3"	3"	3"	3"
Distributor Pilot	3"	3"	3"	3"	3"
Tank Thread	4" - 8	6" Flange	6" Flange	6" Flange	6" Flange
Overall Height, Inches	85"	88"	90"	90"	90"





Fleck 275/16 AIF Iron Filters w/Media

Features include Fleck 2750 timer valves with 1600 or 1700 brining, PVC injectors, environmental backplates and covers, black or natural polyglass tanks, basket distributors, Manganese GreensandPlus, gravel bed and commercial potassium solution tank.

275/16AIF-14-MG	14" x 65" (w/Comm. Pot Tank)	\$2,734.00
275/16AIF-16-MG	16" x 65" (w/Comm. Pot Tank)	\$2,636.00
275/16AIF-18-MG	18" x 65" "	\$1,566.00

Fleck 275AF Backwash Only Filters (less/Media)

Features include Fleck 2750 filter valves, environmental backplates and covers, black or natural polyglass tanks, basket distributors and gravel bed.

275AF-14	14" x 54" Backwash Only Filter	\$1,717.00
275AF-16	16" x 65" Backwash Only Filter	\$1,888.00
275AF-18	18" x 65" Backwash Only Filter	\$2,356.00
275AF-21	21" x 65" Backwash Only Filter	\$2,260.00



2750 FILTER

Product Features

- Suitable for large residential/light commercial applications
- Fully adjustable 5-cycle control delivers controlled up-flow backwash, down-flow brining and slow rinse, rapid rinse, timed brine refill and down-flow service
- Backwash capacity handles tanks up to 24" diameter
- Choice of time clock, manual or meter initiated regeneration
- Valve body is solid lead-free brass
- Hard water bypass feature is standard
- Time tested, hydraulically balanced piston, seal, and spacer concept to pilot service flow and regeneration



FLECK 2750 CONTROL VALVE

FLECK 2750 CONTROL

Tank Size	14 x 65			16 x 65			18 x 65			21 x 62		
	Maximum Flow Rate, System - 22 GPM						Maximum Backwash Rate - 25 GPM					
	FLOW RATES - Gallons Per Minute											
	Min.	Max.	BKW	Min.	Max.	BKW	Min.	Max.	BKW	Min.	Max.	BKW
Greensand Plus	2.0	12.8	12.0	2.8	16.7	15.0	3.5	21.0	20.0	X	X	X
Birm	3.7	5.4	12.0	4.7	7.0	15.0	6.2	8.9	20.0	X	X	X
Activated Carbon	5.0	10.0	10.0	7.0	14.0	15.0	9.0	18.0	20.0	12.0	24.0	25.0
Calcite/Corosex	3.2	6.4	12.0	4.1	8.3	15.0	5.3	10.6	20.0	X	X	X
Multi-Media Depth	9.0	19.0	12.0	11.0	25.0	15.0	14.0	32.0	20.0	X	X	X
Filter-Ag	5.0	10.0	10.0	7.0	14.0	15.0	9.0	18.0	20.0	12.0	24.0	25.0
Filter Sand	9.0	19.0	12.0	11.0	25.0	15.0	14.0	32.0	20.0	X	X	X
ChemSorb	13.0	21.0	13.0	17.0	28.0	20.0	22.0	33.0	25.0	X	X	X
MTM	5.0	10.0	10.0	7.0	14.0	15.0	9.0	18.0	20.0	12.0	24.0	25.0
Pyrolox	5.0	9.5	X	7.0	12.5	X	X	X	X	X	X	X
KDF	11.0	21.0	X	14.5	22.0	X	X	X	X	X	X	X
	VALVE SPECIFICATIONS											
Mineral Tank Size	14 x 65			16 x 65			18 x 65			21 x 62		
B.L.F.C. (Iron Filter)	1.2			2.0			2.0			2.0		
Injector (Iron Filter)	3			3			4C			4C		
Pipe Size	1"			1"			1"			1"		
Drain Pipe Size	3/4"			3/4"			3/4"			3/4"		
Distributor Pilot	1.05"			1.05"			1.05"			1.05"		
Tank Thread	4" - 8			4" - 8			4" - 8			4" - 8		
Overall Height, Inches	73			73			74			74		



Fleck 2815/1720 AIF Iron Filters w/Media

Features include Fleck 2850 timer valves with 1600 or 1700 brining, PVC injectors, environmental backplates and covers, commercial distributors, Manganese GreensandPlus, gravel bed and commercial potassium solution tank.

285/16AIF-14-MG	14" x 65" (w/Comm. Pot Tank)	\$3,614.00
285/17AIF-16-MG	16" x 65" "	\$3,771.00
285/17AIF-18-MG	18" x 65" "	\$4,659.00
285/17AIF-21-MG	21" x 62" "	\$6,721.00
285/17AIF-24-MG	24" x 72" "	\$8,415.00



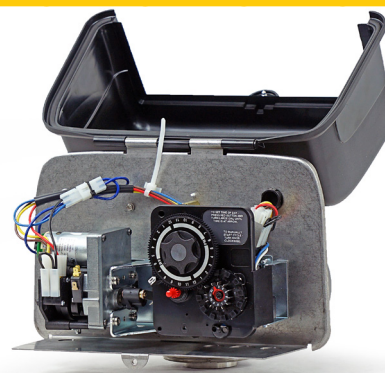
Fleck 2815AF Backwash Only Filters (L/Media)

Features include Fleck 2850 filter valves, environmental backplates and covers, commercial distributors and gravel bed.

2815AF-14	14" x 65" Backwash Only Filter	\$2,716.00
2815AF-16	16" x 65" Backwash Only Filter	\$2,786.00
2815AF-18	18" x 65" Backwash Only Filter	\$3,130.00
2815AF-21	21" x 62" Backwash Only Filter	\$3,292.00
2815AF-24	24" x 72" Backwash Only Filter	\$3,960.00

Product Features

- Fully adjustable 5-cycle control delivers controlled up-flow backwash, down-flow brining and slow rinse, rapid rinse, timed brine refill and down-flow service
- Time-tested hydraulically balanced piston, seal and spacer design to pilot service flow and regeneration
- Solid lead-free brass valve body for superior strength and durability
- Backwash capacity handles tanks up to 30" diameter
- 1-1/2" top mount control valve ideal for smaller size commercial/industrial applications
- Consistent brining regardless of salt levels with timed brine refills
- Choice of 7 or 12 day clock, manual or meter
- Continuous flow rate of 51 GPM with a backwash of 49 GPM



FLECK 2850 CONTROL

TANK SIZE	14 x 65			16 x 65			18 x 65			21 x 62			24 x 72		
	Maximum Flow Rate, System - 44 gpm						Maximum Backwash Rate, System - 25 gpm								

	FLOW RATES - Gallons Per Minute														
	Min	Max	BKW	Min	Max	BKW	Min	Max	BKW	Min	Max	BKW	Min	Max	BKW
Greensand	2.0	12.8	12.0	2.8	16.7	15.0	3.5	21.0	20.0	4.8	29.0	30.0	6.3	37.7	35.0
Birm	3.7	5.4	12.0	4.7	7.0	15.0	6.2	8.9	20.0	8.4	12.0	25.0	11.0	15.7	35.0
Carbon	5.0	10.0	10.0	7.0	14.0	15.0	9.0	18.0	20.0	12.0	24.0	25.0	15.0	30.0	30.0
Calcite/Corosex	3.2	6.4	12.0	4.1	8.3	15.0	5.3	10.6	20.0	7.2	14.5	25.0	9.4	18.8	35.0
Multi-Media	9.0	19.0	12.0	11.0	25.0	15.0	14.0	32.0	20.0	17.0	43.0	25.0	25.0	56.0	35.0
Filter Ag	5.0	10.0	10.0	7.0	14.0	15.0	9.0	18.0	20.0	12.0	24.0	25.0	15.0	30.0	30.0
Filter Sand	9.0	19.0	12.0	11.0	25.0	15.0	14.0	32.0	20.0	17.0	43.0	25.0	25.0	56.0	35.0
Chemsorb	13.0	21.0	13.0	17.0	28.0	20.0	22.0	33.0	25.0	30.0	50.0	30.0	38.0	62.0	40.0
MTM	5.0	10.0	10.0	7.0	14.0	15.0	9.0	18.0	20.0	12.0	24.0	25.0	15.0	30.0	30.0
KDF	11.0	21.0	30.0	14.0	27.0	40.0	18.0	35.0	X	25.0	45.0	X	30.0	60.0	X
Pyrolox	5.0	10.0	X	7.0	13.0	X	8.0	16.0	X	11.0	21.0	X.0	15.0	28.0	X

VALVE SPECIFICATIONS

Mineral Tank Size	14 x 65	16 x 65	18 x 65	21 x 62	24 x 72
B.L.F.C. (Iron Filter)	1.2	2.0	2.0	2.0	2.0
Injector (Iron Filter)	3	3	4C	4C	4C
Pipe Size	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-1/2"
Drain Pipe Size	1"	1"	1"	1"	1"
Distributor Pilot	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-1/2"
Tank Thread	4" - 8	4" - 8	4" - 8	4" - 8	4" - 8
Overall Height, Inches	73	73	74	74	81





Fleck 3150/18AIF Iron Filters w/Media

Features include Fleck 3150/1800 timer valves with PVC injectors, environmental backplates and covers, commercial distributors, Manganese GreensandPlus, gravel bed and commercial potassium solution tank.

315/18AIF-24-MG	24" x 72" (w/Comm. Pot Tank)	\$7,983.00
315/18AIF-30-MG	30" x 72" "	\$10,585.00
315/18AIF-36-MG	36" x 72" "	\$12,664.00

Fleck 3150AF Backwash Only Filters (less/Media)

Features include Fleck 3150 filter valves, environmental backplates and covers, commercial distributors and gravel bed.

315AF-24	24" x 72" Backwash Only Filter	\$5,682.00
315AF-30	30" x 72" Backwash Only Filter	\$7,154.00
315AF-36	36" x 72" Backwash Only Filter	\$8,143.00
315AF-42	42" x 72" Backwash Only Filter	\$11,105.00

Product Features

- Fully adjustable 5-cycle control is efficient and reliable; delivers controlled up-flow backwash, down-flow brining and down-flow service
- Versatile top or side mounting suitable for commercial or industrial applications
 - Backwash capacity accommodates tanks up to 60" diameter
 - Solid lead-free brass construction for superior strength and durability
 - Protective NEMA 3R equivalent enclosure is water resistant, rain tight, corrosion resistant and UV stable
 - Flexible 7 or 12 day time clock or meter initiated regeneration



Control Valve



TESTED and CERTIFIED by the WQA to NSF/ANSI Standard 61 Section 8 Material Safety Only.



TESTED and CERTIFIED by the WQA to NSF/ANSI Standard 372 for Lead Free Compliance.

FLECK 3150 CONTROL

TANK SIZE	24 x 72			30 x 72			36 x 72		
	Maximum Flow Rate, System - 80 gpm			Maximum Backwash Rate, System - 80 gpm					
FLOW RATES - Gallons Per Minute									
	Min	Max	BKW	Min	Max	BKW	Min	Max	BKW
Greensand Plus	6.3	37.7	35.0	9.2	55.0	55.0	14.0	84.0	85.0
Birm	11.0	15.7	35.0	17.0	24.6	50.0	24.7	35.4	70.0
Carbon	15.0	30.0	30.0	25.0	50.0	50.0	35.0	70.0	70.0
Calcite/Corosex	9.4	18.8	35.0	14.7	29.5	50.0	21.2	42.4	70.0
Multi-Media	15.0	30.0	30.0	25.0	50.0	50.0	35.0	70.0	70.0
Filter Ag	25.0	37.5	35.0	39.0	59.0	55.0	56.5	80.0	80.0
Filter Sand	25.0	56.0	35.0	39.0	88.0	55.0	56.0	127.0	85.0
Chemsorb	38.0	62.0	40.0	60.0	75.0	50.0	80.0	125.0	85.0
MTM	15.0	30.0	30.0	25.0	50.0	50.0	35.0	70.0	70.0
KDF	30.0	60.0	70.0	X	X	X	X	X	X
Pyrolox	15.0	28.0	80.0	X	X	X	X	X	X
VALVE SPECIFICATIONS									
Mineral Tank Size	24 x 72			30 x 72			36 x 72		
B.L.F.C. (Iron Filter)	2.0			5.0			5.0		
Injector (Iron Filter)	4C			5C			6C		
Pipe Size	2"			2"			2"		
Drain Pipe Size	2"			2"			2"		
Distributor Pilot	2"			2"			2"		
Tank Thread	4" - 8			6" Flange			6" Flange		
Overall Height, Inches	85			88			90		





Fleck 3150AF Side Mount Backwash Only Filters (less/Media)

STEEL TANKS

Features include Fleck 3150 filter valves, environmental backplates and covers, commercial distributors and gravel bed.

NFSMS-315AF-24	24" x 60" Backwash Only Filter	\$13,417.00
NFSMS-315AF-30	30" x 60" Backwash Only Filter	\$13,610.00
NFSMS-315AF-36	36" x 60" Backwash Only Filter	\$16,981.00
NFSMS-315AF-42	42" x 60" Backwash Only Filter	\$19,138.00

FIBERGLASS TANKS

Features include Fleck 3150 filter valves, environmental backplates and covers, commercial distributors and gravel bed.

NFSMF-315AF-24	24" x 72" Backwash Only Filter	\$11,459.00
NFSMF-315AF-30	30" x 72" Backwash Only Filter	\$12,992.00
NFSMF-315AF-36	36" x 72" Backwash Only Filter	\$13,740.00
NFSMF-315AF-42	42" x 72" Backwash Only Filter	\$16,216.00

Product Features

- Lead-free brass valve body for superior strength and durability
- Continuous service flow rate of 95 GPM with a backwash of 105 GPM
- Backwash capability accommodates filters up to 42" in diameter
- Fully adjustable 3- or 5-cycle control for efficient and reliable water treatment system
- Designed for single or multiple tank systems
- Environmental protective cover for water resistance, corrosion resistance, and UV stability
- Time-tested, hydraulically-balanced piston for service and regeneration
- Rugged-built electromechanical timer designed with heavy duty 3/8" wide plastic gears

NXT - Network controller uses on-board communication capabilities to link multiple valves (via off-the-shelf CAT3, CAT5, or better cables) for system types 4,5,6,7,9,and 14

XT - Offers a two-line, 16 character LCD backlit display for easy entering of master and user programing as well as view of diagnostics

Electromechanical Timer - Simple to adjust and easy to service with quick access to all internal component

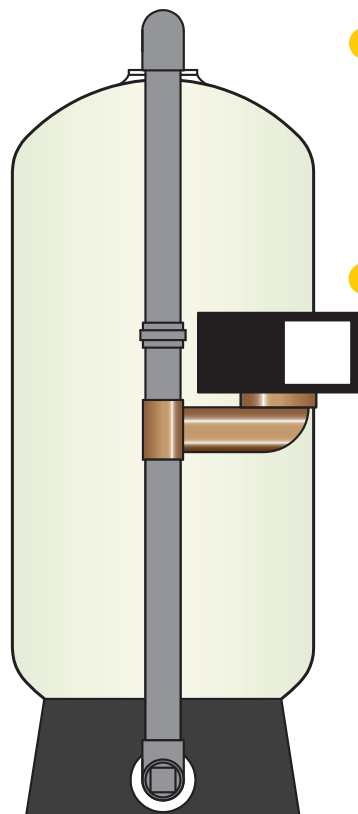
Control Valve



TESTED and CERTIFIED by the WQA to NSF/ANSI Standard 61 Section 8 Material Safety Only.



TESTED and CERTIFIED by the WQA to NSF/ANSI Standard 372 for Lead Free Compliance.



FLECK 3150 CONTROL

TANK SIZE	24 x 72 / 24 x 60			30 x 72 / 30 x 60			36 x 72 / 36 x 60			42 x 72 / 42 x 60		
	Maximum Flow Rate, System - 95 gpm			Maximum Backwash Rate, System - 105 gpm								
	Min	Max	BKW	Min	Max	BKW	Min	Max	BKW	Min	Max	BKW
Greensand Plus	6.3	37.7	35.0	9.2	55.0	55.0	14.0	84.0	85.0	X	X	X
Birm	11.0	15.7	35.0	17.0	24.6	50.0	24.7	35.4	70.0	33.7	48.1	105.0
Carbon	15.0	30.0	30.0	25.0	50.0	50.0	35.0	70.0	70.0	48.0	96.0	95.0
Calcite/Corosex	9.4	18.8	35.0	14.7	29.5	50.0	21.2	42.4	70.0	28.9	57.7	105.0
Multi-Media	25.0	56.0	35.0	39.0	88.0	55.0	56.0	127.0	85.0	X	X	X
Filter Ag	15.0	30.0	30.0	25.0	50.0	50.0	35.0	70.0	70.0	48.0	96.0	95.0
Filter Sand	25.0	56.0	35.0	39.0	88.0	55.0	56.0	127.0	85.0	X	X	X
Chemsorb	38.0	62.0	40.0	60.0	75.0	50.0	80.0	125.0	85.0	X	X	X
MTM	15.0	30.0	30.0	25.0	50.0	50.0	35.0	70.0	70.0	48.0	96.0	95.0
KDF	15.0	45.0	90.0	25.0	75.0	150.0	35.0	105.0	210.0	X	X	X
Pyrolox	15.0	25.0	85.0	25.0	40.0	140.0	35.0	57.0	200.0	X	X	X

VALVE SPECIFICATIONS

Mineral Tank Size	24 x 72 / 24 x 60	30 x 72 / 30 x 60	36 x 72 / 36 x 60	42 x 72 / 42 x 60
Pipe Size	2"	2"	2"	2"
Drain Pipe Size	2"	2"	2"	2"
Distributor Pilot	2"	2"	2"	2"
Tank Thread	4" - 8	6" Flange	6" Flange	6" Flange
Overall Height, Inches	85"	88"	90"	90"





Commercial Potassium Permanganate Tanks

Available in three different brine line connections: 3/8" for Fleck Valves with 1600 Brining, 1/2" for Fleck Valves with 1700 Brining and 3/4" for Fleck Valves with 1800 Brining. The PT1833-03 features a Fleck 2300 safety valve while the PT1833-05 and PT1833-07 feature the 2350 safety valve.

PT1833-03	Pot. Solution Tank, 18" x 33"	\$319.00
PT1833-05	Pot. Solution Tank, 18" x 33"	\$766.00
PT1833-07	Pot. Solution Tank, 18" x 33"	\$762.00

Residential Potassium Permanganate Tanks

The Residential Potassium Permanganate Tank is used with a filter containing Manganese Greensand. A recommended dose of 2-4 ounces of Potassium Permanganate per cubic foot of Manganese Greensand is suggested for regeneration. The tank has a liquid capacity of 5 gallons.

J7181-3	Potassium Solution Tank, Black	\$119.00
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Replacement Components

CLN1043	Pad, 10" Poly Pro	\$15.10
CLN1052	Pad, 19"	\$62.75
CLH7027-03	Valve Assembly, 3/8" 4.0 oz	\$60.30

Nelsen Air Mixing Kit and Injectors

Used to assemble your own air injection filter system using the filter tank of your choice, a mixing tank, an air injector and an Aqua-Blend media package(s).

WW-KIT	Air Mix Tank Kit, 3/4" w/Whitewater Air Release	\$319.00
AQMT-KIT-H	Honeywell Air Mix Tank Kit, 3/4"	\$333.00
AQMT-KIT-H-1	Honeywell Air Mix Tank Kit, 1"	\$327.00

Taco Air Vent

TACO-AV-01	Taco Air Vent, 1/8" (400-4)	\$35.50
TACO-AV-SD	Vent Tubing Connector	\$26.30

Waterite Air Injector

W-988	Air Injector, 1" 3.8-16 gpm	\$91.00
M-005	Waterite Check Valve	\$12.80
M-006	Waterite Tube Barb	\$38.30
* M-011	Waterite O-Ring	\$4.55

Clack PVC Air Injector

U1020	1" PVC Air Injector, Adjustable	\$163.00
U1020-01	Repair Kit For U1020	\$46.80

Air Pump

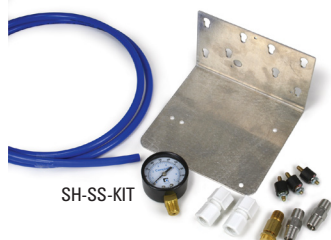
The "Air Pump" simplifies sulfur and iron removal by eliminating troublesome venturis and pressure or flow reductions. Easily wires into an existing pressure switch.

AP-115	Air Pump, 115 volt	\$873.00
* AP-230	Air Pump, 230 volt	\$1,019.00

Air Pump Installation Kit

Kits include a pressure gauge, poly tubing, air regulator valve, mounting shelf and stainless check valve

SH-SS-KIT	Installation Kit	\$236.00
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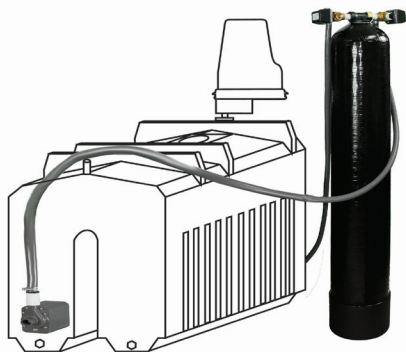
SENTRY-10-METH
FOR METHANE REDUCTION



SENTRY-10-AB



SENTRY G140 OPEN AIR



SENTRY-REVOLUTION

Sentry I Open-Air System

The Sentry I Open-Air System combines aeration with chlorination to provide superior water quality. The system adds air to the water with an adjustable venturi as it enters the tank through a solenoid valve that is controlled with an electronic float inside the tank. This air starts the oxidation process and dilutes gasses in the water such as Methane. While the unit fills, the chlorinator dispenses the exact amount of chlorine desired. The chlorine sanitizes the water and finishes the oxidation process getting rid of odors and killing bacteria. The water first flows into the bottom of the first chamber and then flows over into the second chamber where the submersible pump pressurizes the water to the home. This system has three floats, one mechanical safety overflow, one electrical low-level shut-down, and one electrical water level maintaining float. The system is complete with the chlorinator, by-pass, bladder tank, pump, and is pre-wired for an easy install. This system is often described as a personal municipality for the home providing 24-7 protection.

SENTRY I OPEN AIR G130 SERIES GENERAL OR GAS REDUCTION SYSTEM

Our toughest and most popular package Treats Iron, Iron Bacteria, Arsenic, Hydrogen Sulfide, Manganese, and Methane. Includes 22 gallon Bladder Tank, Sentry I Chlorinator, Three Valve By-Pass, 1/2hp/110vac/10gpm Submersible Pump, and is pre-wired for quick installation.

* SENTRY-10-METH 10 GPM, 1/2hp, 110v Pump \$5,311.00

SENTRY I OPEN AIR G130 SERIES AQUA-BOOSTER SYSTEM

"City-Like" water pressure and the smallest foot print Treats Iron, Iron Bacteria, Arsenic, Hydrogen Sulfide, and Manganese. (Not for use with Methane)

Includes 2.1 gallon Bladder Tank, Sentry I Chlorinator, Three Valve By-Pass, 1/2hp/110vac/10gpm Submersible Pump, and is pre-wired for quick installation.

SENTRY-10-AB w/Aqua Booster, 10 GPM, 1/2hp, 110v Pump \$5,460.00

SENTRY I G140 SYSTEM OPEN AIR SYSTEMS

High Flow System Treating water up to 25gpm, The G140 uses 2-140 gallon tanks that provides contact time to treat your customer's water. Each system comes with Bladder Tank, Sentry I Chlorinator, Three Valve By-Pass, and Submersible Pump. Order this system in any configuration as the G130 systems.

The General or Gas Reduction System (G140)

1hp/220vac/25gpm Pump, 40/60 pressure & 50 gallon Bladder Tank

* SENTRY-25-METH 25 GPM 40/60 Pressure Sys, 50 Gal Bladder Tank \$7,544.00

Aqua-Booster System (G140)

1hp/220vac/25gpm Pump, & 5 gallon Bladder Tank

* SENTRY-25-AB w/Aqua Booster, 25 GPM, 1hp, 220v Pump \$6,998.00

Low-Yield System (G140)

This system provides 10gpm and stores 110 gallons of usable water for those low-yield applications. 1/2hp/110vac/10gpm Pump, & 20 gallon Bladder Tank

* SENTRY-10-LOW YIELD 10 gpm Open Air Low Yield - Methane \$6,055.00

AIR-STRIPPING PACKAGE FOR G130 or G140 SYSTEMS (RADON)

Pick the Open-Air System of your choice and add an Air-Stripping Package for Radon, VOC's or CO2 reduction. This package is the quietest system on the market, has a negative pressure design for added safety (recommended by the EPA), and every unit comes with chlorine dispenser for sanitation.

* SENTRY-AIR STRIPPER Air-Stripper for Radon, VOC's or CO2 Reduction \$3,164.00

THE REVOLUTION PACKAGE FOR G130 or G140 SYSTEMS (EXTREME IRON or MANGANESE)

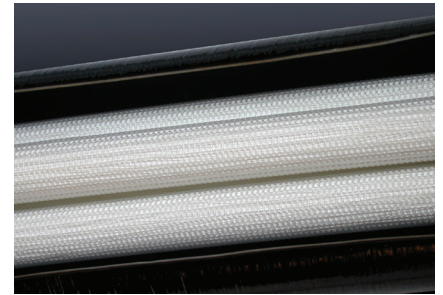
The ReVolution package is the key to keeping your Open-Air tank clean and eliminates the need to flush debris from the tank. This "clean" environment reduces maintenance, increases contact time, and is one of the most efficient back-washing filters on the market. The open-loop filtration process works by circulating water from one chamber of the Open-Air tank, through the 10"x45" filter, and back into the other chamber. This is a must have package for all extreme iron or manganese applications.

* SENTRY-RevOLUTION Sentry ReVolution Circulation Filter \$2,542.00

Nelsen Poly UF System

The Nelsen Poly-UF™ offers filtration down to 0.02 micron at service flow rates up to 12gpm. Utilizing ENPRESS' patented and industry exclusive liner design, the internal UF module treats colloids, bacteria, cysts, viruses, turbidity, tannins, and other particles down to 0.02 micron size.

MEMBRANE: The patented polysulfone-based Outside/In Ultrafiltration Membrane is designed for turbidity, cyst reduction and fine sediment filtration applications, and is NSF 61 certified. The membrane operates with flow from the outside-to-inside, with benefits of minimized risk of deep clogging, simple cleaning of the membrane surface with water and/or air, and a high area volume ratio that allows for a compact design. The membrane is non-biodegradable, and has superior mechanical and chemical resistance. The high surface area UF bundles require normal line pressure to operate, low waste discharge when in backwash/cleaning mode, and offer low pressure drop with high service flow rates.



The Nelsen Poly-UF™ can be utilized as a final polishing stage or on water reclamation systems for Rainwater or Grey water, along with offering protection during power outages and intermittent power. The system is BioVir certified and tested for log reduction.

FILTRATION LEVEL

- 0.02 micron.
- Operating Temperature: 35 to 100 degrees F.
- Operation Pressure: 10 to 100 psi.
- Continuous Flow Rate: 10 gpm.
- The system provides a treated flow of up to 12 gpm at 25 C and 60 psi.
- Membrane is NSF 61 Certified.

Raw Water Specification:

- Pre-filtration: 5 microns or less.
- Chlorine: 1.0 ppm maximum for continuous flow (up to 2000 ppm for cleaning only).
- Iron: Less than 0.30 ppm.
- Manganese: Less than 0.05 ppm.
- Silt Density Index: Less than 6.0
- pH: 3 to 11.
- Pressure Decay Test (PDT) is required upon installation.

TECHNICAL INFORMATION

- Continuous flow at 10 gpm filtration at 0.02 microns.
- 4.4 log reduction of Bacteria.
- 2.4 log reduction of Virus.
- 2.0 log (est) reduction of Cyst.
- 100,000 MWC)

BACKWASH INFORMATION

- Backflush: Once per day (5 minutes at 0.7 to 2 gpm).
- Drain Flush: Once per week (2 minutes at 5 gpm).

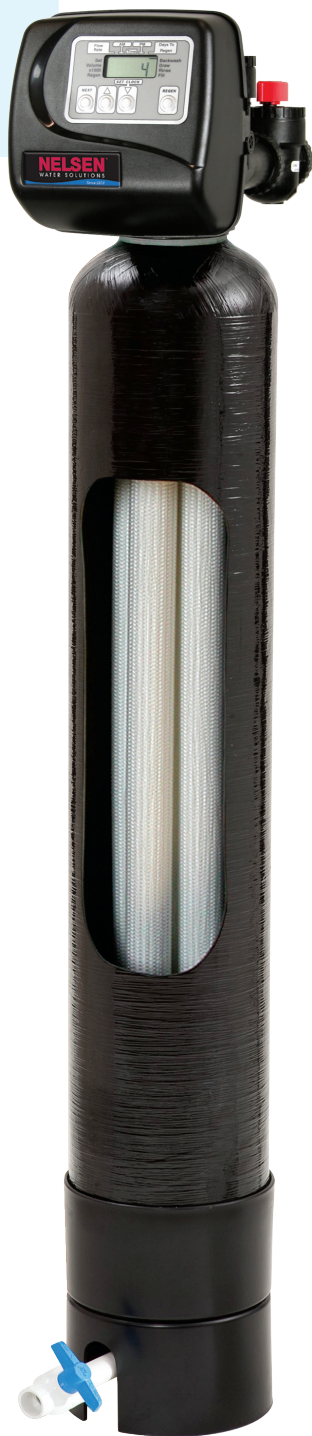
RESIDENTIAL/LIGHT COMMERCIAL SYSTEM

The Nelsen Poly UF System features the Polymeric Ultrafiltration (Poly-UF) Vessel system and the C-Series control valve for daily backwashing of the membranes. The vessel also comes standard with a bottom drain opening for ease of drainage and cleaning purposes of the tank system.

POLY-UF-C

Residential/Lt. Comm. Cartridge Tank System

\$3,533.00



POLY UF™ SYSTEM
SHOWN w/CUTAWAY
TO EXPOSE THE MEMBRANES

AIO3 - Enhanced Oxidation Generator

Ozone is a triatomic oxygen (O₃) which has high oxidation capabilities. It is produced from air and high voltage electricity, think lightning. Ozone is the most effective and rapidly acting primary disinfectant (media bed) available for drinking water treatment. Along with disinfection, the use of ozone for drinking water treatment has many other benefits such as improved taste and color removal, iron and manganese removal. Ozone's high oxidation potential gives it excellent germicidal properties. Ozone is 52% stronger than chlorine, and will oxidize much more rapidly without the use of harsh chemicals.



The Enhanced Oxidation Generator (EOG) from OZOTECH is easy to install and leverages the power of natural ozone technology to improve water quality without the use of chemicals. With minimal maintenance costs, the EOG helps to keep the NWTS Filter Control head clean, extending filter life saving you money. The EOG slides onto plastic clips that are designed for the control valve giving the system a professional look and installation. A removable front cover provides easy inside access to the system for yearly maintenance

of the CD Cell. The Systems also features a countdown clock as a reminder for CD Cell cleaning with a reset button.

The EOG Unit is pre-wired and installed on AIO System, the compact EOG mounts directly onto the control valve. The system includes the patented stainless steel Ozotech CD cell and features an all-weather enclosure.

DO NOT install the EOG unit on any system using Birm® filter media. Ozone will strip the properties from the media rendering it useless.

AIO3 INSTALLED ON SYSTEMS

These kits are to have the AIO3 Ozone Generator installed on a NWTS-AIO System.

These kits are installed by Nelsen Corporation on an AIO system.

The Ozotech Kit has its own power supply and transformer, meaning there are two power outlets needed for the AIO System, one for the control valve and the other for the EOG unit. The system is pre-programmed and is ready to install. (Media may need installed if shipped separately.)

The Nelsen Ozone Kit features the Nelsen Integrated EOG Ozone Generator installed on the NWTS-AIO System. The EOG operates the same as the Ozotech unit but uses a single source 14VDC transformer to power the EOG and the control valve with an easy to install Interconnect Wire. The interconnect wire features a barrel style plug to insert into the Ozone unit and the same style fitting as the OEM power supply to plug directly into the control board of the valve. The AIO system is pre-programmed with the EOG installed and the system ready to install. (Media may need installed if shipped separately.) Must be sold with AIO System.

AIO3-OZONE-OZOTECH-KIT	Ozone Generator - Ozotech - Installed on System	\$626.00
AIO3-OZONE-NELSEN-KIT	Ozone Generator - Nelsen Single Plug Installed	\$687.00

AIO3 FIELD KITS

Use these kits to retrofit NWTS systems all ready in field service.

AIO3-OZONE-OZOTECH-FIELD KIT	Ozotech Ozone Generator Dealer Install Kit	\$589.00
AIO3-OZONE-NELSEN-FIELD-KIT	Ozone Generator - Nelsen Single Plug - Dealer Install	\$650.00

OZONE CD CELL CLEANING KIT

Nitric acid builds up in the CD Cell, Corona Discharge, over time and must be flushed from the cell. The Ozone Cleaning Kit makes annual maintenance of the CD Cell easy. Included in the kit is clear tubing, syringe and a can of Ozone safe compressed air.

OZONE-CLEANING KIT	Ozone CD Cell Cleaning Kit	\$73.00
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NELSEN

C O R P O R A T I O N

Resins, Filter Media & Chemicals

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CATION Standard and Fine Mesh Resins

CATION Standard resin is a high capacity, conventional gel polystyrene strong acid cation exchange resin designed for use in residential or industrial water softening equipment. Cation resin in sodium form removes hardness ions such as calcium and magnesium by replacing them with sodium. When the resin bed is exhausted the hardness ions begin to pass through the bed. Functionality is returned by regeneration with concentrated sodium or potassium chloride solution. The capacity obtained depends largely on the amount of salt used in the regeneration. Typically 15 lbs. of chemical per ft³ is used to obtain maximum capacity of up to 33,000 grains per ft³.

CATION - Resin Typical Characteristics

Polymer Structure	Polystyrene 8% cross linked with Divinylbenzene
Physical Form and Appearance	spherical beads
Whole Bead Count	90% Min.
Functional Groups	Polystyrene sulfonate
Ionic Form (as shipped)	Na+
Shipping Weight, approx.	850 g/l (50 lb./ft. ³)
Mesh Size (U.S. Std.)	16-50
Moisture retention, Na+ form	45-50%
Swelling, Na+—>H+	5% max.
Total Capacity in sodium form	1.9 me/ml
pH Range, Stability	0-14

FINE MESH - Resin Typical Characteristics

Polymer Structure	Polystyrene 8% cross linked with Divinylbenzene
Physical Form and Appearance	fine mesh spherical beads
Whole Bead Count	90% Min.
Functional Groups	Polystyrene sulfonate
Ionic Form (as shipped)	Na+
Shipping Weight, approx.	850 g/l (50 lb./ft. ³)
Mesh Size (U.S. Std.)	40-70
Moisture retention, Na+ form	45-50%
Swelling, Na+—>H+	5% max.
Total Capacity in sodium form	1.9 meq/ml
pH Range, Stability	0-14

Ion Exchange Resins

HI-CAPACITY WATER SOFTENING RESIN

Our standard mesh cation exchange resin provides for economical softening capabilities of both household and commercial water softeners.

CATION RESIN	Softener Resin, 1 Cu Ft Bag	\$173.00
CATION-50-BOX	1/2 Cubic Foot Box	\$108.25
CATION-75-BOX	3/4 Cubic Foot Box	\$152.00
CATION-100-BOX	1 Cubic Foot Box	\$196.00

FINE MESH WATER SOFTENING RESIN

Fine mesh resin permits greater exposed surface area exchange sites resulting in higher kinetics than conventional resin yielding greater ferrous iron removal while providing the same softening capability.

FINE MESH RESIN	Fine Mesh Resin, 1 Cu Ft Bag	\$223.00
FINE MESH-50-BOX	1/2 Cubic Foot Box	\$136.00
FINE MESH-75-BOX	3/4 Cubic Foot Box	\$192.00
FINE MESH-100-BOX	1 Cubic Foot Box	\$249.00



Nelsen Corporation Resins

High cross-linked styrene divinylbenzene strong acid cation resin in bead form. Specially developed to eliminate taste and odor and provide excellent stability. It is primarily used for softening water in municipal and industrial water treatment. Cation resin in sodium form removes hardness ions such as calcium and magnesium by replacing them with sodium. When the resin bed is exhausted the hardness ions begin to pass through the bed. Functionality is returned by regeneration with concentrated sodium or potassium chloride solution. The capacity obtained depends largely on the amount of salt used in the regeneration. Typically 15 lbs. of chemical per ft³ is used to obtain maximum capacity of up to 33,000 grains per ft³.

CR10 - 10% Crosslinked Resin - Typical Characteristics

Total exchange capacity	2.0 meq/ml min
Ionic form, supplied	Na
Water retention	43 - 48%
Screen size, U.S. Standard	16-50 mesh
Bulk density	0.78 - 0.88 g/ml

Suggested Operating Conditions:

pH range	0 - 14
Operating temperature, Na	120°C max
Total Swelling (Na H)	8-10% max
Regenerant concentration	NaCl: 8-10% HCl : 4 - 5%
Flow rate of regenerant	4-6 m/hr
Regenerant contact time	30-60 minutes
Rinse flow rate	10-20 m/hr
Operating flow rate	10-45 m/hr
Free chlorine	1.0 mg/l max



10% CROSSLINKED

Highly cross-linked styrene divinylbenzene strong acid cation resin in bead form. It provides longer life when operating under aggressive conditions. Gold in color.

Pallet quantity - 42 bags per pallet

CR10	Softener Resin, 1 Cu Ft Bag	\$201.00
CR10-50-BOX	1/2 Cubic Foot Box	\$122.50
CR10-75-BOX	3/4 Cubic Foot Box	\$173.00
CR10-100-BOX	1 Cubic Foot Box	\$225.00

Purolite Standard

Purolite Standard Resin is a high purity premium grade bead form conventional gel polystyrene sulfonate cation exchange resin designed expressly for the treatment of foodstuffs, beverages, potable waters, and water used in the processing of food. Its specification is such that it will exceed the relevant EEC requirements, and the resin is in compliance with the U.S. Food & Drug Administration Code of Federal Regulations section 21, paragraph 173.25; for use in the treatment of foods for human consumption. Its high bead integrity, excellent chemical and physical stability, and very low extractables content play a large part in its successful employment in these areas.

Basic Features:

Application - Domestic/Industrial/
Food grade softening - supplied in
Na+ form - Potable Use

Polymer Structure - Gel
polystyrene crosslinked with DVB

Appearance - Amber, clear
spherical beads

Functional Group - Sulfonic acid

Ionic Form as Shipped - Na+

Typical Physical & Chemical Characteristics

Total Capacity, Na+ Form (min.)	1.9 eq/l (41.5 Kgr/ft3)
Moisture Retention, Na+ Form	46 - 50%
Particle Size Range	300 - 1200µm
< 300 µm (max.)	1%
Uniformity Coefficient (max.)	1.7
Reversible Swelling Ca2+ » Na+	8%
Reversible Swelling, Na+ » H+ (max.)	10%
Specific Gravity	1.27
Shipping Weight (approx.)	800 - 840 g/l (50 - 52.5 lbs/ft3)
Temperature Limit	120°C (250°F)



Purolite HI-CAPACITY WATER SOFTENING RESIN

Pallet quantity - 42 bags per pallet

C100E	Softener Resin, 1 Cu Ft Bag	\$229.00
C100E-50-BOX	1/2 Cubic Foot Box	\$142.00
C100E-75-BOX	3/4 Cubic Foot Box	\$203.00
C100E-100-BOX	1 Cubic Foot Box	\$264.00



Typical Physical & Chemical Characteristics

Polymer Structure.....	Styrene/DVB	Approximate Shipping Weight.....	50 lbs./cu.ft.
Polymer Type.....	Gel	Screen Size Distribution.....	16 to 50 (U.S. Mesh)
Functional Group.....	Sulfonic Acid	Maximum Fines Content.....	1 percent (less than 50 Mesh)
Physical Form.....	Spherical Beads	Minimum Sphericity.....	90 %
Ionic Form (as shipped).....	Sodium	Uniformity Coefficient.....	1.6 (Approximate)
Total capacity.....	> 1.7 meq/mL (Na Form)	Resin Color.....	Brown to black
Water Retention.....	40 to 52 percent (Na Form)		



10% CROSSLINKED AMBER

ResinTech CGS10 is a sodium form standard crosslinked gel strong acid cation resin. CGS10 is optimized for residential applications that require good regeneration efficiency and high capacity. ResinTech CGS10 is intended for use in all residential and commercial softening applications that do not have significant amounts of chlorine in the feed water. CGS10 is supplied in the sodium form. NSF/ANSI-44/61 Certified for Material Safety

Pallet quantity - 40 bags per pallet

CGS10	Softener Resin, 1 Cu Ft Bag	\$233.00
CGS10-50-BOX	1/2 Cubic Foot Box	\$144.25
CGS10-75-BOX	3/4 Cubic Foot Box	\$206.00
CGS10-100-BOX	1 Cubic Foot Box	\$268.00

Typical Physical & Chemical Characteristics

Polymer Structure.....	Styrene/DVB	Approximate Shipping Weight.....	50 lbs./cu.ft.
Polymer Type.....	Gel	Screen Size Distribution.....	16 to 50 (U.S. Mesh)
Functional Group.....	Sulfonic Acid	Maximum Fines Content.....	1 percent (less than 50 Mesh)
Physical Form.....	Spherical Beads	Minimum Sphericity.....	90 percent
Ionic Form (as shipped).....	Sodium	Uniformity Coefficient.....	1.6 (Approximate)
Total capacity.....	> 1.7 meq/mL (Na Form)	Resin Color.....	Brown to black
Water Retention.....	40 to 52 percent (Na Form)		



RESINTECH CGS-BL - 10% CROSSLINKED - BLACK

ResinTech CGS-BL is a high purity, dark colored, high capacity, gel type sulfonated polystyrene cation resin supplied in the sodium form as moist, tough uniform spherical beads. ResinTech CGS-BL specifically is intended for use in all water softening applications, including beverages, potable water and water used for food processing. It's high capacity and DVB content provide long life and good chlorine resistance in all potable water applications. NSF/ANSI-61 VALIDATED

Pallet quantity - 40 bags per pallet

CGS-BL	Softener Resin, 1 Cu Ft Bag	\$206.00
CGS-BL-50-BOX	1/2 Cubic Foot Box	\$130.00
CGS-BL-75-BOX	3/4 Cubic Foot Box	\$184.00
CGS-BL-100-BOX	1 Cubic Foot Box	\$239.00



LayneRT™ has been developed as a significant improvement on the efficiency and longevity of adsorptive arsenic media, thus lowering the operating cost associated with removing arsenic (arsenate and arsenite) from water. It's ideal blend of selectivity and durability means that LayneRT can reliably and efficiently reduce arsenic to safe consumption levels.

LayneRT is a long lasting, high capacity technology that provides rapid adsorption kinetics without generating any fines. Not only does LayneRT provide optimal flow dynamics, no back-washing (no onsite residuals), and a low pressure drop, but it is also regenerable, thereby mitigating the liability associated with waste disposal.

Material: LayneRT is comprised of a hybrid resin bead that is attrition resistant and does not generate fines. Media comprised of granulated materials are friable and generate fines, which can lead to increased back-pressure during operation requiring backwash, additional system complexity and more frequent maintenance.



NSF/ANSI Standard 61 Certified

No Backwash Required: Backwash requirements add operational complexity, and generate flues containing an arsenic residual.

Arsenic Residuals: LayneRT requires no backwash and does not generate arsenic-containing flues.

Disposal: LayneRT may be returned directly to Layne for environmentally responsible disposal. Although most spent media pass TCLP, research supports that they leach arsenic under actual landfill conditions. "TCLP Underestimates Leaching of Arsenic from Solid Residuals Under Landfill Conditions" Ghosh A., Mukiibi M., Ela W, Environ. Sci. Techno!., 2004, 38(17), pp 4677-82.

Minimum Contact Time: A lower contact time enables systems using LayneRT to have a smaller system footprint, reducing facility requirements. - (2 Minutes)

Chemistry: Hydrous metal oxides are the industry accepted chemistry for binding arsenic.

TOTAL ARSENIC - Total arsenic concentration above 0.30 mg/L will reduce media life.

ARSENITE AS(III) - The arsenic removal media removes both As(III) and As(V) but has approximately four times the capacity for As(V) over As(III). If arsenite is present it is recommended to oxidize the water ahead of the arsenic removal media.

pH - Adsorption media operate most effectively between 5.5-8.5. The media will reduce arsenic outside of this range but the capacity may be compromised. At elevated pH, silica becomes a more aggressive interfering species. Note: Do not use organic acids (such as citric or acetic) to adjust the pH ahead of the media.

SILICA - Levels above 20 mg/L begin to interfere with media arsenic adsorption when combined with a pH above 7.5.

PHOSPHATE - Levels above 0.15 mg/L will reduce media life for arsenic adsorption.

IRON AND MANGANESE - Soluble iron and manganese may precipitate onto the media bed. If iron and manganese are above the secondary MCLs (0.30 mg/L and .050 mg/L respectively), it is recommended to filter them before the arsenic removal system.

HARDNESS - Does not affect the performance of the arsenic removal media.

Water Quality Criteria

pH Range	5.5 – 8.5
Arsenic ¹	< .05 mg/l
Arsenic Type ²	Pentavalent
Phosphate (PO4) (as P)	< 0.150 mg/l (< 0.05 mg/l)
Silica	< 20 mg/l
Iron	< 0.3 mg/l
Manganese	< 0.05 mg/l
Hydrogen Sulfide	Non Detectable
Chlorine Residual	< 1.0 ppm
Tannins	Non Detectable
Hardness	Not Applicable

Typical Characteristics

Structure	Macroporous Polystyrene Bead
Functional Group	Hydrous Iron Oxide
Bulk Density (as sold)	790–840 g/l (49–52 lb/cu.ft)
Specific Gravity	1.25–1.30 g/ml
Minimum Contact Time	2 Minutes
Operating Temperature Range	1-80° C (33–172° F)
Particle Size	300–1200 microns
Operating pH Range	5.5–8.5



WATER • MINERAL • ENERGY

Selective Ion Exchange Resin and Media

LAYNE RT ARSENIC RESIN

LAYNERT-100-BOX	1 Cubic Foot Box	\$1,653.00
LAYNERT-50-BOX	1/2 Cubic Foot Box	\$861.00





Adedge Technologies' AD33 media is the industry standard for arsenic reduction that reduces up to 99% of total arsenic, including both arsenic (III) and arsenic (V). It is also effective in reducing other heavy metals such as lead, cadmium, chromium, antimony and molybdenum. This revolutionary new iron-based granular adsorption media has 4 to 10 times the capacity of many adsorption medias.

Adedge's product is specifically designed for commercial and residential POE and small systems to meet the new EPA arsenic standard of 10 ppb. Developed in the mid-nineties, this ferric oxide-based product has been successfully used in large-scale drinking water applications since 1999. The AD33 media is discardable when spent and requires no chemicals or regeneration. It has become the premier product of choice for POE whole-house drinking water treatment systems for reliable, cost-effective, proven reduction of arsenic.

Technical Specifications

AD33 provides cost effective centralized arsenic treatment with a typical life of 2-3+ years before replacement. The media exhibits high operating capacity across a wide range of pH, influent arsenic concentrations and flow rates. It is simple to apply in standard POE vessels with typical flow rates of 2-10 gallons per minute. Once the media is exhausted, AD33 can be discarded as a non-hazardous waste (specific state requirements should be consulted). Media is easy to handle and can be stored and shipped dry.

Water Quality Criteria¹

pH Range ²	5.5 – 8.5
Arsenic ³	< < 100 ug/L
Iron	< 0.3 mg/L
Manganese	< 0.05 mg/L
Phosphate	< 0.5 mg/L
Silica	< 30 mg/L
Sulfate	< 100 mg/L
Sulfides	< detect mg/L
TSS	< 5 mg/L
Fluoride	< 1 mg/L
Hardness	< 300 mg/L
Turbidity	5 NTU

Arsenic Removal Performance (POE)

Arsenic concentration range ^{1,2}	10 – 100+ ppb
Arsenic species reduced	As (III) and As (V)
Removal efficiency	Up to 99%
Estimated media life	2 to 3+ years
Expected life bed volumes ³	15,000 to 125,000
Spent media disposal ⁴	Non-hazardous waste
Empty bed contact time	3 minutes typical

Typical Characteristics

Structure	Macroporous Polystyrene Bead
Functional Group	Hydrous Iron Oxide
Bulk Density (as sold)	790–840 g/l (49–52 lb/cu.ft)
Specific Gravity	1.25–1.30 g/ml
Minimum Contact Time	2 Minutes
Operating Temperature Range	1-80° C (33–172° F)
Particle Size	300–1200 microns
Operating pH Range	5.5–8.5

1. Recommendations for best performance.
2. Water > 8.5 pH may require pH adjustment for best results. Contact Adedge for technical support.
3. For all applications, complete Adedge POE profile sheet to pre-qualify site for proper use; consult Adedge Authorized dealer or distributor for details
4. Pretreat for tannins if present prior to adsorption.



Certified to NSF/ANSI 61



AEDGE - ARSENIC REMOVAL

AD-33S

Adedge Arsenic Resin, 1 Cu Ft Bag

\$3,064.00



Aldex CR26 Iron Media, Manganese, Hydrogen Sulfide and Arsenic Removal Media

Aldex CR26 is a special media designed to provide excellent catalytic properties required for removal of many contaminants from potable and non-potable aqueous streams. Aldex CR26 is an insoluble media that oxidizes species in solution including hydrogen sulfide, iron and manganese.

Metal-oxide nano-particles are precipitated within the resin bed where they form very strong chemical bonds with arsenite (As III) and arsenate (As V). This allows Aldex CR26 to thoroughly and effectively remove arsenic along with Fe, Mn and H₂S.

Chemical Free Regeneration - CR26 does not require chemicals such as chlorine dioxide, potassium permanganate, chlorine or sodium chloride brine solution for regeneration. The oxidative chemical locked inside CR26 beads is regenerated via the dissolved oxygen in the backwash water.

Potable and Non-Potable Water

Applications - CR26 requires less contact time and is like standard softening resins in bulk density and handling making it an ideal choice for point-of-entry (POE) systems.

CR26 can be back-washed at lower flow rates to achieve ideal bed expansion

needed to remove metal-oxide precipitates generated during the service cycle. CR26 is easy to handle versus other oxidative media and many naturally occurring zeolites.

Multiple Contaminant Removal - CR 26 was initially designed for the selective removal of iron and manganese but testing has shown the product to be ideal for multi-contaminant removal.

Expected Service Life - Due to the unique nature of CR26 and its function as an oxidizing agent encapsulated within an ion exchange bead, a long service life of 7 to 10 years is expected.

General Guidelines

1. The media can treat water having an iron content above 10 ppm, but the process is not economical particularly for large flow rates. Hence it is recommended to remove iron by pretreating the water by aeration, followed by clarification and filtration. CR26 shall then be used as a polishing media.
2. Free chlorine should be removed before passing water through the media.
3. The treated water from Aldex CR 26 will have an iron content of <0.1 ppm.
4. Aldex CR 26 removes dissolved iron from water, which is present as ferrous iron. Iron can also exist in other forms such as bacterial iron, soluble organic iron and colloidal iron. Those forms of iron cannot be removed effectively by CR26.
5. All sequestering agents including poly phosphates and metaphosphates should be added after the CR26 unit.
6. For high iron content in feed water (> 10 ppm), it is recommended to backwash the unit with treated water, so as to avoid contamination of bottom portion of the bed.
7. The unit must be back-washed at specified flow rate for effective removal of precipitated iron and suspended solids.
8. The backwash frequency shall be every 24 to 48 hours for continuous operating unit. If the unit is operated intermittently, backwash at the end of each cycle.

Recommended Operating Conditions

Physical Form.....	Black, moist spherical beads
Influent pH.....	6.0 to 9.0
Freeboard.....	30% to 50%
Free chlorine.....	0.5 to 1.0 mg/l
Organic matter.....	Less than 1.0 ppm
Total dissolved solids.....	2500 ppm maximum
Total suspended solids.....	<1 ppm
Dissolved oxygen.....	2 mg/l or 15% greater than Iron (Fe) content

Physical Chemical Properties

Physical Form.....	Black, moist spherical beads
Moisture Content.....	46 to 52%
Net Weight (as shipped).....	800 kgs/m ³ , approximately
Particle size.....	0.3 to 1.2 mm
> 1.2 mm %.....	5.0 maximum
< 0.3 mm %.....	1.0 maximum
Effective Size.....	0.50 to 0.60 mm
Uniformity Coefficient.....	1.7 maximum



Aldex CR26 Iron Media

ALDEX CR26

CR26	Aldex Iron Removal Media, 1 Cu. Ft. Bag	\$586.00
CR26-50-BOX	CR26 1/2 Cubic Foot Box	\$325.70
CR26-75-BOX	CR26 3/4 Cubic Foot Box	\$477.25
CR26-100-BOX	CR26 1 Cubic Foot Box	\$629.75

A520E is a macro porous strong-base anion resin which is designed for the removal of nitrates from water for potable processes for both residential and community water systems. Regenerated with brine. No nitrate dumping at the end of service and longer service runs.

A850 is a gelular type 1 strong base anion exchange resin with an acrylic matrix for the adsorption of soluble tannins that contribute to color and taste in drinking water. The acrylic matrix ensures excellent removal of organic matter from a water supply in conjunction with its reversible removal upon regeneration. This resin is regenerated very efficiently with lower levels of sodium hydroxide than those required for a polystyrene based type I resin, and yet it has a comparable ability to remove weaker acids including carbonic acid and silica. It's used in combination with a polystyrene-based resin (for instance in a mixed bed positioned after the anion unit) can often result in the removal of a wider spectrum of organic compounds than either type of anion resin alone.

A860 is a macro porous type 1 strong base anion exchange resin with an acrylic matrix for the adsorption of soluble tannins that contribute to color and taste in drinking water. Since it has an acrylic matrix like the A850, it works the same way with the removal of organic matter, regeneration and removing weaker acids. It can also be used in combination with a polystyrene-based resin for the same effects. It is particularly resistant to organic fouling, even where loadings are relatively high.

SST-60 is a high-efficiency softening resin based on gel type shallow-shell technology. Lower hardness leakage. Significant savings in salt usage. The shorter the diffusion path, the more rapid the softening exchange occurs. Reducing the depth of penetration required to cleanse the resin allows for a more complete regeneration and provides a higher, more efficient utilization of the regenerant. The result is a resin with unsurpassed salt efficiency, lower leakage and reduced rinse water requirements.

TANEX is a proprietary blend of special and patented anion exchange resins used for removal of tannins and organic

matter in water used primarily for potable applications. TANEX is useful in reducing more difficult-to-control organic matter and color that may exist as partially dissolved and partially colloidal in nature.

ASM-10-HP is a strongly basic hybrid anion exchange resin specially formulated to selectively remove arsenic. It is supplied in the salt form as clean, moist, tough, uniform, spherical beads. ASM-10-HP exhibits extraordinary throughput capacity in arsenic removal service on potable water supplies. Its performance is virtually unaffected by common anions, such as chlorides, bicarbonates or sulfates. It is effective over the entire pH range of potable water. It has the highest arsenic removal capacity of organic based arsenic removal media, with no Arsenic dumping - effluent arsenic levels will not exceed influent levels if resin is operated past exhaustion point. Spherical and uniform particle size provide low pressure drop and greater resistance to bed compaction. Unlike granular, coated medias, ASM-10-HP will not shed particles. ASM-10-HP is made from NSF/ANSI-61 validated Anion Exchange Resin.



PUROLITE A520E NITRATE SELECTIVE RESIN

For Nitrate removal in residential and community water systems. Regenerated with brine.

A520-100-BOX	1 Cubic Foot Box	\$772.00
A520-50-BOX	1/2 Cubic Foot Box	\$410.00

PUROLITE A850 TANNIN RESIN

A gelular resin for the adsorption of soluble tannins that contribute to color and taste in drinking water.

A850-100-BOX	1 Cubic Foot Box	\$794.00
A850-50-BOX	1/2 Cubic Foot Box	\$418.00

PUROLITE A860 TANNIN RESIN

A macroporous resin for the adsorption of soluble tannins that contribute to color and taste in drinking water.

A860-100-BOX	1 Cubic Foot Box	\$879.00
A860-50-BOX	1/2 Cubic Foot Box	\$460.00

PUROLITE TANEX RESIN

Resin for the adsorption of soluble tannins that contribute to color and taste in drinking water.

TANEX-100-BOX	1 Cubic Foot Box	\$1,843.00
TANEX-50-BOX	1/2 Cubic Foot Box	\$964.00

PUROLITE SST-60 HIGH EFFICIENCY SOFTENING RESIN

Gel Type Shallow Shell Technology (SST) resin for softening applications. Lower hardness leakage. Significant savings in salt usage.

SST-60	Softening High Efficiency - 1 Cubic Foot Bag	\$392.00
SST-60-50-BOX	1/2 Cubic Foot Box	\$217.00
SST-60-75-BOX	3/4 Cubic Foot Box	\$316.00
SST-60-100-BOX	1 Cubic Foot Box	\$424.00

ASM-10-HP - ARSENIC REMOVAL

ASM-10-HP	1 Cubic Foot Box	\$1,631.00
ASM-10-HP-50-BOX	1/2 Cubic Foot Box	\$837.00
ASM-10-HP-75-BOX	3/4 Cubic Foot Box	\$1,245.00



Mixed Bed Resin

PUROLITE RESINS

MB3710-100-BOX	Nuclear Grade Mixed Bed (1 cu. ft.)	\$823.00
MB3710-50-BOX	Nuclear Grade Mixed Bed (1/2 CF Box)	\$437.00

THERMAX RESINS

TULSION® MB-115 is a mixture of strongly acidic cation exchange resin TULSION® T-46 in Hydrogen form and strongly basic type I anion exchanger resin TULSION® A-33 in Hydroxide form in 1:1.5 volume ratio quantities. MB-115 is designed for use in the final polishing for production of ultra pure water. This resin combines high capacity with excellent physical properties.

MB-115	1 Cubic Foot Box	\$380.00
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Cation Resins

PUROLITE RESINS

C100X10	10% Softening High Cross Linked Gel	\$285.00
* C100H	Cation Hydrogen Form	\$210.00

Anion Resins

Purolite A300 is a Type 2, strongly basic gel anion exchange resin with outstanding operating capacity and excellent regeneration efficiency. Purolite A300 removes all ions including silica and CO₂, however, it operates best on waters having a high percentage of strong acids (FMA). Purolite A300 can be used in all types of demineralization equipment where regeneration efficiency and high operating capacities are needed. Purolite A300 has excellent physical stability which allows for long life and better efficiency within the operating bed. Whole bead counts are a minimum of 92% clear beads with mechanical strengths ranging over 300 grams. Purolite A300 can be regenerated with sodium chloride to remove alkalinity from different water supplies. This dealcalization by ion exchange prevents the formation of insoluble carbonate precipitates and stops corrosion due to the formation of carbonic acid. Purolite A300 can also remove nitrates when regenerated with salt. Purolite A300 is a Type 2 strong base anion devoid of taste and odor.

Purolite A400 is a clear gel Type 1 strong-base anion exchanger with both high operating capacity and the ability to achieve low residual silica levels. Minimal quantities of caustic soda are required compared with those typical of the classical Type 1 (Purolite A600) quaternary ammonium structure based on polystyrene. It has a clear gel structure, showing excellent regeneration efficiency and rinse characteristics. Purolite A400 functions well both in mixed bed and layered bed demineralizer systems, where specially tailored particle size ranges result in achieving or maintaining good separations. Purolite A400 has exceptional physical stability for a conventional gel-type resin which permits a long life without the development of excessive pressure drop; it also shows good kinetics of exchange, enabling very low concentration levels of both strong and weak acid anions to be achieved at practical flow rates.

TULSION® A-33-OH

Crack-Free Strong Base Anion Exchange Resin Type I – Nuclear Grade

TULSION® A-33 is a specially developed, premium grade, strongly basic anion exchange resin based on polystyrene matrix containing quaternary ammonium Type I groups with excellent physical and chemical stability. A-33 is regenerated in hydroxide form ensuring that not more than 3% of exchange sites are in chloride form.

TULSION® A-33 is primarily used for purification of reactor coolant water and moderator in nuclear power station plants to keep corrosion products to the minimum and thus protecting the heat transfer surfaces from scaling and corrosion.

TULSION® A-33 has excellent capacity for removal of boric acid. TULSION® A-33 is manufactured under the most stringent quality controls to ensure minimal metallic impurities resulting in the highest purity of the ionic form supplied.



PUROLITE RESINS

A300-100-BOX	Anion Strong Basic Type 2, 1 CF Box	\$639.00
A300-100-BOX	Anion Strong Basic Type 2, 1 CF Box	\$639.00

THERMAX RESINS

A-33-OH	Anion Strong Basic/Hydroxide form resin	\$524.00
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Resins, Media & Chemicals



NELSEN

CORPORATION™

Nelsen Corporation Multi-Blends

Nelsen Corporation Multi-Blends provide the proper mix for many filter applications. No longer will you have the waste of time and effort that it takes to get the proper minerals and mix them together. Iron Blend, a combination of Filter Ag and Birm, is the standard media for our Terminator Systems. Aqua Blend combines Filter Ag, Birm, Calcite and Corosex and is the standard media in our Terminator Plus Systems.

IRON-B75	Iron Blend, 3/4 C.F. Box	\$206.25
IRON-B100	Iron Blend, 1 CF Box	\$257.75
AQUA-B75	Aqua Blend, 3/4 CF Box	\$209.50
AQUA-B100	Aqua Blend, 1 CF Box	\$253.25



Nelsen AIO
AIR INJECTION OXIDIZING FILTER SYSTEM

AIO with CONTROL FLOW TECHNOLOGY®
by NELSEN CORPORATION

AIO PLUS
by NELSEN CORPORATION

Nelsen AIO System Media Kits

BASE MEDIA KITS

The BASE MEDIA KIT is the support bed for both the Iron and Sulfur systems. Purchase one kit for 10" and 12" tank systems. Purchase two base kits for 13" & 14" tank systems. The base kit is not necessary for the Katalox kits.

BASE MEDIA KIT	Media for Nelsen AIO	\$295.00
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IRON SYSTEM MEDIA KITS

The kits below include the media necessary to fill the associated tank size. The iron media is a blend of Birm and Centaur. These kits are not compatible with the use of the Ozone generator.

MEDIA-10-FE	AIO Iron Media, 10x44 Tank	\$319.00
MEDIA-10T-FE	AIO Iron Media, 10x54 Tank	\$363.00
MEDIA-12-FE	AIO Iron Media, 12x48 Tank	\$413.00
MEDIA-13-FE	AIO Iron Media, 13x54 Tank	\$638.00
MEDIA-14-FE	AIO Iron Media, 14x65 Tank	\$826.00

SULFUR SYSTEM MEDIA KITS

The kits below include the media necessary to fill the associated tank size. The media used in the sulfur systems is Birm. These kits are not compatible with the use of the Ozone generator.

MEDIA-10-S	AIO Sulfur Media, 10x44 Tank	\$656.00
MEDIA-10T-S	AIO Sulfur Media, 10x54 Tank	\$770.00
MEDIA-12-S	AIO Sulfur Media, 12x48 Tank	\$922.00
MEDIA-13-S	AIO Sulfur Media, 13x54 Tank	\$1,360.00
MEDIA-14-S	AIO Sulfur Media, 14x65 Tank	\$1,692.00

KATALOX SYSTEM MEDIA KITS

The kits below include the media necessary to fill the associated tank size. Katalox is compatible with the use of an Ozone Generator.

MEDIA-10T-KAT	AIO Katalox Media, 10x54 Tank	\$620.00
MEDIA-12-KAT	AIO Katalox Media, 12x48 Tank	\$827.00
MEDIA-13-KAT	AIO Katalox Media, 13x54 Tank	\$1,034.00
MEDIA-14-KAT	AIO Katalox Media, 14x65 Tank	\$1,268.00

Filter-Ag®

Clack Filter-Ag® has many outstanding advantages over the more common granular filter media used for suspended solids reduction. Its fractured edges and irregular surface provides a high surface area and complex flow path for efficient removal of suspended matter through out the filter bed, typically reducing suspended solids down to the 20-40 micron range. The larger particle size creates less pressure loss through the filter and allows deeper sediment penetration into the bed for higher sediment loading and longer filter runs.

This large and irregular shape prevents the screening and caking of sediment in the top several inches of the filter bed as happens in the typical sand filter, thus preventing a rapid build up of head loss and blinding problems. Filter-Ag®'s light weight means lower backwash rates and better bed expansion to release trapped sediment and rinse the filter media during the backwash cycle. This ideal combination of particle shape, size and density make it a good choice where quality water filtration and water conservation are important.

Although not intended to be an iron reduction media, extensive field experience has shown Filter-Ag®'s rough and jagged surface to be very good at entrapping the fragile iron floc that forms after dissolved iron has been oxidized. The fragmented edges are apparently good floc collection points for the precipitated iron. Typical oxidation methods include aeration, ozonation and chlorination.

Substantial savings can be realized when designing a system using Clack Filter-Ag®. Its low pressure drop, high service flow rates and high bed loadings combined with lower backwash rates allow economy in equipment downsizing and reduced pumping requirements. Its light apparent density also saves on handling expense and shipping costs.

Filter-Ag® can be applied to systems designed for either pressure or gravity flow. Because of its unique density, Filter-Ag® can also be used in multi-media (graded density) filter designs allowing a more flexible approach to difficult filtration problems.

Advantages:

- There is less pressure loss through a bed of Filter-Ag® than through most other filter media
- Light weight requires lower back-wash rates than those required for other filter media
- High service rates result in lower equipment costs and a savings in space
- High sediment reduction capacity results in longer filter runs, with a substantial savings in backwash water and time out of service
- Reduced shipping cost due to light weight/cu. ft.
- Replacement of sand with Filter-Ag® in existing installations may increase filter capacity 100% or more. Caution should be taken upon start-up that the lightweight Filter-Ag® is not washed to drain.

Physical Properties:

Color.....	Light grey to near white
Bulk Density.....	24-26 lbs./cu. ft.
Specific Gravity.....	2.25 gm/cc
Mesh Size.....	12 x 30
Effective Size.....	0.67 mm
Uniform Coefficient.....	1.8
Hardness.....	6 (Mohs scale)

Conditions for Operation:

Water pH range.....	wide range
Maximum water temperature.....	140°F/60°C
Bed depth.....	24-36 in.
Freeboard.....	50% of bed depth (min.)
Service flow rate.....	5 gpm/sq. ft., although considerably higher rates are often used
Backwash flow rate.....	8-10 gpm/sq. ft.
Backwash bed expansion.....	20-40% of bed depth

Upon installation allow bed to soak overnight before back-washing.



Certified to
NSF/ANSI 61

Filter-Ag®

Filter-Ag® is a very efficient filter medium for the removal of suspended material and turbidity. Less pressure loss and finer filtration is possible because of its light weight and irregular surface characteristics.

Pallet quantity - 70 bags per pallet

FILAG	1 Cubic Foot Bag (25 lb.)	\$37.10
FILAG-50-BOX	1/2 Cubic Foot Box	\$41.90
FILAG-75-BOX	3/4 Cubic Foot Box	\$51.80
FILAG-100-BOX	1 Cubic Foot Box	\$62.50

Filter-Ag Plus®

Clack Filter-Ag Plus® is a unique natural ore called clinoptilolite that has many outstanding advantages over common granular filter sands and multimedia used for suspended solids reduction. The granules are angular in shape, with rough surfaces and micro porous void spaces as small as 3 microns. This creates a surface area over 100 times greater than silica sand. The angularity of the granules and the tapered internal pore spaces allow for reduction of dirt, silt and organic matter suspended in water by bridging, straining and adhesion. The rough surface and internal porosity provide a high surface area for efficient reduction of suspended matter. Utilizing deep bed filtration can typically reduce suspended solids down to the 5 micron or less range. Filter-Ag Plus® structure typically creates less pressure loss through the filter and allows deeper sediment penetration into the bed for higher sediment loading and longer filter runs. The deep bed filtration capacity of Filter-Ag Plus® prevents a rapid buildup of head loss and blinding problems that are associated with typical sand filters. The longer filter run times reduce backwash frequency, which provides conservation of water. This ideal combination of particle shape, texture and porosity make it a good choice where quality water filtration and water conservation are important.

Substantial savings can be realized when designing a system using Clack Filter-Ag Plus®. Its low pressure drop, high service flow rates and high bed loadings combined with lower backwash frequency allow economy in equipment downsizing and reduced pumping requirements. Its low density also saves on handling expense and shipping costs.

Clack Filter-Ag Plus® can be applied to systems designed for either pressure or gravity flow. Because of its unique physical characteristics, Filter-Ag Plus® can be used to replace multimedia (graded density) filter designs.

Air scour is possible and helpful when there is heavy loading in the bed. It has to be done minimally in order to prevent too much bed lift and/or advanced attrition.

An air scour of 1 to 2 cfm/ft² at backwash rates of 15 to 20 gpm/ft² would be sufficient. The pressure required would be static head pressure plus the psi necessary to deliver 1 to 2 cfm/ft². Bed

expansion should be observed to ensure that media is not being discharged in the back wash water. A one minute air scour at the beginning of the backwash cycle should be sufficient. Prolonged air scour may cause stratification of the smaller media to the top of the bed which could affect future head loss.

Advantages:

- Deep bed filtration results in superior water quality and reduces the load on downstream equipment.
- High sediment removal capacity results in longer filter runs, with a substantial savings in backwash water and time out of service.
- High service flow rates result in lower equipment costs and a savings in space.
- Reduced shipping cost due to lighter weight/cu.ft.
- Replacement of multimedia with Filter-Ag Plus® in existing installations may increase filter capacity.
- Filter-Ag Plus® is an all-natural, environmentally safe product.

Physical Properties:

- Color: White to off white
- Dry Bulk Density: 50 lbs/cu.ft
- Specific Gravity: 2.2 g/cc
- Mesh Size: 14x30
- Effective Size: 0.55mm
- Uniformity Coefficient: 1.8
- Hardness: 4-5 (Mohs Scale)

Conditions for Operation:

- Water pH range wide range
- Maximum water temperature 140°F/60°C
- Bed depth 24-36 in.
- Freeboard 50% of bed depth (min.)
- Service flow rate 5 gpm/sq. ft., although considerably higher rates are often use
- Backwash flow rate 8-10 gpm/sq. ft.
- Backwash bed expansion 20-40% of bed depth

Upon installation allow bed to soak overnight before back-washing.



Certified to NSF/ANSI 61



Filter-Ag Plus®

Pallet quantity - 70 bags per pallet

- FILAG-PLUS
- FILAG-PLUS-50-BOX
- FILAG-PLUS-75-BOX
- FILAG-PLUS-100-BOX

- 1/2 Cubic Foot Bag (25 lb.)
- 1/2 Cubic Foot Box
- 3/4 Cubic Foot Box
- 1 Cubic Foot Box

- \$62.10
- \$55.10
- \$71.70
- \$89.00

Turbidex Hyper-Filtration Media

With filtration efficiency in the 3 to 5 micron range, Turbidex's enhanced performance results in down stream cost savings for chemicals, filter cartridges, membrane cleaning, membrane life, etc. Turbidex™ offers high flow rates with nominal service flow rates up to 15 gpm/ft2 in pressure filters, Turbidex™ allows significant savings in initial equipment costs when compared to traditional medias. Turbidex™ allows for peak flow rates up to 20 gpm/FP. Turbidex

Turbidex™ filtration media incorporates straining as well as ion exchange, sedimentation and flocculation to produce crystal clear water down to <0.1 NTU of turbidity.

The loading capacity of Turbidex™ media is up to 1.5 times greater than multi-media and up to 2.8 times greater than sand filters. This results in longer run times with less frequent back-washing, resulting in significant water savings.



Lightweight Media - Weighing 50-70% less than traditional medias.

Turbidex

Pallet quantity - 40 bags per pallet

- TURBIDEX
- TURBIDEX-50-BOX
- TURBIDEX-75-BOX
- TURBIDEX-100-BOX

Physical Properties:

Color.....	Off-White
Bulk Density.....	50 lbs./lt3
Surface area.....	14 to 25 m2/g
Mesh Size.....	14 x 30
Uniformity Coefficient.....	1.64

Operating Parameters

Bed depth.....	30 - 48 inches
Freeboard.....	50% of bed depth
Flow rate.....	12 - 20 gpm/ ft2
Backwash rate.....	14 - 18 gpm/ ft2
Replacement media ratio.....	1:1



Certified to NSF/ANSI 60

1 Cubic Foot Bag (55 lb.)	\$73.25
1/2 Cubic Foot Box	\$59.60
3/4 Cubic Foot Box	\$78.50
1 Cubic Foot Box	\$98.50

FloMag® PWT Granular Magnesium Oxide

By neutralizing the free carbon dioxide in water, FloMag® can correct red water conditions and render it to a non-corrosive condition. FloMag®, being a reactive magnesium oxide, is used most effectively where pH correction is substantial or high flow conditions are in use. FloMag®, being soluble to acidity, will have to be replenished periodically. Please note, under certain low flow conditions, FloMag® may overcorrect and create a basic condition.

FloMag® can be effectively combined with Calcite to combine the high flow neutralization properties of FloMag®, along with the slower reacting low flow properties of Calcite reducing potentially high basic properties due to over correction.



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FloMag

FloMag can be mixed with Calcite to treat waters as low as 4.0 pH. Up-flow filters are recommended unless the water is under five grains hard. *A minimum of 50% Calcite is recommended to prevent cementing.*

Pallet quantity - 30 bags per pallet

- FLOMAG
- FLOMAG-10-BOX
- FLOMAG-50-BOX
- FLOMAG-66-BOX

Physical Properties:

Color.....	Grayish White
Density.....	75lbs./cu. ft.
Effective Size.....	1.27 mm
Uniformity Coefficient.....	1.48
Active Material (%).....	84-90
Composition - MgO.....	97% minimum

Conditions for Operation:

- Down-flow service is satisfactory on waters with a hardness of less than 5 gr./gal. or where it's combined with Calcite at least 50-50. Up-flow service is generally recommended with hardness exceeding 5 gr./gal. to prevent "cementing of the mineral bed."
- A gravel support bed is recommended.
- pH..... 4-6
- Bed Depth..... 24-30 in.
- Backwash frequently to prevent possible cementing
- Backwash Bed Expansion..... 35% of bed depth.
- Service Rate..... 5-6 gpm/sq. ft.,but may be modified to adapt to local conditions.
- Backwash Rate..... 8-12 gpm/sq. ft.

.66 Cubic Foot Bag (50 lb.)	\$120.00
1/10 Cubic Foot Box (7.25 lb.)	\$40.70
1/2 Cubic Foot Box (37.5 lb.)	\$114.00
.66 Cubic Foot Box (50 lb.)	\$146.00

Anthracite

Although its potential for water treatment has been recognized since ancient times, anthracite coal was not used for that purpose until the beginning of this century. Crushed anthracite makes an excellent medium density filtration media. Anthracite has been manufactured from the finest Pennsylvania coal since 1932. It is specifically selected for water treatment, and during its production goes through several sizing inspections. Random samples are chosen for a complete laboratory quality control analysis for effective size, uniformity coefficient, specific gravity acid solubility and hardness.

Because of its fractured shape, some sediment penetrates deeper into the bed. When compared to equivalent filter sands, this means longer filter runs and less head loss. Backwash rates are also reduced.

Anthracite, because of its unique density, can be used in multi-media filters. At 56 lbs./ft.³ it will hydraulically classify and remain above heavier media such as Filter Sand or Manganese Greensand providing a pre-filtration layer.



#1-1/2 ANTHRACITE

Advantages:

- Higher service flows and longer filter runs than equivalent sand filters.
- Close attention to gradation, hardness and purity assures consistent and reliable performance.
- Unique density allows Anthracite to be combined with other filtration media in multi-media filters.

Physical Properties:

Color.....	Black
Density.....	50 lbs./cu. ft. ³
Effective Size #1-1/2.....	(0.85-0.95 mm)
Uniformity Coefficient #1-1/2.....	(1.6)
Mesh Size - #1-1/2.....	(10 x 20)
Sphericity.....	0.6
Hardness.....	3.0-3.8 (Moh's Scale)
Acid Solubility.....	< 1%
Caustic Solubility O.....	< 1%
Apparent Specific Gravity.....	1.65

Meets American Water Works Association Standard - B100-89

Conditions for Operation:

Color.....	Black
Bed Depth.....	24 - 36 in.
Backwash Rate - #1-1/2.....	(18-25 gpm/ft. ²)
Backwash Bed Expansion.....	30-50% of bed depth
Service Flow Rate.....	5 gpm/sq. ft. or higher depending upon local conditions.



Certified to NSF/ANSI 61

#1-1/2 Anthracite

An excellent medium density filtration media which works well in multi-media filter applications. Provides higher service flows and longer filter runs than equivalent sand filters.

Pallet quantity - 50 bags per pallet

ANT-1.5	1 Cubic Foot Bag (50 lb.)	\$67.25
ANT-1.5-50-BOX	1/2 Cubic Foot Box	\$55.90
ANT-1.5-75-BOX	3/4 Cubic Foot Box	\$73.00
ANT-1.5-100-BOX	1 Cubic Foot Box	\$91.00

Calcite

Acidic waters on contact with Calcite slowly dissolve the calcium carbonate media to raise the pH which reduces the potential leaching of copper, lead and other metals found in typical plumbing systems. Periodic back-washing will prevent packing and maintain high service rates. Depending on pH and service flow, the Calcite bed will have to be periodically added to as the dissolved calcite depletes.

As the Calcite's calcium carbonate neutralizes the water, it will increase hardness and a softener may become necessary after the neutralizing filter.



Certified to
NSF/ANSI 60

Calcite (for Acid Neutralization)

Pallet quantity - 56 bags per pallet

CAL-50-BAG
CAL-50-BOX

1/2 Cubic Foot Bag (50 lb.)
1/2 Cubic Foot Box

\$26.70

\$48.75

Advantages:

- High uniformity coefficient for maximum contact for controlled pH correction
- Slower reacting
- Inexpensive

Physical Properties:

Color..... Near White
Density..... 100 lbs./cu. ft.
Composition..... CaCO₃, 95% minimum
..... MgCO₃, 3.0% maximum

Conditions for Operation:

pH..... 5 - 6
Bed Depth..... 24 - 30 in.
Backwash Rate..... 8-12 gpm. sq. ft.
Backwash Bed Expansion..... 35% of bed depth
Service Flow Rate..... 3 -6 gpm/sq. ft. invariably give satisfactory results but may be modified in view of local conditions.

Soda Ash

Soda Ash injection is used if water is acidic (low pH). Soda ash (sodium carbonate) raises the pH of water to near neutral when injected into a water system. Unlike neutralizing filters, they do not cause hardness problems in treated water. A corrosion-resistant chemical feed pump should be used to inject a soda ash solution into the water.

If the water needs to be disinfected as well as neutralized, dual treatment is possible within the injection system by adding a

chlorine solution (sodium hypochlorite) along with the neutralizing chemical.

Soda ash can treat water with a pH as low as 4.



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Soda Ash (for Acid Neutralization)

When injected into a water system with a chemical feed pump, soda ash will neutralize acid water and eliminate corrosion problems. Also used as a cleaner for Tannin type water softeners.

ASH50

50 lb. Bag

\$120.00

ASH50-100-BOX

50 lb. Box

\$143.00

The solubility of soda ash is dependent on temperature. The following chart shows how much will stay in solution without forming a precipitate in the solution tank, injector line and chemical feed pump.

Solubility of Soda Ash (Na₂CO₃)

Pounds Per Gallon

32°F	50°F	68°F	86°F
0.58	1.04	1.79	3.23

About 3 pounds of soda ash to 4 or 5 gallons of water is the strongest solution that should be attempted. Soda ash has a tendency to stop up feeder lines and check valves associated with the chemical feed pump. Problems can be minimized by keeping the solution mixture as weak as possible to get the pH adjustment needed.

Filter Sand & Gravel

Filter sand and gravel are naturally- occurring, river-washed, glacial deposit products. Their excellent chemical properties - high in silica content and low in soluble calcium, manganese and iron compound - meet AWWA-B100-89 specifications. Precision sizing and uniform grading to close limits meet the rigid specifications of professional engineers throughout the United States, Canada and overseas.

FILTER SAND is graded specifically for use at water filtration plants. It can be used in municipal, industrial or residential applications.

The highly spherical shape of UNCRUSHED GRAVEL promotes good flow and even distribution. Being low in soluble impurities, it will maintain the quality of the treated water, especially in softeners. Three inch layers are recommended in graded support beds.

Physical Properties (Filter Sand):

Color.....	light tan to reddish brown
Density.....	100 lbs./cu. ft.
Effective Size.....	.45 - .55 mm
Uniformity Coefficient.....	1.6 or less
Acid Solubility.....	0.3 - 1.6%
Specific Gravity.....	2.65 - 2.75

Conditions for Operation (Filter Sand):

Bed Depth.....	18 - 30 in.
Backwash Rate.....	15 - 20 gpm./sq. ft.
Backwash Bed Expansion.....	35% of bed depth
Service Flow Rate	
Municipal.....	1.5 - 2 gpm./sq. ft.
Industrial.....	3 gpm./sq. ft.
Domestic.....	5 gpm./sq. ft.

Advantages:

- Highly-spherical shape and uniform grading provides reliable performance in this product with a long history of performance.
- Low soluble impurities prevent undesirable mineral leaching into process stream.



FILSAND



GRAVEL 20



GRAVEL 14



GRAVEL 12

Filter Sand

Sand filtration continues to make good sense: its cost-to-benefit ratio is very high, and effluent water quality is often very good. Sand systems can filter to a 10 micron level, yet they are simple in design and operation. River washed .44 to .55 mm sand with a high silica content, low impurities and a highly spherical shape for municipal, industrial and residential filter applications.

Pallet quantity - 56 bags per pallet

FILSAND	1/2 Cubic Foot Bag (50 lb)	\$23.10
FILSAND-50-BOX	1/2 Cubic Foot Box (50 lb)	\$48.75

Gravel

Our filtration silica sand and gravel offer extremely high pure silica content (>99% SiO₂). All gravels are washed, dried and sized using PLC controls for consistency. All gravel varieties meet American Water Works Association B100 Specifications for Granular Filter Media and are NSF certified for Standard 61 – Drinking Water System Components & Materials.

Pallet quantity - 56 bags per pallet

GRAVEL14	1/4" x 1/8", 1/2 C.F Bag	\$24.20
GRAVEL14-50-BOX	1/2 Cubic Foot Box (50 lb)	\$50.00
GRAVEL14-20-BOX	1/5 Cubic Foot Box (20 lb)	\$34.25
GRAVEL12	1/2" x 1/4", 1/2 C.F Bag	\$24.40
GRAVEL12-50-BOX	1/2 Cubic Foot Box (50 lb)	\$50.75
GRAVEL20	#20 Flint, 1/2 C.F Bag	\$24.40
GRAVEL20-50-BOX	1/2 Cubic Foot Box (50 lb)	\$50.75

Garnet

Garnet is a high hardness, high density granular filter media. It is normally used as the lower (final) filtration layer of a multi-bed down-flow filtration system. Called Multi-Media or Mixed Media filtration, the high density small grain size of Garnet solves a major filtration problem. In a single media granular filter such as a sand filter, the material will hydraulically classify during backwash according to granule size, the smallest rinsing to the top. When water flows downward through the sand, the fine particles at the top of the bed do most of the straining of the sediment. The solids form a cake on the surface with filtration typically taking place in the top few inches. As the cake forms, the filtration becomes finer and head loss increases exponentially in time.

The ideal situation would be to have the large grains of media at the top to trap the large solids and a uniformly decreasing grain size in the direction of fluid flow with the small grains at the bottom to do the final polishing. The penetration of the solids through the entire bed allows increased solids storage, longer filter runs and higher filtration rates.

A properly designed multi-media system will maintain its unique inverse void gradation and provide superior performance even after long periods of use in backwash. This stable condition of large grains above finer ones is achieved by the use of materials of different sizes and specific gravities. Garnet with its high specific gravity of 4.0 forms the lower fine grain layer, its 0.3 mm effective size can filter down to the 10-20 micron range. Filter sand (e.s. = 0.5 mm) and Anthracite (e.s. = 0.9 mm) or Filter-Ag can form the larger less dense layers.

Multi-Media filtration technology is applicable to both water and waste water treatment. Custom designed filters with varying filter bed configurations can be designed to meet specific needs. For the majority of municipal and industrial water supply applications, a filter bed composed of 55 percent low-density material, 30 percent medium density material, and 15 percent high-density material is recommended. Garnet sized per requirements, is the ideal high density material.

#8 Garnet at 150 lb./ft.³ is a good choice for support beds when using other high density filtration media such as high purity Corosex II or the new manganese dioxide oxidation media such as Pyrolox.

Advantages:

- High specific gravity allows unique filter designs. In combination with other filter media both higher flow rates, higher loadings and better filtration can be achieved.
- High hardness reduces attrition and provides for years of reliable service.
- An excellent support bed for other high density media.

Physical Properties:

Color.....	Light tan to reddish purple
Type.....	Almandite
Crystal System.....	Cubic
Fracture.....	Sub-conchoidal
Hardness.....	7.5 (Moh's Scale)
Specific Gravity.....	4.0
Density.....	120 - 150 lbs./cu. ft.
Free Silica.....	None



Garnet mineral sand manufactured by International Garnet Co., Inc. is classified by Underwriters Laboratories Inc.® in Accordance with Standard NSF/ANSI/CAN 61



Garnet

A high-hardness, high-density filter material used in multi-media filters. Recommended as a support bed for other materials such as filter sand, anthracite, corosex, etc.

Pallet quantity - 70 bags per pallet

GAR8-50	#8, .38 Cubic Ft Bag (50 lb.)	\$50.75
GAR8-50-BOX	#8, .38 Cubic Ft Box (50 lb.)	\$73.25
GAR12-50	#8 - 12, .38 cf Bag (50 lb.)	\$50.75
GAR12-50-BOX	#8 - 12, .38 cf Box (50 lb.)	\$73.25
GAR30/40-50	#30-40, .36 cf Bag (50 lb.)	\$50.75
GAR30/40-50-BOX	#30-40, .36 cf Box (50 lb.)	\$73.25



GARNET #8



GARNET #8 - 12



GARNET #30 - 40

Greensand Plus™

Greensand Plus™ is a purple-gray filter media used for removing soluble iron, manganese, hydrogen sulfide, arsenic and radium from well water supplies.

Like its sister product manganese greensand, the substrate media has a manganese dioxide coated surface that acts as a catalyst in the oxidation-reduction reaction of iron and manganese. The difference between Greensand Plus™ and Manganese Greensand is in the substrate that forms the core of the media and the method by which the manganese dioxide coating is attached to that substrate. Greensand Plus™ has a silica sand core and the coating is fused to it while Manganese Greensand has a glauconite core and the coating is ionically bound to it.

The silica sand core of Greensand Plus™ allows it to better withstand operating conditions in waters that are low in silica, TDS and hardness. Thus, if you currently are using manganese greensand and are feeding sodium aluminate, you will likely be able to eliminate the aluminate feed by switching to Greensand Plus™. Also, Greensand Plus™ can withstand higher operating temperatures and higher differential pressures than can manganese greensand. The higher differential pressure may allow for a longer run length, but, if nothing else, allows for more operational margin of error.

Along with the added benefits comes the fact that Greensand Plus™ is an exact replacement for manganese greensand. It can be used in CR and IR applications and requires no changes in backwash rate or times or chemical feeds. Greensand Plus™ has received the WQA Gold Seal Certification for compliance with NSF/ANSI 61. It is available in easy-to-handle 1/2 cubic foot bags.

Greensand Plus™ is NOT shipped in a regenerated form; therefore it is necessary, prior to use, to regenerate it contacting the bed for a minimum of 4 hours.

Capacity/Cu. Ft.:

Iron Alone	550 gr. (10,000 gal. of water containing 1 ppm iron/cu. ft.)
Iron and Manganese	400 gr. (7,000 gal. of water containing 1/2 ppm iron and 1/2 ppm manganese/ cu. ft.)
Hydrogen Sulfide	175 gr. (3,000 gal. of water containing 1 ppm hydrogen sulfide. cu. ft.)

Advantages:

- Iron removal over wide pH range
- Effective removal of hydrogen sulfide in addition to iron and/or manganese
- No harmful effects from a chlorine feed
- Low attrition loss for long bed life

Physical Properties:

Color	Black nodular granules
Density	85 lbs./cu. ft.
Effective Size	0.30 - 0.35 mm
Uniformity Coefficient	1.6
Mesh Size	18 X 60
Attrition Loss Per Year	2%

Conditions for Operation:

Raw Water pH	6.2 - 8.5
Bed Depth	30 in.
Freeboard	35 - 50%
Service Flow Rate	2 - 12 gpm/sq. ft. (5-12 m/hr)
Backwash Flow Rate	12 gpm/sq. ft. at 55°F (30 m/hr at 13°C)
Maximum Temperature	No Limit
Maximum Practical Limit of Iron (Fe++) or Manganese (Mn++) In Raw Water	15 ppm.
Maximum Practical Limit of Hydrogen Sulfide (H ₂ S)	5 ppm.



Certified by WQA according to NSF/ANSI 61 for Material Safety

Greensand Plus™ (for Iron Removal)

The silica sand core of GreensandPlus allows it to better withstand operating conditions in waters that are low in silica, TDS and hardness. Thus, if you currently are using manganese greensand and are feeding sodium aluminate, you will likely be able to eliminate the aluminate feed by switching to GreensandPlus. Also, GreensandPlus can withstand higher operating temperatures and higher differential pressures than can manganese greensand. The higher differential pressure may allow for a longer run length, but, if nothing else, allows for more operational margin of error. 44lbs. per bag.

Pallet quantity - 55 bags per pallet

MANG-PLUS	.52 Cubic Foot Bag	\$81.75
MANG-PLUS-25-BOX	.26 Cubic Foot Box	\$61.25
MANG-PLUS-50-BOX	.52 Cubic Foot Box	\$103.50



MTM®

Clack MTM® is a granular manganese dioxide filtering media used for reducing iron, manganese and hydrogen sulfide from water. Its active surface coating oxidizes and precipitates soluble iron and manganese. Hydrogen sulfide is oxidized to a sulfur. The precipitates are filtered out in the granular bed and removed by back-washing.

MTM® consists of a lightweight granular core with a coating of manganese dioxide. The coating provides an example of contact filtration where the media itself provides the oxidizing potential. This allows for a much broader range of operation than many other iron removal media. A pH level as low as 6.2 can be treated. Dissolved oxygen is not essential. The media's lightweight reduces backwash water requirements.

When the oxidizing power of MTM® is reduced, the bed has to be regenerated with a weak solution of potassium permanganate (KmnO4), thus restoring its oxidizing capacity. A regenerating solution of 1-1/2 to 2 ounces (dry weight) of potassium permanganate per cubic foot is sufficient for normal regeneration. Upon start-up a new bed should be back-washed and caution taken to insure that the lightweight media is not back-washed to drain. A new bed should be regenerated the evening of installation. Operating the filter after its oxidizing capacity is exhausted will reduce its service life and may cause staining.

MTM® requires either intermittent or continuous regeneration to maintain its oxidizing capacity. A solution of potassium permanganate (or chlorine then potassium permanganate) can be pre-fed to maintain capacity. In the latter case, the manganese dioxide coating acts as a catalyst to enhance the oxidation reaction and as a buffer to reduce any excess potassium permanganate concentration and prevent it from entering the service lines.

Capacity Per Cu. Ft.:

- Iron (Fe+2) alone 600 grains (10,000 ppm)
- Manganese (Mn+2) alone 300 grains (5,000 ppm)
- Hydrogen Sulfide (H2S) alone 175 grains (3,000 ppm)

Advantages:

- Broad operating range for iron reduction
- Lower pressure loss through the bed with high-flock holding capacity
- Effective hydrogen sulfide, iron and manganese reduction
- Lightweight requires lower backwash rates and reduces pumping requirements.
- Chlorine can be beneficial in extending filter run times
- Low attrition loss for long bed life
- Lower shipping cost

Conditions for Operation:

Water pH range.....	6.2 – 8.5
Maximum water temp.....	100°F/38°C
Freeboard.....	50% of bed depth (min.)
Service flow rate.....	3 – 5 gpm/sq.ft., 8 – 10 gpm/sq.ft. intermittent flow possible.
Backwash flow rate.....	8 – 10 gpm per sq. ft.
Backwash expansion rate.....	20 – 40% of bed depth (min.)
Regenerate dosage.....	1-1/2 to 2 oz of KMnO4 by weight per cu. ft.

Physical Properties:

Color.....	Dark brown
Bulk Density.....	45 lbs./cu. ft.
Specific Gravity.....	2.0 gm/cc
Effective Size.....	0.43 mm
Uniformity Coefficient.....	2.0
Mesh Size.....	14 x 40

MTM® is a federally registered trademark of Clack Corporation.

Clack™

**Clack MTM®**

An alternative media to Manganese Greensand for the removal of iron, manganese and hydrogen sulfide with a weight of 27 lbs. per cubic foot. Must be regenerated with potassium permanganate.

Pallet quantity - 40 bags per pallet

MTM	1 Cubic Foot Bag	\$144.00
MTM-50-BOX	1/2 Cubic Foot Box	\$96.50
MTM-75-BOX	3/4 Cubic Foot Box	\$134.00
MTM-100-BOX	1 Cubic Foot Box	\$172.00



Certified to
NSF/ANSI 61

Birm®

Birm® is an efficient and economical method of removing dissolved iron and manganese compounds from raw water supplies. It may be used in either gravity fed or pressurized water treatment systems. Birm® acts as an insoluble catalyst to enhance the reaction between dissolved oxygen (D.O.) and the iron compounds. In ground waters, the dissolved iron is usually in the ferrous bicarbonate state due to an excess of free carbon dioxide and is not filterable. Birm®, acting as a catalyst between the oxygen and the soluble iron compounds, enhances the oxidation reaction of Fe⁺⁺ to Fe⁺⁺⁺ and produces ferric hydroxide which precipitates and may be easily filtered. The physical characteristics of Birm® provide an excellent filter media which is easily cleaned by back washing to remove the precipitant. Birm® is not consumed in the iron removal and therefore offers a tremendous economic advantage over many other iron removal methods.

Birm® may also be used for manganese removal with the same dependability as iron removal. In these applications the water to be treated should have a pH of 8.0 to 9.0 for the best results. If the water also contains iron, the pH should be below 8.5. High pH conditions may cause the formation of colloidal iron which is very difficult to filter out. All other conditions remain the same for either manganese or iron removal.

Advantages:

- Under the proper conditions, no chemicals to purchase for maintenance. Regeneration not required.
- Iron removal efficiency is extremely high
- Negligible Labor Cost - only periodic back washing required
- Durable material with a long life and wide temperature range
- Weighs only 46-50 lb./cubic foot.

Physical Properties:

Color.....	Black
Density.....	47-50 lbs./cu. ft.
Effective Size.....	0.61 mm
Uniformity Coefficient.....	1.72

Conditions for Operation:

- Alkalinity should be greater than two times the combined sulfate and chloride concentration
- pH - 6.8+
- Dissolved Oxygen (D.O.) content must be equal to at least 15% of the iron (or iron and manganese content)
- Bed Depth - 30 - 36 in.
- Backwash Rate - 10-12 gpm. sq. ft.
- Backwash Bed Expansion - 35 -50% of bed depth
- Service Flow rate - 3.5 - 5 gpm. sq. ft. intermittent flow rates and/or favorable conditions may allow higher flow rates

Birm® is a federally registered trademark of Clack Corporation.



Certified to NSF/ANSI 61



Birm (for Iron Removal)

Birm is used to remove dissolved iron and manganese. The pH must be above 6.8 and dissolved oxygen content must be equal to 15% of the iron and manganese content. No regeneration is required, only periodic back-washing.

Pallet quantity - 40 bags per pallet

BIRM-R	1 Cubic Foot Bag	\$107.75
BIRM-R-50-BOX	1/2 Cubic Foot Box	\$75.25
BIRM-R-75-BOX	3/4 Cubic Foot Box	\$102.25
BIRM-R-100-BOX	1 Cubic Foot Box	\$130.00



Pyrolox®

A naturally mined ore, Pyrolox® is a mineral form of manganese dioxide which has been used in water treatment for more than 75 years. Pyrolox® is a granular filtration media for hydrogen sulfide, iron and manganese reduction. Pyrolox™ functions as a catalyst, but itself remains relatively unchanged.

Pyrolox® works on a principle whereby the hydrogen sulfide, iron and manganese are oxidized and trapped on the media while simple back washing cleans the bed. No chemical regeneration is required, nothing is imparted into the drinking water and Pyrolox® has a high capacity for low contaminant concentrations.

Pyrolox® can be used in conjunction with aeration, chlorination, ozone or other pretreatment methods for difficult applications. Chlorine or other oxidants accelerate the catalytic reaction.

Because of its heavy weight, it is very important that Pyrolox® filters are back washed properly to insure adequate bed expansion and continued service life.

Back-washing - As with any media, frequent and thorough back-washing is essential for long-term success with Pyrolox®. The specific frequency of regular back-washing is dependent on water quality and application rate. A daily backwash at the appropriate rate is required to remove precipitated contaminants from the filter bed.

Oxidant Feed - To maintain and further augment the long-term performance and removal capacity of the media, an oxidant feed of some type is strongly recommended. This will maintain the media and enhance removal capacity. Chlorine injection (options include chlorine, sodium hypochlorite, or calcium hypochlorite) immediately up stream of the filter feed is a simple way to meet this requirement. Other acceptable oxidants include air injection (oxygen is an oxidant), potassium permanganate, sodium permanganate, etc. Hydrogen peroxide is specifically prohibited for use as an oxidant.

Advantages:

- Effective reduction of iron, sulfur and manganese
- Durable with long service life and low annual attrition of bed
- No chemical regeneration required only periodic back washing

Physical Properties:

Color.....	Black
Bulk Density.....	120 lbs./cu. ft.
Mesh Size.....	8 x 20
Effective Size.....	0.51 mm
Uniform Coefficient.....	1.7
Specific Gravity.....	3.8

Conditions for Operation:

pH.....	6.5 – 9.0
Bed depth.....	application dependent
Backwash flow rate.....	25 – 30 gpm per sq. ft.
Backwash expansion.....	15 – 30% of bed depth
Service flow rate.....	5 gpm/sq. ft.
Freeboard.....	40% of bed depth (min.)

Pyrolox® is a registered trademark of Prince Minerals Inc., Quincy, IL.



Certified to
NSF/ANSI 61



Pyrolox® (for Iron Removal)

For iron, manganese and hydrogen sulfide removal. No regenerates required, backwash only. Will not remove orange iron, tannins or sulphur bacteria. 60 pound 1/2 cubic foot bag.

Pallet quantity - 50 bags per pallet

PYRO-BAG	1/2 Cubic Foot Bag	\$188.00
PYRO-25-BOX	1/4 Cubic Foot Box	\$115.00
PYRO-50-BOX	1/2 Cubic Foot Box	\$214.00

Katalox®-Light (for Sulfide, Iron and Manganese reduction)

KATALOX LIGHT® is a new brand of revolutionary advanced filtration media completely developed in Germany. It's composition simply makes it outstanding against the contemporary filter media available in water treatment industries, like sand, BIRM, Greensand Plus, Manganese Greensand etc. KATALOX LIGHT® is manufactured in Germany.

KATALOX LIGHT® is engineered with unique MnO₂ coating technique on ZEOSORB®, providing it light weight, higher filtration surface, more service life and more reliable performance (filtration down to 3 μm) than any other existing granular filter media.

KATALOX LIGHT® is being used in numerous system for residential, commercial, industrial and municipal applications worldwide, for High level filtration, color and odor removal, Iron, Manganese, Hydrogen sulfide removal, efficient reduction of Arsenic, Zinc, Copper, Lead, Radium, Uranium and other radionuclides and heavy metals.

Advanced use

High concentration coating of MnO₂ on the KATALOX LIGHT® surface (10%) is the biggest advantage compared to any similar product available in the market. This makes the oxidation and co-precipitation of contaminants much more effective. For removal of very high concentration of contaminant it's recommended to use H₂O₂ as an oxidizer, which provides accelerated catalytic oxidation on the surface of the media. Conventional oxidizing agents like chlorine or potassium permanganate also could be used if required.

KATALOX LIGHT® can be used for Arsenic, Radium, Uranium removal but in these cases there is requirement of Iron in the water. KATALOX LIGHT® system is designed with special iron dosing technology which has many advantages over Adsorbent media used for Heavy Metal removal.

Recommended Operating Conditions

Inlet Water pH	5.8 – 10.5
Freeboard	40%
Minimal Bed Depth	29.5 inches
Optimal Bed Depth	47 inches
Service Flow	4 – 8 gpm/ ft ²
Backwash Velocity**	10 – 12 gpm/ ft ²
Backwash Time**	10 – 15 minutes
Rinse Time**	2 – 3 minutes

** Note: Starred parameters could be more or less in some cases depending on inlet parameters.



KATALOX LIGHT® is Certified to NSF/ANSI-61 standard for drinking water applications and has met the ANSI/NSF 372

Physical Chemical Properties

Appearance	Granular black beads
Odor	None
Mesh Size	14 x 30
Uniformity Coefficient	≤ 1.75
Bulk Density	66 lb / ft ³
Moisture Content	< 0.5 % as shipped
Filtration	< 3 micron
Loading Capacity	
for Fe ²⁺ alone	85000 mg/ft ³ (aprx)
for Mn ²⁺ alone	42500 mg/ft ³ (aprx)
for H ₂ S alone	14000 mg/ft ³ (aprx)

Katalox Light Removal Rates

Iron	up to 30ppm
Hydrogen Sulfide	up to 10ppm
Manganese	up to 15ppm

Katalox®-Light (for Sulfide, Iron and Manganese reduction)

Pallet quantity - 40 bags per pallet

KATALOX	1 Cubic Foot Bag	\$253.00
KATALOX-50-BOX	1/2 Cubic Foot Box	\$149.00
KATALOX-100-BOX	1 Cubic Foot Box	\$278.00



Filter-Ox™

Filter-Ox™ is a highly effective filter media capable of reducing iron, manganese and hydrogen sulfide from water through oxidation and filtration. Soluble iron and manganese are oxidized and precipitated by contact with the catalytic coating on the Filter-Ox™ granules. The hydrogen sulfide is oxidized to an insoluble sulfur precipitate. Precipitates are then filtered and removed by back-washing.

Filter-Ox™ is an engineered media that utilizes a super high purity manganese dioxide coating bonded to a durable, lightweight silica substrate. Manganese dioxide is a powerful oxidizer and Filter-Ox™ contains more manganese dioxide than other manganese based filter medias. Manufactured in the USA, Filter-Ox™ contains almost no fines and does not require long initial backwash times. A standard sterilization treatment using chlorine is all that is needed at start up.

Untreated water should periodically be monitored for raw water parameters. Treated water should periodically be monitored for manganese, iron and hydrogen sulfide shortly before a regeneration and immediately after a regeneration to monitor how the filter system is functioning. Elevated treated water concentrations before regeneration may mean that the filter media reduction capacity has been exceeded. Take corrective actions as necessary.

Low pH or high pH are the most likely conditions leading to media destruction.

Advantages

- Iron reduction over wide pH range
- Effective reduction of hydrogen sulfide in addition to iron and/or manganese
- No harmful effects from a chlorine feed
- Low attrition for long bed life

Physical Properties:

- Bulk Density: 84 lbs./cu. ft.
- Effective Size:56 mm
- Uniformity Coefficient: 1.51
- Moisture: < 1%
- Particle Shape: Sub-Angular
- Color: Grey to black granules



Filter-Ox™

Pallet quantity - 48 bags per pallet

FILTER-OX

FILTER-OX-50-BOX

1/2 Cubic Foot Bag

1/2 Cubic Foot Box

\$94.00

\$117.00

CONDITIONS FOR OPERATION

- Water pH range: 6.2-8.5
- Maximum water temperature: 100°F/38°C
- Bed depth: 30 in.
- Freeboard: 40% of bed depth (min.)
- Service flow rate: 2-12 gpm/sq. ft. continuous
- Backwash flow rate: 12 gpm/sq. ft. at 55°F, warmer waters require higher flow rates
- Free chlorine concentration less than .5 ppm

Methods of Regeneration and Regeneration Requirements:

- Continuous regeneration using chlorine feed or air are recommended
- Mg/l Cl₂ (1x mg/l Fe) + (3x mg/l Mn)
- Air draw or air injection
- Use an injector size that is two sizes larger than a typical softener application
- Draw/slow rinse time greater than 50 minutes
- Down flow rinse (Fast Rinse) 4 minutes minimum

Catalytic Oxidation (Co)

Catalytic Oxidation (CO) operation is recommended in applications where iron removal is the main objective in well waters with or without the presence of manganese. This method involves the feeding of a predetermined amount of chlorine (Cl₂) or other strong oxidant directly to the raw water before the Filter-Ox™ Filter.

Chlorine should be fed at least 10-20 seconds upstream of the filter, or as far upstream of the filter as possible to insure adequate contact time. A free chlorine residual carried through the filter will maintain Filter-Ox™.



Certified to
NSF/ANSI 61

Mang-Ox™

Mang-Ox™ is a high rate, granular filter media used for removing hydrogen sulfide, iron and manganese compounds from water supplies. Mang-Ox™ operates both as a classical filter working with an oxidant and as a catalytic media due to its ability to accelerate the reaction between the oxidizing agent and any prevalent dissolved oxygen with sulfide, iron and manganese present. Dissolved iron, manganese and hydrogen sulfide will stay in solution unless the equilibrium is changed. Iron and manganese that is not oxidized become catalytically precipitated and then adsorbed directly on the media. Mang-Ox™ is a very dense media that stops oxidized (precipitated) forms of iron, manganese and hydrogen sulfide from passing through the bed. Most of the manganous manganese is rapidly removed in the first few inches of the media where it is further oxidized to manganese dioxide.

The media must be properly back washed to break loose and remove the filtered contaminants and precipitated iron, manganese and hydrogen sulfide. System sizing of the control valve and tank are necessary to sustain media performance.

A continuous reaction occurs with the addition of an oxidant, regenerating the media surface and replenishing the Mang-Ox™. For difficult applications, Mang-Ox™ filters can be enhanced with aeration, chlorination, and ozone. Because of Mang-Ox's™ naturally high manganese dioxide content, it provides a higher adsorption capacity than other media. A Mang-Ox™ filter is recommended before softeners to protect the ion exchange resin from fouling.

Applications:

- Removal of Iron up to 10 ppm
- Removal of Manganese up to 5 ppm
- Removal of Hydrogen Sulfide (rotten egg smell) up to 3 ppm
- Not recommended for Iron Bacteria and Manganese bacteria removal
- Not recommended for tannin and organics removal



Certified to
NSF/ANSI 61



Mang-Ox (for Sulfide, Iron and Manganese reduction)

Mang-Ox™ operates both as a classical filter working with an oxidant and as a catalytic media due to its ability to accelerate the reaction between the oxidizing agent and any prevalent dissolved oxygen with sulfide, iron and manganese present. No regenerates required, backwash only. Will not remove orange iron, tannins or sulphur bacteria. 60 pound 1/2 cubic foot bag.

Pallet quantity - 30 bags per pallet

MANG-OX	.5 Cubic Foot Bag	\$192.00
MANG-OX-25-BOX	.25 Cubic Foot Box	\$118.00
MANG-OX-50-BOX	.5 Cubic Foot Box	\$216.00

Advantages

- Efficient reduction of manganese, iron & hydrogen sulfide
- Will process high flow rates with low pressure drop
- Ability to be utilized with common oxidants including:
 - CL2 (gas), - Sodium hypochlorite,
 - Potassium Permanganate
- 10 – 30 second reaction time with oxidant additive
- Converts ferrous iron to ferric iron
- Converts H2S to sulphur
- Converts Manganese to MnO2
- Allows for adequate reaction time to permit for the formation of ferric hydroxide
- Allows for physical straining of the ferric hydroxide floc and sulphur until media requires back washing
- Allows for adsorption of MnO
- NSF/ANSI Standard 61-2002 Certified

Physical Properties:

Colour	Black
Purity	> 85 %
C.A.S No.	1313-13-9
Physical Form	Granular particles
Moisture Content	< 0.5 % as shipped
Bulk Density	125 lbs/cu.ft (2.00 g / cm ³)
Mesh Size	(US-Unit) 8 x 20 / 20 x 40
Mesh Size	(mm) 0.85 – 2.36 / 0.425 – 0.85
Uniformity Coefficient	1.77
Specific Gravity	3.8

Conditions for Operation:

PH	6 - 9
Bed Depth	36 – 48 inches (900 – 1200 mm)
Service Flow Rate	5 – 10 gpm / sq ft. (12 – 20 m/h)
Back Wash Flow Rate	22-30 gpm / Sq ft (50 - 72 m/h)
Back Wash Expansion	15 – 30 %
Freeboard	70 % of bed depth
Oxidant Type	Chlorine
Oxidant Form	12.5 % Sodium Hypochlorite
Oxidant Contact Time	10 – 30 seconds
Typical Oxidant Dosage	0.5 – 2 ppm
Regeneration	Continuous w/oxidant addition
Removal Efficiency	95 – 99 % for Iron 99 % for Manganese
Back wash Efficiency	Every 24 hours (typical)

Activated Carbons

Granular Activated Carbon constitutes an excellent filtration media, having a high density with a balanced pore-structure for more efficient absorption.

One of the most common applications for Activated Carbon is the removal of the undesirable taste present in many chlorinated water supplies. This taste is the result of the formation of chlorophenols, often present in raw waters which contained phenols and were subsequently treated with chlorine. These phenols are usually the product of industrial wastes. Even 0.1 ppm of chlorophenols can result in an undesirable taste. Activated Carbon has for many years been successful in the absorption of orthochlorophenol and the removal of free chlorine from water supplies. The end product is clean, fresh water with no objectionable tastes.

Activated Carbon requires only periodic back-washing to eliminate accumulated suspended matter and to re-grade the filter bed.

Activated Carbon has an extremely high capacity but must be replaced when the filter bed loses the capacity for removal of taste and odor.

To obtain maximum efficiency of the activated carbon in the absorption process, it is best to have the greatest possible surface area in the smallest practical volume. This is because the rate of absorption is proportional to the amount of surface area of the absorbing medium media. Activated Carbon has a surface area of 800 sq. meters per gram. This results in high efficiency and system economy.

When considering Activated Carbon for taste, odor and color removal applications, it is necessary that the influent be relatively free of iron for maximum service life. It is also necessary that the influent be free from oil and other suspended matter, as these constituents may reduce the overall efficiency of the activated carbon.

Advantages:

- The large surface area results in an exceptionally high capacity and efficiency. Activated Carbon is very hard so losses due to attrition are kept to a minimum
- Activated Carbon is an outstanding material for applications requiring taste, odor and color removal from water with suspended matter present. This product can be used for filtering waters having a wide range of pH levels.
- Activated Carbon has a very high carbon-low ash content. Service rates of 5 gpm/sq. ft. are practical for ordinary taste, odor and color loads
- Activated Carbon will impart a high "polish" to the filtered water

Activated Carbons

12 x 40 is an excellent filtration medium with excellent adsorptive properties. Used for the removal of taste and odors, chlorine, etc. Periodic back-washing is required in down-flow filters. Maximum carbon life is usually three years.

WATER WASHED, BITUMINOUS COAL 12 X 40 (FOR TASTE AND ODOR REMOVAL)

Stocked Only in Arizona

ACARB-1240BC	1 Cubic Foot Bag	\$181.00
ACARB1240BC-50BOX	1/2 Cubic Foot Box	\$114.00
ACARB1240BC-75BOX	3/4 Cubic Foot Box	\$160.00
ACARB1240BC-100BOX	1 Cubic Foot Box	\$207.00
ACARB-2050BC	1 Cubic Foot Bag	\$158.00

JACOBI ACTIVATED CARBON, COCONUT SHELL 12 X 40 (FOR CHLORINE REMOVAL)

AquaSorb® CS is a high activity granular activated carbon manufactured by steam activation from select coconut shell charcoal. Its enhanced microporosity makes it particularly well suited for the removal of low molecular weight organic compounds and their chlorinated by-products such as chloroform and other trihalomethanes (THM's). It is also ideally suited for the removal of oxidizing agents such as chlorine and ozone from process water. An important feature of this material is its superior mechanical hardness and the extensive dedusting during its manufacture that ensures an exceptionally clean activated carbon product.

AQUASORB-1240CS	1 Cubic Foot Bag	\$131.00
AQUASORB-1240CS-50BOX	1/2 Cubic Foot Box	\$87.00
AQUASORB-1240CS-75BOX	3/4 Cubic Foot Box	\$120.00
AQUASORB-1240CS-100BOX	1 Cubic Foot Box	\$154.00

JACOBI ACTIVATED CATALYTIC CARBON, COCONUT SHELL 12 X 40

AquaSorb® CX-MCA is a catalytic, high activity granular activated carbon manufactured by steam activation of select coconut shell charcoal. The catalytic activity of this activated carbon makes it highly effective for the removal of chloramines and hydrogen sulfide from potable water. Its large micropore volume makes it particularly well suited for the removal of low molecular weight organic compounds and their chlorinated by-products such as chloroform and other trihalomethanes (THM's). An important feature of this material is its superior mechanical hardness and the extensive dedusting during its manufacture ensures an exceptionally clean activated carbon product.

AQUASORB-CX-MCA	1 Cubic Foot Bag	\$249.00
AQUASORB-CX-MCA-50BOX	1/2 Cubic Foot Box	\$146.75
AQUASORB-CX-MCA-75BOX	3/4 Cubic Foot Box	\$210.00
AQUASORB-CX-MCA-100BX	1 Cubic Foot Box	\$274.00





Calgon Activated Carbons

Calgon Carbon produces and sells a broad range of activated, impregnated or acid washed carbons in granular, powdered or pellet form. Granular Activated Carbon (GAC) particles are irregular in shape and generally used in fixed filter beds for continuous flow purification processes.

CENTAUR CATALYTIC/ADSORPTIVE CARBON

CENTAUR® 12X40 is a liquid phase virgin activated carbon that has been manufactured to develop catalytic functionality. The product is unique in that it concentrates reactants via adsorption and then promotes their reaction on the surface of the pores. CENTAUR 12x40 is produced from bituminous coal using a patented process. Although it is not impregnated with metals or alkali, it displays the catalytic functionality of these materials. In most cases, it can be reactivated and does not present the disposal concerns associated with impregnated carbons.

CENTAUR 12X40 can be utilized in the liquid phase for the promotion of oxidation, reduction, decomposition, substitution, and elimination reactions. Specific applications include chloramine, hydrogen sulfide, and iron removal from drinking water. This product is particularly suited for use in residential and commercial water filters, for treatment of process water in the bottling and soft drink industries, and for aquarium water treatment. CENTAUR 12x40 combines a fine pore structure for enhanced adsorption of trace contaminants with high catalytic activity for their elimination. Thermal reactivation is an option for recycle and reuse of this product to minimize operating costs and eliminate disposal concerns.

CENTAUR 12x40 is intended primarily for use in liquid phase systems to promote catalytic reactions. Depending on the reactant concentrations, the required contact times are usually less than five minutes. The back-washed and drained density of the product is typically 33 lb/ft3.

Pallet quantity - 70 bags per pallet

CENTAUR	1 Cubic Foot Bag	\$306.00
CENTAUR-50-BOX	1/2 Cubic Foot Box	\$178.00
CENTAUR-75-BOX	3/4 Cubic Foot Box	\$258.00
CENTAUR-100-BOX	1 Cubic Foot Box	\$338.00

CENTAUR ACTIVATED CARBON - COCONUT SHELL

CENTAUR-CS 12x40 removes both chloramine and hydrogen sulphide from potable water. Centaur is outstanding in Voc removal, taste and odor control and in operating efficiency when compared with traditional activated carbons.

Standard Centaur is a coal based catalytic carbon, this Centaur is entirely coconut shell carbon and is processed the same as the original giving it the same properties. The coconut shell variety as with all coconut shell carbon doesn't have the same capacity as the original, but it does give an economical option.

CENTAUR-CS	1 Cubic Foot Bag	\$204.00
CENTAUR-CS-50-BOX	1/2 Cubic Foot Box	\$125.00
CENTAUR-CS-75-BOX	3/4 Cubic Foot Box	\$177.00
CENTAUR-CS-100-BOX	1 Cubic Foot Box	\$231.00

FILTRASORB 200 BITUMINOUS COAL ACTIVATED CARBON

FILTRASORB® 200 is a granular acid rinsed activated carbon for the removal of taste and odor compounds, disinfection by-products, low level volatile organic compounds, and other targeted compounds from potable water.

This product was specifically developed for groundwater applications. This activated carbon is manufactured from selected grades of bituminous coal to produce a durable granular product capable of withstanding the abrasion associated with repeated back-washing, air scouring, and hydraulic transport. The product is designed to comply with all the applicable provisions of the AWWA Standard for Granular Activated Carbon, edition B604-05, the stringent extractable requirements of ANSI/NSF Standard 61, and the Food Chemicals Codex.

FILTRASORB 200	1 Cubic Foot Bag	\$237.00
FILTRASORB 200-50BOX	1/2 Cubic Foot Box	\$139.00
FILTRASORB 200-75BOX	3/4 Cubic Foot Box	\$199.00
FILTRASORB 200-100BOX	1 Cubic Foot Box	\$259.00



FILTRASORB 200





CARBSORB 20



OLC 12X30



HPC SUPER 8X30

CARBSORB-20 BITUMINOUS COAL ACTIVATED CARBON

CARBSORB 20 is cost-effective bituminous coal-based granular activated carbons offered by Calgon Carbon Corporation for liquid phase applications.

Carbsorb 20 features an adsorption capacity that allows for effective removal of organic contaminants, taste, and odor. The bituminous coal base produces a product with high hardness ensuring excellent resistance to abrasion with a product mesh size that allows for limited pressure drop.

The following are typical design parameters for Carbsorb™ 20 for organics removal:

- Surface loading rate 2–6 gpm/ft²
- Backwash bed expansion 20%

CARBSORB 20	1 Cubic Foot Bag	\$143.00
CARBSORB 20-50BOX	1/2 Cubic Foot Box	\$93.75
CARBSORB 20-75BOX	3/4 Cubic Foot Box	\$130.00
CARBSORB 20-100BOX	1 Cubic Foot Box	\$168.00

OLC 12X30 COCONUT SHELL ACTIVATED CARBON

OLC 12x30 is a coconut activated carbon for the removal of dissolved organic contaminants from water, wastewater and process liquids. These contaminants include taste and odor compounds, organic color, total organic carbon (TOC) and industrial chemicals such as chlorinated solvents (TCE, PCE). The pore structure enables it to be used for adsorption of both high and low molecule weight impurities from waters and liquids. This carbon is especially effective for adsorbing trace organic compounds such as vinyl chloride, methylene chloride, MTBE and THM's/disinfection by-products. OLC 12x30 is certified to NSF/ANSI 61 standard.

OLC 12X30	1 Cubic Foot Bag	\$138.50
OLC 12X30-50BOX	1/2 Cubic Foot Box	\$94.25
OLC 12X30-75BOX	3/4 Cubic Foot Box	\$131.00
OLC 12X30-100BOX	1 Cubic Foot Box	\$169.00

HPC SUPER 8X30 BITUMINOUS CARBON

HPC Series of virgin coal-based granular activated carbons are specifically designed to provide a rapid rate of adsorption and low resistance to flow with liquids of low to medium viscosities. These granular activated carbons are used for purification and decolorization in a wide range of aqueous and organic liquid applications such as vodka and spirits, dry cleaning, petrochemical, pharmaceutical and municipal. With a lower density as compared to typical coal based carbons, the HPC products have the advantage of a lower cost per unit volume.

Features / Benefits

- Reduced contact time due to very fast diffusion kinetics and large volume of transport pores
- High surface area and large pore sizes provide excellent decolorization and high loading capacity
- HPC products are Kosher certified and meet the requirements of Food Chemicals Codex (FCC)
- Certified to NSF/ANSI Standard 61 and meets or exceeds AWWA standards per specification B-600

HPC SUPER 8X30	1 Cubic Foot Bag	\$87.25
HPC SUPER 8X30-50-BOX	1/2 Cubic Foot Box	\$68.00
HPC SUPER 8X30-75-BOX	3/4 Cubic Foot Box	\$91.50
HPC SUPER 8X30-100-BOX	1 Cubic Foot Box	\$116.00

KDF-55 Process Medium

KDF-55 process medium is an effective chlorine removal agent used in point-of-entry treatment of municipal water supplies. This unique, innovative and environmentally responsible medium consists of high purity copper-zinc granules that use redox (the exchange of electrons) in patented products to effectively reduce/remove chlorine and heavy metals and control microorganisms in potable water.

The most critical aspect of pressure filter performance is the relationship of flow rate to surface of KDF-55 process medium. Inaccurate sizing is the most common reason for trouble in filter systems. The nominal flow rate in the service cycle depends on surface area available. Service flow rates with KDF-55 process medium, however, may be calculated at 15 gpm per square foot of surface area. This is three times the effective flow rate of other filter media.

KDF Process Medium Specifications

Medium composition.....	atomized high purity copper/zinc alloy
Color	
KDF 55.....	golden
KDF 85.....	reddish brown
Physical form.....	granular
Screen size (U.S. mesh).....	-10 + 100
Particle size range.....	0.149 mm to 2.00 mm
Apparent density.....	2.2-2.7 g/cc (171 lbs./cu. ft.)
Turbidity.....	20 ntu
Skid.....	48-1/3 cu. ft. drums (2,736 lbs.)
Odor and tastes.....	none

KDF-85 Process Medium

KDF-85 process medium is an effective iron(ferrous) and hydrogen sulfide (H₂S) removal agent that may be used alone or to protect existing water filtration/purification technologies in point-of-entry treatment of groundwater supplies. This unique, innovative and environmentally responsible medium consists of high purity copper-zinc granules that use redox (the exchange of electrons) in patented products to effectively reduce/remove iron and hydrogen sulfide and heavy metals and control microorganisms in potable water. KDF-85 medium permits removal of iron and H₂S without the use of chemicals.

The most critical aspect of pressure filter performance is the relationship of flow rate to surface of KDF-85 process medium. Inaccurate sizing is the most common reason for trouble in filter systems. The nominal flow rate in the service cycle depends on surface area available. Service flow rates with KDF-55 process medium, however, may be calculated at 15 gpm per square foot of surface area. This is three times the effective flow rate of other filter media.

Recommended Operating Conditions (use 3-cycle valve):

Service flow.....	15 gpm/sq. ft.
Backwash for 10 min. @.....	30 gpm/sq. ft.
Purge/rinse for 3 min. @.....	maximum
Bed expansion, backwash.....	10 to 15%
Free board.....	20%
Minimum bed depth (6" dia.).....	10 inches
pH range: drinking water.....	6.5 to 8.5
Water temperature, influent.....	35° to 212°F.



KDF-55

KDF Process Media

The MediaGuard Cartridge System provides for high-performance filtration in water softeners. Utilize KDF-55 in the MediaGuard System for reduction of chlorine and heavy metals. For reduction of hydrogen sulfide and/or iron-laden water, use KDF-85 in the cartridge system.

KDF process media have earned NSF certification (ANSI/NSF Standard 61 for drinking water system components—health effects and Standard 42).

KDF-55

KDF-55 granules are most effective in removing chlorine and water-soluble heavy metals.

KDF-55	1/3 Cubic Foot Drum	\$955.00
KDF-55-16	1/6 Cubic Foot Box	\$513.00
KDF-55-CP4	4 lbs. - Fills one CANPRO-4	\$83.50

KDF-85

KDF-85 is most effective in removing iron and hydrogen sulfide.

KDF-85	1/3 Cubic Foot Drum	\$1,193.00
KDF-85-16	1/6 Cubic Foot Box	\$661.00
KDF-85-CP4	4 lbs. - Fills one CANPRO-4	\$103.75



KDF-85



CANPRO 4

MediaGuard Cartridge System

The MediaGuard Cartridge System provides for high-performance filtration in water softeners. Utilize KDF-55 in the MediaGuard System for reduction of chlorine and heavy metals. For reduction of hydrogen sulfide and/or iron-laden water, use KDF-85 in the cartridge system.

As a rule-of-thumb, choose the 4-cartridge system with KDF-55 for city water applications and the 6-cartridge system with KDF-85 for well-water applications. One drum of KDF will fill twelve 4-cartridge systems or eight 6-cartridge systems. Use the Accessory Kit to fill cartridge systems. These systems are for down-flow use only.

COMPLETED CANPRO MEDIAGUARD SYSTEMS

Complete cartridge systems include either KDF-55 or KDF-85 installed in a 4-cartridge system and a Canpro adapter.

CANPRO-485	4-Cartridge Sys w/KDF-85	\$187.00
CANPRO-485-160A	4-Cartridge Sys w/KDF-85 and 160A Adapter	\$209.00
* CANPRO-485-170A	4-Cartridge Sys w/KDF-85 and 170A Adapter	\$209.00
CANPRO-455	4-Cartridge Sys w/KDF-55	\$188.00
CANPRO-455-160A	4-Cartridge Sys w/KDF-55 and 160A Adapter	\$210.00
CANPRO-455-170A	4-Cartridge Sys w/KDF-55 and 170A Adapter	\$210.00

EMPTY CANPRO MEDIAGUARD SYSTEMS

Choose one cartridge system, one adapter and KDF for a complete system.

CANPRO-4	4-Cartridge Sys Less Media	\$88.25
* CANPRO-6	6-Cartridge Sys Less Media	\$146.00

FLECK 2510/5600 ADAPTER

CANPRO-10-140A	MediaGuard Fleck 2510/5600	\$11.50
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AUTOTROL PERFORMA ADAPTER

CANPRO-10-160A	MediaGuard Autotrol Performa	\$11.50
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CLACK C-SERIES ADAPTER

CANPRO-10-170A	MediaGuard Clack C-Series	\$11.50
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CANPRO-10-130A



CANPRO-10-160AA



“Pro” Line of Water Treatment Products

Go with the Pros with Pro Products’ “Pro” line of water treatment products. Each item is packaged and labeled for the water conditioning professional.

Prices are listed as each. Case quantities have been provided for easy ordering.

Pro Rust Out

Removes surface rust stains from sinks, tubs, toilet bowls, white clothes, and other surfaces. In Water Softeners, Pro Rust Out eliminates resin bed fouling and prolongs the unit’s life.

* RUST OUT-PACK	100 - 4 oz. Pack Countertop Display	\$354.75
RUST OUT-22	22 oz. (12/Case)	\$10.40
RUST OUT-4.75	4.75 lb. (6/Case)	\$31.50
RUST OUT-50	50 lb. (1/Case)	\$264.00

Super Iron Out

SUPER IRON OUT	16 oz. (6/Case)	\$8.90
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Pro Pot Perm

Pro Pot Perm is an iron filter regenerant and a strong oxidizing agent that converts dissolved iron and/or manganese to insoluble oxides which can easily be removed through filtration. As an iron filter regenerant, Pot Perm regenerates and oxidizes greensand iron filter media, restoring the exchange capacity of the unit.

NOTE: When ordering for UPS delivery, UPS Hazardous charges apply. Only full case quantities of POT PERM-1.75, POT PERM-4.75 or POT PERM-10 can be sent via UPS.

POT PERM-1.75	1.75 lb. Bottle (6/Case)	\$28.30
POT PERM-4.75	4.75 lb. (6/Case)	\$61.75
POT PERM-10	10 lb. (4/Case)	\$135.00
POT PERM-55	55 lb. Drum	\$773.00

Ban T (Citric Acid)

Removes iron from fouled water softener. Dissolves iron and keeps it soluble while it is flushed from the resin tank during regeneration. Also useful in the removal of water spots and rust and scale deposits. Safe and easy to use.

CITRIC-24	24 oz. (12/Case)	\$14.90
CITRIC-4	4 lb. (6/Case)	\$34.20

Neutra 7

Pro Neutra 7 is a proprietary alkaline compound which eliminates acid water in potable systems. A Neutra 7 solution injected into a water system through a feed pump setup will eliminate acid water and prevent corrosion and also keeps the injection point clean of build-up. Pro Neutra7 saves time by mixing into solution up to 5 times faster than soda ash. Pro Neutra 7 is NSF/ANSI Standard 60 for drinking water additives.

NEUTRA-7	7 lb. Jar (4/Case)	\$32.55
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Pro Softener Mate

Removes limited iron, manganese, metal particles and organic compounds that cause water softeners to lose efficiency. Pro Softener Mate is a total softener treatment that eliminates the need to use costly softener salt additives and should be used as part of a routine maintenance program.

SOFTENER MATE-PACK	100 - 4 oz. Pack Countertop Display	\$336.75
SOFTENER MATE-24	1.5 lb. Bottle (12/Case)	\$14.50
SOFTENER MATE-5	4 lb. Bottle (6/Case)	\$33.20



SUPER IRON OUT



RUST OUT-5



POT PERM-5



CITRIC-4



NEUTRA-7



SOFTENER MATE



RES CARE-32

Pro Res Care

Pro Res Care will chemically clean a fouled resin bed of a water softener and restore the exchange capacity of the resin. Most types of water softening resins can become fouled with iron and other contaminants that will affect the performance of the ion exchange system. Iron fouling can cause channeling, pressure drop, loss of capacity, hardness and iron leakage. Regular use of Pro Res Care will minimize fouling and extend the resin life in the water softener.

RES CARE-32	1 Qt. (12/Case)	\$9.45
RES CARE-64	1/2 Gallon (4/Case)	\$18.90
RES CARE-128	1 Gallon (4/Case)	\$24.20

Sani-System

Sani-System works in 60 seconds for sanitizing water softeners, RO units, and water coolers. and is the only EPA approved product for sanitizing. Sani-System kills 99.9% of E.coli, E.coli O157:H7, Staphylococcus aureus, Listeria monocytogenes and other harmful bacteria without the use of chlorine or other oxidizers or acids. Sold by the carton.

Sani-System is packaged in half oz. fluid pouches and come 24 to a box. Each pre-measured pouch contains enough liquid concentrate to sanitize one system.



SANI SYSTEM-WS

WATER SOFTENER SANITIZER

SANI SYSTEM-WS	1/2 fl. oz. Pouches - 24 to a Box	NSF	\$140.25
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REVERSE OSMOSIS SANITIZER

SANI SYSTEM-RO	1/4 fl. oz. Pouches - 24 to a Box	NSF	\$140.25
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SANI SYSTEM-RO

White Brite Laundry Brightener

Removes rust, yellowing, dinginess, color runs and dye stains. Better and safer than bleach.

WHITE BRITE	28 oz. (6/Case)	\$13.30
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WHITE BRITE

Lime Out

Dissolves lime, rust, soap scum and mineral deposits. Cleans toilets, sinks, tubs, tile and showers.

LIME OUT	24 oz. (6/Case)	\$7.89
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LIME OUT

Pro Poly Guard

Pro Poly Guard Scale & Rust Preventer is specifically formulated to prevent hard water stains, including scale and iron staining in commercial, industrial and residential potable water applications. Poly Guard forms a protective coating on metal and plastic surfaces preventing hard water stains, scale, corrosion and copper leaching. To eliminate hard water stains, inject Poly Guard by chemical feed pump into the raw water system as close to the source as possible. This product is NSF Certified to meet NSF/ANSI Standard 60 for drinking water additives.

POWDER FORM

POLY-5	5 lb. (6/Case)	\$80.50
* POLY-50	50 lb. (1/Case)	\$696.00

LIQUID FORM

POLYGUARD-1	1 Gallon (4/Case)	NSF	\$80.75
POLYGUARD-5	5 Gallon (1/Case)	NSF	\$333.00
POLYGUARD-55	55 Gallon Drum	NSF	\$2,771.00



POLY-5



POLYGUARD-1





PEROXIDE-1

Pro Neutra Sul®

Pro Neutra Sul® is formulated to neutralize the rotten egg smell and pollutants from any water supply through oxidation. Neutra Sul should be used in place of Hydrogen Peroxide 7% solution to prevent the formation of colors, tastes, corrosion and scaling by pollution degradation. Pro Neutra Sul is NSF Certified to meet NSF/ANSI Standard 60 for drinking water additives. Protects against irregular coloring and rotten egg smells in treated water. Feed with a peristaltic feed pump or a Chemtech 100 series feeder with a degas valve.

PEROXIDE-1 1 Gallon (4/Case) NSF \$14.25

Better Water Industries Chlorine

NOTE: When ordering for UPS delivery, UPS Hazardous charges apply. Only full case quantities of can be shipped via UPS.

Chlorine Pellets from Better Water Industries are listed NSF Standard 60 and are USDA Food Grade. These one gram, 3/8" pellets are designed to work in dry pellet chlorinators including the Sentry, Land-O-Matic and Sentry Open Air Systems. Not for use in the WellPro Chlorinator (Use BWC-3.5).

BWC-5	5 lb. (6/Case)	\$63.00
BWC-10	10 lb. (4/Case)	\$117.75
BWC-25	25 lb. (2/Case)	\$295.00
* BWC-35	35 lb. (1/Case)	\$400.00

HAZMAT FREE PACKAGE SIZE

Sold by Box or Case quantities only.

BWC-2.2 2.2 lb. (5/Box-4 Boxes/Case) \$28.00

.79 GRAM PELLETS

BWC-2.2-WP	2.2 lb. - For WellPro (5/Box) No Hazardous Charge	\$27.60
BWC-3.5-WP	3.5 lb. - For WellPro (9/Case)	\$43.00



CHLORINE

BWC-2.2

Res-Up Feeder

Res-Up feeder is an adjustable feeder which meters the proper amount of Res-Up Cleaner each time the resin bed is regenerated. The Res-Up Feeder can be programmed for the size of the resin bed and the amount of iron and impurities in the raw water.

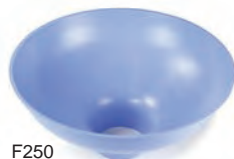
RU-F12	12 cc per Day, Yellow	\$16.45
RU-F30	30 cc per Day, Clear	\$16.45



RU-F12

Funnels

F250	2-1/2" x 10"	\$5.80
F400	For Commercial Tanks with 4" or 6" Openings	\$30.40



F250



F400

Media / Resin Loader

The Media/Resin Loader is a simple and fast way to load a tank without the need of a “funnel” or “water”. Just place the filling head on the tank. Hook up a shop vac to one side of the head. Hook up the media fill tube to the other side of head. Turn on vac and draw media into the head. Media will fall into the tank. Any dust (like carbon dust) will be drawn into the vacuum, where it will be filtered out.

A fast and simple solution to a long time “industry” problem:

- Loads a cubic foot in 60 to 90 seconds
- No lifting of Media Bags
- No Funnel needed
- No water needed
- Spillage eliminated
- Can be used on 2½" or 4" threads



RESIN LOADER SHOWN WITH VACUUM SETUP & 2-1/2" LOADING HEAD

LOADER-RESIN

Resin Loader

\$406.00

Mineral Extractors

The Mineral Extractor offers an inexpensive way to remove the expelled bed of any size or height tank without removing the tank. It works with water pressure, not suction. It will work on any and all types of beds and will even remove the gravel bed if necessary.

The MINERAL EXTRACTOR has a sealed cavity that is filled with liquid silicone to lubricate the O-ring seals on the riser tube. The main body of the MINERAL EXTRACTOR carries a 5 year guarantee against cracking.

STANDARD HIGH FLOW MINERAL EXTRACTOR

For use on all tanks with 2-1/2" x 8 NPSM tank threads.



EXTRACTOR-STANDARD
Standard Resin Extractor, 2-1/2"

\$218.00

MINERAL EXTRACTOR CHAMBERED VORTECH TANK

The Mineral Extractor is designed to be used on chambered tanks with a fixed riser tube. The offset center shaft will slide along the side of the stationary tube.

Included is a “Cap Removal Tool” . which is used to remove the plugs that separate the different chambers from each other. Also included is a lower chamber extension for the removal of media from the lower chambers, if necessary. The “Cap Removal Tool” can also be used as a refill tube, by removing the handle and using a funnel inside the tube to wash in the new media.



EXTRACTOR-VORTECH-MIDPLATE
Vortech Midplate Resin Extractor

\$198.00

COMMERCIAL MINERAL EXTRACTOR

For use on all tanks with 4" x 8 NPSM tank threads.

EXTRACTOR-COMMERCIAL Commercial Resin Extractor, 4" \$296.00

COMMERCIAL "OFF-SET" MINERAL EXTRACTOR

For use on all tanks with 4" x 8 NPSM tank threads. A 4" offset extension adaptor that allows for the distributor to stay in place, and use the MINERAL EXTRACTOR with the same ease as on the smaller 2 1/2" residential tanks.

This kit will work on all 2 1/2" and 4" tank threads.

EXTRACTOR-2.5 X 4 OFFSET ASSM Resin Extractor, 2.5" x 4" Offset Assm Only \$114.00

FLEX SHAFT KIT

This optional kit will allow you to bend the center shaft at hinged points for easy insertion of center tube into a tank when you are in a tight overhead situation. It works very well with low ceilings or crawl space type installations, well pits, etc.

For High Flow and Commercial High Flow Mineral Extractors

EXTRACTOR-FLEX SHAFT KIT Resin Extractor, Flex Shaft Kit \$117.00



EXTRACTOR-COMMERCIAL



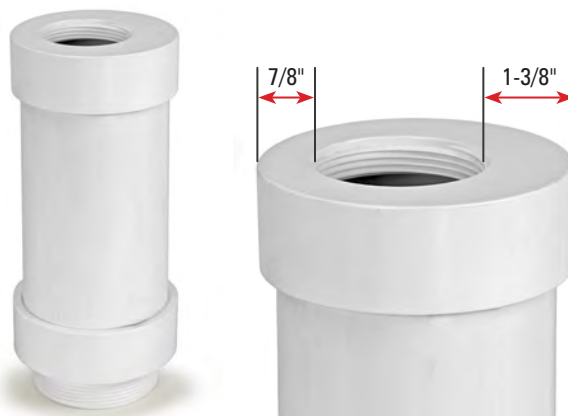
EXTRACTOR-ECOWATER HEAD CLOSEUP



EXTRACTOR-HAGUE HEAD CLOSEUP



EXTRACTOR-ECOWATER



EXTRACTOR-2.5 X 4 OFFSET ASSM ONLY



EXTRACTOR-FLEX SHAFT KIT

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NELSEN

C O R P O R A T I O N

Disinfection - Feed Pumps, Chlorinators

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85MHP17



170DMHP34



170MDPHP34



FP30-115



FP-MOUNTING KIT



STS-TANK



Stenner Classic Series Pumps

Precision design and engineering makes it possible for Stenner to produce a reliable peristaltic pump renowned for its accuracy and repeatability to inject liquid additives. These pumps are low maintenance and are designed with three modular subassemblies which can be quickly replaced in the field without the use of tools.

ADD "-B" suffix to the part number for pumps with UV Black suction discharge tubing instead of white.

45MHP2-110 (-B)	3 gpd, 26 rpm, 110v, #1 Pump Tube	\$897.00
45MHP2-220 (-B)	3 gpd, 26 rpm, 220v, #1 Pump Tube	\$897.00
45MHP10-110 (-B)	10 gpd, 26 rpm, 110v, #2 Pump Tube	\$897.00
45MHP10-220 (-B)	10 gpd, 26 rpm, 220v, #2 Pump Tube	\$897.00
85MHP17-110 (-B)	17 gpd, 44 rpm, 110v, #2 Pump Tube	\$897.00
85MHP17-220 (-B)	17 gpd, 44 rpm, 220v, #2 Pump Tube	\$897.00

FIXED RATE CONTROL MODEL

ADD "-B" suffix to the part number for pumps with UV Black suction discharge tubing instead of white.

85MPHP17-110 (-B)	44 rpm, 110 Volt, #2 Tube	\$654.00
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DUAL HEAD, SINGLE ADJUSTABLE CONTROL MODELS

* 170DMHP34-110	34gpd, 44rpm, 110 Volt, #2 Tube	\$1,308.00
* 170DMHP34-220	34gpd, 44rpm, 220 Volt, #2 Tube	\$1,308.00

DUAL HEAD, DUAL CONTROL MODELS

* 170MDPHP34-110	34gpd, 44rpm, 110 Volt, #2 Tube	\$938.00
* 170MDPHP34-220	34gpd, 44rpm, 220 Volt, #2 Tube	\$938.00

Stenner Econ FP Series Pump

The ECON FP is a pump that can respond to flow input from a variety of water conditioning equipment. It can accept a dry contact (non-voltage) signal from a water meter and will run for the operating time that is set. There are five operating time ranges: 0.1-1 second, 0.5-5 seconds, 1-10 seconds, 2-20 seconds and 6-60 seconds and the times are adjustable from 10% to 100%. The pump can accept a dry (non-voltage) contact from a flow switch and will run at a set speed for as long as it receives the dry contact. The Econ FP can also accept a 24 VAC signal from a water softener or other type of control equipment that responds to water flow.

FP30-115	FP Series, 30 GPD - 115v	\$755.00
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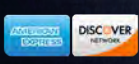
FP SERIES MOUNTING KIT

* FP-MOUNTING KIT	Stenner FP Series Tank or Wall Mount Kit	\$24.00
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Stenner Series STS Tank System

The all-in-one pump and tank system off easy chemical replenishment and convenience. The systems is shipped pre-assembled cutting installation time in half. Compact, light-weight and constructed for indoor or outdoor applications. Systems are available in 15 or 30 gallon capacity; tanks are also sold separately. When ordering the tank system, please specify the pump model and tank size. Prices listed are for the tank only. There are two style tanks, one for the 45/85 series pumps and one for the BDF/SVP series pumps. Natural in color.

* STS7.5N	15 Gal Tank Only, 45/85 Series	\$337.00
* STS7.5GC	15 Gal UV Gray Tank Only, 45/85 Series	\$393.00
* STS15N	15 Gal Tank Only, 45/85 Series	\$393.00
* STS15GC	15 Gal UV Gray Tank Only, 45/85 Series	\$393.00
* STS30GC	30 Gal UV Gray Tank Only, 45/85 Series	\$602.00
* STS30N	30 Gal Tank Only, 45/85 Series	\$602.00
* STS15N-02	15 Gal Tank Only, BDF/SVP Series	\$420.00
* STS30N-02	30 Gal Tank Only, BDF/SVP Series	\$631.00





Stenner Pump Control Module

The PCM is a component of a feed system that delivers repeatable doses based on water volume. The proportional feed system includes the PCM, fixed output pump and simple in-line dry contact water meter. The PCM system is suitable for a variety of applications such as pH control, disinfection and oxidation of iron, hydrogen sulfide and manganese.

PCM5 0.5 - 5 Seconds, 115 Volt \$480.00



Contacting Meter

The contacting meters feature a rugged engineered reinforced plastic with union ends and use the multi-jet principle, which has been an internationally-accepted standard for many years. This type of meter is known for its wide range, simplicity, and accuracy in low-quality water. The impeller is centered in a ring of jets, with inlet jets on one level and outlet jets on another. For pulse output, one of the pointers is replaced by a magnet, which is detected by an encapsulated sensor attached to the outside of the lens. Pulse rate is determined by the dial on which the magnet is placed. Changing the pulse rate requires no special tools and can be done in the field. Includes 12 foot lead wire. For use the PCM5.

STJLP0750-1PPG 3/4" Contacting Meter, 1 Pulse/Gallon \$413.00

Stenner Replacement Parts

Stenner replacement part "packages" are available for the some Stenner repair parts. Parts "packages" are priced by the total package, not individual parts. Parts "packages" must be purchased in their entirety, "packages" will not be broken down for individual sale.

MOTOR PARTS

STMP6N080	Phenolic Gear, 44 rpm, Series 85 and 170	\$43.25
* STMP6T000	Pressure Spring	\$2.00
STPM6081D	Motor, 120v, 85 and 170 Series	\$480.00
* STPM6041D	Motor, 120v, 45 and 100 Series	\$480.00

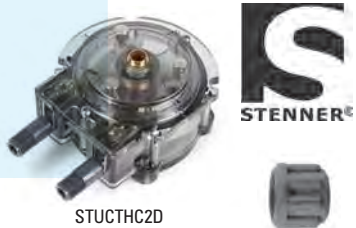
FEED RATE CONTROL PARTS

STUCFC5AD	Main Shaft, Single Head/Adj Ctrl	\$72.50
STDM5A00D	Main Shaft, Dual Head/Adj Ctrl	\$59.20
STUCFC5ID	Index Plate	\$48.90
* STUCFC5AY	Index Pin Assy. w/Lifter	\$130.00
STUCFC5L1	Index Pin Lifter (2 Pack)	\$43.50
STUCFC5HO	Variable Cam (2 Pack)	\$43.50
STFC5080D	Feed Rate Control w/shaft, 45/85 Series	\$462.00



PUMP HEAD PARTS and ASSEMBLIES

STUCCP201	#1 Tube Assembly (2 Pack)	\$68.75
STUCCP202	#2 Tube Assembly (2 Pack)	\$68.75
STUCCP205	#5 Tube Assembly (2 Pack)	\$68.75
STUCCP207-2	#7 Tube Assembly (2 Pack)	\$68.75
STMCCP201-5	Stenner #1 Tube Assembly (5 Pk)	\$152.00
STMCCP202-5	Stenner #2 Tube Assembly (5 Pk)	\$152.00
STMCCP207-5	Stenner #7 Tube Assembly (5 Pk)	\$152.00
STUCCP400	Tube Housing Only	\$68.00
STUC3ASYD	Roller Assembly	\$74.25
STUCCP100	Tube Housing Cover w/Bushing	\$50.75



STUCTHC2D



STUCDBINJ

STUCAK100



STMAGCSGR



STUCAK300



STUCAK100



STUCAK200



STMCCVDBO



STHPACK-2



GEAR CASE SERVICE KIT



FEED RATE SERVICE KIT



PUMP HEAD SERVICE KIT

PUMP HEAD PARTS and ASSEMBLIES - Continued

STUCTHC2D	#2 Pump Head w/Tube/Ferrules	\$228.00
STUC1ATC2	#2 Adap Head w/Tube and Ferrules 1/4"	\$233.00
* STQP101K	#1 QuickPro Pump Head Service Kit	\$102.25
* STQP102K	#2 QuickPro Pump Head Service Kit	\$102.25
* STQP107K	#7 QuickPro Pump Head Service Kit	\$102.00
STQPA252-1	#2 Innermost QuickPro™	
	Pump Head for Double Heads	\$252.00
STQP500-1	QuickPro Roller Assembly (Single)	\$74.00
STQP500-4	QuickPro Roller Assembly (4-Pack)	\$270.00
STCP5LATCH	Stenner Latch Kit for Pump Head	\$22.00

MISCELLANEOUS PARTS

STUCDBINJ	Inj Check Valve, 1/4"	\$34.40
STUCAK300	PVC Injection Fitting, 1/4"	\$19.90
STMCAK300-5	PVC Injection Fitting, 1/4" (5 Pack)	\$57.90
STUCAK100	1/4" Connecting Nut (10 Pack)	\$37.10
* STMCAK100-24	1/4" Connecting Nut (24 Pack)	\$79.75
STUCAK200	1/4" Ferrules (10 Pack)	\$16.70
STMCAK200-24	1/4" Ferrules (24 Pack)	\$25.35
STMCCVDBO	Duck Bill Check Valve (5 Pack)	\$38.00
STUCMACWO	Stenner Weight & Strainer 1/4	\$42.20
STMAGCSGR	Grease	\$55.50
STMP90000	Stenner Pump Rain Roof	\$30.60

Stenner Accessory Kit

1/4" Accessory Kit Includes: three connecting nuts, three ferrules, one injection check valve, 20 feet suction/discharge tubing, one strainer/weight, one spare pump tube and one manual.

STHPACK-2	1/4" Access Kit w/#2	\$95.25
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Stenner Service Kits

MOTOR SERVICE KIT

Stenner motor service kit includes Wire Nuts, Coil, Coil Screw "G" w/Lock Washer, Coil Ground Screw "E", and Rotor Assembly, w/bearings, Brackets, Tolerance Rings & Fan.

* STMSK120	Motor Service Kit, 120v 60Hz	\$236.00
* STMSK220	Motor Service Kit, 220v 60Hz	\$236.00

GEAR CASE SERVICE KIT

Service kit includes Metal Reduction Gear, Grease, Phenolic Gear w/spacer, Motor shaft w/gear, Cover Screw "B", and Gear Posts.

* STGSK45A	Gear Case Kit, Adj. Output 45 & 100 Series	\$191.00
* STGSK45F	Gear Case Service Kit, Fixed Output, 45 Series	\$191.00
* STGSK85A	Gear Case Kit, Adj. Output 85 & 170 Series	\$191.00
* STGSK85F	Gear Case Service Kit, Fixed Output, 85 Series	\$191.00

FEED RATE SERVICE KIT

Stenner feed rate service kit includes Grease, Index Plate, Lifter, Variable Cam, & Screws.

* STFSK100	Feed Rate Service Kit	\$98.25
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PUMP HEAD SERVICE KITS

Service Kit includes Pump Tube, Roller Assembly, 1/4" Connecting Nuts, 1/4" Ferrules, Duckbill and Cover Screw "B".

* STPSKH01	#1 Pump Head Service Kit	\$102.25
* STPSKH02	#2 Pump Head Service Kit	\$102.25
* STPSKH07	#7 Pump Head Service Kit	\$102.25

Disinfection - Feed Pumps



CHEM-TECH



100 SERIES



PRIME PERFORMANCE PUMP

Chem-Tech Series 100 and 150 Chemical Feed Pumps

Series 100 diaphragm pumps are lightweight, heavy-duty, and fully adjustable. Five models range from 3 – 30 GPD with maximum operating pressure of 100 psi.

Series 150 utilizes the same basic operating principles as the series 100, designed specifically for swimming pool application or any light or intermittent duty requiring up to 100 GPD, with discharge pressure less than 60 PSI.

100 SERIES PUMPS WITH PVC HEADS

* 100-003 115-SAN	3 gpd, 115 Volt, 100 psi	\$636.00
* 100-003 230-SAN	3 gpd, 230 Volt, 100 psi	\$676.00
100-007 115-SAN	7 gpd, 115 Volt, 100 psi	\$636.00
* 100-007 230-SAN	7 gpd, 230 Volt, 100 psi	\$676.00
100-030 115-SAN	30 gpd, 115 Volt, 100 psi	\$636.00
100-030 230-SAN	30 gpd, 230 Volt, 100 psi	\$676.00
* 150-068 115-SAN	68 gpd, 115 Volt, 60 psi	\$832.00
* 150-068 230-SAN	68 gpd, 230 Volt, 60 psi	\$865.00
150-100 115-SAN	100 gpd, 115 Volt 60 psi	\$858.00
* 150-100 230-SAN	100 gpd, 230 Volt, 60 psi	\$899.00

PRIME PERFORMANCE 100 SERIES PUMPS WITH PVC HEADS

The Prime Performance Pumps have all the features and controls of the standard 100 series pumps and also feature a unique degas valve system that is designed to allow air to be vented from the pump head while minimizing the return fluid volume. This allows the pump to be totally self-priming, which eliminates the need for a bleed valve. The degassing head also prevents the pump from losing its prime due to gas build up, especially in applications where the pump is run intermittently with long off times between runs. Available in 3 models, 15, 24 & 30 GPD.

ADD "-B" suffix to the part number for pumps with UV Black suction discharge tubing instead of clear.

100-015 115 (-B)	15 gpd, 115 Volt, 100 psi	\$695.00
* 100-015 230 (-B)	15 gpd, 230 Volt, 100 psi	\$736.00
100-024 115 (-B)	24 gpd, 115 Volt, 100 psi	\$695.00
100-024 230 (-B)	24 gpd, 230 Volt, 100 psi	\$736.00
100-030 115 (-B)	30 gpd, 115 Volt, 100 psi	\$695.00
100-030 230 (-B)	30 gpd, 230 Volt, 100 psi	\$736.00

PULSAFEEDER

Pulsafeeder Pulsatron Electronic Feed Pumps

The first affordable electronic metering pumps with true metering performance. Manual function controls for stroke length and frequency on "C+" and "A+" models. Thermally-protected solenoids with automatic resets. Reliable timing circuit. Includes bleed valve and PVC head.

PULSATRON SERIES "C+" ELECTRONIC FEED PUMPS

Economy and performance of durable models with maximum capacities of 30 GPD at 80 PSI. Manual on-line stroke frequency over a 10:1 range and adjustable stroke length over a 10:1 range.

* C+22V-115	22 gpd, 115 Volt, 80 psi	\$872.00
* C+22V-230	22 gpd, 230 Volt, 80 psi	\$928.00
* C+30V-115	30 gpd, 115 Volt, 80 psi	\$872.00
* C+30V-230	30 gpd, 230 Volt, 80 psi	\$928.00

PULSATRON SERIES "A+" ELECTRONIC FEED PUMPS

Economy and performance with models with maximum capacities of 30 GPD at 100 PSI. Manual on-line stroke frequency over a 10:1 range and adjustable stroke length over a 10:1 range.

* A+22V-115	22 gpd, 115 Volt, 100 psi	\$962.00
* A+22V-230	22 gpd, 230 Volt, 100 psi	\$1,017.00
* A+30V-115	30 gpd, 115 Volt, 100 psi	\$962.00
* A+30V-230	30 gpd, 230 Volt, 100 psi	\$1,017.00



A+, C+ SERIES



C22V-115

Pulsatron Automatically Paced Pumps

The Pulsatron Automatically Paced Pumps provide safe and precise feed capabilities feeding chemical automatically. The speed of the pump is automatically adjusted by the water flow rate off a signal from a contacting head flow meter while the stroke length has a manual 10:1 turn down capability.

* C22V-115	22 gpd, 115 Volt, 80 psi	\$761.00
* C30V-115	30 gpd, 115 Volt, 80 psi	\$964.00
* AP22V-115	22 gpd, 115 Volt, 100 psi	\$953.00
* AP30V-115	30 gpd, 115 Volt, 100 psi	\$1,160.00
* EP44V-115	44 gpd, 115 Volt, 100 psi	\$1,864.00
* EP120V-115	120 gpd, 115 Volt, 100 psi	\$2,474.00



CXP-A23 115

Chem-Tech XP Series Peristaltic Feed Pumps

XP SERIES - The Chem-Tech XP Series with peristaltic technology delivers worry-free dosing in a modern design. Each and every component of the XP Series is designed and manufactured for optimum reliability and durability for REAL Performance.

The electronic timing circuit in the adjustable 'A' Model provides reliable pump control, without relying on mechanical adjustment components that wear out over time. The intuitive interface and controls provide easy operation and the peristaltic design is virtually maintenance-free.

Tailor-made for the water conditioning market, the XP Series offer affordable solutions in both initial cost and operation.

A rugged gear train and computer-aided peristaltic design ensure long-lasting performance.

CXP-A23 115	Adjustable Rate, 23 GPD, 115 Volt	\$964.00
CXP-A23 230	Adjustable Rate, 23 GPD, 230 Volt	\$964.00

REAL Performance

Chem-Tech Replacement Parts



CT24960	Coupling Nut	\$12.25
CT25704	Diaphragm, 228P	\$78.00
CT27903	Gasket, 237P	\$12.05
CT28801	Head 242P, PVC	\$141.75
CTJ28869	Chem-Tech Head, Degas PVC	\$138.00
CT28903	Head Assm, A51P	\$201.00
CTJ30515	Bleed Valve Kit	\$138.00
CTA53P	Anti-Syphon Valve, A53P	\$138.00
CTJ20560	Ball Check, 278P	\$12.05
CTJ37440	Valve Seat, 638P	\$8.15
CTJ38985	Valve Spring, 295P	\$12.05
CTJ40091	Foot Valve Assm, A50P	\$83.50
CTJ41540	Valve Housing 244P, Discharge	\$54.60
CTJ41548	Valve Housing 247P, Suction *	\$50.30
CTJ41694	Back Check Valve Assy (PVC-CSPE-C-1/2")	\$146.00
CTJ41806	Chem-Tech Degas Return Assembly, 1/4"	\$75.00
CTJ41808	Chem-Tech Discharge Assm, 1/4" Degas Head	\$98.25
CTJ41812	Chem-Tech Suction Assm, 1/4" Degas Head	\$85.25
CTU8800712	Chem-Tech Back Check Assembly, XP	\$69.90
CTXP-TUBE023	Pulsafeeder XP Tube Kit Assembly 023	\$37.10



Disinfection - Feed Pumps



CTKX101

KOPkits (Keep On Pumping)

The KOPkits include one pump head assembly, one diaphragm and four pump head screws and washers. The CTKX100 includes an acrylic head and is used on the 3, 7, 15, 24 and 30 GPD Standard Chem-Tech pumps. The CTKX100-BAA9 includes a PVC head and can be used on all Standard Chem-Tech and Prime Performance pumps 15, 24 and 30 GPD only.

CTKX101	KOPkit, Series 100 Pumps, PVC Head	\$253.00
CTKX100-BAA9	Prime Performance KOPkit, PVC	\$422.00

Model 400 Feeder

The Non-Electric Model 400 dry chlorine pellet feeder features no moving parts, corrosion-proof construction and operates on a varying pressures as home well systems or on constant pressure systems such as sprinklers or pool systems (up to a maximum of 75 psi). The 400 Feeder features a patented chemical feed process and uses chlorine pellets for fast and easy filling instead of messy chemical. Fully adjustable metering of chemicals and never needs priming. Includes 1-1/2" union adapters, 3 Year warranty.



CTKX100-BAA9

FEEDER-400	Model 400 Feeder	\$230.00
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Model 400 Feeder Repair Parts

FEEDER-400-LID ASSEMBLY	Model 400 Feeder - Lid Assembly	\$53.00
FEEDER-400-01 COVER	Model 400 Feeder - # 1 Cover	\$3.00
FEEDER-400-02 CAP SCREW	Model 400 Feeder - # 2 Cap Screw	\$4.00
FEEDER-400-03 SPACER	Model 400 Feeder - # 3 Spacer	\$1.00
FEEDER-400-04 OUTER LID	Model 400 Feeder - # 4 Outer Lid	\$26.00
FEEDER-400-05 INNER LID	Model 400 Feeder - # 5 Inner Lid	\$8.00
FEEDER-400-06 LID ORING	Model 400 Feeder - # 6 Lid Oring	\$11.00
FEEDER-400-06 LID ORING-5PLUS	Model 400 Feeder - # 6 Lid Oring - 5 or more - Priced each	\$11.00
FEEDER-400-0708 TUBE CAP	Model 400 Feeder - # 7 and # 8 Tube and Cap	\$12.00
FEEDER-400-09 LOCK CLIP	Model 400 Feeder - # 9 Lock Clip	\$2.00
FEEDER-400-10-ROF ORING	Model 400 Feeder - # 10 ROF Oring	\$3.00
FEEDER-400-11 N/F VALVE	Model 400 Feeder - # 11 Non-Functioning Valve	\$3.00
FEEDER-400-14 UNION NUT	Model 400 Feeder - # 14 Union Nut	\$8.00
FEEDER-400-15 1-1/2 ADPT	Model 400 Feeder - # 15 1-1/2" Adapter	\$7.00
FEEDER-400-16 UNION ORING	Model 400 Feeder - # 16 Union Oring	\$2.00
FEEDER-400-17 3/4 ADPT	Model 400 Feeder - # 17 3/4" Adapter	\$8.00
FEEDER-400-20 RATE OF FEED VALVE	Model 400 Feeder - # 20 Rate Of Feed Valve	\$17.00
FEEDER-400-21 LID WRENCH	Model 400 Feeder - # 21 Lid Wrench	\$6.00



FEEDER 400



FEEDER-400-LID ASSEMBLY



FEEDER-400-01 COVER



FEEDER-400-02 CAP SCREW



FEEDER-400-03 SPACER



FEEDER-400-09 LOCK CLIP



FEEDER-400-04 OUTER LID



FEEDER-400-05 INNER LID



FEEDER-400-21 LID WRENCH



FEEDER-400-14 UNION NUT



FEEDER-400-06 LID ORING



FEEDER-400-0708 TUBE & CAP



FEEDER-400-11 N/F VALVE



FEEDER-400-20 RATE OF FEED VALVE



FEEDER-400-15 1-1/2 ADPT



FEEDER-400-15 1-1/2 ADPT

Disinfection - Feed Pumps



LMI Uni-Dose Series "U" Chemical Feed Pumps

These reliable feed pumps are designed specifically for the water conditioning industry. The Uni-Dose Series U single control models feature an adjustable stroke length and a fixed speed (stroking frequency). The dual models feature both adjustable speed and stroke length controls. Maximum output from 6 to 30 gallons per day. Each Uni-Dose pump comes complete with a priming valve, injection check/back pressure valve, foot valve with strainer, vinyl suction tubing, UV resistant PE discharge tubing and a ceramic weight. Head and fittings are constructed of high strength PVC.



SINGLE CONTROL MODEL



DUAL CONTROL MODEL

SINGLE CONTROL MODELS

* NC-U011-281	6 GPD, 115v, 80 PSI	\$531.00
* NC-U012-281	6 GPD, 230v, 80 PSI	\$563.00
NC-U021-281	12 GPD, 115v, 80 PSI	\$563.00
NC-U022-281	12 GPD, 230v, 80 PSI	\$563.00
NC-U031-281	24 GPD, 115v, 80 PSI	\$563.00
NC-U032-281	24 GPD, 230v, 80 PSI	\$563.00
NC-U041-281	30 GPD, 115v, 80 PSI	\$563.00
NC-U042-281	30 GPD, 230v, 80 PSI	\$563.00

DUAL CONTROL MODELS

* NC-U121-281D	12 GPD, 115v, 80 PSI	\$637.00
* NC-U122-281D	12 GPD, 230v, 80 PSI	\$637.00
NC-U131-281D	24 GPD, 115v, 80 PSI	\$637.00
* NC-U132-281D	24 GPD, 230v, 80 PSI	\$637.00
NC-U141-281D	30 GPD, 115v, 80 PSI	\$637.00
NC-U142-281D	30 GPD, 230v, 80 PSI	\$637.00

LMI Series "U" Replacement Parts

U30981	Diaphragm	\$163.70
U30995	Uni-Valve Assembly, (Duckbill)	\$34.95
U77383	Tubing Connection Kit	\$30.60
U48728	Injection Valve Assembly - Requires U77383	\$131.00
USP-281	Spare Parts Kit	\$393.00
USP-281TT	Spare Parts Kit	\$316.50
U10123	Strainer, Foot Valve, PP	\$15.30
U10299	Coupling Nut, PP 3/8"	\$13.10
U26136	Clamp Ring, 3/8 O.D. Tubing	\$4.35
U30988	Valve Assembly, Foot LE-281	\$139.70



U30981



U30995



USP-281



USP-281TT



In-line ChemMixers

The ChemMixer blends two or more fluids many times within a unique baffle and chamber design. This drastically reduces the time it takes to combine the fluids and maximizes the effective blend when it exits the unit. This can be used to boost the effectiveness of air, chlorine, ozone, or anything else you would like to thoroughly blend.



SINGLE MIXING CHAMBERS CHEMMIXER

2 Mixing Chambers - 1 Swirl Chambers



MIXER-10120-SINGLE

APW 112SM Single Chamber ChemMixer,
1" MIPT IN/OUT x 12" Long **\$100.00**



MIXER-10150-SINGLE-INJ05

APW 115SM Single Chamber ChemMixer,
1" FIPT x 15" Long w/ 1/2" FIPT Injection Point .. **\$125.00**



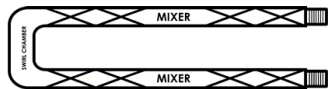
MIXER-10170-SINGLE

APW 117SM Single Chamber ChemMixer,
1" MIPT IN/OUT x 17" Long **\$113.00**



MIXER-15210-SINGLE

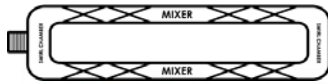
APW 121SM Single Chamber ChemMixer,
1.5" MIPT IN/OUT x 21" Long **\$108.00**



TWIN MIXING CHAMBERS CHEMMIXER

- 1" In/Out
- 2 Mixing Chambers
- 1 Swirl Chambers
- Better mixing & contact time
- Regular flow rate of 1" pipe

MIXER-10100-TWIN - APW 110TC Twin Chamber ChemMixer,
1" MIPT x 10" Long..... **\$113.00**



TWIN MIXING CHAMBERS CHEMMIXER

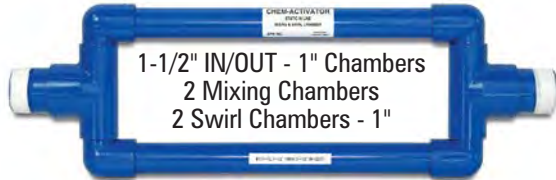
MIXER-10170-TWIN - APW 110TC Twin Chamber ChemMixer,

- 1" MIPT x 17" Long
- Twin 15" Mixing Chambers
- Twin 2" Swirl Chambers
- 1" In & Out
- Better mixing & swirl in 1" pipe **\$154.00**



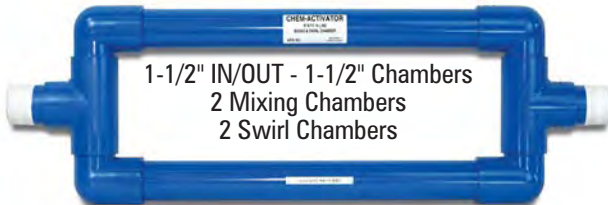
MIXER-15170-TWIN - APW 117TC Twin Chamber ChemMixer,

- 1-1/2" MIPT x 17" Long - Twin 1" x 15" Mixing Chambers,
- Twin 2" Swirl Chambers
- 1-1/2" In & Out,
- More Contact Time,
- Better Mix, Regular Flow Rate **\$196.00**



MIXER-15210-TWIN - APW 121TC 1-1/2" Twin Chamber ChemMixer,

- 1-1/2" MIPT x 18" Long - Twin 1-1/2" x 18" Mixing Chambers
- Twin 3" Swirl Chambers
- 1-1/2" In & Out
- Maximum Contact Time
- Maximum flow rate of 1-1/2" pipe **\$204.00**



MIXER-20180-TWIN - APW 121TC 2.0 Twin Chamber ChemMixer

- 2" MIPT x 18" Long - Twin 1-1/2" x 18" Mixing Chambers
- Twin 3" Swirl Chambers
- 2" In & Out
- Maximum Contact Time
- Maximum Flow Rate Of 2" Pipe **\$225.00**



Disinfection - Feed Pumps





MA-4

In-line Mixer

For complete mixing, include a static mixer. These are in-line tubes with baffles that cause a high degree of mixing. In a static mixer, turbulence disrupts the water stream exposing a much greater surface area. Because a "mixed" surface area is much greater, chemical reactions are much faster and, in many cases, nearly instantaneous.

MA-4	1" In-line Mixer	\$196.00
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6115 & 6115-NAT

Chemical Solution Tanks

6115	15 Gallon Blue	\$59.75
6115-NAT	15 Gallon Natural	\$59.75
6135-BLUE	35 Gallon Blue	\$147.00
6135-NAT	35 Gallon Natural	\$147.00
6115-CAP	Solution Tank Replacement Cap	\$177.00
* 6130	30 Gallon	\$365.00
* 6140	40 Gallon	#N/A
* 6175	75 Gallon (Black)	\$585.00
* 6135	30 Gallon w/Top Mount Cover	\$451.00
* 6155	55 Gallon w/Top Mount Cover	\$529.00



FC1801

Thomas Products Flow Switch

These versatile Flow Controller switches may be used to establish flow/no flow control of metering pumps in various applications. These pre-wired, self-contained flow switches were specifically designed for the Water Treatment industry. Turns feed pump on at 0.5 GPM with a max. Operating pressure of 150 PSIG.

FC1801	1" Flow Switch, Pre-Wired	\$402.00
FC2601	2" Flow Switch, Pre-Wired	\$563.00



M210-100

Grid Controls Flow Switch

Water Flow switch features a low flow operation with 10 amp set point on 1.0 gpm and up. Connections are 1/2" electrical conduit connection and standard 1" PVC slip fittings inlet and outlet. Line pressure to 60 psi. maximum and temperature to 110°F continuous. Wetted surfaces - PVC, Polypropylene, Buna N, Stainless steel.

M210-100	1" Flow Switch/60 psi	\$246.00
M310-100-PW	1" Flow Switch, Pre-wired, 100	\$492.00
M310-220	1" Flow Switch, 220 Volt, 100 psi	\$295.00



CTA54P

Bulkhead Fitting

Connects through the sidewall of solution tanks.

CTA54P	Bulkhead Fitting	\$104.50
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Totally Enclosed Mixers (Other Types Available)

All mixers feature a 316 stainless steel shaft with an integral impeller. Special epoxy and vinyl shaft coatings are available for applications where the solution being agitated is not compatible with 316 stainless steel. The shaft is coupled to the motor via a brass adapter which is held securely by four stainless steel set screws.

When mixing sodium hypochlorite (chlorine) order vinyl shaft coating for the above mixers.

BRACKET MOUNT

The Bracket Mount Mixer provides a means of mounting a mixer to a tank cover or other flat surface. Four 18/8 stainless steel bolts and two rugged 3/8" thick steel brackets hold the mixer securely in place, requiring no additional mixer supports.

* 42747-B-M-TE-H	1/20 hp Bracket MT, 28" Shaft	\$1,037.00
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FLANGE MOUNT

The Flange Mount Mixer provides a convenient and economical means of mounting smaller mixers. The flange mount allows the mixer to be mounted directly to the tank cover or other flat surface eliminating the need for an additional mixer support.

42748-F-M-TE-H	1/20 hp Flange MT, 28" Shaft	\$788.00
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42747-B-M-TE-H

42748-F-M-TE-H



SENTRY 1

Sentry Dry Pellet Chlorinators

The Sentry I Dry Pellet Chlorinator by Better Water Industries, Inc. treats water problems where they exist - at the well. The Sentry I simply works like a "gum ball machine or corn planter" and drops the precise amount of chlorine down the well and into the water supply.

For Dry Pellet Chlorine Pellets please see the end of the media section.

SENTRY-I-115	Sentry Feeder, 115 Volt	\$4,496.00
SENTRY-I-230	Sentry Feeder, 230 Volt	\$4,496.00
SWV-KIT	Sentry Wire and Vent Kit	\$76.00
SENTRY124708	Replacement Idler Gear	\$8.55
SENTRY124709	Replacement Motor Gear	\$12.85
CP22005	Pellet Jar, 5 lb.	\$25.65



SWV-KIT



SENTRY124708



SENTRY124709



CP22005



LP-3015/3115

Autotrol "Land-O-Matic" Dry Pellet Chlorinators

The high capacity dry pellet chlorinator. Feeds up to 6 chlorine pellets per minute. Patented reversing action prevents jamming. Airtight storage bin holds 15 pounds of chlorine. Power "On" light.

LP-3015/3115	Chlorinator, 15# Hopper, 230v	\$2,058.00
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Autotrol "Well-Pro" Dry Pellet Chlorinators

Since most water problems originate in the well, it makes sense to treat them at their source. The "Well-Pro" uses the well as a retention tank to keep chlorine in contact with the well water as long as possible. The plug-in power module is completely encapsulated in polyurethane foam to protect it from chlorine corrosion. Adjustable dosage rate. Available with an interrupter that turns the "Well-Pro" off if the well pump runs for 15 minutes or more.

WP-1	115 Volt with Interrupter	\$1,676.00
* WP-2	115 Volt less Interrupter	\$1,676.00
WP-3	230 Volt with Interrupter	\$1,676.00
* WP-4	230 Volt less Interrupter	\$1,676.00

Highly concentrated dry chlorine pellets in a handy 3-1/2 pound container that serves as the chlorine hopper. A new container is simply screwed right into the "Well-Pro" when needed.

NOTE: When ordering for UPS delivery, UPS hazardous charges apply. Only full case quantities of WPC9 can be sent via UPS.

BWC-3.5	3.5 lb. - For WellPro (9/Case)	\$152.00
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ACCESSORIES and REPLACEMENTS

AT1032508	WP-1 Pwr. Mod. Assy. w/Safety Shut-off 115V	\$570.00
AT1032510	WP-3 Pwr. Mod. Assy. w/Safety Shut-off 230V	\$570.00
AT1032966	Connector, Assembly Adapter	\$117.00
AT1032234	Pellet Plate, 6-Hole	\$17.70



WP-3

Residential Retention Tank Systems

A unique system with 2 built in mixing chambers and a swirl chamber that reduce a drop of water to hundreds of micro bubbles allowing the chemical to mix and react 5 times faster than a standard retention tank. This concept allows for the overall size of the system to be reduced substantially. In a Product Testing Laboratory study performed by the WQA the 10" system outperforms a 80 gallon standard retention tank, and the 12" system outperforms a 120 gallon standard retention tank. Test results are available from your salesperson.

The 10" system should only be used with Hydrogen Peroxide or Ozone.

The system is constructed of all polyglass, noryl®, and PVC materials. It is pre-plumbed, 1" throughout and has 3/4" drain for blow-down. Should there ever be a need for gas-off, a tapped port is built in and capped off. 5 year warranty.

RETENTION TANK-1047-SS APW Retention Tank - 10" x 47" Single Shaft \$733.00

RETENTION TANK-1248-SS APW Retention Tank - 12" x 48" Single Shaft \$804.00

Light Commercial Retention Tank Systems

The Light Commercial Systems feature the 1-1/2 inch single shaft internals as well as 1-1/2 inch In/Out tank head and has 3/4 inch drain for blow-down.

RETENTION TANK-1344-SS APW Retention Tank - 13" x 44" Single Shaft \$1,058.00

RETENTION TANK-1865-SS APW Retention Tank - 18" x 65" Single Shaft \$1,686.00

Commercial Retention Tank Systems

The Tri-Shaft Retention Tank Systems feature six (6) built in mixing chambers and three (3) swirl chambers, that reduce a drop of water to hundreds of micro bubbles, allowing the chemical to mix and react 5 times faster than a standard retention tank. This concept allows us to reduce the overall size of the system substantially.

The system is constructed of all polyglass, noryl, and PVC materials. It is pre-plumbed 1-1/2 inch throughout and has 3/4" drain for blow-down. Should there ever be a need for gas-off, a tapped port is built in and capped off.

TRI-SHAFT HIGH FLO SYSTEMS

RETENTION TANK-1344-TS APW Retention Tank - 13" x 44" Tri-Shaft \$976.00

RETENTION TANK-1865-TS APW Retention Tank - 18" x 65" Tri-Shaft \$1,624.00

REPLACEMENT DRAIN ASSEMBLIES

RT/ST-DRAIN ASSM APW RT & Sand Trap Drain Assembly \$29.00

D1288 Clack Bottom Tank Fitting - 1260RT \$32.50



RETENTION TANK-1248-SS



RETENTION TANK-1344-TS



SYSTEM SPECIFICATIONS

Part Number	Flow Rate GPM	In/Out	Chamber Size	Drain	Number of Mixing Chambers	Number of Swirl Chambers
Retention Tank-1047-SS	25	1"	1"	3/4"	2	1
Retention Tank-1248-SS	25	1"	1"	3/4"	2	1
Retention Tank-1344-SS	66	1-1/2"	1-1/2"	3/4"	2	1
Retention Tank-1865-SS	88	1-1/2"	1-1/2"	3/4"	2	1
Retention Tank-1344-TS	66	1-1/2"	1"	3/4"	6	3
Retention Tank-1865-TS	88	1-1/2"	1"	3/4"	6	3



AUTO FLUSH VALVE-100 FLUSH CONTROL



BLUE TOOTH AUTO FLUSH CONTROL



SF5551



UT TANK AIR VENT ASSEMBLY



Auto Flush Valve

For use with the Retention Tanks & Sand Traps.

This controller employs the latest programming features to allow for complete control of the system. It comes assembled on a 1" threaded in-line solenoid actuated diaphragm valve with threaded bushings to plumb down to the 3/4" drain on the APW Retention Tanks and Sand Traps. The straight flow through design of the valve allows for superior debris tolerance, less pressure loss and freedom from maintenance. The Auto Flush Programmable Controller is powered by two AA batteries (not included) that can last up to 3 years using name-brand alkaline batteries. The controller is enclosed in a compact waterproof housing.

The Bluetooth controller is operated by conveniently downloading the app using iOS App Store, Google Play. Once downloaded, the app automatically scans for nearby controllers. Any AutoFlush Bluetooth controller within 50 feet will appear on the screen. Tap on the controller to connect and you are then able to program as well as view the settings, history and update passwords.

AUTO FLUSH VALVE-100	Auto Flush Valve, 1"	\$315.00
AUTO FLUSH VALVE-100-BT	Auto Flush Valve, 1" Bluetooth Compatible	\$327.00

AUTO FLUSH VALVE REPAIR PARTS

AFV-100-CONTROL ONLY	Auto Flush Valve - Timer Controller Only	\$208.00
AFV-100-CONTROL-BT	Auto Flush Valve - Adapter Only	\$214.00
AFV-100-VLV BODY ONLY	Auto Flush Valve - Valve Body Only	\$108.00

WellMate "Universal" Retention Tanks

UT30	30 Gallon, 16" x 44-1/2"	\$494.00
UT40	40 Gallon, 16" x 57-1/4"	\$550.00
UT80	80 Gallon, 21" x 62-3/4"	\$905.00
UT120	120 Gallon, 24" x 73-1/4"	\$1,210.00
UT40-SQ	40 Gallon, 21" x 36"	\$509.00

"Universal" Retention Tank Accessories

SF5551	Whitewater Air Control	\$108.50
* SF20347	S.F. Top Vent Adapter - Quick Connect Style	\$70.00
SF19605	UT Tank Top Adaptor, 1-1/4" Socket	\$49.40
SF20279	1" and 1-1/4" Connector PVC Socket	\$27.60
SF11068	Internal Drain Adapter	\$14.75
SF10991	UT Drain Assembly	\$160.00
SF2694-112	O-Ring - UT Drain Assembly	\$1.85

"Universal" Tank Air Vents

Includes Structural Quick Connect air vent, internal drain adapter with PVC stand pipe.

* UT30-AVKIT-QC	QC Tank Air Vent Assembly, UT30	\$184.00
* UT40SQ-AVKIT-QC	QC Tank Air Vent Assembly, UT40-SQ	\$184.00
UT40-AVKIT-QC	QC Tank Air Vent Assembly, UT40	\$186.00
UT80-AVKIT-QC	QC Tank Air Vent Assembly, UT80	\$186.00
UT120-AVKIT-QC	QC Tank Air Vent Assembly, UT120	\$189.00

WellMate "RT" Retention Tanks

* RT200	200 Gallon, 30" x 80"	\$6,258.00
* RT270	270 Gallon, 36" x 81"	\$7,406.00

Clack Corporation Retention Tanks

Clack Corporation Retention Tanks are designed for easy installation with convenient IN/OUT piping connection at the top of the tank. Included with the tank is the 1190RT IN/OUT Head, 1-1/4" x 1-1/2" PVC Solvent Straight Fitting Kit and (2) 1-1/4" Plastic Straight Male NPT Fittings. Bypass is optional. Full 1" blow down drain at lowest point of tank, 360° drain orientation, Black one piece polyethylene liner for impact and corrosion resistance, 5-year limited warranty, Baffle diffuser for enhanced chemical/water mixing included, Grey outer fiberglass w/epoxy resin, Maximum Operating Pressure - 75 PSI, Maximum Operating Temperature - 120°F



RT40	Clack Retention Tank, 40 gal, 21" X 42"	\$569.00
RT80	Clack Retention Tank, 80 gal, 21" X 69"	\$751.00
RT120	Clack Retention Tank, 120 gal, 24" X 80"	\$939.00

Clack Corporation Retention Tank Accessories

The Clack Retention Tank IN/OUT head is included with the retention tank. Listed are additional adapters available for installation.



CL-BYPASS

CL-BYPASS	By-Pass Assembly	\$41.00
CL07-JG	3/4" Elbow Adapters w/John Guest Fitting	\$39.25
CL10-JG	1" Elbow Adapters w/John Guest Fitting	\$54.75
CL07-CT	3/4" Brass Sweat Adapters	\$22.00
* CL10-CT	1" Brass Sweat Adapters	\$28.00
CL1215-CT	1-1/4" x 1-1/2" Brass Sweat Adapters	\$87.00
CL07-SHARK	3/4" Brass Elbow Adapters w/Shark Bite Fitting	\$45.50
CL10-SHARK	1" Brass Elbow Adapters w/Shark Bite Fitting	\$64.75
* CL10-PVC	1" PVC Male NPT Elbow Adapters	\$11.25
CL10S-PVC	1" PVC Male NPT Straight Adapters	\$16.00
CL10-90-PVC	1" 90° Bypass Vertical Adapters	\$22.00
CL12S-PVC	1-1/4" PVC Male NPT Straight Adapters	\$17.25
CL0710-PVC	3/4" x 1" PVC Solvent Elbow Adapters	\$11.25
CL1215-PVC	1-1/4" & 1-1/2" PVC Solvent Assembly	\$24.00



CL07-JG



CL07-CT



CL10-CT



CL1215-CT



CL07-SHARK



CL0710-PVC



CL10-PVC

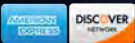


CL10S-PVC



CL1215-PVC

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NELSEN

C O R P O R A T I O N™

Ultraviolet Sterilizers

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You'll Have Peace of Mind

Ultraviolet Protection

Many of us have heard of the term "ultraviolet," however it was most likely in reference to exposure to the sun rather than its disinfection capabilities of drinking water and other fluids!

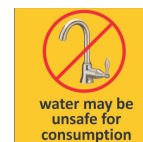
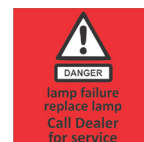
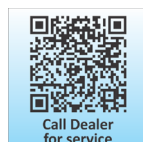
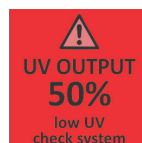
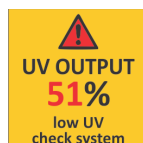
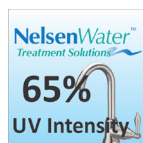


Ultraviolet Disinfection Systems

UV FEATURES

- Axial flow 304 stainless steel reactors for optimum fluid dynamics yet still allows for lamp/sleeve service without the need to drain the water
- Low pressure (LP) coated UV lamps for consistent UV output throughout rated lamp life of 9,000 hours
- LED lamp countdown constant current electronic ballast
- Color user interface with full diagnostics and warnings including QR codes
- Includes LIGHTLOCK™ technology for protected lamp sales
- IEP (infinite expandability port) for future upgrades & options
- Sensor port for future upgrade-ability, comes with integral visual glow plug
- Full customization available as an option (language, home screen, phone, QR codes, etc.)

SAMPLE DISPLAY SCREENS



Nelsen Water Treatment Solutions Ultraviolet Systems

The Nelsen Water Treatment Solutions line of UV's feature the Luminor next generation controller with an industry first, encrypted lamp lock technology! This state-of-art controller allows dealers the ability to lock each controller to their specific brand eliminating the possibility of stolen lamp sales. Luminor's LIGHTLOCK™ is only available on the new 5.1/6.1 controller platform and is built on the foundation of 6 years of field-tested updates. A new case includes an integral heat sink for robust cooling, as well as the LIGHTLOCK™ port for your encrypted lamp key. Other enhancements include new screens for replacement parts information as well as improved circuitry, efficiency and end of lamp life protection. In addition the controller includes a lamp dimming function for improved energy efficiency and reduced operating costs (requires optional flow module).

- Axial flow 304 stainless steel reactors for optimum fluid dynamics yet still allows for lamp/sleeve service without the need to drain the water
- Low pressure (LP) coated UV lamps for consistent UV output throughout rated lamp life of 9,000 hours
- LED lamp countdown constant current electronic ballast
- Color user interface with full diagnostics and warnings including QR codes
- Includes LIGHTLOCK™ technology for protected lamp sales
- IEP (infinite expendability port) for future upgrades & options
- Sensor port for future upgrade-ability, comes with integral visual glow plug



NWTS-UV5-11



LAMP KEY



NWTS QUARTZ SLEEVE



NWTS PROGRAMMER

5.1 STANDARD MODELS

NWTS-UV5-11	UV Sterilizer, 11 gpm w/Lightlock Technology	\$1,102.00
NWTS-UV5-21	UV Sterilizer, 21 gpm w/Lightlock Technology	\$1,408.00
* NWTS-UV5-15	UV Sterilizer, 15 gpm w/Lightlock Technology	\$1,200.00
* NWTS-UV6-15	UV Sterilizer, 15 gpm w/Lightlock Technology	\$1,880.00

REPLACEMENT LAMPS

- Proprietary ceramic lamp base ensures strength & product integrity
- Protected with a proprietary internal coating providing uniform UV output throughout the entire life of the lamp
- Contain less than 10 mg of mercury to meet the U.S. TCLP compliance regulations (typically 70% less than the competition)
- Color coded and part number-etched with replacement o-ring
- Protected with a full one-year, no-hassle replacement warranty

ALL NWTS lamps come with Luminor's new LIGHTLOCK™ proprietary encrypted lamp key technology.

THE LAMP KEY IS AN INTEGRAL COMPONENT AND THE SYSTEM WILL NOT FUNCTION WITHOUT IT.

NWTS-UV-820	NWTS UV Keyed Lamp - UV5-11	\$163.00
NWTS-UV-850	NWTS UV Keyed Lamp - UV5-21	\$193.00

REPLACEMENT QUARTZ SLEEVES

- All sleeves are manufactured with pure GE214 quartz (or equivalent)
- All sleeves have fire polished ends to eliminate stress cracking
- All sleeves are dimensionally marked for easy field identification
- All sleeves ship with free replacement o-rings

NWTS-UV-Q820	NWTS UV Sleeve - UV5-11	\$103.00
NWTS-UV-Q850	NWTS UV Sleeve - UV5-21	\$107.00

CUSTOM PROGRAMMING MODULE

A complete custom module can be created at the factory to replace/in addition to the QR code screen that is displayed on the NWTS branded controllers. This screen can be customized with your unique company information, logo, phone numbers, QR codes, etc. Once the module is created, simply plug the programmer into the IEP (infinite expand-ability port) on the controller and restart the system. Approximately 40 seconds later, your system will be reprogrammed with the individualized QR code screen. Capturing the annual replacement lamp business has never been easier!

* NWTS-UV-PROG	Custom Programming Module for NWTS UV Systems	Call for Details
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NWTS-UV5 SENSOR

UV SENSOR MODULE

The 254nm UV sensor module allows for a UV sensor upgrade to all NWTS 5.1 systems. All NWTS 5.1 systems come supplied with a built-in expand-ability port, simply remove the Teflon glow plug from the port and affix the UV sensor module. Plug the sensor into the IEP (infinite expand-ability port) on the controller and restart the system and your system will now monitor the UV intensity given off by the system.

- * NWTS-UV-NS2 UV Sensor for NWTS UV 5.1 Systems \$686.00

NWTS-UV
SOLENOID**SOLENOID CONNECTION MODULE**

Install a NORMALLY CLOSED line voltage solenoid valve (not supplied) and into this junction box. Connect the power and the supplied lead to the controller. Please note that when this device is connected to a 5.1 system without the UV Sensor Module, then the solenoid will close on a lamp failure mode only. When used with the UV Sensor Module, the solenoid will close when the UV level drops below 50%. Also note that in cases where emergency use of untreated water is required, the module can be placed into a manual override mode allowing for the flow of water in an alarm condition.

- * NWTS-UV-SOL1 UV Sensor for NWTS UV 5.1 Systems \$474.00

4-20mA CONNECTION MODULE

This device will allow for a 4-20mA signal transfer of the UV output to a remote device such as a data logger or computer. Simply plug the supplied cable into the IEP port on the UV sensor module (or daisy chain to any other module used in the system). Two screw terminals are supplied to connect the wire that leads to the receiving end of the signal. As the distance required is unknown, no wire is supplied with this system, however 16-22 AWG is required.

- * NWTS-UV-420 NWTS UV 4-20mA Connection Module \$264.00

NWTS-UV 4-20MA
MODULE**REMOTE ALARM MODULE**

This integral control module allows for a remote connection on all BLACKCOMB products. This device is a "dry (volt free) contact" allowing for the remote installation of alarms, lights, PLC input, data logger, flow control, etc. Simply plug the supplied cable into the IEP (infinite expand-ability port) on the controller (or daisy chain to any other module used in the system). Three screw terminals (NO, NC & common) are supplied to connect the wire that leads to the receiving end of this dry contact. As the distance required is unknown, no wire is supplied with this system, however 16-22 AWG is required.

- * NWTS-UV-RAM NWTS UV Remote Alarm Module \$264.00

NWTS-UV
REMOTE ALARM**TEMPERATURE MANAGEMENT (COOLING FAN)**

The "LUMI-cool™" fan package is specifically designed to reduce the temperature of water passing through the UV system. The package is engineered to a combination of mechanics and convection to significantly reduce the water temperature. This fan package is specifically designed for use on the NWTS UV disinfection systems.

The fan is powered independently from the UV system and is designed to run continuously. Its quiet, long-life fan is powered by a compact modular power adapter with interchangeable AC clips that operates from 90-264V (47-63Hz.)

- * NWTS-UV-FAN UV Sensor for NWTS UV 5.1 Systems \$259.00

NWTS 5.1
COOLING FAN**SHERPA**

Sherpa, the easiest way to monitor your UV system remotely. Simply install Sherpa and place the small and stylish display in a convenient location that works for you! No more unnecessary trips to your pump room to check the status of your UV system simply check your puck style display for feedback on how your system is performing and if any action is required. Sherpa is easy to use and requires no maintenance or ongoing costs.

- LED Display offers status indicators notifying you the status of your UV system.
- Built in audible buzzer.
- Easy to install, plug and play technology.
- Flexible mounting configurations.
- Stylish, high quality finish built for display in any home.

- NWTS-SHERPA Sherpa Remote Monitor \$289.00



NWTS SHERPA



T	TAP
T+	TAP PLUS
H	HOME
H+	HOME PLUS
P	PROFESSIONAL
P+	PROFESSIONAL PLUS
S	SPECIALTY

VIQUA Ultraviolet Water Sterilizers Powered by UVMax

VIQUA powered by UVMax systems are feature advanced UV technology, ensuring that you get a robust, cost-effective and efficient solution to your disinfection needs. The “D”, “E” and “F” models include High Output Lamps that provide high UV power output, ideal for medium to high flow applications, which gives 2X greater UV-C output vs. standard low pressure lamp technology. The “H” and “K” models include the Amalgam Lamp Technology that provides ultimate UV output, typically needed in high flow applications, and gives 4X greater UV-C output vs. standard low pressure lamp technology. A Constant Current feature ensures stable UV lamp current regardless of power fluctuations. All the models include EOL (End of Life) Timer - a helpful lamp replacement reminder that counts down the days to annual lamp replacement and a LED Status Monitor LED indicator lights show the status of system components. Warning lights appear when system maintenance is required.



VIQUA-D4



VIQUA-D4-PLUS

STANDARD MODELS

VIQUA-D4	H+	UV Sterilizer, 12 gpm	\$1,049.00
VIQUA-E4	P	UV Sterilizer, 22 gpm	\$1,712.00
VIQUA-F4	P	UV Sterilizer, 36 gpm	\$2,132.00
* VIQUA-H	P	UV Sterilizer, 45 gpm	\$3,270.00
* VIQUA-K	H+	UV Sterilizer, 85 gpm	\$8,038.00

PLUS MODELS

Plus models are equipped with a sensor capable of monitoring and indicating the intensity of UV light being delivered (UV dose).

* VIQUA-D4-PLUS	H+	UV Sterilizer, 12 gpm	\$1,945.00
VIQUA-E4-PLUS	P	UV Sterilizer, 22 gpm	\$2,488.00
VIQUA-E4-PLUS-50	P	UV Sterilizer, 9 gpm - 50 Dose	\$2,488.00
* VIQUA-F4-PLUS	P	UV Sterilizer, 36 gpm	\$3,072.00
* VIQUA-F4-PLUS-50	P	UV Sterilizer, 15 gpm - 50 Dose	\$3,078.00
* VIQUA-H-PLUS	P	UV Sterilizer, 45 gpm	\$3,950.00
* VIQUA-K-PLUS	P	UV Sterilizer, 80 gpm	\$8,919.00

VALIDATED MODELS

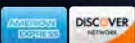
System is certified by NSF to Standard 55 Class B.

* VIQUA-D4-V	H+	UV Sterilizer, 8.9 gpm	\$1,206.00
* VIQUA-E4-V	P	UV Sterilizer, 15.8 gpm	\$1,712.00
* VIQUA-F4-V	P	UV Sterilizer, 13-47 gpm	\$2,132.00

VALIDATED PLUS MODELS

Plus models are equipped with a sensor capable of monitoring and indicating the intensity of UV light being delivered (UV dose) and systems are certified by NSF to Standard 55 Class B.

* VIQUA-D4-V+	H+	UV Sterilizer, 8.9 gpm	\$1,942.00
* VIQUA-E4-V+	P	UV Sterilizer, 15.8 gpm	\$1,712.00
* VIQUA-F4	P	UV Sterilizer, 13-47 gpm	\$2,132.00





T	TAP
T+	TAP PLUS
H	HOME
H+	HOME PLUS
P	PROFESSIONAL
P+	PROFESSIONAL PLUS
S	SPECIALTY

VIQUA Pro Series - Powered by UVMax

The VIQUA Pro Series offers a unique combination of brains and brawn, with twice the raw power of other UV systems and the intelligence to provide a real-time measure of the delivered dose. The Pro Series line of products feature the amalgam lamp technology for 4X greater UV-C output vs. standard low pressure lamp technology with Constant Current ensuring stable UV lamp current regardless of power fluctuations. The EOL (End of Lamp) Timer counts down the days to annual lamp replacement. Other features of the Pro Series LED Status Monitor to show status of system components, UV Sensor for monitoring the indicating the intensity of UV light being delivered, and Flow Meter which calculates real-time UV dose delivery for a particular flow, which also helps avoid false Low UVT alarms and extends maintenance times.

The Pro Series Systems are certified by NSF to Standard 55 Class A.

* VIQUA-PRO10	P+	UV Sterilizer, up to 10 gpm	\$3,558.00
VIQUA-PRO20	P+	UV Sterilizer, up to 20 gpm	\$4,312.00
* VIQUA-PRO30	P+	UV Sterilizer, up to 30 gpm	\$5,661.00

The VIQUA Pro50 Series IS USEPA validated for flow rates up to 50 gpm at an applied doe of 40 mJ/cm2. Features 2" MNPT connections.

* VIQUA-PRO50	P+	UV Sterilizer, up to 50 gpm	\$10,100.00
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Solenoid Kits

UV650627	Solenoid Kit for Pro Series 20 & 30, 1"	\$719.00
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Pro Series COMMcenter

The optional COMMcenter displays alarm history, lamp hours and other performance parameters - for up to nine systems. Additionally, you can have that information presented to you wherever you need it. The COMMcenter can be installed at any distance from the UV system using standard computer cable - or go wireless with an optional FCC compliant wireless transmitter.

* COMMCENTER	User Interface Module	\$1,083.00
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Replacement Lamps, Sleeves, Cells, etc.

REPLACEMENT LAMPS FOR UVMAX UNITS

* UV602803	Used in "A" Systems	\$169.00
UV602804	Used in B, B4, B4-V Systems	\$203.00
UV602805	Used in D, D4/PLUS, D4-V, C, C4, C4-V & IHS (D4)	\$203.00
UV602806	Used in E/PLUS, E4/PLUS, E4-V, PRO7 & IHS (E4)	\$204.00
UV602807	Used in F/PLUS, F4/PLUS, F4-V, PRO15	\$242.00
UV602854	Used in G/PLUS, PRO10	\$374.00
UV602855	Used in H/PLUS, PRO20	\$438.00
* UV602856	Used in J/PLUS, K/PLUS, PRO30, PRO50, S80, SM80, SV50	\$512.00

REPLACEMENT SLEEVES FOR UVMAX UNITS

* UV602730	Used in "A" Systems	\$80.75
UV602731	Used in B, B4, B4-V Systems	\$66.00
UV602732	Used in D, D4/PLUS, D4-V, C, C4, C4-V & IHS (D4)	\$83.75
UV602733	Used in E/PLUS, E4/PLUS, E4-V, PRO7 & IHS (E4)	\$102.75
UV602734	Used in F/PLUS, F4/PLUS, F4-V, PRO15	\$122.00
UV602974	Used in G/PLUS, PRO10	\$110.00
UV602975	Used in H/PLUS, PRO20	\$120.00
* UV602976	Used in J/PLUS, K/PLUS, PRO30, PRO50, S80, SM80, SV50	\$132.00

REPLACEMENT SLEEVE BOLTS

UV602665	Sleeve Bolt for UVMax all Models	\$13.20
* UV603053	Bottom Sleeve Bolt for PRO SERIES, G/PLUS, H/PLUS, J/PLUS, K/PLUS	\$39.60

Ultraviolet Sterilizer

4



VIQUA-PRO20

Powered by UVMAX™



UVMAX A, B, C, D, E, & F LAMP



UVMAX PRO-SERIES SLEEVE



REPLACEMENT CONTROLLER KITS FOR UVMAX UNITS

All Replacement Kits include a Lamp Harness.

* UV650414	Controller Kit, 100-130V for A Systems	\$248.00
UV650733R-002	Controller Kit, 100-240V for B4, C4, D4, IHS12/22-D4	\$609.00
UV650716-006	Controller Kit, 100-240V for D4/PLUS, D4-V, E4/PLUS, E4-V, F4/PLUS, F4-V & IHS (D4)	\$624.00
* UV650709-003	Controller Kit, 100-240V for PRO10 RS (2008 on)	\$1,740.00
* UV650709-006	Controller Kit, 100-240V for PRO20 RS (2008 on)	\$1,740.00
* UV650709-009	Controller Kit, 100-240V for PRO30 RS (2008 on)	\$1,740.00
* UV660020-R	Controller Kit, 100-240V for PRO50, SV50	\$1,740.00
* UV650709-004	Controller Kit, 100-240V for H	\$1,740.00
* UV650709-005	Controller Kit, 100-240V for H PLUS	\$1,740.00
* UV660018-R	Controller Kit, 100-240V for K, S80	\$1,740.00
* UV660019-R	Controller Kit, 100-240V for K PLUS, SM80	\$1,740.00



UV650733R-002

REPLACEMENT POWER SUPPLY KITS FOR PRO SERIES (PRE-2008)

* UV650629-010	Replacement Controller Kit, 100-240V for PRO10	\$1,746.00
* UV650629-020	Replacement Controller Kit, 100-240V for PRO20	\$1,746.00
* UV650629-030	Replacement Controller Kit, 100-240V for PRO30	\$1,746.00



UVMAX PRO-SERIES LAMP

VIQUA Integrated Home Systems Powered by UVMAX™

VIQUA D4 SYSTEM

The VIQUA Integrated Home System, Powered by UVMAX, adds integral pre-filtration to the VIQUA-D4 UV disinfection unit. The IHS12 system includes 10" and 20" filter housings with high-flow 5 micron sediment and taste/odor cartridges and the IHS22 system includes two 20" filter housings. The system is mounted on a heavy-duty, painted steel bracket for ease of installation. The systems include High Output Lamps that provide high UV power output, ideal for medium to high flow applications, which gives 2X greater UV-C output vs. standard low pressure lamp technology. A Constant Current feature ensures stable UV lamp current regardless of power fluctuations. All the models include EOL (End of Life) Timer - a helpful lamp replacement reminder that counts down the days to annual lamp replacement and a LED Status Monitor LED indicator lights show the status of system components. Warning lights appear when system maintenance is required.

VIQUA-IHS12-D4	H+ 12 GPM Integrated Home System, 10/20 Filters	\$1,901.00
VIQUA-IHS22-D4	H+ 12 GPM Integrated Home System, 20/20 Filters	\$2,073.00

VIQUA E4 SYSTEM

The VIQUA Integrated Home System, Powered by UVMAX, adds integral pre-filtration to the VIQUA-E4 UV disinfection unit. System includes two 20" filter housings with high-flow 5 micron sediment and taste/odor cartridges. The system is mounted on a heavy-duty, painted steel bracket for ease of installation. The "E" model includes the upgraded Amalgam Lamp Technology from the standard VIQUA-E4 model that provides ultimate UV output, typically needed in high flow applications, and gives 4X greater UV-C output vs. standard low pressure lamp technology. A Constant Current feature ensures stable UV lamp current regardless of power fluctuations. All the models include EOL (End of Life) Timer - a helpful lamp replacement reminder that counts down the days to annual lamp replacement and a LED Status Monitor LED indicator lights show the status of system components. Warning lights appear when system maintenance is required.

VIQUA-IHS22-E4	P 22 GPM Integrated Home System, 20/20 Filters	\$2,619.00
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Powered by UVMAX™

VIQUA-IHS12-D4



Powered by UVMAX™

VIQUA-IHS22-D4



T	TAP
T+	TAP PLUS
H	HOME
H+	HOME PLUS
P	PROFESSIONAL
P+	PROFESSIONAL PLUS
S	SPECIALTY

VIQUA Ultraviolet Water Sterilizers Powered by Sterilight

VIQUA VT MODELS

The VT Models, powered by Sterilight, offer an entry level, "Point of Use" UV system for recommended flow rates up to 4 gpm. These small, durable and easy to install UV's are ideal for a single faucet, water fountain or low flow application. The systems feature an "on" light.

* VIQUA-VT1	T	UV Sterilizer, 1 gpm	\$319.00
* VIQUA-VT4	T	UV Sterilizer, 3.5 gpm	\$347.00

VIQUA SQ MODELS

This modular line of ultraviolet disinfection systems can be used in a myriad of applications where flexibility and pricing sensitivity are deciding factors. The S2Q systems are ideally suited for point-of-use filtration, RO pre or post disinfection, while the larger S5Q and S8Q systems can be used on a point-of-entry (whole home) system disinfection the water for an entire home or cottage. The low pressure germicidal lamps provide an economical way of treating water requiring a 99.99% reduction in bacteria and viruses. The systems include the Constant Current feature ensuring stable UV lamp current regardless of power fluctuations. All the models include EOL (End of Life) Timer - a helpful lamp replacement reminder that counts down the days to annual lamp replacement.

VIQUA-S2Q-PA	T+	UV Sterilizer, 3 gpm	\$523.00
VIQUA-S5Q-PA	H	UV Sterilizer, 6 gpm	\$666.00
VIQUA-S8Q-PA	H	UV Sterilizer, 10 gpm	\$817.00

VIQUA SQ MODELS W/DRY CONTACTS

Designed to be integrated into water vending machines or similar OEM applications.

* VIQUA-S2Q-PV	S	UV Sterilizer, 3 gpm	\$576.00
VIQUA-S5Q-PV	S	UV Sterilizer, 6 gpm	\$759.00

VIQUA SQ VALIDATED MODELS

System is certified by NSF to Standard 55 Class B.

* VIQUA-SV5Q-PA	H	UV Sterilizer, 3.6 gpm	\$798.00
* VIQUA-SV8Q-PA	H	UV Sterilizer, 7 gpm	\$941.00

VIQUA VH MODELS

The VH P "Point of Entry" Systems feature the High Output Lamp technology which allows for a more compact footprint without compromising performance. The systems also include the Constant Current feature ensuring stable UV lamp current regardless of power fluctuations and EOL (End of Life) Timer - a helpful lamp replacement reminder that counts down the days to annual lamp replacement.

* VIQUA-VH200	H	UV Sterilizer, 9 gpm	\$845.00
VIQUA-VH410	H	UV Sterilizer, 18 gpm	\$1,062.00

VIQUA VH PLUS MODELS

Adds state of the art UV sensor technology to the VH410 UV system for continuous feedback of UV disinfection performance for added peace of mind in applications requiring up to 18 gpm flow rates.

VIQUA-VH410M	H+	UV Sterilizer, 18 gpm	\$1,589.00
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VIQUA VP MODELS

The VP Model Series High-efficiency, compact, UV disinfection systems are designed for commercial scale flow rates up to 30 gpm (113 lpm). The systems include High Output Lamps that provide high UV power output which gives 2X greater UV-C output vs. standard low pressure lamp technology. A Constant Current feature ensures stable UV lamp current regardless of power fluctuations. Also include EOL (End of Life) Timer - a helpful lamp replacement reminder that counts down the days to annual lamp replacement and a LED Status Monitor LED indicator lights show the status of system components. Warning lights appear when system maintenance is required.

* VIQUA-VP600	P	UV Sterilizer, 26 gpm	\$1,473.00
* VIQUA-VP950	P	UV Sterilizer, 40 gpm	\$1,861.00

VIQUA VP PLUS MODELS

Adds state of the art UV sensor technology to the VH410 UV system for continuous feedback of UV disinfection performance for added peace of mind in applications requiring up to 18 gpm flow rates.

* VIQUA-VP600M	P	UV Sterilizer, 26 gpm	\$2,091.00
* VIQUA-VP950M	P	UV Sterilizer, 40 gpm	\$2,479.00



VIQUA-S5Q-PA



VIQUA-VH410

VIQUA SHF MODELS

The SHF Model Series is high commercial flow, multi-lamp UV disinfection system with 3" flanges. Separate control panel with high visibility components. Recommended for flow rates up to 143 gpm (540 lpm) and available with UV sensor (SHFM-140 - Professional Plus section)

- * VIQUA-SHF-140 **P** UV Sterilizer, 143 gpm \$10,006.00
- * VIQUA-SHF-180 **P** UV Sterilizer, 183 gpm \$12,357.00

VIQUA SHF PLUS MODELS

Adds state of the art UV sensor technology to the UV system for continuous feedback of UV disinfection performance for added peace of mind.

- * VIQUA-SHFM-140 **P+** UV Sterilizer, 143 gpm \$10,868.00
- * VIQUA-SHFM-180 **P+** UV Sterilizer, 183 gpm \$13,292.00

VIQUA Drinking Water Systems Powered by Sterilight™

VIQUA VT DRINKING WATER SYSTEM

The VIQUA Integrated Filter System, Powered by Sterilight™ adds integral pre-filtration to the VIQUA-VT UV disinfection unit. The VT1-DWS system includes two 10" pre-filter housings with high-flow 5 micron sediment and taste/odor cartridges and the VT4-DWS system includes two 20" filter housings. The system is mounted on a heavy-duty, painted steel bracket for ease of installation. The systems include all the features of the VIQUA-VT Series UV systems

- * VIQUA-VT1-DWS **T** 1 GPM Drinking Water System, 10/10 Filters \$556.00
- * VIQUA-VT4-DWS **T** 3.6 GPM Drinking Water System, 20/20 Filters \$829.00

VIQUA VH integrated Filter SYSTEM

The VIQUA Integrated Filter System, Powered by Sterilight™ adds integral pre-filtration to the VIQUA-VH UV disinfection unit. The VH200-F10 System includes a 10" filter housing and the The VH410-F20 System includes a 20" filter housing with high-flow 5 micron sediment and taste/odor cartridges. The system is mounted on a reversible, heavy duty, painted steel bracket for installation flexibility and convenience. The systems include all the features of the VIQUA-VH Series UV systems

- * VIQUA-VH200-F10 **H** 9 GPM Integrated Filter System, 10" Filter \$1,108.00
- * VIQUA-VH410-F20 **H** 18 GPM Integrated Filter System, 20" Filter \$1,393.00

Sterilight Replacement Lamps, Sleeves and Cells

SQ-PA SERIES REPLACEMENT LAMPS

- S212RL Lamp for VT1, SQ-PA, SC1 \$101.00
- S287RL Lamp for S1Q-PA, SSM-14 and SC2.5 \$120.00
- S330RL Lamp for VT4, S2Q-PA, SSM-17, SC4 \$124.00
- S463RL Lamp for S5Q-PA, SSM-24 \$126.00
- S810RL Lamp for S8Q-PA, SSM-37 \$173.00
- S36RL Lamp for S12Q, S24Q, S40Q, SSM-39, SUV 24-100P Series \$179.00

SQ-PA SERIES REPLACEMENT QUARTZ SLEEVES

- QS-001 Quartz Sleeve, VH200, S1Q-PA, SSM-14 \$64.50
- QS-212 Quartz Sleeve, SQ-PA, SC-1 \$57.00
- QS-330 Quartz Sleeve, VT4, S2Q-PA, SSM-17 \$70.75
- QS-463 Quartz Sleeve, S5Q-PA, SSM-24 \$75.25
- QS-810 Quartz Sleeve, S8Q-PA, SSM-37 \$86.25
- QS-012 Quartz Sleeve, SHF-140, SHFM-140, S12Q-PA, S24Q, S40Q, SSM-39, SUV 24-100P \$128.00
- QSO-410 Quartz Sleeve, VH410 \$111.00
- QSO-600 Quartz Sleeve, VP600, VP600M \$115.00
- QSO-950 Quartz Sleeve, VP950, VP950M \$172.00
- OR-212 O-Ring for All Quartz Sleeves \$1.55





BA-ICE-S

CONTROLLERS

Power Cord sold separately.

BA-ICE-S	Controller Kit, 100-240V for SQ-PA Series	\$318.00
BA-ICE-CL	Controller Kit, 100-240V for VH200, VH410, SC-200/320	\$441.00
BA-VT	Controller Kit, 100-130V for SC1, SC2.5, SC4, VT1, VT4	\$161.00
BA-ICE-C	Controller Kit, 100-240V for VP600, VP950, SC-600/740	\$626.00
BA-ICE-CL	Controller Kit, 100-240V FOR VH200, VH410, SC-200/320	\$441.00
BA-ICE-CM	Controller Kit, 100-240V for VP600M, VP950M, SCM-600/740	\$721.00
BA-ICE-HF	Controller Kit, 100-240V for SHF Series	\$654.00
BA-ICE-M-HF	Controller Kit, 100-240V for SHFM Series	\$761.00
BA-ICE-V	Controller Kit, 100-240V for S2Q-PV, S5Q-PV	\$377.00
260010	Detachable cord for ICE Ballast	#N/A

PLATINUM SERIES STERILUME HIGH OUTPUT UV LAMPS

* S100RL-HO	Fits SPV-1.5 or SP100-HO	\$154.00
* S150RL-HO	Fits SPV-2.5 or SP150-HO	\$177.00
* S200RL-HO	Fits VH200, SC-200, SCM-200, SPV-200, SP200-HO, SPV-3.5	\$177.00
* S320RL-HO	Fits SPV-6, SP320-HO, SC-320, SCM-320	\$203.00
S410RL-HO	Fits SPV-8, SP410-HO or SPV-410	\$208.00
S600RL-HO	Fits VP600, VP600M, SC-600, SCM-600, SPV-600, SP600-HO, SPV-12	\$220.00
S740RL-HO	Fits SPV-740, SPV-15, SP740-HO, SC-740, SCM-740	\$238.00
* S950RL-HO	Fits VP950, VP950M, SPV-950, SP950-HO, SPV-20	\$241.00

PLATINUM SERIES REPLACEMENT DOMED QUARTZ SLEEVES

* QS-100	Fits SPV-1.5 or SP100-HO	\$72.25
* QS-150	Fits SPV-2.5 or SP150-HO	\$80.00
* QS-200	Fits SPV-3.5, SP200-HO or SPV-200	\$84.50
* QS-320	Fits SPV-6 or SP320-HO	\$95.25
QS-410	Fits SPV-8, SP410-HO or SPV-410	\$110.75
* QS-600	Fits SPV-12, SP600-HO or SPV-600	\$120.00
QS-740	Fits SPV-15, SP740-HO or SPV740	\$143.00
* QS-950	Fits SPV-20, SP950-HO or SPV-950	\$177.00



HO-LAMP



QUARTZ SLEEVES

Pura Ultraviolet Drinking Water Systems

Patented PURA water treatment systems are designed to provide microbiologically safe water. In addition to disinfection, water is filtered through Carbon Block filters. Select from a wide range of products for POE or POU applications.



1 GPM SERIES



UVB1-W



UVB2-W



PURA-ADD1



PURA-ADD3

Pura UV1-EPCB 1 gpm POU Series

PURA Product's UV1-EPCB Series is a bright example PURA Product's patented All-In-One concept. This product combines both ultraviolet disinfection with carbon filtration all in a very attractive and compact system. The UV1-EPCB Series is rated for 1 gallon per minute and uses either a 0.5 micron (EPCB) carbon block filter or a 10 micron (EPCB 10) carbon block filter (optional). This easy to install system can be used as a stand alone or in conjunction with other water treatment products.

UV1-EPCB-W	Pura 1 GPM System, Blue	\$575.00
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REPLACEMENT PARTS

PURA-L10	Replacement Lamp, #10	\$120.00
PURA-QS10	Quartz Sleeve, #10	\$79.25
PURA-261220	Teflon Sleeve	\$79.75

Pura UVB 2 gpm POU Series

PURA Product's patented UVB Series is designed to provide disinfected water at a flow rate of 2 gallons per minute. In addition to disinfection, water is filtered through our 0.5 micron Extended Pass Carbon Block (EPCB) filter. Our double and triple models provide you with additional filtration with sediment and activated carbon filters.

This compact All-in-One system installs with ease and can be used anywhere that clean, clear, good tasting disinfected water is needed. It is ideal for point-of-use applications like: under the kitchen sink, office water coolers, water vending machines, boats, recreational vehicles, etc."

* UVB1-W	Pura 2 GPM System, White	\$771.00
* UVB2-W	Pura 2 GPM System, Double	\$961.00
* UVB3-W	Pura 2 GPM System, Triple	\$1,118.00

REPLACEMENT PARTS

PURA-L11	Replacement Lamp, #11	\$130.00
PURA-QS11	Quartz Sleeve, #11	\$78.25
PURA-261220	Teflon Sleeve	\$79.75

Pura "ADDON" Ultraviolet Series

PURA Product's UV ADDON Series is designed to be an easy addition to water treatment systems that require ultraviolet disinfection (RO systems, holding tanks, water dispensers, recirculating systems and more). The ADDON systems are available with a 1 GPM or 3 GPM flow rate. They are constructed using a 304 grade stainless steel body with a molded head that includes 3/8" quick connect fittings on the inlet/outlet. This versatile system also includes a heavy duty mounting bracket, but will also fit standard 2" RO mounting clips. The UV ADDON Series can be used almost anywhere and is equipped with a unique power supply that makes installation simple, space requirements minimal and lamp changes easy.

PURA-ADD1	Pura 1 GPM System, SS	\$448.00
* PURA-ADD3	Pura 3 GPM System, SS	\$540.00

REPLACEMENT PARTS

PURA-L10	Replacement Lamp, #10 (1 gpm)	\$120.00
PURA-QS11	Quartz Sleeve, #11 (1 gpm)	\$78.25
PURA-L20	Replacement Lamp, #20 (3 gpm)	\$144.00
PURA-QS20	Quartz Sleeve, #20 (3 gpm)	\$82.75



Pura Whole House Series

Pura UV20 Series are designed to provide disinfected water at a flow rate of 8-10 gpm. These units will accommodate most single-family users.

UV20-1	Pura 10 GPM UV System	\$1,008.00
UV20-2SD	Pura 10 GPM UV System w/Sediment Crtg. Housing	\$1,235.00
* UV20-2CB20X	Pura 8 GPM System, Double w/Carbon Block Housing	\$1,316.00
UV20-3CB20XSD	Pura 8 GPM System, Triple w/Sediment and Carbon Block	\$1,470.00

PURA REPLACEMENT CARTRIDGES FOR WHOLE HOUSE SERIES

PURA-SED-5M-20	.5 Micron Sediment Filter, 20"	\$22.30
PURA-CARBON-10M-20	Carbon Block, 10 Micron Filter 20"	\$28.70

REPLACEMENT PARTS

PURA-L20	Replacement Lamp, #20	\$147.00
PURA-QS20	Quartz Sleeve, #20	\$82.75

Pura UV 15 gpm "BIG BOY" Series

The UV BigBoy Series is the most versatile commercial ultraviolet disinfection system on the market today. This 15 to 60 GPM series is manufactured with versatility in mind, and is virtually unlimited in the possible filter configurations and manifold sequences. The series is designed with the same traditional style that PURA has made an industry standard - worldwide.

One advantage of the UV BigBoy Series is the convenient manifold mounting rack. The rack can be used to configure up to four UV chambers in parallel or in series. This allows the user to achieve either a higher UV dosage or higher flow rate (up to 60 GPM). This mounting rack configuration provides easy access for cleaning and maintenance to the individual units without the need to shut down the entire water distribution line. The standard LED lamp monitor provides a visual verification the lamp is in operation.

PURA CARBON BLOCK CARTRIDGES FOR 1 AND 2 GPM SERIES

* PURA-EPCB	.5 Micron Filter, Cyst Rated	\$50.50
PURA-EPCB10	10 Micron Filter	\$19.25

PURA REPLACEMENT CARTRIDGES FOR 10 GPM SERIES

* PURA-CB20X	5 Micron Carbon Block Filter, 6/Cartron	\$38.75
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UV20-3CB20XSD



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NELSEN

C O R P O R A T I O N

Reverse Osmosis - Residential & Commercial

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Aqua Classic • Aqua Elite

NelsenWaterTM
Treatment Solutions

The Aqua Classic and Aqua Elite drinking water systems are custom built in-house by Nelsen Corporation. Nelsen reverse-osmosis drinking water systems provide you with compact, affordable and effective solutions for achieving the best possible quality drinking water for your customer. We offer systems from 25 to 100 gallons per day in a variety of stages and configurations.



AQUA CLASSICTM



Aqua Elite

Reverse Osmosis Drinking Water Systems

AQUA CLASSIC™ Aqua Classic Reverse Osmosis Systems

The Aqua Classic Reverse Osmosis Systems are traditional in design with blue filter housings and a blue steel tank. Complete system includes: Reverse Osmosis/Activated Carbon purification assembly, 3.2 gallon NSF steel tank, long reach, non air-gap faucet, automatic shut-off and installation parts kit. Optional ECF (Extended Contact Carbon Adsorption Filter) also available.

Chlorinated Water - Carbon pre-filtration required for all models when chlorinated water is used.



ACI-TLC

AQUA CLASSIC I SYSTEMS w/TFC MEMBRANES FOR NON-CHLORINATED WATER

ACI-TLC-25	25 gpd	\$492.00
ACI-TLC-35	35 gpd	\$495.00
ACI-TLC-50	50 gpd	\$498.00
ACI-TLC-100	100 gpd	\$515.00
ACI-TLC-25D	25 gpd with ECF	\$495.00
ACI-TLC-35D	35 gpd with ECF	\$513.00
ACI-TLC-50D	50 gpd with ECF	\$516.00

AQUA CLASSIC II SYSTEMS w/TFC MEMBRANES

Aqua Classic II Systems include all of the features of the Aqua Classic I Systems with the addition of a pre-carbon filter. Optional ECF (Extended Contact Carbon Adsorption Filter) also available.

Chlorinated Water - Carbon pre-filtration required for all models when chlorinated water is used.



AQUA CLASSIC WITH ECF MODULE

ACII-TLC-25	25 gpd w/Pre-Carbon	\$534.00
ACII-TLC-35	35 gpd w/Pre-Carbon	\$538.00
ACII-TLC-50	50 gpd w/Pre-Carbon	\$541.00
ACII-TLC-100	100 gpd w/Pre-Carbon	\$561.00
ACII-TLC-25D	25 gpd w/Pre-Carbon and ECF	\$551.00
ACII-TLC-35D	35 gpd w/Pre-Carbon and ECF	\$542.00
ACII-TLC-50D	50 gpd w/Pre-Carbon and ECF	\$558.00

For optional faucet package, please see page 7-4.



AQUA CLASSIC II



ECF MODULE

Reverse Osmosis

Aqua Elite

Aqua Elite Reverse Osmosis Systems

The Aqua Elite Reverse Osmosis Systems are beautifully styled with white filter housings and a white storage tank. Complete system includes: Reverse Osmosis/Activated Carbon purification assembly, 3.2 gallon FRO tank, long reach, non air-gap faucet, automatic shut-off and installation parts kit. Optional ECF (Extended Contact Carbon Adsorption Filter) also available.

Chlorinated Water - Carbon pre-filtration required for all models when chlorinated water is used.

AQUA ELITE SYSTEMS w/TFC MEMBRANES FOR NON-CHLORINATED WATER

AEI-TLC-25	25 gpd	\$506.00
AEI-TLC-35	35 gpd	\$509.00
AEI-TLC-50	50 gpd	\$513.00
AEI-TLC-100	100 gpd	\$532.00
AEI-TLC-25D	25 gpd w/ECF	\$523.00
AEI-TLC-35D	35 gpd w/ECF	\$514.00
AEI-TLC-50D	50 gpd w/ECF	\$530.00

AQUA ELITE II SYSTEMS w/TFC MEMBRANES

Aqua Elite II Systems include all of the features of the Aqua Elite I Systems with the addition of a pre-carbon filter. Optional ECF (Extended Contact Carbon Adsorption Filter) also available.

Chlorinated Water - Carbon pre-filtration required for all models when chlorinated water is used.

AEII-TLC-25	25 gpd w/PRE-CARBON	\$550.00
AEII-TLC-35	35 gpd w/PRE-CARBON	\$551.00
AEII-TLC-50	50 gpd w/PRE-CARBON	\$555.00
AEII-TLC-100	100 gpd w/PRE-CARBON	\$576.00
AEII-TLC-25D	25 gpd w/PRE-CARB and ECF	\$565.00
AEII-TLC-35D	35 gpd w/PRE-CARB and ECF	\$556.00
AEII-TLC-50D	50 gpd w/PRE-CARB and ECF	\$572.00

For optional faucet package, please see page 7-4.



AQUA ELITE



AQUA ELITE W/ECF MODULE



AQUA ELITE II



AQUA ELITE II (SHOWN WITH ECF MODULE)

Reverse Osmosis

2



BOOSTER PUMP

Reverse Osmosis Systems with Booster Pumps

When low pressure, low production or high TDS is a problem, choose our Aqua Classic Reverse Osmosis systems with a built-on booster pump. Increased production and rejection rates result from an average pressure boost of 60 PSI before the membrane.

Aqua Classic Reverse Osmosis Systems with Booster Pumps

The Aqua Classic Reverse Osmosis Systems with Booster Pumps are traditional in design with blue filter housings and a blue steel tank. Complete system includes: Reverse Osmosis/Activated Carbon purification assembly; 3.2 gallon steel tank; long reach, non air-gap faucet; automatic shut-off, CDP6800-110 booster pump and installation parts kit. Optional ECF (Extended Contact Carbon Adsorption Filter) also available Chlorinated Water - Carbon pre-filtration required for all models when chlorinated water is used.

AQUA CLASSIC SYSTEMS w/BOOSTER PUMP (for Non-Chlorinated Water)

ACP-TLC-25	25 gpd System	\$761.00
ACP-TLC-35	35 gpd	\$766.00
ACP-TLC-50	50 gpd	\$765.00
ACP-TLC-25D	25 gpd with ECF	\$794.00
ACP-TLC-35D	35 gpd with ECF	\$786.00
ACP-TLC-50D	50 gpd with ECF	\$802.00



AQUA CLASSIC WITH BOOSTER PUMP

Aqua Elite Reverse Osmosis Systems with Booster Pumps

The Aqua Elite Reverse Osmosis Systems with Booster Pumps are beautifully styled with white filter housings and a white storage tank. Complete system includes: Reverse Osmosis/Activated Carbon purification assembly; 3.2 gallon storage tank; long reach, non air-gap faucet; automatic shut-off and installation parts kit. Optional ECF (Extended Contact Carbon Adsorption Filter) also available.

Chlorinated Water - Carbon pre-filtration required for all models when chlorinated water is used.

AQUA ELITE SYSTEMS w/BOOSTER PUMP (for Non-Chlorinated Water)

AEP-TLC-25	25 gpd System	\$776.00
AEP-TLC-35	35 gpd	\$777.00
AEP-TLC-50	50 gpd	\$767.00
AEP-TLC-25D	25 gpd with ECF	\$802.00
AEP-TLC-35D	35 gpd with ECF	\$782.00
AEP-TLC-50D	50 gpd with ECF	\$808.00



AQUA ELITE WITH BOOSTER PUMP

Aqua Reverse Osmosis Systems with Permeate Pumps

Powered only by the hydraulic energy of brine water usually lost to the drain (i.e. no electricity required), the Permeate Pump forces product water into the storage tank, reducing membrane back pressure and maximizing available feed pressure. These pumps dramatically improve the efficiency of RO water production, reducing wastewater by up to 80%. In other words, if the current system requires 10 gallons of tap water to produce a gallon of pure water (10:1), adding a Permeate Pump should reduce this ratio below 3:1. This pump can also bring storage tanks up to line pressure and then shut the system down when these tanks reach capacity, eliminating the need for a hydraulic shut-off valve. Other benefits include higher delivery pressures, faster RO water production, superior water quality, and extended filter/membrane life. Complete system includes: Reverse Osmosis/Activated Carbon purification assembly, 3.2 gallon NSF tank, long reach, non air-gap faucet, John Guest fittings, and installation parts kit.

Chlorinated Water - Carbon pre-filtration required for all models when chlorinated water is used.

AQUA SERIES PERMEATE PUMP SYSTEM FOR NON-CHLORINATED WATER

ACI-TLC-50PP	Aqua Classic 50 gpd System	\$654.00
AEI-TLC-50PP	Aqua Elite 50 gpd System	\$669.00

AQUA SERIES PERMEATE PUMP SYSTEM w/ECF Module

ACI-TLC-50PPD	Aqua Classic 50 gpd System w/ ECF Module	\$674.00
AEI-TLC-50PPD	Aqua Elite 50 gpd System w/ ECF Module	\$689.00

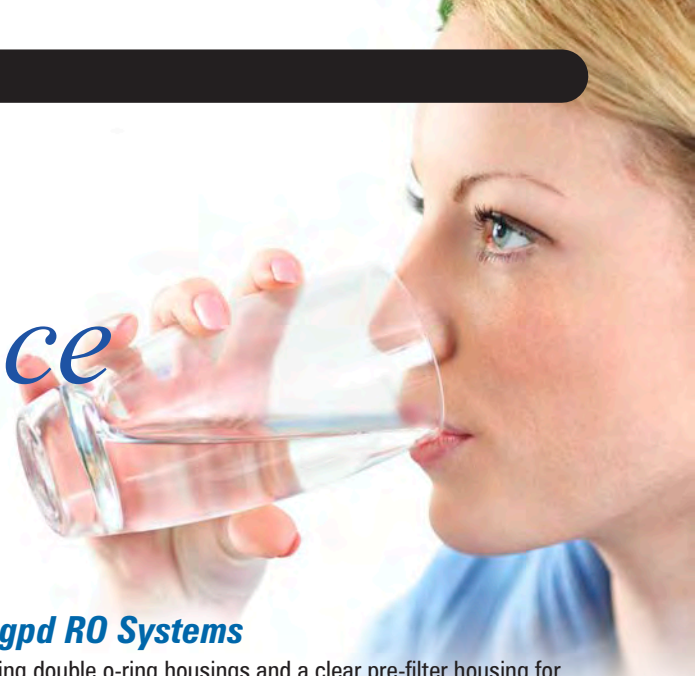
For optional faucet packages, please see page 7-4.

AQUA CLASSIC WITH PERMEATE PUMP



AQUA ELITE WITH PERMEATE PUMP

Taste the Difference



NRO4-50



NRO5-50



NRO FILTER PACK



NSF-3.2-SC

FRO-122P



ECF-10

Nelsen Filtration Solutions 50 gpd RO Systems

4-Stage and 5-Stage 50 gpd RO Systems featuring double o-ring housings and a clear pre-filter housing for quick inspection of the sediment filter. Also features a 3.2 gallon NSF approved storage tank. This system utilizes 1/4" compression fittings, 1/4" tubing, and a chrome long-reach, lead-free faucet. Also includes filter wrench.

NRO4-50	4-Stage, 50 gpd RO	\$385.00
NRO5-50	5-Stage, 50 gpd RO	\$392.00
NRO-LIT	Nelsen Filtration RO Literature	\$1.00
NF-RO-WRENCH	NRO Sump Wrench	\$6.00

Optional Faucet Package For Reverse Osmosis Systems

Faucet package include air gap faucet, drain saddle, feed valve, fittings and tubing needed to install the Aqua Classic and Aqua Elite RO Systems.

AIR-GAP FAUCET PACKAGE

LR-AG	Faucet, Long Reach	Add	\$9.70
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NRO Refrigerator Kit

Includes JG02UT (1/4" Tee) to splice into faucet tubing with a JG0302RU (Reducing Union) with 50 feet of 3/8" tubing. Also includes JG03UNSF (Faucet Connector) for the connection at the Refrigerator.

RO-FRIDGE-KIT	Refrigerator Kit for Nelsen NRO	\$50.25
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NRO Filter Replacement Packs

Includes all the filters for a complete replacement. Set includes - (1) NP5 5-Micron Sediment, (1) 32-250-125-975 Matrikx Carbon Block, (1) NINCF-10-QC In-Line Carbon w/Quick Connect fittings. NRO5 includes (2) of the Matrikx Carbon Block filters

NRO4-FILTERPACK	Set of Replacement Filters for NRO4	\$24.30
NRO5-FILTERPACK	Set of Replacement Filters for NRO5	\$35.25

Replacement RO Tank Assemblies

Reverse Osmosis tank assemblies are ready for a quick replacement.

NSF-3.2-SC	Blue RO Tank Kit	\$124.00
FRO-122P-SC	White RO Tank Kit	\$142.00
NSF-6.5-SC	White 6.5 gallon RO Tank Kit	\$234.00

Extended Contact Carbon Adsorption Filter

This "In-Line" style carbon adsorption filter is an excellent replacement for the ECF Module on the Aqua Classic or Aqua Elite Reverse Osmosis Systems.

ECF-10	2" x 10"	\$15.40
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Quick Change, Twist & Loc

4-Stage Reverse Osmosis Drinking Water System



TWIST-LOC-RO-75

*Easy Cartridge
Removal & Replacement
Without Turning
Off Water*



Nelsen Water Treatment Solutions 75 gpd Quick Twist & Loc RO

4-Stage 75 gpd NRO Quick Change Twist & Loc RO System features quick change twist & lock cartridges. The Quick Change Twist & Loc cartridge is disengaged and removed with only a quarter twist of the wrist without shutting off the water. Cartridges can even be changed when the customer's home's water system is operating under full pressure. The system also features 3/8" delivery from holding tank to faucet, quick connect fittings on RO for easy installation, angle stop adapter valve with quick connect fitting, 3.2 gallon polypropylene coated NSF approved white steel tank and installation hardware, filter wrench and a chrome lead-free faucet.

The Quick Change Twist & Loc 75 gpd RO offers optimal levels of water filtration to reduce dissolved minerals, bad taste and odors.

TWIST-LOC-RO-75 4-Stage, 75 gpd Twist-Loc RO \$444.00

REPLACEMENT CARTRIDGES

TWIST-MEMBRANE-75	75 gpd Twist-Loc Membrane Cartridge	\$113.00
TWIST-SEDIMENT	Twist-Loc Sediment Cartridge	\$25.00
TWIST-CARBON	Twist-Loc Carbon Cartridge	\$68.00
TWIST-ALKALINITY	Twist-Loc Alkaline Cartridge (Optional Cartridge)	\$128.00

REPLACEMENT COMPONENTS

TWIST-LOC-AUTO SHUT OFF	Replacement Shut-Off Valve	\$16.00
TWIST-LOC-FLOW RESTRICTOR	Replacement Flow Restrictor	\$5.00

microline



S7011



S7028



S7025



S1455

Nimbus
WATER SYSTEMS



Microline Reverse Osmosis Drinking Water Systems

The Microline TFC-35S Reverse Osmosis Drinking Water System uses the latest advances in plastics technology to produce the most streamlined and user-friendly RO system on the market. What sets the Microline apart from other systems is its patented design. Injection-molded from FDA-compliant materials, the system directs the flow of the water through each filtration step without the need for tubes or fittings. This design also contains major component parts, such as the water-saving automatic shut-off, drain control and safety check valve, making it easy to maintain and service.

Another Microline innovation is its patented membrane seal. This feature makes membrane replacement a snap without the need for tools. Microline TFC Reverse Osmosis Drinking Water Systems are tested and certified to ANSI/NSF Standard 58 by NSF International and approved by the State of Wisconsin's Department of Industry, Labor and Human Relations.

Complete system includes sediment/carbon prefilter; TFC membrane; activated carbon post-filter; color coded tubing; Flexcon Storage Tank; long reach, air-gap faucet; automatic shut-off and installation parts kit. Select the S7028 prefilter, S1229RS membrane and S7025 postfilter as replacement components.

TFC-35A 50 gpd TFC System \$524.00

Microline Cartridges, Membranes and Modules

CARTRIDGES FOR STANDARD, DELUXE AND NEW GENERATION SYSTEMS

S7011	5 Micron Sediment	\$5.80
S7028	Sediment/Carbon Block	\$20.90
S7025	GAC Cartridge	\$18.35
S1224RS	14 gpd CTA Membrane	\$75.00
S1227RS	25 gpd TFC Membrane	\$74.50
S1229RS	50 gpd TFC Membrane	\$80.25
S1764RS	50 gpd TFC Membrane, Reverse Seal	\$71.25
S7206-W	6" Inline GAC Postfilter Cartridge - 1/4" FPT	\$15.85
S7206W-JG	6" Inline GAC Postfilter Cartridge with 3/8" John Guest Fittings	\$23.60

REPLACEMENT PARTS

S7029-09	Microline Membrane Housing	\$13.70
S3069	Microline O-ring	\$0.65
S2016-6	Drain Restrictor, 50 gpd	\$3.45

MICROLINE LITERATURE

S1455	4-Page RO Literature	\$1.65
S1456	Microline TFC-300 Literature	\$0.80

Nimbus Sierra 30 GPD RO Drinking Water System

The Sierra 4-stage reverse osmosis system delivers gallons of clean, clear drinking water. The system features a 36 gpd membrane and top quality coconut carbon filtration in a four-stage configuration. The Sierra is designed with hygienically sealed filter cartridges and color-coded fittings for fast installation and easy service. Shipped with a lead-free, air-gap chrome faucet.

- Four-stage reverse osmosis drinking water system for fresh tasting, clear drinking water.
- Great tasting drinking water for pennies a gallon.
- Membrane options include 36 gpd, 50 gpd, 75 gpd or 100 gpd.
- Reverse osmosis membrane reduces total dissolved solids (TDS) by 96%.
- Top quality coconut carbon post-filtration provides final polishing for the freshest taste.
- Easy to install with pre-connected, color coded tubing and hygienically sealed filter cartridges.
- Easy to maintain. Replace the filter cartridges without tools.
- Compact design saves under-the-counter space.

NIM-NS-1N30-00 Nimbus Sierra RO System \$677.00

REPLACEMENT CARTRIDGES

NIM-104381	Sierra 5 Micron Sediment Cartridge	\$30.70
NIM-104382	Sierra GAC Filter Cartridge	\$34.90
NIM-104583	Sierra 30 GPD Membrane Cartridge	\$133.00
* NIM-104032	Sierra 50 GPD Membrane Cartridge	\$164.00



MERLIN-MEMBRANE



MERLIN-PRE-SEDIMENT



MERLIN-POST



GIZMODE WATER ALARM

Merlin Reverse Osmosis Replacement Cartridges

Replacement membranes, sediment filters and carbon pre and post filters.

MERLIN-MEMBRANE	Membrane Element	\$213.00
MERLIN-PRE	Carbon Prefilter	\$62.00
MERLIN-POST	Carbon Postfilter	\$28.00
MERLIN-PRE-SEDIMENT	Sediment Prefilter	\$27.00

Gizmode Water Alarm

The Water Alarm is the early warning for leaky pipes, appliances, softeners and filters, and under the sink for RO's. Use the Water Alarm to detect even the smallest amounts of moisture before mold, mildew and serious water damage can occur. It can be placed near bath tubs, toilets, beneath sinks, or it can be used as a basement water alarm for early notification of flooding or leaky pipes. 1-Year Manufacturer's Warranty.

- Incredibly loud alarm (110 dB)
- Effective - loud alarm, detects the slightest amount of moisture
- Uses standard 9-Volt battery
- Approximate dimensions (L x W x H): 3 1/4" x 3 1/4" x 1 2/3"

WA-02	Battery Operated Water Alarm	\$39.10
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FlowLok Leak Detection Kit

FLOWLOK Leak Detectors utilize a highly compressed safety disc that expands when it absorbs water. Once the safety disc has detected water it expands and trips the FLOWLOK safety lever to shut off the water entering the water filtration device. The FLOWLOK Safety Tray is a specially designed tray made to contain any leaks which originate from the water filtration system. Its slightly oversized length helps capture any drips or leaks originating from connectors in the inlet and outlet of the filtration device. Includes two Safety Discs.

FLOWLOK-KIT	FlowLok Leak Detector w/Safety Kit	\$57.80
FLOWLOK-PAD	FlowLok Replacement Pads	\$8.35



FLOWLOK-KIT

HM Digital LeakBlock Sensor

The LBS-10 LeakBlock Sensor can be used for numerous applications to avoid flooding and unnecessary leaks. The LBS-10 LeakBlock Sensor is perfect for traditional applications: RO Systems, inlets of a Filter System, and individual Filters. The robust commercial design of the latching valve enables the LBS-10 LeakBlock Sensor to be used for additional applications.

Product Specifications

- Temperature Range: 34 F°/1 C° – 145 F°/63 C°
- Maximum Flow Rate: 6 GPM / 19 LPM
- Maximum Pressure: 125 psi / 8.6 Bar
- Connection: 3/8" FNPT x 1/2 MBSP (British Standard Pipe Male, NOT National Pipe Thread NPT)

LBS-10	HM Digital Leak Block Sensor	\$85.30
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LBS-10

Structural ROmate™ Storage Vessels

The high-performance, high-value vessels for residential and light commercial reverse osmosis applications. ROmate™ reverse osmosis permeate storage vessels from Structural reduce costs while maintaining quality. Specially designed for reverse osmosis systems, these small vessels offer big advantages over competitive tanks like 100% Seamless construction, and the ability to discharge in any position. The RO4 features a polypropylene shell while the RO15 through RO80 utilize a polyethylene inner shell, fiberglass exterior.

RO Mate™ pure water storage vessels have been designed to retain the purity of the product water produced by your drinking water system. Tanks feature a five-year warranty and are NSF Standard 58 certified. Tank connections are as follows: RO-20, RO-30, RO-40 – 1" MIPT; RO-80 – 1-1/4" MIPT.

RO-20	20.0 Gallons, 16" x 28"	\$711.00
* RO-30	30.0 Gallons, 16" x 45"	\$991.00
RO-40	40.0 Gallons, 16" x 58"	\$1,148.00
RO-80	80.0 Gallons, 24" x 57"	\$1,785.00



ROMATE STORAGE VESSELS





FRO-122P

Flexcon RO Storage Tank

At the heart of the tank is a 100% butyl rubber diaphragm that has been post cured to eliminate any unwanted taste and odors. Combined with a polypropylene liner, the tank keeps system water contained in a sealed water chamber. A double gasketed stainless steel connection assures the integrity of the water treatment system. The bottom dome of the smaller tanks has been enhanced with 4 rounded legs to insure installation stability. These tanks are NSF 58 certified. Dimensions - 9" x 13 3/4".

FRO-122P	Flexcon RO Tank, 3.2 Gal, White	\$85.00
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NSF RO Storage Tanks

PAE Machinery Industrial CO., LTD is one of the largest pressure tank manufactures in the world today. PAE pressure tanks use a butyl diaphragm and polypropylene liner to separate the water and air. These materials limit the growth of germs and prevent impurities inside the tank. These tanks are NSF approved under standard 58, and CE approved under the PED (pressure equipment directive), because of these approvals these tanks carry the appropriate markings and can be used everywhere in the world. Lead leaching to drinking water can cause of health risks, brass and copper are banned for use in purified/ drinking water. All PAE expansion tanks use stainless steel connections to avoid the lead leaching concerns. To avoid bad odors from diaphragm, all of the diaphragms are post-cured before assembly, to eliminate the possibility of odors from the tank.

NSF-3.2	White 3.2 Gallon NSF Approved Storage Tank	\$77.50
NSF-3.2-BLUE	Blue 3.2 Gallon NSF Approved Storage Tank	\$81.00
NSF-6.5	White 6.5 Gallon NSF Approved Storage Tank	\$152.00



NSF-6.5

NSF

NSF-3.2-BLUE

NSF-3.2

Shut-Off Ball Valves

JOHN GUEST

JGBV0202SSS	1/4" Tube x 1/4" Tube, Straight	\$10.20
JGBV0303SSS	3/8" Tube x 3/8" Tube, Straight	\$10.75
JGBV0202SF90	1/4" FIPT x 1/4" Tube, 90 Degree	\$12.85
JGBV0203SF90	1/4" FIPT x 3/8" Tube, 90 Degree	\$11.75



JGBV0202SSS

JGBV0203SF90

PARKER

LQBV0303SSS	Parker Ball Valve, 3/8" Tube, Straight	\$12.25
LQBV0203SF90	Parker 90° Ball Valve, 1/4" NPTF x 3/8" Tube	\$11.55



STRAIGHT BALL VALVE

90° BALL VALVE

Nelsen RO Membranes

Nelsen Brand RO Membranes feature rejection rates of 98-99% and the best consistency available. Guaranteed one year shelf life with no biological growth.

THIN FILM MEMBRANES FOR NON-CHLORINATED WATER

TLC-25	25 Gallon per day	\$55.50
TLC-35	35 Gallon per day	\$55.50
TLC-50	50 Gallon per day	\$57.50
TLC-100	100 Gallon per day	\$77.50



TLC-25



GRO-75EN

Pentair GRO Membranes

Pentair's GRO membrane integrates a 100% dry membrane to help maximize its lifespan and shelflife, provides enhanced performance to the end user. The GRO boasts a 50% recovery rate while maintaining a retrofit-able design for easy integration. The GRO features double the recovery over standard reverse osmosis elements with rejection performance comparable to standard reverse osmosis elements and also high rejection stability at high input TDS. The GRO is longer than the standard size Residential RO element at 15.1" wide but it does fit into the standard size membrane housing clips. Includes drain line flow control and check valve.

GRO-50EN	50 Gallon per day High Efficient RO Membrane	\$185.25
GRO-75EN	75 Gallon per day High Efficient RO Membrane	\$185.25

SYSTEMS W/GRO 75GPD MEMBRANE

ACII-GRO-75	Aqua Classic 75 Gallon per day Triple Sump	\$697.50
AEII-GRO-75	Aqua Elite 75 Gallon per day Triple Sump	\$687.75



ACII-GRO-75



EH-2500

Membrane Housing

This membrane housing is manufactured from high-quality, NSF-listed, FDA-grade, 100% polypropylene. This WQA validated housing features 1/8" NPT molded threads and a high quality gloss finish.

EH-2500	Membrane Housing	\$32.30
OR-2	O-ring, Membrane Housing	\$7.00

Shut-off Valves

The dual diaphragm design provides automatic shut-off at 65% of supply line pressure. Quick connect fittings are pre-installed on shut-off.



S-3000B	Shut-Off, Black	\$14.65
C-3000B	Shut-Off Clip, Black	\$3.75

Brackets, Clips and Clamp



DB-W-SL	Slimline Double Bracket, White	\$18.30
DB-B	Double Bracket, Black	\$37.10
TB-B	Triple Bracket, Black	\$51.90
MC-S-B	Membrane Clip, Single	\$1.55
MC-D-B	Membrane Clip, Double	\$1.60
DSC-02	Drain Clamp, 1/4" FIPT	\$4.55
DSCJ-02	Drain Clamp, 1/4" Jaco	\$6.85
SS10X3/4	Housing Screw, #10 x 3/4"	\$0.25
MACHINE SCREW, 6 X 7/16	Machine Screw for Membrane Clips	\$0.40
NUT-6X32	Hex Nut, SS 6-32 Larger Pattern	\$-

Check Valves

The following cartridge style check valve and flow restrictors are designed for reliable use in Reverse Osmosis drinking water systems. The CV-ROG check valve cartridge is pre-installed in a John Guest 1/8" MIPT x 1/4" TUBE elbow.



DSCJ-02

CV-ROG	Check Valve with Guest Fitting	\$11.80
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JOHN GUEST

JG0303CK	Check Valve, 3/8"	\$22.05
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NRO

NRO4-NRO5 CHECK VALVE	NRO Check Valve, 1/4 Stem x 1/4 Tube Elbow	\$4.40
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PARKER

LQ0303CK	Parker 3/8" Check Valve	\$19.60
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CV-ROG



FR-125-220G

Flow Restrictors with Guest Fitting

The following cartridge style flow restrictors are pre-installed in a John Guest 1/8" MIPT x 1/4" TUBE elbow.

FR-125-220G	125 gpd, Green	\$24.20
FR-150-220G	150 gpd, Black	\$22.15

Payne Flow Restrictors



JG0303CK



LQ0303CK



PAYNE FLOW RESTRICTOR

FR-100-02	100 ml/min. (Female)	\$27.20
FR-250-02	250 ml/min. (Female)	\$27.20
FR-300-02	300 ml/min. (Female)	\$27.20
FR-350-02	350 ml/min. (Female)	\$27.20
FR-450-02	450 ml/min. (Female)	\$27.20
FR-700-02	700 ml/min. (Female)	\$27.20
FR-1000-02	1000 ml/min. (Female)	\$27.20

Reverse Osmosis Faucets

Our standard faucets are designed for any kind of under-the-sink filter system. They are machined from solid brass bar, hand-polished and chrome plated. A corrosion-resistant ABS tip is added to the spout to prevent chrome damage.

FAUCETS, NON-AIR-GAP

This classic design has become the industry standard for drinking water systems. The unbreakable celcon handle has been engineered for smooth operation. You'll feel the difference. A 7/16" hole is required for installation.

F02-LR	Faucet, 1/4" Long Reach Chrome	\$55.30
F02-LR-BN	Faucet, 1/4" Long Reach Brushed Nickel	\$79.00
* F02-LR-B	Faucet, 1/4" Long Reach Black	\$87.75
* F02-LR-BC	Faucet, 1/4" Long Reach Brushed Chrome	\$69.00
F02-LR-W	Faucet, 1/4" Long Reach White	\$69.00
* F02-LR-ORB	Faucet, 1/4" Long Reach Oil Rub Bronze	\$87.75
F02-LR-SN	Faucet, 1/4" Long Reach Satin Nickel	\$82.50
* F02-LR-A	Faucet, 1/4" Long Reach Almond	\$69.00
F02-LR-BS	Faucet, 1/4" Long Reach Brushed Stainless	\$87.75

FAUCETS, AIR-GAP

The latest technology available for reverse osmosis systems, this faucet incorporates an integral air-gap with a 1/4" barb fitting for brine input and a 3/8" barb fitting for brine output.

F0203AG-LR	Faucet, 1/4" Long Reach Chrome Air-Gap	\$60.25
F0203AG-LR-BN	Faucet, 1/4" Long Reach Air-Gap, Brushed Nickel	\$84.25

Designer Lead-free Faucets

A series of water dispensing faucets for point-of-use potable water filters. Ceramic valve design provides smooth operation. Solid metal body construction provides for superior durability. Lead-free brass assures regulatory compliance to ANSI/NSF standards and California Prop. 65. Lever rotation (90°) initiates flow with manual return. Handle position is adjustable.

HF9-C	1/4" Long Reach, Chrome	\$103.00
HF9-BN	1/4" Long Reach, Brushed Nickel	\$114.25
HF9-BC	1/4" Long Reach, Brushed Chrome	\$117.75
HF9-W	1/4" Long Reach, White	\$114.75
* HF9-A	1/4" Long Reach, Almond	\$114.75
* HF9-BL	1/4" Long Reach, Black	\$114.75
* HF9-ORB	1/4" Long Reach, Oil Rubbed Bronze	\$122.25
HF9-PB	1/4" Long Reach, Polished Brass	\$122.25

EURO STYLE

HF977-C	1/4" Long Reach, Euro Chrome	\$142.00
HF977-BN	1/4" Long Reach, Euro Brushed Nickel	\$153.00
HF977-ORB	1/4" Long Reach, Euro Oil Rubbed Bronze	\$162.00

HF9 REPLACEMENT CARTRIDGE

HF9-CARTRIDGE	Replacement Cartridge for HF9 Faucet	\$13.00
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F02-LR

F02-LR-AB

F02-LR-ORB

HF9-C

HF9-C



HF977-BN



Tomlinson Designer RO Faucets

The Tomlinson Designer RO Faucets allow the dealer to match a high style RO faucet with today's high-end kitchens. Made of high quality lead-free brass, the Tomlinson Designer RO Faucets is a real standout - and a great opportunity for you to set yourself apart. Additionally, the faucets feature a smooth operating ceramic disk element, lever style handle, high neck design of 12", the neck swivels easily - 360°, a unique protective spout tip prevents after drip, a 2-1/4" base, NSF listed to ANSI NSF Std. 61-1999a, mounting hardware and a two-year warranty.

TOMLINSON-PC	Polished Chrome	\$189.00
TOMLINSON-W	White	\$191.00
TOMLINSON-BISCUIT	Biscuit	\$191.00
TOMLINSON-B	Black	\$191.00
TOMLINSON-SN	Satin Nickel	\$248.00
TOMLINSON-AB	Antique Bronze	\$217.00
TOMLINSON-BN	Bright Nickel	\$217.00
TOMLINSON-PB	Polished Brass	\$209.00
TOMLINSON-BS	Brushed Stainless	\$200.00



FAUCET-WRENCH

Touch-Flo Faucet Wrench

Makes for easier installation of Touch-Flo faucets.

FAUCET-WRENCH	Faucet Wrench, RO	#REF!
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SV-9

Saddle Valves

The original self-piercing, patented C-frame construction that's been a time saver to installers for many years. Fits 3/8" thru 5/8" tubing. 1/4" take off connection.

SV-9	1/4" Saddle Valve	\$19.00
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JF030302SV

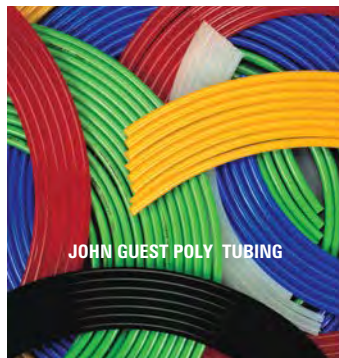
John Guest Angle Stop Adapter Valve

Connects to your stop valve, riser, and water supply line, for applications in RO's, Filtration Systems, Ice-Makers, etc eliminating the need for a saddle valve. Features include John Guest Push-In Tube Connection, 90 degree Shut-Off, will swivel for better positioning. Male Compression Fitting x Female Compression Fitting x JG Tube Fitting

JG030302SV	3/8" MC x 3/8" FC x 1/4" TUBE	\$22.00
JG030303SV	3/8" MC x 3/8" FC x 3/8" TUBE	\$22.85

John Guest Polyethylene Tubing

Flexible polyethylene thermoplastic tubing is extruded from high molecular weight resin for increased dimensional stability, uniformity and long-term strength.



JOHN GUEST POLY TUBING

JOHN GUEST POLYETHYLENE TUBING PRICED PER FOOT

PT02-BLUE	1/4" Poly Tubing, Per Foot	\$0.25
PT02-RED	1/4" Poly Tubing, Per Foot	\$0.25
PT02-BLACK	1/4" Poly Tubing, Per Foot	\$0.25
PT02-YELLOW	1/4" Poly Tubing, Per Foot	\$0.25
PT02-WHITE	1/4" Poly Tubing, Per Foot	\$0.25
PT03-BLUE	3/8" Poly Tubing, Per Foot	\$0.50
PT03-BLACK	3/8" Poly Tubing, Per Foot	\$0.50
PT03-YELLOW	3/8" Poly Tubing, Per Foot	\$0.50
PT03-ORANGE	3/8" Poly Tubing, Per Foot	\$0.50

JOHN GUEST POLYETHYLENE TUBING PRICED PER 500-FOOT SPOOL

PT02-S-BLUE	1/4" Poly Tubing, Per 500 ft	\$118.00
PT02-S-RED	1/4" Poly Tubing, Per 500 ft	\$118.00
PT02-S-BLACK	1/4" Poly Tubing, Per 500 ft	\$118.00
PT02-S-YELLOW	1/4" Poly Tubing, Per 500 ft	\$118.00
PT02-S-WHITE	1/4" Poly Tubing, Per 500 ft	\$118.00
PT03-S-BLUE	3/8" Poly Tubing, Per 500 ft	\$266.00
PT03-S-BLACK	3/8" Poly Tubing, Per 500 ft	\$266.00
PT03-S-YELLOW	3/8" Poly Tubing, Per 500 ft	\$266.00
PT03-S-ORANGE	3/8" Poly Tubing, Per 500 ft	\$266.00



POLY TUBING SPOOL

Reverse Osmosis





AC-20

Tubing Clipper

Poly tube clipping tool for clean, square cut.

AC-20	Tubing Clipper	\$28.20
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AC-28

Stainless Steel Sink Drill

Drills from 3/16" up to 3/4" holes in 1/16" increments. No center punch needed to start, automatically de-burrs, safe and easy to use. The unique single cutting edge assures penetration of softer and thinner materials at proper speeds. Instructions and warranty included.

AC-28	S.S. Sink Drill, 3/16 - 3/4	\$191.00
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Aquatec Pumps And Accessories

STANDARD BOOSTER PUMP

This low-voltage pump is designed to operate continuously at near constant pressure until the product water tank is full. The output pressure is dependent on the reverse osmosis system's total flow requirement, feed-water pressure and available power source. This pump is typically used with under the counter RO systems that have built-in flow controllers. Two-year warranty. Handles up to 50 GPD membranes. Select transformer and pressure switch separately.

CDP6800	Aquatec Booster Pump, 50 GPD	\$166.00
TAS-114-19	Transformer, 115v, 0.8 Amp	\$33.40

HIGH FLOW BOOSTER PUMP

Designed with the same features as the standard booster pump, the high-flow pump handles membranes from 50 to 100 GPD. Select transformer and pressure switch separately.

CDP8800	Aquatec Booster Pump, 100 GPD	\$195.00
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DELIVERY PUMP

Aquatec's DDP5831-134 delivery pump is typically used to transfer water at .6 gpm from a storage tank to a remote appliance such as a coffee maker, ice maker, refrigerator, faucet, etc. Includes a built-in pressure sensing demand switch. Select transformer separately.

DDP5831-134	Aquatec Delivery Pump .6 GPM	\$219.00
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TRANSFORMER FOR CDP8800 AND DDP5831-134 PUMPS

TACS-114-48	Transformer, 115v, 2.0 Amp	\$63.25
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TANK PRESSURE SWITCHES

PSW-240	Tank Pressure Switch, 1/4"	\$35.40
PSW-340	Tank Pressure Switch, 3/8"	\$35.40

PERMEATE PUMP

This pump is capable of improving the recovery rate by as much as 400% under normal use, while reducing waste water by as much as 80%. The Permeate Pump increases the net pressure across the RO membrane by isolating the membrane pressure from the pressure in the product water tank, thereby reducing the permeate back-pressure to less than 5 psi. Select mounting clip separately.

ERP-500	Aquatec Permeate Pump, 10-50 gpd w/Clip	\$121.00
ERP-1000	Permeate Pump, 10-100 gpd	\$121.00
PPC-1000	Permeate Pump Clip	\$8.25



CDP6800



DDP5831-134



TACS-114-48



PSW-240



ERP-1000



PPC-1000

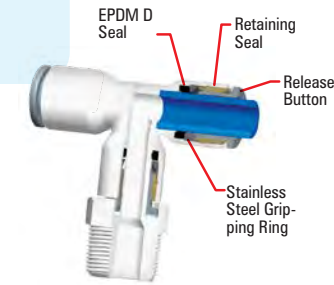


Parker Liquifit Fittings

LIQUIFIT™ is a revolutionary fitting for water systems that solves a number of problems associated with push to-connect fittings used for water treatment, reverse osmosis, and filtration applications. Its full-flow profile delivers maximum capability, while its compact, push-to-connect design facilitates the tightest tube bends in the industry. In addition, this new range of fittings offers these critical advantages:

- Patented sealing technology, with a D-shaped EPDM seal providing greater surface contact area for better sealing.
- Full, stainless steel gripping ring, eliminates locking clips while helping to facilitate the tightest possible tube bends. Once the tubing is inserted, the fitting handles side load pressure and minimizes tube movement.
- High performance, sustainable nylon body, manufactured from renewable castor seeds, offers superior mechanical strength and chemical resistance.
- 1/5th the CO₂ emissions of an acetyl fitting over the life cycle of the product, verified by third party testing.
- Advanced quality controls, utilizing air testing, visual inspection and a four-digit batch stamp for individual product traceability.

As more water treatment facilities change to chloramine disinfection, many NSF-approved elastomeric seals are degrading from exposure to this aggressive chemical, causing performance issues and warranty claims. Parker's new chloramine resistant EPDM seals are engineered to offer significantly longer seal life in potable water equipment.



MALE CONNECTORS, TUBE x NPTF

LQ0201MC	Parker 1/4" Tube x 1/8" Male Connector	\$2.40
LQ0202MC	Parker 1/4" Tube x 1/4" Male Connector	\$2.80
LQ0203MC	Parker 1/4" Tube x 3/8" Male Connector	\$3.90
LQ0302MC	Parker 3/8" Tube x 1/4" Male Connector	\$4.20
LQ0303MC	Parker 3/8" Tube x 3/8" Male Connector	\$4.80

UNION ELBOWS, TUBE X TUBE

LQ0202UE	Parker 1/4" Tube x 1/4" Tube Union Elbow	\$4.00
LQ0303UE	Parker 3/8" Tube x 3/8" Tube Union Elbow	\$6.20

UNION TEES, TUBE X TUBE X TUBE

LQ02UT	Parker 1/4" Union Tee	\$5.25
LQ03UT	Parker 3/8" Union Tee	\$6.50
LQ05UT	Parker 1/2" Union Tee	\$9.05
LQ030302UT	Parker 3/8" x 3/8" x 1/4" Reducing Union Tee	\$8.25

UNION CONNECTOR, TUBE X TUBE

LQ02UC	Parker 1/4" Tube Union Connector	\$3.65
LQ020202UYC	Parker 1/4" Tube Union Y Connector	\$5.80
LQ030303UYC	Parker 3/8" Tube Union Y Connector	\$6.60
LQ0302RU	Parker 3/8" x 1/4" Reducing Union	\$4.90
LQ0503RU	Parker 1/2" x 3/8" Reducing Union	\$7.10

UNION, BULKHEAD

LQ05BU	Parker 1/2" Bulkhead Union	\$11.70
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PLUG, TUBE

LQ02P	Parker Plug, 1/4" Tube	\$1.15
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ELBOWS, TUBE x NPTF

LQ0201ME	Parker 1/4" Tube x 1/8" Male Elbow	\$3.85
LQ0202ME	Parker 1/4" Tube x 1/4" Male Elbow	\$4.30
LQ0203ME	Parker 1/4" Tube x 3/8" Male Elbow	\$4.20
LQ0302ME	Parker 3/8" Tube x 1/4" Male Elbow	\$5.70
LQ0303ME	Parker 3/8" Tube x 3/8" Male Elbow	\$5.80

STEM ADAPTER, STEM x NPTF

LQ0202SA	Parker 1/4" Stem x 1/4" Male Adapter	\$1.35
LQ0302SA	Parker 3/8" Stem x 1/4" Male Adapter	\$1.70
LQ0303SA	Parker 3/8" Stem x 3/8" Male Adapter	\$2.15

Reverse Osmosis

13





Parker Liquifit Fittings

FAUCET CONNECTOR, TUBE x UNS THREAD

LQ03UNSC	Parker 3/8" Tube Faucet Connector	\$5.45
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PLUG IN TEE

LQ02PIT	Parker 1/4" Stem x 1/4" Union x 1/4" Union Tee	\$5.50
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PLUG IN ELBOW

LQ02PIE	Parker 1/4" Stem x 1/4" Union Elbow	\$3.75
LQ03PIE	Parker 3/8" Stem x 3/8" Union Elbow	\$6.30

SWIVEL ELBOW

LQ0303SME	Parker 3/8" Tube x 3/8" Male Swivel Elbow	\$9.05
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John Guest Fittings

In all applications, JG Super Speedfit fittings require no tools. Tubing is simply inserted into the fitting collet to effect a secure connection. Whether metal or plastic tubing is used, the integrity of the connection is assured — John Guest fittings are manufactured to the strictest tolerances. John Guest products processes employ statistical process control to ensure the absence of variation. John Guest designs provide superior flow characteristics and eliminate the need for sealant. Moreover, these fittings can be reused repeatedly without the loss of connection integrity.

MALE CONNECTORS, TUBE x MIPT

JG0201MC	1/4" x 1/8" (White)	\$3.35
JG0202MC	1/4" x 1/4" (White)	\$3.25
JG0203MC	1/4" x 3/8" (Grey)	\$4.45
JG0302MC	3/8" x 1/4" (White)	\$4.85
JG0303MC	3/8" x 3/8" (Grey)	\$5.60

UNION ELBOWS, TUBE

JG0202UE	1/4" Union Elbow (White)	\$5.55
JG0303UE	3/8" (White)	\$7.10

UNION TEES, TUBE

JG02UT	1/4" Union Tee, (White)	\$6.20
JG03UT	3/8" (White)	\$7.95
JG05UT	1/2" (Grey)	\$9.60
JG030302UT	1/4" Reducing Union Tee (White)	\$10.20

UNION CONNECTOR, TUBE

JG02UC	1/4" (White)	\$4.40
JG03UC	3/8" (White)	\$6.00
JG0302RU	3/8" x 1/4" Reducing (Grey)	\$6.00
JG03-516RU	3/8" x 5/16" Reducing (Grey)	\$7.30
JG0503RU	1/2" x 3/8" Reducing (Grey)	\$9.70
JG0302SU	3/8" x 1/4" Stem Union (White)	\$4.85

UNION, BULKHEAD

JG05BU	1/2" Bulkhead Union (White)	\$18.80
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PLUG IN ELBOW

JG02PIE	1/4" Stem x 1/4" Union Elbow	\$4.55
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PLUG, TUBE

JG02P	1/4" (Grey)	\$1.25
JG03P	3/8" (Grey)	\$2.45

ELBOWS, TUBE x MIPT

JG0201ME	1/4" x 1/8" (White)	\$4.40
JG0202ME	1/4" x 1/4" (White)	\$5.00
JG0203ME	1/4" x 3/8" (Grey)	\$7.20
JG0302ME	3/8" x 1/4" (White)	\$7.55





JG03TS



JG03LC



JG0302SA



JG03UNSF



JG0203FC



JG02ES

TUBE SUPPORT

JG03TS	3/8" (Grey)	\$0.45
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LOCKING CLIPS

JG02LC	1/4" (Red)	\$0.40
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JG03LC	3/8" (Red)	\$0.50
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JG05LC	1/2" (Red)	\$0.50
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STEM ADAPTER, STEM x MIPT

JG0202SA	1/4" x 1/4" (White)	\$1.55
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JG0302SA	3/8" x 1/4" (White)	\$1.90
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FAUCET CONNECTOR, TUBE x FIPT

JG03UNSF	3/8" (Grey)	\$6.30
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FEMALE CONNECTOR, FIPT x TUBE

JG0202FC	1/4" x 1/4" (Grey)	\$8.30
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JG0203FC	1/4" x 3/8" (Grey)	\$8.00
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END STOP

JG02ES	1/4" (Grey)	\$3.55
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JG03ES	3/8" (Grey)	\$4.40
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NRO

Commercial Reverse Osmosis

The **NRO Commercial Series of Reverse Osmosis Systems** are custom built by Nelsen Corporation to your specifications. These commercial systems of unmatched value in quality and price give you a multitude of standard features that are optional on most other ROs!

NSF-grade high quality parts are used to build this tough system.

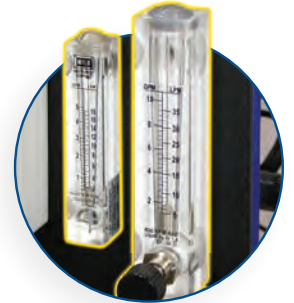
The **NRO 440 Series** is designed for Commercial or Light Industrial applications requiring flow rates of 1.1-6.9 gallons per minute (GPM). The **NRO 440 Series** features the durability of a powder coated steel frame, an optional complete performance monitoring package, and simple system integration.



Easy Motor Mount Bracket



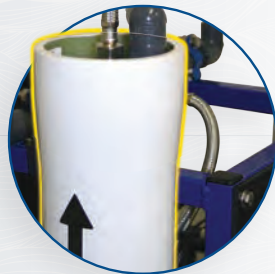
Multi Stage Booster Pumps



Permeate & Concentrate Flow Meters



Optional - Control Box w/Low Pressure, Permeate TDS & Level Controls



Gloss 300 psi FRP Membrane Housings, Stainless Steel Also Available



Liquid Filled Panel Mounted Concentrate Pressure Gauge



Nelsen Commercial NRO Systems

The NRO Commercial Series of Reverse Osmosis systems are built by Nelsen Corporation in our Ohio warehouse. These commercial systems of unmatched value in quality and price give you a multitude of standard features that are optional on most other ROs! NSF-grade high quality parts are used to build this tough system.

The NRO Commercial Series is designed for commercial or industrial applications requiring flow rates of 0.17-9.6 gallons per minute (GPM). The NRO Commercial Series features the durability of a powder coated steel frame, a complete performance monitoring package, and simple system integration.

Nelsen Corporation has many years of technical experience and service expertise ready to help optimize the performance of your system or build a system to your specific needs!

Additional system features include:



NRO-6440-10000
(SHOWN W/UPGRADES)



Easy Motor
Mount Bracket



Stainless Steel Multi
Stage Booster Pumps



Permeate & Concentrate
Flow Meters



Optional - Control Box w/
Low Pressure, Permeate
TDS & Level Controls

Private Label Graphics
Opportunities Available



Gloss 300 psi
FRP Housings,
Stainless Available at
No Additional Cost



Liquid Filled Panel
Mounted Concentrate
Pressure Gauge

System features include:

- **High Flow TFC Low Pressure Membranes** - other types and ratings available.
- **High Quality Gloss 300psi FRP Housings** - Stainless Steel Housings available at no additional cost.
- **All Stainless Braided Hoses** Used In Construction.
- **Extended Frame Legs w/Plastic End Caps** - for protection from floor/ground contact and ease of movement.
- **Easily Replaceable Motor Mounting System** - for ease of field repairs.
- **True Union Couplings** On Inlet & Outlet of Motor - no plumbing disassembly required for change out.
- Easily Replaceable **Sch 80 PVC Fittings** - for ease of field repairs.
- **Quick Connect Fittings** for Gauges & Recycle Operation - for ease of service.
- **Brass or Stainless Steel** Inlet Shut Off Valve.
- **Integrated Recycle Valve Standard.**
- **Low Pressure Mechanical Switch** with Time Delay Snubber Valve.
- **Permeate & Concentrate Flow Meters.**
- **Liquid Filled Gauges** for accurate & steady pressure readings.
- Panel Mounted **Concentrate Pressure Gauge.**
- **Stainless Steel High Pressure Centrifugal Pump** - for long lasting performance.
- **Pump Throttle Valve** & Pipe Mounted Discharge Pressure Gauge.
- **Float Switch & Pretreatment Interlocks Standard on all Systems.**
- **High Flow 5 Micron Prefilter** - Front Mounted for ease of access.



NRO-F-5440F-8000-2-RXXAG (SHOWN W/UPGRADES)

4" Membrane Systems

NRO-F-1440F-1600-3-XXXXX	1-4x40 Membrane Comm RO - 1600 GPD	\$6,173.00
NRO-F-2440F-3200-3-XXXXX	2-4x40 Membrane Comm RO - 3200 GPD	\$7,099.00
NRO-F-3440F-4800-3-XXXXX	3-4x40 Membrane Comm RO - 4800 GPD	\$7,877.00
NRO-F-4440F-6400-3-XXXXX	4-4x40 Membrane Comm RO - 6400 GPD	\$9,012.00
NRO-F-5440F-8000-2-XXXXX	5-4x40 Membrane Comm RO - 8000 GPD	\$10,592.00
NRO-F-6440F-10000-2-XXXXX	6-4x40 Membrane Comm RO - 10,000 GPD	\$12,817.00

4" Stock Systems w/Options

NRO-F-1440F-1600-2-RXXXX	1-4x40, 1600 GPD RO w/ NRO ROC2 Controller	\$7,644.00
NRO-F-2440F-3200-2-RXXXX	2-4x40, 3200 GPD RO w/ NRO ROC2 Controller	\$8,570.00
NRO-F-3440F-4800-2-RXXXX	3-4x40, 4800 GPD RO w/ NRO ROC2 Controller	\$9,348.00
NRO-F-4440F-6400-2-RXXXX	4-4x40, 6400 GPD RO w/ NRO ROC2 Controller	\$10,483.00
NRO-F-5440F-8000-2-RXXXX	5-4x40, 8000 GPD RO w/ROC2 Controller	\$12,188.00
NRO-F-5440F-8000-2-RXXAG	5-4x40, 8000 GPD RO w/ROC2 Controller, Gauges, Auto Flush	\$13,076.00
NRO-F-6440F-10000-2-RXXXX	6-4x40, 10,000 GPD RO w/ROC2 Controller	\$14,413.00
NRO-F-6440F-10000-2-RXXAG	6-4x40, 10,000 GPD RO w/ NRO ROC2 Controller	\$15,899.00



NRO-F-6440F-10000-2-RXBAG (SHOWN W/UPGRADES)

4" Membrane Wall Mount Systems

A wall mounted frame is substituted for the free standing floor frame. The wall mount frames are constructed so expansion of additional membranes and/or pumps can be added with ease.

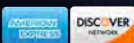
NRO-W-1440F-1600-3-XXXXX	1-4x40 Membrane Comm RO - 1600 GPD	\$6,182.00
NRO-W-2440F-3200-3-XXXXX	2-4x40 Membrane Comm RO - 3200 GPD	\$7,108.00
NRO-W-3440F-4800-3-XXXXX	3-4x40 Membrane Comm RO - 4800 GPD	\$7,886.00
NRO-W-4440F-6400-3-XXXXX	4-4x40 Membrane Comm RO - 6400 GPD	\$8,479.00

Reverse Osmosis

Nelsen Commercial 440 Reverse Osmosis System Specifications

Model:	NRO-1440-1600	NRO-2440-3200	NRO-3440-4800	NRO-4440-6400	NRO-5440-8000	NRO-6440-10000
Production GPD	1600	3200	4800	6400	8000	10,000
Membrane	4 X 40 (1)	4 X 40 (2)	4 X 40 (3)	4 X 40 (4)	4 X 40 (5)	4 X 40 (6)
Permeate GPM	1.11	2.2	3.3	4.5	5.7	6.9
Feed GPM***	6.0	7.0	8.0	9.0	10.0	11.0
% Recovery w/Recycle	19%-30%	50%-75%	50%-75%	50%-75%	50%-75%	50%-75%
Pump	1 HP	1 HP	1.5 HP	1.5 HP	3 HP	3 HP
FLA 60HZ 1Ø 110/220	*/9.6	*/9.6	*/12	*/12	*/15	*/15
Circuit Size	15A	15A	15A	15A	20A	20A
Solenoid Voltage	120v	120v	120v	120v	240v	240v
Inlet	3/4"	3/4"	3/4"	3/4"	1" Big Blue®	1" Big Blue®
Permeate	1/2"	1/2"	1/2"	1/2"	1"	1"
Concentrate	1/2"	1/2"	1/2"	1/2"	1"	1"
Floor Unit Dims (DxWxH)	27¼"x24"x54¾"	27¼"x24"x54¾"	27¼"x24"x54¾"	27¼"x24"x54¾"	27¼"x24"x54¾"	27¼"x24"x54¾"
Wall Unit Dims (DxWxH)	27¼"x24"x54¾"	27¼"x24"x54¾"	27¼"x24"x54¾"	27¼"x24"x54¾"	27¼"x24"x54¾"	27¼"x24"x54¾"
Shipping Dims (DxWxH)	34"x25½"x58"	34"x25½"x58"	34"x25½"x58"	34"x25½"x58"	34"x25½"x58"	34"x25½"x58"
Weight - Pounds	124 lbs.	149 lbs.	158 lbs.	169 lbs.	211 lbs.	224 lbs.

* 110 Volt Not Available ** Consult Factory *** Minimum pressure of 20psi **** The stated product performance is based on data taken after 30 minutes of operation at the following test conditions: 2,000 mg/L NaCl solution at 225 psig (1.5 MPa) applied pressure, 15% recovery, 77° F (25° C), pH 6.5-7.0



Additional system features include:

- **Carbon Steel Frame** for strength & rigidity
- **Powder Coated Frame** for long life & durability
- **Extended Frame Legs** with plastic end caps for protection from ground contact and ease of movement
- **Replaceable Motor Mounting System** - makes field repairs easy, bracket mounts to motor and slides over frame
- **Quick Connect Fittings** on rotary vane pumps
- **Replaceable Quick Connect Fittings** for ease of field repairs
- **Quick Connect Fittings** on gauges & recycle operation for ease of service
- **Brass or Stainless Steel** inlet shut off valve
- **High Flow TFC Low Pressure Membranes** - additional element types & ratings available
- **High Quality Stainless Steel** membrane housings
- **Integrated Recycle Valve**
- **Low Pressure Mechanical Switch** w/time delay snubber valve
- **Permeate and Concentrate Flow Meters**
- **Liquid Filled Gauges** for accurate & steady pressure readings
- **Panel Mounted Concentrate Pressure Gauge**
- **Optional Stainless Steel High Pressure Centrifugal Pump** for Lasting Performance (1400 Gpd Only)
- **Pump Throttle Valve** & pipe mounted discharge pressure gauge for multi-stage booster pumps
- **Float Switch & Pretreatment Interlocks** - standard on all systems
- **High Flow 5 Micron Front Mounted Prefilter** for ease of service

Optional NRO Series Upgrades:

- **Digital Display Electronic Control Box** with permeate TDS display, low pressure auto reset
- **Private Labeling Available**
- **Custom Photo Quality Controller Graphics Available** (min order quantity required)
 - **Interval Fast Flush**
 - **Permeate Flush**
 - **Custom Operational Programs** at no cost
- **Second TDS Function** for feed water
- **Additional Panel Mounted Gauges** customer specified
- **Pre & Post Filter Gauges**
- **Manual/Auto Flush Valve**
- **Interstage Gauges**
- **Bladder Tank Control** available to provide pressurized storage
- **Wall Mount Frame**



NRO-22540-1400-WM
(Shown with optional upgrades)

Nelsen Corporation has many years of technical experience and service expertise ready to help optimize the performance of your system or build a system to your specific needs!

Nelsen Commercial Reverse Osmosis System Specifications

Model Type	Floor Stand	Floor Stand	Wall Mount	Wall Mount
Model Number:	NRO-F-12540S-700-1	NRO-F-22540S-1400-1	NRO-W-12540S-700-1	NRO-W-22540S-1400-1
Production GPD***	700	1400	700	1400
Membrane	2-1/2" x 40" (1)	2-1/2" x 40" (2)	2-1/2" x 40" (1)	2-1/2" x 40" (2)
Permeate GPM	.48 GPM	.97 GPM	.48 GPM	.97 GPM
Feed GPM**	1.7	2	1.7	2
% Recovery w/Recycle	19-40%	30-60%	19-40%	30-60%
Pump	.5 HP	.75 HP	.5 HP	.75 HP
FLA 60HZ 1Ø 110/220	7.1/3.4	10/5.0	7.1/3.4	10/5.0
Circuit Size	20/10A	20/10A	20/10A	20/10A
Solenoid Voltage	110v	110v	110v	110v
Inlet	3/4"	3/4"	3/4"	3/4"
Permeate	3/8"	3/8"	3/8"	3/8"
Concentrate	3/8"	3/8"	3/8"	3/8"
Shipping Dims (DxWxH)	34"x25½"x58"	34"x25½"x58"	48"x40¾"x29¼"	48"x40¾"x29¼"
Weight - Pounds	104 lbs.	118 lbs.	106 lbs.	120 lbs.



NRO-W-12540S-700-1-XXXXX WALL MOUNT (SHOWN W/UPGRADES)

System features include:

- **Carbon Steel Frame** for strength & rigidity
- **Powder Coated Frame** for long life & durability
- **Extended Frame Legs** with plastic end caps for protection from ground contact and ease of movement
- **Replaceable Motor Mounting System** - makes field repairs easy, bracket mounts to motor and slides over frame
- **Quick Connect Fittings** on rotary vane pumps
- **Replaceable Quick Connect Fittings** for ease of field repairs
- **Quick Connect Fittings** on gauges & recycle operation for ease of service
- **Brass or Stainless Steel** inlet shut off valve
- **High Flow TFC Low Pressure Membranes** - additional element types & ratings available
- **High Quality Stainless Steel** membrane housings
- **Integrated Recycle Valve**
- **Low Pressure Mechanical Switch w/** time delay snubber valve
- **Permeate and Concentrate Flow Meters**
- **Liquid Filled Gauges** for accurate & steady pressure readings
- **Panel Mounted Concentrate Pressure Gauge**
- **Optional Stainless Steel High Pressure Centrifugal Pump** for Lasting Performance (1400 Gpd Only)
- **Pump Throttle Valve** & pipe mounted discharge pressure gauge for multi-stage booster pumps
- **Float Switch & Pretreatment Interlocks** - standard on all systems
- **High Flow 5 Micron Front Mounted Prefilter** for ease of service

Commercial NRO 2540 Systems

The NRO Commercial Series of Reverse Osmosis Systems are custom built by Nelsen Corporation to your specifications. These commercial systems of unmatched value in quality and price give you a multitude of standard features that are optional on most other ROs! NSF-grade high quality parts are used to build this tough system. All Nelsen NRO Commercial Systems are wet tested to optimum pressure and production prior to shipment.

The NRO 2540 Series is designed for Commercial or Light Industrial applications requiring flow rates of 700-1400 gallons per day (GPD). The NRO 2540 Series features the durability of a powder coated steel frame, stainless steel pressure vessels, liquid filled panel mounted pressure gauges, and a rotary vane pump with a mounting bracket system that is easily removed for maintenance by one person.

2-1/2" x 40" Membrane Systems

NRO-F-12540S-700-1-XXXXX	1-25x40 Membrane Comm RO - 700 GPD	\$4,951.00
NRO-F-22540S-1400-1-XXXXX	2-25x40 Membrane Comm RO - 1400 GPD	\$6,135.00

2-1/2" x 40" Membrane Wall Mount Systems

A wall mounted frame is substituted for the free standing floor frame. The wall mount frames are constructed so expansion of additional membranes and/or pumps can be added with ease. 1-4 membranes systems only.

NRO-W-12540S-700-1-XXXXX	1-25x40 Membrane Comm RO - 700 GPD	\$4,858.00
NRO-W-22540S-1400-1-XXXXX	2-25x40 Membrane Comm RO - 1400 GPD	\$6,019.00

Optional NRO Series Upgrades:

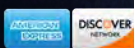
- **Digital Display Electronic Control Box** with permeate TDS display, low pressure auto reset
- **Private Labeling Available**
- **Custom Photo Quality Controller Graphics Available** (min order quantity required)
- **Interval Fast Flush**
- **Permeate Flush**
- **Custom Operational Programs** at no cost
- **Second TDS Function** for feed water
- **Additional Panel Mounted Gauges** customer specified
- **Pre & Post Filter Gauges**
- **Manual/Auto Flush Valve**
- **Interstage Gauges**
- **Bladder Tank Control** available to provide pressurized storage
- **Wall Mount Frame**

Nelsen Commercial NRO 2540 RO System Specifications

Model:	NRO-12540-700 (WM)	NRO-22540-1400 (WM)
Production GPD ****	700	1400
Membrane	2-1/2" x 40" (1)	2-1/2" x 40" (2)
Permeate GPM	.48GPM	.97GPM
Feed GPM***	1.7	2
% Recovery w/Recycle	19-40%	30-60%
Pump	.5 HP	.75 HP
FLA 60HZ 1Ø 110/220	7.1/3.4	10/5.0
Circuit Size	20/10A	20/10A
Solenoid Voltage	120v	120v
Inlet	3/4"	3/4"
Permeate	3/8"	3/8"
Concentrate	3/8"	3/8"
Floor Model Unit Dims (DxWxH)	27¼"x24"x54¾"	27¼"x24"x54¾"
Floor Model Shipping Dims (DxWxH)	34"x25½"x58"	34"x25½"x58"
Wall Mount Unit Dims (DxWxH)	16¼"x32¾"x47¼"	16¼"x32¾"x47¼"
Wall Mount Shipping Dims (DxWxH)	48"x40¾"x29¼"	48"x40¾"x29¼"
Weight - Pounds	104 lbs. (113 lbs.)	118lbs. (127 lbs.)

** Consult Factory *** Minimum pressure of 20psi
 **** The stated product performance is based on data taken after 30 minutes of operation at the following test conditions: 2,000 mg/L NaCl solution at 225 psig (1.5 MPa) applied pressure, 15% recovery, 77°F (25° C), pH 6.5-7.0

Reverse Osmosis 21



NRO SIMPLX SERIES SYSTEMS

1600 & 3200 Gallons per Day

NRO

Commercial Reverse Osmosis

System Features Include

- **High Flow TFC Low Pressure Membranes** - other types and ratings available
- **High Quality gloss 300psi FRP housings**
- **Easily Replaceable Motor Mounting System** - for ease of field repairs
- **Easily Replaceable Sch 80 PVC Fittings** - for ease of field repairs
- **Brass Inlet Shut-Off Valve**
- **Low Pressure mechanical switch**
- **Permeate & Concentrate Flow Meters**
- **Throttle Valve** - to adjust system to optimum production
- **Concentrate Pressure Gauge** - liquid filled for accurate & steady pressure readings
- **Stainless Steel High Pressure Centrifugal Pump** - for long lasting performance
- **High Flow 5 Micron Prefilter** - front mounted for ease of access

The **NRO SIMPLX Series** is a Commercial Reverse Osmosis System that doesn't cut corners and is engineered to deliver performance and quality. Performance without compromise, this series includes all the essential components necessary to produce quality RO Water in a trouble free and cost effective package.

The **NRO SIMPLX Series** is conservatively rated for Commercial or Light Industrial applications requiring flow rates of 1600 and 3200 gallons per day (GPD). NSF-grade high quality parts are used to build this tough system. All

Nelsen Commercial RO Systems are wet tested to optimum pressure and production prior to shipment.

The optional and economical CHIP

Controller removes the need for a low pressure switch to control the pump and a start delay to prevent system cycling. A switching power supply operates on 96-264VAC, automatically adjusting to operating

voltage. Voltage at the supply terminals is the voltage for the pump and valves. The controller allows for tank level, system flushing (not available on SIMPLX systems, pre-treatment lockout, & start-up delays.



Easy Motor Mount Bracket



Stainless Steel Multi Stage Booster Pumps



Gloss 300 psi FRP Housings



Permeate & Concentrate Flow Meters



Concentrate Pressure Gauge



NRO-S-2440F-1600-1
SHOWN WITH
OPTIONAL CHIP
CONTROLLER & TDS
MONITOR

NRO-SIMPLX Sytems

The Nelsen NRO Simplex Series is just that...an economical Reverse Osmosis System equipped with the bare essential components for a commercial RO system. No extra frills to drive up costs, just what is needed to produce RO Water. The machines are equipped with a 3/4 HP SS multistage centrifugal pump featuring the easy change mounting bracket, low pressure protection w/out snubber, permeate flow meter, concentrate flow meter w/concentrate control valve built into flow meter, low pressure membranes, FRP housing, high pressure hoses with brass nipples rated for 300PSI, and a powder coated frame with holes in frame legs for mounting. There is no recycle and no throttle valve as part of this system.



NRO-S-1440F-1600-2-CTX

4" SIMPLX ROs - 110 Volt Systems

NRO-S-1440F-1600-1-XXX	SIMPLX RO, 1-4x40 Membrane - 1600 GPD, 110V	\$4,833.00
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4" SIMPLX ROs - 220 Volt Systems

NRO-S-1440F-1600-2-XXX	SIMPLX RO, 1-4x40 Membrane - 1600 GPD, 220V	\$4,894.00
NRO-S-2440F-3200-2-XXX	SIMPLX RO, 2-4x40 Membranes, 3200 GPD, 220V	\$5,795.00

4" SIMPLX Stock ROs w/Options

NRO-S-1440F-1600-1-XXB	NRO SIMPLX, Single 4 x 40 110V w/Bladder Control	\$5,181.00
NRO-S-1440F-1600-2-CTX	NRO SIMPLX Single 4 x 40 220v w/ Chip Controller & TDS Monitor	\$6,158.00
NRO-S-1440F-1600-2-CXX	NRO SIMPLX Single 4 x 40 220v w/ Chip Controller	\$5,795.00
NRO-S-2440F-3200-2-CXX	NRO SIMPLX Single 4 x 40 220v w/ Chip Controller	\$6,378.00

System features include:

- **High Flow TFC Low Pressure Membranes** - other types and ratings available
- **High Quality Gloss 300psi FRP Housings** - Stainless Steel Housings available at no additional cost
- **Easily Replaceable Motor Mounting System** - for ease of field repairs
- Easily Replaceable **Sch 80 PVC Fittings** - for ease of field repairs
- **Brass Inlet Shut Off Valve**
- **Low Pressure Mechanical Switch**
- **Permeate & Concentrate Flow Meters.**
- **Concentrate Pressure Gauge** - Liquid Filled for accurate & steady pressure readings
- **Stainless Steel High Pressure Centrifugal Pump** - for long lasting performance
- **High Flow 5 Micron Prefilter** - Front Mounted for ease of access



NRO-S-2440F-3200-2-CXX

NRO SIMPLX RO System Specifications

Model:	NRO-SIMPLX-1440	NRO-SIMPLX-2440
Production GPD*	1600	3200
Membrane	4" x 40" (1)	4" x 40" (2)
Permeate GPM	1.11 GPM	2.2 GPM
Feed GPM**	6.0	7.0
% Recovery w/Recycle	19-23%	23-50%
Pump	.75 HP	1 HP
FLA 60HZ 1Ø 110/220	14.7/9.6	14.7/9.6
Circuit Size	20/15A	20/15A
Inlet	3/4"	3/4"
Permeate	1/2"	1/2"
Concentrate	1/2"	1/2"
Floor Model Unit Dims (DxWxH)	22"x17"x55"	22"x17"x55"
Weight - Pounds	97 lbs.	125 lbs.

* The stated product performance is based on data taken after 30 minutes of operation at the following test conditions: 2,000 mg/L NaCl solution at 225 psig (1.5 MPa) applied pressure, 15% recovery, 77° F (25° C), pH 6.5-7.0 ** Minimum pressure of 20psi





NRO-CONTROLLER



CHIP CONTROLLER



NRO-OPT-FS-TDS-1-2



Commercial RO Optional Accessories

Optional accessory packages installed at time of assembly.

RO CONTROL BOX

The RO Control Box controls all the functions of the RO system. It also incorporates a TDS monitor as well as feed water temperature. It also controls the timing sequences of the solenoids and low pressure switch, which are impossible to control mechanically. In addition it gives a time delay for motor start and controls the float switches. It also controls higher functions such as the fast flush or permeate flush when ordered with the system. The Control Box has four different switchable programs installed. Custom controller programming is available to each customers preference as well as custom graphics. Not available on SIMPLX.

NRO-CONTROLLER	Control Box w/Low Pres, Perm TDS & Level Controls	\$1,471.00
NRO-CONTROLLER 5&6	Control Box w/Low Pres, Perm TDS & Level Controls for 5 & 6 membrane systems	\$1,596.00

CHIP CONTROL BOX

The Chip Control Box is an economical option for a RO controller available for both the SIMPLX and NRO-440 systems up to 4 membranes. The smaller modular design allows for easier assembly, service and flexibility with a clean and logical layout. It features 6 LED lights to indicate system operation of the RO Unit. The controller removes the need for a low pressure switch to control the pump and a start delay to prevent system cycling. A switching power supply operates on 96-264VAC, automatically adjusting to operating voltage. Voltage at the supply terminals is the voltage for the pump and valves. The controller allows for tank level, system flushing (not available on SIMPLX systems, pre-treatment lockout, & start-up delays.

NRO-CONT-CHIP-SIMPLX	CHIP Controller, SIMPLX, 110/220v	\$550.00
NRO-CONT-CHIP-FS	CHIP Controller, Floor Stand, 1-4 Mem, up to 2HP	\$583.00

NRO TDS MONITORING OPTION

The panel mounted PSC-60D from HM Digital offers dual display monitoring for the industrial water treatment professional. This extended range EC/TDS "mini" monitor continuously monitors 2 lines simultaneously, and the dual line display shows feed and product water. The unit features digital calibration, 2 stainless steel electrodes and 120v power source (separately or through the chip controller). Measurement Range: Temperature: 0.0 - 75.0 °C / 33.0 - 167 °F, TDS: 0 - 9999 ppm, EC: 0 - 9999 µS"

NRO-OPT-FS-TDS-1-2	TDS Monitor for 1 & 2 Membrane NRO Systems	\$548.00
NRO-OPT-FS-TDS-3-4-5-6	TDS Monitor for 3 thru 6 Membrane NRO Systems	\$538.00
NRO-OPT-SIMPLX-TDS NO CHIP	TDS Monitor for SIMPLX Systems w/o Chip Cont	\$600.00
NRO-OPT-SIMPLX-TDS WITH CHIP	TDS Monitor for SIMPLX Systems wChip Cont	\$1,264.00

NRO AUTO FLUSH OPTION

Auto flush creates a turbulent water action to remove organic and inorganic contaminants from the membrane surface. Any standing, idle water in the membrane module is automatically purged to the drain. Virtually all system manufacturers recommend that their membranes be flushed regularly to insure proper performance and extended membrane life. Requires NRO Controller. Not available on SIMPLX.

NRO-OPT 2 AF	Auto Flush - Requires NRO Controller	\$643.00
NRO-OPT 2 AF-110	110 Volt Auto Flush - Requires NRO Controller	\$551.00
NRO-OPT 2 5&6 AF	Auto Flush - 5 & 6 Membrane Systems	\$1,006.00

NRO PERMEATE FLUSH

Uses the RO permeate water for flushing foulants from the system. Soaking the RO elements during standby with permeate can help dissolve scale and loosen precipitates, reducing the frequency of chemical cleaning. Can't be used with Option 2 Auto Flush. Requires NRO Controller. Not available on SIMPLX.

NRO-OPT 3 PF	Permeate Flush - Requires NRO Controller	\$375.00
NRO-OPT 3 PF-110	110 Volt Permeate Flush - Requires NRO Controller	\$633.00
NRO-OPT 3 5&6 PF	Permeate Flush 5 & 6 Membrane Systems - Requires NRO Controller	\$431.00



ADDITIONAL SYSTEM GAUGES

Additional panel mounted pressure gauges for additional system monitoring. Not available on SIMPLX.

NRO-OPT 4 PRE	Pre-Filter 100 psi Panel Gauge	\$229.00
NRO-OPT 4 5&6 PRE	Pre-Filter 100 psi, 5 & 6 Membrane Systems	\$240.00
NRO-OPT 4 POST	Post-Filter 100 psi Panel Gauge	\$233.00
NRO-OPT 4 5&6 POST	Post-Filter 100 psi, 5 & 6 Membrane Systems	\$240.00

MANUAL FAST FLUSH

¼ turn brass valve to bypass the system restrictions and creates a turbulent flow and extend membrane life. The manual flush is operated during system operation. Not available on SIMPLX.

NRO-OPT 5 MF	Manual Fast Flush	\$400.00
NRO-OPT 5 5&6 MF	Manual Fast Flush, 5 & 6 Membrane Systems	\$379.00

BLADDER TANK CONTROL

The Bladder Tank Control is used to charge a pressurized bladder tank instead of atmospheric storage. Used when smaller quantities of RO water is needed. Storage is restricted by pressure tank size. All controls and components are included to pressurize the bladder tank including check valve and pressure switch. Bladder tank sold separately.

NRO-OPT 6 BTC SIMPLX	Bladder Tank Control for SIMPLX Systems	\$348.00
NRO-OPT 6 BTC	Bladder Tank Control	\$348.00
NRO-OPT 6 5&6 BTC	Bladder Tank Control, 5 & 6 Membrane Systems	\$421.00



BLADDER TANK CONTROL

NRO LEVELING FEET

Stabilize your Nelsen Commercial NRO with this Leveling Feet Kit. The 5/16" adjustable leveling feet have a cushioned bottom and a zinc-plated steel stud. Kit includes 4 leveling feet, each with two nuts, 2 lock washers and 2 flat washers.

NRO-LEVELING KIT	Leveling feet kit for Nelsen Commercial NRO Systems	\$44.00
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NRO-LEVELING KIT

Commercial RO Components

PRE-FILTER

20-07B-PR-IB	3/4" #20, Blue w/Integral Bracket	\$112.00
NP5-20	20" 5 Micron (25/Case)	\$6.00

FLOWMETERS

LZT-1002	Flow Meter, Acrylic, .2-2 GPM, Panel Mt	\$99.00
LZT-1002-MV	Flow Meter, Acrylic, .2-2 GPM, Panel Mt with Valve	\$123.00
LZT-1005	Flow Meter, Acrylic, .5-5 GPM Pnl Mnt 3/4"	\$104.00
LZT-1005-V	Flow Meter, Acrylic, 1-5 GPM Pnl Mnt 3/4" w/Valve	\$124.00
LZT-2510	Flow Meter, Acrylic, 1-10 GPM, Panel Mt 1"	\$131.00
AQF-ZT-210	Meter, Flow, with Valve, 2-10 GPM Pnl Mnt 1"	\$225.00
* AQF-ZT-620	Meter, Flow, with Valve, 6-20 GPM	\$190.00

BOOSTER PUMPS

HPS7D	3/4 hp Pump, Cent, Hi Pres Booster	\$1,517.00
HPS7E	1 hp Pump, Cent, Hi Pres Booster	\$1,781.00
HPS10F	1-1/2 hp Pump, Cent, Hi Pres Booster	\$1,856.00
HPS20H	3.0 SS Multi Stage Centrifugal Pump	\$2,666.00

MEMBRANES & HOUSINGS

MH-2521SS-H	Stainless Steel Membrane Housing, 2-1/2" x 21"	\$243.00
MH-2540SS-H	Stainless Steel Membrane Housing, 2-1/2" x 40"	\$321.00
MH-4040-FRP	FRP Membrane Housing, 4" x 40"	\$28.00
MH-4040SS-H-1234	SS Membrane Housing, 4" x 40", 3/4" Feed	\$354.00
RE4040-BLN	4" x 40", 2600 GPD Low Pressure	\$499.00
RE4040-FEN	4" x 40", 2400 GPD Fouling Resistant	\$714.00



20-07B-PR-IB



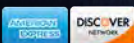
LZT-1005

AQF-ZT-620



MH-4040-FRP

MH-4040SS-H-1212





NV-075



YCD1120-NBE-110



PG-300-P



PG-100-P



25BE



69WR3



BGV07T

CONTROL BOX

NCROC-2HE	Control Box w/Graphics Panel	\$1,215.00
NCROC-3HE	RO Control Box, 220v, 3NP, TDS, Flush	\$1,369.00
NRO-PROBE-TDS	Feed Water Probe Only, 1/2" MIPT	\$129.00

NEEDLE VALVES

NV-050	1/2" Recycle Needle Valve	\$178.00
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SOLENOID VALVES - Normally Closed

YCD1115-NBE-110	Solenoid Valve - 1/2" 110V	\$104.00
YCD1120-NBE-110	Solenoid Valve - 3/4" 110V	\$139.00
YCD1120-NBE-220	Solenoid Valve - 3/4" 220V	\$151.00
YCD1125-NBE-220	Solenoid Valve - 1" 220V	\$191.00

PRESSURE GAUGES - LIQUID FILLED

PG-100-P	Pressure Gauge - 100 psi, Panel Mount	\$25.00
PG-100-S	Pressure Gauge - 0-100 psi, Bottom Mount	\$25.00
PG-300-P	Pressure Gauge - 300 psi, Panel Mount	\$25.00
PG-300-S	Pressure Gauge - 300 psi, Bottom Mount	\$30.00
FGP-25B-100	FloTrol Pressure Gauge - 2-1/2", 100 psi, Panel Mount	\$28.00
FGP-25L-100	FloTrol Pressure Gauge - 2-1/2", 100 psi, Bottom Mount	\$28.00
FGP-25B-300	FloTrol Pressure Gauge - 2-1/2", 300 psi, Panel Mount	\$28.00

VALVE SNUBBER

25BE	Valve Snubber, 7u	\$51.00
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STAINLESS STEEL BRAIDED HOSE - FIPT x FIPT x HOSE SIZE

SSBH-050316-FF	1/2" x 1/2" x 3/8" ID Stainless Braided Hose, 16"	\$16.00
SSBH-050330-FF	1/2" x 1/2" x 3/8" ID Stainless Braided Hose, 30"	\$18.00
SSBH-050512-FF	1/2" X 1/2" X 1/2" ID Stainless Braided Hose, 12"	\$53.00
SSBH-050518-FF	1/2" X 1/2" X 1/2" Stainless Braided Hose, 18"	\$69.00
SSBH-050524-FF	1/2" X 1/2" X 1/2" Stainless Braided Hose, 24"	\$73.00
SSBH-050536-FF	1/2" X 1/2" X 1/2" Stainless Braided Hose, 36"	\$81.00
SSBH-0715-FF	3/4" x 3/4" x 3/4" ID Stainless Braided Hose, 15"	\$57.00
SSBH-0718-FF	3/4" x 3/4" x 3/4" ID Stainless Braided Hose, 18"	\$70.00
SSBH-0718-FF	3/4" x 3/4" x 3/4" ID Stainless Braided Hose, 24"	\$80.00
HOSE-05-BLUE	1/2" ID Nylon Reinforced Water Hose, Blue	\$5.00
HOSE-07-BLUE	3/4" ID Nylon Reinforced Water Hose, Blue	\$5.00
HOSE-10-BLUE	1" ID Nylon Reinforced Water Hose, Blue	\$5.00

PRESSURE SWITCHES

92S11A22D-120	30 AMP 2 Pole Contactor w/120/V Coil	\$55.00
92S11A22D-240	30 AMP 2 Pole Contactor w/240/V Coil	\$57.00
SM-1C-004-SL-SJO CORD	Low Pressure Switch	\$167.00
69WR3	Switch, Pres, 10/5	\$358.00
FSG-2 20/40	1 hp, 1/4" FIPT, 20/40 psi	\$52.00
NRO-PUMP-SWITCH	Pressure Switch, 30/50 w/2mm Pulsation Orifice	\$77.00

THROTTLE VALVE

BGV07T	3/4" IP Gate Throttle Valve	\$28.00
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CONDUIT HANGERS

6050	1/2" Conduit Hanger, Stainless Steel	\$9.00
6075	3/4" Conduit Hanger, Stainless Steel	\$9.00
6100	1" Conduit Hanger, Stainless Steel	\$15.00
6200	2" Conduit Hanger, Stainless Steel	\$17.00
6300	3" Conduit Hanger, Stainless Steel	\$31.00
6400	4" Conduit Hanger, Stainless Steel	\$43.00

CLAMPS

620-012	SS Screw Clamp, 9/16"-1-1/4"	\$6.00
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TDS Monitor

PSC-60D

The PSC-60D from HM Digital offers dual display monitoring for the industrial water treatment professional. This extended range EC/TDS "mini" monitor continuously monitors 2 lines.

Features:

- Continuously monitors two lines simultaneously
- Dual line TDS/EC displays feed and product water
- Extended range for TDS and EC
- Digital calibration
- Stainless steel electrodes (2 sensors)
- Calibration: Digital to any point
- 120v power source

Measurement Range:

- Temperature: 0.0 - 75.0 °C / 33.0 - 167 °F
- TDS: 0 - 9999 ppm
- EC: 0 - 9999 µS

PSC-60D

Panel Mount - Dual Inline EC/TDS Monitor

\$347.25



PSC-60D

Stainless Steel Membrane Housings

Attractive stainless steel vessels enhance system appearance and allow you to take full advantage of membrane capability. These are safer and more reliable than PVC pressure vessels. The style of our stainless steel vessels is designed for direct connection to Nelsen and Filmtec/DOW style elements. Includes stainless steel housing, end plugs and pins.

- SSMH2514
- SSMH2521
- SSMH2540
- SSMH4021
- SSMH4040

- Membrane Housing, 2-1/2" x 14"
- Membrane Housing, 2-1/2" x 21"
- Membrane Housing, 2-1/2" x 40"
- Membrane Housing, 4" x 21"
- Membrane Housing, 4" x 40"

- \$189.00
- \$258.00
- \$289.00
- \$296.00
- \$339.00

Spectraguard™ 111 RO Pre-Treatment



SpectraGuard 111 liquid anti-scalant/dispersant is a high-performance chemical pretreatment that controls inorganic scale, metals and colloids in RO feed waters. Its unique performance characteristics provide users with complete control over system

feed water chemistry, while reducing membrane scaling tendencies and minimizing membrane cleaning requirements. SpectraGuard is compatible with all membrane types and system components.

SpectraGuard maintains performance integrity at extreme pH levels and temperatures. These products remain stable in the presence of multivalent ions such as iron. All SpectraGuard is phosphate-free, and does not contribute to metal precipitation or biological growth in tanks, piping, or the RO.

SpectraGuard is typically dosed into feed waters at the rate of 2-6 ppm. As a liquid, SpectraGuard is ready to use and may be injected neat, or diluted to accommodate varying system sizes. SpectraGuard is available in 5 gallon (18.9 liter) pails, 55 gallon (208.2 liter) drums, totes, and in bulk.

Classified for use in membrane systems producing drinking water (ANSI/NSF Standard 60).

SPECTRAGUARD-45

Spectraguard Anti-Scalant, .45 Gallon Bottle

\$143.00



SSMH4040



SSMH2540



Commercial Membranes

The reverse osmosis membrane is a thin layer that does not let certain ions permeate through it. Due to its ability to remove ions from solutions, it is mainly used to remove salt from aqueous solutions. Before the 1990's, cellulose acetate was used as the membrane material but was replaced by a polyamide compound because it offered higher salt rejection and lower energy costs. Because of its ability to remove dissolved ions in a solution without phase inversion, it is used to remove salt and TDS in water.

From converting seawater into fresh water, production of ultra pure water for washing electronic parts and medical and pharmaceutical purposes, use in the food and beverage industries, to recycling of waste water and sewage, the applications of RO membranes are truly diverse.

LOW PRESSURE MEMBRANES

Low Pressure RO Membranes, yield the same performance rates as regular RO membranes but require only two-thirds of the pressure. Therefore, RO systems installed with these membrane elements require far less in energy and relevant costs (such as part costs because the system can be simplified). Main applications are for treating brackish water.

RE2521-BLN	2-1/2" x 21", 300 GPD	\$264.00
RE2540-BLN	2-1/2" x 40", 660 GPD	\$352.00
RE4040-BLN	4" x 40", 2200 GPD	\$451.00

BRACKISH WATER MEMBRANES

Brackish water RO membranes are especially more effective when the feed water is within 10,000 ppm of concentration. Because of its high performance rate and chemical resistance, it can be used for a variety of purposes.

RE2521-BE	2-1/2" x 21", 300 GPD	\$273.00
RE2540-BE	2-1/2" x 40", 660 GPD	\$344.00
RE4040-BE	4" x 40", 2200 GPD	\$494.00

FOULING RESISTANT MEMBRANES

The biggest problem with using RO membranes can be contamination (or fouling) of the membrane layer. Especially in the case where surface water or wastewater contains highly-concentrated organic substances, the membrane may bear irreparable damage.

RE4040-FEN	4" x 40", 2200 GPD	\$589.00
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Axeon Membrane Elements are one of the industries most reliable and highest performing reverse osmosis elements. Advanced membrane technology and manufacturing processes ensure high quality and performance, allowing for improved system performance.

HF1 LOW PRESSURE MEMBRANES

High Flow (HF) Low Energy Membrane Material surrounded by a protective ABS hard shell. Made in the U.S.A.

HF1-2521	2-1/2" x 21", 300 GPD	\$250.00
HF1-2540	2-1/2" x 40", 660 GPD	\$432.00
HF1-4021	4" x 21", 900 GPD	\$461.00
HF1-4040	4" x 40", 2200 GPD	\$660.00





HR3 HIGH REJECTION SERIES MEMBRANES

High Rejection (HR) Membrane Material surrounded by a protective ABS hard shell. Made in the U.S.A.

HR3-2521	2-1/2" x 21", 300 GPD	\$250.00
HR3-2540	2-1/2" x 40", 660 GPD	\$432.00
HR3-4021	4" x 21", 900 GPD	\$459.00
HR3-4040	4" x 40", 2200 GPD	\$661.00

HF4 EXTRA LOW ENERGY MEMBRANES

High Flow (HF) Extra Low Energy Membrane with a protective ABS hard shell.

HF4-2521	2-1/2" x 21", 300 GPD	\$260.00
HF4-2540	2-1/2" x 40", 660 GPD	\$454.00
HF4-4021	4" x 21", 900 GPD	\$480.00
HF4-4040	4" x 40", 2200 GPD	\$686.00

Commercial Membranes Cross Reference

CSM	FILMTEC	AXEON	HYDRANAUTICS
RE4040-BE	BW30-4040	HR3 4040	CPA2-4040
RE4040-BN	BW30-4040	HR3 4040	N/A
RE4040-BLN	LE-4040	HR1 4040	ESPA1-4040
RE4040-BLR	LE-4040	HR4/5 4040	ESPA2-4040
RE4040-BLF	XLE-4040	HR4/5 4040	ESPA4-4040
NE4040-90	NF90-4040	NF4 4040	ESNA1-LF-4040
NE4040-70	NF270-4040	NF3 4040	N/A

Axeon Reverse Osmosis Systems

FLEXEON™ Commercial Reverse Osmosis Systems feature an excellent pre-treatment design, high quality components, and overall high performance. All systems are designed for higher recovery rates and minimum energy consumption. Experience greater savings with lower maintenance and operation costs when installing a FLEXEON™ Reverse Osmosis System.



AT-SERIES & BT SERIES COMMERCIAL SYSTEMS

AXEON AT & BT Series Reverse Osmosis Systems feature a compact, space saving design with high quality components. These systems are available in capacities of 500 and 1,000 gallons per day and feature 4.5" diameter sediment and carbon block pre-filters, low energy membranes, a high pressure pump and a solenoid valve all mounted onto a corrosion-resistant, powder-coated aluminum frame.

Manual On and Off Control Switch • White Powder Coated Aluminum Frame • 5 -Micron Sediment Pre-Filter • 10 – Micron Carbon Block Pre-Filter • Pentek® Single O-Ring Filter Housings • Fluid–O–Tech™ Low Lead Brass Rotary Vane Pump • ODP High Efficiency Carbonator Motor • HF1 – Series Low Energy Membrane Elements • PVC – Series Membrane Housings • Permeate Flow Meter • Concentrate Flow Meter • Feed Low Pressure Switch 15 – 30 psi • Composite Feed Solenoid Valve • 316L SS – Series Concentrate Valve • 0 – 300 psi Pump Pressure Gauge • 0 – 100 psi Pre-Filter Pressure Gauges • Push/Pull Fittings with Locking Safety Clips



AT SERIES



BT SERIES

AT-500	500 gpd RO System, 2-25x21 Membranes	\$5,269.00
AT-1000	1000 gpd RO System, 3-25x21 Membranes	\$6,417.00
BT-1500	1500 gpd RO System, 2-25x40 Membranes	\$7,329.00
BT-2000	2000 gpd RO System, 3-25x40 Membranes	\$8,345.00

FLEXEON Reverse Osmosis System Specifications

Model:	AT-500	AT-1000	BT-1500	BT-1800	BT-2000	CT-4000
Production (GPD):	500	1000	1500	1800	2000	4000
Membrane Size:	HF1-2521	HF1-2521	HF1-2540	HF1-4040	HF1-2540	HF1-4040
Membrane Qty:	2	3	2	1	3	2
Vessel Array:	1:1	1:1:1	1:1	1	1:1:1	1:1
Standard Voltage:	110V	110V	110V	110V	110V	220V
Hertz:	60Hz	60Hz	60Hz	60Hz	60Hz	60Hz
Standard Recovery:	26%	41%	41%	30%	63%	48%
Solenoid Valve:	Optional	Optional	Optional	Standard	Optional	Optional
Auto Flush Restrictor:	N/A	N/A	N/A	N/A	N/A	N/A
Feed Flush:	Optional	Optional	Optional	Optional	Optional	Optional
Tank Pressure Switch:	Optional	Optional	Optional	Optional	Optional	Optional
Feed/Product/Waste:	1", 3/8", 3/8"	1" 3/8", 3/8"	1", 3/8", 3/8"	1", 3/8", 3/8"	1", 3/8", 3/8"	1", 1", 1"
Unit Dimensions (in):	14" x 20" x 27"	14" x 20" x 27"	19" x 23" x 46"	19" x 23" x 46"	19" x 23" x 46"	30" x 38" x 47"
Unit Weight (lb):	65	70	105	105	115	235





FLEXEON™ CT-SERIES COMMERCIAL SYSTEMS

AXEON CT – Series Reverse Osmosis Systems are designed for high performance and are equipped with many standard features in a cost-efficient, compact design. AXEON CT – Series Reverse Osmosis Systems have been engineered for capacities ranging from 4,000 to 7,000 gallons per day. These models include a microprocessor controller with low-pressure monitoring and alarm, pre-treatment lockout, and tank level input. A TDS monitor, multi-stage booster pump, low energy membranes and three pre-filters are all part of the standard features. Upgrades such as feed flush and a concentrate recycle loop to increase recovery rates are also available.

Features include: Minitrol Computer Controller w/Multi Color LED Indicator Status Light w/Pre-Treatment Lockout, Tank Level Input and Low Pressure Monitoring and Alarm.

Additional Features include:

- White Powder Coated Aluminum Frame
- 5 Micron Sediment Pre-Filter
- 10 Micron Carbon Block Pre-Filter
- Goulds® Multi-Stage Booster Pump
- SS – Series Membrane Housings
- Permeate Flow Meter
- Concentrate Flow Meter
- Feed Low Pressure Switch 15 – 30 psi
- Composite Feed Solenoid Valve
- 0 – 300 psi Pump Pressure Gauges
- 0 – 300 psi Concentrate Pressure Gauge
- 0 – 100 psi Pre-Filter Pressure Gauges
- HM Digital™ PSC – 150 TDS/Conductivity Controller
- 316L Stainless Steel Concentrate Valve
- John Guest® Push/Pull Fittings with Locking Safety Clips
- 1 Micron Sediment Pre-Filter, Pentek® Single O-Ring Filter Housings
- AXEON HF1 – Series Low Energy Membrane Elements

CT-4000	4000 gpd RO System, 2-4x40 Membranes	\$11,716.00
CT-5000	5000 gpd RO System, 3-4x40 Membranes	\$13,066.00
CT-7000	7000 gpd RO System, 4-4x40 Membranes	\$14,563.00



HQ800H

Walrus HQ800H - Electronic Control Booster Pump

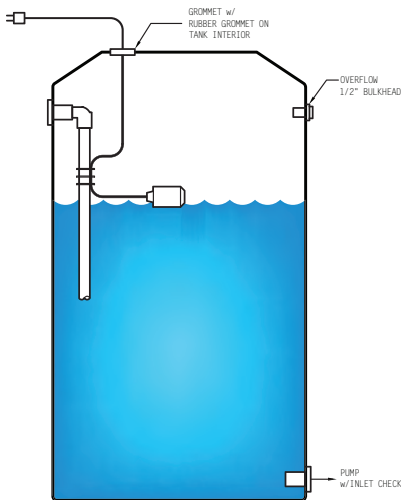
The HQ series pumps are designed for water supply and pressure boosting in residential, commercial and light industrial applications where low or inadequate water pressure exists. It is suitable for boosting pressure from underground or surface water supplies.

The HQ is a complete, all-in-one unit, consisting of pump, motor, pressure tank, and electronic controller. The built-in electronic controller provides constant pressure which ensures that the pump starts automatically when water is consumed and operates continuously until water is not required. The pump has built in dry-run shut off with automatic reset function. The motor has built-in thermal overload to protect against high operating temperatures and over current.

The pump also features an anti-cycling feature, a lift of 150 feet with foot valve and pump suction piping filled with water and capacity of up to 27.7 gpm.

HQ800H	1 hp, 110v, 1" SS Booster Pump	\$968.00
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Reverse Osmosis



Nelsen Repressurization Systems

The Nelsen Repressurization Systems are pre-plumbed and ready to use when you receive them. These systems are custom built to your specific application. Included in the plumbing package 1" inlet threaded bulkhead fitting, float switch with 20 foot cord, 1/2" overflow threaded bulkhead fitting w/plug and 1" bulkhead fitting at bottom of tank w/1" foot valve. All plumbing is pre-installed in the storage tank.

Follow these steps to order...

1. - Choose one of the Repressurization Pumps from above
2. - Choose one of the storage tanks from the following page
3. - Choose one of the plumbing packages below, your plumbing package must match the voltage of your RO System

RP-110V	110 Volt, Repressurization Plumbing Pkg.	\$596.00
RP-220V	220 Volt, Repressurization Plumbing Pkg.	\$622.00



PROCON[®]
Products

Procon Pumps & Motors

Procon pumps are rotary vane, positive displacement pumps and are ideal for many clean fluid applications requiring flow rates up to 660 gph and discharge pressures up to 250 psi. Each pump is quiet in operation and requires no lubrication or maintenance during its life span. Most models are self-priming and are available in brass or 303 stainless steel construction.



SERIES TWO PUMP



SERIES FOUR PUMP



MOTOR



FV03



FLOAT SWITCH-NC-110



LFS4400-05

BRASS PUMPS, CLAMP-ON STYLE

PMP-RV-060-B2	Rotary Vane Pump, 60 gph, Series 2	\$277.00
PMP-RV-100-B2	Rotary Vane Pump, 100 gph, Series 2	\$277.00
PMP-RV-140-B2	Rotary Vane Pump, 140 gph, Series 2	\$277.00
PMP-RV-240-B4	Rotary Vane Pump, 240 gph, Series 4	\$500.00
PMP-RV-330-B4	Rotary Vane Pump, 330 gph, Series 4	\$500.00

MOTORS

MTR-CM-33	1/3 hp, 110-120V, 60Hz Carbonator Style Motor	\$418.00
MTR-CM-50	1/2 hp, 110-120V, 60Hz Carbonator Style Motor	\$465.00
MTR-CM-75	3/4 hp, 110-120V, 60Hz Carbonator Style Motor	\$527.00

MOUNTING HARDWARE

1113	V-Band Clamp	\$12.20
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Mechanical Float Valve

These float valves are completely mechanical and require no electrical power or wiring. Mechanical linkage of float and valve assures positive on-off action. When liquid levels drop, the float drops and activates the tank fill. When levels rise, the float rises and turns off the fill. These valves are fitted with an adjustable arm and are bulkhead mountable both horizontally and vertically. Inlet size is 3/8" tubing with a free flow outlet, a .093 orifice and stainless steel hardware. Estimated flow rate is 1.5 GPM at 40 PSI and have been tested to 100 PSI+. Valve comes complete with jam nut, sealing washer and float attached.

FV03	Float Valve, 3/8" Compression	\$43.60
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Mechanical Level Switches

Used to control pumps, motors or other electrical devices. Normally Open (N.O.) or Normally Closed (N.C.) refers to the switch contacts when the bulb is hanging in a vertical position. Use N.O. to turn a device on with high level, N.C. to turn it off with high level.

FLOAT SWITCH-NO	Normally Open 10' Cord	\$110.00
FLOAT SWITCH-NC-110	Normally Closed 15' Cord, 110 Volt	\$136.00
FLOAT SWITCH-NC-220	Normally Closed 15' Cord, 220 Volt	\$184.00

Level Float Switch

Features a strong Alnico bar magnet hermetically-sealed inside so no other wetted material can contaminate liquid or be attacked by a corrosive liquid. Special molded thread helps when metal to plastic installations are used. Unique assembly procedure eliminates stress by actually suspending the reed switch allowing for thermal expansion and contraction. Round pivot pins add bearing surface for smooth operation and due to design clearances, squeeze out the liquid from either side during operation to help eliminate build-up. Lead Wires – 24" long. Operating Pressure – 150 PSIG Max. Operating Temperature – -40° F. to 225° F.

LFS4400-05	Reed Style, 1/2" NPT	\$99.00
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ATMOSPHERIC STORAGE TANKS

Atmospheric Storage Tanks

Manufactured from linear polyethylene in one piece, seamless construction, this tank series is designed for either indoor or outdoor applications. Translucent for convenient product level viewing. Flat bottom design provides for easy and cost efficient installation. These tanks are FDA-approved for use with potable water. Regulation No. 177.1520. Call for sizes larger than 5000 gallons and any additional bulkhead fittings or accessories.

NOTE: Due to the volatility of the plastics market, these published prices are subject to change without notice! Additional freight will be added from the manufacturing facilities to final destination.

VERTICAL TANKS

* ST2343	65 Gallon, 23" W x 43" H	\$437.00
ST3155	165 Gallon, 31" W x 55" H	\$879.00
ST3678	300 Gallon, 36" W x 78" H	\$1,357.00
* ST4649	305 Gallon, 46" W x 49" H	\$1,076.00
ST4872	500 Gallon, 48" W x 72" H	\$1,763.00
* ST48102	750 Gallon, 48" W x 102" H	\$2,256.00
* ST6479	1000 Gallon, 64" W x 79" H	\$2,826.00
* ST8765	1550 Gallon, 87" W x 65" H	\$2,718.00
* ST8787	2100 Gallon, 87" W x 87" H	\$4,038.00
* ST9589	2500 Gallon, 95" W x 89" H	\$4,731.00
* ST95107	3000 Gallon, 95" W x 107" H	\$5,916.00
* ST102152	5000 Gallon, 102" W x 152" H	\$12,765.00

PVC BULKHEAD FITTINGS

* PVC05BF	1/2" Slip x FIPT	\$51.50
* PVC07BF	3/4" Slip x FIPT	\$58.75
PVC10BF	1" Slip x FIPT	\$95.25
* PVC12BF	1-1/4" Slip x FIPT	\$78.50
* PVC15BF	1-1/2" Slip x FIPT	\$86.25
* PVC20BF	2" Slip x FIPT	\$128.00
* PVC30BF	3" Slip x FIPT	\$235.00
PVC05BF-FXF	1/2" FIPT x 1/2" FIPT	\$82.25
PVC10BF-FXF	1" FIPT x 1" FIPT	\$98.75

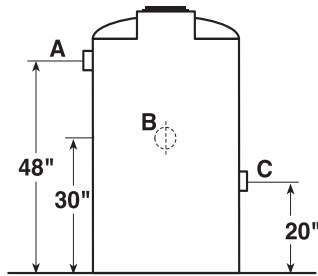
* Non-stock item. See "Terms and Conditions" for details.



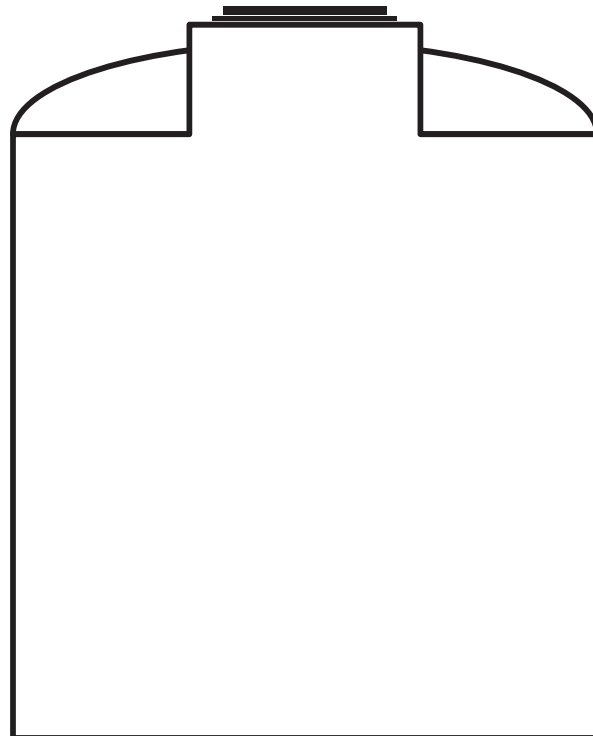
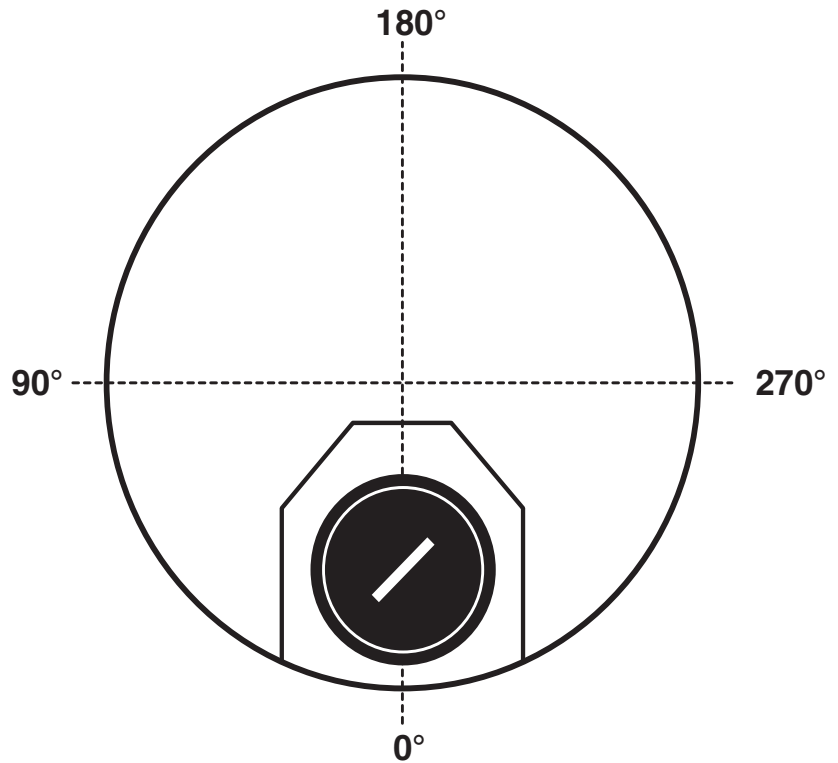
PVC10BF

Specifying Fittings Locations – It is very important to be as precise as possible when specifying tank fittings and accessories. Location, type and size of fittings must be noted clearly on the drawing. If more than one fitting is being specified, mark each fitting with the letter A, B or C etc. Photocopy blank, draw fittings and send or fax in your order.

Plan View – Calibration strip is at 0 degrees, in line with manway. Specify in degrees from 0 the location of fittings.



Elevation View – Indicates in inches the height from the center of the fitting to the floor.



ATTENTION

FROM

TANK CAPACITY

TANK DIAMETER X HEIGHT

TANK STYLE SELECTED

DATE

Feed Pressure Available (PSI)

Feed Flow Available (GPM)

Permeate Flow Required (GPM)

Recovery Rate (%) Required

Voltage Required

Feed Water Data

TDS pH °F °C

Water Origin

Well City

CATION	PPM	CaCO3
Total Hardness	<input type="text"/>	<input type="text"/>
Calcium (Ca)	<input type="text"/>	<input type="text"/>
Magnesium (Mg)	<input type="text"/>	<input type="text"/>
Sodium (Na)	<input type="text"/>	<input type="text"/>
Potassium (K)	<input type="text"/>	<input type="text"/>
Iron (Fe)	<input type="text"/>	<input type="text"/>
Barium (Ba)	<input type="text"/>	<input type="text"/>
Strontium (Sr)	<input type="text"/>	<input type="text"/>
Ammonium (NH4)	<input type="text"/>	<input type="text"/>
Manganese (Mn)	<input type="text"/>	<input type="text"/>
Aluminum (Al)	<input type="text"/>	<input type="text"/>
Copper (Cu)	<input type="text"/>	<input type="text"/>
Zinc (Zn)	<input type="text"/>	<input type="text"/>

ANION	PPM	CaCO3
Hydroxide (OH)	<input type="text"/>	<input type="text"/>
Carbonate (CO3)	<input type="text"/>	<input type="text"/>
Bicarbonate (HCO3)	<input type="text"/>	<input type="text"/>
Sulfate (SO4)	<input type="text"/>	<input type="text"/>
Chloride (Cl)	<input type="text"/>	<input type="text"/>
Nitrate (NO3)	<input type="text"/>	<input type="text"/>
Fluoride (F)	<input type="text"/>	<input type="text"/>
Silica (SiO2)	<input type="text"/>	<input type="text"/>
Sulfide (S)	<input type="text"/>	<input type="text"/>
Phosphate (PO)	<input type="text"/>	<input type="text"/>



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NELSEN

C O R P O R A T I O N

Filter Housings & Cartridges

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Nelsen Filter Housings Less Cartridges and Carton

Nelsen filter housings are manufactured from the highest quality NSF-listed, FDA-grade polypropylene. EPDM o-rings, pressure relief and mounting cap are standard. These housings are rated for temperatures to 125°F (52°C), pressures to 125 psi and burst-tested at 500 psi and 150,000 cycles. Prices are listed as each. Case quantities have been provided for easy ordering.



NF-TL-02B



NF-TL02W

NELSEN THIN-LINE HOUSINGS

Nelsen Thin-Line housings are best utilized for use in a variety of low-flow applications including under-sink and countertop residential filtration, pre and post reverse osmosis filtration, recreational vehicle filtration, food service and humidifying systems. These are the housings used in the Aqua Classic and Aqua Elite RO's and do not include a pressure relief button.

NF-TL-02B	1/4" Thin-Line, Blue (12/Case)	\$26.25
NF-TL-02W	1/4" Thin-Line, White (12/Case)	\$26.25

NELSEN 3/4" HEAVY-DUTY HOUSINGS

Nelsen 3/4" Heavy-Duty housings are best utilized for "whole house" water filtration on the main water line after the pressure tank or water meter.

NF10-07C-PR	3/4" #10, Clear (12/Case)	\$38.25
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NELSEN 3/4" DOUBLE-DUTY HOUSINGS

Designed for large homes, restaurants and light commercial use. Accepts two standard sediment or taste/odor/sediment cartridges. Use with standard (9-3/4") cartridges and a cartridge coupler or long (20") cartridge.

NF20-07B-PR	3/4" #20, Blue (6/Case)	\$62.50
NF20-07BLK-PR	3/4" #20, Black (6/Case)	\$62.50



NF10-07C-PR



N20-07B-PR

SPANNER WRENCHES

Used to loosen the sump when changing cartridges.

NF-RO-WRENCH	RO Wrench	\$8.55
NF-STD-WRENCH	Standard Wrench	\$7.80

Mounting Bracket Kits And O-Rings

NELSEN BRACKETS

L-shaped brackets for 3/4" & Big Blue filters. Mounting screws included.

NF-STD-BKT	Bracket for standard 10" & 20" housings	\$20.40
NF-WB-BKT	Bracket for Wide Body housings	\$34.20

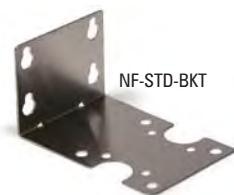
NELSEN O-RINGS

Please note that these o-rings DO NOT fit Pentek housings.

NF-RO-ORING	O-Ring for NRO System, package of 2, 1-Top and 1-Bottom	\$1.35
NF-STD-ORING	O-Rings for Standard 10" & 20" Housings	\$1.35
NF-WB-ORING	O-Ring for Wide Body Housings	\$2.60
NF-CLWB-ORING	O-Ring for Wide Body Clear Housings	\$2.60



NF-STD-WRENCH



NF-STD-BKT



NF-WB-BKT

Nelsen Meltblown Sediment Cartridges

NSF NELSEN MELT-BLOWN SPUN POLYPROPYLENE

Nelsen melt-blown sediment filters feature a graded density that uses the entire depth of the filter to trap sediment, translating into high dirt-holding capacity. Other features include: thermally bonded fibers will not migrate into water, filters available from 1 to 50 microns, broad chemical compatibility. Melt blown polypropylene cartridges offer a self-supporting, thermally fused filter media that requires no separate center support tube. No adhesives, binding agents or anti-static agents are used.



NP5

NP1	9-3/4" 1 Micron (50/Case)	\$3.50
NP5	9-3/4" 5 Micron (50/Case)	\$3.20
NP5-GROOVED	9-3/4" 5 Micron (50/Case)	\$5.90
NP10	9-3/4" 10 Micron (50/Case)	\$4.40
NP20	9-3/4" 20 Micron (50/Case)	\$3.50
NP50	9-3/4" 20 Micron (50/Case)	\$3.60
NP1-20	20" 1 Micron (25/Case)	\$7.90
NP5-20	20" 5 Micron (25/Case)	\$6.50
NP20-20	20" 20 Micron (25/Case)	\$7.10

NSF NELSEN MELT-BLOWN SPUN POLYPROPYLENE FOR WIDE BODY HOUSINGS

Nelsen Big-Blue Melt-Blown Poly Sediment filters are constructed with 4-layers of different micron ratings. The graded densities of layers capture particles throughout the entire cross section of the cartridge reducing surface binding or buildup.

That sediment buildup results in greater pressure drops and quicker replacement of the cartridge. The finer the particle the deeper through the surface of the cartridge it travels. Example: a 5 micron rated cartridge has these four layer densities - Inside Layer - 5 micron, 2nd Layer - 10 micron, 3rd Layer - 25 micron, Outer Layer - 50 micron.

The Nelsen Big-Blue Sediment filters are made from 100% high purity polypropylene, have good chemical resistance are not prone to bacteria attack. They are available in 1, 5, 10 & 25 micron rates and come in 10 and 20 inch lengths.



MELT-BLOWN CARTRIDGES

NP1-BB-10	9-3/4" 1 Micron, BB, (12/Case)	\$18.70
NP5-BB-10	9-3/4" 5 Micron, BB, (12/Case)	\$18.70
NP10-BB-10	9-3/4" 10 Micron, BB, (12/Case)	\$17.70
NP20-BB-10	9-3/4" 25 Micron, BB, (12/Case)	\$17.70
NP1-BB-20	20" 1 Micron, BB, (6/Case)	\$33.00
NP5-BB-20	20" 5 Micron, BB, (6/Case)	\$35.20
NP10-BB-20	20" 10 Micron, BB, (6/Case)	\$30.50
NP20-BB-20	20" 20 Micron, BB, (6/Case)	\$33.00

NELSEN ECONOMY MELT-BLOWN SPUN POLYPROPYLENE CARTRIDGES

An economical alternative filter to the NSF approved. These filters are made from 100% high purity polypropylene, have good chemical resistance are not prone to bacteria attack.

MB-5	9-3/4" 5 Micron (50/Case)	\$2.20
MB-5-20	20" 5 Micron (25/Case)	\$4.30
MB-5-BB	9-3/4" 5 Micron, BB, (12/Case)	\$8.40
MB-5-BB-20	20" 5 Micron, BB, (6/Case)	\$16.90



DEPTH FILTER SHOWING THE FOUR LAYER DENSITIES

Wound Poly Cord Sediment Cartridges

NELSEN SPUN POLYPROPYLENE CORD



NELSEN SPUN POLY CORD CARTRIDGES

These cartridges are manufactured from a durable polypropylene cord that is wound around a rigid polypropylene core. Ideal for fine sediment removal including sand, silt, scale, unseen sludge and rust particles. Compatible with most acids, alkalis, corrosive fluids and gases. An ideal, yet inexpensive choice for agricultural, photographic and residential applications.

N5PP10	9-7/8", 5 Micron Dirt Cartridge (24/Cs)	\$5.60
N10PP10	9-7/8", 10 Micron Dirt Cartridge (24/Cs)	\$6.60
N30PP10	9-7/8", 30 Micron Dirt Cartridge (24/Cs)	\$5.50
N20PP10	9-7/8", 20 Micron Dirt Cartridge (24/Cs)	\$5.20
N50PP10	9-7/8", 50 Micron Dirt Cartridge (30/Cs)	\$5.50
N5BB10	9-7/8" BB, 5 Micron Dirt Cartridge (9/Cs)	\$16.90
N10BB10	9-7/8" BB, 10 Micron Dirt Cartridge (9/Cs)	\$16.90
N30BB10	9-7/8" BB, 30 Micron Dirt Cartridge (9/Cs)	\$17.40
N5BB20	20" BB, 5 Micron Dirt Cartridge (9/Cs)	\$33.70

Pleated Sediment Cartridges

NELSEN PLEATED CARTRIDGES



PLEATED CARTRIDGE FAMILY

The chemical and bacterial resistance of the polyester media makes these cartridges suitable for potable water, light industrial applications, swimming pool and spa, and well water applications. The durable non-woven polyester fabric is reusable, while being pleated to maximize its dirt holding capacity and extending the time period between changes.

NPF-0.35-975	9-3/4" .35 Micron Pleated (25/Case)	\$32.15
NPF-1-975-ABS	9-3/4" 1 Micron Absolute Pltd (25/Case)	\$30.60
NPF-1-975	9-3/4" 1 Micron Pleated (25/Case)	\$19.85
NPF-5-975	9-3/4" 5 Micron (25/Case)	\$19.35
NPF-20-975	9-3/4" 20 Micron (25/Case)	\$18.90
NPF-50-975	9-3/4" 50 Micron (25/Case)	\$20.90
NPF-5-20	20" 5 Micron (20/Case)	\$25.15
NPF-20-20	20" 20 Micron (20/Case)	\$23.05
NPF-30-20	20" 30 Micron (20/Case)	\$22.25

NELSEN PLEATED CARTRIDGES FOR WIDE BODY HOUSINGS

NPF-BB-10-0.35	9-3/4" 0.35 Micron, BB, (8/Case)	\$58.45
NPF-BB-10-1	9-3/4" 1 Micron, BB, (8/Case)	\$34.75
NPF-BB-10-5	9-3/4" 5 Micron, BB, (8/Case)	\$31.55
NPF-BB-10-20	9-3/4" 20 Micron, BB, (8/Case)	\$31.55
NPF-BB-10-50	9-3/4" 50 Micron, BB, (8/Case)	\$33.75
NPF-BB-20-0.35	20" 0.35 Micron, BB, (6/Case)	\$84.55
NPF-BB-20-1	20" 1 Micron, BB, (6/Case)	\$52.70
NPF-BB-20-5	20" 5 Micron, BB, (6/Case)	\$53.55
NPF-BB-20-20	20" 20 Micron, BB, (6/Case)	\$49.20
NPF-BB-20-30	20" 30 Micron, BB, (6/Case)	\$51.50
NPF-BB-20-50	20" 50 Micron, BB, (6/Case)	\$51.25

Taste and Odor Cartridges

NELSEN GAC GRANULAR ACTIVATED CARBON

Designed for reduction of unwanted tastes and odors, such as chlorine. Water enters the bottom and filters thru the entire bed before exiting at the top. This ensures maximum contact time which ensures maximum adsorption. A built-in 10 micron post filter reduces fines.

NFGAC-10	9-3/4", 2.5 gpm (50/Case)	\$10.80
NFGAC-WH	9-3/4", 4.0 gpm (25/Case)	\$45.40
NFGAC-20	20", 2.5 gpm (18/Case)	\$21.20
NFGAC-20WH	20", 4.0 gpm (9/Case)	\$75.60



NFGAC-10

Filter Housings & Cartridges





PENTEK
Pentair Water

Pentek Filter Housings Less Cartridges and Carton

Prices are listed as each. Case quantities have been provided for easy ordering.

IB - Indicates "Integral Bracket". Third generation design features a integral bracket molded into cap of the housing alleviating the need for separate mounting bracket.

PENTEK SLIMLINE HOUSINGS

The Slim Line Housings are designed for quick, easy under-sink installation on the cold water line where the space is too tight for standard models. Includes pressure relief in head.

PENTEK 3/8" SLIMLINE HOUSINGS

SL03B-PR	3/8" Slimline, Blue (12/Case)	\$22.00
SL03C-PR	3/8" Slimline, Clear (12/Case)	\$33.00
SL03B-PR-IB	3/8" Slimline, Blue w/Integral Bracket	\$36.00
SL03C-PR-IB	3/8" Slimline, Clear w/Integral Bracket	\$50.75

PENTEK 1/2" SLIMLINE HOUSINGS

SL05BLK	3/8" Slimline, Blue (12/Case)	\$31.25
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PENTEK 3/4" STANDARD HOUSINGS

Pentek 3/4" housings are best utilized with sediment cartridges for "whole house" water filtration on the main water line after the pressure tank or water meter. Includes pressure relief and mounting bracket cap.

10-07C	3/4" #10, Clear (12/Case), No Pres Relief	\$63.50
10-07B-PR	3/4" #10, Blue (12/Case)	\$50.25
10-07C-PR	3/4" #10, Clear (12/Case)	\$64.00
10-07B-PR-IB	3/4" #10, Blue w/Integral Bracket	\$57.75
10-07C-PR-IB	3/4" #10, Clear w/Integral Bracket	\$71.25

PENTEK 3/4" DOUBLE DUTY HOUSINGS W/PRESSURE RELIEF

Designed for large homes, restaurants and light commercial use. Accepts two standard sediment or taste/odor/sediment cartridges. Use with standard (9-3/4") cartridges and a cartridge coupler or long (20") cartridge. Mounting bracket cap. Built-in pressure relief.

20-07B-PR	3/4" #20, Blue (8/Case)	\$86.75
20-07B-PR-IB	3/4" #20, Blue w/Integral Bracket	\$94.75
20-07C-PR-IB	3/4" #20, Clear w/Integral Bracket	\$132.50

PENTEK 3/4" DOUBLE DUTY HOUSINGS

20-07B	3/4" #20, Blue (8/Case) W/O PR	\$86.25
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PENTEK 3/4" VALVE-IN-HEAD HOUSINGS

Eliminates need for other valves to change cartridges. The unique (patented) Valve-In-Head design allows water to be shut off with a half turn of the handle. Automatic pressure relief.

VIH10-07B-PR	3/4" #10 Blue (12/Case)	\$91.25
VIH10-07C-PR	3/4" #10 Clear (12/Case)	\$109.00
VIH20-07B-PR	3/4" #20 Blue (8/Case)	\$127.50

PENTEK 3/4" HOT WATER HOUSINGS

Made of red glass reinforced nylon for use on water up to 160 degrees F. No pressure relief or mounting bracket cap is available.

10-07HW	3/4" #10 Hot Water (8/Case)	\$250.00
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SL03B-PR-IB



INTEGRAL BRACKET



10-07B-PR



10-07C-PR



20-07B-PR



VIH10-07C-PR



VIH10-07B-PR



10-07HW



PENTEK
Pentair Water

Pentek Whole House Main Line Filters

PENTEK "BIG BLUE" HOUSINGS

Available with both 1" and 1-1/2" NPT. Excellent whole house filters or wherever larger flow rates are necessary. Mounting bracket head. Uses 4-1/2" diameter cartridges. Prices are listed as each. Case quantities have been provided for easy ordering.

HD10	1" #10, Blue w/o PR, (6/Case)	\$65.50
HD10-PR	1" #10 Blue w/Pres. Release, (6/Case)	\$71.75
HD15-PR	1-1/2" #10 Blue w/PR, (6/Case)	\$74.50



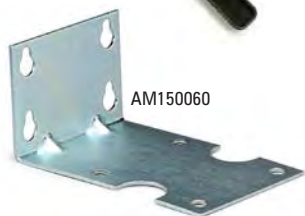
HD10-PR



HD10-CL-PR



SW-2



AM150060



AM158011



AM151011



AM150061

20" HOUSINGS

HD10-20	1" #20 Blue w/o PR, (6/Case)	\$98.00
HD15-20	1-1/2" #20 Blue w/o PR, (6/Case)	\$98.00
HD07-20-PR	1" #20 Blue w/PR, (6/Case)	\$102.00
HD10-20-PR	1" #20 Blue w/PR, (6/Case)	\$100.00
HD15-20-PR	1-1/2" #20 Blue w/PR, (6/Case)	\$106.00

PENTEK "BIG CLEAR" HOUSINGS

These housings feature a 1" Inlet/Outlet Blue Cap and are available in 10" and 20" length. The benefit of the clear housing lies in the visibility of the cartridge as it becomes loaded with sediment. Includes pressure release.

NOTE: The clear sumps are not interchangeable with the cap for the opaque "Big Blue" filter housings.

HD10-CL-PR	1", #10 Clear w/PR, (6/Case)	\$233.00
HD10-20-CL-PR	1", #20 Clear w/PR, (6/Case)	\$240.00

PENTEK WRENCHES

SW-1	Slimline Housing	\$7.70
SW-2	Standard Housing	\$7.70
SW-3	10" Big Blue Housing	\$8.25
SW-4	20" Big Blue Housing	\$8.25
SW-BB-CL	Big Clear Housing	\$12.50

Mounting Bracket Kits And O-Rings

PENTEK BRACKETS

For mounting filters with 3/4" caps with bosses.

AM150060	3/4" Housings with Screws	\$16.30
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For mounting filters with 1/2", 3/8" and 1/4" caps (Slimline housings) with bosses.

AM158011	1/2", 3/8" and 1/4" Housings	\$9.35
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U-shaped bracket for 3/4" housings without mounting bracket caps.

AM151011	3/4" Housings (U-Shape)	\$14.65
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MOUNTING KIT FOR BIG BLUE HOUSINGS.

AM150061	Zinc Plated Bracket for Big Blue Housing	\$77.25
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PENTEK O-RINGS, REPAIR KIT

AM151117	O-Ring, #10 Hot Water, #241 Viton	\$38.80
AM151120	O-Ring, #10, #12 and #20 Housings	\$6.85
AM151121	O-Ring, Slimline Housings	\$6.85
AM151122	O-Ring, Big Blue	\$22.60
AM151254	O-Ring, Big Clear Housing	\$22.60
AM151039	Pressure Relief Button Kit	\$10.85
AM154077	1" Black Cap w/o PR for BB Housings	\$102.50

Filter Housings & Cartridges





PENTEK
Pentair Water

Pentek Sediment Cartridges

PENTEK POLYPROPYLENE FIBER

100% pure polypropylene fibers spun together to form a true gradient density from outer to inner surfaces. Designed for home, commercial and industrial use. Prices are listed as each. Carton quantities have been listed for easy ordering.

P1	9-7/8" 1 Micron, 5 gpm (24/Case)	\$8.00
P5	9-7/8" 5 Micron, 5 gpm (24/Case)	\$7.35
P25	9-7/8" 25 Micron, 5 gpm (24/Case)	\$7.20
P1-20	20" 1 Micron, 10 gpm (20/Case)	\$16.50
P5-20	20" 5 Micron, 10 gpm (20/Case)	\$14.95
P25-20	20" 25 Micron, 10 gpm (20/Case)	\$14.55

POLYDEPTH® SERIES POLYPROPYLENE CARTRIDGE

The Polydepth® filtration cartridge is constructed of thermally-bonded polypropylene micro-fibers to ensure high efficiency. The filter incorporates a rigid polypropylene center core for increased collapse strength and durability. This thermal bonded micro-fiber construction has minimal fiber release, consistent flow rate and superior filtration performance. It also is not brittle or prone to breakage problems like resin-bonded cartridges.

PD-5-934	Pentek Polydepth Filter, 9-3/4", 5 mic	\$11.55
PD-25-934	Pentek Polydepth Filter, 9-3/4", 25 mic	\$11.20
PD-5-20	Pentek Polydepth Cartridge, 20", 5 mic	\$21.00

PENTEK DUAL GRADIENT POLYPROPYLENE

DGD Series cartridges are manufactured from 100% pure polypropylene and are sized for use in Big Blue® filter housings.

These cartridges are designed for purity and will not impart taste, odor or color to the liquid being filtered. Additionally, the polypropylene construction provides superior chemical resistance and is not prone to bacterial attack.

The DGD Series advanced design combines selective "final filtration" with appropriate "pre-filtration" to achieve up to three times the dirt holding capacity of similar size sediment cartridges and many more times that of standard spun or string-wound cartridges. This performance enhancement is achieved by combining two separate gradient layers in one filter.

The larger diameter of the pre-filter reduces the particle load to the post filter, allowing it to operate at higher velocities. The effective filter depth is increased to a full 233% of standard spun-polypropylene or string-wound filters. This increased depth provides for very high particulate reduction efficiencies and added loading capacity.

The unique design and performance characteristics of the DGD Series cartridges make them an excellent choice for all residential, rural, municipal and commercial applications.

DGD-2501-10-BB	10" 25/1 Micron, 10 gpm (8/Case)	\$27.70
DGD-5005-10-BB	10" 50/5 Micron, 10 gpm (8/Case)	\$26.70
DGD-2501-20-BB	20" 25/1 Micron, 20 gpm (6/Case)	\$51.30
DGD-5005-20-BB	20" 50/5 Micron, 20 gpm (6/Case)	\$49.20
DGD-7525-20-BB	20" 75/25 Micron, 20 gpm (6/Case)	\$49.00



P5



P5-20



PD-5-934



DUAL GRADIENT FILTER

Filter Housings & Cartridges





PENTEK SPUN POLYPROPYLENE FIBER

Offers a wide chemical resistance and is compatible with most acids, alkalis, corrosive fluids and gases. Polypropylene cord is wound around a polypropylene core in a precise pattern ensuring a high efficiency rating as well as a high dirt loading capacity.

WP5	9-7/8" 5 Micron, 7 gpm (24/Case)	\$13.50
* WP30	9-7/8" 30 Micron, 10 gpm (24/Case)	\$13.20
WP5BB97P	10" 5 Micron, 7 gpm (8/Case)	\$42.00
WP5BB20P	20" 5 Micron, 10 gpm (6/Case)	\$94.00

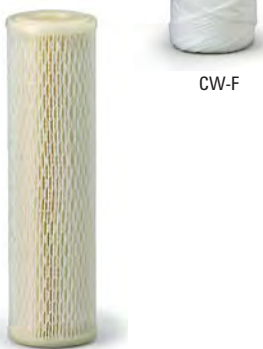


WP5BB97P

PENTEK SPUN POLYPROPYLENE CORD

Ideal for fine sediment removal including sand, silt, scale, unseen sludge and rust particles. Compatible with most acids, alkalis, corrosive fluids and gases. An ideal, yet inexpensive choice for agricultural, photographic and residential applications.

CW-F	9-7/8" 10 Micron, 7 gpm (24/Case)	\$8.45
CW-MF	9-7/8" 30 Micron, 10 gpm (24/Case)	\$7.75
CW-50	9-7/8" 50 Micron, 10 gpm (24/Case)	\$9.90



CW-F

Pentek Pleated Sediment Cartridges

Flow rates shown are nominal for new cartridges. Usage and dirt load will effect capacity. Cartridges with the suffix "BB" are 4-1/2" in diameter and fit "Big Blue" housings. Prices are listed as each. Case quantities have been provided for easy ordering.

PENTEK ALL CELLULOSE

Designed for general water filtration purposes. Highly-effective, yet economical, these cartridges remove sediment particles down to nominal 20 microns in size. Not reusable.

S1	9-3/4", 12 gpm (24/Case)	\$8.15
S1-20	20", 15 gpm (14/Case)	\$18.60
S1-BB	9-3/4", Big Blue, 25 gpm (8/Case)	\$23.15
S1-20BB	20", Big Blue, 35 gpm (6/Case)	\$41.35

S1

PENTEK POLYESTER

Made of a durable non-woven reusable polyester fabric which allows for several uses. Their synthetic construction makes them ideal for well water applications since they cannot be attacked by bacteria.

R30	9-3/4" 30 Micron, 10 gpm (24/Case)	\$17.40
R50	9-3/4" 50 Micron, 10 gpm (24/Case)	\$16.80
R30-BB	9-3/4" 30 Micron, 10 gpm (8/Case)	\$35.60
R50-BB	9-3/4" 50 Micron, 10 gpm (8/Case)	\$28.20
R30-20BB	20" 30 Micron, 20 gpm (6/Case)	\$70.80



R-SERIES

ECP SERIES PLEATED CELLULOSE POLYESTER

ECP Series cartridges are manufactured from a special formulation of resin-impregnated cellulose and polyester fibers.

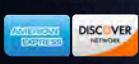
This unique blend of materials provides a higher wet strength than regular cellulose cartridges. It also provides high flow rates and dirt-holding capacity, while maintaining extremely low pressure drop."

ECP1-10	9-3/4" 1 Micron, 10 gpm (24/Case)	\$13.35
ECP5-10	9-3/4" 5 Micron, 10 gpm (24/Case)	\$12.40
* ECP5-20	20" 5 Micron, 10 gpm (24/Case)	\$25.30
* ECP1-BB	9-3/4" BB, 1 Micron, 10 gpm (24/Case)	\$31.80
ECP5-BB	9-3/4" BB, 5 Micron, 10 gpm (24/Case)	\$31.35
ECP5-20BB	20" BB, 5 Micron, 20 gpm (6/Case)	\$57.20



ECP5-10

ECP5-BB



Taste and Odor Cartridges

PENTEK DUAL PURPOSE POWDERED CARBON

C Series cartridges offer an economical solution for all of your general-purpose water filtration needs. Constructed of a carbon impregnated cellulose media, these dual-purpose cartridges filter out fine sediment particles and reduce unwanted taste, odor and chlorine taste and odor from your tap water. A polyester reinforcement backing and external netting provide additional strength and dirt-loading capacity.

C Series cartridges are available in three different sizes and two (2) different micron ratings. Both the C1 and C2 are nominally rated at 5-microns, the C8 is nominally rated at 1-micron.

These dual-purpose cartridges are well suited for a wide range of residential applications, and make excellent polishing filters when used in process or closed-loop streams.

* C2	2-1/2" x 4-7/8", 8 gpm (24/Case)	\$13.35
C1	2-1/2" x 9-3/4", 5 gpm, (24/Case)	\$13.35
* C8	2-5/8" x 9-3/4", 5 gpm, (24/Case)	\$22.50
C1-20	2-1/2" x 20", 8 gpm (14/Case)	\$28.85
* C1-20BB	4-1/2" x 20", 8 gpm (6/Case)	\$78.70

PENTEK NCP SERIES NON-CELLULOSE CARBON-IMPREGNATED PLEATED CARTRIDGES

NCP Series cartridges are constructed from a carbon-impregnated non-cellulose media. They offer sediment-filtration, as well as taste, odor and chlorine taste and odor reduction in one cartridge. Unlike cellulose cartridges, NCP Series cartridges are resistant to bacterial attack allowing them to be used for municipal and non-chlorinated water applications.

Pleats provide additional surface area for high dirt-loading capacity, while maintaining minimal pressure drop. This combination of a pleated polyester media and carbon filtration produces an outstanding filter cartridge with extended service life.

NCP Series cartridges are excellent polishing filters, closed loop streams and are ideal for post reverse osmosis and well water applications.

NCP-10	9-3/4", 3 gpm (24/Case)	\$19.15
NCP-BB	9-3/4", 8 gpm (8/Case)	\$45.70
NCP-20BB	20", 10 gpm (6/Case)	\$89.25

GAC GRANULAR ACTIVATED CARBON

Designed for reduction of unwanted tastes and odors such as chlorine. Water enters the bottom and filters thru the entire bed before exiting at the top. This insures maximum contact time ensuring maximum absorption. A built-in 20 micron post filter reduces fines.

GAC10	9-3/4", 2.5 gpm (12/Case)	\$20.10
GAC20	20", 2.0 gpm (6/Case)	\$40.90
GAC-BB	9-3/4", 4.0 gpm (8/Case)	\$52.30
GAC20-BB	20", 5 gpm (4/Case)	\$113.75

PENTEK COCONUT SHELL GRANULAR ACTIVATED CARBON

These cartridges contain coconut shell-based activated carbon which is highly effective at reducing certain organic chemicals, such as, EDB, TCE and THMs in addition to reducing chlorine. Used in the CCF-201 system.

CC-10	9-3/4", 2.5 gpm (12/Case)	\$23.60
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PENTEK RFC GRANULAR ACTIVATED CARBON

Designed for liquid and gas filtration. For liquids, they are designed primarily for reducing organics and particulate contaminants from plating, acid, alkaline and hydrocarbon solutions. They can also be used for chlorine removal at low flow rates.

RFC-93	9-3/4", 1 gpm (24/Case)	\$51.70
RFC-20	20", 2 gpm (6/Case)	\$75.75
RFC-BB	9-3/4", 3 gpm (8/Case)	\$81.75
RFC20-BB	20", 6 gpm (6/Case)	\$160.50



C2

C1



NCP-10



GAC10



CC-10



RFC-93

PENTEK CARBON BRIQUETTE

Designed to reduce VOC's, chlorine, color bodies as well as fine sediment from residential, commercial and industrial liquids. Provides high chemical adsorption while filtering down to .5 microns. They make excellent polishing or prefilters on many applications.

CBC-10	9-3/4", 2.0 gpm (12/Case)	\$30.40
CBC-20	20", 2.0 gpm (6/Case)	\$58.90
CBC-BB	9-3/4", 2.0 gpm (4/Case)	\$109.50
CBC-20BB	20", 4.0 gpm (4/Case)	\$206.00

PENTEK CARBON BLOCK W/LEAD REDUCTION

The CBR2-10 "Multi-Media" Cartridge is designed for multipurpose filtration of liquids. It contains a powdered activated carbon (PAC) briquette, which is more effective at reducing levels of certain organics than granular activated carbon. In addition, the carbon briquette reduces levels of chlorine, sediment down to .5 microns and Giardia and Cryptosporidium cysts.

CBR2-10	Carbon Briquette/Resin (12/Case)	\$38.90
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PENTEK EP SERIES CARBON BLOCK

EP Series cartridges are versatile and combine the long life of carbon block filtration with the dirt-loading tolerance of wound, carbon-impregnated paper cartridges like our C-1. EP Series cartridges are manufactured using a patented process that yields a cartridge with a nominal 5-micron filtration rating, high porosity and greater chlorine removal capacity than competitive 10-micron carbon blocks.

The high-porosity design helps prevent the cartridge from plugging before its adsorption capability is exhausted, maximizing the utilization of the carbon while maintaining low pressure drop. EP Series cartridges are manufactured entirely from FDA-approved material making them an ideal choice for a wide range of residential, food service, commercial and industrial applications.

EP-10	9-3/4", 4 gpm (12/Case)	\$17.00
* EP-20	2-7/8" x 20", 10 Micron (6/Case)	\$34.05
EP-BB	9-3/4", 4 gpm (4/Case)	\$66.60
* EP-20BB	4" x 20", BB, 5 gpm (4/Case)	\$126.50

PENTEK EPM MODIFIED EPSILON CARBON BRIQUETTE CARTRIDGE

EPM Series cartridges are a modified version of the EP Series cartridge. An economical price makes this cartridge suitable for taste, odor and chlorine taste & odor reduction, as well as sediment filtration.*

EPM Series cartridges are manufactured using a patented process that yields a cartridge with a nominal 10-micron filtration rating, high porosity and chlorine taste & odor reduction. The high porosity design helps prevent the cartridge from plugging before its adsorption capability is exhausted, maximizing the utilization of the carbon while maintaining low pressure drop.

These cartridges are protected by Endurawrap®, a uniquely formulated polyolefin bilaminate pre-filter, designed to significantly increase the useful life of the cartridge by trapping sediment that typically plugs carbon block cartridges.

EPM Series cartridges are manufactured entirely from FDA-compliant materials making them an ideal choice for a wide range of residential, food service, commercial and industrial applications.

* EPM-10	2-7/8" x 9-3/4", 10 Micron (12/Case)	\$13.25
EPM-20	2-7/8" x 20", 10 Micron (6/Case)	\$28.70
* EPM-BB	9-3/4", 4 gpm (4/Case)	\$66.60
EPM-20BB	4" x 20", BB, 5 gpm (4/Case)	\$115.00

Filtersorb Big Blue Cartridges

Point of use cartridge using Filtersorb SP3 anti scaling media. Filtersorb SP works great in front of RO membranes. It helps keep membranes from clogging with calcium-carbonate.

NRC-BB-10-FILTERSORB	Filtersorb SP3 Cart, 9-3/4" x 4-1/2"	\$893.00
NRC-BB-20-FILTERSORB	Filtersorb SP3 Cart, 20" x 4-1/2"	\$1,196.40



CBC-10

CBR2-10

EP-10

EPM-10

Pentek Specialty Cartridges

PHOSPHATE CRYSTALS

Contains a pure food grade phosphate that dissolves in water at a slow, controlled rate. The phosphate is highly effective at controlling rust and corrosion by forming a protective coating on the inside surface of piping and water heaters. Also, a small amount of soluble iron in a water supply may be treated, minimizing red water and iron staining.

PCC-1	Phosphate cartridge 9-3/4", 5 gpm (6/Case)	\$85.50
* PCC212	9-3/4" 12 oz. (6/Case)	\$51.30
* PCC218	9-3/4" 18 oz. (6/Case)	\$61.10

ACTIVATED CARBON/PHOSPHATE CRYSTALS

Combines activated carbon with phosphate crystals for taste and odor removal and corrosion control.

* TSGAC-10	9-3/4" (12/Case)	\$48.70
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MIX BED DI CARTRIDGE

PCF Series cartridges have been developed in response to the requirements for deionized water in many industries. They are manufactured using an FDA-compliant resin that has been subjected to additional post-production steps to minimize the total organic carbon (TOC) level. This high-capacity, semi-conductor-grade resin cartridges are ideal for use in pharmaceutical and medical laboratories, cosmetics and circuit board printing applications. PCF Series cartridges are available in three sizes, flow rates and capacities.

PCF1-10MB	Mixed Bed DI, .25 gpm (6/Case)	\$70.20
PCF1-20MB	Mixed Bed DI, .5 gpm (6/Case)	\$123.00
BBF1-20MB	Mixed Bed DI, Big Blue, 1.25 gpm (4/Case)	\$279.00

RADIAL FLOW IRON REDUCTION CARTRIDGE

The RFFE cartridge is designed to provide an easy and effective method of reducing iron from water, which greatly improves the taste. This cartridge helps to eliminate the orange and brown stains often found in sinks, toilets, tubs and other plumbing fixtures.

RFFE20-BB reduces the possibility of damage to pipes and water heaters and reduces up to 3 ppm dissolved iron. It adds no harmful chemicals to the water, making it completely safe for drinking water applications.

The RFFE20-BB cartridge should be installed on the main cold water line after the pressure tank or water meter. For best results, pre-sediment and post-carbon treatment is recommended.

RFFE10-BB	Iron Reduction Cartridge, 10" Big Blue	\$141.00
RFFE20-BB	Iron Reduction Cartridge, 20" Big Blue	\$212.00



PCC-1



PCC212



RFFE20-BB



CRE-1



PCF1-20MB



MATRIKX® Carbon Filters

MATRIKX® - Now enhanced with CHLORAMINE reduction claims

The New and Improved MATRIKX® carbon block line now features CHLORAMINE claims and 50% more CHLORINE reduction capacity across the entire range of standard MATRIKX® products.

MATRIKX® is the first and only full line of activated carbon blocks with enhanced CHLORAMINE claims across their line of standard products.

Made from 100% coconut shell activated carbon, a renewable and eco-friendly activated carbon, the standard MATRIKX® line has been Certified for Sustainability by WQA. MATRIKX® not only delivers industry leading performance and value, they are also manufactured using sustainable materials and a process that is kind to the environment.

MATRIKX® Carbon Filters are made using high performance coconut shell activated carbon, unique binders, and a proprietary manufacturing process that delivers industry leading performance. Based on a recent breakthrough in Catalytic Carbon Technology, the standard range of MATRIKX® carbon filters have been reformulated with high performance catalytic carbon, resulting in the addition of CHLORAMINE claims and 50% more chlorine reduction across the entire range, including their most popular CTO line of carbon filters.

All MATRIKX® Carbon Filters are manufactured using FDA-compliant materials. Specific models are designed to meet NSF/ANSI Standards 42 and 53. These enhanced carbon filter elements can be used in potable water applications, as well as for industrial, food service and commercial applications.

The enhanced family of MATRIKX® activated carbon filters meet exacting performance requirements and/or claims, and specific models meet the requirements of NSF/ANSI for chlorine, chloramine, VOC and THM reduction, particulate, cyst, turbidity, and lead reduction.* This enhanced line of standard MATRIKX® products is certified by NSF and WQA to Standard 42 for Material Safety. *Based on manufacturer's internal testing.



CTO SERIES



06-250-10-MATRIKX

MATRIKX® CTO - CHLORAMINE, CHLORINE, TASTE & ODOR REDUCTION FILTER

MATRIKX® CTO filters are one of the most widely used carbon block cartridges in the world and provide previously unattainable performance at the lowest price point. MATRIKX® CTO filters simultaneously remove chloramines, free chlorine and organic chemicals that contribute to taste and odor while providing the particulate filtration and dirt-holding capacity of an efficient five-micron nominal sediment filter.*

A superior carbon block, the enhanced MATRIKX® CTO filters combine both high performance and integrity with an unrivaled cost-to-performance value.

32-250-10-MATRIKX	MATRIKX® CTO Filter Cart, 2-1/2" x 9-3/4", (20/Case)	\$8.15
32-250-20-MATRIKX	MATRIKX® CTO Filter Cart, 2-1/2" x 20", (20/Case)	\$25.95
32-450-10-MATRIKX	MATRIKX® CTO Filter Cart, 4-1/2" x 10", (6/Case)	\$34.20
32-450-20-MATRIKX	MATRIKX® CTO Filter Cart, 4-1/2" x 20", (4/Case)	\$69.50

MATRIKX® PB1® - LEAD, CYST, VOC, CHLORAMINE, CHLORINE, TASTE & ODOR REDUCTION FILTER

MATRIKX® PB1® carbon filters have been reformulated with an advanced Lead Scavenger resulting in an 50% increase in lead reduction capacity.* Standard 2.75" O.D. x 9.75" L PB1® filters will reduce lead, meeting the performance requirements of NSF/ANSI Standard 53 protocols, for up to 3,750 gallons when operating at a flow of 0.75 GPM.*

PB1® filters also reduce VOC, Cysts, Chloramine, Chlorine, Taste Odor and Sediment and meet ANSF/NSF Standards 42 and 53 for contaminant reduction.*

06-250-10-MATRIKX	MATRIKX® PB1 Filter Cart, 2-1/2" x 9-3/4", (20/Case)	\$23.00
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*Based on manufacturer's internal testing

MATRIKX® & PB1® are trademarks of KX Technologies, LLC.

CHLORAGUARD® is a trademark of Marmon Water (Singapore) Pte. Ltd



AF-10-3695



AF-10-2010



MAC10



Aries AF-Series Specialty Filter Cartridges

Aries Filterworks products are manufactured in the USA using the latest technologies. A variety of welding, filling and molding machinery ensure complete control over the manufacturing process. Aries Filterworks products are solid from the ground up. Each filter is built around ResinTech premium medias. Cartridges are filled fresh from the manufacturing facility giving maximum shelf life.

ARSENIC REDUCTION

The AF Series provides effective Arsenic reduction by utilizing advanced media technology of ResinTech's ASM-10-HP Arsenic selective media has unsurpassed capacity and is effective over the entire pH range of potable water. In cartridge form, the AF Arsenic Reduction Series is an ideal choice for POU applications requiring EPA compliance of less than 10 ppb of arsenic. These cartridges are double-open end cartridges that fit standard residential and industrial housings.

AF-10-3695 Arsenic Reduction Cartridge, 2.5"x 10", Blue \$125.25

CARBON/KDF®

Used in combination with an Acid Washed Coconut Shell Activated Carbon, KDF can significantly extend the life of filter cartridges. KDF is an oxidation-reduction (redox) media that removes chlorine, hydrogen sulfide and many other contaminants. KDF is available in several varieties for specific applications.

KDF-55 removes chlorine and reduces heavy metals. KDF-85 removes hydrogen sulfide and reduces iron. Both KDF redox medias are bacteriostatic and control the growth of micro-organisms in filters. KDF allows Activated Carbon to do a better job at removing taste and odor."

AF-10-2010 KDF-55 & Coconut Shell Filter Cartridges, 2.5" x 10", Blue \$38.60

PREMIUM ACID WASHED COCONUT SHELL GAC

Coconut Shell activated carbon has remarkable absorptive properties, which makes it effective in removing chlorine, sediment and Volatile Organic Compounds (VOCs). The Carbon particles have a large surface area, allowing a small amount of carbon to efficiently filter large volumes of water. As water passes through the carbon filter many chemicals and contaminants in the water are bonded at a molecular level to the carbon, effectively removing them from the water. A large percentage of chemical compounds and organic contaminants, that cause taste and odor problems are removed by the carbon.

Certified to NSF/ANSI Standard 42 and NSF/ANSI Standard 61 for material requirement(s) only. Certified to NSF/ANSI Standard 372 for low lead compliance.

MAC10 Aries GAC Cartridge, 2.5"x10" \$20.00

100% PHOSPHATE

Aries FilterWorks 3300 series Phosphate Cartridge contains food grade, slow melt polyphosphate that dissolves in water to inhibit scale and rust build up. This filter is used primarily where scale, corrosion and increased amounts of iron are present in the water source. Phosphate cartridges are also available in combination with coconut shell GAC. The additional combination improves taste and odor and removes chlorine.

Certified to NSF/ANSI Standard 42 and NSF/ANSI Standard 61 for material requirement(s) only. Certified to NSF/ANSI Standard 372 for low lead compliance.

AF-10-3326-BB 48 oz. Phosphate Cartridge, 4-1/2 x 10, Blue \$112.70

AF-20-3327-BB 80 oz. Phosphate Cartridge, 4-1/2 x 20, Blue \$177.90



HFCTO-10

Hydro-Flow CTO Cartridge

The HF CTO series extruded carbon block Nominal 10-micron filter cartridges are made with coconut shell-based carbon. The unique structure of the filter is well-suited for reducing chlorine, tastes and odors. The polypropylene non-woven pre-filtration media will operate effectively in most installations without pre-filtration. The nominal 10-micron filter is ideal for improving the taste of the water. Low pressure drop combined with exceptionally high dirt holding capacity. California Prop 65 Compliant and Lead Free Certified.

HFCTO-10 Carbon Black, Chlorine, Taste & Odor Reduction, 2.5"x 10" \$10.00

HFCTO-10-4 Carbon Black, Chlorine, Taste & Odor Reduction, 4"x 10" \$34.75



HFCHLOR-10

Hydro-Flow Chloramine Cartridge

The HF Chloramine filters series extruded carbon block Nominal 10-micron filter cartridges are built upon using certified ingredients like activated and acid washed coconut shell carbon, fibers, elastomers and more. Features a nominal 1-micron rating with a low pressure drop and exceptionally high dirt holding capacity. Backed by third party independent test reports. California Prop 65 Compliant and Lead Free Certified. Manufactured in USA

HFCHLOR-10	Chloramine, Chlorine, Taste & Odor Reduction, 2.5"x 10"	\$37.75
HFCHLOR-10-4	Chloramine, Chlorine, Taste & Odor Reduction, 4"x 10"	\$156.50
HFCHLOR-20-4	Chloramine, Chlorine, Taste & Odor Reduction, 4"x 20"	\$342.25

Nelsen Refillable Filter Cartridge Canisters

Plastic, refillable canisters for activated carbon and other filter media. Low-cost, reusable and ideal for a wide variety of filter media.

NRC-10	Refillable Canister, 9-3/4" x 2-1/2" Clear	\$10.30
NRC-20	Refillable Canister, 20" x 2-1/2" Clear	\$12.45
NRC-BB10	Refillable Canister, 9-3/4" x 4-1/2" Clear	\$20.60
NRC-BB20	Refillable Canister, 20" x 4-1/2" Clear	\$33.10
NRC-10C	Refillable Canister, 9-3/4" x 2-1/2" Clear	\$6.15
NRC-20W	Refillable Canister, 20" x 2-1/2" White	\$13.05

Pentek Cartridge Couplers

AMPCC	Coupler for standard cartridges	\$4.05
CC1020	Coupler for Big Blue cartridges	\$5.75

In-Line Filters

CARBON

Designed for a wide variety of point-of-use applications including: reverse osmosis (RO), distillation units, ice cube makers, water coolers, beverage dispensers, motor homes and boats. 1/4" inlet and outlet. Granulated activated carbon: 6" - 10.5 cu. in., 10" - 20 cu. in.

NINCF-6	6" Filter	\$10.05
NINCF-10	10" Filter, 1/4" threaded	\$10.40
NINCF-10-QC	10" In-Line Carbon Filter w/1/4" Insert Fitting	\$14.80
NINCF-10-QC-3/8	10" In-Line Carbon Filter w/3/8" Insert Fitting	\$19.40

OMNIPURE GAC IN-LINE CARTRIDGE

Designed for a wide variety of point-of-use applications including: reverse osmosis (RO), distillation units, ice cube makers, water coolers, beverage dispensers, motor homes and boats. 1/4" inlet and outlet. Granulated activated carbon: 6" - 10.5 cu. in., 10" - 20 cu. in.

NINCF-10-OMNI	10" Filter	\$9.90
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SEDIMENT

Compact, in-line sediment filter. Five micron filtration. Disposable.

NINSF-10	10" Filter	\$9.50
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CALCITE

Disposable in-line Calcite filter for pH adjustment.

NINCALF-12	2-1/2" x 12" Filter	\$34.25
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REFILLABLE CARTRIDGES



AMPCC



CC1020



NINCF-6



NINCF-10



NINSF-10

Nelsen Filtration Cartridge Systems™

GNE
Water Filtration Simplified™

The unique design of the Nelsen Filtration Cartridge Systems is truly revolutionary featuring the One™ Water Filtration Simplified cartridge tank. Engineered to replace smaller cartridge style housings, the Systems yield higher flow rates and longer cartridge life than conventional systems.

The Nelsen Filtration Cartridge Systems can be used to filter a variety of contaminants, from taste and odor issues to sediment and fine particulate reduction requirements.



Features...

- 100% non-metallic!
- Patented no-tools necessary snap-ring design
- Residential Filter Series **ORANGE** **GREEN** **YELLOW** **BLUE** **WHITE**
- Light Commercial Filter Series **RED** **PURPLE**
- Full 1¼" and 2" plumbing connection options
- Large capacity filter configurations

Benefits...

- Lightweight and cost effective housing with high chemical compatibility
- Simple and easy change-out of cartridges. No Tools, Means NO TOOLS!
- Filtration solution matches up with flow rate requirements
- Extended service life, contaminant removal, and dirt holding capacity
- Low pressure drop = high flow

Applications...

- Ideal for Residential, Food Service, Rental Fleets, Commercial and Industrial Applications
- Make-up Water, RO Pre-filtration, Cooling Towers, Chill Water Loops, Metal Finishing
- Process Water (turbidity, particulate, colloidal suspensions)
- Reduction of unwanted bad taste and odor from potable drinking water
- City water applications as a replacement option of pitcher, faucet, bottled water and/or refrigerator filters
- Reduction in frequency of replacing common 2½" or 4½" housings... Bigger is Better



Nelsen Filtration Cartridge Systems



NFS-HF

*Residential/Light Commercial
Cartridge Tank System*

NFS-HF-PLUS

*Commercial
Cartridge Tank System*



Nelsen Filtration Cartridge Systems

The unique design of the Nelsen Filtration Cartridge Systems is truly revolutionary featuring One™ Water Filtration Simplified cartridge tank. Engineered to replace smaller cartridge style housings, the System yields higher flow rates and longer cartridge life than conventional systems.

The Nelsen Filtration Cartridge System can be used to filter a variety of contaminants, from taste and odor issues to sediment and fine particulate reduction requirements. Available for both Residential and Commercial applications, the System boasts the following unique features:

- Higher flow rates and longer cartridge life than conventional cartridge style housings virtually eliminates the need to replace cartridges on a weekly or monthly basis.
- No tools needed! Unique, snap-ring design simplifies assembly and installation.
- 100% plastic design! Completely plastic, non-corrosive design is the ideal replacement for expensive stainless steel cartridge systems.
- Ideal pre-treatment or post-treatment system provides for high flow rates and particulate loading while minimizing pressure drop.
- Repeat filter sales for system installers of equipment.



NFS-HF

NFS-HF-BYPASS

RESIDENTIAL/LIGHT COMMERCIAL SYSTEM

The Residential System features the complete cartridge tank system with a black 8x40 inch pressure vessel, pressure relief cap and 1-1/4" plumbing connections configured at the bottom of the housing.

NFS-HF Residential/Lt. Comm. Cartridge Tank System \$426.00

RESIDENTIAL/LIGHT COMMERCIAL INTEGRATED BYPASS SYSTEM

This residential system features an integrated design features with a bypass so that water can be shut off to the system but still allow for water usage. The system includes 3/4" NPT elbow or straight connectors to the bypass and requires no gluing! The system also features a 3/8" John Guest® shut-off integrated into the inlet side of the system to connect to a drain, for draining of the system, filter removal during change-out, draining of sediment caught in the system, and significantly simplifies the system installation.

NFS-HF-BYPASS NFS Cartridge Tank System w/Bypass & Drain \$772.00

COMMERCIAL PLUS SYSTEM

The Commercial Plus System features the complete cartridge tank system with a black 8x40 inch pressure vessel, pressure relief cap and 2" plumbing connections are configured for the bottom of the housing.

NFS-HF-PLUS Commercial Cartridge Tank System \$457.00



Enpress Pioneer™ Certified POE Filtration System

The Pioneer™ lead and cyst filtration system is a first-of-its-kind whole-house lead removal system. This point-of-entry (POE) filtration system starts at the source and gives peace of mind throughout the entire home. Soluble lead is invisible, odorless and tasteless, and it needs to be chemically removed from water. This product removes not only soluble, but also particulate forms of lead at 99.62% for 100,000 gal at 4.51 gal per minute (gpm), including peak flow rates up to 8 gpm.

In additions to lead, the patented Pioneer system removes greater than 99.5% of Giardia and Cryptosporidium, as well as chlorine and chloramine. Giardia and Cryptosporidium are waterborne parasites that cause diarrheal disease, are very resistant to chlorine-based disinfectants, and are common in drinking and recreational waters.

Lead can enter drinking water when service lines that contain lead corrode, especially where the water has high acidity or low mineral content that corrodes pipes and fixtures, most often from the pipes that carry water from the water treatment plant to water mains supplying homes. Lead release is heavily influenced by the chemistry of the water delivered by the water system and by physical disturbances such as road construction or water main replacements. There is no safe level of lead for the human body, and unlike other metals, it has no useful biological function.

The Pioneer™ POE filtration system houses a strategically designed nominal 0.5-μ filter to remove both soluble and particulate forms of lead contamination from the whole house in a single filter. Pioneer™ is certified by IAPMO R&T against NSF/ANSI Standard 53 for lead, cysts and material safety requirements, and by NSF Intl. against NSF/ANSI Standards 44 and 61 for materials and structural integrity requirements.

Cartridge Tank Housing with Pressure Release Top Cap and 1" Bypass and Connection Kit with John Guest® 3/8" Drain with Umbrella Cover and Metered Kit – use with CT-05-CB-AMYCL

PIONEER SYSTEM POE Cartridge Tank Assembled & Certified \$1,230.00



PIONEER SYSTEM



Filter Housings & Cartridges





PIONEER LEAD CART

Pioneer Carbon Block Cartridge

0.5 Micron Carbon Block, High Capacity, Lead, Cyst, Chloramine, & CTO Reduction (NSF 53 & 42)

PIONEER LEAD CART 0.5 Micron Certified Carbon Block \$559.00

Nelsen Filtration Cartridge Systems Replacement Cartridges

The Nelsen Filtration Cartridge Systems offer a variety of cartridge options to suit your filtration needs. Cartridges are priced each, case quantities for the residential filter cartridges are 6 per case and commercial plus cartridges a 1 per case.

DOUBLE PLEATED CARTRIDGES - (ORANGE SERIES)

NFS-PL10/5-HF	Pleated Filter, 10/5 Micron,	\$279.00
NFS-PL20/10-HF	Pleated Filter, 20/10 Micron,	\$241.00
* NFS-PL50/20-HF	Pleated Filter, 50/20 Micron,	\$218.00

NANOAI DOUBLE PLEATED CARTRIDGES - (GREEN SERIES)

* NFS-20NANO-AG-HF	NanoAI™ with Agion® Biostat	\$507.00
* NFS-20NANO-PAC-AG-HF	PAC version of NanoAI™ w/Agion® Biostat	\$665.00

STRING/MELTBLOWN COMBINATION CARTRIDGE - (YELLOW SERIES)

NFS-2005-SWMB-HF	20x5 Micron String w/Melt-blown PP Core	\$235.00
* NFS-5020-SWMB-HF	50x20 Micron String w/Melt-blown PP Core	\$214.00

CARBON BLOCK CARTRIDGE - (BLUE SERIES)

* NFS-03-CB-HF	3 Micron Carbon Block High Capacity	\$390.00
* NFS-20-CB-HF	20 Micron, High Porosity/Low Pres Drop	\$362.00
* NFS-03-CB-HF-MINE	3 Micron Carbon Block High Capacity, Chloramine Reduction	\$508.00

REUSEABLE/DISPOSABLE 1/2 CUBIC FT MEDIA CARTRIDGE - (WHITE SERIES)

NFS-MEDIA05	1/2 Cubic Foot Reusable Media Cartridge	\$119.00
NFS-MEDIA-MID	1/2 Cubic Foot 2 Chamber Reusable Media Cartridge	\$143.00

MIDPLATE MEDIA CARTRIDGE PLUG - (WHITE SERIES)

NFS-MEDIA-MID PLUG	2 Chamber Reusable Media Cartridge Plug	\$9.00
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PLEATED POLYPROPYLENE - COMMERCIAL PLUS SYSTEMS - (RED SERIES)

* NFS-P1A-PLUS	1 Micron Absolute Pleated PP	\$382.00
* NFS-P05-PLUS	5 Micron Pleated PP	\$305.00
* NFS-P20-PLUS	20 Micron Pleated PP	\$294.00
* NFS-ACP-PLUS	Pleated Activated Carbon	\$536.00
* NFS-P50-PLUS	50 Micron Pleated PP	\$295.00
* NFS-P150-PLUS	150 Micron Pleated PP	\$322.00

MELTBLOWN POLYPROPYLENE DEPTH - COMMERCIAL PLUS SYSTEMS - (PURPLE SERIES)

NFS-MB05-HF-PLUS	Melt-blown Poly Depth, 5 Micron	\$222.00
NFS-MB20-HF-PLUS	Melt-blown Poly Depth, 20 Micron	\$216.00



ORANGE SERIES



YELLOW SERIES



BLUE SERIES



WHITE SERIES



RED SERIES



PURPLE SERIES



MECHANICAL ASSIST DESIGN ALLOWS EFFORTLESS CLICK-IN INSTALLATION

Pentair Drinking Water Systems

Pentair Drinking Water Filtration Systems offer the customer a price point lower than that of a Reverse Osmosis system. The mechanical design of the system provides an effortless click-in installation of the cartridges. Proprietary cartridge design is branded Pentair exclusively for the water treatment professional. The 3/8" push fit plumbing connection allows for easy installation and high flow.

A John Guest Angle Stop Adapter is included for ease of serviceability and installation. Color coded cartridges maintains the proper filter sequence. Effortless filter click-in lock installation and serviceability solution reduces time and money. A built-in check valve system provides multi-point backflow protection when changing filters. The cartridges feature a double o-ring design for optimal cartridge sealing. High power magnet mounted cover for ease of installation in tight places. Includes drinking water faucet and installation kit.

The systems have been tested and Certified by NSF International against NSF/ANSI Standard 42 and 53.

SINGLE STAGE

Two models available; basic taste and odor (Carbon Block) or chemical reduction (Diamond Flow technology).

- * F1000-DFB 1-Stage Filter, Chlorine, Taste & Odor \$149.00
- * F1000-B1B 1-Stage Filter, Cyst & Lead \$157.00

TWO STAGE

Reduces taste, odor, VOCs, MBTE. Optional remote cartridge timer provides visual filter replacement notification.

- * F2000-B2B 2-Stage Filter, VOC \$295.00
- * F2000-B2M 2 Stage Filter, VOC, Monitored \$323.00

THREE STAGE

Reduces taste, odor, VOCs, MBTE. Dedicated melt-blown 5 micron prefilter, for dirty water applications. Optional remote cartridge timer provides visual filter replacement notification.

- * F3000-B2B 3-Stage Filter w/5 Micron Sediment \$360.00
- * F3000-B2M 3-Stage Filter w/5 Micron Sediment - Monitored \$406.00

REPLACEMENT FILTER CARTRIDGES

Cartridges are priced each, case quantities for the residential filter cartridges are 6 per case.

- * F1S5-RC Cartridge Filter, Sediment, PP, 5 Micron \$38.00
- * FDF1-RC Cartridge Filter, Chlorine Taste & Odor \$56.00
- * F1B1-RC Cartridge Filter, Cyst & Lead \$66.00
- * F2B2-RC2 Cartridge Filters, Twin Pack, VOC \$132.00



F1000-B1B

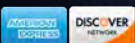
F1000-DFB



F2000-B2M



F3000-B2M





SAND TRAP-1248

Nelsen Sand Trap Systems

The Sand Trap is a unique way to separate and settle out sand, shale and oxidized organics found in some water supplies. We are able to do this by running the water through an internal swirl chamber then into a diverting plate. This will allow the heavier particles to settle to the bottom of the tank for blow down.

- No moving parts • No filter cartridges to clean or replace
- No back washing needed • High flow rate 24 G.P.M
- No electric required • 1" in & out
- 5 year warranty on tank and head assembly

SAND TRAP-1248 APW Sand Trap System, 12" x 48" \$852.00

COMMERCIAL SAND TRAP

- 1 1/2" in & out • Flow rate - 65 G.P.M.

SAND TRAP-1344 APW Sand Trap System, 13" x 44" \$1,059.00

SAND TRAP-1865 APW Sand Trap System, 18" x 65" \$1,739.00

MINI SAND TRAP

The "Mini Sand Trap" uses the same technology as it's big brother but is a smaller, less expensive version.

SAND TRAP-0835 APW Sand Trap System, 8" x 35" \$553.00

SAND TRAP-1047 APW Sand Trap System, 10" x 47" \$734.00

MICRO SAND TRAP

The "Micro" Sand Trap is a patented design to replace the cartridge type "in-line" filter. It's a unique way to separate and settle out sand, shale and oxidized organics found in some water supplies. This is achieved by running the water through an internal swirl chamber, then into a diverting plate. This will allow the particles to settle to the bottom of the housing for blow down.

The "Micro Sand Trap" uses the same technology as it's big brothers but is a smaller, less expensive style.

SAND TRAP-MICRO APW Sand Trap System, MICRO \$272.00



SAND TRAP-0844



SAND TRAP-MICRO



SAND TRAP-MICRO SHOWN WITH CUTAWAY OF INTERNALS



SAND TRAP-MICRO CAP WITH INTERNALS



"Spin-Out" Sand Separator

Head design creates centrifugal force to separate particulate matter from water. Screen "After-Filter" prevents small particles from re-entering product water.

2-50-60P	2" 5-90 gpm, 60 Mesh	\$282.00
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2-50-60P

REPLACEMENT FILTER SCREENS FOR "SPIN-OUT" SEPARATORS

* FS2-50-60	60 Mesh (254 Micron)	\$115.50
* FS2-50-100	100 Mesh (152 Micron)	\$115.50
* FS2-50-250	250 Mesh (61 Micron)	\$120.00

INLINE "T" PROFILE SAND SEPARATOR

High impact, molded, non-corrosive filters with reusable polyester filter screens. Clear sump permits monitoring of trapped sediment. 1/2" MIPT drain clean-out with cap.

NT100-60	1" 20 gpm, 60 Mesh	\$113.25
NT100-100	1" 20 gpm, 100 Mesh	\$113.25
NT150-60	1-1/2" 50 gpm, 60 Mesh	\$154.00
NT150-100	1-1/2" 50 gpm, 100 Mesh	\$154.00
NT200-60	2" 100 gpm, 60 Mesh	\$248.00
NT200-100	2" 100 gpm, 100 Mesh	\$248.00



NT100-60

REPLACEMENT FILTER SCREENS FOR "T" LINE FILTERS

FS100-60	60 Mesh (254 Micron)	\$28.80
FS100-100	100 Mesh (152 Micron)	\$28.80
FS100-140	140 Mesh (104 Micron)	\$28.80
FS100-250	250 Mesh (61 Micron)	\$32.70
FS100-500	500 Mesh (30 Micron)	\$32.70
FS100-1000	1000 Mesh (15 Micron)	\$32.70
FS150-60	60 Mesh (254 Micron)	\$50.70
FS150-100	100 Mesh (152 Micron)	\$50.70
* FS150-140	140 Mesh (104 Micron)	\$50.70
FS150-250	250 Mesh (61 Micron)	\$56.60
FS150-500	500 Mesh (30 Micron)	\$56.60
* FS150-1000	1000 Mesh (15 Micron)	\$56.60
FS200-60	60 Mesh (254 Micron)	\$83.70
FS200-100	100 Mesh (152 Micron)	\$87.20
* FS200-140	140 Mesh (104 Micron)	\$83.70
* FS200-250	250 Mesh (61 Micron)	\$92.50
FS200-500	500 Mesh (30 Micron)	\$102.70
* FS200-1000	1000 Mesh (15 Micron)	\$92.50



FS100-100

Sumps

NT30C	3/4" and 1" Clear	\$66.10
NT60C	1-1/2"	\$89.40
NT120C	2" Clear	\$107.25

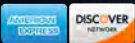
O-Ring Kits

NT30S	1"	\$11.70
NT60S	1-1/2"	\$13.70
NT120S	2"	\$14.90



NT30S

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NELSEN

C O R P O R A T I O N

Control Valves - Clack, Fleck, Autotrol, & Others

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Signature Series



NWS-10M-0.0

Nelsen Signature Series Residential Control Valves

The Nelsen Water Treatment Solutions 1" electronic valves were designed by Nelsen Corporation to provide the water treatment professional a control valve with a unique look and performance to compete in today's marketplace. The versatile electronic 1" control valve series are manufactured from composite plastics and are designed to provide high flow rates, up to 27 gpm over a wide range of applications. The valve includes all the features and performance of an EE controlled valve with additional customizable features added specifically for Nelsen Corporation Dealers.

Additional features include:

- Back lit display
- Up to 6 customizable programmable cycles
- Ability to program two different relay switches
- Up-Flow or Down-Flow capabilities
- Proportional Brining
- Sleek & Unique Design
- MAV Valve Configuration
- Alternator Valve Configuration
- Service flow rate of 27 gpm, backwash 27 gpm
- Control delays regeneration if water usage is detected within 10 minutes prior to the start of regeneration (Metered Controls)
- Two relays to control additional equipment
- Fully adjustable cycle times with 6-cycle control delivers controlled backwash, down-flow brining/slow rinse, second backwash, fast rinse, refill and down-flow service
- Level VI 15-volt output DC power supply provides safe and easy installation

1" METER VALVES

NWS-10M-0.0	NWS Metered Down-flow Control, 1"	\$572.00
NWS-10M-UF-0.0	NWS Metered Up-flow Control, 1"	\$593.00

1" BACKWASH ONLY VALVE

NWS-10BF-0.0	NWS Time Clock, Backwash Only, 1"	\$519.00
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1" TWIN METER VALVE WITH "EE" BOARD CONTROLLER

A single piston Twin Alternating control valve with all the features of the C-Series control with the "EE" electronic control board. The Twin-Alt valve has the ability to backwash up to 21" tanks.

NWS-10MTA-0.0	NWS Metered, Twin Down-flow Control, 1"	\$1,062.00
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NWS-10MTA-0.0



NWS-10CFT-0.0

Nelsen Signature Series AIO w/Control Flow Technology™ Valves

The Nelsen Water Treatment Solutions AIO™ features a unique patented process. Most systems purge the air pocket in the tank violently during the regeneration process potentially damaging plumbing and creating an excessive amount of noise. Our patented-process slowly releases the air pocket during regeneration before replenishing the tank with a fresh pocket of air. Additionally, the meter control will delay the regeneration process and air release if water flow is detected. Once water flow stops, the regeneration process begins slowly releasing the air from the system. On some competitive systems, water use will prevent the release of air due to the internal design limitations of the control valve or violently release the air once water flow stops.

NWS10CFM-AIO-0.0	NWS AIO Control-Flow Meter Valve	\$821.00
NWS10CFT-AIO-0.0	NWS AIO Control-Flow Time Clock Valve	\$805.00

Weather Tight Covers

To fit NWS Controls installed outside and NOT under cover the weather cover must be used for warranty to be valid.

CL-COVER-W-MID-PLATE	Mid-Plate White Weather Tight Valve Cover	\$34.25
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NWS Control Valves must be purchased within a completed softener or filter system, however Controls may be purchased as a Field Replacement or to retrofit existing equipment only.

Control Valves





1" C-SERIES TC CONTROL VALVE



1" C-SERIES CS CONTROL VALVE (SHOWN W/BYPASS)



CL10EM-0.0-SC (SHOWN W/BYPASS)



CL10EBF-0.0-SC



1" C-SERIES CONTROL W/SOLAR PANEL



C-SERIES TWIN-ALT CONTROL VALVE

C-Series Control Valves must be purchased within a completed softener or filter system, however Controls may be purchased as a Field Replacement or to retrofit existing equipment only.

Nelsen C-Series Electronic Residential Control Valves

This versatile electronic control valve series features a solid state microprocessor available in 1" and 1-1/4" has the backwash and brining ability up to 21" tanks. A 12 volt AC adapter provides safe operation for the reliable and proven DC drive motor. A variety of valve configurations are available with additional features.

1" TIME CLOCK VALVE

Features 10 selectable pre-programmed regeneration cycles with up to 99 days between regeneration and a double backwash feature. Stores system configuration and operation date in non-volatile memory. Post treated water brine refill.

CL10T-0.0-SC	1" Time Clock Softener Valve	\$355.00
CL10TBF-0.0-SC	1" Backwash Only Valve	\$345.00
CL10TBF-0.0-W-SC	1" Backwash Only Valve w/White Cover	\$345.00

1" VALVES WITH CS BOARD CONTROLLER

A C-Series control equipped with the CS electronic control board offers 66 pre-programmed regeneration cycles with up-flow or down-flow regeneration, and pre or post treated water regenerant refill. A coin cell lithium battery provides back-up with an 8 hour carry over.

CL10MCS-0.0	1" Metered Softener Valve	\$471.00
CL10FCS-0.0	1" Backwash Only Valve	\$440.00

1" VALVES WITH WS BOARD CONTROLLER

A C-Series control equipped with the WS electronic control board offers 66 pre-programmed regeneration cycles with up-flow or down-flow regeneration, and pre or post treated water regenerant refill. A coin cell lithium battery provides back-up with an 8 hour carry over.

CL10MWS-0.0	1" Metered Softener Valve	\$481.00
CL10MWS-UF-0.0-SC	1" Up-flow Metered Softener Valve	\$499.00

1" VALVES WITH EE BOARD CONTROLLER

The C-Series control equipped with the EE electronic control board is a 6-cycle control with fully adjustable cycle times delivering controlled backwash, down-flow brining/slow rinse, second backwash, fast rinse, refill and down-flow service. Four methods to initiate regeneration; meter immediate, meter delayed, time clock delayed or pressure differential.

CL10E-0.0-SC	1" Time Clock Softener Valve	\$449.00
CL10EM-0.0-SC	1" Metered Softener Valve	\$481.00
CL10EM-UF-0.0-SC	1" Up-flow Metered Softener Valve	\$499.00
CL10EBF-0.0-SC	1" Backwash Only Valve	\$440.00

1" CONTROL VALVE WITH SOLAR PANEL

The C-Series solar panel recharges 6 AA re-chargeable Nickel Metal Hydride Batteries (included) mounted behind the "EE" circuit board. The smart charger circuitry turns on and off to extend battery life.

The small amorphous silicon solar panel is about the same size as a cell phone (5-3/8" tall, 3-1/4" wide), The modular snap together panel has 3 angle adjustment settings to give maximum sun capture.

CL10E-SOLAR-0.0-SC	1" Meter Softener Valve - Solar Panel	\$680.00
* CL10EEMTA-SOLAR-0.0-SC	1" Metered Twin Softener Valve - Solar Panel	\$1,123.00

1" TWIN METER VALVE WITH EE BOARD CONTROLLER

A single piston Twin Alternating control valve with all the features of the C-Series control with the EE electronic control board. The Twin-Alt valve has the ability to backwash up to 21" tanks.

CL10EEMTA-0.0-SC	1" Metered Twin Softener Valve	\$900.00
CL10EEMTA-UF-0.0-SC	1" Metered Twin Up-flow Softener Valve	\$918.00
CL-TWINKIT-1221	Interconnect Kit for 12"- 21" Tanks	\$65.00

1-1/4" TIME CLOCK VALVE

Features 10 selectable pre-programmed regeneration cycles with up to 99 days between regeneration and a double backwash feature. Stores system configuration and operation date in non-volatile memory. Post treated water brine refill.

CL12TBF-0.0-SC	1 1/4" Backwash Only Valve	\$432.00
CL12TBF-W-0.0-SC	1 1/4" Backwash Only Valve w/White Cover	\$432.00



1-1/4" C-SERIES EE-CONTROL VALVE

1-1/4" VALVES WITH EE BOARD CONTROLLER

The C-Series control equipped with the EE electronic control board is a 6-cycle control with fully adjustable cycle times delivering controlled backwash, down-flow brining/slow rinse, second backwash, fast rinse, refill and down-flow service with flow rates of 34 gpm and backwash capabilities of 32 gpm. Four methods to initiate regeneration; meter immediate, meter delayed, time clock delayed or pressure differential. A coin cell lithium battery offers back-up with a 8 hour carry over. The 12-volt output AC adapter provides safe and easy installation. Reliable and proven DC drive. Economical stainless steel optional meter assembly.

CL12EM-0.0	1 1/4" Metered Softener Valve	\$576.00
CL12EBF-0.0	1 1/4" Filter Valve	\$529.00

1-1/4" VALVES WITH CS BOARD CONTROLLER

A C-Series control equipped with the CS electronic control board offers 66 pre-programmed regeneration cycles with up-flow or down-flow regeneration, and pre or post treated water regenerant refill. A coin cell lithium battery provides back-up with an 8 hour carry over.

CL12MCS-0.0	1 1/4" Metered Softener Valve, CS Board	\$576.00
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1-1/4" VALVES WITH WS BOARD CONTROLLER

A C-Series control equipped with the WS electronic control board offers 66 pre-programmed regeneration cycles with up-flow or down-flow regeneration, and pre or post treated water regenerant refill. A coin cell lithium battery provides back-up with an 8 hour carry over.

CL12MWS-0.0	1 1/4" Metered Softener Valve, WS Board	\$576.00
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CL-BYPASS

Nelsen Water Solutions & C-Series Plumbing Adapters

CL-BYPASS	By-Pass Assembly	\$41.00
CL07-JG	3/4" Elbow Adapters w/John Guest Fitting	\$39.25
CL10-JG	1" Straight Adapters w/John Guest Fitting	\$54.75
CL07-CT	3/4" Brass Sweat Adapters	\$22.00
CL10-CT	1" Brass Sweat Adapters	\$28.00
CL1215-CT	1 1/4" x 1 1/2" Brass Sweat Adapters	\$87.00
CL07-SHARK	3/4" Brass Adapters w/Shark Bite Fitting	\$45.50
CL10-SHARK	1" Brass Adapters w/Shark Bite Fitting	\$64.75
CL10-PVC	1" PVC Male NPT Elbow Adapters	\$11.25
CL10S-PVC	1" PVC Male NPT Straight Adapters	\$16.00
CL10-90-PVC	1" 90° Bypass Vertical Adapters	\$22.00
CL12S-PVC	1 1/4" PVC Male NPT Straight Adapters	\$17.25
CL0710-PVC	3/4" x 1" PVC Solvent Elbow Adapters	\$11.25
CL1215-PVC	1 1/4" & 1 1/2" PVC Solvent Assembly	\$24.00



CL07-CT

CL10-CT



CL1215-CT



CL07-JG



CL07-SHARK



CL0710-PVC



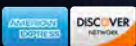
CL10-PVC



CL10S-PVC



CL1215-PVC





CL-WASHER07-**

3/4" Flow Control Washers

CL-WASHER07-0.7	3/4" DLFC Washer, 0.7 gpm	\$3.30
CL-WASHER07-1.0	3/4" DLFC Washer, 1.0 gpm	\$3.30
CL-WASHER07-1.3	3/4" DLFC Washer, 1.3 gpm	\$3.30
CL-WASHER07-1.7	3/4" DLFC Washer, 1.7 gpm	\$3.30
CL-WASHER07-2.2	3/4" DLFC Washer, 2.2 gpm	\$3.30
CL-WASHER07-2.7	3/4" DLFC Washer, 2.7 gpm	\$3.30
CL-WASHER07-3.2	3/4" DLFC Washer, 3.2 gpm	\$3.30
CL-WASHER07-4.2	3/4" DLFC Washer, 4.2 gpm	\$3.30
CL-WASHER07-5.3	3/4" DLFC Washer, 5.3 gpm	\$3.30
CL-WASHER07-6.5	3/4" DLFC Washer, 6.5 gpm	\$3.30
CL-WASHER07-7.5	3/4" DLFC Washer, 7.5 gpm	\$3.30
CL-WASHER07-9.0	3/4" DLFC Washer, 9.0 gpm	\$3.30
CL-WASHER07-10.0	3/4" DLFC Washer, 10.0 gpm	\$3.30



CL-WRENCH

Valve Wrench

Handy universal wrench removal of injector cover, DLFC, meter and fitting assembly nuts, as well as drive cap assembly to access the piston and seals.

CL-WRENCH	Universal wrench for C-Series valve	\$17.00
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CL-STACK-WRENCH

Valve Stack/Spacer Puller Assembly

Handy wrench for the removal of the Stack/Spacer assembly. The wrench was developed due to the increased popularity of air draw iron filter systems. With these systems, the iron is pre-oxidized within the valve body thus making removal of the stack assembly more difficult.

CL-STACK-WRENCH	Wrench for C-Series Stack/Spacer Removal	\$29.00
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CL-COVER-A

CL-COVER-W

Weather Tight Covers

For C Series Controls installed outside and NOT under cover the weather cover must be used for warranty to be valid.

CL-COVER-W	Weather Cover, White, 1" & 1 1/4" Valves	\$19.00
CL-COVER-A	Weather Cover, Almond, 1" & 1 1/4" Valves	\$19.00

Injector Assemblies and Screen



CLINJ-SCREEN



CLINJ-PLUG

CLINJ-SCREEN	Injector Screen	\$2.95
CLINJ-PLUG	Injector Assem. "Z" Plug	\$2.20
CLINJ-A	Injector Assem. "A" - Black	\$6.40
CLINJ-B	Injector Assem. "B" - Brown	\$6.40
CLINJ-C	Injector Assem. "C" - Violet	\$6.40
CLINJ-D	Injector Assem. "D" - Red	\$6.40
CLINJ-E	Injector Assem. "E" - White	\$6.40
CLINJ-F	Injector Assem. "F" - Blue	\$6.40
CLINJ-G	Injector Assem. "G" - Yellow	\$6.40
CLINJ-H	Injector Assem. "H" - Green	\$6.40
CLINJ-I	Injector Assem. "I" - Orange	\$6.40
CLINJ-J	Injector Assem. "J" - Light Blue	\$6.40
CLINJ-K	Injector Assem. "K" - Light Green	\$6.40



INJECTORS



Clack Commercial Control Valves must be purchased within a completed softener or filter system. Controls may also be purchased as a Field Replacement or to retrofit existing equipment only.

Clack WS1.5EE Control Valves

The Clack WS1.5EE control valve is a 1.5" top mount control valve suited for mid-size commercial/ industrial applications featuring fully adjustable cycle times with a 6-cycle control delivering controlled backwash, down-flow brining/slow rinse, second backwash, fast rinse, refill with down-flow service. This Lead Free brass valve body has service flow rates of 60 gpm and a backwash of 50 gpm and post treated water regenerant refill. The solid state microprocessor with easy access front panel settings displays time of day, days until next regeneration, volume remaining, current flow rate and total volume used (Totalizer). Four methods to initiate regeneration; meter immediate, meter delayed, time clock delayed or pressure differential. Optional double backwash feature offers optimum regeneration, cleaning ability and efficiency. A coin cell lithium battery offers back-up with a 8 hour carry over. The 12-volt output AC adapter provides safe and easy installation. Reliable and proven DC drive. Economical stainless steel optional meter assembly.



CL-WS15EE-0.0-SC

CL-WS15EE-0.0-SC	1 1/2" Time Clock Softener Valve	\$1,340.00
CL15EBF-0.0	1 1/2" Filter Valve	\$1,320.00

FOR WS1.5EE METERED CONTROL - ADD 1.5" METER ASSEMBLY



CL-15-EM

CL-15-EM	WS1.5 Meter Assembly Male x Female NPT	\$652.00
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Clack WS1.5P (Plastic) EE Control Valve

The Clack WS1.5PEE control valve is a glass filled composite 1.5" top mount control valve suited for mid-size commercial/industrial applications featuring fully adjustable cycle times with a 6-cycle control delivering controlled backwash, down-flow brining/slow rinse, second backwash, fast rinse, refill with down-flow service. This composite valve is capable of up-flow or down-flow brining and can be converted in the field has service flow rates of 60 gpm and a backwash of 43 gpm with post treated water regenerant refill. The solid state microprocessor with easy access front panel settings displays time of day, days until next regeneration, volume remaining, current flow rate and total volume used (Totalizer). Four methods to initiate regeneration; meter immediate, meter delayed, time clock delayed or pressure differential. Optional double backwash feature offers optimum regeneration, cleaning ability and efficiency. A coin cell lithium battery offers back-up with a 8 hour carry over. The level VI 15-volt output AC adapter provides safe and easy installation. Reliable and proven DC drive. Economical plastic optional meter assembly available.



CL-WS15P-EE-0.0-SC

CL-WS15P-EE-0.0-SC	1 1/2" Plastic Timeclock Softener Valve	\$1059.00
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Clack In-line 1.5" Plastic Meter

A glass filled composite plastic 1.5" In-line water meter suited for large residential and commercial applications provides a service flow range 0.5 to 75 GPM with a meter accuracy of +/- 5%. The meter uses Clack's proven reliable turbine design and is available with 28" or 15' meter cable options.

The quick connect option is for connecting the meter directly to the control valve.



CL-15-EM-PL-28

CL-15-EM-PL-28	1 1/2" Plastic Meter Assm, MxM, 28" Cable	\$128.00
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CL-15-EM-PL-180	1 1/2" Plastic Meter Assm, MxM, 180"/15' Cable	\$135.00
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CL-15-EM-PL-28-QC	1 1/2" Plastic Meter Assm, MxM, 28" Cable, QC	\$126.00
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CL-15-EM-PL-28-QC





CL-WS2EE-0.0-SC



CL20EE/QC-0.0-SC
(SHOWN IN SIDE MOUNT CONFIGURATION)



CL-WS2HF-0.0-SC



CL-WS3-0.0-SC



CL-3-EM



CL-WS2H/2QC-FLNG

Clack WS2EE Control Valves

The Clack WS2EE control valve is a 2" top mount control valve suited for mid-size commercial/industrial applications featuring fully adjustable cycle times with a 6-cycle control delivering controlled backwash, down-flow brining/slow rinse, second backwash, fast rinse, refill with down-flow service. This Lead Free brass valve body has service flow rates of 125 gpm and a backwash of 85 gpm and post treated water regenerant refill. The solid state microprocessor with easy access front panel settings displays time of day, days until next regeneration, volume remaining, current flow rate and total volume used (Totalizer). Four methods to initiate regeneration; meter immediate, meter delayed, time clock delayed or pressure differential. Optional double backwash feature offers optimum regeneration, cleaning ability and efficiency. A coin cell lithium battery offers back-up with a 8 hour carry over. The 12-volt output AC adapter provides safe and easy installation. Reliable and proven DC drive. Economical stainless steel optional meter assembly.

The WS2EE/QC valve features the "Quick Connect" for tanks with a 6" flange top opening giving the valve the ability to swivel 360 degrees in place. The WS2EE/QC also features a 2" distributor pilot and can be configured for side-mount applications. Requires the flange adapter listed below.

CL-WS2EE-0.0-SC	WS2EE 2" Time Clock Softener Valve	\$1,972.00
CL-WS2-QC-0.0-SC	WS2EE/QC 2" Time Clock Softener Valve	\$1,972.00

FOR WS2EE METERED CONTROL - ADD 2" METER ASSEMBLY

CL-2-EM	WS2 Meter Assembly Male x Female NPT	\$667.00
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FOR WS2EEQC CONTROL - ADD STAINLESS STEEL FLANGE ASSEMBLY

CL-WS2H/2QC-FLNG	WS2H/2QC 6" Flange Base Assembly	\$341.00
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Clack WS2HF High Flow Control Valves

The Clack WS2HF (High Flow) control valve is a 2" top or side mount control valve suited for commercial/industrial applications with 9-cycle fully adjustable cycle sequences and fully adjustable cycle times and a 1-28 days override feature. This Lead Free brass valve body has service flow rates of 165 gpm and a backwash of 175 gpm with pre or post treated water regenerant refill. The solid state microprocessor with easy access front removable POD settings displays Time of Day, Current Flow Rate, Totalizer and Volume/Days until Regeneration. Four methods to initiate regeneration; meter immediate, meter delayed, time clock delayed or pressure differential. Optional double backwash feature offers optimum regeneration, cleaning ability and efficiency. The capacitor provides back-up with up to 24 hour carry over. The 20-volt output AC adapter provides safe and easy installation with a reliable and proven DC drive.

CL-WS2HF-0.0	2" High Flow Timeclock Valve	\$4,398.00
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Clack WS3 Control Valves

The Clack WS3 control valve is a 3" top or side mount control valve suited for commercial/industrial applications with 9-cycle fully adjustable cycle sequences and fully adjustable cycle times and a 1-28 days override feature. This Lead Free brass valve body has service flow rates of 250 gpm and a backwash of 220 gpm with pre or post treated water regenerant refill. The solid state microprocessor with easy access front removable POD settings displays Time of Day, Current Flow Rate, Totalizer and Volume/Days until Regeneration. Four methods to initiate regeneration; meter immediate, meter delayed, time clock delayed or pressure differential. Optional double backwash feature offers optimum regeneration, cleaning ability and efficiency. The capacitor provides back-up with up to 24 hour carry over. The 20-volt output AC adapter provides safe and easy installation with a reliable and proven DC drive. Economical stainless steel meter assembly is optional.

CL-WS3-0.0-SC	3" Time Clock Softener Valve	\$5,416.00
CL-WS3F-0.0-SC	3" Backwash Only Filter Valve	\$5,393.00

FOR WS3 METERED CONTROL - ADD 3" METER ASSEMBLY

CL-3-EM	WS3 3" Meter Assembly FxF NPT	\$1,931.00
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Clack Tank Adapter Assemblies

The tank adapter assembly is required for the WS2QC, WS2H and WS3 control valve to be fitted to the tank.

CL-WS2H/2QC-4	WS2H/2QC 4" Base Assembly	\$202.00
	WS2H/2QC 6" Flange Base Assembly	\$341.00
CL-WS2HF/2QC-SIDE	WS2H/2QC 2" Side Mount Base Assembly NPT	\$496.00
CL-WS3-FLANGE	WS3 6" Flange Base Assembly	\$372.00
CL-WS3-SIDE	WS3 Side Mount Base Assembly NPT	\$715.00



CL-DLFC-75



CL-DLFC-100

Clack Flow Controls

CL-DLFC-75	Drain Elbow 3/4" Male Assembly	\$6.50
CL-DLFC-100	Drain Fitting 1" Male NPT w/o Silencer (No DLFC Buttons)	\$35.00
CL-DLFC-120	DLFC Assembly 1 1/4" FNPT x 1 1/2" FNPT (No DLFC Buttons)	\$177.00
CL-DLFC-150	DLFC Assembly 1 1/2" MNPT x 1 1/2" FNPT (No DLFC Buttons)	\$172.00
CL-DLFC-200	WS2H/3 DLFC 2 MNPT X 2 FNPT (No Buttons)	\$278.00
CL-DLFC-200-75	WS2 DLFC Assembly 1 1/2" MNPT x 3/4" MNPT Elbow (No DLFC Buttons)	\$27.00
CL-DLFC-300	WS3 DLFC Assembly NPT	\$469.00
CL-WASHER10-**.**.*	DLFC Button - Specify Size, 10.0, 13.0, 15.0, 17.0, 20.0, 25.0	\$8.15

Clack System Controller

The Clack System Controller has the ability to operate from 2 – 6 units to create any System Type, Random - Sys 5, Series - Sys 6, Alternating - Sys 9 or Progressive - Sys 14. Any of the C-Series 1.0", Clack 1.25", 1.5" or 2" control valves configured with the "EE" programming board may be used. The System Controller provides four modes of operation; Progressive Flow, Alternator, Series, and Random.



Only one power source is required for all systems connected to the controller as it provides power to each individual control valve. The controller provides remote, real time monitoring of system performance utilizing an on board Ethernet connection to each system connected. A USB port allows for system diagnostic extraction and programming information to be uploaded. A coin cell lithium battery is back up for time of day in the event of a power outage.

The front panel displays time of day with day of week, days until next regeneration, current system flow rate, and total system volume used (Totalizer). The panel also features LED status indicators for On-line, Standby, and Regeneration. It also includes a multi-color backlight display to indicate various programming screen modes including which unit is the current "Lead" unit in the system.

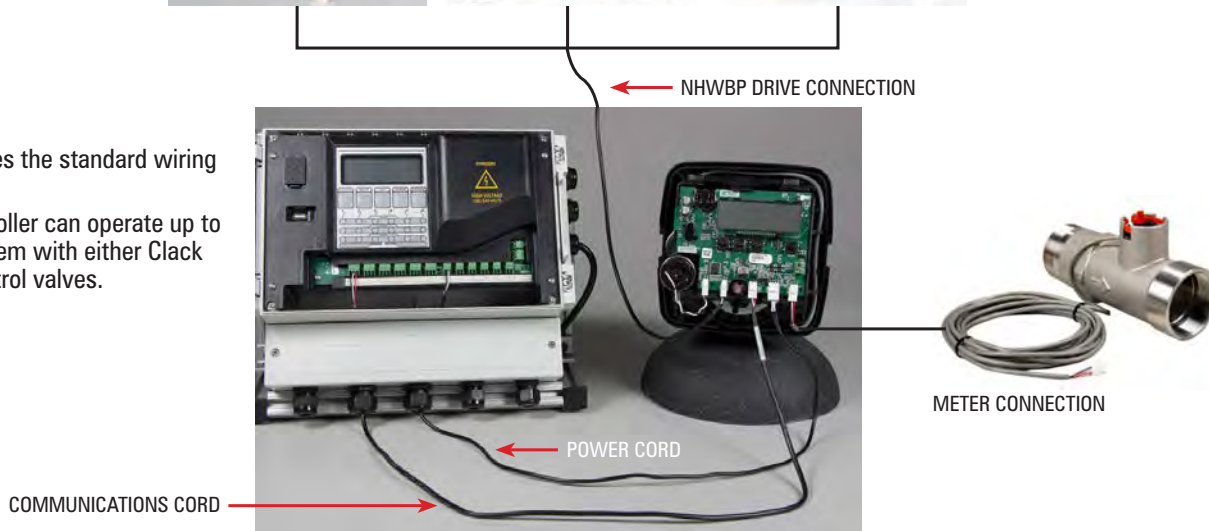
Regardless of the system type set, if an error is detected or if communication is lost, system operation will not shut down completely. Instead, the system controller will continue to operate the system in as normal a manner as possible with the remaining units that are functioning properly.

CL-CONTROLLER Clack System Controller, 1" thru 2" QC Control Valves \$1,355.00



This only illustrates the standard wiring for (1) unit.

The system controller can operate up to (6) units in a system with either Clack 1" through 2" control valves.





CL-MAV-15



CL-MAV-20



CL-MAV-30



CL-SYS-BOARD



CL-NHBP-15

COMMUNICATION CORD

The communication cords are required for connecting a control valve to a Clack Controller. Also used for connecting a MAV valve to a Clack System Board for 2H or 3H control valves.

CL-COM-12	System Communication Cord, 12'	\$20.80
CL-COM-24	System Communication Cord, 24'	\$38.00
CL-COM-36	System Communication Cord, 36'	\$51.00

POWER CORD

The power cord connects to the System Controller. If the power cord that is standard with the control valve is long enough then the longer power cords are not needed, simply cut off the plug.

CL-POWER-15	System Power Cord, 15'	\$18.95
CL-POWER-36	System Power Cord, 36'	\$40.00

CLACK MAV (MOTORIZED ALTERNATING VALVE)

The Clack MAV (Motorized Alternating Valve) allows for the WS Control Valve to be configured with No Hard Water Bypasses, Separate Source regeneration, or Twin Tank Operation. 8 foot communication cable included with each MAV valve. Optional lengths are available and listed above.

* CL-MAV-125	WS1.25 1¼" Motorized Alternating Valve	\$233.00
CL-MAV-15	WS15 1½" Motorized Alternating Valve	\$591.00
CL-MAV-20	WS2 2" Motorized Alternating Valve	\$815.00
CL-MAV-30	WS3 3" Motorized Alternating Valve	\$1,807.00

WS2H/WS3 MULTI TANK (3 OR 4) SYSTEM BOARD

CL-SYS-BOARD	WS2H/ WS3 PC System Board	\$346.00
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Clack No Hard Water Bypass Valve

CLACK NO HARD WATER BYPASS VALVES, FEMALE X MALE

CL-NHBP-125	WS125 1¼" No Hard Water Bypass Valve, FxM	\$218.00
CL-NHBP-15	WS15 1½" No Hard Water Bypass Valve	\$361.00
CL-NHBP-20	WS2 2" No Hard Water Bypass Valve	\$433.00
CL-NHBP-30	WS3 3" No Hard Water Bypass Valve NPT	\$1,383.00



Fleck 2510 Automatic Valves

Fully-adjustable, 5-cycle controls deliver controlled up-flow backwash, down-flow brining, slow rinse, rapid rinse, brine refill and service. Noryl valve body. Continuous flow rates up to 19 gpm. Backwash capacity handles up to 16" diameter softeners, 16" diameter filters. Meter- or timer- initiated regeneration. Environmental back-plates. Yokes, bypasses, covers and flow control assemblies sold separately.



FL2510/16-0.0

FLECK 2510 METER VALVES

Meter-initiated regeneration for maximum salt efficiency. Standard meter range: 125 – 2,125 gals. Extended meter range: 625 – 10,625 gals. available. 24 K label provided.

FL2510/16M-0.0	3/4" Meter Valve	\$718.00
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FL2510/16-SXT-0.0

FLECK 2510 TIMER VALVES

Stocked with 12-day timers, 7-day are available on special order.

FL2510/16-0.0	3/4" Timer Valve	\$560.00
FL2510/16F-0.0	3/4" Filter Valve with PVC Inj.	\$-
FL2510F-0.0	3/4" Filter, Flat Cap	\$522.00

FLECK 2510 SXT ELECTRONIC VALVES

FL2510/16M-SXT-0.0	3/4" Electronic Meter Valve	\$804.00
FL2510/16-SXT-0.0	3/4" Electronic Timer Valve	\$638.00
FL2510F-SXT-0.0	3/4" Elec. Backwash Valve	\$589.00

FLECK 2510 AIO VALVES

FL2510AIO-TC	3/4" Time Clock Air Injection Valve	\$795.00
FL2510AIO-SXT	3/4" Electronic Air Injection Valve	\$842.00

Fleck Manual Valves with Cover

Top-mounted manual softener or filter valves. Lever- actuated. Includes injector and plastic cover. Backwash flow control assembly sold separately.

FL2510MS-0.0	3/4" Softener Valve	\$329.00
FL2510MF-0.0	3/4" Filter Valve	\$320.00

Fleck 5600 Valves

Combines rugged, glass-reinforced Noryl construction with modular design which makes disassembly quick and easy. Up to 5 cycles with adjustable brine flow is efficient and reliable. Flow rates up to 20 gpm. Backwash capacity handles up to 12" diameter softeners, 10" diameter filters. Choose from a wide range of options, including standard or "L" back-plates, meter- or timer-initiated regeneration, 3/4" and 1" yokes, bypass valves, etc. Backwash flow control button sold separately. A 24k label provided with meter valves.

FLECK 5600 VALVES WITH STANDARD BACKPLATES

FL56/16M-0.0	3/4" Meter Valve	\$511.00
FL56/16-0.0	3/4" Timer Valve	\$370.00
FL56/16F-0.0	3/4" Filter Valve with PVC Inj.	\$425.00
FL56F-0.0	3/4" Filter Valve, Flat Cap	\$355.00

FLECK 5600 SXT ELECTRONIC VALVES

FL56/16M-SXT-0.0	3/4" Electronic Meter Valve	\$561.00
FL56/16PWM-SXT-0.0	3/4" Electronic Valve w/Paddle Wheel Meter	\$561.00
FL56/16M-SXT-0.0-SF	3/4" Electronic Meter Valve-SoftFlo	\$648.00
FL56/16-SXT-0.0	3/4" Electronic Timer Valve	\$418.00
FL56F-SXT-0.0	3/4" Elec. Filter Valve, Flat Cap	\$416.00

FLECK 5600 AIO VALVE

FL5600AIO-SXT	3/4" SXT Timer Valve L/DLFC	\$580.00
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FLECK 5600 VALVES WITH "L" BACKPLATES

FL56L/16M-0.0	3/4" "L" Meter Valve	\$511.00
FL56L/16M-0.0-24V-LT-S	3/4" "L" Meter Valve, 24 Volt, Less/Transformer, Silicone Seals	\$570.00
FL56L/16-0.0	3/4" "L" Timer Valve	\$427.00
FL56L/16-24V-LT	3/4" "L" Timer Valve, 24 volt, Less/Transformer	\$428.00
FL56L/16M-24V-LT	3/4" "L" Meter Valve, 24 volt, Less/Transformer	\$511.00
FL56LF-0.0	3/4" "L" Filter Valve, Flat Cap	\$349.00



FL2510MS-0.0
SHOWN W/BYPASS



FL56/16M-0.0



5600 SXT CONTROL



5600 "L" BACK METER



Fleck 5800 Valves

The control valve is simple to service, as the valve has very few moving parts as well as using snap together plates and a single programming board. The 5800 is available with three different controllers, Nelsen Corporation is stocking the familiar SXT in metered and backwash filter configurations. A LCD backlit display helps programming in low light conditions. The control setup of capacity, regeneration time, and days override is quick and easy. The SXT controller also allows for additional programming of up to 20 different cycle steps.

The valve boasts excellent service rates (21 GPM continuous, 27 GPM peak) and backwash flow rate (17 GPM @ 25psi P). Additional features include...

- Fast positioning reversible 10,000 RPM 12 volt DC drive motor
- Single piece seal and spacer cartridge for easy servicing
- LCD – Backlit display that helps during low light conditions
- Precision cycle positioning using optical sensor
- Soft water refill for better brine saturation and cleaner brine tank
- Three styles of electronic timers to choose from: LXT, SXT and XTR
- Programming is stored in memory and will not be lost due to power outages
- Time of day backup for up to 12 hours of power loss



FL5800/16M-SXT-0.0



FL5800/16M-XTR2-0.0

THE FLECK 5800 XTR2 CONTROLLER

The first touchscreen control valve to hit the industry. With its detailed screen descriptions, color LCD display, and familiar icons, the XTR2 controller brings ease of programming and a user-friendly experience to the table. Features include a large color LCD touch screen display w/a detailed screen description for easy electronic programming. Master settings shown by category with intuitive navigation & familiar icons. Additional features include a password lock-out screen for added security, time of day lithium battery backup for power loss and a system error alarm shutoff.

A Help/Assistance screen displays optional dealer contact info for homeowner.

Diagnostics show • Current Flow Rate • Peak Flow Rate (can be reset) • Totalizer (can be reset)

- Last Regeneration • Average Daily Usage • Reserve • Software Version
- Number of Regenerations • Regeneration Interval

FL5800/16M-SXT-0.0	3/4" Meter Valve	\$481.00
FL5800/16M-XTR2-0.0	3/4" Touch Screen Meter Valve	\$728.00
FL5800F-SXT-0.0	3/4" Filter Valve	\$422.00

FLECK 5800/10/12 POWER SUPPLY

A power supply must be ordered with each Fleck 5800

FL5800/10/12-POWER-US	Power Transformer - 5800/5810/5812	\$26.00
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5810/12 BYPASS & QUICK CONNECTORS

FL5810/12P	Plastic Bypass Base Only, 5810 & 5812 Valve Only	\$66.50
FL5810/12-E90-SET	Connector 90° Elbow Assembly Set	\$43.00
FL5810/12-10PVC	QC Connectors, 1" NPT Plastic, Set	\$28.20
FL5810/12-12PVC	QC Connectors, 1 1/4" NPT Plastic, Set	\$19.80
FL5810/12-0710CT	QC Connectors, 3/4" x 1" Sweat, Set	\$143.90
FL5810/12-1012CT	QC Connectors, 1" x 1 1/4" Sweat, Set	\$152.30
FL5810/12-1215CT	QC Connectors, 1 1/4" x 1 1/2" Sweat, Set	\$99.50



FL5810/12P



FL5810/12-E90-SET



FL5810/12-10PVC



FL5810/12-12PVC



FL5810/12-0710CT



FL5810/12-1012CT



FL5810/12-1215CT

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Fleck Environmental Covers for Environmental Backplates

For use with our Fleck 2510, 1500, 2750, 2850 and 2900 control valves.

FLEC-DG	Environmental Cover, Dark Grey	\$46.00
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Fleck Designer Covers For Stainless Steel Backplates

For use with the Fleck 9100 and 9000 mechanical meter control valves and older-style valves with stainless steel backplates.

FL25DC-DG	Dark Grey	\$50.00
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FLECK COVERS FOR 5600 VALVES

FL56DC-DG	"L-Back" Dark Grey	\$28.40
FL56C-G	Standard, Dark Grey	\$11.65

FLECK COVERS FOR 9000 AND 9100 SXT VALVES

FL91/90SXT-DG	Designer Cover w/Window, Dark Grey	\$49.00
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Fleck Bypass Valves and Yokes

FL50-07PY	Yoke, 3/4" Plastic MIPT	\$14.30
FL50P-90AC	Yoke, 3/4" Plastic MIPT, 90°	\$16.45
FL50-10PY	Yoke, 1" Plastic MIPT	\$14.30
FL56-07QC	Yoke, 3/4" Plastic, Quick Connect	\$22.40
* FL56-10QC	Yoke, 1" Plastic, Quick Connect	\$22.25
FL56-07Y	Yoke, 3/4" Stainless FIPT	\$42.50
FL56-10Y	Yoke, 1" Stainless FIPT	\$71.00
FL56-12CT	Yoke, 1-1/4" Copper Tube	\$134.25
FL56-07SY	Sweat Yoke, 3/4"	\$48.75
FL56-07SY-NP	Sweat Yoke, 3/4", Nickel Plate	\$54.75
FL56-10SY-NP	Sweat Yoke, 1", Nickel Plate	\$97.50
FL50P	Plastic By-Pass Base Only	\$49.80
FL56-07B	Bypass, 3/4" FIPT Stainless Steel	\$94.50
FL56-10B	Bypass, 1" FIPT Stainless Steel	\$104.75

Fleck Residential Backwash Flow Control Assemblies

Flow control assemblies include flow control housing and flow button. These assemblies are used on 2510, 1500, ProFlo and TwinFlo control valves. Indicate GPM.

FL25BW-*. *	Backwash Flow Control Assm.	\$18.90
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FLOW CONTROL HOUSING LESS FLOW BUTTON FOR 7000 CONTROL VALVES. INDICATE GPM.

FL5810BW-0.0-07-ELBOW	Fleck 3/4" BW FC Hsg-0.6-7.0 GPM-5810/7000	\$11.30
FL5810BW-0.0-10-STRAIGHT	Fleck 1" BW FC Hsg-8.0-25 GPM-5810/7000	\$13.65

FLECK RESIDENTIAL BACKWASH FLOW CONTROL BUTTONS

Flow control buttons are used on 5600, 6600, 6700, 7000 and 9000 control valves. Indicate GPM.

BUTTON-*. *	Backwash Flow Control Button	\$4.20
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FLEC-DG



FL25DC-DG



FL56C-G



FL56DC-DG



FL91/90SXT-DG



FL50P-90AC



FL56-07Y



FL56-07B



FL25BW-*. *



FLOW BUTTONS

Fleck 9000 Meter Valves Less Tank Yokes

Perfect for light commercial/heavy residential systems that require twin-tank conditioning capabilities. Five-cycle control delivers controlled up-flow backwash, down-flow brining, slow rinse, rapid rinse and timed brine refill, ALL performed with conditioned water. The most salt-efficient valve available because you don't need to program in a reserve. Regenerates immediately when needed, as often as every 90 minutes if required. Continuous flow rates up to 18 gpm on 3/4" valves, 21 gpm on 1" valves. Handles up to 16" softeners, up to 12" filters depending on filter media. Covers, backwash flow control buttons and tank yokes sold separately.



FL90/16M-0.0
(SHOWN w/BYPASS)

FL90/16M-0.0	3/4" Meter	\$1,400.00
FL90/16M-SXT-0.0	3/4" Meter, Electronic	\$1,628.00



FL90/16M-SXT-0.0

1 INCH VALVES		
FL91/16M-SXT-1-0.0	1" Meter, SXT Control	\$1,413.00
FL90/16M-SXT-1-0.0	1" Brass Paddle Elec. Meter, SXT Control	\$2,125.00
FL90/16M-1-0.0	1" Meter	\$1,937.00

TANK YOKES FOR 9000 METER VALVES

For connecting 9000 twin tanks together.

FL90Y	Yoke Only, 1" Solder (Each)	\$79.00
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BRASS AND COPPER

FL90Y-6	6" Brass/Copper Yoke	\$107.75
FL90Y-8.5	8-1/2", 6-12" Tanks	\$139.75
FL90Y-10.5	10-1/2", 14" Tanks	\$282.25
FL90Y-12.5	12-1/2", 16" Tanks	\$153.00



9000 10-1/2" TANK YOKE

Fleck 9100 Meter Valves Less Tank Yoke

The 9100 incorporates the time-tested design of the 9000 in a rugged, glass-reinforced Noryl, twin-tank control valve. Perfect for light commercial/heavy residential systems that require twin-tank conditioning capabilities. Six-cycle control regenerates with soft water immediately when needed keeping the system clean for optimum operating efficiency. Regenerates as often as every 90 minutes if required. Continuous flow rates up to 18 gpm on 3/4" valves, 21 gpm on 1" valves. Handles up to 16" softeners, up to 12" filters depending on filter media. Backwash flow buttons and tank yokes sold separately.



FL91/16M-1-0.0

FL91/16M-0.0	3/4" Meter	\$922.00
FL91/16M-SXT-0.0	3/4" Meter, SXT Control	\$1,061.00

TANKS YOKES FOR 9100 METER VALVES

For connecting 9100 twin tanks together.

FL91Y-9	Yoke Only, 6" - 9" Tanks	\$65.90
FL91Y-12	Yoke Only, 10" - 12" Tanks	\$65.90
FL91Y-16	Yoke Only, 13" Tanks and Larger	\$84.25



9100 TANK YOKE

Fleck 9500 1-1/2" Meter Valves Less Covers and D.L.F.C.

The commercial version of the 9000 valve. Twin-tank design means that soft water is available at all times. Five-cycle control delivers controlled up-flow backwash, down-flow brining, slow rinse, rapid rinse and timed brine refill, are all performed with conditioned water. The most salt-efficient valve available because you don't need to program in a reserve. Regenerates immediately when needed, as often as every 90 minutes if required. Continuous flow rates up to 41 gpm, 49 gpm peak. Handles softeners up to 24" in diameter, up to 16" filters depending on filter media. Prices include cover. **Does not include 2nd tank tube adapters, order separately.**



9500 SXT CONTROL VALVE

FL950/16M-0.0-SXT	1-1/2" Less Mtr, 1600 Brine, Less 2 nd Tank Yoke	\$3,270.00
FL950/17M-4C-0.0	1-1/2" with 1-1/2" Meter, 4C Inj.	\$3,840.00
FL950/17M-4C-0.0-SXT	SXT Control, 4C Inj., Less Meter,	\$3,295.00
* FL950/17M-4C-0.0-XT	XT Control, 4C Inj., Less Meter,	\$3,741.00

TANKS YOKES FOR 9500 METER VALVES

Yoke and tube assemblies for 9500 twin tank valves.

FL950Y-16	2nd Tank Assembly, 14" - 16" Tanks	\$317.60
FL950Y-20	2nd Tank Assembly, 18" Tanks	\$334.60
FL950Y-24	2nd Tank Assembly, 21" - 24" Tanks	\$341.50



FL950Y-24



2750 TIME CLOCK VALVE

Fleck 2750 1" Valves Less Covers and D.L.F.C.

Suitable for large residential/light commercial applications. Flow rates up to 26 gpm. Backwash capacity handles up to 24" softeners, 21" filters. Fully-adjustable cycles. One-inch piping. Environmental cover included.

FL275/16-0.0	1" Timer with 1600 B.V.	\$1,006.00
FL275/16-NO-HWBP-0.0-NXT2	NXT2 Control, No-HWBP, 1600 Brining	\$1,598.00
FL275F-0.0	1" Filter, Flat Cap	\$873.00



FL2815/17-5C-0.0-NXT2

Fleck 2815 1-1/2" Valves Less Covers and D.L.F.C.

The 2815 1-1/2" top mounted control valve features a 316 grade stainless steel valve body for superior strength and durability, ideal for smaller-size commercial/industrial applications. Continuous service flow rate of 70 GPM with a backwash of 70 GPM

Backwash capability accommodates softener tanks up to 36" in diameter and filter tanks up to 30" in diameter. Fully adjustable 3- or 5-cycle control for efficient and reliable water treatment system operation for single or multiple tank systems. Corrosion resistant, UV stabilized NEMA 3R rated cover provides protection against water intrusion. Seal and spacer cartridge simplifies service.

Seals and components are hot water rated up to 150°F, meaning no additional components needed. Tested and Certified by the WQA to NSF/ANSI Standard 61 Section 8 Material Safety Only. Tested and Certified by the WQA to NSF/ANSI Standard 372 for Lead Free Compliance.

TIME CLOCK VALVES

FL2815/17-5C-0.0	1-1/2" 12 Day Timer w/5C Inj., HWBP, 1720 Brining	\$1,786.00
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METER VALVES

FL2815/17M-2C-0.0	1-1/2" Demand Control Less Meter, 2C Inj, 1720 Brining	\$1,766.00
FL2815/17-5C-0.0-NXT2	1-1/2" NXT2 Timer with 5C Inj, 1720 Brining, HWBP	\$2,062.00

FILTER VALVES

FL2815F-0.0	1-1/2" Filter 12 Day Time w/Cover, HWBP	\$1,717.00
FL2815F/17-5C-0.0-NXT2	1-1/2" NXT2 Timer with 5C Inj, 1720 Brining, HWBP	\$1,935.00

2815 FLOW RETAINERS

FL62033	Retainer Assy, 1.7-7 GPM, Flow Washer,5812	\$8.00
FL62034	Retainer Assy, 8-25 GPM, Flow Washer, 5812	\$8.00
FL62035	Retainer Assy,30-45 GPM, Flow Washer, 5812	\$16.00



FL2815/17-5C-0.0-NXT2

Fleck 2900 2" Valves with Covers Less D.L.F.C.

Incorporates two time-tested, hydraulically-balanced pistons to independently pilot service flow and regeneration. Suitable for use with single or multiple tank systems. Continuous flow rates up to 106 gpm. Solid brass body. Up to 30" softener tanks, 16" iron filters or 21" carbon filters. Includes Covers

FL29/17-4C-0.0	2" Timer with 4C Injector	\$2,154.00
FL29/17M-4C-0.0	2" with 2" Meter	\$3,729.00
FL29/17-6C-HWBP-0.0-NXT2	NXT2 Timer with 6C Injector, HWB, 1700 Brine, 2.0 gpm BLFC	\$2,659.00
FL29/17-6C-NO-HWBP-0.0-NXT2	NXT2 Timer with 6C Injector, No-HWBP, 1710 Brine, 2.0 gpm BLFC	\$2,659.00



FL29/17-4C-0.0



FL29/17-4C-0.0



FL29/17-6C-NO-HWBP-0.0-NXT2



FL29/17-6C-NO-HWBP-0.0-NXT2



FL315/18-0.0



FL15117-01



FL39/18-NO-HWBP-0.0-NXT2



SSFC07-**



FC07



DLFC0715-00



DLFC20-00

Fleck 3150 2" Valves with Covers Less D.L.F.C.

Fully-adjustable 3 or 5-cycle lead free brass valve body with versatile top or side mounting. Continuous service flow rate of 95 GPM with a backwash of 105 GPM Backwash capability accommodates softener tanks up to 63" and filter up to 42" in diameter. Designed for single or multiple tank systems. Environmental protective cover for water resistance, corrosion resistance, and UV stability. Rugged-built electromechanical timer designed with heavy duty 3/8" wide plastic gears.

Order top or side mounting adapter separately.

FL315/18-0.0	2" Timer	\$3,221.00
FL315F-0.0	2" Filter	\$3,009.00
FL315F-HWBP-0.0-NXT2	2" Filter w/Hard Water Bypass Piston	\$3,488.00
FL315F-NO-HWBP-0.0-NXT2	2" Filter w/No Hard Water Bypass Piston	\$3,793.00

VALVE TO TANK MOUNTING ADAPTERS

FL15117-01	3150 4" Threaded Mount Adapter	\$124.00
* FL61414	3150 Side Mount Adapter, Rotating	\$675.00

Fleck 3900 3" Valves with Covers Less D.L.F.C.

Designed for single or multi-tank installations. Continuous flow rates up to 210 gpm, peak flow rates up to 271 gpm. Backwash rates up to 90 gpm. Use on softener tanks up to 60" diameter, filters up to 42". Side-mount configured valve does not include the side-mount adapter, order separately.

FL39/18-NO-HWBP-0.0-NXT2	NXT2 Timer w/6C Injector, No-HWBP, 1800 Brine, Less/DLFC, BLFC	\$7,795.00
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Flow Controls

These simple to install valves provide an easy, efficient way to control water flow. MIPT threads, brass construction. Other sizes for 3/8" through 6", .25 through 280 gallons per minute are available. Specify flow rate 2 – 10 gpm.

CLACK (MIPT)

FC07-*. *	3/4" Flow Control, MIPT x MIPT	\$34.60
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STAINLESS STEEL FLOW CONTROLS

Stainless steel flow control available in 3/4" and 1" with FIPT threads. Provides an accurate and reliable liquid flow control between 30 and 120 psi.

****Specify Size - 3/4" – 5.0, 7.0, 8.0, & 10.0 1" – 5.0, 6.0, 7.0, 8.0, 10.0, 12.0, 15.0, & 20.0**

SSFC07-*. *	3/4" Flow Control, FIPT x FIPT	\$47.25
SSFC10-*. *	1" Flow Control, FIPT x FIPT	\$74.00

Fleck Backwash Flow Controls

FLECK BRASS FLOW CONTROLS FOR 2750 VALVES

Available with 1.0 to 10.0 gpm flow washers. *Order flow washer separately when ordering.*

FL60365-00	3/4"x1/2", 2-10 gpm	\$42.00
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FLECK BRASS FLOW CONTROL

FL60701-25	1" 25.0 gpm F x F	\$121.00
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FLECK 3/4" - 1-1/2" FLOW CONTROL

This plastic flow control is compatible with system piping from 3/4" through 1-1/2" using same connectors and quick connect clips as the 7000 Control Valve offering flexibility in connection sizes and materials. Flow rates range from 10 GPM to 75 GPM using the 1" commercial flow buttons listed below.

DLFC0715-00	3/4 - 1-1/2" Flow Control Housing (L/Buttons)	\$83.00
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FLECK 2" FLOW CONTROLS

For Fleck valves with 2" drain lines. Specify flow size when ordering 10.0, 12.0, 15.0, 20.0, & 25.0

DLFC20-00	2" Flow Control Housing (L/Buttons)	\$241.00
BUTTON-*. *	10 gpm Flow Button	\$5.70



FL2815/17-5C-0.0-NXT2



FL29/17-6C-NO-HWBP-0.0-NXT2



FL315F-HWBP-0.0-NXT2



FL39/18-NO-HWBP-0.0-NXT2

Fleck NXT2 Electronic Valves

The NXT2 Network Controller uses on-board communication capabilities to link multiple commercial valves (via off-the-shelf CAT5, or better cables) for a variety of system types. The NXT2 is configured for use with Fleck® 2750, 2850, 2900s, 3150, 3900, & 2815 Control Valves, and also supports stager valves using butterfly or notched cams.

Additionally, using a simple programming sequence, any of the following system types may be configured in the field.

SYSTEM 4 TIME CLOCK – Single tank, no meter. Choose one control valve.

SYSTEM 4 METER DELAYED – Single tank with one meter. Delayed regeneration. Choose one control valve, one electronic meter and one meter cable.

SYSTEM 4 METER IMMEDIATE – Single tank with one meter. Immediate regeneration. Choose one control valve, one electronic meter and one meter cable.

SYSTEM 5 INTERLOCK – Two, three or four valves with one meter on each valve. Interlock regeneration – when one valve goes into regeneration, the valve will lock out the remaining valves until valve is finished regenerating. Choose two, three or four valves, an equal number of electronic meters and meter cables.

SYSTEM 6 SERIES – Two, three or four valves with one remote electronic meter. Series regeneration – when the lead valve goes into regeneration, then the next valve in-line will follow in sequence based on the amount of valves in system. Choose two, three or four valves, one electronic meter and one meter cable.

SYSTEM 7 ALTERNATING – Two valves with one remote electronic meter. Alternating regeneration – one valve in stand by, one in service. Choose two valves, one electronic meter and one meter cable.

SYSTEM 9 ALTERNATING – Two, three or four valves with one meter on each valve. Alternating regeneration – one valve in stand by the remaining in service. Choose two, three or four valves, an equal number of electronic meters and meter cables.

NXT2 Electronic Commercial Control Valves

All control valves include a communication phone cable kit and “no hard water bypass” piston except where noted. A “hard water bypass” piston may be required for System 4 applications.

2750 CONTROLS

FL275/16-NO-HWBP-0.0-NXT2	NXT2 Control, No-HWBP, 1600 Brining	\$1,598.00
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2815 CONTROLS

FL2815/17-5C-0.0-NXT2	1-1/2" NXT2 Control w/5C Inj, 1720 Brining, HWBP	\$2,062.00
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FL2815F/17-5C-0.0-NXT2	1-1/2" NXT2 Control w/5C Inj, 1720 Brining, HWBP	\$1,935.00
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2900 CONTROLS

FL29/17-6C-HWBP-0.0-NXT2	NXT2 Timer with 6C Injector, HWB, 1700 Brine, 2.0 gpm BLFC	\$2,659.00
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FL29/17-6C-NO-HWBP-0.0-NXT2	NXT2 Timer with 6C Injector, No-HWBP, 1710 Brine, 2.0 gpm BLFC	\$2,659.00
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3150 CONTROLS

FL315F-HWBP-0.0-NXT2	2" Filter w/Hard Water Bypass Piston	\$3,488.00
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FL315F-NO-HWBP-0.0-NXT2	2" Filter w/No Hard Water Bypass Piston	\$3,793.00
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3900 CONTROLS

FL39/18-NO-HWBP-0.0-NXT2	NXT2 Timer w/6C Injector, No-HWBP, 1800 Brine, Less/DLFC, BLFC	\$7,795.00
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FL3200-2-ELEC-PL

Fleck Brass 3200NXT Electronic Water Meters & Cables

FL3200CABLE-35	35" Elec Meter Cable	\$46.60
FL3200CABLE-96	96" (8 ft) Elec Meter Cable	\$51.90
FL3200CABLE-300	300" (25 ft) Elec Meter Cable	
	Fleck Plastic 3200NXT Electronic Water Meter	\$111.00
FL3200-2-ELEC-PL	2" Plastic Body Electronic Meter	\$1,086.00



FL20M-SS

Fleck Stainless Steel Water Meters, Unions & Cables

Stainless Steel Meters with an all-in-one electronic and mechanical flow sensing, hot water rated to 150°F. Stainless Steel Unions make installations and servicing easier.

* FL10M-SS	1" Electronic & Mechanical Meter	\$746.00
FL15M-SS	1-1/2" Electronic & Mechanical Meter	\$737.00
FL20M-SS	2" Electronic & Mechanical Meter	\$782.00
FL30M-SS	3" Electronic & Mechanical Meter	\$2,263.00
* FL10M-SS-UNION	1" Stainless Steel Union, MxF	\$86.20
FL15M-SS-UNION	1-1/2" Stainless Steel Union, MxF	\$150.60
FL20M-SS-UNION	2" Stainless Steel Union, MxF	\$194.40
FLM-SS-CABLE-30	30" Elec Meter Cable for Stainless Steel Meters	\$51.60
FLM-SS-CABLE-100	100" (8.3 ft) Elec Meter Cable for Stainless Steel Meters	\$51.90
FLM-SS-CABLE-304	304" (8.3 ft) Elec Meter Cable for Stainless Steel Meters	\$111.00



FL20M-SS-UNION

Fleck Valve Repair Parts Kit

Repair kits that include the most popular maintenance items for a particular control valve.



FLECK 2510 COMBO KIT

FLECK 2510 COMBO KIT

2510 Combo Kit includes one (1) 2510 Standard Piston (FL60090), one (1) 2510 Standard Seal Kit (FL60121), and one (1) Drive Motor (FL18743-1).

FL2510 COMBO KIT	Piston, Seal Kit & Drive Motor	\$337.00
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FL2510RK2 REPAIR KIT

FLECK 2510 REPAIR KIT

2510 Repair Kit includes (1) Standard Piston-FL60090, (1) Standard Seal & Spacer Kit-FL60121, (1) 1650 Brine Valve-FL60011, (1) Injector Screen-FL10227, (1) #2 Nozzle-FL10913-2, (1) #2 Throat-FL10914-2, (1) Drive Motor-FL18743-1, (1) Injector body Gasket-FL14805, and (1) Injector Cover Gasket-FL10229

FL2510RK2 REPAIR KIT	Fleck 2510 Repair Parts Kit	\$327.00
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FLECK 5600 COMBO KIT

5600 Combo Kit Includes (1) Standard Piston-FL60102-00, (1) Standard Seal & Spacer Kit-FL60125, and (1) Drive Motor-FL18743-1.

FL5600 COMBO KIT	Piston, Seal Kit & Drive Motor	\$158.00
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FLECK 5600 REPAIR KIT

Fleck 5600 Repair Kit, includes: (1) Standard Piston-FL60102-00, (1) Standard Seal Kit-FL60125, (1) Brine Valve-FL60032, (1) Drive Motor-FL18743-1, (1) Injector Screen-FL10227, (1) #2 Nozzle-FL10913-2, (1) #2 Throat-FL10914-2, (1) Injector cover O-Ring-FL13303, (1) Air Disperser-FL13497, (1) Injector O-Ring-FL12638, and (2) Injector O-Ring (small) -FL13301

FL5600RK2 REPAIR KIT	Fleck 5600 Repair Parts Kit	\$231.00
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FL5600RK2 REPAIR KIT

FLECK 9000 COMBO KIT

9000 Combo Kit Includes (1) Standard Upper Piston-FL60400, (1) Standard Lower Piston-FL60401, (1) Standard Upper Seal & Spacer Kit-FL60125, (1) Standard Lower Seat & Spacer Kit-FL60421, and (1) Drive Motor-FL18743-1.

FL9000 COMBO KIT	Pistons, Seal Kits & Drive Motor	\$723.00
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FL9000 COMBO KIT

Fleck Valve Tools

Specialized tools for repairing Fleck valves.



FL13061	Seal Puller - 1500, 2500, 2510, 2750, 2900 Upper	\$154.00
FL12682	Seal Puller - 2900 Lower, 3150	\$497.00
FL17623	Seal Puller - 2850, 9500	\$411.00
FL42228	Seal Puller - 2850s	\$411.00
FL11098	Seal Stuffer - 1500, 2500, 2510, 2750, 2900 Upper	\$138.25
FL12683	Seal Stuffer - 2900 Lower, 3150, 3900 Upper	\$497.00
FL12763	Seal Stuffer - 5000, 5600, 6700, 9000, 9100	\$188.00
FL16516	Seal Stuffer - 2850, 9500	\$410.00
FL42227	Seal Stuffer - 2850s	\$410.00
FL60460	Meter Checker Kit	\$26.80
FL12874	Seal Hook	\$28.40
FL13759	Fleck DLFC Retainer Tool	\$10.20

Dow Corning #7 Release Agent

Petroleum base lubricants will cause swelling of o-rings and seals. The use of other lubricants may attack plastic Noryl. It is recommended that Dow Corning silicone grease be used as a lubricant for all Fleck control valves.



DOW-7	Dow #7 Release Compound, 5.3 oz. Tubes	\$46.20
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Fleck Powerheads



FL2510M-EPH	Powerhead, 2510 Meter Environmental Back-plate, Incl. Timer	\$520.00
FL2510T-EPH	Powerhead, 2510 Timer Environmental Back-plate, Incl. Timer	\$505.00
FL2510-SXT-EPH	Powerhead, 2510 SXT Environmental Back-plate, Incl. Timer	\$509.00
FL2900-NXT2-PH-SET	2900 NXT2 Upper & Lower Powerhead Set	\$1,514.00
FL3900-NXT2-PH-SET	3900 NXT2 Upper & Lower Powerhead Set	\$2,546.00
FL62103-30	2900 Environmental Upper Powerhead, L/Trans, 24V	\$406.00
FL62103-39	2900 Lower Powerhead, 24V	\$323.00
FL62103-50	3900 Environmental Upper Powerhead, L/Trans, 24V	\$1,073.00
FL62103-59	3900 Lower Powerhead, 24V	\$689.00
FL62115	NXT2 Timer Assembly, Excludes 2815 Valve	\$611.00
FL62115-01	NXT2 Timer Assembly, 2815 Valve Only	\$611.00
FL44164	24V Power Supply	\$105.00
FL40943	Fleck Wire Harness, Lower Drive	\$54.00
FL56M-PH	Powerhead, 5600 Meter	\$220.00
FL56T-PH	Powerhead, 5600 Timer	\$220.00
FL56F-PH	Powerhead, 5600 Filter	\$220.00
FL56LM-PH	Powerhead, 5600 L Meter	\$220.00
FL56LM-PH-24V	Powerhead, 5600 L Meter	\$221.00
FL56LT-PH	Powerhead, 5600 L Timer	\$217.00
FL56LT-PH-24V	Powerhead, 5600 L Timer	\$221.00
FL56LF-PH	Powerhead, 5600 L Filter	\$220.00
FL56SXT-PH	Powerhead, 5600 Electronic	\$395.00
FL90M-PH	Powerhead, 9000 Meter	\$549.00
FL90M-SXT-PH	Powerhead, 9000 Meter, SXT	\$770.00
FL91M-SXT-PH	Powerhead, 9100 Meter, SXT	\$703.00



Autotrol
Pentair Water

Autotrol Brand
Residential Controls

5
Year Warranty



25740-H00-LOG



25760-H00-LOG



268760-J00-LOG



263740F-00-LOG

Autotrol Logix Series Controlled Valves

The Logix Controller is unrivaled in simplicity and is easier to program than any other electronic controller on the market today. The Logix Controller is factory-programmed with complete salt tables and operational parameters. The resin volume is set, then only the time of day, day of the week, hardness and the salt amount needs to be set. 12 Volt AC Adapter.

The Logix 740 time clock – This simple time clock controller gives the installer the option of a 7-day (day of the week) or up to a 99-day regeneration frequency setting. The 740 can also be used for either a softener or filter application (with adjustable backwash time). Includes a remote regeneration signal input. This controller is great for residential and light commercial applications up to 3 ft³ of resin.

The Logix 742 time clock – This control has been enhanced for C&I applications. The 742 offers fully-programmable cycle times, salt setting in 1-pound increments, as well as the Maintenance Interval™ feature. This controller will work on all GE Water Technologies valves from the three quarter-inch 255 all the way up to the six inch AQMatic valve-nest system.

The Logix 760 demand controller – This economy model demand control will set a new standard for simple and efficient controllers. The 760 includes single programming, with a 28-day variable reserve feature and the ability to change the time of regeneration. This cost-effective controller is a great for residential and light commercial applications up to 3 ft³ of resin.

The Logix 762 demand controller – This control has been enhanced for C&I applications. The 762 offers fully-programmable cycle times, salt setting in 1-pound increments, as well as the Maintenance Interval™ feature. This controller will work on all GE Water Technologies valves from the three quarter-inch 255 all the way up to the six inch AQMatic valve-nest system.

*** Order Backwash Control separately.

AUTOTROL 255 VALVES WITH LOGIX CONTROLLERS

25740-H00-LOG	255 Valve w/740 Time Clock	\$432.00
25742-H00-LOG	255 Valve w/742 Enhanced Time Clock	\$489.00
25760-H00-LOG	255 Valve w/760 Demand Control	\$627.00
25762-H00-LOG	255 Valve w/762 Enhanced Demand Control	\$685.00

AUTOTROL 268 PERFORMA VALVES WITH LOGIX CONTROLLERS

26874-J00-LOG	268 Performa w/740 Time Clock	\$459.00
268742-J00-LOG	268 Performa w/742 Enhanced Time Clock	\$513.00
268760-J00-LOG	268 Performa w/760 Demand Control	\$703.00
268762-J00-LOG	268 Performa w/762 Enhanced Demand Control	\$759.00

AUTOTROL 263 PERFORMA FILTER VALVE WITH LOGIX CONTROLLER

263740F-00-LOG	263 Performa Filter w/740F Time Clock	\$477.00
263742F-00-LOG	263 Performa Filter w/742F Enhanced Time Clock	\$533.00

AUTOTROL 268 PERFORMA FA FILTER VALVE WITH LOGIX CONTROLLER

268FA74-J00-LOG	268FA Performa Filter w/740 Time Clock	\$488.00
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Logix Injector Assemblies

AT1035731	Injector Assm. "F", Peach, 7" Tank	\$12.25
AT1035732	Injector Assm. "G", Tan, 8" Tank	\$12.25
AT1035733	Injector Assm. "H", Lt. Purple, 9" Tank	\$12.25
AT1035734	Injector Assm. "J", Lt Blue, 10 and 12" Tank	\$12.25
AT1035735	Injector Assm. "K", Pink, 13" Tank	\$12.25
AT1035736	Injector Assm. "L", Orange, 14" Tank	\$12.25



LOGIX INJECTOR ASSEMBLIES



Autotrol
Pentair Water



255/460



255/460



26846-BB09-LE



26846TC-BB00



AT1000209



AT1000214

Autotrol 255 Softener Control with Cover

The 255 valve's direct-acting system operates independently of water pressure, pistons or diaphragms. These controls include rugged Noryl valve bodies with easy access valve discs that are held closed by water pressure. The injector, injector screen, backwash and brine controls are also easily accessible. A simple locking bar makes removal from the mineral tank effortless. The 460TC Time Clock Controller is dependable and easy to set. Includes a Sight Glass Air Check.

*** Order Backwash Control separately.

2546TC-BB00 3/4" Timer W/A.C., 440 6-day
with X-Salt, Long Rinse

\$498.00

Autotrol 255/460i Electronic Demand Control L/Manifold

Designed to monitor water usage and regenerate at just the right time to maximize efficiency while minimizing salt and water consumption. The Autotrol's 460i Electronic Demand Control is the "intelligent" water conditioning choice. The 255 Valve features a rugged, robust, re-engineered design that uses less water, runs quieter and lasts longer. A good system paired with the 460i Control provides conditioning efficiency that automatically adjusts to water demands and ensures continuous conditioned water with substantial savings on both salt and water. Includes a Cover, Sight Glass Air Check, Turbine meter, Long Rinse Cam and is CSA Approved.

*** Order Backwash Control separately.

2546-BB00-CE 3/4" Electronic w/Air Check "B" Injector
2546-BC00-CE 3/4" Electronic w/Air Check "C" Injector

\$745.00

\$745.00

Autotrol Performa 268 Softener Control Less Tube Adapters

Designed for large residential and light commercial flow rates and applications, the five-cycle Performa control valve features a service flow rate up to 25 gpm, 460i Demand and 460TC Time Clock controls and adjustable salt-dial. Handles up to 14" tanks. The controls do not include nuts, gasket and adapters. Covers are not included.

26846-BB09-LE 1" Electronic Demand Softener Control

\$864.00

Performa 263 3-Cycle Filter Control L/Cover and Tube Adapters

A rugged three-cycle (service, backwash and fast rinse) filter valve with exceptional backwash flow rates of up to 20 gpm. Can handle the heaviest filter media. Includes a 460TC Electronic Time Clock Controller and is CSA Approved. Does not include covers, flow control, nuts, gasket and adapters.

26346TC-00 1" Filter with 460TC Electronic Time
Clock Controller

\$515.00

Autotrol Backwash Controls

AT1000209 Control for 7" Tanks
AT1000210 Control for 8" Tanks
AT1000211 Control for 9" Tanks
AT1000212 Control for 10" Tanks
AT1000213 Control for 12" Tanks
AT1000214 Control for 13" Tanks
AT1000215 Control for 14" Tanks

\$18.00

\$18.00

\$18.00

\$18.00

\$18.00

\$19.60

\$19.60

Autotrol Manifolds

AT51 Stainless, 3/4" FIPT for 255 Valves
AT5A Noryl, 3/4" FIPT for 255 Valves

\$79.00

\$20.00



AT51



AT5A

Control Valves





AT256

Autotrol Bypass Valves

SELECT a Tube Adapter Kit below.

- AT256 For 155 and 255 Valves
- AT1265 For 268 and 263 Valves

\$50.00

\$70.00



AT1265

Tube Adapter Kits for Bypass Valves

All kits include sets of adapters, gaskets, and durez nuts.

- AT07-CT 3/4" Copper Tube Adapter Kits
- AT10-CT 1" Copper Tube Adapter Kits
- AT12-CT 1-1/4" Copper Tube Adapter Kits
- AT07-PVC 3/4" PVC Tube Adapter Kits
- AT10-PVC 1" PVC Tube Adapter Kits

\$31.05

\$34.00

\$45.00

\$39.00

\$39.00



AT07-CT

AT07-PVC

Autotrol 460i Retrofit Kit

Everything needed to convert an Autotrol timer valve to an electronic valve. Includes Novram 460 electronic timer, turbine assembly, hardware accessories and cover.

- AT460I Electronic Retrofit Kit

\$472.00



ATI-LID-CF

Autotrol Valve Covers

- ATI-LID-CF "I" Lid Cover 400 Series Controlled Valves, Closed Face, Single Spring
- ATLOG-LID-DG Cover for Logix Valve, Dark Gray
- ATLOG-LID-OUT-A Outdoor Cover w/Face Shield, Almond

\$13.00

\$10.00

\$19.00



ATLOG-LID-DG

Autotrol Replacement Timers

- AT460TC 460TC Electronic Time Clock Controller w/Transformer
- AT460TC-FILTER 460TC Electronic Filter Controller w/Transformer
- AT460I-DEMAND 460i Timer Electronic Demand Controller
- AT740-SOFT Logix 740 Softener Controller
- AT740-FILTER Logix 740F Filter Controller
- AT742-ENH Logix 742 Control w/Conditioner Faceplate-English
- AT760-SOFT Logix 760 Softener Controller
- AT762-ENH Logix 762 Enhanced Controller

\$202.00

\$189.00

\$420.00

\$171.00

\$171.00

\$221.00

\$355.00

\$402.00



AT460I-DEMAND



460TC TIMER



AT740-SOFT



AT742-ENH



AT760-SOFT



CSI NWS SOFTENER CONTROL
(BYPASS SOLD SEPARATELY)

Connected Series Bluetooth Control Valves and Components

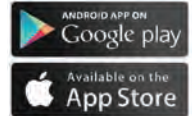
The Nelsen Connected Series control valves feature Bluetooth connectivity to program and view system settings all in the palm of your hand.

The Legacy View App makes setting up and monitoring a Nelsen Connected Series system fast and simple. A free download of the phone app is available for your iPhone or Android™ device!



With Legacy View as part of the Control Valve, the user can perform the following functions:

- Conveniently view all valve settings and status
- Easily change valve settings
- View current water usage information
- Graphically view water usage history
- Start a regeneration or backwash cycle from a phone or tablet
- Set/view the servicing water treatment dealer information
- Better understand how the system is working and understand what settings are for
- Connect to all of the valves in the system (if they are all Legacy View Valves)



CSI NWS AIO CONTROL
(SHOWN WITHOUT COVER,
BYPASS SOLD SEPARATELY)

AIO CONTROL VALVE

The AIO Plus control valve features independently programmable air draw & backwash cycles, meaning an additional Air Pocket can be added to the system each day without having to backwash saving thousands of gallons of water each year. The control valve also features a slow release of the compressed air charge prior to backwash cycle eliminating the explosive blast that can dislodge the drain line as on other systems.

CS-AIO CONTROL Connected Series AIO Bluetooth Control w/Meter \$631.00

SOFTENER CONTROL VALVE

The fully adjustable 5-cycle meter control is 12v DC operation and has the ability for treated water refill with pre-brine option. The control will advance to a drain line shut off position (service) if power fails during regeneration.

The control also feature switched Power Output during Full Cycle Function and Backwash Function.

CS-SOFT METER CONTROL Connected Series Softener Bluetooth Control w/Meter \$581.00



CSI NWS SOFTENER CONTROL
(SHOWN WITHOUT COVER,
BYPASS SOLD SEPARATELY)

FILTER CONTROL VALVE

Nelsen Connected Series Bluetooth enabled Filter Metered Control Valve includes meter to provide water usage history. Additional features include a 9 volt battery(not included) back-up keeps electronic meter active and will advance control valve to drain shut off position in regeneration during power failure, adjustable cycle times, high backwash flow capability and a two valve bypass with a variety of plumbing connections are available to fit existing plumbing.

CS-FILTER CONTROL Connected Series Backwash Control w/Meter \$566.00

BYPASS & PLUMBING CONNECTIONS

CS-BYPASS	Connected Series By-Pass Valve	\$67.00
CS-10S-PVC-SLIP	Connector – 1" Female Straight Slip (set of 2)	\$23.00
CS-10E-PVC-MIPT	Connector – 1" Male NPT Elbow (set of 2)	\$28.00
CS-10S-PVC-MIPT	Connector – 1" Male NPT Straight (set of 2)	\$23.00
CS-10-90-PVC-BVA	Connector – 1" Elbow Vertical Adapter (set of 2)	\$36.00
CS-07S-PVC-MIPT	Connector – 3/4" Male NPT Straight (set of 2)	\$23.00
CS-07-SHARK	Connector – 3/4" Brass Sharkbite Straight (set of 2)	\$73.00



CS-BYPASS



CS-10S-PVC-SLIP



CS-10S-PVC-MIPT



CS-10E-PVC-MIPT



CS-10-90-PVC-BVA



CS-07S-PVC-MIPT

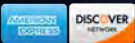


CS-07-SHARK

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NELSEN

C O R P O R A T I O N

Mineral Tanks, Internals & Accessories

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Structural Mineral Tank Warranty

All Polyglass™ and FRP residential fiberglass tanks from 6" - 13" are warranted to be free from defects in materials and workmanship for a period of 10 years from the date of manufacture if the vessel is operated within to prescribed Pressure and Temperature ratings stated on the tank label.

In the event of a warranted failure Structural North America will replace the product free of charge.

Not covered by this warranty is damage resulting from freezing, external impact, chemical attack for liquids or gases, exposure to vacuum, natural disasters or other applications of the product beyond residential water softeners and filters. This warranty does not include reimbursement for labor or consequential damages that may result from the failure.

Those Composite vessel used for commercial or industrial water softener/filters and deionizers will be warranted for five full years from the date of manufacture. Applications other than those listed above must be approved by Structural North America prior to installation to provide warranty coverage.

Warranty specifically does not cover damage caused by exposure to vacuum or external attack by corrosive liquids or gases.

NOTE - A shipping carton(s) may be added to your order when ordering tanks for UPS or common carrier shipment.

IMPORTANT - Polyglass tanks are designed to withstand pressure but they will collapse if subjected to a vacuum. A vacuum breaker should always be installed to prevent tank damage.

Structural Polyglass Mineral Tanks w/Base (Bulk Packed)

PT0618-B	● 6" x 18" Blue	\$98.50
PT0618-A	● 6" x 18" Almond	\$98.50
PT0635-B	● 6" x 35" Blue	\$115.00
PT0744-B	● 7" x 44" Blue	\$145.00
PT0744-A	● 7" x 44" Almond	\$145.00
PT0818-C	● 8" x 18" Black	\$121.00
PT0835-C	● 8" x 35" Black	\$131.00
PT0844-B	● 8" x 44" Blue	\$131.00
PT0844-A	● 8" x 44" Almond	\$131.00
PT0844-CG	● 8" x 44" Cool Grey	\$131.00
PT0844-C	● 8" x 44" Black	\$115.00
PT0940-A	● 9" x 40" Almond	\$190.00
PT0948-B	● 9" x 48" Blue	\$168.00
PT0948-A	● 9" x 48" Almond	\$168.00
PT0948-CG	● 9" x 48" Cool Grey	\$168.00
PT0948-C	● 9" x 48" Black	\$140.00
PT1035-B	● 10" x 35" Blue	\$170.00
PT1035-C	● 10" x 35" Black	\$183.00
PT1040-A	● 10" x 40" Almond	\$177.00
PT1040-C	● 10" x 40" Black	\$150.00
PT1044-B	● 10" x 44" Blue	\$181.00
PT1044-A	● 10" x 44" Almond	\$181.00
PT1044-CG	● 10" x 44" Cool Grey	\$181.00
PT1044-C	● 10" x 44" Black	\$151.00
PT1047-B	● 10" x 47" Blue	\$195.00
PT1047-A	● 10" x 47" Almond	\$195.00
PT1047-CG	● 10" x 47" Cool Grey	\$195.00
PT1047-C	● 10" x 47" Black	\$195.00
PT1054-B	● 10" x 54" Blue	\$196.00
PT1054-A	● 10" x 54" Almond	\$196.00
PT1054-CG	● 10" x 54" Cool Grey	\$196.00
PT1054-C	● 10" x 54" Black	\$164.00
PT1248-B	● 12" x 48" Blue	\$251.00
PT1248-A	● 12" x 48" Almond	\$253.00
PT1248-CG	● 12" x 48" Cool Grey	\$253.00
PT1248-C	● 12" x 48" Black	\$221.00
PT1252-B	● 12" x 52" Blue	\$295.00
PT1252-A	● 12" x 52" Almond	\$297.00
PT1252-C	● 12" x 52" Black	\$237.00
PT1354-B	● 13" x 54" Blue	\$246.00
PT1354-A	● 13" x 54" Almond	\$246.00
PT1354-CG	● 13" x 54" Cool Grey	\$246.00
PT1354-C	● 13" x 54" Black	\$246.00
PT1465-A-2.5	● 14" x 65" Almond	\$452.00

Polyglass Mineral Tanks Less/Base (Bulk Packed)

PT0935-BLB	● 9" x 35" Blue	\$170.00
PT1035-BLB	● 10" x 35" Blue	\$163.00
PT1035-ALB	● 10" x 35" Almond	\$163.00



DOMe HOLE TANK



SF-FUNNEL



Single Tank Cartons For Bulk Packed Tanks

MTC-1054 10" x 54" \$6.90

Polyglass Mineral Tank w/Heavy Duty Rubber Base

PT1252-A-R 12" x 52" Almond w/Rubber Base \$372.00

Composite Mineral Tanks w/1 1/4" Dome Hole w/Plug

PT1044-ADH 10" x 44" Almond w/1 1/4" DH \$246.00
 PT1054-ADH 10" x 54" Almond w/1 1/4" DH \$267.00
 PT1354-ADH 13" x 54" Almond w/1 1/4" DH \$443.00

Dome Hole Tank Funnel

Dome hole funnel to fit the bayonet style dome hole tanks.
 SF-FUNNEL Dome Hole Funnel \$78.00

Composite Mineral Tanks w/Base, 4"-8UN

Price includes carton, except 13x54.

PT1354-C-4 13" x 54" Black \$388.00
 PT1465-B-4 14" x 65" Blue \$416.00
 PT1465-A-4 14" x 65" Almond \$416.00
 PT1465-C-4 14" x 65" Black \$416.00
 PT1465-N-4 14" x 65" Natural \$416.00
 PT1665-B-4 16" x 65" Blue \$565.00
 PT1665-A-4 16" x 65" Almond \$473.00
 PT1665-C-4 16" x 65" Black \$473.00
 PT1665-N-4 16" x 65" Natural \$473.00
 PT1865-B-4 18" x 65" Blue \$683.00
 PT1865-A-4 18" x 65" Almond \$825.00
 PT1865-N-4 18" x 65" Natural \$683.00
 PT2162-B-4 21" x 62" Blue \$823.00
 PT2162-N-4 21" x 62" Natural \$823.00
 PT2472-B-4 24" x 72" Blue \$1,818.00
 PT2472-N-4 24" x 72" Natural \$1,437.00

Composite Mineral Tanks w/6" Flange Top

Price includes carton.

PT2472-A-6 24" x 72" Almond, Std. Base \$2,158.00
 PT2472-N-6 24" x 72" Natural, Std. Base \$2,158.00
 PT3072-N-6 30" x 72" Natural, Extended Base \$2,689.00
 PT3672-N-6 36" x 72" Natural, Extended Base \$3,507.00

Composite Mineral Tanks w/Tripod Base, 4" Top & Bottom Openings

Price includes carton.

* PT2162-N-4T&B 21" x 62" Natural, 4" T&B, Ext Base \$1,515.00
 * PT2472-4-T&B 24" x 72" Natural, 4" T&B, Ext Base \$2,025.00

NOTE - A shipping carton(s) may be added to your order when ordering tanks for UPS or common carrier shipment.

IMPORTANT - Polyglass tanks are designed to withstand pressure but they will collapse if subjected to a vacuum. A vacuum breaker should always be installed to prevent tank damage.

Mineral Tanks, Internals & Acces.





Composite Mineral Tanks w/Tripod Base, 6" Top & Bottom Flange

Price includes carton.

* PT2162-6F-T&B	● 21" x 62" Natural, 6" T&B Flange	\$2,505.00
* PT2472-6F-T&B	● 24" x 72" Natural, 6" T&B Flange	\$2,932.00
* PT3072-6T&B	● 30" x 72" Natural, 6" T&B Flange	\$3,054.00
* PT3672-N-6-TB	● 36" x 72" Natural, 6" T&B Flange	\$3,666.00
PT4272-N-6	● 42" x 72" Natural, 6" T&B Flange	\$5,882.00
PT4872-N-6	● 48" x 72" Natural, 6" T&B Flange	\$7,933.00

Tank Bases For Polyglass Tanks

* PTB-6	6"	\$6.20
* PTB-7	7"	\$7.90
PTB-8	8"	\$9.05
PTB-9	9"	\$10.75
PTB-10	10"	\$11.90
* PTB-12	12"	\$40.00

Dome Hole Plugs

Closures for 1-1/4" dome hole on the above tanks.

DHP12	1-1/4" NPT	\$10.40
DHP-QL	Structural Quick Lock Dome Hole Plug	\$17.50

Fiberglass Mineral Tank w/Base, 2 1/2" Top Opening

FT1030-N	● 10" x 30" Natural	\$360.00
FT0948-B	● FRP Tank, Blue 9" x 48"	\$378.00

Fiberglass Hot Water Tanks

FT1019-AHW	● FRP Tank, 10" x 19" Hot Water, Almond	\$437.00
FT1044-AHW	● FRP Tank, 10" x 44" Hot Water, Almond	\$492.00
FT1054-AHW	● FRP Tank, 10" x 54" Hot Water, Almond	\$545.00

Clack Polyglass Tanks

CL1235-CLB	● 12" x 35" Mineral Tank, Charcoal, Less Base (9/Pack)	\$193.00
CLPT0844-C	● Polyglass Tank, 08x44 Black	\$117.00
CLPT0948-C	● Polyglass Tank, 08x44 Black	\$142.00
CLPT1044-C	● Polyglass Tank, 08x44 Black	\$152.00
CLPT1054-C	● Polyglass Tank, 08x44 Black	\$169.00
CLPT1054-A	● Polyglass Tank, 08x44 Almond	\$169.00
CLPT1252-C	● Polyglass Tank, 08x44 Black	\$229.00



FT1054-AHW



DHP12



DHP-QL



CLPT1054-A





Wave Cyber



Wave Cyber Polyglass Tanks

Wave Cyber pressure tanks are made of high performance composite material-HOPE liner with FRP filament winding outer shell. Wave Cyber's design provides a continuous seamless inner liner shell with a GF PP inlet for higher strength, temperature and pressure capabilities. All residential pressure tanks are NSF, PED and KTW certified.

Warranty: All residential tanks are backed by an exclusive manufacturer's 10-year limited warranty, on sizes 6"-13".

WCPT0835-CG-2.5T/2.5B-EXT	● WC Tank, 08x44 Gray w/2.5 T&B, Ext Base	\$142.00
WCPT1047-CG-2.5T/2.5B-EXT	● WC Tank, 10x47 Gray w/2.5 T&B, Ext Base	\$192.00
WCPT1248-CG-2.5T/2.5B-EXT	● WC Tank, 12x48 Gray w/2.5 T&B, Ext Base	\$266.00
WCPT1344-CG-4.0T/2.5B-EXT	● WC Tank, 13x44 Gray w/4.0T & 2.5B, Ext Base	\$356.00
WCPT1865-CG-4.0T/4.0B-TRI	● WC Tank, 18x65 Gray w/4.0T & 4.0B, Tripod Base	\$912.00

Enpress Polyglass Tanks

ENPRESS utilizes an industry exclusive co-polymer polypropylene formulation for its liner assembly, providing superior performance in both hot and cold temperature environments, and superior chemical and impact resistance...far superior than traditional polyethylene. Allowing the tanks to survive harsh climate extremes, and providing you with the highest quality products.

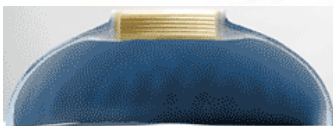
Warranty: All residential tanks are backed by an exclusive manufacturer's 10-year limited warranty, on sizes 6"-13".



ENPT0844-B	● 8" x 44" Blue (18/Pack)	\$141.00
ENPT0948-B	● 9" x 48" Blue (16/Pack)	\$171.00
ENPT1044-B	● 10" x 44" Blue (12/Pack)	\$184.00
ENPT1054-B	● 10" x 54" Blue (16/Pack)	\$200.00
ENPT1248-B	● 12" x 48" Blue (9/Pack)	\$283.00
ENPT1354-B	● 13" x 54" Blue (9/Pack)	\$340.00
ENPT0948-A	● 9" x 48" Almond (16/Pack)	\$171.00
ENPT1054-A	● 10" x 54" Almond (16/Pack)	\$200.00
ENPT1248-A	● 12" x 48" Almond (9/Pack)	\$283.00
ENPT1354-A	● 13" x 54" Almond (9/Pack)	\$340.00
ENPT1465-A	● 14" x 65" Almond (1/Pack)	\$534.00
ENPT0844-C	● 8" x 44" Black (18/Pack)	\$136.50
ENPT0948-C	● 9" x 48" Black (16/Pack)	\$171.00
ENPT1030-C	● 10" x 30" Black (12/Pack)	\$175.00
ENPT1035-C	● 10" x 35" Black (12/Pack)	\$175.00
ENPT1044-C	● 10" x 44" Black (12/Pack)	\$184.00
ENPT1054-C	● 10" x 54" Black (16/Pack)	\$200.00
ENPT1248-C	● 12" x 48" Black (9/Pack)	\$283.00
ENPT1252-C	● 12" x 48" Black (9/Pack)	\$295.00
ENPT1354-C	● 13" x 54" Black (9/Pack)	\$340.00
ENPT1044-CG	● 10" x 44" Cool Gray (12/Pack)	\$184.00

Mineral Tanks, Internals & Acces.

4



Our special high temperature high-pressure injection process eliminates leaks. The glass-filled threaded inlet is mechanically and chemically welded to the dome so leak paths are eliminated.

Polyglass Mineral Tank w/2 1/2" Top and Bottom Hole

ENPT1018-C-OBLB	● 10" x 18" Black/Less Base (12/Pack)	\$220.00
ENPT1252-CG-OBEXT	● 12x52, Cool Grey, Ext. Base	\$506.00

Enpress Mineral Tanks w/1 1/4" Dome Hole w/Plug

ENPT1044-ADH	● 10" x 44" Almond w/1-1/4 DH	\$303.00
ENPT1054-ADH	● 10" x 54" Almond w/1-1/4 DH	\$320.00
ENPT1248-ADH	● 12" x 48" Almond w/1-1/4 DH	\$413.00
ENPT1354-ADH	● 13" x 54" Almond w/1-1/4 DH	\$465.00
ENPT1252-ADH	● 12" x 52" Almond w/1-1/4 DH	\$400.00



Enpress Composite Mineral Tanks w/Base, 4"-8UN

ENPT1465-A-4	14" x 65" Composite Mineral Tank	\$519.00
ENPT1665-A-4	16" x 65" Composite Mineral Tank	\$581.00

Enpress Polyglass Tanks w/Vortech® Bottom Distributor Plate

Utilizing ENPRESS' patent pending and industry exclusive liner design, this residential vessel features an exclusive internal bottom plate distributor, which offers significant advantages over standard tanks. From the elimination of gravel under-bedding, reducing overall cost and shipping weight of the vessel, to the permanent attachment of the dip tube to the plate, eliminating frustrating re-setting of basket style dip tubes when servicing the valve. Featuring a self-cleaning nozzle design, this environmentally friendly vessel and system will see the most efficient service and back-washing characteristics available.

Vortech creates better back-washing and cleaning action of medias due to increased lift and mixing from swirling action created by Vortech, providing shorter back-washing requirements, (up to 30% less back-washing required).

The Vortech distributor is an integral part of the tank. It is welded into the bottom cone of the inner liner of the tank before final liner assembly. This design provides for over a 6500 lb. load capacity. With the flow distributed through the entire diameter of the tank, Vortech provides improved system pressure drop characteristics along with an increase in softening capacity and the elimination of channeling of the media.

The Vortech adapts easily to 1" and 1-1/4" valves and with the permanent attachment of the riser tube to the distributor allowing for easy servicing of the control valve, the distributor stays in place without being pulled out.



Enpress Vortech™ Tanks must be purchased within a completed softener or filter system.



VORTECH BOTTOM DISTRIBUTOR PLATE



VORTECH TANK



DOME HOLE TANK

ENPT0844-A-VORTECH	○ Vortech Tank, 08x44 Almond	\$184.50
ENPT0948-A-VORTECH	○ Vortech Tank, 09x48 Almond	\$239.00
ENPT1044-A-VORTECH	○ Vortech Tank, 10x44 Almond	\$252.00
ENPT1054-A-VORTECH	○ Vortech Tank, 10x54 Almond	\$269.00
ENPT1252-A-VORTECH	○ Vortech Tank, 12x52 Almond	\$355.00
ENPT1354-A-VORTECH	○ Vortech Tank, 13x54 Almond	\$398.00
ENPT0844-C-VORTECH	● Vortech Tank, 08x44 Charcoal	\$184.50
ENPT0948-C-VORTECH	● Vortech Tank, 09x48 Charcoal	\$239.00
ENPT1035-C-VORTECH-LB	● Vortech Tank, 10X35 Charcoal Less Base	\$212.00
ENPT1044-C-VORTECH	● Vortech Tank, 10x44 Charcoal	\$252.00
ENPT1054-C-VORTECH	● Vortech Tank, 10x54 Charcoal	\$269.00
ENPT1252-C-VORTECH	● Vortech Tank, 12x52 Charcoal	\$355.00
ENPT1354-C-VORTECH	● Vortech Tank, 13x54 Charcoal	\$398.00
ENPT1465-C-4-VORTECH	● Vortech Tank, 14x65 Charcoal 4" Top	\$614.00
ENPT1054-B-VORTECH	● Vortech Tank, 10x54 Blue	\$269.00
ENPT1252-CG-VORTECH	● Vortech Tank, 12x52 Gray	\$355.00
ENPT1354-CG-VORTECH	● Vortech Tank, 13x54 Gray	\$398.00
ENPT1465-CG-4-VORTECH	● Vortech Tank, 14x65 Gray, 4" Top	\$614.00
ENPT1665-CG-4-VORTECH	● Vortech Tank, 16x65 Gray, 4" Top	\$772.00

VORTECH TANKS WITH DOME HOLES

Dome hole in position B for use with Fleck 2510, 5000, 7000 and Clack WS1 and WS125.

ENPT1044-VORTECH-ADH	○ Vortech 10"x44" Almond w/Dome Hole	\$378.00
ENPT1054-VORTECH-ADH	○ Vortech 10"x54" Almond w/Dome Hole	\$396.00
ENPT1354-VORTECH-ADH	○ Vortech 13"x54" Almond w/Dome Hole	\$550.00
ENPT1054-VOR-ADH-POS-B	○ Vortech 10"x54" Almond w/Dome Hole	\$396.00
ENPT1252-VOR-ADH-POS-B	○ Vortech 10"x54" Almond w/Dome Hole	\$506.00
ENPT1354-VOR-ADH-POS-B	○ Vortech 13"x54" Almond w/Dome Hole	\$550.00

Mineral Tanks, Internals & Acces.

5





Enpress Mid-Vortech® Mineral Tanks

This residential vessel features an exclusive internal mid plate distributor, which offers significant advantages over standard tanks...from the physical separation of multiple medias, to use in redundant filtration applications, to the elimination of a valve and tank in applications that require multiple media tanks and systems, reducing plumbing and packaging requirements...all in one tank! The Mid-Vortech® design allows for filling and extraction of medias in all chambers and the use of vacuum to either fill or remove the medias at the OEM, Dealer or Homeowner locations. All Mid-Vortech® tanks come with ENPRESS' exclusive Bottom Vortech® tank feature, which eliminates gravel under-bedding and allows for reduction of backwash rates up to 30%.

ENPT1040-C-MID-VORTECH	● 10" x 40" Black Vortech Tank with MidPlate	\$357.00
ENPT1054-C-MID-VORTECH	● 10" x 54" Black Vortech Tank with MidPlate	\$408.00
ENPT1060-C-MID-VORTECH	● 10" x 60" Black Vortech Tank with MidPlate	\$471.00
ENPT1354-C-MID-VORTECH	● 13" x 54" Black Vortech Tank with MidPlate	\$630.00
ENPT1354-G-MID-VORTECH	● 13" x 54" Gray Vortech Tank with MidPlate	\$630.00
ENPT1365-C-MID-VORTECH	● 13" x 65" Black Vortech Tank with MidPlate	\$710.00
DTA-MIDPLATE-VORTECH	Tube Adapter for Vortech MidPlate	\$10.40
DTA-MIDPLATE-VORTECH-1.25	1.25" Tube Adapter for Vortech MidPlate	\$11.00

MID-VORTECH TANKS WITH DOME HOLES

Dome hole in position B for use with Fleck 2510, 5000, 7000 and Clack WS1 and WS125.

ENPT1054-C-MID-VORTECH-DH	● 10" x 40" Black Vortech Tank with MidPlate	\$542.00
ENPT1354-C-MID-VORTECH-DH	● 10" x 40" Black Vortech Tank with MidPlate	\$789.00
ENPT1365-C-MID-VORTECH-DH	● 10" x 44" Black Vortech w/ MidPlate-Position J	\$869.00

Vacuum Breakers

All systems with fiberglass or polyglass composite tanks require installation of a vacuum breaker at the highest point in the drain line to prevent tank damage due to the possible collapse of a tank when exposed to a vacuum.

VB1500	Vacuum Breaker, 1-1/2" MNPT, No Drain	\$135.00
VB2007	Vacuum Breaker, 2" MNPT x 3/4" M Drain	\$54.25

Flexible Connector Assemblies

Connects between the tanks and the plumbing and is intended to take the weight of the system plumbing off the fiberglass tank.

SF5285	2" NPT x 2" NPT	\$279.00
SF5286	3" NPT x 3" NPT	\$377.00

Domestic Distributors And Assemblies

Use the "bayonet" style top baskets on all current Fleck and Autotrol plastic body valves. The "glue-in" style top basket is used on Fleck brass valves and our plastic in/out heads.

TOP DISTRIBUTOR BASKETS, STANDARD SLOT, .010 – .013

TDB1316	13/16" Glue-In Basket	\$1.60
TDB1050	1.05" Glue-In Basket	\$1.60
TDB1316-BS	13/16" Bayonet Style Basket	\$2.50
TDB1050-BS	1.050" Bayonet Style Basket	\$2.50
TDB32MM-BS	32 MM Bayonet Style Basket	\$5.20
TDB1320-C	1.32" Top Basket for 1 1/4" "C-Series" Valves	\$5.35

TOP DISTRIBUTOR BASKETS, FINE SLOT, .007 – .009

TDB1316-FMBS	13/16" Bayonet Style Fine Mesh	\$5.95
TDB1050-FMBS	1.050" Bayonet Style Fine Mesh	\$3.75



VB1500



SF5285



TDB1050



TDB1050-FMBS



TDB1050-FMC



BD1050



BD32MM



BD1050-710



BASKET RISER



RT1050-60S



DT1050

TOP STACK DISTRIBUTORS

TDB1050-FMC	1.050" Fine Mesh Top Stack Distributor	\$16.15
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BOTTOM DISTRIBUTOR BASKETS

BD1316	13/16" Standard Mesh	\$2.50
BD1050	1.050" Standard Mesh	\$2.50
BD32MM	32 MM Bottom Bskt, 7000 Valve	\$7.80
BD1320	1.32" Standard Mesh for 1/4" "C-Series" Valves	\$12.50
BD1316-710	13/16" Fine Mesh	\$6.95
BD1050-710	1.050" Fine Mesh	\$9.70

BOTTOM DISTRIBUTOR BASKETS FOR KDF MINERAL

BD1050-1620	1.050" w/1620 Slot for high flow applications	\$8.65
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PLASTOMER BOTTOM BASKETS

BD1050-GDU	Plastomer Bottom Basket, 1.050" Type GDU	\$6.75
BD070-K4	Basket Distributor, 3/4" MIPT	\$12.85

BASKET RISERS

BRT1316-54	13/16" x 54" Standard Mesh	\$9.65
BRT1050-12.25	1.050" x 12-1/4" Standard Mesh	\$4.85
BRT1050-44	1.050" x 43-5/8" Standard Mesh	\$7.75
BRT1050-45	1.050" x 45" Standard Mesh	\$8.05
BRT1050-48.1	1.050" x 48-1/8" Standard Mesh	\$8.60
BRT1050-53.6	1.050" x 53-11/16" Standard Mesh	\$8.95
BRT1050-54	1.050" x 54" Standard Mesh	\$9.65
BRT1050-54-FR	1.050" x 54" Fine Mesh	\$17.45

STRAIGHT RISERS

RT1316-55S	13/16" x 55" Straight Riser	\$17.00
RT1050-60S	1.05" x 60" Straight Riser	\$20.70

HOT WATER RISERS

BRT1316-54-HW	13/16" x 54" Hot Water	\$43.80
BRT1050-54-HW	1.05" x 54" Hot Water	\$43.80

DISTRIBUTOR TUBING

DT1316	13/16" Tubing (Per Inch)	\$0.20
DT1050	1.05" Tubing (Per Inch)	\$0.15
DT32MM-72	32 MM Tubing 72" Stick, No Basket	\$24.50
DT1050-41	1.05" x 41" Dist. Tubing	\$5.20
DT1050-41.5	1.05" x 41-1/2" Dist. Tubing	\$2.10
DT1050-42.375	1.05" x 42-3/8" Dist. Tubing	\$5.90
DT1050-50.75	1.05" x 50 3/4" Dist. Tubing	\$7.35
DT1050-51.875	1.05 x 51.875, Dist. Tubing 10" Vor Tank	\$7.70
DT1050-52.5	1.05" x 52 1/2" Dist. Tubing	\$7.35
DT1320-64.5	1.32" Tubing, 64.5" Stick, No Basket	\$17.00
DTB105-1316	1.05" x 13/16" Bushing	\$3.80

TURBULATOR ASSEMBLY



D1196-07



D1199



D7178-07

Autotrol Turbulators

During backwash, with a Turbulator, resin granules are propelled from the bottom of the resin tank to the top. This allows a complete turn over of the resin bed and complete contact with the brine solution. Small particles of dirt and iron are freed from the bed and flow to the drain.

TURB210	Turbulator Kit, 1.05" Riser	\$42.25
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Turbulator Assemblies

Includes riser pipes ready to install.

TURB-0844-1050	24,000, 1.05"	\$63.50
TURB-0948-1050	32,000, 1.05"	\$64.25
TURB-1035-1050	For 35" Tanks 1.05"	\$48.00
TURB-1044-1050	40,000, 1.05"	\$64.00
TURB-1054-1050	48,000, 1.05"	\$66.50
TURB-1248-1050	64,000, 1.05"	\$61.00
TURB-1354-1050	80,000, 1.05"	\$69.75
TURB-1465-1050	110,000, 1.05"	\$79.00

Commercial Stack Distributors

Designed for use with 14" – 24" diameter fiberglass mineral tanks with a 4" top opening and top mounted control valves. Additional sizes and riser pipe styles are available.

D1196-07	3" x 1½" Socket	\$36.20
* D1196-08	3" x 1½" FIPT	\$36.20
D1197-07	6" x – Socket	\$67.75
* D1197-08	6" x 1½" FIPT	\$67.75

Top Mount Valve Distributors

A segmented stack-top distributor designed for use with fleck 2850 and 2900 valves. Installation is accomplished by simply pinning the distributor directly inside the control valve. Will accommodate a 1½" PVC Riser.

D1199	4200 Top Stack Distributor	\$64.25
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Top/Bottom Mount Stack Distributors - Side Mount Valves

A segmented stack-top distributor designed for use with fleck 2850 and 2900 valves. Installation is accomplished by simply pinning the distributor directly inside the control valve. Will accommodate a 1½" PVC Riser.

D7155	2937 Stack Distributor Assembly 2" Solvent	\$170.75
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Clack Commercial Hub And Lateral Distributors

Includes an ABS hub and eight PVC-slotted laterals with threaded adaptors.

D7178-07	1½" x 14" and 16" Tanks	\$86.50
D7179-07	1½" x 18", 21" or 24" Tanks	\$88.25
D7179-10	2" x 18", 21" or 24" Tanks"	\$88.25
D7180-10	2" x 30" Tanks	\$94.00
* D7181-10	2" x 36" Tanks	\$96.25
* DKSHL24TM3S	24" KSH Distributor Assembly 3" Solvent	\$403.00
* DKSHL30TM3S	30" KSH Distributor Assembly 3" Solvent	\$449.00
* DKSHL36TM3S	36" KSH Distributor Assembly 3" Solvent	\$479.00
* DKSHL42TM3S	42" KSH Distributor Assembly 3" Solvent	\$540.00
* DKSHL48TM3S	48" KSH Distributor Assembly 3" Solvent	\$568.00
* DKSHL63TM3S	63" KSH Distributor Assembly 3" Solvent	\$788.00

Mineral Tanks, Internals & Acces.

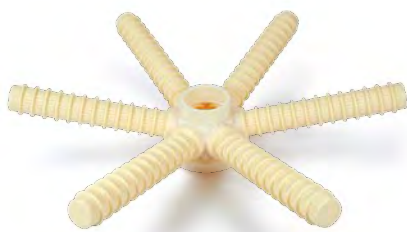


Structural Bajonet Distributors for Top Mount Valves**1-1/2" RISERS (RISER TUBES NOT INCLUDED)**

SF5666	18" Tanks (6 Laterals)	\$97.00
SF5667	21" and 24" Tanks (6 Laterals)	\$120.00
SF10848	30" Tanks (6 Laterals)	\$145.00
SF10849	36" Tanks (6 Laterals)	\$156.00

3" RISERS (RISER TUBES NOT INCLUDED)

SF12201	24" Tanks (8 Laterals)	\$510.00
* SF5672	30" Tanks (8 Laterals)	\$528.00
SF5673	36" Tanks (8 Laterals)	\$544.00
SF5674	42" Tanks (8 Laterals)	\$579.00
* SF5676	42" Tanks Hi-Flow (16 Laterals)	\$1,139.00
* SF5675	48" Tanks (8 Laterals)	\$598.00
* SF5677	48" Tanks Hi-Flow (16 Laterals)	\$1,139.00



SF5667

Structural Distributors for Side Mount Valves**2" TOP MOUNT THREADED DIFFUSER**

SF5671	12-36" Tanks, 4-8" Openings, 2" Slip Connection	\$209.00
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2" BOTTOM MOUNT HUB & LATERAL

SF5670	24" Tanks, 4-8" Openings, 2" Slip Connection	\$265.00
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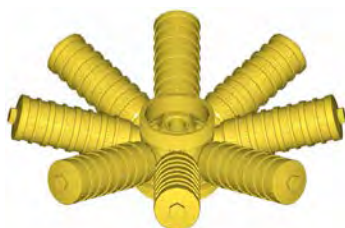


SF5670

Plastomer Hubs & Laterals

Designed for Hub & Lateral or Header Lateral systems in softeners, filters, deionizers, dealkalizers and other water treatment applications. Plastomer Hub & Lateral systems offer highly efficient distribution and collection of water and regenerants in water processing equipment.

The laterals utilize a pipe core with openings designed and arranged to distribute water throughout the entire length of the lateral, providing a uniform flow. This helps prevent channeling in the media bed during service. The pipe core has a thick molded beam and ring reinforcing for strength. Individual screen segments, featuring self cleaning v-slots, are engineered to couple with each other and are installed over the pipe core creating a lateral much stronger than that of slotted pipe.

**Plastomer Bottom Diffuser Assemblies****1.5" BOTTOM DIFFUSER ASSEMBLIES**

Includes bottom diffuser and 1.5" PVC male adapter, order 1.5" PVC riser pipe separately.

DIF-1.5-S	1.5" Diffuser Assembly, (14, 16, and 18" Tanks)	\$48.60
DIF-1.5-T	1.5" Diffuser Assembly, (21" and 24" Tanks)	\$63.25

2" BOTTOM DIFFUSER ASSEMBLIES

Includes bottom diffuser and 2" PVC female adapter, order 2" PVC riser pipe separately.

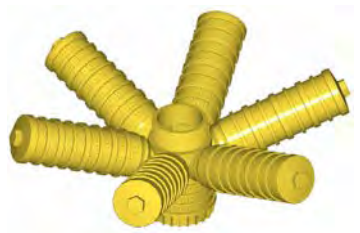
DIF-2-24	2" Diffuser Assembly, (24" Tanks)	\$61.00
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3" BOTTOM DIFFUSER ASSEMBLIES

Includes bottom diffuser and 3" PVC female adapter, order 3" PVC riser pipe separately.

DIF-3-24	3" Diffuser Assembly, (24" Tanks)	\$103.00
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2" BOTTOM
DIFFUSER



2" HUB & LATERAL



PLMS063



PLMS08 HUB



PLGR4-2



TYPE "A" LATERAL

Plastomer Hub & Lateral Assemblies

Includes hub, hub adapter and laterals for specific tank sizes, order PVC riser pipe separately.

1.5" HUB & LATERALS (2850/9500/MAGNUM/C-SERIES-1.5")

HL-1.5-30	1.5" Hub & Laterals (30" Tanks)	\$165.00
HL-1.5-36	1.5" Hub & Laterals (36" Tanks)	\$187.00

2" HUB & LATERALS (2900/3150/MAGNUM/C-SERIES-2")

Includes 2" hub, hub adapter and 6 laterals for specific tank sizes, order PVC riser pipe separately.

HL-2-30	2" Hub & Laterals (30" Tanks)	\$162.00
HL-2-36	2" Hub & Laterals (36" Tanks)	\$229.00
HL-2-42	2" Hub & Laterals (42" Tanks)	\$310.00
HL-2-48	2" Hub & Laterals (48" Tanks)	\$336.00

3" HUB & LATERALS (3900/C-SERIES-3")

Includes 3" hub, hub adapter and 8 laterals for specific tank sizes, order PVC riser pipe separately.

HL-3-30	3" Hub & Laterals (30" Tanks)	\$352.00
HL-3-36	3" Hub & Laterals (36" Tanks)	\$381.00
HL-3-42	3" Hub & Laterals (42" Tanks)	\$410.00
HL-3-48	3" Hub & Laterals (48" Tanks)	\$495.00

Plastomer Hub & Lateral Components

HUB - BSP THREADS

Requires hub adapter to convert BSP threads to NPT.

PLMS063	2" Hub Assembly, Utilizes 6 Laterals	\$40.20
PLMS08	3" Hub Assembly, Utilizes 8 Laterals	\$165.00
PLMSK6.3	2" SK6 PLASTOMER HUB, 3 DISCH RINGS	\$39.00
PLMSK8	2" SK6 PLASTOMER HUB, 3 DISCH RINGS	\$162.00

HUB ADAPTERS

PLGR4-3NPT	4" x 3" NPT Polypro Hub Adapter	\$49.90
PLGR4-2	4" X 2" BSP Threaded Coupling	\$46.70
PLGR2-60.3	2" X 60.3mm Adapter	\$11.65

TYPE "A" METRIC LATERALS

PLLAT-A-5.67m	LATERAL TYPE A 5.67" LG	\$12.25
PLLAT-A-8.11m	LATERAL TYPE A 8.11" LG	\$17.25

TYPE "A" METRIC LATERALS FOR 2" HUB

Select 6 laterals with PLMS06F-4.57 for complete Hub & Lateral system.

PLLAT-A-10.55M	10.55" Long, 30" Tank Size	\$18.40
PLLAT-A-12.99M	12.99" Long, 36" Tank Size	\$22.20
PLLAT-A-15.43M	15.43" Long, 42" Tank Size	\$32.20
PLLAT-A-17.875M	17.875" Long, 48" Tank Size	\$35.50

TYPE "A" METRIC LATERALS FOR 3" HUB

Select 8 laterals with PLMS08-0 for complete Hub & Lateral system.

PLLAT-A-9.33M	9.33" Long, 30" Tank Size	\$17.10
PLLAT-A-11.77M	11.77" Long, 36" Tank Size	\$20.70
PLLAT-A-14.21M	14.21" Long, 42" Tank Size	\$24.30
PLLAT-A-16.65M	16.65" Long, 48" Tank Size	\$35.00
PLLAT-A-25.20M	25.20" Long, 48" Tank Size	\$35.00



Plastomer Bottom Diffuser

Designed for use with 14" – 24" diameter fiberglass mineral tanks with a 4" top opening and top mounted control valves. Additional sizes and riser pipe styles are available. Features the same design considerations as the Hub & Laterals, with v-slot screen segments jacketing a large diameter baffle core.



PLR2A-2-7.09



PLR3A-3-6.61

1" MALE NPT THREAD

PLR2A-1-4.96 Plastomer 1" MIPT x 4.96" Bottom Diffuser \$45.30

1-1/2" MALE NPT THREAD

PLR2A-1.5-7.09 1-1/2" R2A Diffuser x 7.09" Length \$59.00

2" MALE NPT THREAD

PLR2A-2-4.96 2" R2A Diffuser x 4.96" Length \$44.10

PLR2A-2-7.09 2" R2A Diffuser x 7.09" Length \$59.00

3" MALE NPT THREAD

PLR3A-3-6.61 3" R3A Diffuser x 6.61" Length \$95.50

Tank Bushings

Reduces tank opening to valve size.



SF2751-6



SF2751-8



SF4821-2



SF2751-1



SF4821-1



SF5296 w/HARDWARE



SF10566

SF2751-8 2½"-8" x 1¼" \$53.60

SF2751-6 2½"-8" x 2¼"-16" \$53.60

SF4821-2 4"-8UN x 2½"-8 NPSM \$52.00

SF5267 Flange Adapter, 6" - 3"X3" NPT w/Hardware \$291.00

SF10566 Flange Adapter, 6" x 4"-8 UN \$342.00

Tank Closures

SF2751-1 Threaded, 2½"-8 \$27.60

SF4821-1 Threaded, 4"-8UN \$40.00

SF5296 Flanged, 6" with Hardware \$291.00

Tank Coupler

Fitting for a top tank with bottom opening to a bottom tank. 2½" openings with 1.05 distributor center hole. Includes distributors

TC2510D 2½" Tank Coupler, w/Dist. \$107.50

Bottom Tank Fitting

Bottom tank swivel fitting, 2.5"-8UN thread with 1" x 3/4" PVC Solvent Elbow.

D1288 Bottom Tank Fitting - 1260RT \$32.50



TC2510D



D1288

Exchange Tank Manifold Assemblies & Components

XPI-25-3 MANIFOLD ASSEMBLY



XTA453IS

Injection-molded ABS with 2½"-8 tank thread, ¾" inlet and outlet, 13/16" riser opening ¾" fill port and inlet screen.
 XPI253IS Tank Manifold w/Inlet Screen \$139.00

XTA-45-3 MANIFOLD ASSEMBLY



XTA453IS

Injection-molded ABS with 4½"-8 tank buttress thread, 1" inlet and outlet, 1" riser opening 1¾" fill port and inlet screen.
 XTA453IS Tank Manifold w/fill port and inlet screen \$85.50

MANIFOLD ASSEMBLY COMPONENTS

RTA-DDS4 1" Distributor Screen, 4½" tank openings \$48.00
 RTA-DS190-81 13/16" Distributor Screen \$15.00

PARK "SURE THING" QUICK DISCONNECT FITTINGS

RTA-UHB75 Union x Hose Barb - ¾" \$24.00
 RTA-HB75 Male x Hose Barb - ¾" \$12.85
 RTA-UMA75 Union x Male Adapter - ¾" \$24.00
 RTA-MA75 Male Adapter - ¾" \$13.80
 RTA-UMA100 Union x Male Adapter - 1" \$24.00
 RTA-MA100 Male Adapter - 1" \$15.10
 RTA-UHB100 Union x Hose Barb - 1" \$24.00
 RTA-HB100 Male x Hose Barb - 1" \$12.85

EXCHANGE TANK DUST COVERS

RTA-CAP-MA Union Dust Cap \$8.70
 RTA-PLUG-UN Union Dust Plug w/O-ring \$14.45



RTA-DDS4



RTA-UHB75



RTA-HB75



RTA-UMA75



RTA-MA75



AM0701

AM0701 2½" NPSM x ¾" x 1/8" \$67.00
 AM1001 2½" NPSM x 1" x 1/8" \$126.50
 Q8044 Tank Head 2½" NPSM X ¾" Side In/Out \$82.00

Air Mix Tank Heads

Machined PVC head used on air mix tanks. Standard heads are tapped ¾" FIPT in and out, 1/8" FIPT air release tapping. Optional heads are tapped 1" FIPT in and out, 1/8" FIPT air release tapping.

Plastic Distributor Heads

Designed for simple in-out filters such as pH neutralizers, taste and odor, etc. Fits 2½" NPSM tank opening. The 890S has ¾" openings and 13/16" distributor opening. The 990S has 1" FIPT openings with 1.050" distributor opening.

890-S Plastic In/Out Head ¾" x 13/16" \$26.50
 990S Plastic In/Out Head 1" x 1.05" \$31.20
 HEAD-07-GRAY Plastic with Brass Inserts, ¾" \$85.50



RTA-UHB100



RTA-HB100



RTA-UMA100



RTA-MA100



RTA-PLUG-UN



890S



990S



HEAD-07-GRAY

PVC Tank Adapters

ECO TYPE NON-THREADED MOLDED TANK ADAPTER

A simple, easy way to convert a non-threaded tank with locking ring to a standard 2 1/2" threaded opening, to accept standard valving.



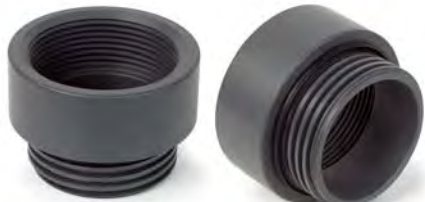
ADAPTER-ECOWATER PVC Tank Adapter, Ecowater® **\$65.00**

2-1/4" FEMALE FINE THREAD X 2-1/2"-8UN MALE



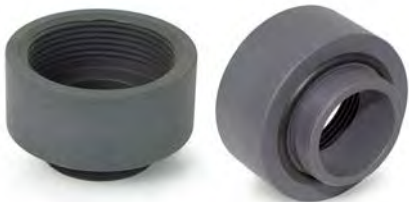
ADAPTER-2.25 F x 2.5 UN PVC Tank Adapter, 2-1/4" Female Fine Thread x 2.5"-8UN Male **\$99.00**

CULLIGAN® 2-1/2"-8 UN FEMALE X ACME MALE



ADAPTER-2.5 UN F X ACME M PVC Tank Adapter, Culligan® 2.5"-8 UN Female x ACME Male..... **\$97.00**

2-1/2" - 8 UN FEMALE X 2-1/4" MALE FINE THREAD



ADAPTER-2.5 UN F X 2.25 M PVC Tank Adapter, 2.5" - 8 UN Female x 2.25" Male Fine Thread.. **\$99.00**

2-1/2" Noryl® In/Out Tank Heads

HEAD-APW434-2.5-07-DF



Noryl® 2-1/2" Tank In/Out Head, #434 3/4" x 1.050" Downflow **\$51.00**

HEAD-APW434-2.5-07-UF



Noryl® 2-1/2" Tank In/Out Head, #434 3/4" x 1.050" Upflow **51.00**

HEAD-APW439-2.5-10-DF



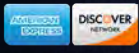
Noryl® 2-1/2" Tank In/Out Head, #439 1" x 1.050" Downflow **\$51.00**

HEAD-APW439-2.5-10-UF



Noryl® 2-1/2" Tank In/Out Head, #439 1" x 1.050" Upflow **\$51.00**

Mineral Tanks, Internals & Acces. 13





TDB1050-SS

Fleck Upper Basket

Upper basket that screws into upper 2-1/2" heads or control valves with stainless steel screws.
TDB1050-SS Fleck Upper Basket w/SS Screws \$4.00

Commercial In/Out Tank Head

This In/Out tank head features a 1-1/2" inlet and outlet and a 1-1/2" distributor opening. This head also features a slotted upper basket, sold separately.

HEAD-APW4112-4.0-15-DF Noryl® In/Out Head, # 4112, 1-1/2" F x 1.5" O-Ring DIST Downflow \$66.00

HEAD-APW4112-UPPER BASKET Noryl® In/Out Head, # 4112 Upper Basket Only \$101.00



HEAD-APW4112-4.0-15-DF

Resilite LED Test Lights

The patented Squarewave Resilite is a positive, reliable and economical method of monitoring water quality via conductivity. Bright red/green visual output is easy to read. The monitoring is simple: the green light indicates the water conductivity is below the threshold value, the red light warns that it is above. Uses a wall transformer to convert 100v to 9v to insure safe operation and longer life. 220v European is also available. When ordering make sure to specify conductance. Available in 2 Meg ohm, 1 Meg ohm, 500k, 200k, 50k, 20k, 10k and 5k.

1/2", 110 VOLT

RES7031-20K	1/2" 110V, 20k ohm Test Light	\$147.00
RES7031-50K	1/2" 110V, 50k ohm Test Light	\$147.00
RES7031-200K	1/2" 110V, 200k ohm Test Light	\$147.00
RES7031-500K	1/2" 110V, 500k ohm Test Light	\$147.00
RES7031-1MEG	1/2" 110V, 1 Meg ohm Test Light	\$134.00

3/4", 110 VOLT

RES7046-20K	3/4" 110V, 20k ohm Test Light	\$147.00
RES7046-50K	3/4" 110V, 50k ohm Test Light	\$147.00
RES7046-200K	3/4", 110V, 200k ohm Test Light	\$147.00
RES7046-500K	3/4" 110V, 500k ohm Test Light	\$147.00
RES7046-1MEG	3/4" 110V, 1 Meg ohm Test Light	\$134.00

DISTRIBUTOR HEAD FOR 1/2" TEST LIGHTS

The RA201-890 Distributor head is designed for installation of a 1/2" Resilite in single in-out applications on deionizers. The threaded opening on the outlet side places the monitoring electrodes into the water flow for greatest accuracy.

RA201-890 Plastic with Brass Inserts, 3/4" \$30.30

C-Series Plastic Distributor Heads

Designed for simple in-out filters such as pH neutralizers, carbon filters, etc. The C1190 head can be used for Up-flow or Down-flow service. The head fits a standard 2 1/2" NPSM tank thread and features a 1.050" distributor opening. The C1190 features a drillable, pre-tapped 1/4" FIPT vent port (found on the C1190 only). The C1190FP is designed with a removable top, or fill port, and an internal screen. The C1190FP internal screen is easily serviced and cleaned by using the service wrench, provided with each head, to disassemble the head. The C1190 series heads require a C-Series fitting kit for a proper plumbing connection. See Section 1 for optional fitting kits and option bypass valve. Note: For upflow service with the optional bypass, it is necessary to mount the bypass upside down to maintain all the bypass options.

C1190 In/Out Head \$45.75

C1190-FP In/Out Head w/Fill Port, inc. Wrench \$91.00

CL-WRENCH C-Series Wrench \$20.10

Jaco Drain Line Fittings

FEMALE ELBOWS, TUBE X FIPT

J0302FE	3/8" Tube x 1/4" Female Elbow	\$4.45
J0303FE	3/8" Tube x Female Elbow	\$4.95

Mineral Tanks, Internals & Acces.



RA201-890



RESILITE LED TEST LIGHT



C1190



C1190-FP



CL-WRENCH



J0302FE

Barbed Drain Line Fittings

MALE ADAPTERS

D0305MA	3/8" MIPT x 1/2" Insert	\$0.25
D0505MA	1/2" MIPT x 1/2" Insert	\$1.00

ELBOWS

D05E	1/2" Insert Elbow	\$1.40
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MALE ELBOWS

D0305ME	3/8" MIPT x 1/2" Insert	\$1.65
D0505ME	1/2" MIPT x 1/2" Insert	\$0.40
D0705ME	3/4" MIPT x 1/2" Insert	\$1.75

FEMALE ELBOWS

TEF-2088	1/2" FIPT x 1/2" Insert	\$0.65
D0705FE	3/4" FIPT x 1/2" Insert	\$4.55

INSERT TEE

D05T	1/2" Insert Tee	\$1.70
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Drain Line Air Gaps

DLA-D380C

The DLA-D Universal Drain Line Adapter is designed for installation on all garbage disposals where the dishwasher drain inlet is located. Universal adapter accommodates 1/2", 5/8", 3/4" or 7/8" dishwasher drain hose. Can be used with or without a dishwasher drain line connection. Comes in kit form with all the fittings and instructions needed for installation.

DLA-D380C	RO drain to disposal kit, 7/8" barb x 3/8" JG	\$22.70
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DLA-G58JP

Multipurpose standpipe airgap is designed for residential & commercial water softeners and RO's. Connects softener and RO drains to all material Sch.-40 standpipes. Uses standard plumbing fittings to meet code requirements nationwide. Comes in kit form with all the fittings and instructions needed for installation.

DLA-G-58JP	RO drain to standpipe kit, 1-1/2" Slip x 5/8" Jaco	\$33.30
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GAP-A-FLOW

These drain line air gaps feature 1/2" MIPT and 1/4" FIPT threads at inlet and 3/4" MIPT and 3/8" FIPT threads at outlet. They can be installed vertically or at a lesser angle down to 45 degrees. A clamp groove and clamp are provided for securing the part to the wall.

GAF-21	Airgap, Standard Unit	\$47.70
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MISTER DRAIN

Fits 1 1/2" or 2" standpipes. Unit housing length approximately 5 1/2". Recommended usage 1 to 7 gallons/minute. Tested at 15 gallons/minute (56.8 liters/minute). Allows soft rubber washer hose or washer metal drain hook to share standpipe with other Air Gap units Inlet port fits 1/2 SCH 40 PVC slip fittings or special couplings. Provides more than twice the code-required minimum air gap opening. Can be mounted at 3 different levels

MD-10A	Plastic Drain Adapter	\$44.10
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GAP-IT

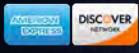
Designed to fit into recessed washing machine outlet boxes w/1-1/2 standpipes Units feature a flow straightener to quiet and smooth out turbulent flow and splatter shields to eliminate any water droplets that may splatter out of either air gap opening Units designed to allow space for washer drain hook or soft rubber washer hose to share standpipe with Gap-It

Multiple air gap openings exceed the code mandated minimum of at least one (1)" vertical opening Comes with vertical wall mounting bracket and screws"

GAP-IT	Gap-It Washing Machine	\$45.30
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Mineral Tanks, Internals & Acces.





PT06



PT06-BLACK



62606

Polyethylene Tubing

All Polyethylene tubing is made of 100% virgin, low density, pure polyethylene resin - the engineering material that is non-toxic (meeting FDA standards), tasteless and odorless. 100' Coils except where noted.

PT02	1/4" O.D.	\$16.95
PT03	3/8" O.D.	\$30.90
PT03-50	3/8" O.D., 50 foot coil.	\$20.40
PT05	1/2" O.D.	\$48.00
PT05-BLACK	1/2" O.D.	\$48.00
PT06	5/8" O.D.	\$66.00
PT06-50	5/8" O.D., 50 foot coil.	\$36.70
PT06-25	5/8" O.D., 25 foot coil.	\$19.10
PT06-BLACK	5/8" O.D. x 1/2" I.D. Black	\$62.70

Ideal All-Stainless Steel Clamps

6208 SERIES

All stainless Micro-Gear. Band and housing of 300 series stainless steel. Screw is 1/4 inch, 400 series stainless.

62606	5/16" through 7/8"	\$2.50
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No Sweat Stainless Steel Connectors

Braided stainless steel flexible hose, brass couplings with bright nickle plating. Quick and easy softener and filter installations, great for rental units.



WHC2407-MC

3/4" MIPT X 7/8" O.D. COMPRESSION

WHC1807-MC	18" Length Braided Flex	\$46.10
WHC2407-MC	24" Length Braided Flex	\$49.30

3/4" MIPT X 3/4" FIPT

WHC2407-MF	24" Length Braided Flex	\$54.60
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Falcon Stainless Steel Connectors



Falcon Stainless, Inc.

STAINLESS CORRUGATED

Corrugated stainless steel flexible softener connectors.

FC034FF18	3/4" FIPT x 3/4" FIPT x 18" Length Corrugated Flex	\$15.75
FC034FF24	3/4" FIPT x 3/4" FIPT x 24" Length Corrugated Flex	\$17.55
FC134FF18	3/4" FIPT x 1" FIPT x 18" Length Corrugated Flex	\$18.85
FC134FF24	3/4" FIPT x 1" FIPT x 24" Length Corrugated Flex	\$21.00
FC100FF18	1" FIPT x 1" FIPT x 18" Length Corrugated Flex	\$44.50
FC100FF24	1" FIPT x 1" FIPT x 24" Length Corrugated Flex	\$53.10
FC100MF18	1" MIPT x 1" FIPT x 24" Length Corrugated Flex	\$50.60
FC125FF24	1-1/4" FIPT x 1-1/4" FIPT x 24" Length Corrugated Flex	\$76.70
FC150FF24	1-1/2" FIPT x 1-1/2" FIPT x 24" Length Corrugated Flex	\$100.05
FC200FF24	2" FIPT x 2" FIPT x 24" Length Corrugated Flex	\$155.75

JOHN GUEST STAINLESS CORRUGATED

Corrugated stainless steel flexible softener connectors with John Guest push-fit connections.

FC07JG-18	3/4" FIPT x 3/4" JG X 18" Corrugated Flex	\$33.40
FC0710JG-18	3/4" FIPT x 1" JG X 18" Corrugated Flex	\$31.05
FC1010JG-18	1" FIPT x 1" JG X 18" Corrugated Flex	\$57.80



FC034FF18



FC07JG-18



FCCL-07JG-18



CLACK SET

CLACK CONNECTION W/JOHN GUEST PUSH-IN STAINLESS CORRUGATED

Corrugated stainless steel flexible softener connectors for Clack controls with John Guest push-fit connections. Order 1 CLACK SET for each connector which includes Clack nut, split ring and o-ring.

FCCL-07JG-18	Clack Connection x 3/4" JG x 18" Length	\$43.15
FCCL-10JG-18	Clack Connection x 1" JG x 18" Length	\$64.40
FCCL-10JG-24	Clack Connection x 1" JG x 24" Length	\$64.40
CLACK SET	Includes 1 Clack Nut, Split Ring & O-Ring	\$5.40

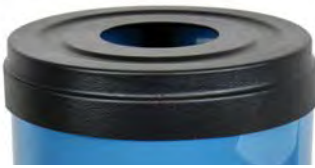
CLACK TO CLACK CONNECTION - CORRUGATED

Corrugated stainless steel flexible softener connectors for Clack to Clack connections. Order 2 CLACK SETS for each connector which includes.

FCCL-CL-18	Clack x Clack Connections, 18" Length	\$55.20
FCCL-CL-24	Clack x Clack Connections, 24" Length	\$72.15

Tank Jackets

Includes high-gloss colored side sheet with microfoam insulation. Additional sizes plus appliance black or silver grey colors are available on special order in minimum quantities of 10. Order cap separately. All Jackets will fit Structural and Enpress tanks when ordered with the appropriate cap



9100 SOFTENER w/TANK JACKETS

TJ0844-A	8" x 44" Almond	\$63.50
TJ0948-A	9" x 48"	\$63.80
TJ1044-A	10" x 44"	\$62.70
TJ1054-A	10" x 54"	\$54.20
TJ0844-B	8" x 44" Blue	\$62.30
TJ0948-B	9" x 48"	\$64.90
TJ1044-B	10" x 44"	\$47.50
TJ1054-B	10" x 54"	\$53.90
TJ0844-C	8" x 44" Chrome	\$87.75
TJ0948-C	9" x 48"	\$76.25
TJ1044-C	10" x 44"	\$70.25
TJ1047-C	10" x 47"	\$76.50
TJ1054-C	10" x 54"	\$81.00
TJ1248-C	12" x 48"	\$123.00
TJ1252-C	12" x 52"	\$128.25
TJ1354-C	13" x 52"	\$86.50
TJ0844-W	8" x 44" White	\$63.70
TJ0948-W	9" x 48"	\$65.80
TJ1044-W	10" x 44"	\$48.20
TJ1054-W	10" x 54"	\$54.90
TJ1060-W	10" x 60"	\$57.30
TJ1248-W	12" x 48"	\$89.40
TJ1354-W	13" x 54"	\$101.50

Tank Jacket Caps

TJ07-CAP	7" Black Cap	\$18.15
TJ08-CAP	8"	\$8.30
TJ09-CAP	9"	\$8.50
TJ10-CAP	10"	\$9.90
TJ12-CAP	12"	\$19.50
TJ13-CAP	13"	\$29.20



TANK JACKET CAP

Mineral Tanks, Internals & Acces.





TJAP

Stainless Steel Tank Jackets

TJ0844-SS-STRUCTURAL	8" x 44" Stainless Steel, Structural Tank	\$163.00
TJ0948-SS-STRUCTURAL	9" x 48" Stainless Steel, Structural Tank	\$163.00
TJ1054-SS-STRUCTURAL	10" x 54" Stainless Steel, Structural Tank	\$185.00
TJ1252-SS-STRUCTURAL	12" x 52" Stainless Steel, Structural Tank	\$302.00
TJ0948-SSWELDED-FL	9" x 48" Welded Full Length Jacket	\$227.00
TJ1054-SSWELDED-FL	10" x 54" Welded Full Length Jacket	\$305.00
TJ1252-SSWELDED-FL	12" x 52" Welded Full Length Jacket	\$361.00
TJ1354-SSWELDED-FL	13" x 54" Welded Full Length Jacket	\$457.00
TJ0948-SS-ENPRESS	9" x 48" Stainless Steel, Enpress Tank	\$163.00
TJ1252-SS-ENPRESS	12" x 52" Stainless Steel, Enpress Tank	\$420.00

Tank Jacket Accessories

The Tank Jacket Adhesive (Methyl Ethyl Ketone) that is used to bond the edges of the tank jacket material and the H-bar together, can be purchased at your local hardware store. Using the applicator below, applies the correct amount of MEK to the H-bar joint for proper adhesion.

TJAP	Adhesive Applicator	\$17.35
TJAP-NEEDLE	Applicator - Replacement Needle	\$12.75

Clack Blow Molded Tank Jackets and Accessories

Blow-molded from the same material as our brine tanks, these jackets have a high impact resistance and are not prone to stress, scratches or wrinkles. Universal size easily installs on 7" x 30" to 10" x 54" tanks. A black injection-molded cap is sold separately

ROUND MINERAL TANK JACKETS

CRTJ44-A	10" x 44" Almond	\$59.75
CRTJ48-A	10" x 48" Almond	\$60.75
CRTJ54-A	10" x 54" Almond	\$61.50
CRTJ54-C	10" x 54", Black	\$61.50
CRTJ54-P	10"x54", Platinum	\$61.00

CAP FOR ROUND MINERAL TANK JACKET

CRTJ-CAP	10"	\$14.60
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FOAM BAND SPACERS

Install between jacket and mineral tank to compensate for different tank diameter sizes. Polyurethane foam. Two recommended.

CTJ08-S	Spacer for 8" Tanks	\$5.05
CTJ09-S	Spacer for 9" Tanks	\$4.90
CTJ10-S	Spacer for 10" Tanks	\$5.00

Neoprene Insulated Tank Jackets

These neoprene water softener jackets are designed specifically to insulate the softener tank against ambient temperature drops. This reduces the possibility of moisture developing on the outside of the softener as well as provides a touch of style to your whole home water conditioner. Also, with our black neoprene jackets, there is no added worry of dents or dirt affecting the look of your softener tank. A full length back zipper makes installation easy to apply onto already installed tanks and is easy to remove for machine washing.

TJNP-0844	8" x 44" Black	\$93.25
TJNP-0948	9" x 48" Black	\$97.50
TJNP-1054	10" x 54" Black	\$108.00
TJNP-1248	12" x 48" Black	\$118.00
TJNP-1252	12" x 52" Black	\$122.00
TJNP-1354	13" x 54" Black	\$128.25



ROUND JACKET (SHOWN WITH MATCHING BRINE TANK)



ZIP UP NEOPRENE TANK JACKETS

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NELSEN

C O R P O R A T I O N [®]

Brine Tanks, Cabinets & Components

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Round Brine Tanks w/Cover

Blow-molded high density polyethylene tanks with matching covers.



18" ROUND BRINE TANK
(WHITE NOT SHOWN)

18" x 33" (36 GALLON, 375# SALT)

BT1833-RB	● Blue	\$86.10
BT1833-RW	○ White	\$86.10
BT1833-RA	○ Almond	\$86.10
BT1833-RC	● Charcoal	\$86.10
BT1833-RP	● Platinum	\$86.10

18" x 40" (43 GALLON, 450# SALT)

BT1840-RB	● Blue	\$97.90
BT1840-RA	○ Almond	\$97.90
BT1840-RC	● Charcoal	\$97.90

Rectangular Brine Tanks with Blow Molded Covers

15" x 17" x 36" (33 GALLON, 275# SALT)

Rectangular brine tanks packaged four per carton. Please add a carton(s) for broken carton shipments.



15" X 17" X 36"
BRINE TANKS

BT151736-B	● Blue	\$75.80
BT151736-W	○ White	\$75.80
BT151736-A	○ Almond	\$75.80
BT151736-C	● Charcoal	\$75.80
BT151736-P	● Platinum	\$75.80

Square Brine Tanks with Blow Molded Covers

11" x 11" x 38" (19 GALLON, 156# SALT)

BT1138S-B	● Blue	\$68.30
BT1138S-W	○ White	\$68.30
BT1138S-A	○ Almond	\$68.30
BT1138S-C	● Charcoal	\$68.30



11" SQUARE BRINE TANKS

Deluxe Black Brine Tank Covers

Gloss black injection molded cover for an attractive color contrast on brine tanks.

BTC18D	18" Round	\$15.60
BTC1517D	15" x 17" Rectangular	\$9.30
BTC1111D	11" x 11" Square	\$18.20



BTC18D



BTC1517D

Plastic Brine Fittings

ELBOW UNION

P6EU6	3/8" Compression x 3/8" Compression	\$6.25
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FEMALE ELBOW

J0302FE	Jaco Elbow 3/8" Tube x 1/4" FIPT3/8" Compression x 3/8" Compression	\$3.50
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MALE CONNECTOR

P6MC4	3/8" MIPT x 1/4" Comp.	\$4.85
P8MC6	1/2" MIPT x 3/8" Comp.	\$11.85

MALE ELBOWS

P6ME4	1/4" MIPT x 3/8" Comp.	\$6.90
P8ME6	3/8" MIPT x 1/2" Comp.	\$14.70

OVERFLOW ELBOW W/NUT

OE05	1/2" Overflow Ell	\$1.85
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OE05



BG18-4

Plastic Brine Grids (Decks) and Legs

BG1111	11" x 11" Square	\$16.35
BG1414	14" x 14" Square	\$16.35
BG1517	15" x 17" Rectangular	\$16.35
BG16-4	18" Round, 4" Hole	\$13.90
BG18-4	18" Round, 4" Hole	\$15.00

BG24	24" Round, 4" Hole, No Legs	\$81.25
BG30-P	30" Round, No Legs	\$197.00

NOTE: For Legs select proper lengths of 1½" PVC SCH 40 Pipe

BGL3	Brine Grid Legs, 3" (Set of 4)	\$10.10
BGL6	Brine Grid Legs, 6" (Set of 4)	\$24.30

* BGWP407	Windsor Grid, 7" Tank	\$17.00
* BGWP409	Windsor Grid, 9" Tank	\$17.00
* BGWP410	Windsor Grid, 10" Tank	\$17.00

Slotted Brine Wells

BW4028S	4" x 28" Slotted Well	\$10.40
* BW4030S	4" x 30"	\$11.20
* BW4032S	4" x 32"	\$11.85
BW4036S	4" x 36"	\$13.45
BW4046S	4" x 46"	\$17.00

Brine Well Caps

BWC40	4" Brine Well Cap	\$1.10
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Brine Valves And Pickups

FLECK AIR CHECKS

PVC construction with plastic check and rubber seat for positive seal.

FL500	500 Residential, 3/8"	\$9.00
FL500-48	500 Air Check with 48" Tube	\$8.90

FLECK 2300 & 2310 SAFETY VALVES

Safety shut off for timed brine systems.

FL2300	2300 Safety Valve, Brass	\$48.10
FL60028	2300 Float & Rod (White) 30"	\$15.80
FL2310	2310 Safety Valve, PVC	\$25.30
FL60068	2310 Float & Rod (Grey)	\$7.55

CLACK 474 SAFETY BRINE VALVES

The 474 Safety Brine Valve System incorporates the 474 Air Check Assembly to provide higher flow rates and greater flexibility than traditional brine delivery systems. Featuring a ½" riser pipe, the 474 Safety Brine Valve System is capable of providing brine draw and refill rates up to 1½ gallons per minute. The 474 Safety Brine Valve System can be used as a safety back-up float or as the primary brine shut-off valve depending upon which float assembly you choose.

474-03BV	Brine Valve, 3/8" Eil	\$18.30
474-05BV	Brine Valve, 1/2" Eil	\$23.70
474-48AC	Air Check, 1/2" x 48"	\$11.05
474-9FA	Float Assembly 9-1/2"	\$6.00
474-32FA	Float Assembly 32"	\$8.40



BG1517



SLOTTED BRINE WELL



FL500



FL60028



FL2300



FL2310



FL60068



474-03BV



474-9FA



464-24

CLACK 464 BRINE VALVES

Easily-adjustable to fit all brine tanks and cabinets. Features a built in air check, adjustable float setting, and can be used as brine refill shut-off or safety back-up float. Flow rates up to 1 gpm. Includes 24" float rod and float.

464-24	Brine Valve with Air Check	\$27.50
BDP023475	1/4" x 34-3/4" Brine Draw Pipe	\$4.80

BRINE PICK-UP

Used with softener valves like the Autotrol 255 with a built-in air check.

BPU03A	3/8" x 36" PVC Pick-Up	\$7.35
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HOT WATER ACCESSORIES

FL500-HW	500 Hot Water Air Check	\$32.40
FL60026-SAN	400A/2350 Hot Water Float Assy.	\$50.25



BPU03A



FL500-HW



FL60026-SAN

Complete Brine Valve Assemblies

Includes all components that go into a brine well. Ready to connect to 3/8" Poly Brine Line.

500BV-SC	500 Air Check with EII	\$29.60
2300BV-SC	2300 Safety w/PU and Float	\$92.75
2310BV-SC	2310 Safety w/PU and Float	\$53.90
2310BV-COM	2310 Safety w/PU and Float	\$63.00
2310BV-GRID-SC	2310 Safety w/PU and Float for tanks w/brine grid	\$53.90
464BV-SC	464 Clack Brine Valve w/1/4" PVC Pipe & Float	\$52.30
03PU-SC	Brine Pick-Up with EII	\$27.60
2310PU-SC	Brine Pick-Up with 2310 Safety	\$51.80
23PU-SC	Brine Pick-Up with 2300 Safety	\$80.00
474-ASSEMBLY-28	474 Safety/BW/Cap Assm for 18x33 Brine Tank	\$199.75
474-ASSEMBLY-30	474 Safety/BW/Cap Assm for 15x17x36 Brine Tank	\$204.40
474-ASSEMBLY-36	474 Safety/BW/Cap Assm for 18x40 Brine Tank	\$217.35



2300BV-SC



2310BV-SC



464BV-SC



500BV-SC



03PU-SC



474-ASSEMBLY-28





CL-WS-LG-35-474

Water Specialist Cabinet

A water softener cabinet designed for use with the C-Series control valve. The top sliding cover opens to a large tapered chute for ease of adding salt to the system without removing the cover. The design offers a unique flip up access window that allows for valve programming without having to remove the cover. A brine valve/brine well system is incorporated in the design that allows full access to the 474 brine valve for servicing without having to disassemble the complete system.

The cabinet is available in for both 18" and 35" tall media tanks including a 12" x 35" tank for larger resin capacities. Base and top sold separately. See Residential Section for completed systems.

CL-WS-LG-18-474	WSC Base, Lt Gray, 18" w/474 Brine Valve	\$116.00
CL-WS-LG-35-474	WSC Base, Lt Gray, 35" w/474 Brine Valve	\$150.00
CL-WS-LG-TOP	WSC Base, Lt Gray Top Assm.	\$142.65

Windsor Water Softener Cabinets

Blow-molded cabinet with an injection molded salt lid and back plate. Accommodates mineral tanks up to 10" in diameter. Measures 35¾" high (plus mineral tank) x 21½" deep x 13½" wide.

CL-WINDSOR-A	Almond Cabinet	\$154.00
CL-WINDSOR-HP-01	Windsor Hi-Profile Cabinets	\$190.00
CL-WINDSOR-KIT	Carton Extension Kit	\$10.95

Pentair Water Softener Cabinet

Blow-molded cabinet with an injection molded salt lid and back plate. Designed for a specially-integrated 5600 Control Valve. Measures 44½" high x 22" deep x 12½" wide. When using a standard mechanical valve, a faceplate must be ordered with the cabinet.

C-SOFTFLO-CG	SoftFlo Cabinet, Cool Gray	\$253.00
C-SOFTFLO-CG-FP	SoftFlo Cabinet Faceplate, Cool Gray	\$20.10



WINDSOR CABINET



SOFTFLO CABINET

Complete Brine Tanks, Domestic Sizes

Includes polyethylene brine tank with cover, 4" brine well with top cap, brine overflow ell and tubing plus brine valve shown.



(SHOWN WITH DELUXE LID)



ROUND BRINE TANKS WITH FLECK 500 AIR CHECKS ONLY

BT1833R-B500	●	18" x 33" Blue	\$147.00
BT1833R-W500	○	18" x 33" White	\$147.00
BT1833R-A500	◐	18" x 33" Almond	\$147.00
BT1833R-C500	●	18" x 33" Charcoal	\$147.00
BT1833R-P500	●	18" x 33" Platinum	\$147.00
BT1840R-B500	●	18" x 40" Blue	\$161.00
BT1840R-A500	◐	18" x 40" Almond	\$161.00
BT1840R-C500	●	18" x 40" Charcoal	\$161.00

ROUND WITH FLECK 2300 SAFETY VALVES AND 500 AIR CHECKS

BT1833R-B2300	●	18" x 33" Blue	\$200.00
BT1833R-W2300	○	18" x 33" White	\$200.00
BT1833R-A2300	◐	18" x 33" Almond	\$200.00
BT1833R-C2300	●	18" x 33" Charcoal	\$200.00
BT1833R-P2300	●	18" x 33" Platinum	\$200.00
BT1840R-B2300	●	18" x 40" Blue	\$215.00
BT1840R-A2300	◐	18" x 40" Almond	\$215.00
BT1840R-C2300	●	18" x 40" Charcoal	\$215.00

ROUND WITH FLECK 2310 SAFETY VALVES AND 500 AIR CHECKS

BT1833R-B2310	●	18" x 33" Blue	\$173.00
BT1833R-W2310	○	18" x 33" White	\$173.00
BT1833R-A2310	◐	18" x 33" Almond	\$173.00
BT1833R-C2310	●	18" x 33" Charcoal	\$173.00
BT1833R-P2310	●	18" x 33" Platinum	\$173.00
BT1840R-B2310	●	18" x 40" Blue	\$188.00
BT1840R-A2310	◐	18" x 40" Almond	\$188.00
BT1840R-C2310	●	18" x 40" Charcoal	\$188.00

ROUND BRINE TANKS WITH CLACK 464 SAFETY VALVES

BT1833R-B464	●	18" x 33" Blue	\$170.00
BT1833R-W464	○	18" x 33" White	\$170.00
BT1833R-A464	◐	18" x 33" Almond	\$170.00
BT1833R-C464	●	18" x 33" Charcoal	\$170.00
BT1833R-P464	●	18" x 33" Platinum	\$170.00
BT1840R-B464	●	18" x 40" Blue	\$184.00
BT1840R-A464	◐	18" x 40" Almond	\$184.00
BT1840R-C464	●	18" x 40" Charcoal	\$184.00

ROUND WITH BRINE PICK-UPS (USE WITH AUTOTROL 255 VALVES)

BT1833R-BPU	●	18" x 33" Blue	\$145.00
BT1833R-WPU	○	18" x 33" White	\$145.00
BT1833R-APU	◐	18" x 33" Almond	\$145.00
BT1833R-CPU	●	18" x 33" Charcoal	\$145.00
BT1833R-PPU	●	18" x 33" Platinum	\$145.00
BT1840R-BPU	●	18" x 40" Blue	\$159.00
BT1840R-APU	◐	18" x 40" Almond	\$159.00
BT1840R-CPU	●	18" x 40" Charcoal	\$159.00



18" ROUND BRINE TANK
(SHOWN WITH DELUXE LID)

ROUND WITH FLECK 2300 SAFETY VALVES AND BRINE PICK-UPS

BT1833R-B23PU	●	18" x 33" Blue	\$198.00
BT1833R-W23PU	○	18" x 33" White	\$198.00
BT1833R-A23PU	●	18" x 33" Almond	\$198.00
BT1833R-C23PU	●	18" x 33" Charcoal	\$198.00
BT1833R-P23PU	●	18" x 33" Platinum	\$198.00
BT1840R-B23PU	●	18" x 40" Blue	\$213.00
BT1840R-A23PU	●	18" x 40" Almond	\$213.00
BT1840R-C23PU	●	18" x 40" Charcoal	\$213.00

ROUND WITH FLECK 2310 SAFETY VALVES AND BRINE PICK-UPS

BT1833R-B2310PU	●	18" x 33" Blue	\$171.00
BT1833R-W2310PU	○	18" x 33" White	\$171.00
BT1833R-A2310PU	●	18" x 33" Almond	\$171.00
BT1833R-C2310PU	●	18" x 33" Charcoal	\$171.00
BT1833R-P2310PU	●	18" x 33" Platinum	\$171.00
BT1840R-B2310PU	●	18" x 40" Blue	\$186.00
BT1840R-A2310PU	●	18" x 40" Almond	\$186.00
BT1840R-C2310PU	●	18" x 40" Charcoal	\$186.00

RECTANGULAR BRINE TANKS WITH FLECK 500 AIR CHECKS

BT151736S-B500	●	15" x 17" x 36" Blue	\$144.00
BT151736S-W500	○	15" x 17" x 36" White	\$144.00
BT151736S-A500	●	15" x 17" x 36" Almond	\$144.00
BT151736S-C500	●	15" x 17" x 36" Charcoal	\$144.00
BT151736S-PC500	●	15" x 17" x 36" Platinum	\$144.00

RECTANGULAR BRINE TANKS WITH FLECK 2300 SAFETY VALVES

BT151736S-B2300	●	15" x 17" x 36" Blue	\$198.00
BT151736S-W2300	○	15" x 17" x 36" White	\$198.00
BT151736S-A2300	●	15" x 17" x 36" Almond	\$198.00
BT151736S-C2300	●	15" x 17" x 36" Charcoal	\$198.00
BT151736S-P2300	●	15" x 17" x 36" Platinum	\$198.00

RECTANGULAR BRINE TANKS WITH CLACK 464 SAFETY VALVES

BT151736S-B464	●	15" x 17" x 36" Blue	\$167.00
BT151736S-W464	○	15" x 17" x 36" White	\$167.00
BT151736S-A464	●	15" x 17" x 36" Almond	\$167.00
BT151736S-C464	●	15" x 17" x 36" Charcoal	\$167.00
BT151736S-P464	●	15" x 17" x 36" Platinum	\$167.00

RECTANGULAR WITH BRINE PICK-UPS (Use with Autotrol Valves)

BT151736S-BPU	●	15" x 17" x 36" Blue	\$142.50
BT151736S-WPU	○	15" x 17" x 36" White	\$142.50
BT151736S-APU	●	15" x 17" x 36" Almond	\$142.50
BT151736S-CPU	●	15" x 17" x 36" Charcoal	\$142.50
BT151736S-PPU	●	15" x 17" x 36" Platinum	\$142.50



15" X 17" X 36"
RECTANGULAR BRINE TANK
(SHOWN WITH DELUXE LID)



15" X 17" X 36"
RECTANGULAR BRINE TANK
(SHOWN WITH DELUXE LID)



11" X 11" X 38"
SQUARE BRINE TANK
(SHOWN WITH DELUXE LID)

RECTANGULAR WITH FLECK 2300 SAFETY VALVES and BRINE PICK-UPS

BT151736S-B23PU	●	15" x 17" x 36" Blue	\$196.00
BT151736S-W23PU	○	15" x 17" x 36" White	\$196.00
BT151736S-A23PU	◐	15" x 17" x 36" Almond	\$196.00
BT151736S-C23PU	●	15" x 17" x 36" Charcoal	\$196.00
BT151736S-P23PU	●	15" x 17" x 36" Platinum	\$196.00

RECTANGULAR BRINE TANKS WITH FLECK 2310 SAFETY VALVES

BT151736S-B2310	●	15" x 17" x 36" Blue	\$171.00
BT151736S-W2310	○	15" x 17" x 36" White	\$171.00
BT151736S-A2310	◐	15" x 17" x 36" Almond	\$171.00
BT151736S-C2310	●	15" x 17" x 36" Charcoal	\$171.00
BT151736S-P2310	●	15" x 17" x 36" Platinum	\$171.00

RECTANGULAR BRINE TANKS WITH FLECK 2310 SAFETY VALVES and BRINE PICK-UPS

BT151736S-B2310PU	●	15" x 17" x 36" Blue	\$169.00
BT151736S-W2310PU	○	15" x 17" x 36" White	\$169.00
BT151736S-A2310PU	◐	15" x 17" x 36" Almond	\$169.00
BT151736S-C2310PU	●	15" x 17" x 36" Charcoal	\$169.00
BT151736S-P2310PU	●	15" x 17" x 36" Platinum	\$169.00

SQUARE BRINE TANKS WITH FLECK 500 AIR CHECKS

BT1138S-B500	●	11" x 38" Blue	\$134.25
BT1138S-A500	◐	11" x 38" Almond	\$134.25
BT1138S-C500	●	11" x 38" Charcoal	\$134.25

SQUARE BRINE TANKS WITH FLECK 2300 SAFETY VALVES

BT1138S-B2300	●	11" x 38" Blue	\$190.00
BT1138S-A2300	◐	11" x 38" Almond	\$190.00
BT1138S-C2300	●	11" x 38" Charcoal	\$190.00

SQUARE BRINE TANKS WITH FLECK 2310 SAFETY VALVES

BT1138S-B2310	●	11" x 38" Blue	\$160.00
BT1138S-A2310	◐	11" x 38" Almond	\$160.00
BT1138S-C2310	●	11" x 38" Charcoal	\$160.00

SQUARE BRINE TANKS WITH CLACK 464 SAFETY VALVES

BT1138S-B464	●	11" x 38" Blue	\$158.00
BT1138S-A464	◐	11" x 38" Almond	\$158.00
BT1138S-C464	●	11" x 38" Charcoal	\$158.00

SQUARE BRINE TANKS WITH BRINE PICK-UPS (Use with Autotrol Valves)

BT1138S-BPU	●	11" x 38" Blue	\$132.50
BT1138S-APU	◐	11" x 38" Almond	\$132.50
BT1138S-CPU	●	11" x 38" Charcoal	\$132.50

SQUARE BRINE TANKS WITH FLECK 2310 SAFETY VALVES and BRINE PICK-UPS

BT1138S-B2310PU	●	11" x 38" Blue	\$162.00
BT1138S-A2310PU	◐	11" x 38" Almond	\$162.00
BT1138S-C2310PU	●	11" x 38" Charcoal	\$162.00

Hot Water Brine Tanks

The Commercial Hot Water Tank is very similar to the Commercial Potassium Permanganate Tank. Select Tank by size of Brining.

PT1833-03-HW	18" x 33", 1600 Brining	\$287.00
PT1833-05-HW	18" x 33", 1700 Brining	\$657.00
PT1833-07-HW	18" x 33", 1800 Brining	\$657.00

Slotted Brine Wells

BW5038S	5" x 38"	\$37.50
BW5048S	5" x 48"	\$47.50
BW5060S	5" x 60"	\$59.25

Brine Well Caps

BWC50	5" Brine Well Cap	\$3.60
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Overflow Elbow w/Nut

OE10	1/2" Overflow Ell	\$5.95
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Brine Valves And Pickups

FLECK AIR CHECKS

PVC construction with plastic check and rubber seat for positive seal.

FL900	900 Commercial, 1"	\$70.25
FL18602	Fitting Package, 900 to 1700	\$20.55

FLECK 2350 COMMERCIAL SAFETY VALVE

Heavy duty brass valve. Use FL60026 400A float and rod.

FL2350	2350 Safety Valve Only	\$247.00
FL18603	Fitting Package, 2350 to 1700	\$24.95

CLACK 484 COMMERCIAL BRINE VALVE

Modular design eliminates the use of any screws in the valve body. Flow rates are 10 gpm draw and 5 gpm refill. Can be used on time brine refill as well as constant pressure refill systems.

484-07-54	3/4" Standard, 36" Float	\$112.50
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CLACK 494 1" COMMERCIAL SAFETY BRINE VALVE

The 494 Commercial Safety Brine Valve "top of brine tank" design allows for easy access and serviceability. Brine draw rates up to 20 gpm with refill rates up to 10 gpm. The 494 assembly includes the brine valve, two brine connection elbows (1" PVC male and 3/4" x 1" PVC slip), adjustable float, air check assembly with 60" riser, 1" riser adapter and float rod guide.

494-10	1" Safety Brine Valve and Air Check Assm.	\$290.00
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HOT WATER ACCESSORIES

FL900-HW	900 Hot Water Air Check	\$124.00
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Complete Brine Valve Assemblies

Includes all components that go into a brine well. Ready to connect to 3/8" Poly Brine Line.

2350BV-SC	2350 Comm. Safety W/PU and Float	\$379.00
474BV-SC	Clack Comm. 474 Brine Valve Assembly	\$54.50
484BV-SC	Clack Commercial 484 Brine Valve Assembly	\$180.00



FL2350



2350BV-SC



494-10



474BV-SC



484BV-SC



COMMERCIAL BRINE TANK
(BRINE FITTINGS NOT INCLUDED
WITH BASE BRINE TANKS)



COMMERCIAL BRINE TANK



50 X 60
COMMERCIAL BRINE TANK

Commercial Round Brine Tanks w/Cover

BLOW-MOLDED

BT2441-RC	● 24" x 41" (81 gal., 700# Salt)	\$210.00
BT2450-RC	● 24" x 50" (100 gal., 850# Salt)	\$233.00
* BT3050-RC	● 30" x 50" (150 gal., 1200# Salt)	\$414.00

ROTATIONAL MOLDED

* BT2448-RC	● 24" x 48" (95 gal., 800# Salt)	\$505.00
BT3048-RC	● 30" x 48" (145 gal., 1200# Salt)	\$585.00
BT3948-RC	● 39" x 48" (250 gal., 2200# Salt)	\$901.00
BT4260-RC	● 42" x 60" (350 gal., 3100# Salt)	\$1,167.00
BT5060-RC	● 50" x 60" (500 gal., 4500# Salt)	\$1,269.00
BT6066-RC	● 60" x 66" (800 gal., 7200# Salt)	\$3,372.00

Commercial Brine Tanks

Includes polyethylene brine tank with cover, 4" or 6" brine wells with end caps, brine overflow elbow and tubing plus air check shown. Note: Other sizes and combinations are available.

COMMERCIAL BRINE TANKS WITH FLECK 500 AIR CHECK

BT2441R-500	● 24" x 41" w/500 Air Check, 4" Well	\$291.00
BT2450R-500	● 24" x 50" w/500 Air Check, 4" Well	\$317.00
BT3048R-500	● 30" x 48" w/500 Air Check, 4" Well	\$667.00

COMMERCIAL BRINE TANKS WITH FLECK 2300 AIR CHECK

BT2441R-2300	● 24" x 41" w/2300 Air Check, 4" Well	\$339.00
BT2450R-2300	● 24" x 50" w/2300 Air Check, 4" Well	\$366.00
BT3048R-2300	● 30" x 48" w/2300 Air Check, 4" Well	\$710.00

COMMERCIAL BRINE TANKS WITH FLECK 900 AIR CHECK

BT2441R-900-4	● 24" x 41" w/4" Brine Well	\$356.00
BT2450R-900-4	● 24" x 50" w/4" Brine Well	\$383.00
BT3048R-900-4	● 30" x 48" w/4" Brine Well	\$727.00
BT3948R-900-4	● 39" x 48" w/4" Brine Well	\$1,037.00

COMMERCIAL BRINE TANKS WITH FLECK 2350 SAFETY VALVE

BT2441R-2350-5	● 24" x 41" w/2350, Air Check, 5" Well	\$622.00
BT2450R-2350-5	● 24" x 50" w/2350, Air Check, 5" Well	\$654.00
BT3048R-2350-5	● 30" x 48" w/2350, Air Check, 5" Well	\$999.00
BT3948R-2350-5	● 39" x 48" w/2350, Air Check, 5" Well	\$1,308.00
BT5060R-2350-5	● 50" x 60" w/2350, Air Check, 5" Well	\$1,679.00

COMMERCIAL BRINE TANKS WITH CLACK 484 SAFETY VALVE

BT2441R-484-5	● 24" x 41" w/484, Air Check, 5" Well	\$501.00
BT2450R-484-5	● 24" x 50" w/484, Air Check, 5" Well	\$512.00
BT3048R-484-5	● 30" x 48" w/484, Air Check, 5" Well	\$861.00
BT3948R-484-5	● 39" x 48" w/484, Air Check, 5" Well	\$1,175.00
BT5060R-484-5	● 50" x 60" w/484, Air Check, 5" Well	\$1,551.00
BT6066R-484-5	● 60" x 66" w/484, Air Check, 5" Well	\$3,666.00

COMMERCIAL BRINE TANKS WITH CLACK 494 1" COMMERCIAL BRINE VALVE

BT2441R-494-5	● 24" x 41" w/494, Air Check, 5" Well	\$607.00
BT2450R-494-5	● 24" x 50" w/494, Air Check, 5" Well	\$618.00
BT3048R-494-5	● 30" x 48" w/494, Air Check, 5" Well	\$967.00
BT3948R-494-5	● 39" x 48" w/494, Air Check, 5" Well	\$1,281.00
BT5060R-494-5	● 50" x 60" w/494, Air Check, 5" Well	\$1,658.00
BT6066R-494-5	● 60" x 66" w/494, Air Check, 5" Well	\$3,772.00

Brine Tanks w/Clack 454 HI-FLOW Safety & Air Checks and 5" Brine Wells

BT2441R-454HF-5	● 24" x 41" w/454HF, Air Check, 5" Well	\$482.00
BT2450R-454HF-5	● 24" x 50" w/454HF, Air Check, 5" Well	\$487.00
BT3048R-454HF-5	● 30" x 48" w/454HF, Air Check, 5" Well	\$837.00
BT3948R-454HF-5	● 39" x 48" w/454HF, Air Check, 5" Well	\$1,151.00
BT5060R-454HF-5	● 50" x 60" w/454HF, Air Check, 5" Well	\$1,527.00

Commercial 39" & 50" Brine Grids

A commercial brine grid that can endure the harsh environment of today's demanding water softening systems. The PVC grid plate and support structure are lightweight and corrosion resistant. A single brine well opening is provided for a standard 5" brine well. Additional 5" brine well openings can be custom-cut. 4" brine well is not available with this grid system. These grids are designed and built for the brine tanks Nelsen Corporation offers and may not fit other makes of brine tanks.



39" BRINE GRIDS

BG39-10	39" Round, 5" Hole, 10" Height w/Legs	\$967.00
BG39-12	39" Round, 5" Hole, 12" Height w/Legs	\$1,006.20
BG39-16	39" Round, 5" Hole, 16" Height w/Legs	\$1,006.30

50" BRINE GRIDS

BG50-10	50" Round, 5" Hole, 10" Height w/Legs	\$1,211.00
BG50-12	50" Round, 5" Hole, 12" Height w/Legs	\$1,260.00
BG50-16	50" Round, 5" Hole, 16" Height w/Legs	\$1,260.10

ADDITIONAL 5" BRINE GRID HOLE

BG39/50-HOLE	Additional 5" Hole For Second Brine Well	\$104.00
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COMMERCIAL BRINE DECK ONLY

If you want to create your own support structure, choose one Brine Grid Deck. You'll receive just the PVC deck with a 5" brine well opening. These grids are designed and built for the brine tanks Nelsen Corporation offers and may not fit other makes of brine tanks.

BG39-DECK	39" Round Brine Grid Deck Only	\$773.00
BG50-DECK	50" Round Brine Grid Deck Only	\$825.00

BRINE DECK SALT GUARD

The Salt Guard helps keep salt from flowing between the grid and the brine tank wall. A 1" Black Split Wire Loom is attached to the diameter of the brine grid to fill the gap.

BG39-SALT GUARD	39" Brine Grid Salt Guard	\$53.00
BG50-SALT GUARD	50" Brine Grid Salt Guard	\$55.00



BG39-10



BG39-SALT GUARD



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NELSEN

C O R P O R A T I O N™

DROP Water Management System

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DROP CONNECT

COMPLETE WATER MANAGEMENT SYSTEM

DROP
PROTECT WHAT MATTERS

DROP is a unique water management system. Using the DROP Hub, DROP monitors water usage and manages the water-related devices throughout the entire home. DROP can operate locally without an internet connection or has the added ability to send mobile alerts using the homeowner's WiFi network. This advanced system can shut off water flow to the entire home automatically when it senses a risk and allows the homeowner to make decisions on the course of action after the risk has been mitigated—all from a mobile device.



Eliminate Water System Worries 24/7

The whole home water system is essential to your homeowner's well being. So, when problems arise, it's cause for alarm. From poor tasting water to high utility bills to catastrophic flooding, why not head all water system worries off at the pass? DROP puts effortless residential water system control in the palm of the hand so the homeowner can relax and enjoy their home's water system the way it was meant to be.

Here is how it works

DROP Hub

The heart and brains of the system is the DROP Hub, a smart device that integrates with all parts of the home water system. Using low-frequency radio waves, it communicates directly with water pumps, softeners, filters, flow meters and any other residential water treatment devices in the home.



DROP Leak Detector

In addition, the DROP whole home water system includes DROP Leak Detectors to safeguard the property in the event of a water burst or leak. These small devices are placed under sinks, near toilets or anywhere water damage is likely to occur. They sense moisture and immediately alert the DROP Hub to shut off the water supply to the area should a leak occur. They also monitor temperature, enabling freeze protection for vulnerable water pipes in cold climate areas.

The DROP Hub monitors all residential water system devices 24/7 to make sure they're working properly. It keeps the homeowner in the loop through the DROP App, which uses standard home WiFi so they can control the water system from a smartphone or tablet from anywhere in the world, at any time. If a problem should arise, it sends an alerts and shuts down or drains the water supply as needed to prevent costly water waste and damage. It also monitors water flow and pressure to enable quick detection of slow leaks as well as bursts.

There's no worry, though — since the DROP creates a local network, it will continue to protect the home even if WiFi is shut off or the Internet goes down.

DROP

Home Protection Valve

Protect from Leaks and Conserve Water



Summary

Monitoring pressure, flow, and temperature while also pairing with wireless leak detectors, the Home Protection Valve from DROP offers the most all-inclusive home leak protection system available.

Features

- DROP App to Remote Control Systems from anywhere
- Provides backflow prevention
- Local leak detection
- 9v battery backup for power outage
- Built in manual system bypass
- Provides text messages, emails, and/or push notifications of vital system information
- 5-year warranty

Like all DROP systems, the Home Protection Valve provides the ability to shut off water to the home automatically when a problem is detected or manually through the app. Its built-in flow meter and pressure sensors can identify a broad range of problems such as continuous flow, leaky toilets, or even very small leaks from a faucet. When paired with DROP Leak Detectors through the DROP Hub, this system provides for every method of leak detection available. In addition to all the benefits associated with preventing costly water damage, the system provides a lot of useful data to aid in water conservation.

DROP Leak Detectors

Place DROP Leak Detectors under sinks and dishwashers, behind toilets or washing machines, near your water heater, or anywhere that water might leak or collect. If a leak or freezing temperature is detected, the Leak Detector will have the DROP Home Protection Valve turn off your water.



DROP



DROP HOME PROTECTION VALVE

DROP-HPS

Home Protection Valve

\$1,831.70

DROP Home Protection Valve

The Home Protection Valve provides the ability to shut off water to the home when a problem is detected or manually through an app on a smartphone or enabled device. It's built-in flow meter and pressure sensors can identify a broad range of problems such as continuous flow, leaky toilets, or even very small leaks from a faucet. When paired with DROP Leak Detectors through the DROP Hub, this system provides for every method of leak detection available. In addition to all the benefits associated with minimizing costly water damage, the system provides useful data to aid in water conservation.

Monitoring pressure, flow, and temperature while also pairing with wireless leak detectors, the Home Protection Valve from DROP offers the most all-inclusive home leak protection system available.

System Features:

- DROP App to Remote Control Systems from anywhere
- Provides backflow prevention
- Local leak detection
- 9v battery backup for power outage
- Built in manual system bypass
- Provides text messages, emails, and/or push notifications of vital system information
- 5-year warranty

You decide how you would like DROP to communicate with you. Notifications can be set up as emails, texts, or even push messages. Have a kid that tends to leave the water on? DROP can be configured to send you notifications when there is continuous water flow and if you want even to shut off the water after a period of time that you select.



The DROP Hub

The Home Protection Valve requires the function of the DROP Hub. The hub is the connection to everything on the DROP Smart Water Management system. It integrates all of your residential water devices together.



The DROP Remote

This unique device is an excellent accessory with any other DROP product. This smart remote not only lets you turn on/off your water with a button, but it will also notify you of your system status and events.



The DROP Leak Detector

Never worry about coming home to frozen pipes, absurdly high water bills or a soaked kitchen. These inconspicuous water-saving devices integrate with our smart water monitoring system to safeguard your home.

Product Specifications	DROP-HPS
Service Flow Rate	25.0 gpm
Electrical Requirements	12V DC Power Supply (included)
Battery Backup	9V Battery Backup for power loss
Product Dimensions and Size	D: 6.5 in W: 18 in H: 8 in
Approximate Shipping Weight	8 lbs

Home Protection Valve (DROP-HPS) includes (1) Home Protection Valve, (1) Hub, (1) Remote and (2) Leak Detectors

DROP Water Management System



DROP

Hub and Remote

The Connection to Everything



Summary

The DROP Hub is a state-of-the-art smart hub that is the heart and brains of the DROP Connect smart water management system. The DROP Remote extends the range of the DROP Link mesh network providing extended coverage, if needed.



Features

- Integrates all of the products in the DROP Water Management System
- Show systems water state
- Extends your mesh network
- Convenient control of water shut off with the touch of a button
- 9V Battery Backup for Power Loss
- DROP App to Control System from Anywhere
- Water Usage Data and History
- Provides text messages, emails and/or push notifications for low salt and other system information to your smartphone.
- 1 Year Warranty

The DROP Hub and Remote integrates with all your residential water management devices, including water softeners, pumps, filters, flow meters, water conservation devices and more. The DROP Remote extends the range of your DROP Link mesh, as well as gives you the convenience of turning your water off with a touch of a button.

DROP Leak Detectors

Place DROP Leak Detectors under sinks and dishwashers, behind toilets or washing machines, near your water heater, or anywhere that water might leak or collect. If a leak or freezing temperature is detected, the Leak Detector will have the DROP Hub turn off your water.



DROP

Pro Water Softener

Comprehensive Water Treatment For Your Home



Summary

The DROP Pro Water Softener is a professional grade smart water softener that is available in larger sizes to fit your household needs.

Features

- Eliminates Hardness (Calcium & Magnesium)
- Demand Initiated Regeneration
- Treated Water Refill with Pre-Brine Option
- Adjustable Cycle Times
- 9V Battery Backup for Power Loss
- DROP App to Control System from Anywhere
- Water Usage Data and History
- Provides text messages, emails and/or push notifications for low salt and other system information to your smartphone.
- Proprietary two valve manual bypass with 1" MNPT Connections.
- 5 Year Warranty

Like all DROP water softeners, the Pro Water Softener utilizes a patented piston design that provides the ability to shut off water to the home. When paired with DROP Leak Detectors through the DROP Hub, this system provides all the benefits of a top of the line water softener, home leak protection, and a water conservation system in one.

DROP Leak Detectors

Place DROP Leak Detectors under sinks and dishwashers, behind toilets or washing machines, near your water heater, or anywhere that water might leak or collect. If a leak or freezing temperature is detected, the Leak Detector will have the DROP Pro Water Softener turn off the water.



DROP Meter Softeners

Includes DROP integrated electronic meter softener control valve featuring fully adjustable cycles, bypass valve, black polyglass mineral tanks and high-capacity or fine mesh resin. Choose plumbing adapters separately from page 1-23. Includes 15"x17"x36" (larger brine tanks noted) black rectangular brine tank with Clack 474 Brine Safety valve and DROP Low Salt Sensor.



DROP METERED SOFTENER

DROP-MB-24B-C474	24,000 Grain System	\$1,559.00
DROP-MB-32B-C474	32,000	\$1,629.00
DROP-MB-40B-C474	40,000	\$1,684.00
DROP-MB-48B-C474	48,000	\$1,756.00
DROP-MB-64B-C474	64,000	\$1,903.00
DROP-MB-80B-C1840-474	80,000	\$2,062.00
DROP-MB-110B-C2441-474	110,000	\$2,957.00

DROP MID-VORTECH METERED SOFTENERS

Includes DROP electronic meter softener control valve featuring fully adjustable cycles, bypass valve, Enpress Mid-Vortech polyglass mineral tanks and high-capacity resin. Choose plumbing adapters separately from page 1-23. Includes 15"x17"x36" black rectangular brine tank with Clack 474 Brine Safety valve and DROP Low Salt Sensor.

DROP-MB-MID-32B-C474	32,000 Grain System, - .5 CF Carbon	\$2,027.00
DROP-MB-MID-48B-C474	48,000 Grain System, - .75 CF Carbon	\$2,301.00

DROP DUPLEX PROGRESSIVE SOFTENERS



DROP has been designed to make managing multiple water treatment tanks as simple as possible. No longer do you need to program each valve and keep them synchronized! All DROP valves are controlled wirelessly by the Hub so that you never have more than one unit regenerating or back-washing at a time. The time of day is system wide, so you never have to set the time on every unit. Time of day is automatically set via the internet or, if internet is not available, it is automatically set when connected to with a smart phone or tablet. There is only one regeneration time to set for the entire system. In addition to all these conveniences, DROP automatically knows how to set up the system for multiplexing. The Hub intelligently handles all the coordination between DROP products so that there are a minimum number of settings for a user to worry about.

DROP can manage up to four stages of water treatment, and each stage can contain up to 12 parallel tanks. Additional tanks can be added anytime to the system, so that a system can easily grow with the needs of a customer.

Includes two DROP integrated electronic softeners each with a motorized bypass valve, black polyglass mineral tanks and high-capacity resin. Choose plumbing adapters separately from page 1-23. Includes 15"x17"x36" black rectangular brine tank with Clack 474 Brine Safety valve and DROP Low Salt Sensor.

DROP-MB-PROG-24B-C474	24000 Grain System	\$3,257.00
DROP-MB-PROG-32B-C474	32,000	\$3,409.00
DROP-MB-PROG-40B-C474	40,000	\$3,526.00
DROP-MB-PROG-48B-C474	48,000	\$3,653.00
DROP-MB-PROG-64B-C474	64,000	\$3,938.00
DROP-MB-PROG-80B-C1840	80,000	\$4,229.00
DROP-MB-PROG-110B-C2441	110,000	\$5,623.00

DROP

Sidekick™ Single Tank Aeration Filter



- Air is injected into the top of the tank converting ferrous iron to ferric iron after untreated water has passed through the control valve preventing the control valve from fouling with iron
- DROP integrated meter control valve for advanced diagnostics and simplified set up
- 9V Battery Backup for Power Loss
- DROP App to Control System from Anywhere
- Water Usage Data and History
- Provides text messages, emails and/or push notifications system information to your smartphone.
- Air draw cycle can be initiated without a backwash cycle saving 1000's of gallons of water annually
- The control valve slowly releases compressed air charge prior to backwash cycle eliminating the explosive blast that can dislodge the drain line
- Adjustable cycle times
- Proprietary two valve bypass with 1" MNPT Connections
- High Flow 1" distributor
- Smart Blend filter media
- Top cap fill opening for ease of service
- Compatible with any type of well pump system

DROP offers the only water filters in the world that protect your home from water leaks in addition to providing all the benefits of treated water. When paired with DROP Leak Detectors through the DROP Hub, this system provides all the benefits of a top of the line water filter, home leak protection, and a water conservation system in one.



DROP Series Backwash Filters

Systems feature the DROP integrated electronic meter filter valve, black polyglass tanks, basket riser and gravel support bed. Order media and plumbing connections separately.

DROP-AFB-10	10" x 44" Backwash Filter	\$963.00
DROP-AFB-10T	10" x 54" Backwash Filter	\$985.00
DROP-AFB-12	12" x 52" Backwash Filter	\$1,079.00
DROP-AFB-13	13" x 54" Backwash Filter	\$1,117.00

DUPLEX SYSTEMS - PARALLEL FLOW

Filters typically work best with lower flow rates through the filter media in the tank. For this reason, multiplexing DROP filters will place all of the parallel tanks in service. When it is time to backwash (based on the system regeneration time on the SYSTEM, SETTINGS page) the filters, the DROP Hub will backwash one filter at a time. Similar to a softener system, when it is regenerating the tank is not available to provide service water to the system, and thus the system capacity will be reduced during the regeneration cycle by one tank unit. It should also be noted that the unit regenerating will use treated water from the other tanks that are in service to regenerate. After each unit completes its backwash cycle, the Hub will cause the next unit to backwash until all paralleled filters have finished.

Includes two DROP integrated electronic filters each with a motorized bypass valve, black polyglass mineral tanks and basket riser. Order media and plumbing connections separately.

DROP-AFB-10-DUPLEX	10" x 44" Backwash Filter	\$2,256.00
DROP-AFB-10T-DUPLEX	10" x 54" Backwash Filter	\$2,302.00
DROP-AFB-12-DUPLEX	12" x 52" Backwash Filter	\$2,493.00
DROP-AFB-13-DUPLEX	13" x 54" Backwash Filter	\$2,571.00

DROP Series Sidekick Systems

The Sidekick™ Single Tank Aeration System injects air into the top of the tank converting ferrous iron to ferric iron after untreated water has passed through the control valve preventing the control valve from fouling with iron. The top cap fill opening allows for ease of service.

The Sidekick Filter requires the function of the DROP Hub. The hub is the connection to everything on the DROP Smart Water Management system. It integrates all of your DROP residential water devices together.

Systems include the DROP electronic meter filter control valve featuring fully adjustable cycles, bypass valve, black polyglass mineral tanks and riser.

Choose plumbing adapters separately from page 1-23.

Order media separately below.

DROP-SIDEKICK-1.5	10" x 54", 1.5cf Sulfur & Iron System	\$2,190.00
DROP-SIDEKICK-2.5	13" x 54", 2.5cf Sulfur & Iron System	\$2,609.00

MEDIA KITS

Order media below based on the tank size and the primary element being treated. For 13" tanks and larger, 2 base media kits should be ordered.

BASE MEDIA KIT	AIO Base Media Kit,	\$238.00
MEDIA-10T-FE	AIO Iron Media, 10x54 Tank	\$363.00
MEDIA-10T-S	AIO Sulfur Media, 10x54 Tank	\$770.00
MEDIA-10T-KAT	AIO Katalox Media, 10x54 Tank	\$620.00
MEDIA-13-FE	AIO Iron Media, 13x54 Tank	\$638.00
MEDIA-13-S	AIO Sulfur Media, 13x54 Tank	\$1,360.00
MEDIA-13-KAT	AIO Katalox Media, 13x54 Tank	\$1,034.00



DROP

Whole House Cartridge Filter

Convenient way to remove chlorine & sediment



Summary

The DROP Whole House Cartridge Filter is a convenient way to remove chlorine and sediment from your water, while enjoying all the benefits of DROP leak protection.

Features

- Removes chlorine and sediment
- Provides Cartridge Replacement Notification
- 9V Battery Backup for Power Loss
- Full flow 1" services lines for whole house performance of up to 25 gpm
- DROP App to Control System from Anywhere
- Water Usage Data and History
- Provides text messages, emails and/or push notifications system information to your smartphone
- Top Dust Cover keeps dust and dirt from accumulating and getting inside housing during filter change
- Proprietary two valve manual bypass with 1" MNPT Connections
- 5 Year Warranty on tank and valve
- 1 Year Warranty on electronics

DROP offers the only water filters in the world that protect your home from water leaks in addition to providing all the benefits of treated water. When paired with DROP Leak Detectors through the DROP Hub, this system provides all the benefits of a top of the line water filter, home leak protection, and a water conservation system in one.

DROP Leak Detectors

Place DROP Leak Detectors under sinks and dishwashers, behind toilets or washing machines, near your water heater, or anywhere that water might leak or collect. If a leak or freezing temperature is detected, the Leak Detector will have the DROP Whole House Cartridge Filter turn off your water.



DROP Integrated Nelsen Filtration Cartridge Tank



DROP offers the only water filters in the world that protect your home from water leaks in addition to providing all the benefits of treated water. This is accomplished through integrated motorized valves that can shut off water to the home. When paired with DROP leak detectors and the internal water meter the DROP Whole House Cartridge Filters provide the most comprehensive leak protection available. If you are looking for a convenient way to remove sediment or unwanted chemicals from your water in addition to providing world class leak detection for your home then the DROP Whole Home Cartridge Filter is the product for you.

Cartridge Replacement Notification - Unique to the Whole House Cartridge Filter is the Cartridge Replacement Notification which will inform you when the filter needs replacement.

DROP-CART-TANK

DROP Enabled Whole House Cartridge Filter

\$1,063.00

Nelsen Filtration Cartridge Systems Replacement Cartridges

The Nelsen Filtration Cartridge Systems offer a variety of cartridge options to suit your filtration needs. Cartridges are priced each, case quantities for the residential filter cartridges are 6 per case.

DOUBLE PLEATED CARTRIDGES - (Orange Series)

NFS-PL10/5-HF	Pleated Filter, 10/5 Micron,	\$279.00
NFS-PL20/10-HF	Pleated Filter, 20/10 Micron,	\$241.00
* NFS-PL50/20-HF	Pleated Filter, 50/20 Micron,	\$218.00

NanoAI DOUBLE PLEATED CARTRIDGES - (Green Series)

NFS-20NANO-AG-HF	NanoAI™ with Agion® Biostat	\$507.00
* NFS-20NANO-PAC-AG-HF	PAC version of NanoAI™ w/Agion® Biostat	\$665.00

STRING/MELTBLOWN COMBINATION CARTRIDGE - (Yellow Series)

NFS-2005-SWMB-HF	20x5 Micron String w/Melt-blown PP Core	\$235.00
NFS-5020-SWMB-HF	50x20 Micron String w/Melt-blown PP Core	\$214.00

CARBON BLOCK CARTRIDGE - (Blue Series)

NFS-03-CB-HF	3 Micron Carbon Block High Capacity	\$390.00
NFS-20-CB-HF	20 Micron, High Porosity/Low Pres DROP	\$362.00
NFS-03-CB-HF-MINE	3 Micron Carbon Block High Capacity, Chloramine Reduction	\$508.00

DROP Pump Controller

Monitors water usage and pump diagnostics. The DROP Pump controller is a device that can be added to a DROP system or used by itself, with the addition of the DROP Hub. The DROP Pump Controller monitors your water flow and will alert to excessive usage helping to prevent or reduce water damage in the event of a burst pipe or appliance leak. Features include:

- Monitors Water Pressure and turns Well Pump on and off
- Pump load carried by a definite purpose contactor for reliability and product endurance
- Monitors pump current and protect the pump from overloads using an electronic Class 10 overload
- Monitors incoming voltage and protects the pump in high or low voltage conditions by not turning on the pump.
- Monitors pressure and motor current to detect pump run dry and open discharge conditions
- Short cycle notification to indicate pressure tank or other equipment failures
- Monitors temperature of the general area to protect from freezing conditions
- Shuts the pump off if a leak is detected by any DROP component in the system



DROP-PUMP-CONT

DROP Enabled Pump Controller

\$1,488.00

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NELSEN

C O R P O R A T I O N [®]

Instruments & Test Equipment

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PRO PRODUCTS LLC**Pro Products Sales Demonstration Kits**

Pro Products offers two Salesperson Demonstration Kits for the water treatment professional.

The Standard Demo Kit includes: a high-quality designed locking hard case, built-in literature secretary, mini water softener, test for hardness, soap comparison test, pH, Iron and nitrate comparators, tests for nitrates, pH and an iron precipitation test comparison.

The Deluxe Demo Kit includes: all the features of the Standard Kits plus chlorine test TDS meter high range (10-1990 ppm), conductivity light and RO demonstrator.

* 2412-S	Standard Demonstration Kit	\$802.00
* 2413-D	Deluxe Demonstration Kit	\$1,157.00



2413-D

Pro Products Field Analysis Kits

Pro Products offers Field Analysis Kits for the water treatment professional. The Basic Field Analysis Kit for Iron, Hardness & pH includes: 1oz bottle each of #1, #2 & #3 hardness solutions, hardness test bottle, measuring tube, iron reagent foil pack, 5ml, 50pk., pH wide range indicator (1oz.), pH and iron test stand.

The Deluxe Field Analysis Kit test for Hardness, Iron, pH, Chlorine and TDS and includes the following: Hardness .5oz bottles of #1, #2 & #3 solutions, hardness test bottle, measuring tube, iron reagent foil pack, 5ml, 50pk., pH wide range indicator (.5oz.), pH and iron test stand, chlorine indicator solution (.5oz), chlorine test comparator and TDS meter (0-999ppm).

FIELD KIT	Iron, Hardness & pH Field Kit	\$201.00
DLX FIELD KIT	Iron, Hardness, pH, Chlorine & TDS Field Kit	\$305.00



DLX FIELD KIT

Hach HA95A Test Kit with Iron Test Cube

A repairman's kit for hardness and iron in a compact plastic case. Reagents for 50 tests.

HA95A	Hardness & Iron Cube	\$146.00
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HA62A

Hach Hardness Test Kit

Hardness, Total Drop count titration/EDTA-bulk powder, 100 tests. Simply count the number of drops required to change the solution color to determine hardness concentration.

HA-5B	Drop Count Hardness Test Kit	\$90.00
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Hach Sulphur Test Kit

A low-cost kit for on the job testing of sulphur using Alka Seltzer and filter papers. Hydrogen sulfide range - 0 - 5 ppm.

HS7	Sulphur Test	\$199.00
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Hach Hydrogen Peroxide Test Kit

Kit contains solution for determining peroxide by the drop count method. Hydrogen Peroxide range - 0.2 - 2 and 1 - 10 ppm.

HYP-1	Hydrogen Peroxide Test	\$176.00
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HA95A



HA-5B



HS7



HYP-1



TK424

TK425

TK426



TK211

TK255



TK962-99



TK927



TK23185



WSB-1



611213



621410

Hach Replacement Reagents

(DB) = Dropper Bottle

TK424	Hardness 1 Buffer Solution, 100 mL DB	\$75.00
TK425	No. 2 Hardness, 100ml DB	\$86.00
TK426	No. 3 hardness, 100ml DB	\$47.00
TK962-99	Universal 3 Hardness, Box Of 100 Pillows	\$89.00
TK927	FerroVer® Iron Reagent Powder Pillows, pk/100	\$94.00
TK255	Bromthymol Blue Indicator Solution, 100 mL MDB	\$75.00
TK211	Phenol Red Indicator Solution, 100 mL MDB (pH)	\$75.00
TK23185	Hach Droppers	\$22.00
TK1730-06	Viewing Tube, 5ml	\$37.00

Water Sample Bottles

Includes plastic bottle, mailing envelope and questionnaire.

WSB-1	Water Sample Bottle	\$11.00
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Water Test Strips

Easy to use strips test water fast. Simply dip in sample and compare to color chart on label.

SOFTCHEK TOTAL HARDNESS TEST STRIP

Tests total hardness from 0 to 25 grains per gallon in 15 seconds. Perfect for service calls or promoting water softener sales. Packed in bulk bottles of 50 or in individual foil packs.

611213	Bottle of 50	\$27.00
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AQUACHEK-5 TEST STRIPS

Water test strip for Total Chlorine, Free Chlorine, Total Hardness, Total Alkalinity and pH.

621410	Bottle of 50	\$42.00
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Arsenic Test Kits

Arsenic Quick™ II for water quality testing was designed to give the user accurate results without sacrificing cost and time. Designed using cutting-edge chemistry, Arsenic Quick™ II reports results in only 14 minutes. Additionally, there are no dangerous chemicals needed to run this water quality test kit. With only 3 simple test procedures, Arsenic Quick™ II is a must for any lab, water testing professional, or service technician who values accurate, rapid results without sacrificing cost. 5 Tests included in Kit. Sensitivity to < 1, 2, 3, 4, 5, 6, 7, 8, 10, 13, 20, 25, 30, 40, >50, >80, >120, >160 ppb (µg/L).

This is the first step in treating water contaminated with Arsenic.

Once the presence of Arsenic is known, order the full Arsenic Speciation Test to take water samples. The Speciation Test sample is then submitted to Nelson Analytical Labs with the appropriate testing fee, the speciation test results provides a proper treatment regiment. Nelson Analytical Labs will send a replacement Speciation Kit with the results of the submitted sample.

ARSENIC TEST KIT-QUICK II MINI

ITS Quick II Mini Arsenic Test Kit	\$96.00
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ARSENIC SPECIATION TEST Nelson Analytical Labs Arsenic Speciation Test Kit	\$0.00
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ARSENIC TEST KIT-QUICK II MINI



ARSENIC SPECIATION TEST



SW101

Soft Water Test Set

Includes dropper bottle of tincture of green soap, test bottle and instructions. Makes 600 tests.

SW101 Test Set \$9.00

Purtest Test Kits

PURTEST BACTERIA TEST

An easy, reliable, accurate test for bacteria, nitrate and nitrite for drinking, pool or hot tub water.

This bacteria water test kit is lab-certified and allows you to test for the presence of Coliform bacteria in your drinking water, and if present could indicate the possible existence of harmful bacteria such as E. Coli. During your test for bacteria in your tap water, you will experience fast results. A color change from purple indicates the presence of bacteria, and is a sign of unsafe conditions.

PUR-BAC Purtest Bacteria Test \$34.00



PUR-BAC



PUR-HOME

PURTEST HOME WATER KIT

This kit, a group of EPA-based tests, allows fast, convenient and accurate in-home water analysis of 12 contaminants. Test include bacteria, lead, nitrates, nitrites, chlorine, iron, copper, pH, total alkalinity, total hardness, iron bacteria and hydrogen sulfide. A 16-page basic water knowledge handbook is included.

PUR-HOME Purtest Home Water Kit \$83.00



PUR-IRON

PURTEST IRON and HARDNESS TEST

An inexpensive kit for testing iron, hardness, copper, nitrates, nitrites, chlorine, pH and alkalinity. Two of each test are included.

PUR-IRON Purtest Iron and Hardness Test \$18.00

PESTICIDE KIT

PurTest® PESTICIDE allows you to easily to detect two of the most common pesticides used in the US at or below the EPA MCL: Atrazine and Simazine. Water experts recommend testing for pesticides at least annually. Pesticide contamination in water can become dangerous to your health, may cause neurological damage which impairs childhood development and is related to animal deaths. Results in 10 minutes.

PESTICIDE-KIT Purtest Pesticide Kit \$35.00



PROJECT-KIT

SCHOOL KITS

Five each of eight tests: nitrates, nitrites, hardness, pH, alkalinity, chlorine, iron, copper, plus five basic water knowledge booklets.

PROJECT-KIT Purtest School Kit \$44.00

Test Kits

- * TK20671 Hach pH \$70.00
- TK2305 Spectrum pH Test Kit \$12.00
- TK2501 Spectrum Chlorine Test Kit \$17.00



TK2305



TK2501



LA1910



LA5-0080



TDS4



RO-1NC



EP-10

TFP1

LaMotte Water Testing Equipment

LAMOTTE SMART COLORIMETER

An accurate instrument designed for the analyst measuring a variety of water quality parameters. Proper wavelength selection is no longer a concern for the analyst because all optical filters are included and automatically selected by the SMART Colorimeter. A wide range of tests are available in addition to the popular ones listed.

* LA1910	Smart Colorimeter	\$2,428.00
* LA3668-SC	Iron, 0.0 – 6.0 ppm	\$119.00
* LA3700-SC	pH, 5.0 – 9.5	\$135.00
* LA3669-SC	Manganese, 0 – 10.0 ppm	\$200.00
* LA3666-SC	Tannin	\$138.00

LAMOTTE TDS POCKETESTER

The units feature push button calibration, automatic temperature compensation, auto-ranging, easy to read LCD with indicator, auto-off, and $\pm 2\%$ full scale accuracy. HOLD function freezes reading until logged. Four 1.4V batteries (included) provide 100 hours of continuous use.

* LA5-0080	TDS Pocketester	\$274.00
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Heemang Electronic Pocket TDS Meter

Auto-off function turns off meter after 10 minutes. Hold feature saves measurements for convenient reading and recording with the sound of a single beep. Range from 1- 1990 ppm.

TDS4	Pocket TDS Meter	\$68.00
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Myron L Instruments

RO METERS

This compact instrument has been designed specifically to demonstrate and test POU reverse osmosis or distillation systems. By measuring electrical conductivity, it will quickly determine the parts per million/Total Dissolved Solids (ppm/TDS) of any drinking water. Simply pour the sample into the permanent cell cup and press the rubber protected button. Ppm/TDS is immediately indicated on the color-coded scale. Models without the color band dial are also available. No temperature adjustments needed.

* RO-1	0-1250 ppm RO meter	\$595.00
* RO-1NC	0-1250 ppm RO meter, No Color Band	\$595.00

DS and pDS METERS - CONDUCTIVITY, TDS and pH INSTRUMENTS

Myron L Company has two proven ways to measure such impurities. DS Meters provide fast, accurate, on-the-spot measurement of total dissolved solids (TDS) or conductivity. pDS Meters test conductivity or TDS, plus pH. Readings from their highly stable circuitry help prevent equipment damage, assure product quality and verify in-line instrumentation in a wide range of applications and press the rubber protected button. ppm/TDS is immediately indicated on the color-coded scale.

MODEL EP

The most versatile of all DS Meters, this instrument is capable of testing both ultra pure and ocean water — and everything in between! It has five conductivity ranges for easy readability. The most sensitive range includes resistivity equivalents, making it ideal for DI water systems. .5, 5, 50, 500, 5000 Micromhos, 2 – 30 Megohms

* EP	DS Meter	\$1,041.00
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MODEL EP-10

With its four micromho ranges, this instrument is ideal for most water treatment applications. Its low range will accurately test boiler condensate; with the RE-10 Range Extender, it can check process solutions up to 100,000 micromhos.

* EP-10	DS Meter	\$1,008.00
* RE-10	Range Extender	\$61.00



532T1

MODEL 532T1

Our most popular model for many years, this instrument offers three very useful ppm ranges. Like other three range and single range models, it features a unique electronic Internal Standard for easy and fast field calibration and range doubling.

- * 532T1 DS Meter \$911.00

MODEL EP11/pH

Our most popular pDS model features four conductivity ranges and a 2 – 12 pH range 0 – 10, 100, 1000, 10,000 micromhos/microsiemens; 2 – 12pH.

- * EP11-pH pDS Meter, Conductivity and pH \$1,573.00



EP11-PH

TECHPRO II™

Measurements you can count on. Obtain reliable and accurate measurements of your water source with the value-priced TechPro II™. Ideal for water treatment testing as well as other industrial and commercial applications, these instruments reflect Myron L's 40-plus years experience designing and building quality conductivity, TDS and pH measuring instrumentation. Portable & easy to use The TechPro II is handheld, lightweight and simple to operate. Measuring conductivity, TDS, pH and temperature, the highly stable circuitry delivers the accurate readings needed to assure product quality, prevent equipment damage or verify in-line instrumentation in a wide range of applications. The TPH1 is designed with an internal pH sensor to prevent breakage and prolong the sensor's useful life. The rugged, waterproof case on both models protects the electronics of the instrument and fits comfortably in your hand. This model also features auto shut-off to prolong battery life.

- * TP1 Conductivity, TDS and Temperature \$1,688.00
- * TPH1 Conductivity, TDS, pH and Temperature \$2,365.00
- * TH1 pH and Temperature \$1,090.00



TP1

INSTRUMENT CARRYING CASES

- * PTP Case for all DS and pDS Meters \$150.00
- * PK7 Carry Case w/Standard Buffers - EP11/pH \$267.00
- * PKUU Hard Foam Lined w/solutions - TechPro II™ \$417.00
- * UCC Soft Case w/Belt Clip - Ultrameter, Techpro \$109.00

REPLACEMENT pH SENSORS

- * RPR pH Sensor - Ultrameter \$464.00

CALIBRATION STANDARDS

Myron L DS, pDS, and TechPro II™ are factory calibrated with NIST traceable standard solutions having specific conductivity/TDS values. Myron L Company Standard Solutions are made under strictly controlled conditions using reagent grade salts. These salts are mixed with deionized water having a resistivity of at least 5 megohm-cm purity. Myron L Company Standard Solutions are accurate to within ±1.0% of potassium chloride reference solutions. These solutions are traceable to National Institute of Standards and Technology primary solutions. The following conductivity standard solutions and pH buffers are used for factory calibration. Regular use of these solutions is recommended for greatest instrument accuracy. Frequency of conductivity recalibration depends upon use, but once every three months should be sufficient for an instrument used daily. pH models should be recalibrated with pH 7 buffer every 1-2 weeks, with 4 and 10 buffers every 6-8 weeks. The pH buffers and standard solutions are available in quart and gallon plastic bottles, ready to use.

- * TDS-QT TDS Std. Solution-Quart \$58.00
- * TDS-GAL TDS Std. Solution-Gallon \$207.00
- * pH-QT Quart - pH Buffer Solution - 4, 7 or 10 \$57.00
- * pH-GAL Gallon - pH Buffer Solution - 4, 7 or 10 \$207.00
- * pH-STOR-QT Quart - pH Sensor Storage Solution \$57.00
- * pH-STOR-GAL Gallon - pH Sensor Storage Solution \$207.00



TPH1



TH1



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NELSEN

C O R P O R A T I O N

Pressure Tanks & Water Systems Accessories

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WX-202 & WX-203



VALUE-WELL
by AMTROL®

Well-X-Trol Pre-Pressurized Pump Tanks

The WELL-X-TROL concept of a pre-pressurized, sealed-in air charge in a well tank was first introduced to the water systems industry over twenty years ago. Since then, it's become the most popular tank in the industry, proven by over five million installations. Every WELL-X-TROL tank is covered by a full five-year warranty.

SERIES 200

Floor stand models especially designed for residences. Requires only a minimum of floor space. Appliance-like blue finish allows installation anywhere.

WX-201	14.0 Gallon 15-3/8" x 23-7/8"	\$556.00
WX-202	20.0 Gallon 15-3/8" x 31-5/8"	\$598.00
WX-203	32.0 Gallon 15-3/8" x 46-1/2"	\$1,038.00
* WX-205	34.0 Gallon 22" x 29-5/8"	\$1,160.00

SERIES 250, 300

For larger homes and institutions such as country clubs, farms, nursing homes, etc. Handles the demands of larger systems in a minimum of space.

WX-250	44.0 Gallon 22" x 36"	\$1,346.00
WX-251	62.0 Gallon 22" x 46-3/4"	\$1,708.00
WX-255	81.0 Gallon 22" x 56-3/8"	\$1,695.00
WX-252	86.0 Gallon 22" x 62-1/4"	\$2,093.00
* WX-302	86.0 Gallon 26" x 47-1/4"	\$1,746.00
WX-350	119.0 Gallon 26" x 61-7/8"	\$2,620.00

VALUE-WELL MODELS

Value-Well Pre-Pressurized Water System Tanks are steel constructed and include a Butyl/EPDM diaphragm, polypropylene liner and rubber air stem. The Value-Well models are NSF Standard 61 listed and offer a 5-year limited warranty. These tanks are also helium tested. Value-Well tanks operate at a 90 psig maximum working pressure.

VW-20	20 Gallons, 15" x 32"	\$479.00
VW-32	32 Gallons, 15" x 48"	\$716.00

MODEL NUMBER	CAPACITY GALLONS	DRAWDOWN/GALLONS			HEIGHT INCH	DIAMETER INCH	SYSTEM CONNECTION	ASSEMBLY WEIGHT LBS.
		20-40 PSI	30-50 PSI	40-60 PSI				
INLINE MODELS								
WX-101	2.0	0.7	0.6	0.5	12-5/8"	8	3/4" NPTM	5
WX-102	4.4	1.6	1.4	1.2	15"	11"	3/4" NPTM	9
WX-103	8.6	3.1	2.7	2.2	22-1/4"	11"	3/4" NPTM	15
STAND MODELS								
VW-20	20.0	7.3	6.2	5.3	31-5/8"	15-3/8"	1" NPTF	35
VW-32	32.0	-	9.9	8.5	46-3/8"	15-3/8"	1" NPTF	43
WX-201	14.0	5.1	4.3	3.7	23-7/8"	15-3/8"	1" NPTF	27
WX-202	20.0	7.3	6.2	5.4	31-5/8"	15-3/8"	1" NPTF	35
WX-203	32.0	-	9.9	8.6	46-3/8"	15-3/8"	1" NPTF	43
WX-205	34.0	12.4	10.5	9.1	29-1/2"	22"	1-1/4" NPTF	61
WX-250	44.0	16.3	13.6	11.9	35-5/8"	22"	1-1/4" NPTF	69
WX-251	62.0	22.9	19.2	16.7	46-3/4"	22"	1-1/4" NPTF	92
WX-252	86.0	34.6	29.2	24.9	62-1/4"	22"	1-1/4" NPTF	114
WX-255	81.0	34.6	29.2	24.9	56-13/16"	22"	1-1/4" NPTF	114
WX-302	86.0	34.6	29.2	24.9	46-13/16"	26"	1-1/4" NPTF	123
WX-350	119.0	44.0	36.9	32.1	61-7/8"	26"	1-1/4" NPTF	166

WELLMATE

WellMate Fiberglass Pre-Pressurized Pump Tanks

WellMate's Quick Connect series of captive air tanks utilize threadless connections at both the service connection and the tank drain assembly in order to improve both the ease of installation and product serviceability. The exclusive WellMate replaceable butyl air cell can now be used in applications where continual use of chlorine is required. The Quick Connect feature allows for ease of installation and serviceability and allows for variety of plumbing connections (plastic, metallic, threaded or sweat). Tank can be rotated after installation so product specifications are accessible.

Tested and Certified by the Water Quality Association (WQA) NSF/ANSI Standard 61 Section 8 and Annex G.



QUICK CONNECT FEATURE

VERTICAL TANKS

WM-4	15 Gallon, 16" x 27"	\$473.00
WM-6	20 Gallon, 16" x 32"	\$360.00
WM-9	30 Gallon, 16" x 44"	\$600.00
WM-12	40 Gallon, 16" x 57"	\$904.00
WM-14WB	47 Gallon, 21" x 41"	\$952.00
WM-23	80 Gallon, 21" x 62"	\$1,223.00
WM-25WB	87 Gallon, 24" x 55"	\$1,315.00
WM-35WB	120 Gallon, 25" x 75"	\$1,995.00

COMMERCIAL / INDUSTRIAL MODELS

* WM-60	200 Gallon, 30" x 80"	\$10,403.00
* WM-80	270 Gallon, 36" x 82"	\$12,564.00

MODEL NUMBER	CAPACITY GALLONS	DRAWDOWN/GALLONS			HEIGHT INCH	DIAMETER INCH	SYSTEM CONNECTION	ASSEMBLY WEIGHT LBS.
		20-40 PSI	30-50 PSI	40-60 PSI				
WM-4	14.5		4.4		26	16	1" NPTM	14.5
WM-6	19.8	6.7	5.9	5.1	32-1/4	16	1" NPTM	19
WM-9	29.5	10.0	8.9	7.7	44	16	1" NPTM	23
WM-12	40.3	13.7	12.2	10.5	56-3/4	16	1" NPTM	29
WM-14WB	47.1	16.0	14.1	12.2	41-1/4	21	1-1/4" NPTM	43
WM-25WB	86.7	29.5	26.0	22.5	55-1/2	24-1/4	1-1/4" NPTM	58
WM-35WB	113.9	38.7	34.2	29.6	74-1/2	24-1/4	1-1/4" NPTM	112
WM-60	200.0	68.0	60.0	52.0	79-1/2	30	2" NPTM	205
WM-80	270.0	91.8	81.0	70.2	81-1/4	36	2" NPTM	260

Low Profile Series Tanks

* WM-6LP	20 Gallon, 24" x 20"	\$650.00
* WM-10LP	35 Gallon, 24" x 28"	\$1,063.00

WellMate Pump Mount

WMT-5002	Pump Mount	\$105.00
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LOW PROFILE SERIES
Cut-Away Shown



WMT-5002



Well-X-Trol Commercial/Industrial Pre-Pressurized Tanks

Important: These tanks are shipped freight collect direct from Amtrol.

WX-400 SERIES

Maximum working pressure - 150 PSI, maximum temperature - 240°F. Factory precharged at 30 PSI. A 1" bronze elbow on models WX-401 thru WX-403, 1¼" bronze elbow on models WX-404 and WX-405. ASME models are also available.

* WX-401	17.5 Gallons 16" x 24"	\$3,505.00
* WX-402	25.0 Gallons 16" x 34"	\$3,765.00
* WX-403	34.0 Gallons 16" x 44"	\$3,931.00
* WX-404	66.0 Gallons 24" x 42"	\$4,956.00
* WX-405	88.0 Gallons 24" x 56"	\$5,181.00

WX-420 SERIES

Maximum working pressure - 100 PSI, maximum temperature - 240°F. Factory precharged at 30 PSI. A 2" elbow on models WX-421 thru WX-422, 3" elbow on models WX-423 thru WX-427.

* WX-421	165 Gallons 30" x 73"	\$11,910.00
* WX-422	220 Gallons 30" x 91"	\$12,393.00
* WX-423	275 Gallons 36" x 85"	\$14,409.00
* WX-424	325 Gallons 36" x 98"	\$15,048.00
* WX-426	440 Gallons 48" x 82"	\$20,229.00
* WX-427	550 Gallons 48" x 96"	\$21,862.00

Specifications and prices on larger Well-X-Trol models, standard and ASME, up 528 gallons are available on request.

Cycle Stop Valves

The Cycle Stop Valve is a flow regulator that automatically adjusts pump output to match variable flow requirements and downstream of a Cycle Stop Valve, pressure remains constant. Pump cycling is eliminated, smaller pressure tanks can be used and water hammer is reduced or eliminated.

Commercial Cycle Stop Valves with capacities from 5 to 10,000 GPM are also available.

* CVS1-40	1" 25 GPM 40 PSI Cycle Stop	\$205.00
CVS1-50	1" 25 GPM 50 PSI Cycle Stop	\$205.00
* CVS1-60	1" 25 GPM 60 PSI Cycle Stop	\$205.00

Pressure Gauges

Deep drawn one piece steel housings and mar-resistant glass dial face. Brass connections. No Lead!

PG100V	1/4" x 100 PSI Side Mount	\$6.00
PG200V	1/4" x 200 PSI Side Mount	\$6.00
PG100H-1/4	1/4" x 100 PSI Back Mount	\$8.00
PG100H-1/8	1/8" x 100 PSI Back Mount	\$10.00

Tank Fittings Packages

Packages include brass cross, pressure switch, pressure gauge, boiler drain, stop and waste valve and brass nipples. A double-tapped cross and relief valve is included in the TFP3-RV package. A Square-D low pressure cut-out switch is in the TFP4 package.

WELL-X-TROL PACKAGES

TFP1	X-Trol Package	\$140.00
TFP3-RV	X-Trol with Relief Valve	\$160.00
TFP4	X-Trol with FSG-2 M4	\$150.00
TFP5-RV	X-Trol with Relief Valve	\$174.00

WELLMATE PACKAGES

TFP2	WellMate Package	\$120.00
TFP2-RV	WellMate Package w/Relief Valve	\$140.00
TFP2-1.25-RV	WellMate 1.25" tanks w/Relief Valve	\$199.00
TFP6	Pro Access Package	\$143.00
TFP6-RV	Pro Access with Relief Valve	\$156.00



Well-X-Trol Commercial Line



CYCLE STOP



PG100V



TFP1



TLL

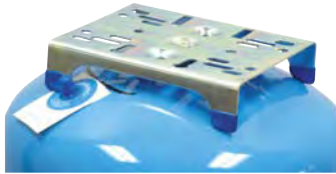
Tank Leveling Feet

TLL Tank Feet \$2.00

Tank Top Mount

Elevates pump to keep top of tank out of damp, corrosive atmosphere. Rubber protectors on the legs prevent scratching of the tank finish. Fits all jet pumps. Includes hardware to attach to tank.

PMB-1 Tank Mount with Bolt \$32.00



PMB-1

Snifter Valves

Used for reciprocating and submersible pumps. Also used for charging applications and many other uses.

SV02 1/4" MIPT \$5.00



SV02

Fabricated Brass Tank Crosses

Fabricated tank crosses are assembled using brass fittings and copper tubing soldered together.

TC200M 1" x 3/4" x 10" \$94.00

TC200M-2 1" x 3/4" x 10" w/2 Drain Taps \$91.00

TC300M-2 1 1/4" x 3/4" x 13" w/2 DrainTaps \$95.00



TC200MC

Cast Brass Tank Crosses

Cast tank crosses are one piece red brass castings.

TC100LM-2 1" x 3 3/4" x 5" w/2 Drain Taps \$92.00

TC100F 1" x 3/4" x 3" FIPT \$63.00

TC100F-2 1" x 3/4" x 3" FIPT w/2 Taps \$65.00

TC125M-C 1 1/4" x 1" x 3" MIPT \$106.00



TC200MC-2



TC100F



TC100F-2

"Break-Away" Tank Crosses

"Break-Away" crosses allow for removal and replacement of a tank without cutting pipes or wires. Simple O-ring union design allows cross to be tightened properly to the tank and still line up cross head. Locking screws advance into cross groove for a dependable installation.

BAT-82F 1" x 3/4" x 3" FIPT w/O-Ring \$102.00



BAT-82F

Stock Number	Tank Connection	Length Of Cross	MIPT Connection	Cross Head FIPT Connection	Switch/Gauge	Drain Vlv/Relief Vlv	Construction
Well-X-Trol 200 Series tank crosses or similar tanks with 1" FIPT under tank connection.							
TC200M	1" MIPT	10"	1"	3/4"	2 x 1/4" FIPT	one 1/2" FIPT	Fabricated
TC200M-2	1" MIPT	10"	1"	3/4"	2 x 1/4" FIPT	two 1/2" FIPT	Fabricated
Well-X-Trol 250 Series tank crosses or similar tanks with 1-1/4" FIPT under tank connection.							
TC300M-2	1-1/4" MIPT	13"	1"	3/4"	2 x 1/4" FIPT	two 1/2" FIPT	Fabricated
Well-X-Trol "Pro Access" Series tank crosses or similar tanks with 1" FIPT skirt connection.							
TC100LM-2	1" M x 3/4" F	5"	1"	3/4"	2 x 1/4" FIPT	two 1/2" FIPT	Cast
WellMate WM-4 thru WM-12 tank crosses or similar tanks with 1" MIPT tank connection.							
TC100F	1" FIPT	3"	1"	3/4"	2 x 1/4" FIPT	one 1/2" FIPT	Cast
TC100F-2	1" FIPT	3"	1"	3/4"	2 x 1/4" FIPT	two 1/2" FIPT	Cast
BAT-82F	1" FIPT	3"	1"	3/4"	2 x 1/4" FIPT	two 1/2" FIPT	Fabricated
WellMate WM-14WB thru WM-35WB tank crosses. Use with a 1-1/4" PVC Drop Pipe Coupling on WellMate's.							
TC125M-C	1-1/4" M x 1" F	4"	1-1/4" M x 1" F	1"	3 x 1/4" FIPT	one 3/4" FIPT	Cast



FSG-2 30/50



DG2R



FLOAT SWITCH-NO



AWT60



TS33-66



BC10



SP3B



WTCC CAP

Square-D Pressure Switches

The standard of the industry for controlling electrically driven water pumps.

STANDARD DUTY (ADJUSTABLE TO 65 PSI MAX.)

FSG-2 20/40	1 hp, 1/4" FIPT, 20/40 psi	\$39.10
FSG-2 30/50	1 hp, 1/4" FIPT, 30/50 psi	\$39.10
FSG-2 40/60	1 hp, 1/4" FIPT, 40/60 psi	\$39.10
Purchase by the pack and save. Each pack contains 20 switches.		
FSG-2 30/50-PK	1 hp, 1/4" FIPT, 30/50 psi Pack	\$41.00

STANDARD DUTY WITH LOW PRESSURE CUT-OFF

FSG-2 M4	1 hp, 1/4" FIPT	\$48.80
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Square-D Float Switches

For open tank or sump applications. The contacts close on liquid rise on the standard model, open on liquid rise on the Form R model.

DG2R	1 hp, Form R	\$154.25
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BRASS FLOAT RODS & PLASTIC FLOATS

FR	Brass Float Rod, 1/4" x 60"	\$136.30
FR	Plastic Float	\$129.00
FSR	Rubber Float Stop	\$9.90

Mechanical Level Switches

Used to control pumps, motors or other electrical devices. Normally Open (N.O.) or Normally Closed (N.C.) refers to the switch contacts when the bulb is hanging in a vertical position. Use N.O. to turn a device on with high level, N.C. to turn it off with high level.

FLOAT SWITCH-NO	Normally Open 10' Cord	\$110.00
FLOAT SWITCH-NC-110	Normally Closed 20' Cord, 110 Volt	\$136.00
FLOAT SWITCH-NC-220	Normally Closed 20' Cord, 220 Volt	\$184.00

Electrical Tape

SCOTCH SUPER 33 ELECTRICAL TAPE

Premium grade, 7 mil. tape that applies well down to 0°F and has an operating range up to 220°F.

TS33-66	3/4" x 66' All-Weather	\$17.25
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IMPORTED ALL WEATHER ELECTRICAL TAPE

AWT60	3/4" x 60' All-Weather	\$3.00
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Butt Connectors

Non-insulated, seamless premium grade connectors.

BC10	#14 – #10 Butt Connectors	\$0.60
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Heat Shrink Splice Kits

All kits include seamless butt connectors and shrinkable tubes.

BLACK STANDARD WEIGHT KITS

Economical standard weight shrink tubing.

SP3B	3 Wire, #14 – #10	\$4.35
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CLEAR HEAVY-DUTY KITS

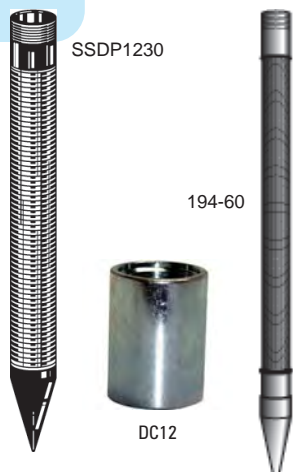
Clear shrink tubes let you see the finished splice to eliminate "cold" spots.

SP3C	3 Wire, #14 – #10	\$4.95
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Dicken Aluminum Well Cap

Cast aluminum watertight models have 1" FIPT conduit openings and a screened vent to meet state codes.

WTCC-6	Sub Cap 6" Watertight	\$97.25
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Stainless Steel Rod-Based Drive Points

Rod based stainless steel drive points which feature non-clogging wedge wire welded construction for maximum well production.

SSDP1230 1¼" x 30" x .10 Slot \$278.00

Pipe Based Drive Points

High strength well point for use in rocky soil. Inner stainless steel gauze is held in place between galvanized pipe and a stainless steel liner. Self flushing chamfered holes in galvanized pipe eliminate clay or sand build-up for maximum yield.

194-60 1¼" x 30" x 60 Gauze #N/A

Drive Couplings

DC12 1¼" Drive Coupling \$9.10



SENTRY-WSP

Sentry Well Sanitizer Pack

Designed for the homeowner to sanitize their well using easy to follow instructions. Includes both chlorine pellets and granules for a complete treatment. Includes two 8 oz. Bottles. 12/case.

NOTE: When ordering for UPS delivery, full case quantities must be ordered.

SENTRY-WSP Twin Pack \$26.80

Simmons Lead Free Brass Foot and Check Valves

Simmons foot and line check valves, including the precision machined valve and poppet assembly, are cast from lead free silicon bronze*. A tough, abrasion resistant O-Ring insure against leakage due to worn seating surfaces or sediment. Delrin stem guide bearing eliminates chatter. Stainless steel spring.

* Silicon Bronze components contain less than .05% (1/20th of 1%) lead.

All silicon bronze all-position check valve.

CV502SB ¾" \$60.60

CV503SB 1" \$63.75



CHECK VALVE

Brady Foot/Check Valves W/Strainer

Provides 50% greater water flow in jet, piston and submersible pumps because of the exclusive nose cone design. Space age Acetal Resin plastic is rugged, self-cleaning, non-electrolytic and non-corrosive. Simply remove and discard the strainer when using as an all position check valve.

FV-100 1" Foot Valve \$33.70



FV-100

Vacuum Breaker

VB07 ¾" Vacuum Breaker \$11.55

Pressure Relief Valves

All brass pressure only relief valves for installation on jet and submersible installations. Protects against excessive pressure and failure of other components in the water system if the pressure switch failed to open. Preset at 75 psi, adjustable plus or minus 25 pounds. Lead Free

RV05 ½" MIPT, Economy \$17.85

RV07 ¾" MIPT \$19.20



RV05



RV07



Valves for Iron Pipe (Threaded Ends)

SWV07T 3/4" IP Stop and Waste, Lead Free \$28.55

Boiler Drains

BD07 3/4" Economy, Lead Free \$15.20

BD05-SB 1/2" with Stuffing Box, Lead Free \$18.10

BD07-SB 3/4" \$15.00



Gate Valve for Iron Pipe (Threaded Ends)

BGV07T 3/4" IP, Lead Free \$23.75

Full Port Brass Ball Valves For Iron Pipe, 200 PSI

BBV07T 3/4" IP, Lead Free \$32.50

BBV10T 1" IP, Lead Free \$38.10



Full Port Brass Ball Valves For Copper Pipe (Solder Ends)

BBV05S 1/2" C x C, Lead Free \$20.35

BBV07S 3/4" C x C, Lead Free \$32.50

* BBV10S 1" C x C, Lead Free \$46.70

PVC 200 PSI Molded-In-Place Ball Valves, Socket

PBV07S 3/4" PVC \$4.70

PBV10S 1" PVC \$7.00



PVC 200 PSI Molded-In-Place Ball Valves, Threaded

PBV05T 1/2" PVC \$3.30

PBV07T 3/4" PVC \$4.80

PBV10T 1" PVC \$7.00

All-Stainless Steel Clamps

64 SERIES

Band and housing of 300 series stainless steel. Screw is 3/8 inch, 400 series stainless steel.

6410 3/4" SS Clamp \$2.45

6416 1" SS Clamp \$2.50

6420 1" and 1 1/4" SS Clamp \$2.55



Hi-Impact (PVC) Plastic Insert Fittings

HI07MA 3/4" M. x Insert Adapter \$1.60

HI10MA 1" \$1.65

HI12MA 1 1/4" \$2.25

HI10FA 1" Female Adapter \$6.95

HI10E 1" Insert Elbow \$3.00

HI10ME 1" Combo Ell, Insert x MIPT \$5.90

HI10FE 1" Combo Ell, Insert x FIPT \$4.05

HI10C 1" Insert Coupling \$1.45

HI101005CT 1" x 1" x 1/2" Combo Tee \$5.05





HB05MA



HB10MA



HB1007RMA



CB1210RMA



CB1007HE



PVC40-10



PVC10C



PVC10CT



PVC10MA



PVC10SA



PVC10FA



PVC10E



PVC10ETT

Heavy Brass Insert Fittings

HB05MA	1" Male Adapter	\$5.25
HB10MA	1" Male Adapter	\$20.45
HB10FA	1" Female Adapter	\$25.40
HB1007RMA	1" x 3/4" MIPT Red. Adapter	\$15.20

Cast Brass Insert Fittings - Lead Free

CB1210RMA	1" Insert x 1 1/4" Lug Adapter	\$42.60
CB1007HE	1" x 3/4" MIPT Hydrant Ell	\$3.00

PVC Plastic Pipe (Price Per Foot)

PVC40-07	3/4" SCH. 40, Belled End	\$1.15
PVC40-10	1"	\$1.40
PVC40-15	1 1/2"	\$1.80
PVC40-20	2"	\$-
PVC40-30	3"	\$5.15
PVC80-05	1/2" Sch 80 PVC Pipe	\$2.00
PVC80-07	3/4" SCH. 80, Gray, Plain Ends	\$3.60
PVC80-10	1"	\$4.60
PVC80-20	2"	\$9.45
PVC80-30	3"	\$11.25

Schedule 40 PVC Fittings

COUPLINGS, S X S

PVC07C	3/4"	\$0.75
PVC10C	1"	\$1.35

COUPLINGS, FIPT X FIPT

PVC07CT	3/4" F x F Coupling	\$2.00
PVC10CT	1"	\$2.60
PVC12DPC	1 1/4" Drop Pipe Coupling	\$3.90

ADAPTERS, S X MIPT

PVC07MA	3/4"	\$0.85
PVC10MA	1"	\$1.55
PVC15MA	1 1/2"	\$2.50

ADAPTERS, SOCKET X INSERT

PVC10SA	1"	\$3.45
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ADAPTERS, SOCKET X FIPT

PVC07FA	3/4"	\$1.20
PVC10FA	1"	\$1.10
PVC20FA	2"	\$3.35
PVC30FA	3"	\$11.35

ELBOWS, S X S, 90°

PVC07E	3/4", 90°	\$0.95
PVC10E	1"	\$1.70
PVC12E	1 1/4"	\$3.05

ELBOWS, FIPT X FIPT

PVC07ETT	3/4", 90°	\$3.05
PVC10ETT	1"	\$6.50



PVC10SE



PVC10MSTE



PVC10T



PVC101007SSFT



PVC10U



PVC10UT



PVC10TP



PVC1007SSB



PVC1007STB



PVC1007TTB



PVC10BF

ELBOWS, SOCKET X MALE SOCKET

PVC07SE	3/4"	\$2.95
PVC10SE	1"	\$5.10

STREET ELL, MIPT X FIPT

PVC07MFSTE	3/4"	\$3.05
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STREET ELL, MIPT X SLIP

PVC10MSTE	1"	\$3.65
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TEES, S X S X S

PVC07T	3/4"	\$1.20
PVC10T	1"	\$2.30
PVC15T	1 1/2"	\$4.30
PVC20T	2"	\$6.30

TEES, SLIP X SLIP X FIPT

PVC101007SSFT	1" x 1" x 3/4" S x S x F	\$4.05
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CROSS, SLIP

PVC20CROSS	2" S x S x S x S	\$14.85
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UNIONS, SLIP X SLIP

PVC07U	3/4" S x S	\$9.50
PVC10U	1"	\$9.75

UNIONS, FIPT X FIPT

PVC10UT	1" FIPT x FIPT	\$21.30
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CAP, THREADED

PVC10TC	1" Cap, Threaded	\$3.70
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PLUGS, MIPT

PVC07TP	3/4" Plug, MIPT	\$2.45
PVC10TP	1"	\$4.05

BUSHINGS

PVC1007SSB	1" x 3/4", S x S	\$1.65
PVC1507SSB	1 1/2" x 3/4"	\$2.30
PVC1510SSB	1 1/2" x 1"	\$2.30
PVC2010SSB	2" x 1"	\$3.80
PVC2015SSB	2" x 1 1/2"	\$3.80
PVC3020SSB	3" x 2"	\$9.00
PVC0705STB	3/4" x 1/2", S x FIPT	\$1.40
PVC1005STB	1" x 1/2"	\$2.30
PVC1007STB	1" x 3/4"	\$2.30
PVC1207STB	1 1/4" x 3/4"	\$3.50
PVC1507STB	1 1/2" x 3/4"	\$4.05
PVC2007STB	2" x 1/2"	\$5.40
PVC0502TTB	1/2" x 1/4" MIPT x FIPT	\$4.05
PVC0503TTB	1/2" x 3/8"	\$4.05
PVC0702TTB	3/4" x 1/4"	\$2.50
PVC0703TTB	3/4" x 3/8"	\$2.50
PVC0705TTB	3/4" x 1/2"	\$2.50
PVC1005TTB	1" x 1/2"	\$3.50
PVC1007TTB	1" x 3/4"	\$3.50
PVC1207TTB	1 1/4" x 3/4"	\$5.20
PVC1210TTB	1 1/4" x 1"	\$5.20

BULKHEAD FITTINGS

PVC10BF	1" S x FIPT	\$95.75
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PVC NIPPLE



PVC TOE NIPPLE



MALE ADAPTER



FEMALE ADAPTER



TEE, S X S X S



COUPLING



UNION - SxS



THREADED PLUG



THREADED BUSHING



ELBOW

PVC Nipples

PVCN0230	1/4" x 3"	\$1.40
PVCN0720	3/4" x 2"	\$1.05
PVCN0740	3/4" x 4"	\$1.40
PVCN0760	3/4" x 6"	\$1.95
PVCN1020	1" x 2"	\$1.55
PVCN1030	1" x 3"	\$1.75
PVCN1060	1" x 6"	\$2.75
PVCN0510-80S	1/2" x Close Nipple - Sch 80	\$4.00
PVCN0710-80S	3/4" x Close Nipple - Sch 80	\$3.00
PVCN0730-80S	3/4" x 3" Nipple - Sch 80	\$4.00
PVCN1040-80S	1/2" x 4" Nipple - Sch 80	\$6.00
PVCN0520-TOE-80S	1/2" x 2" Nipple, Threaded One End - Sch 80	\$4.00
PVCN0720-TOE-80S	3/4" x 2" Nipple, Threaded One End - Sch 80	\$3.00
PVCN0725-TOE-80S	3/4" x 2-1/2" Nipple, Threaded One End - Sch 80	\$6.00
PVCN1020-TOE-80S	1" x 2" Nipple, Threaded One End - Sch 80	\$3.00

Schedule 80 PVC Fittings

ADAPTERS, MALE

PVC10MA-80	1" PVC Male Adapter	\$9.70
PVC20MA-80	2" PVC Male Adapter	\$23.50
PVC40MA-80	4" PVC Male Adapter	\$43.20
PVC0305RMA-80S	3/8" x 1/2" Reducing Male Adapter TxS - Sch 80	\$4.00

ADAPTERS, FEMALE

PVC20FA-80	1" Female Adapter SxT - Sch 80	\$22.00
PVC30FA-80	1" Female Adapter SxT - Sch 80	\$52.00

TEES, S X S X S

PVC05T-80S	1/2" Tee SxSxS - Sch 80	\$6.00
PVC07T-80S	3/4" Tee SxSxS - Sch 80	\$7.00
PVC10T-80S	1" Tee SxSxS - Sch 80	\$7.00

COUPLINGS, S X S

PVC05C-80	1/2" Schedule 80 Coupling	\$4.25
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UNIONS, SLIP X SLIP

PVC07U-80S	3/4" S x S Union - Sch 80	\$10.00
PVC10U-80S	1" S x S Union - Sch 80	\$11.00

PLUGS, MIPT

PVC02TP-80S	1/4" Schedule 80 Threaded Plug	\$4.10
PVC05TP-80S	1/2" Plug, MIPT	\$4.00
PVC10TP-80	1" Schedule 80 Threaded Plug	\$4.95

BUSHINGS

PVC0503STB-80	2" x 1 1/2" Slip x FIPT Bushing	\$4.15
PVC0702STB-80S	3/4" X 1/4" Slip x FIPT Bushing	\$2.00
PVC0705STB-80S	3/4" X 1/2" Slip x FIPT Bushing	\$3.00
PVC1005STB-80S	1" X 1/2" Slip x FIPT Bushing	\$3.00
PVC1007STB-80S	1" X 3/4" Slip x FIPT Bushing	\$4.00
PVC0503TTB-80S	1/2" X 3/8" MIPT x FIPT Bushing	\$9.00
PVC0705TTB-80S	3/4" X 1/2" MIPT x FIPT Bushing	\$5.00
PVC1005TTB-80S	1" X 1/2" MIPT x FIPT Bushing	\$9.00
PVC1007TTB-80S	1" X 3/4" MIPT x FIPT Bushing	\$7.00
PVC1007SSB-80S	1" X 3/4" Slip x Slip Bushing	\$4.00

ELBOWS

PVC05E-80S	1/2" Elbow SxS - Sch 80	\$2.00
PVC07E-80S	3/4" Elbow SxS - Sch 80	\$3.00



FEMALE ADAPTER



ELBOW

Schedule 80 Steel Reinforced PVC Fittings

COUPLING, THREADED. T X T

PVC05CT-80S-SR	1/2" Threaded Coupling TxT - Steel Reinforced	\$9.00
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ADAPTERS

PVC10FA-80S-SR	1" Female Adapter SxT - Steel Reinforced	\$19.00
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TEES

PVC070507SSFT-80S-SR	3/4" x 1/2" x 3/4" Tee SxTxS - Steel Reinforced	\$35.00
PVC070705SSFT-80S-SR	3/4" x 3/4" x 1/2" Tee SxSxT -Steel Reinforced	\$28.00
PVC070707SSFT-80S-SR	3/4" x 3/4" x 3/4" Tee SxSxT -Steel Reinforced	\$29.00

ELBOWS

PVC0705EST-80S-SR	3/4" S x 1/2" FIPT Ell, Sch 80, Stn Rnf	\$23.00
PVC07E-80S-SR	3/4" Elbow SxS - Sch 80	\$14.00

FlowGuard Gold CPVC Plastic Pipe (Price Per Foot)

FlowGuard Gold plumbing pipe is made from a specialty thermoplastic, known chemically as post-chlorinated polyvinyl chloride (CPVC). FlowGuard Gold is the result of new technology that insures increased product toughness year round. FlowGuard Gold systems are assembled with readily available, inexpensive tools. Solvent cemented joints — proven reliable with more than 30 years of successful CPVC service history — assure the reliability of a FlowGuard Gold system.



FG100

FG100-05	1/2" Plastic Pipe, 100 PSI	\$1.25
FG100-07	3/4"	\$2.10

FlowGuard Gold CPVC Fittings

COUPLINGS

FG05C	1/2", Slip x Slip	\$0.55
FG07C	3/4"	\$0.75

ADAPTERS, S X MIPT

FG07MA	3/4" Male Adapter	\$1.05
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ADAPTERS, S X FIPT

FG07FA	3/4" Female Adapter	\$2.65
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ELBOWS, 90 DEGREE

FG07E90	3/4" Elbow	\$1.05
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STREET ELBOWS, 90 DEGREE

FG07SE90	3/4" St. Elbow, Spigot x S	\$1.25
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CAPS

FG05CAP	1/2" Cap, Slip	\$0.60
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TEES, SLIP X SLIP X SLIP

FG07T	3/4" Tee, S x S x S	\$1.75
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REDUCER BUSHINGS

FG0705SSB	3/4" x 1/2", Spigot x Slip	\$0.70
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FG07C

FG07MA



FG07FA

FG07E90



FG07SE90

FG05CAP



FG07T

FG0705SSB



UNION CONNECTOR



UNION ELBOW



UNION TEE



MALE ADAPTER



UNION TEE



REDUCING TEE



UNION ELBOW



UNION CONNECTOR

John Guest Black PEI Twist & Lock Fittings

This range of fittings has been specifically developed to capture the most common water filtration and water treatment applications, point-of-entry filter housings & water conditioning; however, they are also suitable for applications in Plumbing Repair and Remodel, Marine and R.V. The Black UV resistant PEI range of JG Twist & Lock fittings is offered in 3/4" and 1" CTS sizes and are suitable for use with Pex, CPVC and Copper pipe. The fittings are manufactured from high quality engineered plastic with EPDM 'O' rings ensuring a leak-free connection. The Speedfit Push-In System is suitable for hot and cold water plumbing applications and requires no tools to assemble. Fully demountable should it be required and ensures extensive installation time savings.

UNION CONNECTORS

JG07UC-BLACK	3/4" Copper Tube Size - Union	\$10.65
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UNION ELBOWS

JG07UE-BLACK	3/4" Copper Tube Size - Union Elbow	\$15.55
JG10UE-BLACK	1" Copper Tube Size - Union Elbow	\$23.20

UNION TEES

JG10UT-BLACK	1" Copper Tube Size - Union Tee	\$29.45
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MALE ADAPTERS

JG07MA-BLACK	3/4" CTS x 3/4" MIPT Male Adapter	\$27.60
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SeaTech Fittings

SeaTech fittings are formulated and manufactured in 1/2" Copper Tubing Sizes (CTS) (5/8" O.D.), 3/4" CTS (7/8" O.D.) and 1" CTS size. SeaTech 35 Series products are designed and manufactured to be trouble free for many years of service life. The 35 Series products are designed and manufactured in Polysulfone, a high performance thermal plastic material. All 35 Series products are approved and certified to NSF-61, NSF-14, CSA B137.5, ASTM F877, and to the Uniform Plumbing Code (U.P. Code). These fittings are available in standard and imperial sizes. The SeaTech quick connect design allows for quick and easy connections without installation tools. Simply cut the Plastic, Copper, or CPVC piping and snap a SeaTech fitting in place for a zero leak connection. Do not use with explosive gases, petroleum products or other fuels. NPS - "Nominal Pipe Size" CTS - "Copper Tube Size"

Operating Pressure: Vacuum to 250psi, Max Temperature: 180°F @ 100psi/75°F @ 250psi

UNION TEE

ST05UT	1/2" CTS, 5/8" O.D.	\$12.25
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REDUCING TEE

ST050502RT	1/2" x 1/2" x 1/4" CTS	\$16.15
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UNION ELBOW

ST05UE	1/2" CTS	\$8.35
ST07UE	3/4" CTS	\$14.95
ST10UE	1" CTS	\$24.10

UNION CONNECTOR

ST05UC	1/2" CTS	\$9.95
ST07UC	3/4" CTS	\$14.05

MALE ADAPTER

ST05MA	1/2" CTS x 1/2" MIPT	\$7.10
ST07MA	3/4" CTS x 3/4" MIPT	\$10.70

TUBE SUPPORTS

ST07TS	3/4" Tube Support	\$0.60
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ST05MA



IL07UT



IL07UE



IL07MA



BRASS NIPPLE



45 ELBOW



HEX BUSHING



BRASS PLUG



BCF0707MC



BCF03DS



BCF03TS



BCF03N

Legend Insta-Loc Fittings

Legend Insta-Loc™ fittings are engineered for connection to copper, CPVC, and Pex tubing in seconds. Insta-Loc™ provides a clean and easy joining method that's designed to save time and money on installations. Installing a joint with Insta-Loc™ is the best alternative to solder, glue, or crimping for a permanent connection designed to last a lifetime.

Insta-Loc™ valves and fittings are manufactured from an ASTM forged brass alloy making them lighter and stronger than traditional cast bronze construction. They are also 100% pressure tested. The result is higher quality and greater reliability."

Insta-Loc™ works with the following tubing systems:

1. Copper: K, L & M hard-drawn copper tube meeting ASTM B88
2. CPVC D2846 CTS size
3. PEX: A, B, and C meeting ASTM F876 & F877

Not suitable for use on PEX tubing with an oxygen barrier on the outer layer or composite PEX-AL-PEX tubing.

LEGEND INSTA-LOC™ FITTINGS

IL07UE	Union Elbow, 3/4" Copper Tube Size	\$33.40
IL07UC	Union Connector, 3/4" Copper Tube Size	\$29.60
IL07MA	Male Adapter, 3/4" Copper Tube Size	\$17.95

Brass Pipe Nipples

BN0200	1/4" Hex Nipple	\$5.20
BN0225	1/4" x 2-1/2"	\$7.85
BN0230	1/4" x 3"	\$15.50
BN0260	1/4" x 6"	\$28.65
BN0710	3/4" x Close	\$18.55
BN0720	3/4" x 2"	\$23.35
BN1010	1" x Close	\$27.35
BN1020	1" x 2"	\$33.75

Threaded Brass Fittings

ELBOWS

B02E45	1/4" Lead Free Brass Elbow, 45°	\$11.75
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HEX BUSHINGS

B1007HB	1" x 3/4"	\$17.80
B1210HB	1 1/4" x 1"	\$30.30
B1510HB	1 1/2" x 1"	\$38.70

TEES

B02T	1/4" Cast	\$20.90
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PLUGS

B02P	1/4"	\$2.90
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Brass Compression Fittings

MALE CONNECTORS

BCF0707MC	7/8" Tube x 3/4" MIPT	\$26.20
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SLEEVES AND INSERTS FOR POLY TUBING

BCF02DS	1/4" Delrin Sleeve	\$0.10
BCF03DS	3/8"	\$0.40
BCF02TS	1/4" Brass Insert	\$0.50
BCF03TS	3/8"	\$0.95

COMPRESSION NUT

BCF02N	1/4"	\$1.40
BCF03N	3/8"	\$2.40

COPPER ELBOW



CF07MA



PR8



HP16



APR8



C16



14D



TT520

Copper Solder Fittings

ELLS, C X C

CF07E90	3/4", 90°	\$6.50
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ADAPTERS, MIPT X C

CF07MA	3/4" Male	\$10.25
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ADAPTERS, MIPT X C REDUCING

CF1007RMA	1" x 3/4"	\$25.60
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Plastic Pipe Cements

A high strength, fast setting cement for PVC pipe up to 4".

PR8	1/2 pint PVC Cement, Clear	\$19.00
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Heavy bodied, medium setting, clear PVC cement for pipe and fittings up through 12".

HP16	16oz. PVC Cement, Clear	\$38.60
HP32	32oz. PVC Cement, Clear	\$56.10

Medium bodied, fast setting, clear PVC/CPVC/ABS/Styrene cement for pipe through 6".

APR8	1/2 pint All Purpose Cement	\$26.30
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A clear cleaner for PVC, CPVC, ABS and Styrene piping applications.

C16	1 Pint PVC Cleaner, Clear	\$26.15
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Thread Sealants

LEAK LOCK THREAD SEALANT

Leak Lock is a state-of-the-art high strength, pipe joint sealant consisting of chemically resistant film formers, plasticizers, reinforcing fillers and solvents. When Leak Lock is applied to pipe joints, it adheres to the mating surfaces. After joints are assembled, Leak Lock sets to form a chemically resistant flexible fluid-tight seal.

LEAK LOCK 1.3 TUBE	Thread Sealant, 1-1/3 oz. Tube	\$16.70
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PERMATEX THREAD SEALANT

Thick white thread sealant containing Teflon. Prevents galling and corrosion. Use to 300° F.

14H	1/4 Pint Teflon Sealant	\$21.15
14D	1 Pint Teflon Sealant	\$49.80

Teflon Tape, Spooled With Dirt Cover

TT520-05	Teflon Tape, 1/2" x 520" Heavy Duty	\$2.30
TT520-07	Teflon Tape, 3/4" x 520"	\$4.10

Plastic Pipe Cutters

Easily cuts PVC, ABS or flexible plastic pipes up to 1 1/4".

PPC5-6	Plastic Pipe Cutter, 1 1/4" and 1 1/2"	\$33.90
PPCB5-6	Cutter Blade, 1 1/4" and 1 1/2"	\$12.60



PPC5-6



PPCB5-6

Water Systems Accessories & Tools





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NELSEN

C O R P O R A T I O N™

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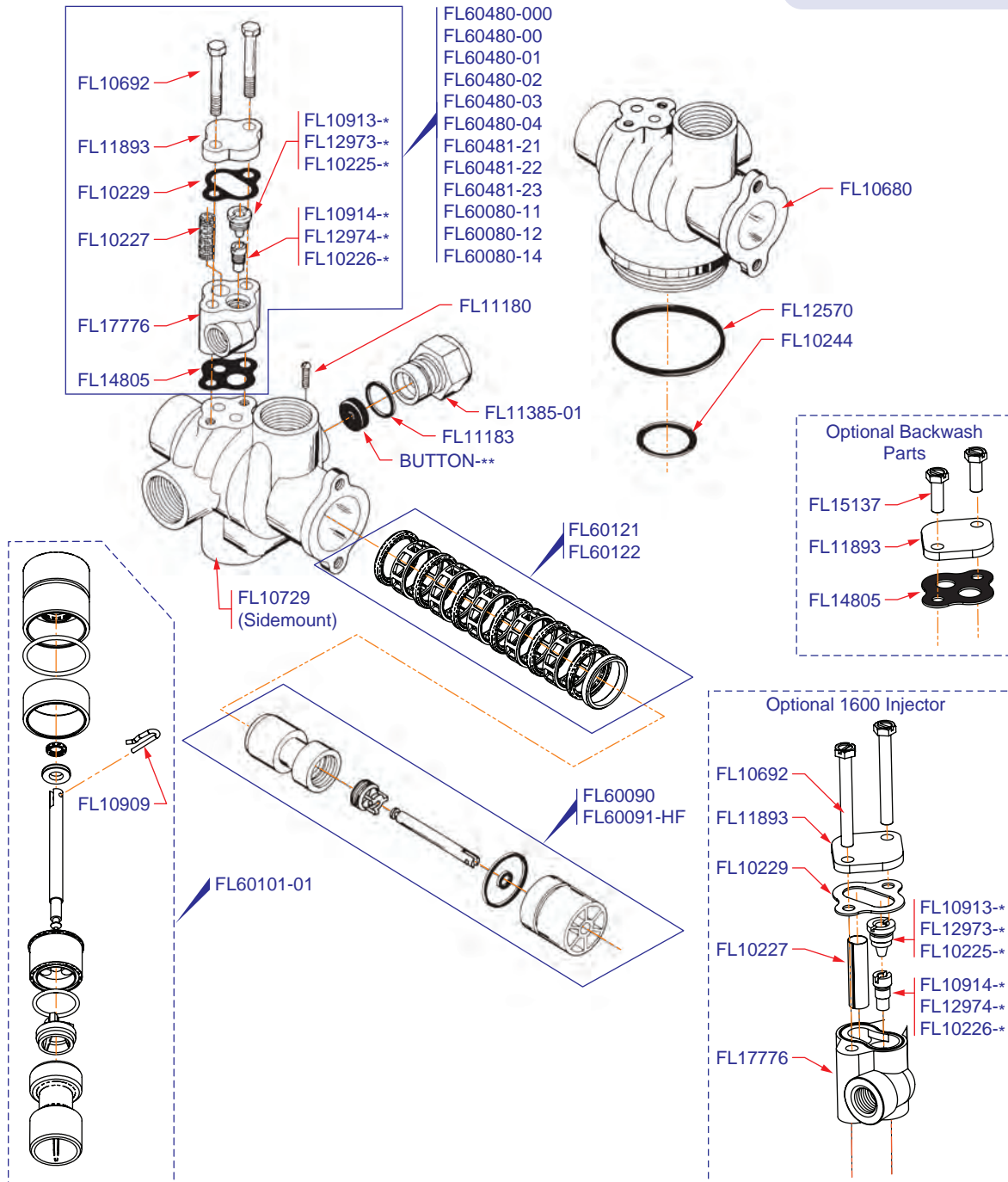
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Fleck Parts

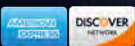


COMPLETE ASSEMBLIES

FL60090	Piston Assembly
FL60121	Seal Kit
FL60029	1600 Brine Valve
FL60080	1600 Injector Assembly
FL60050	Drive Assembly
FL60020-25	BLFC .25 GPM
FL60020-50	BLFC .50 GPM
FL60020-100	BLFC 1.0 GPM

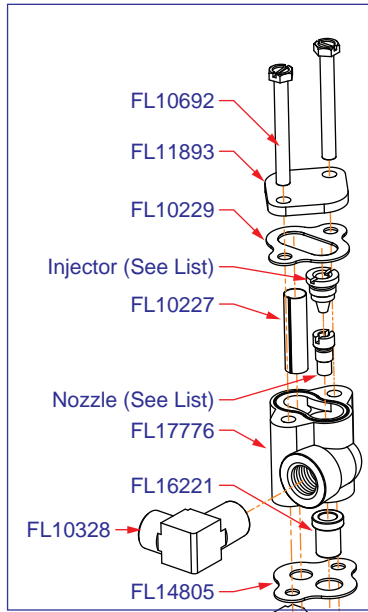
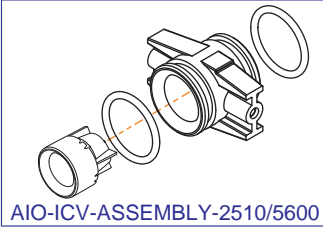
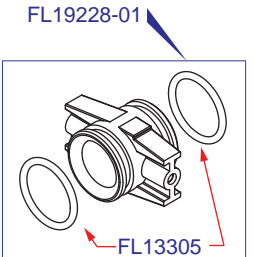
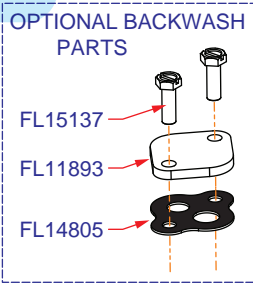


**INDICATE SIZE



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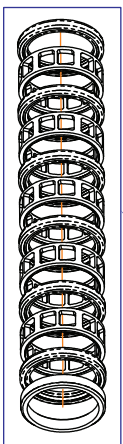
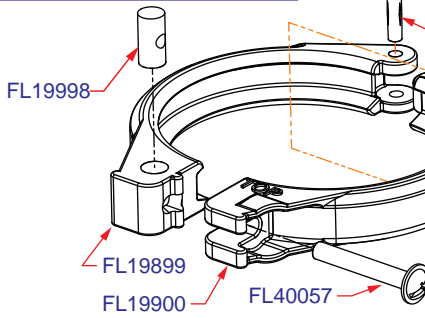
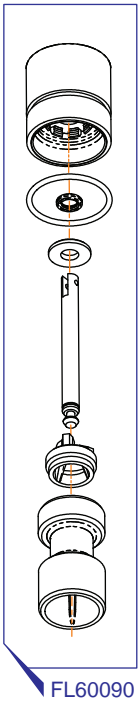
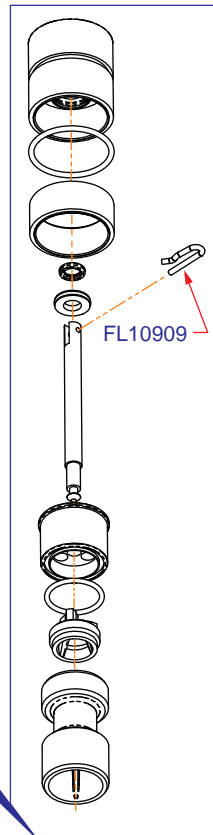
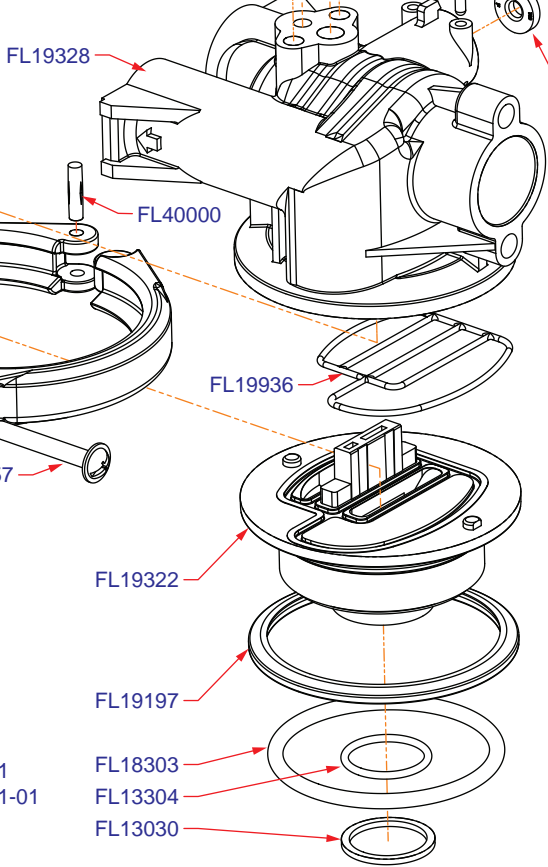


Injectors

- FL12973-0 (PVC)
- FL12973-1 (PVC)
- FL12973-2 (PVC)
- FL12973-3 (PVC)
- FL12973-4 (PVC)
- FL10913-000 (Brown)
- FL10913-00 (Violet)
- FL10913-0 (Red)
- FL10913-1 (White)
- FL10913-2 (Blue)
- FL10913-3 (Yellow)
- FL10913-4 (Green)

Nozzles

- FL12974-0 (PVC)
- FL12974-1 (PVC)
- FL12974-2 (PVC)
- FL12974-3 (PVC)
- FL12974-4 (PVC)
- FL10914-000 (Brown)
- FL10914-00 (Violet)
- FL10914-0 (Red)
- FL10914-1 (White)
- FL10914-2 (Blue)
- FL10914-3 (Yellow)
- FL10914-4 (Green)



COMPLETE ASSEMBLIES

FL60090	Piston Assembly	FL60050	Drive Assembly
FL60101-01	NHWB Piston Assembly	FL60010-25	BLFC .25 GPM
FL60121	Seal Kit	FL60010-50	BLFC .50 GPM
FL60121-01	Seal Kit, Silicone	FL60010-100	BLFC 1.0 GPM
FL60011	1650 Brine Valve	FL60088-0	Meter - Right Angle
FL60080	1600 Injector Assembly	FL60089-180	Meter - Extended Range

**INDICATE SIZE

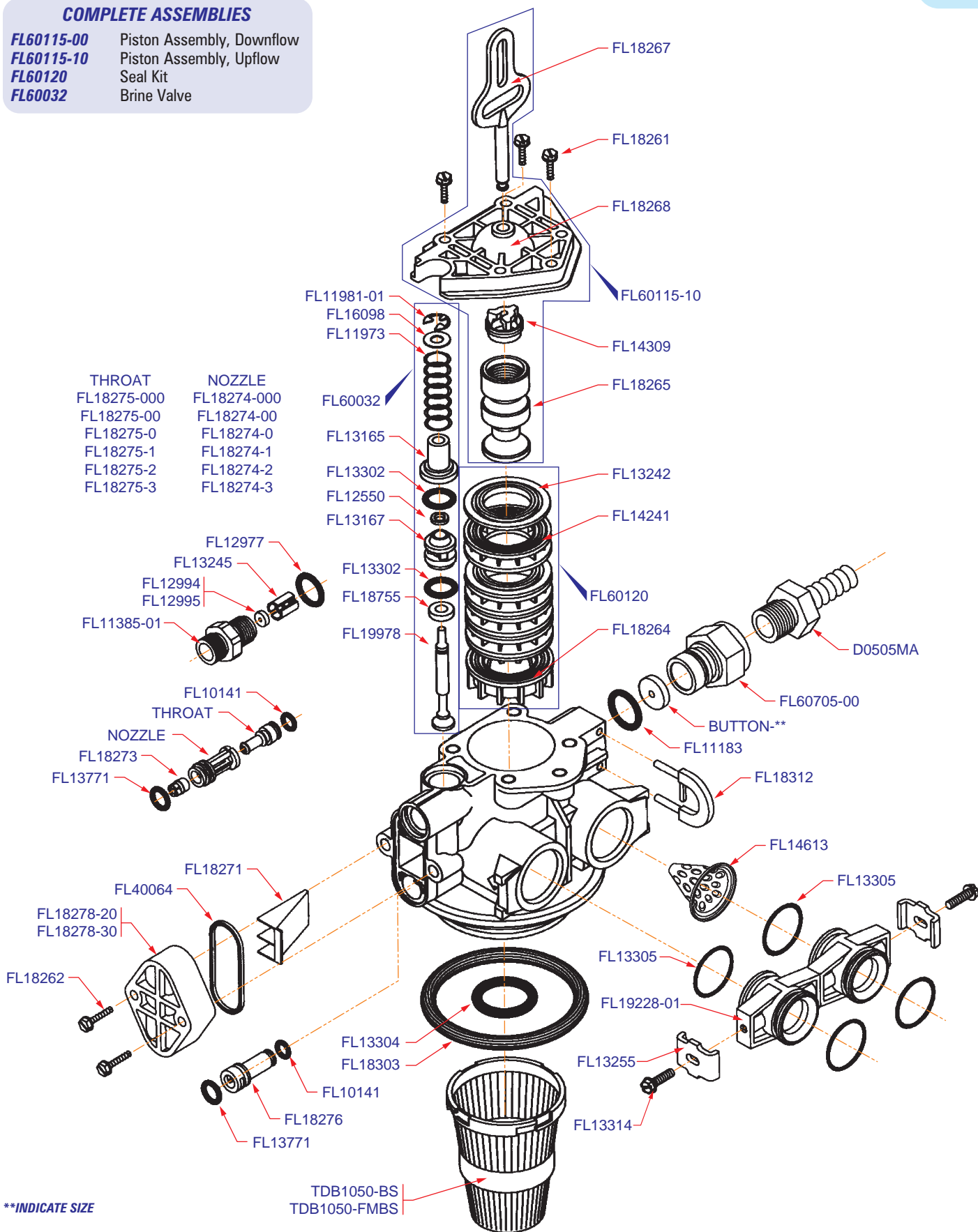
Fleck Parts

2



COMPLETE ASSEMBLIES

- FL60115-00** Piston Assembly, Downflow
- FL60115-10** Piston Assembly, Upflow
- FL60120** Seal Kit
- FL60032** Brine Valve



**INDICATE SIZE

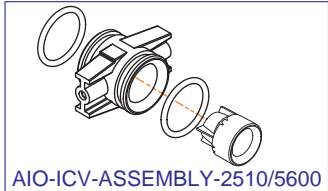
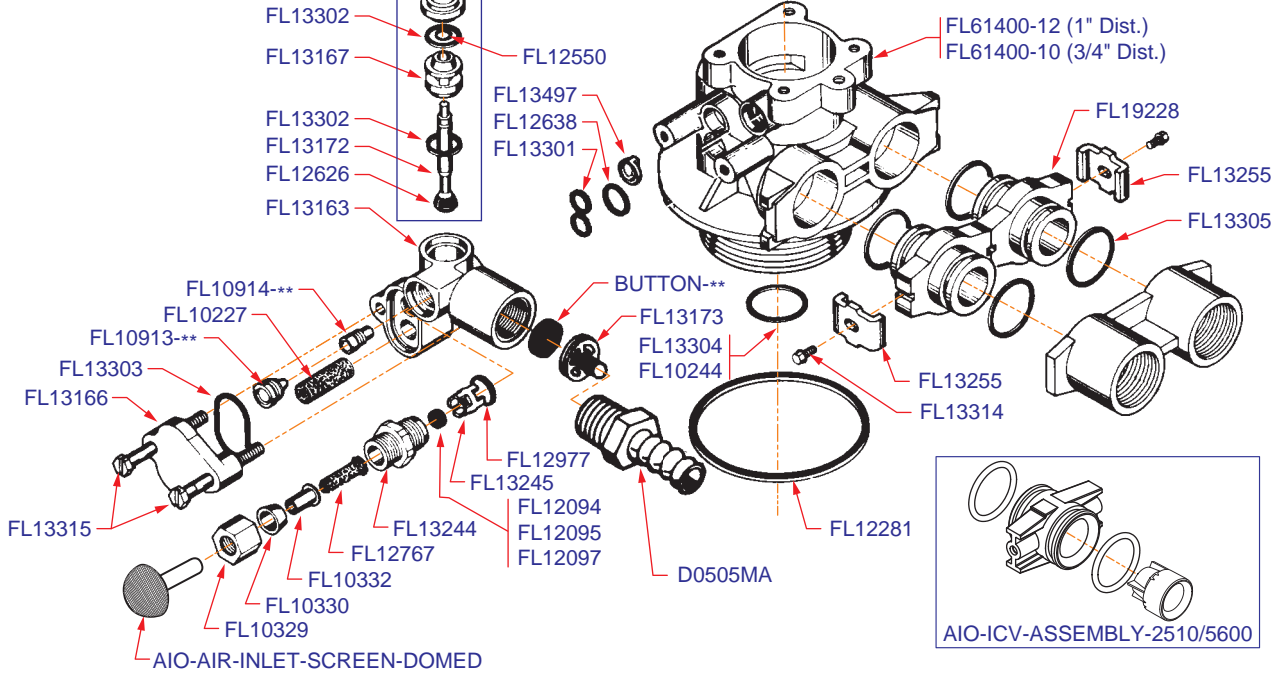
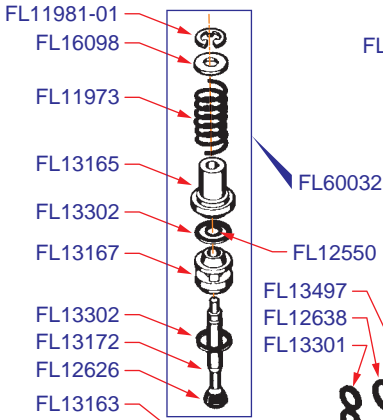
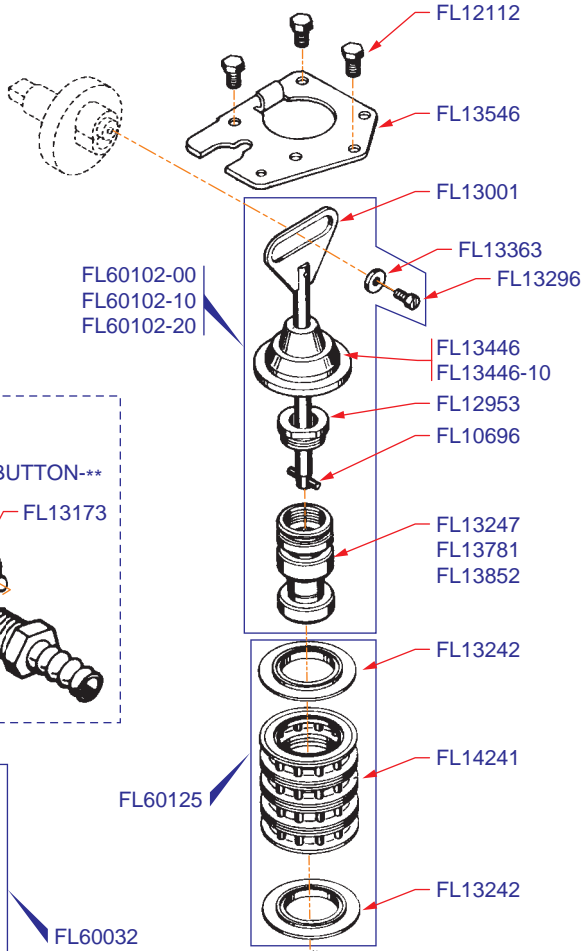
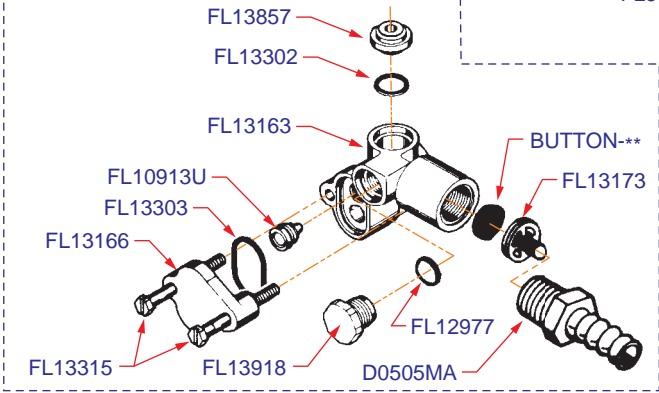
Fleck Parts

3

COMPLETE ASSEMBLIES

- FL60102-00 Piston Assm., Standard
- FL60102-10 Piston Assm., Filter
- FL60125 Seal Kit
- FL60032 Brine Valve
- FL60084 Injector Assm.
- FL60086 Meter Module
- FL60087 Ext. Range Meter Module
- FL60702-20 Low Water Piston Assm.

Backwash Filter Injector Option



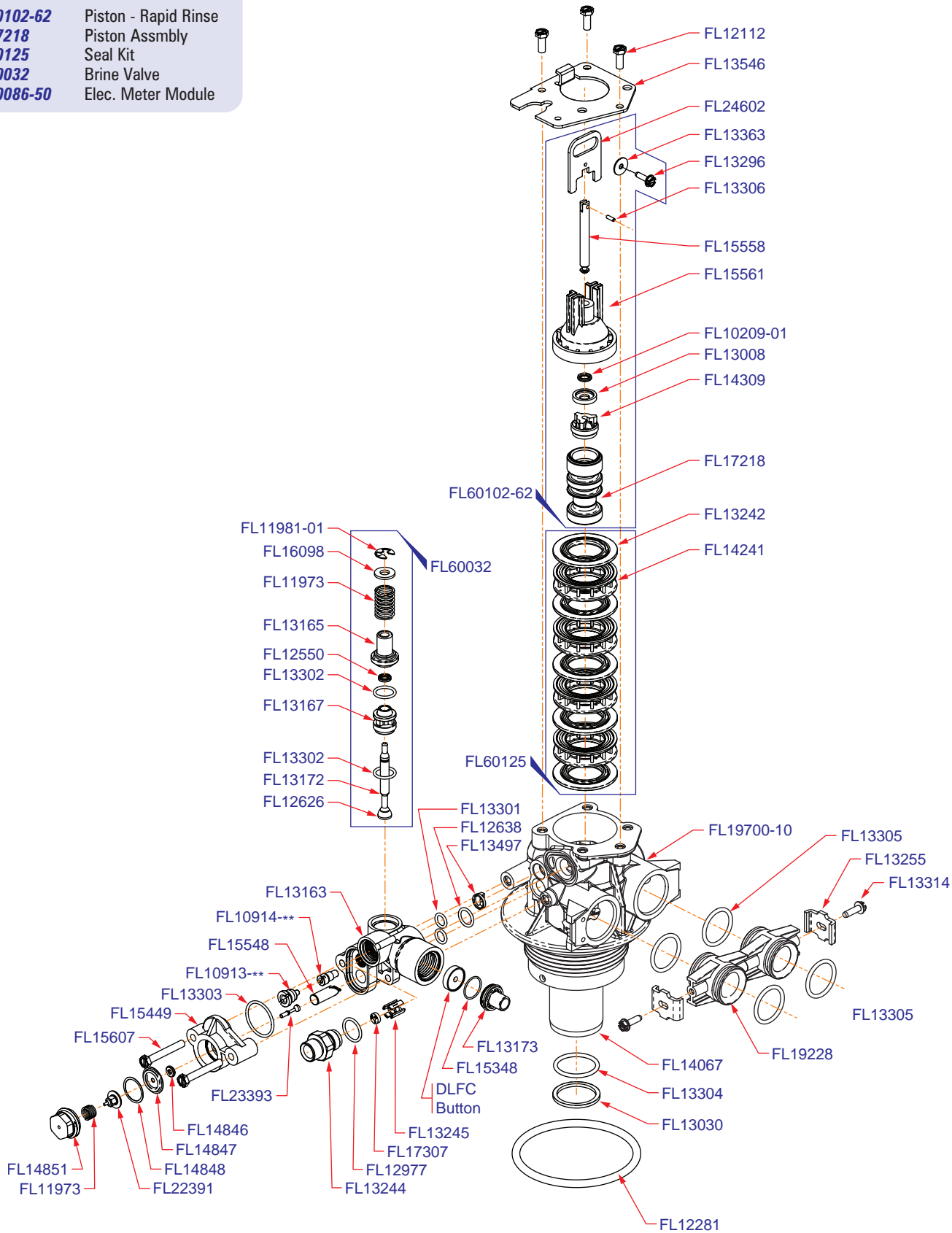
Fleck Parts

**INDICATE SIZE



COMPLETE ASSEMBLIES

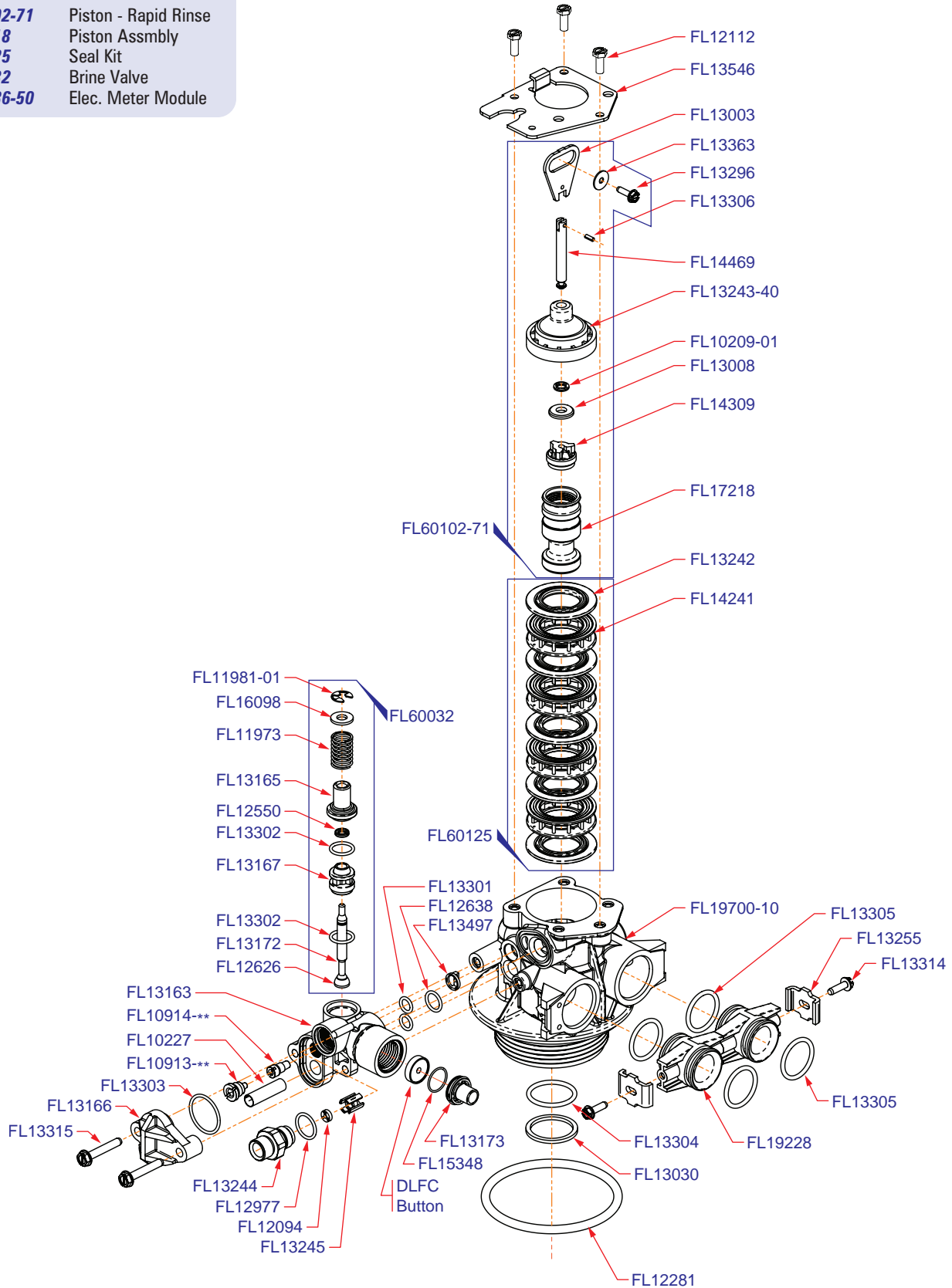
- FL60102-62** Piston - Rapid Rinse
- FL17218** Piston Assembly
- FL60125** Seal Kit
- FL60032** Brine Valve
- FL60086-50** Elec. Meter Module



**INDICATE SIZE

COMPLETE ASSEMBLIES

- FL60102-71** Piston - Rapid Rinse
- FL17218** Piston Assmby
- FL60125** Seal Kit
- FL60032** Brine Valve
- FL60086-50** Elec. Meter Module



**INDICATE SIZE

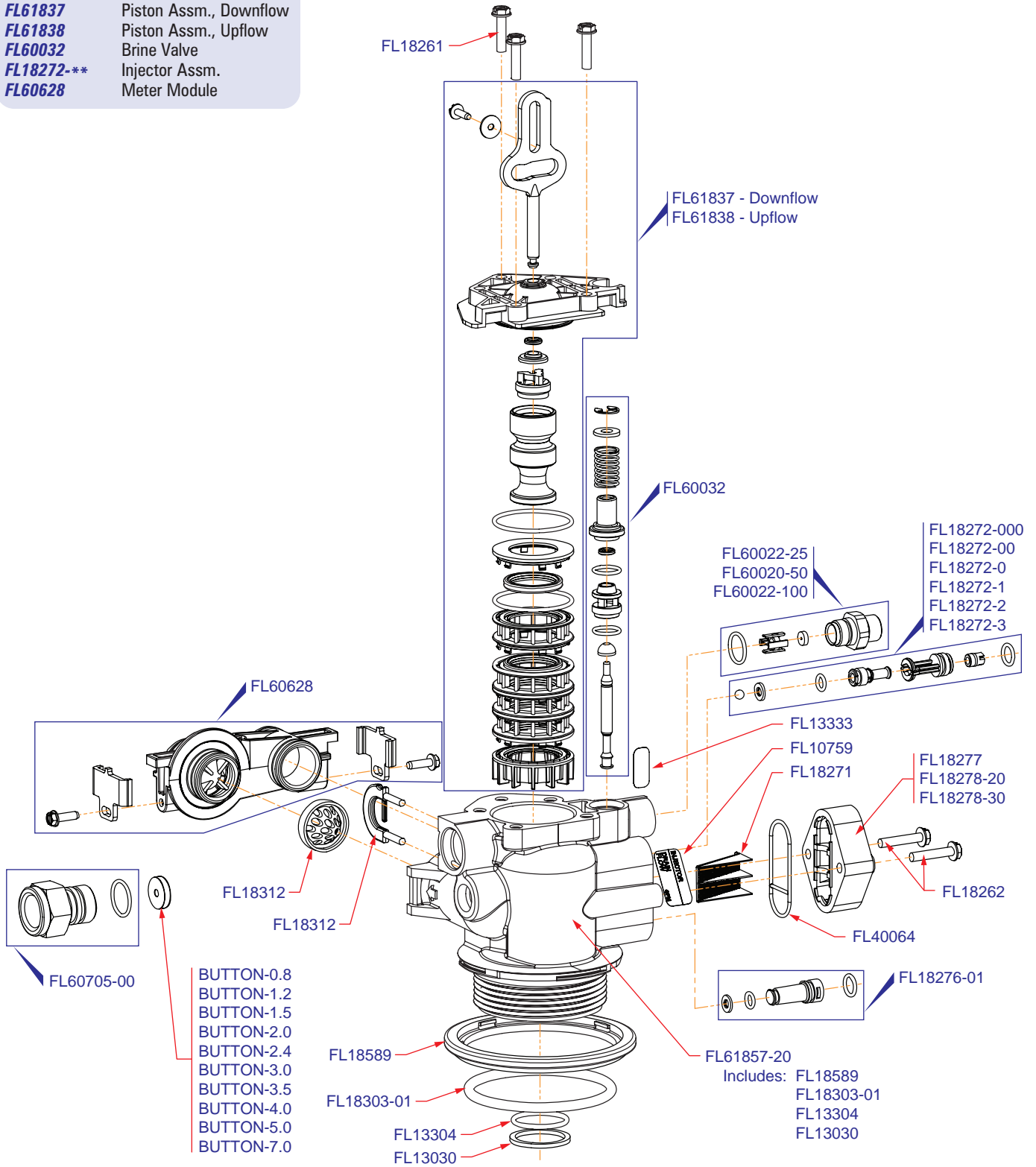
Fleck Parts

6

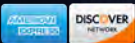


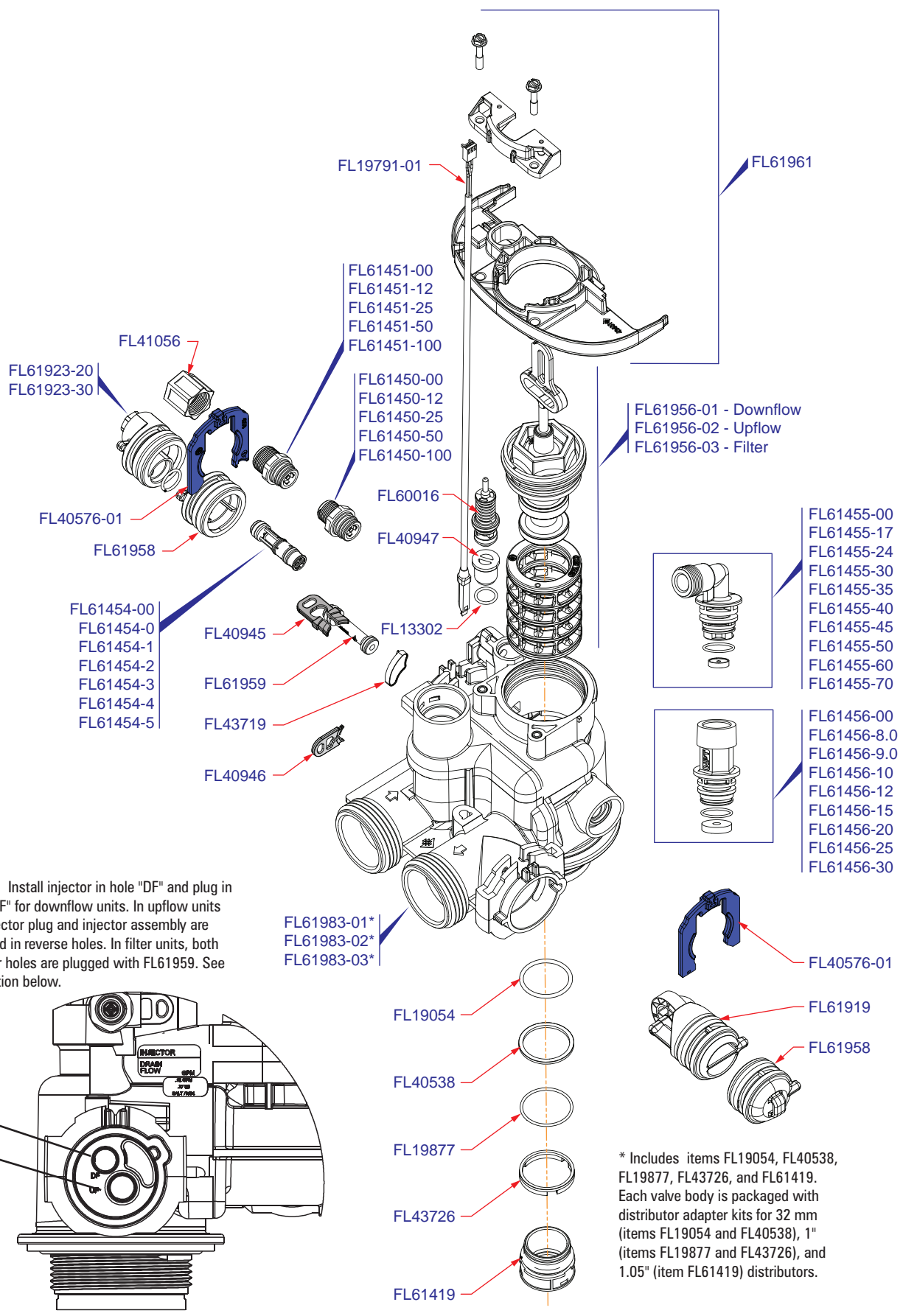
COMPLETE ASSEMBLIES

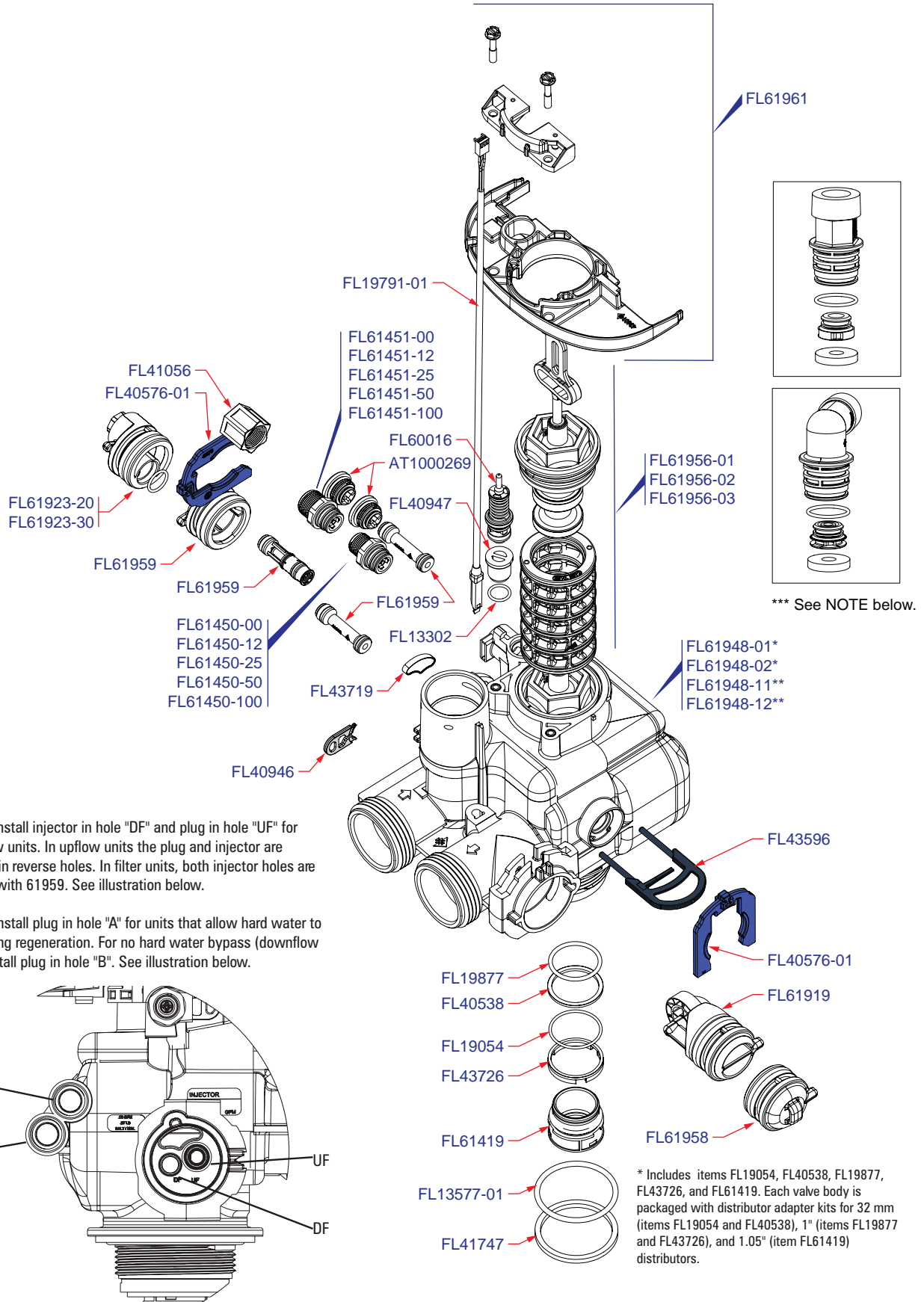
- FL61837** Piston Assm., Downflow
- FL61838** Piston Assm., Upflow
- FL60032** Brine Valve
- FL18272-**-**** Injector Assm.
- FL60628** Meter Module



**INDICATE SIZE

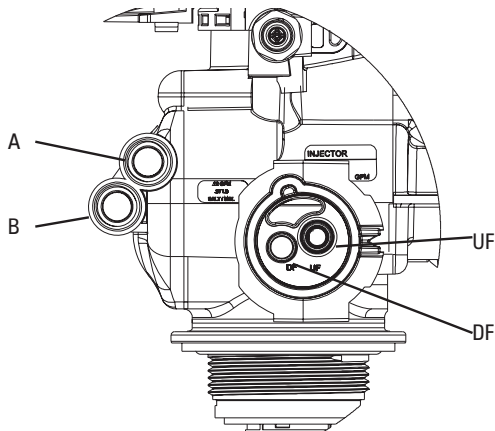






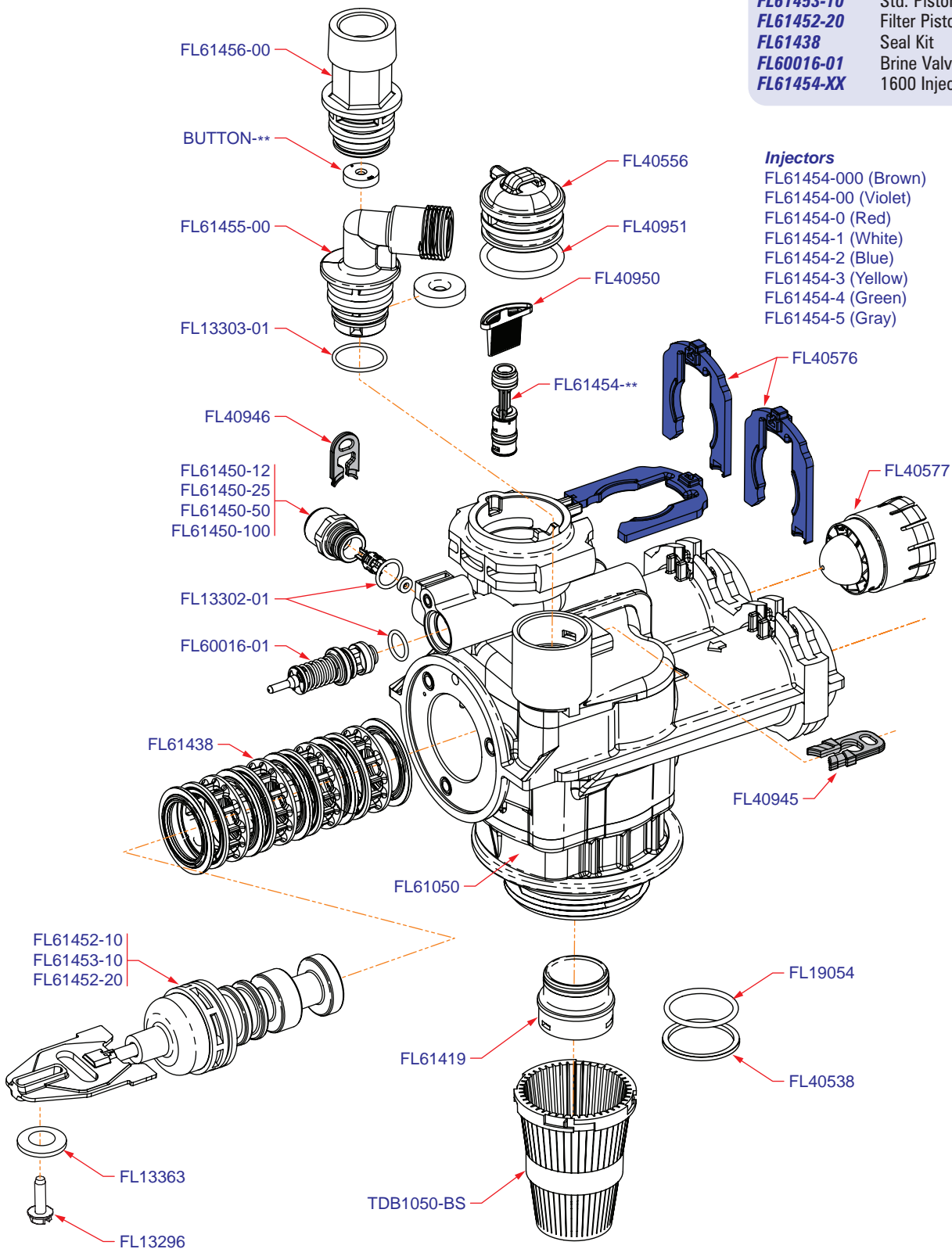
NOTE: Install injector in hole "DF" and plug in hole "UF" for downflow units. In upflow units the plug and injector are installed in reverse holes. In filter units, both injector holes are plugged with 61959. See illustration below.

NOTE: Install plug in hole "A" for units that allow hard water to flow during regeneration. For no hard water bypass (downflow only), install plug in hole "B". See illustration below.



- COMPLETE ASSEMBLIES**
- FL61452-10** High Flow Piston Assembly
 - FL61453-10** Std. Piston Assembly
 - FL61452-20** Filter Piston Assembly
 - FL61438** Seal Kit
 - FL60016-01** Brine Valve
 - FL61454-XX** 1600 Injector Assm.

- Injectors**
- FL61454-000 (Brown)
 - FL61454-00 (Violet)
 - FL61454-0 (Red)
 - FL61454-1 (White)
 - FL61454-2 (Blue)
 - FL61454-3 (Yellow)
 - FL61454-4 (Green)
 - FL61454-5 (Gray)



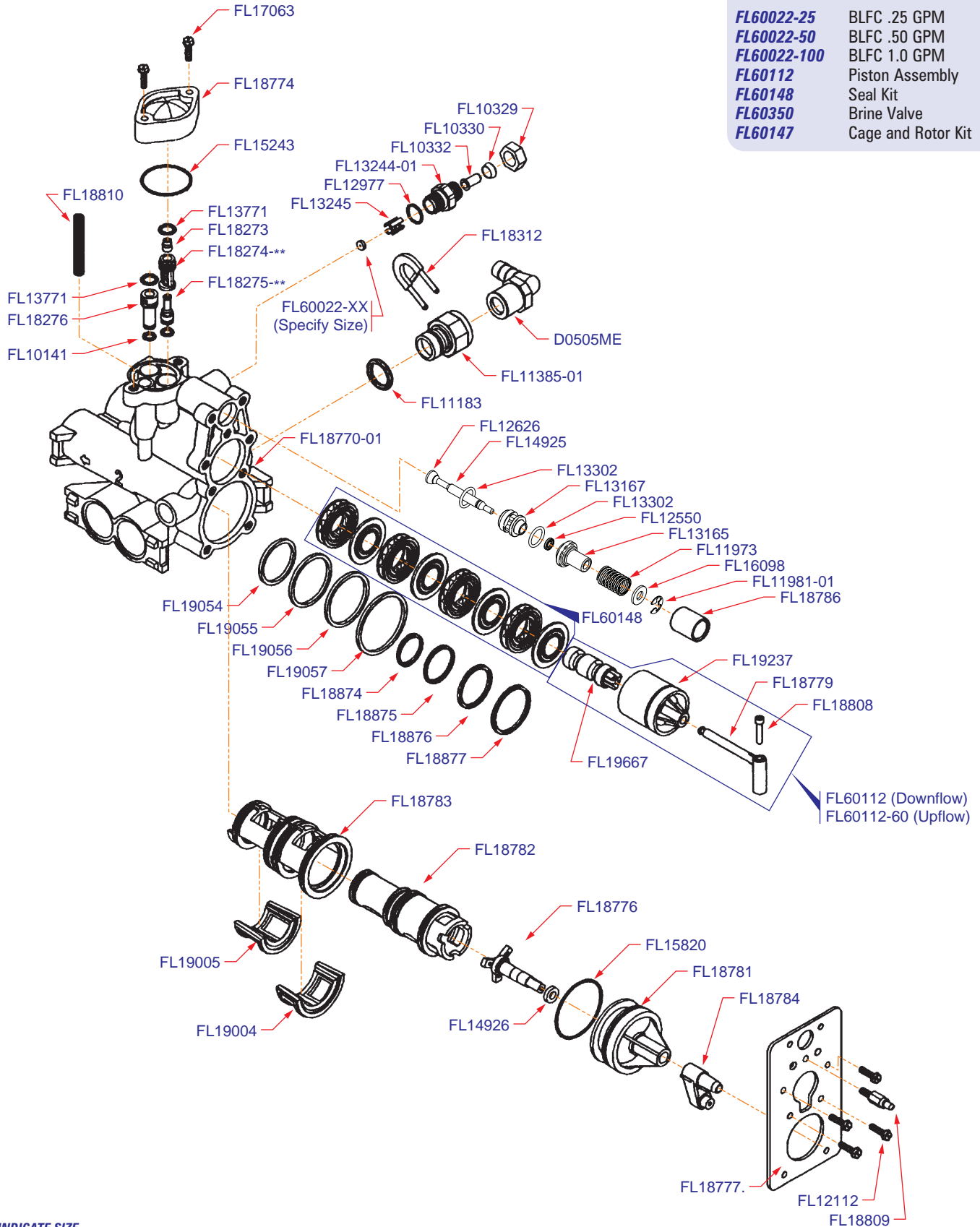
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Fleck Parts

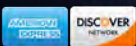


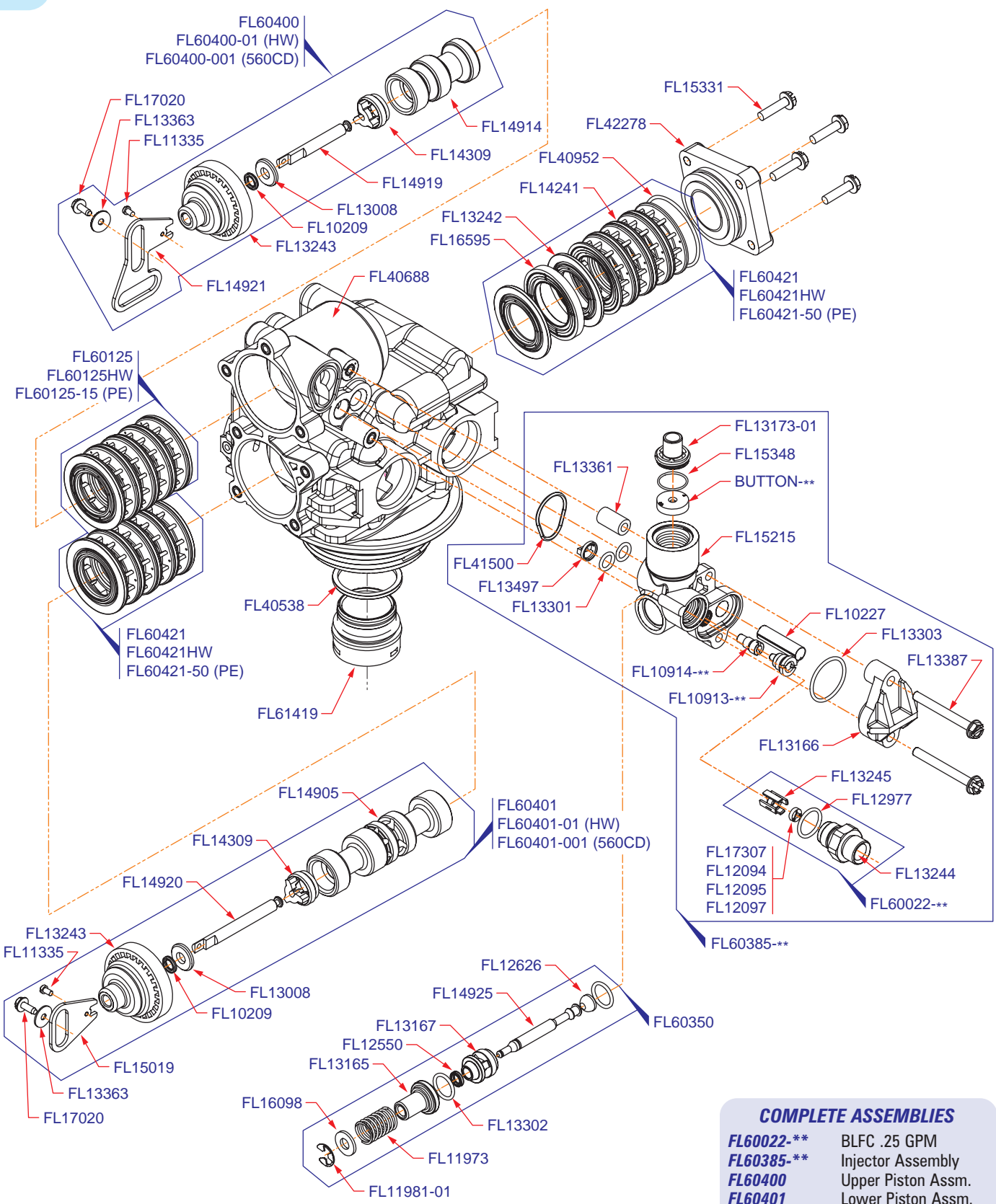
COMPLETE ASSEMBLIES

FL60022-25	BLFC .25 GPM
FL60022-50	BLFC .50 GPM
FL60022-100	BLFC 1.0 GPM
FL60112	Piston Assembly
FL60148	Seal Kit
FL60350	Brine Valve
FL60147	Cage and Rotor Kit



**INDICATE SIZE



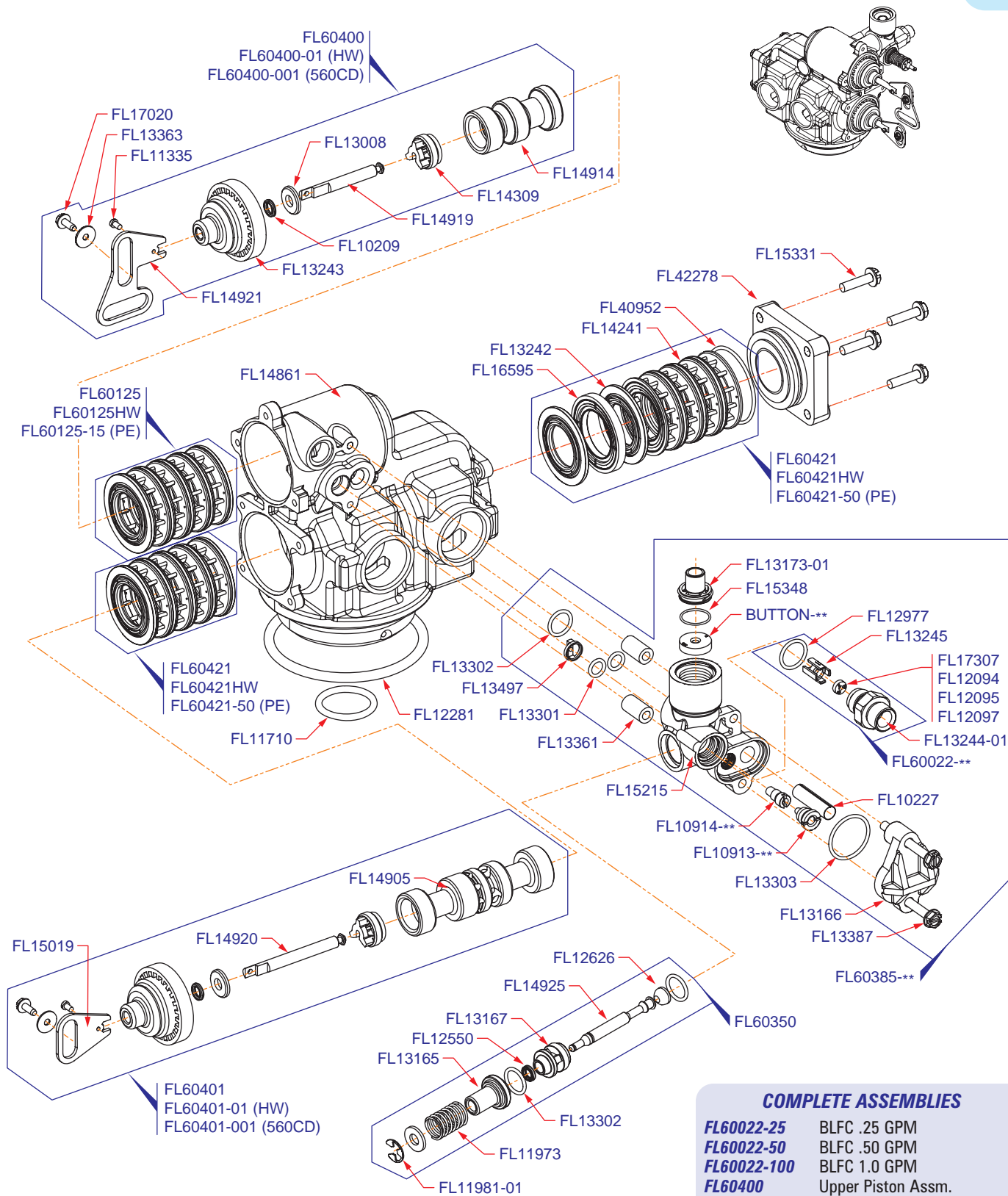


- COMPLETE ASSEMBLIES**
- FL60022-**** BLFC .25 GPM
 - FL60385-**** Injector Assembly
 - FL60400** Upper Piston Assm.
 - FL60401** Lower Piston Assm.
 - FL60125** Upper Seal Kit
 - FL60421** Lower Seal Kit
 - FL60350** Brine Valve Assm.

**INDICATE SIZE

Fleck Parts

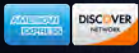


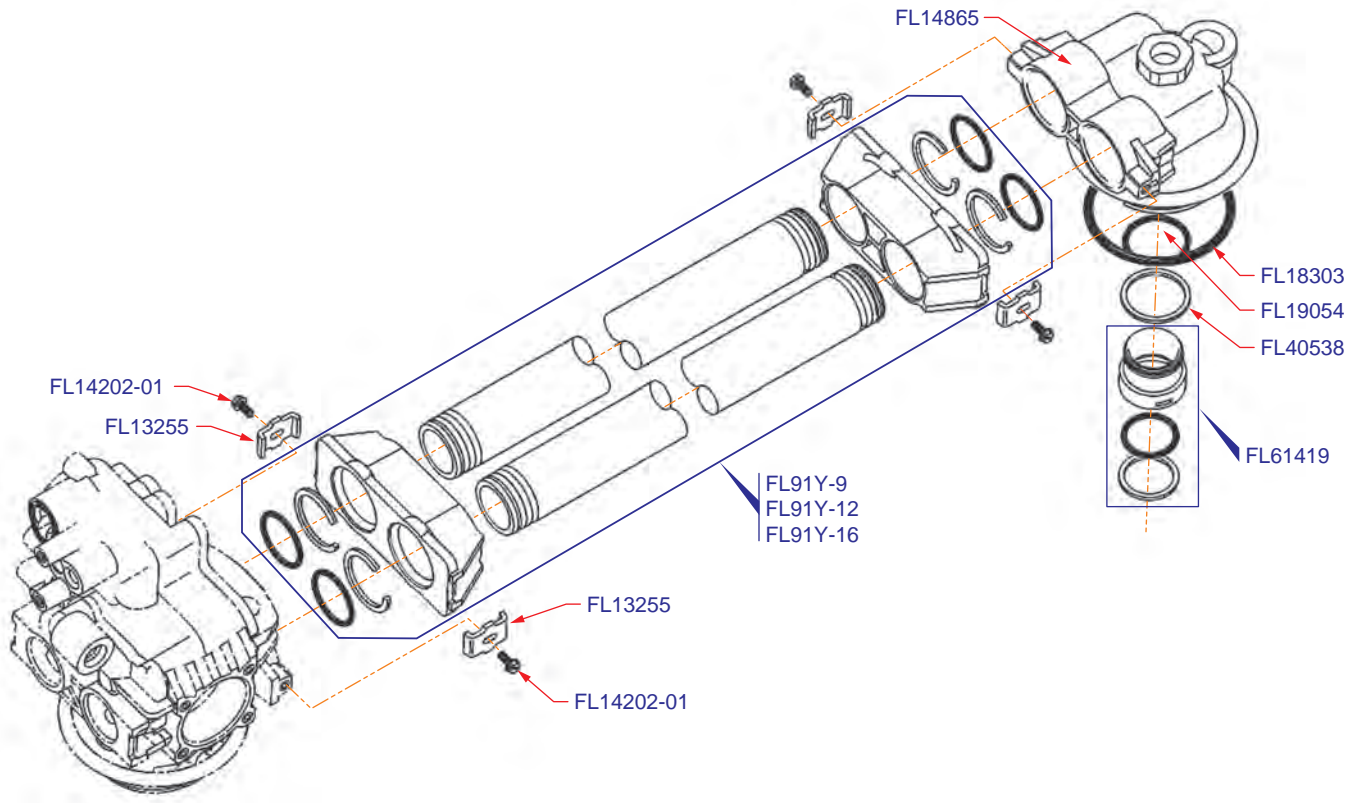


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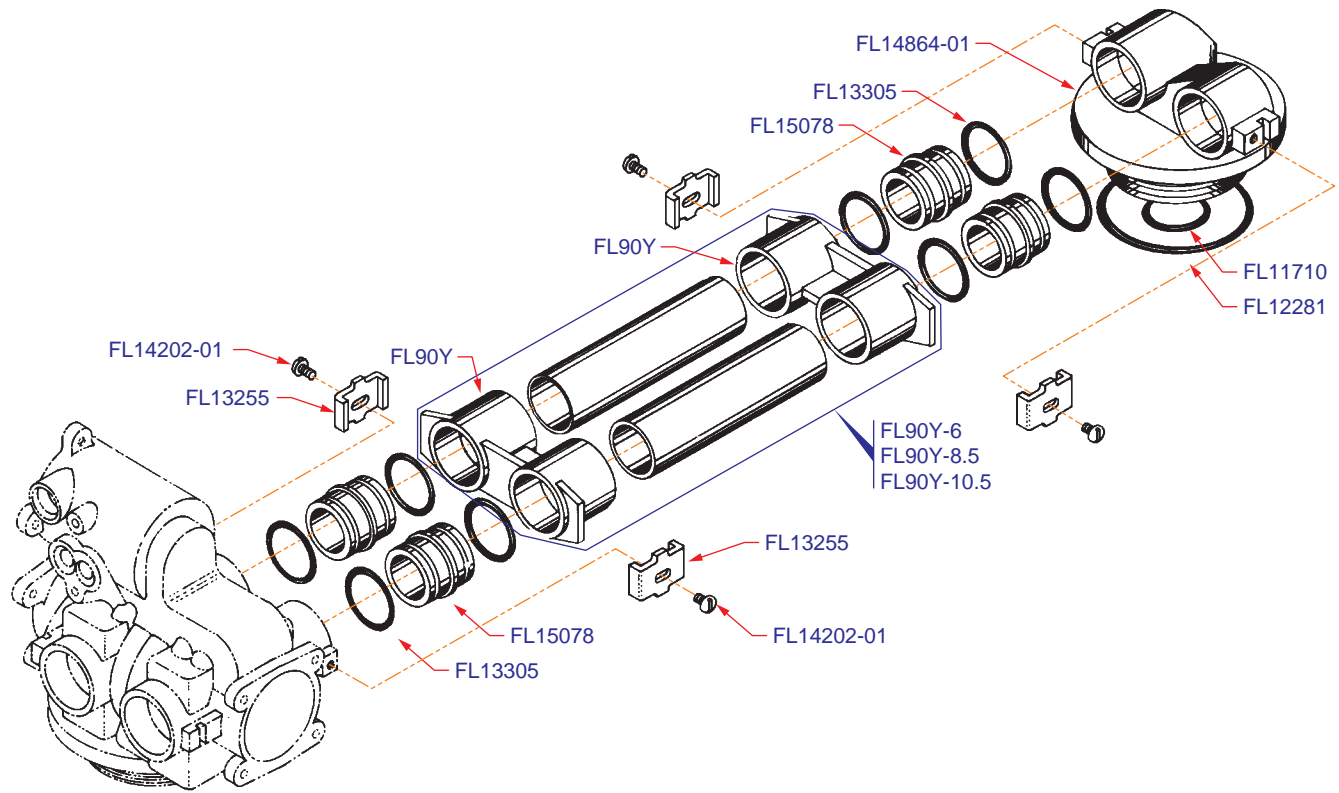
COMPLETE ASSEMBLIES	
FL60022-25	BLFC .25 GPM
FL60022-50	BLFC .50 GPM
FL60022-100	BLFC 1.0 GPM
FL60400	Upper Piston Assm.
FL60401	Lower Piston Assm.
FL60125	Upper Seal Kit
FL60421	Lower Seal Kit
FL60350	Brine Valve Assm.
FL60086	5600 & 9000 Meter Assm.

Fleck Parts 13



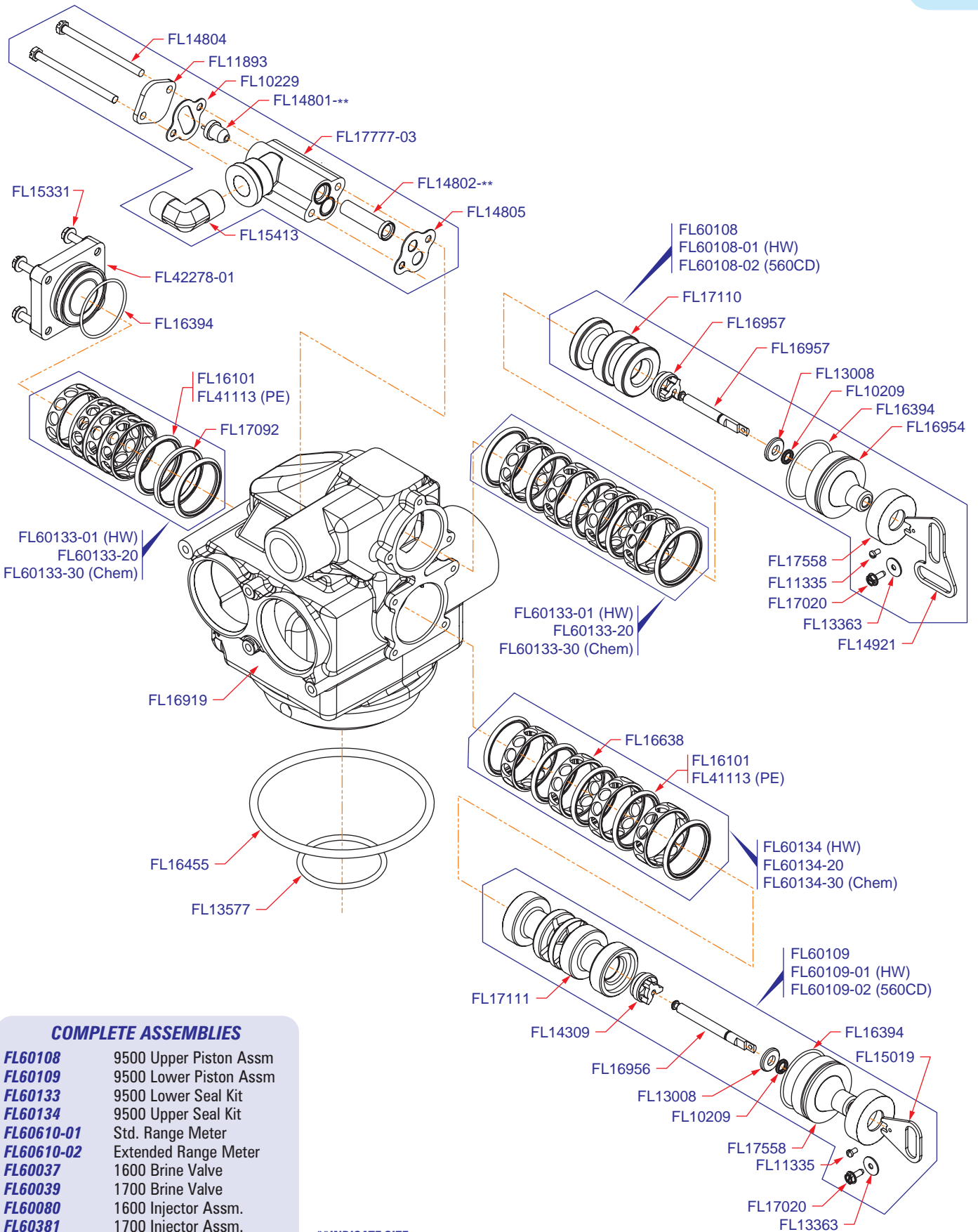


Fleck 9000 Second Tank Adapter



Fleck Parts

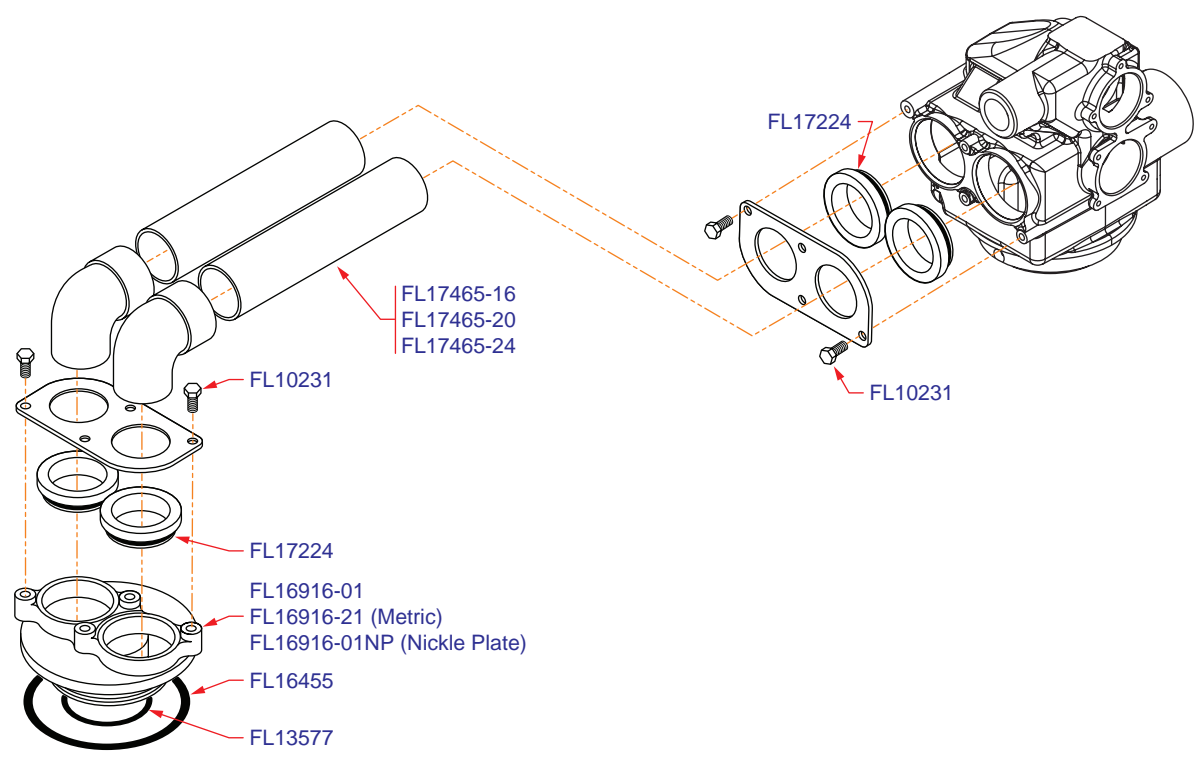




COMPLETE ASSEMBLIES

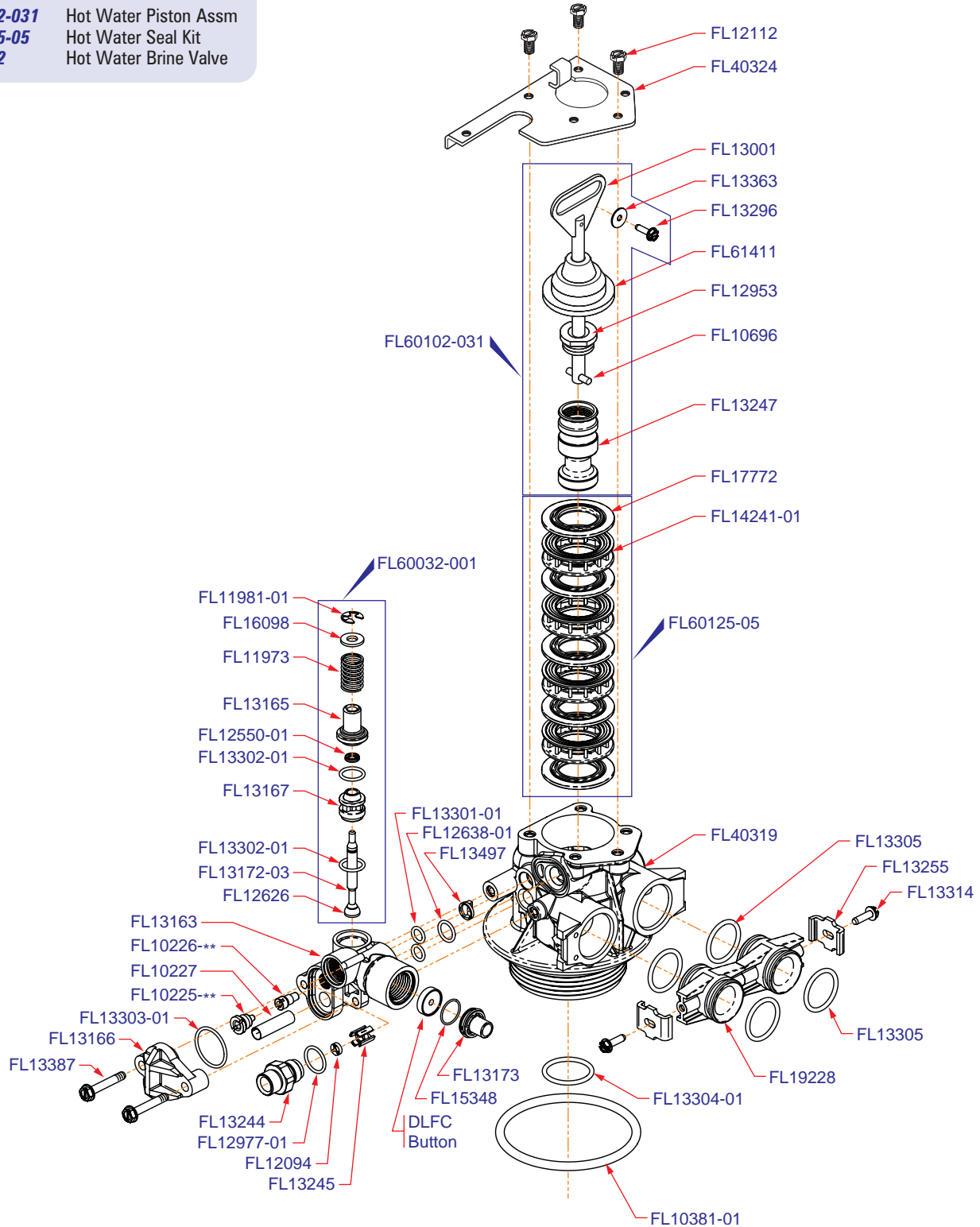
- FL60108** 9500 Upper Piston Assm
- FL60109** 9500 Lower Piston Assm
- FL60133** 9500 Lower Seal Kit
- FL60134** 9500 Upper Seal Kit
- FL60610-01** Std. Range Meter
- FL60610-02** Extended Range Meter
- FL60037** 1600 Brine Valve
- FL60039** 1700 Brine Valve
- FL60080** 1600 Injector Assm.
- FL60381** 1700 Injector Assm.

**INDICATE SIZE



COMPLETE ASSEMBLIES

- FL60102-031** Hot Water Piston Assm
- FL60125-05** Hot Water Seal Kit
- FL60032** Hot Water Brine Valve

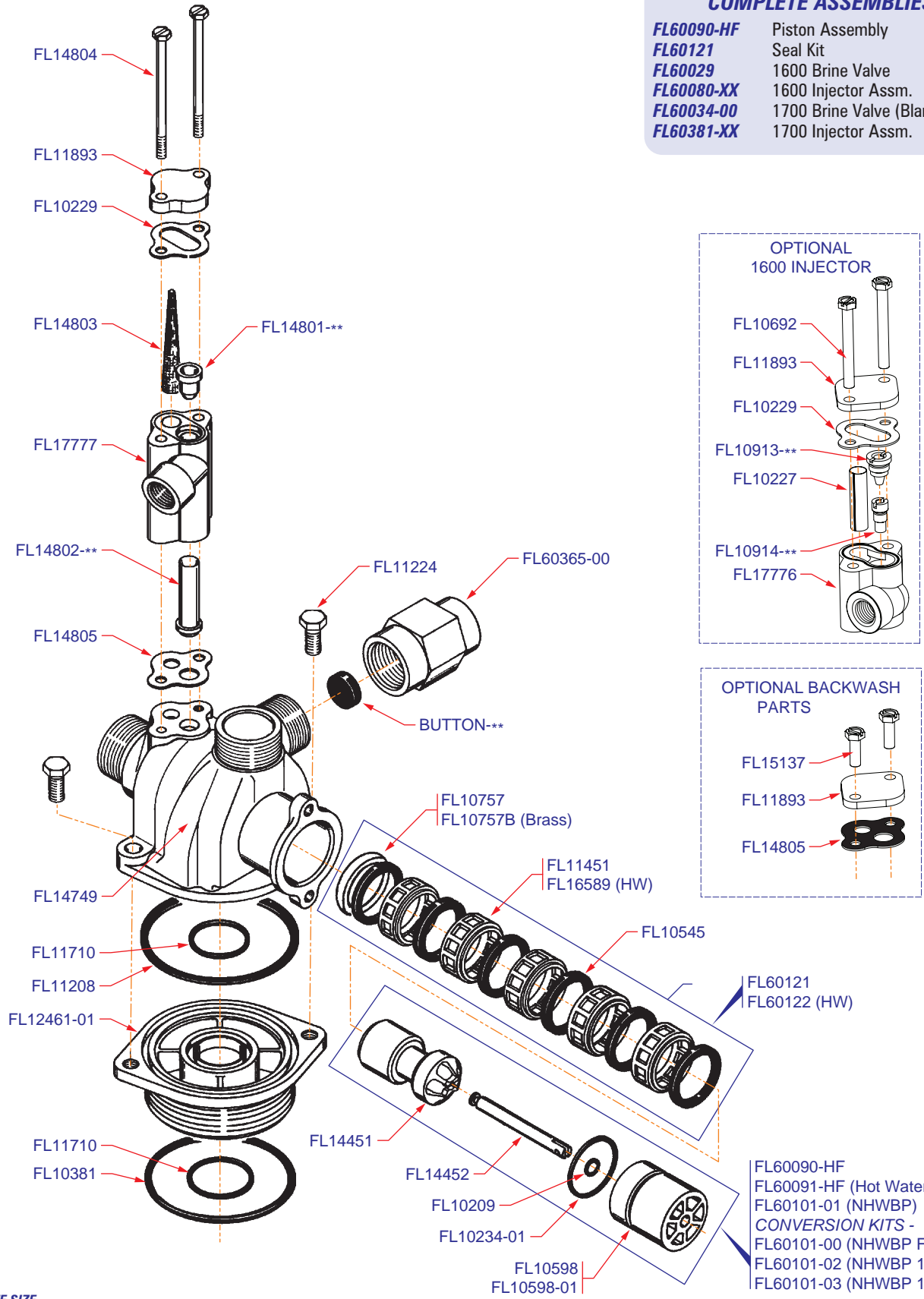


**INDICATE SIZE



COMPLETE ASSEMBLIES

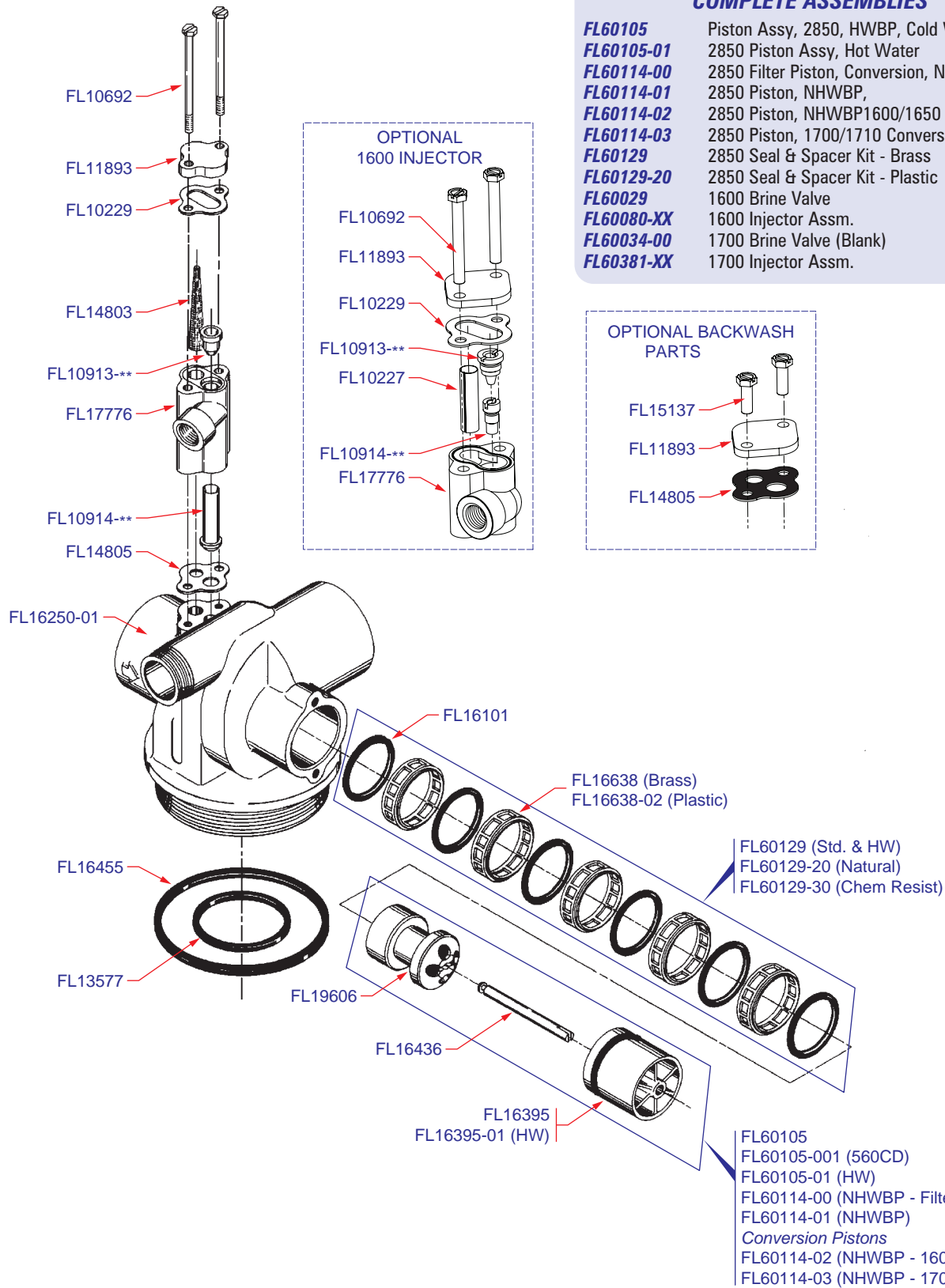
- FL60090-HF** Piston Assembly
- FL60121** Seal Kit
- FL60029** 1600 Brine Valve
- FL60080-XX** 1600 Injector Assm.
- FL60034-00** 1700 Brine Valve (Blank)
- FL60381-XX** 1700 Injector Assm.



**INDICATE SIZE

Fleck Parts





COMPLETE ASSEMBLIES

- FL60105** Piston Assy, 2850, HWBP, Cold Water
- FL60105-01** 2850 Piston Assy, Hot Water
- FL60114-00** 2850 Filter Piston, Conversion, NHWBP
- FL60114-01** 2850 Piston, NHWBP,
- FL60114-02** 2850 Piston, NHWBP/1600/1650 Conv.
- FL60114-03** 2850 Piston, 1700/1710 Conversion, NHWBP
- FL60129** 2850 Seal & Spacer Kit - Brass
- FL60129-20** 2850 Seal & Spacer Kit - Plastic
- FL60029** 1600 Brine Valve
- FL60080-XX** 1600 Injector Assm.
- FL60034-00** 1700 Brine Valve (Blank)
- FL60381-XX** 1700 Injector Assm.

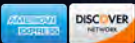
OPTIONAL BACKWASH PARTS

- FL15137**
- FL11893**
- FL14805**

OPTIONAL 1600 INJECTOR

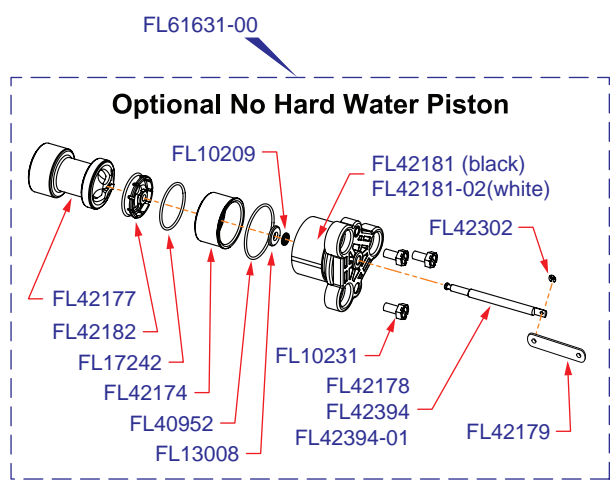
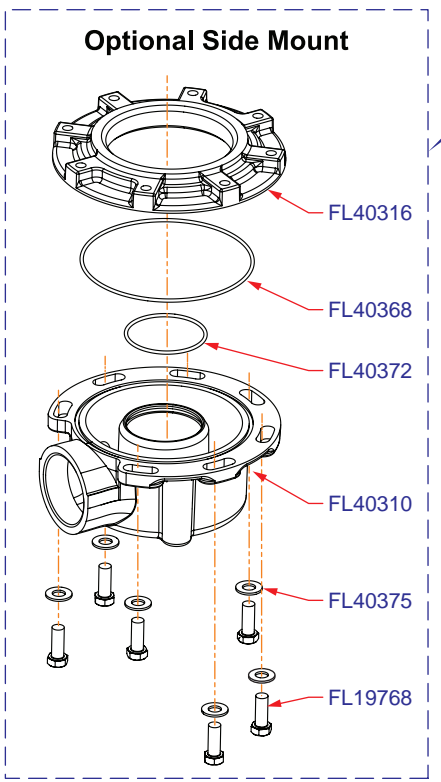
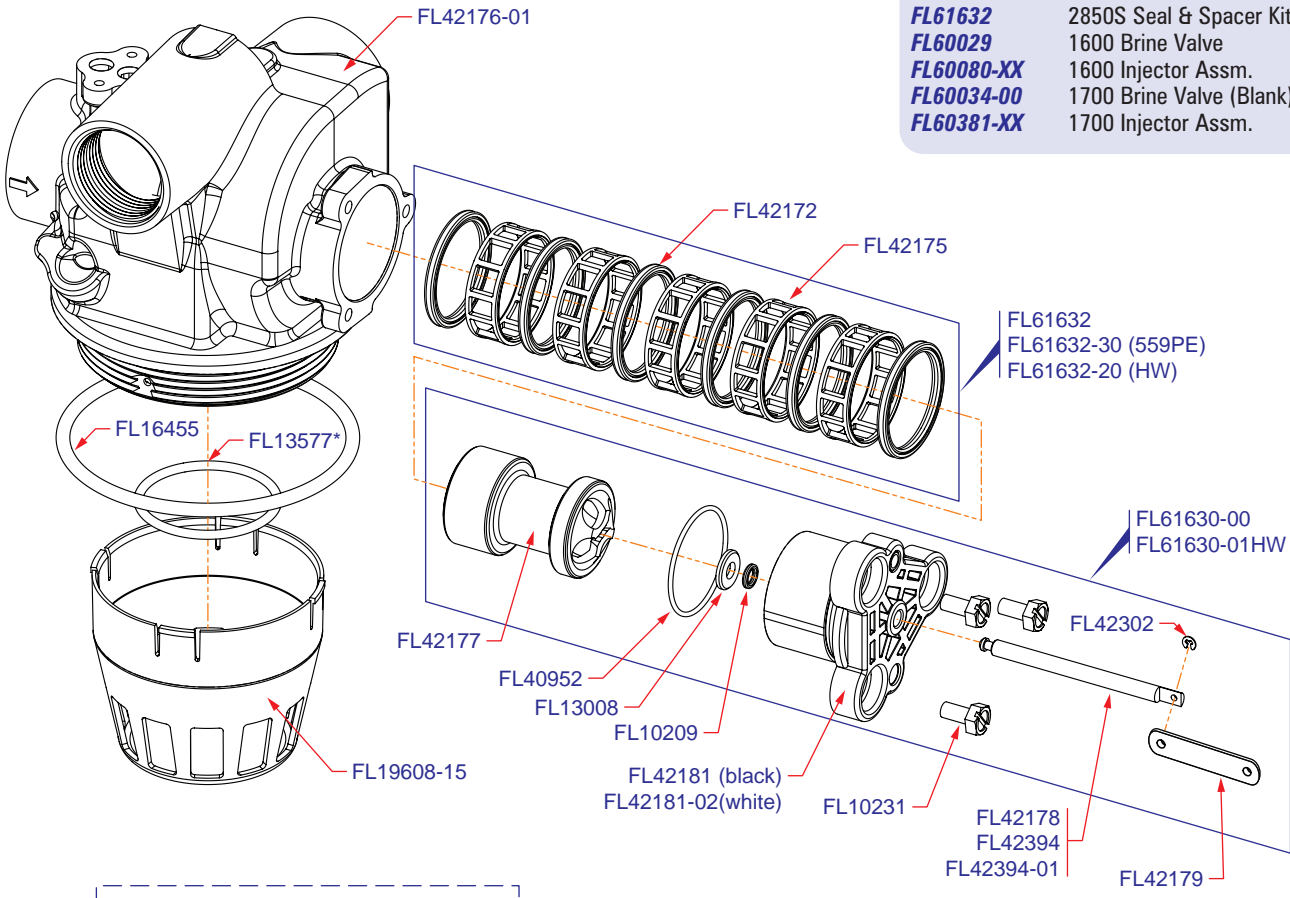
- FL10692**
- FL11893**
- FL10229**
- FL10913-*****
- FL10227**
- FL10914-*****
- FL17776**

**INDICATE SIZE



COMPLETE ASSEMBLIES

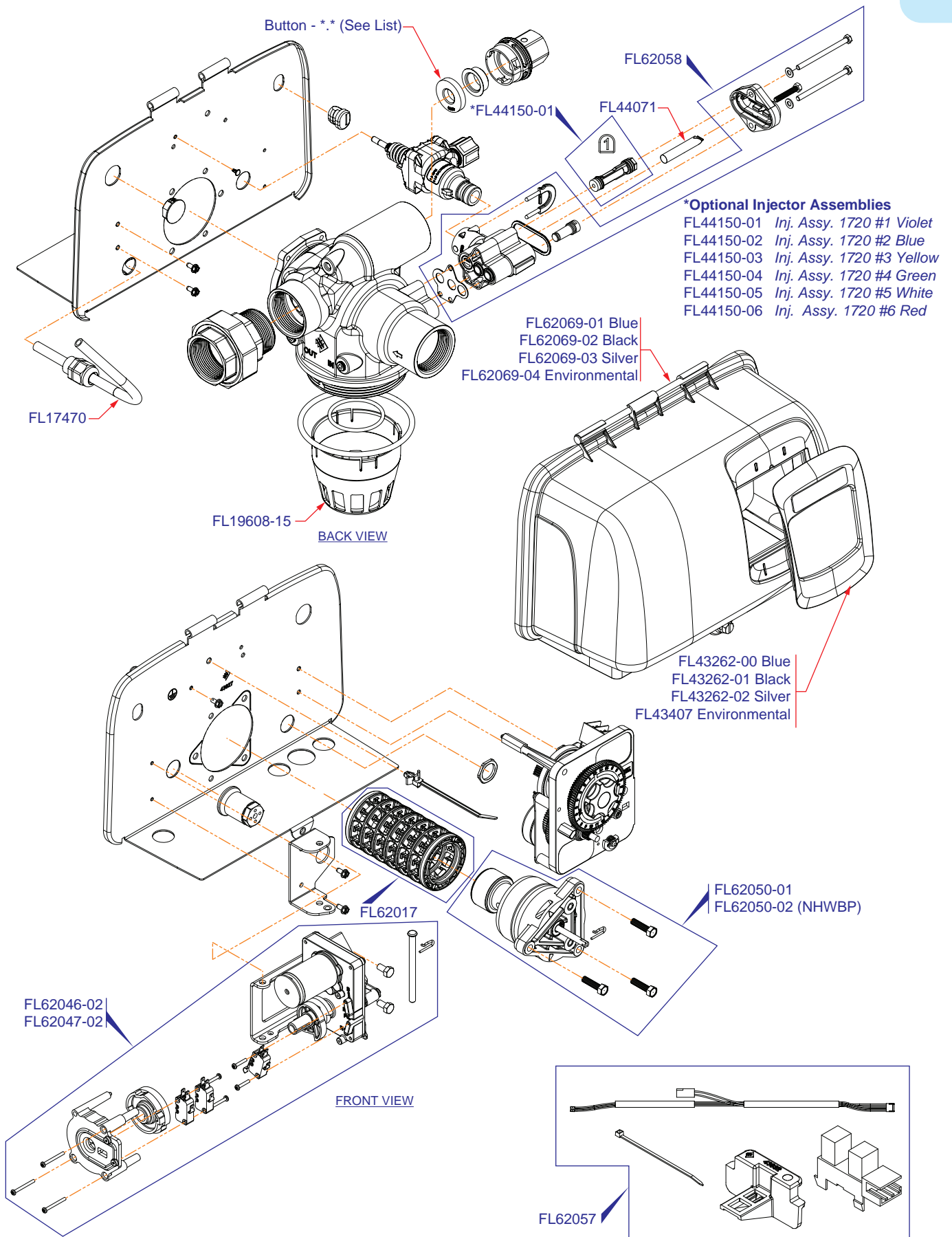
- FL61630-00** 2850S Piston Assembly, HWBP
- FL61631-00** 2850S NHWBP Conversion Kit
- FL61632** 2850S Seal & Spacer Kit
- FL60029** 1600 Brine Valve
- FL60080-XX** 1600 Injector Assm.
- FL60034-00** 1700 Brine Valve (Blank)
- FL60381-XX** 1700 Injector Assm.

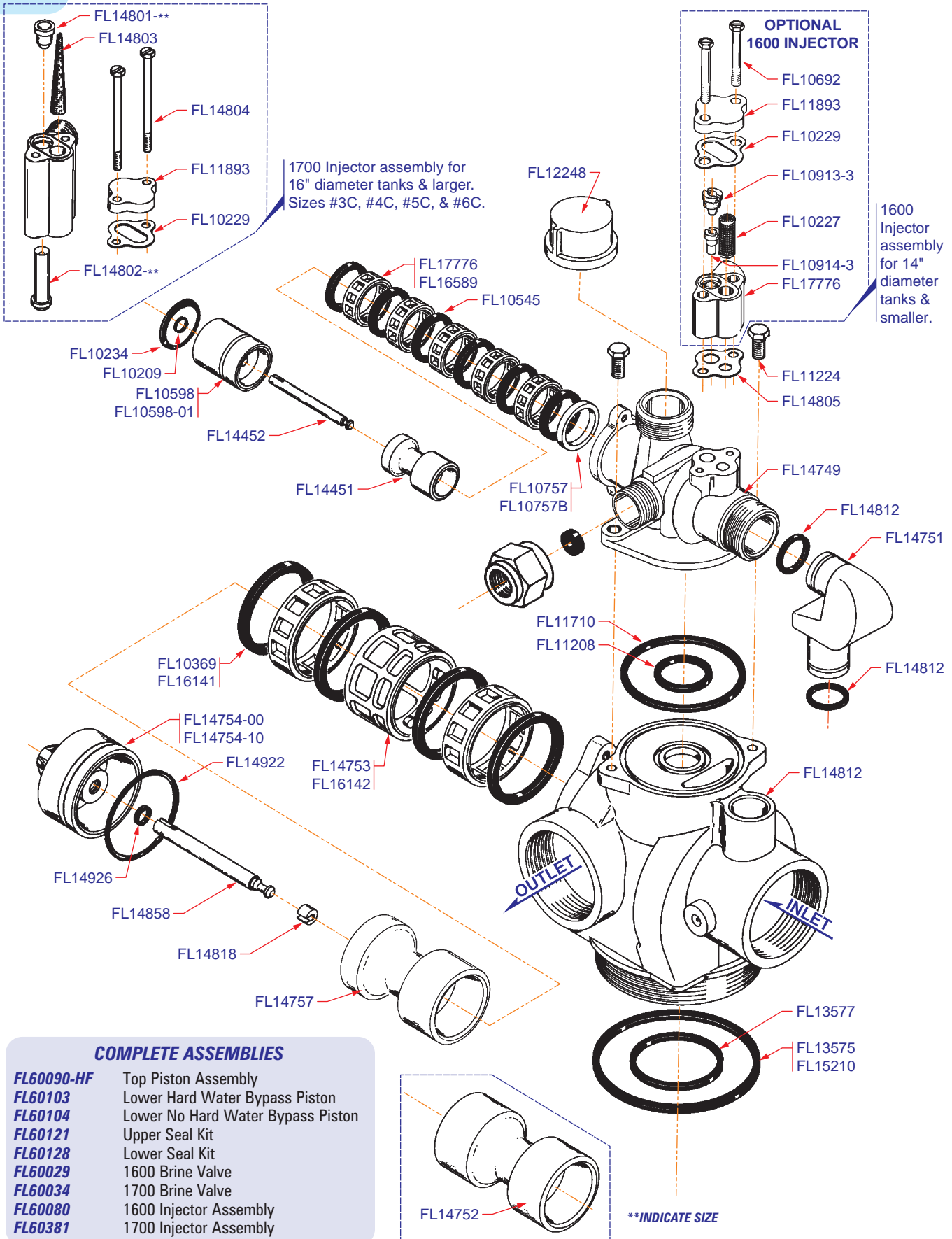


*Not for Side Mount use.

**INDICATE SIZE

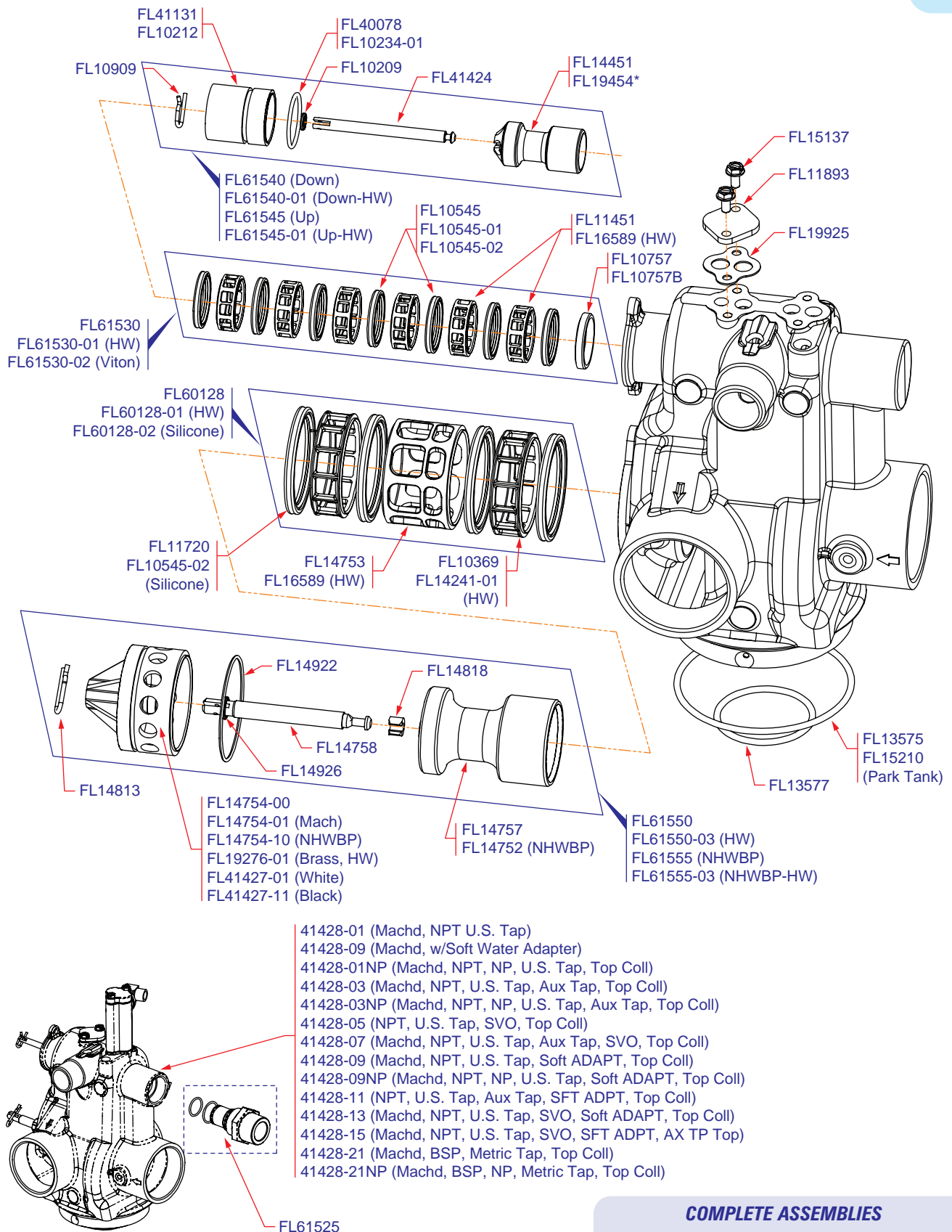






Fleck Parts

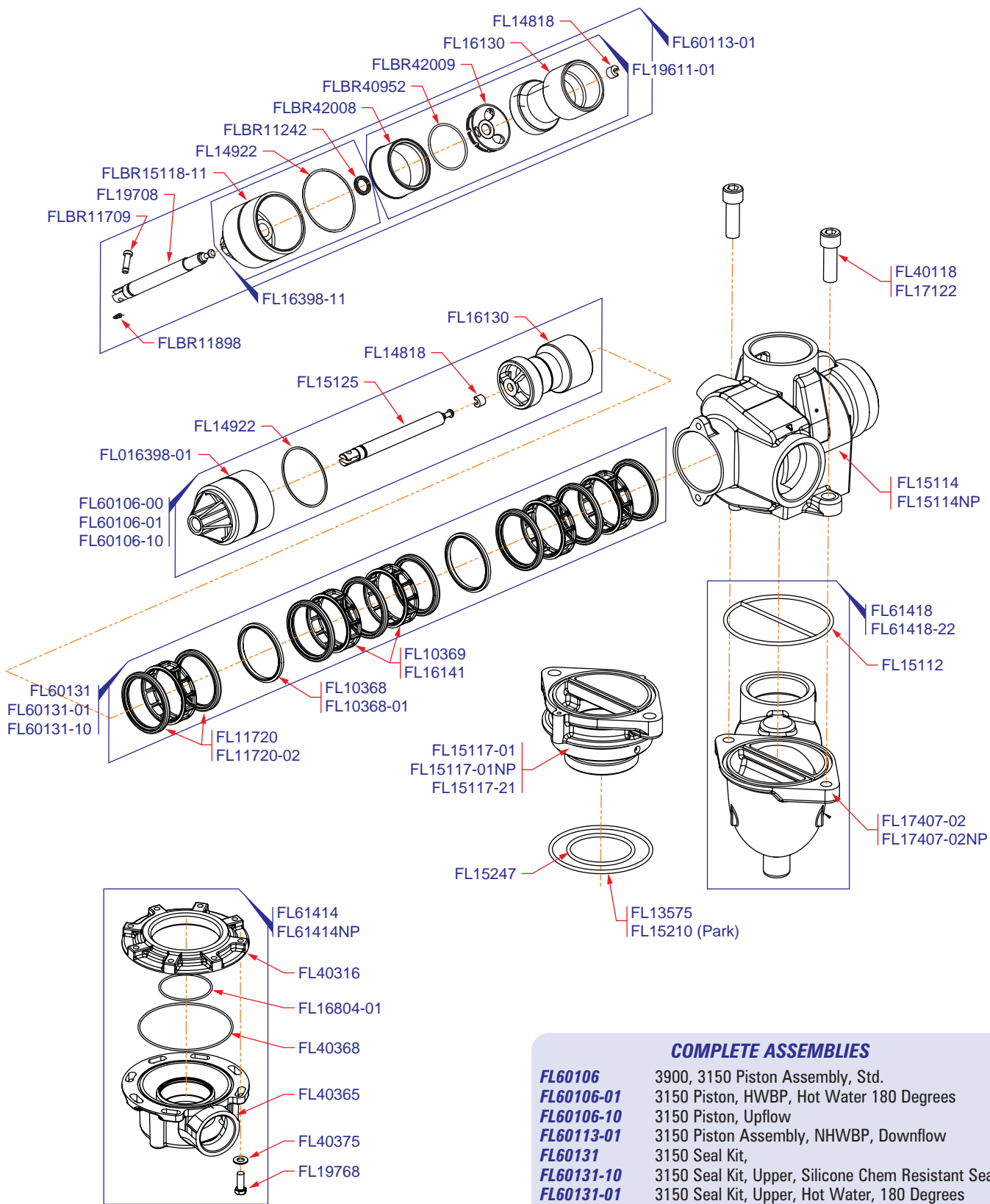




**INDICATE SIZE

COMPLETE ASSEMBLIES

- FL61540** Top Piston Assembly
- FL61550** Lower Hard Water Bypass Piston
- FL61555** Lower No Hard Water Bypass Piston
- FL61530** Upper Seal Kit

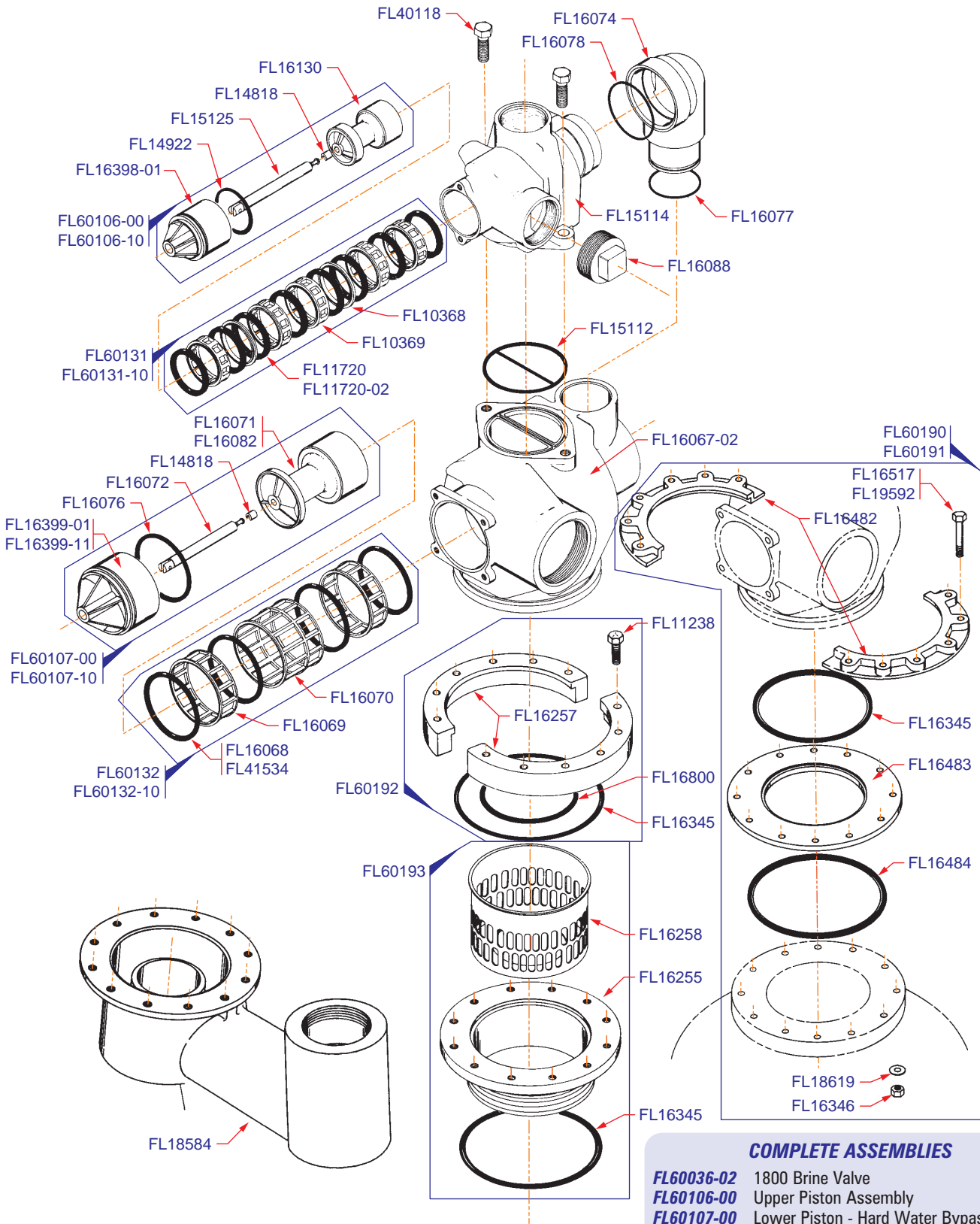


COMPLETE ASSEMBLIES

- FL60106** 3900, 3150 Piston Assembly, Std.
- FL60106-01** 3150 Piston, HWBP, Hot Water 180 Degrees
- FL60106-10** 3150 Piston, Upflow
- FL60113-01** 3150 Piston Assembly, NHWBP, Downflow
- FL60131** 3150 Seal Kit,
- FL60131-10** 3150 Seal Kit, Upper, Silicone Chem Resistant Seal
- FL60131-01** 3150 Seal Kit, Upper, Hot Water, 180 Degrees
- FL60036-02** Brine Valve, 1800
- FL60277-xx** 1800 Injector Assembly

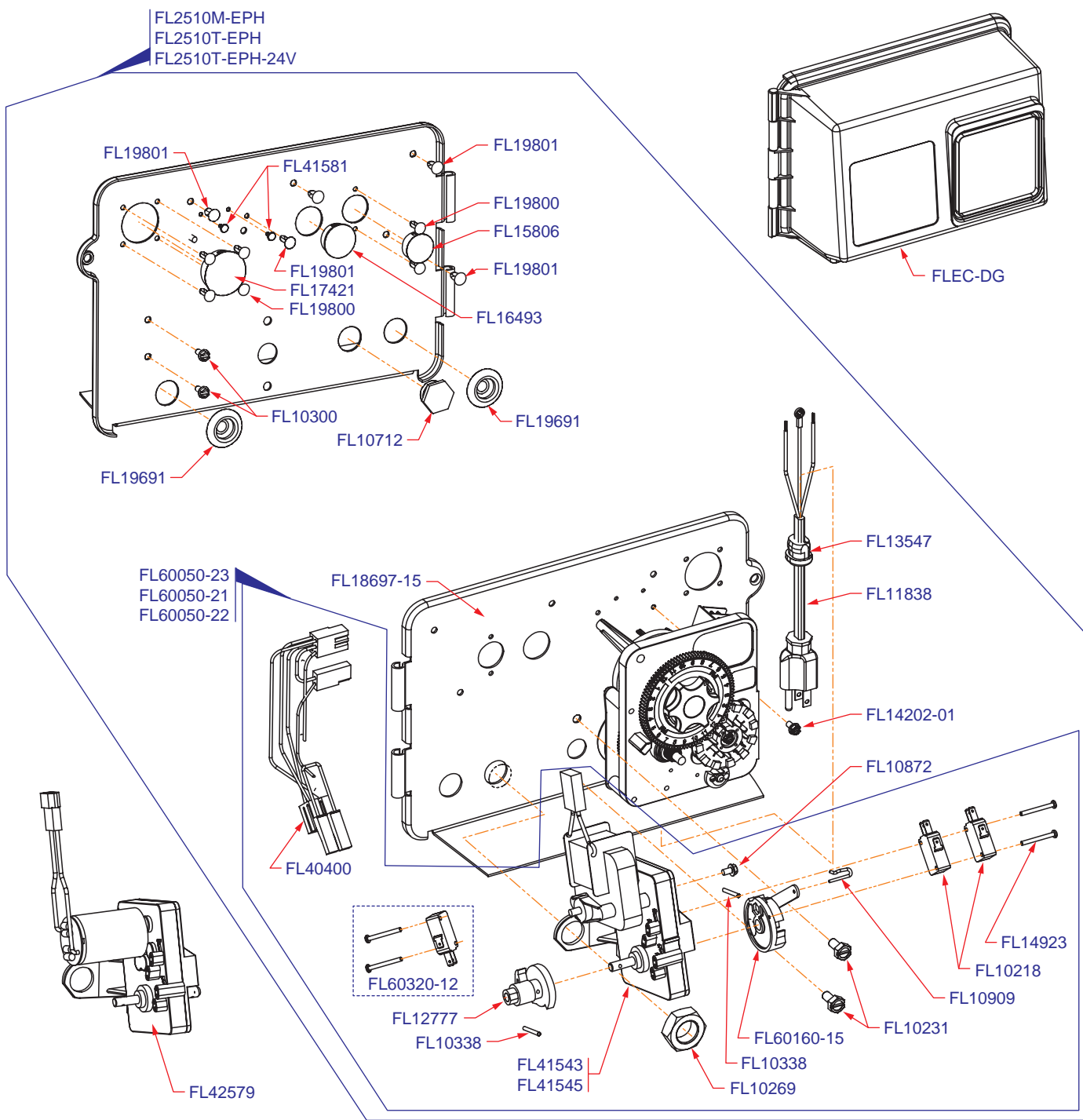
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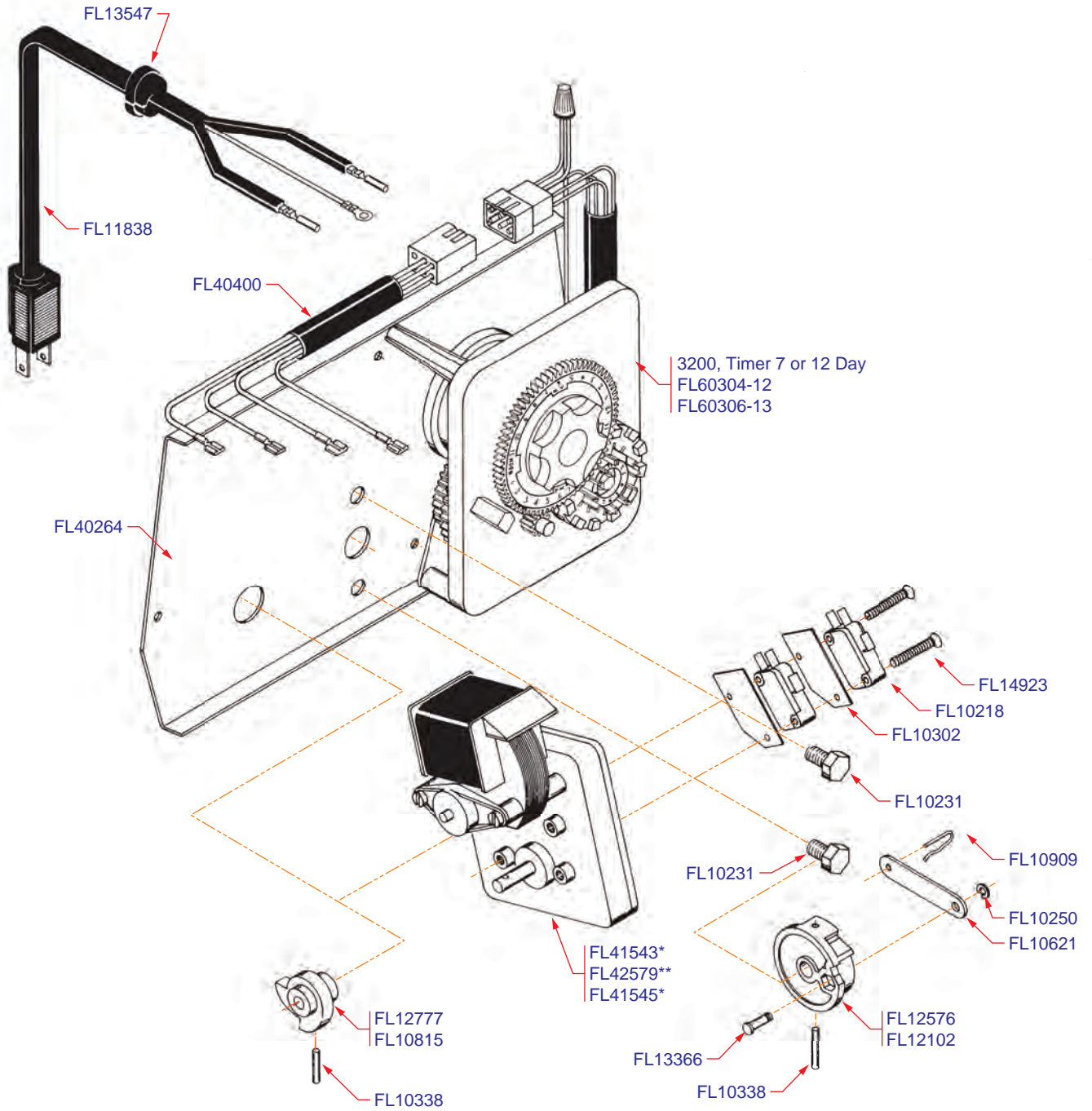
COMPLETE ASSEMBLIES

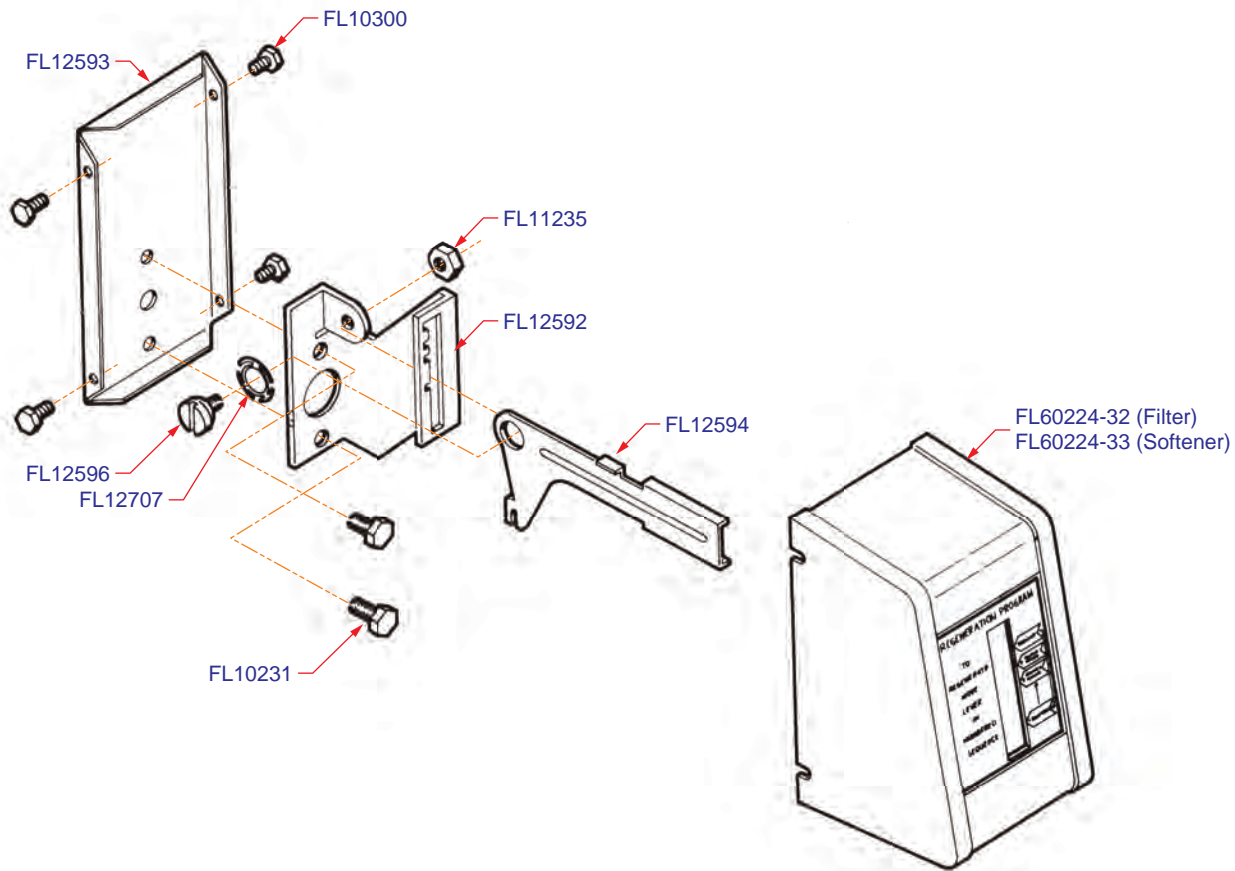
- FL60036-02** 1800 Brine Valve
- FL60106-00** Upper Piston Assembly
- FL60107-00** Lower Piston - Hard Water Bypass
- FL60107-10** Lower Piston - No Hard Water Bypass
- FL60131** Upper Seal Kit
- FL60132** Lower Seal Kit
- FL60057-01** Upper Drive Assembly - 115 V
- FL60058-01** Lower Drive Assembly - 115 V Sys #4
- FL60131-10** Upper Seal Kit
- FL60132-10** Lower Seal Kit

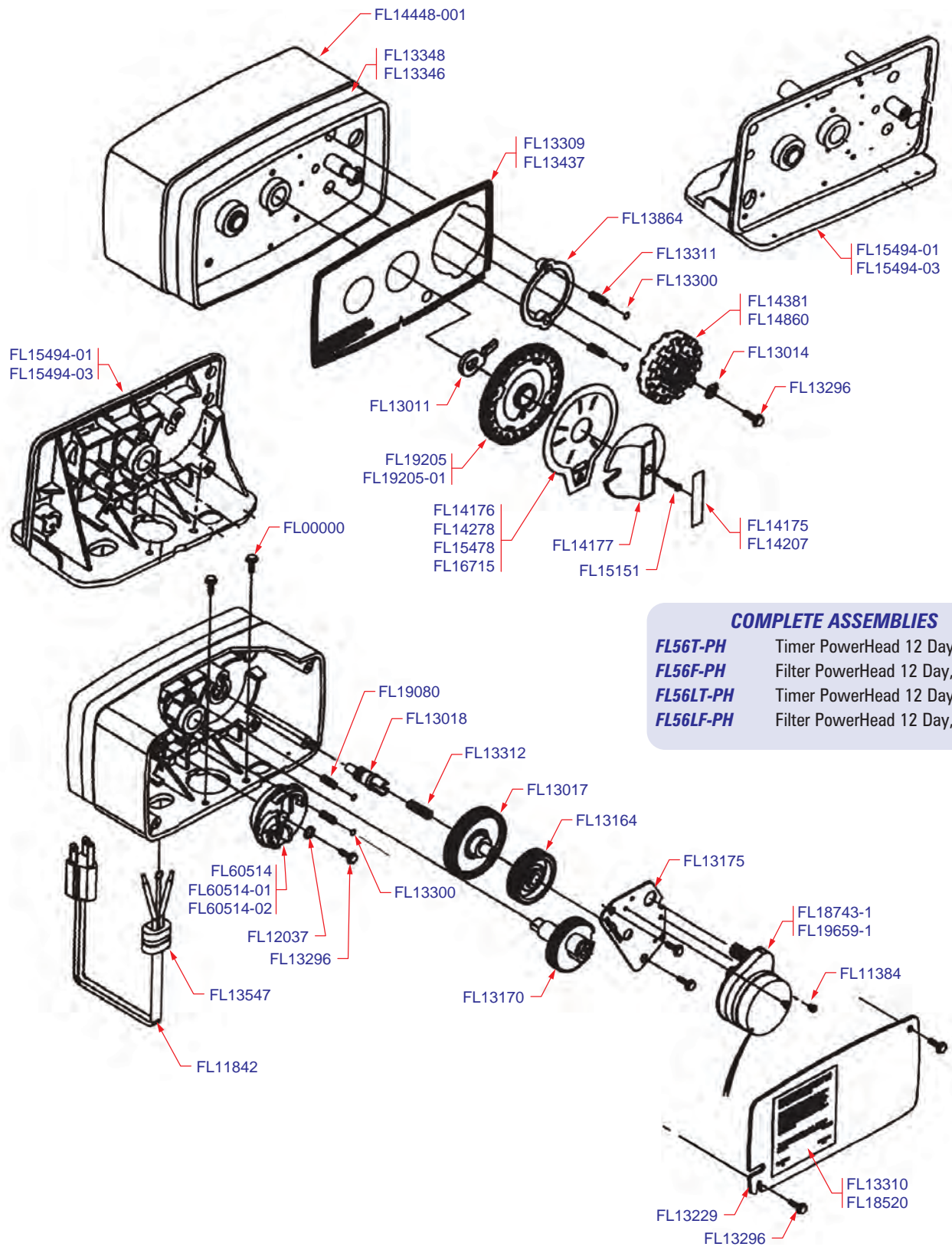


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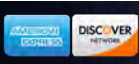






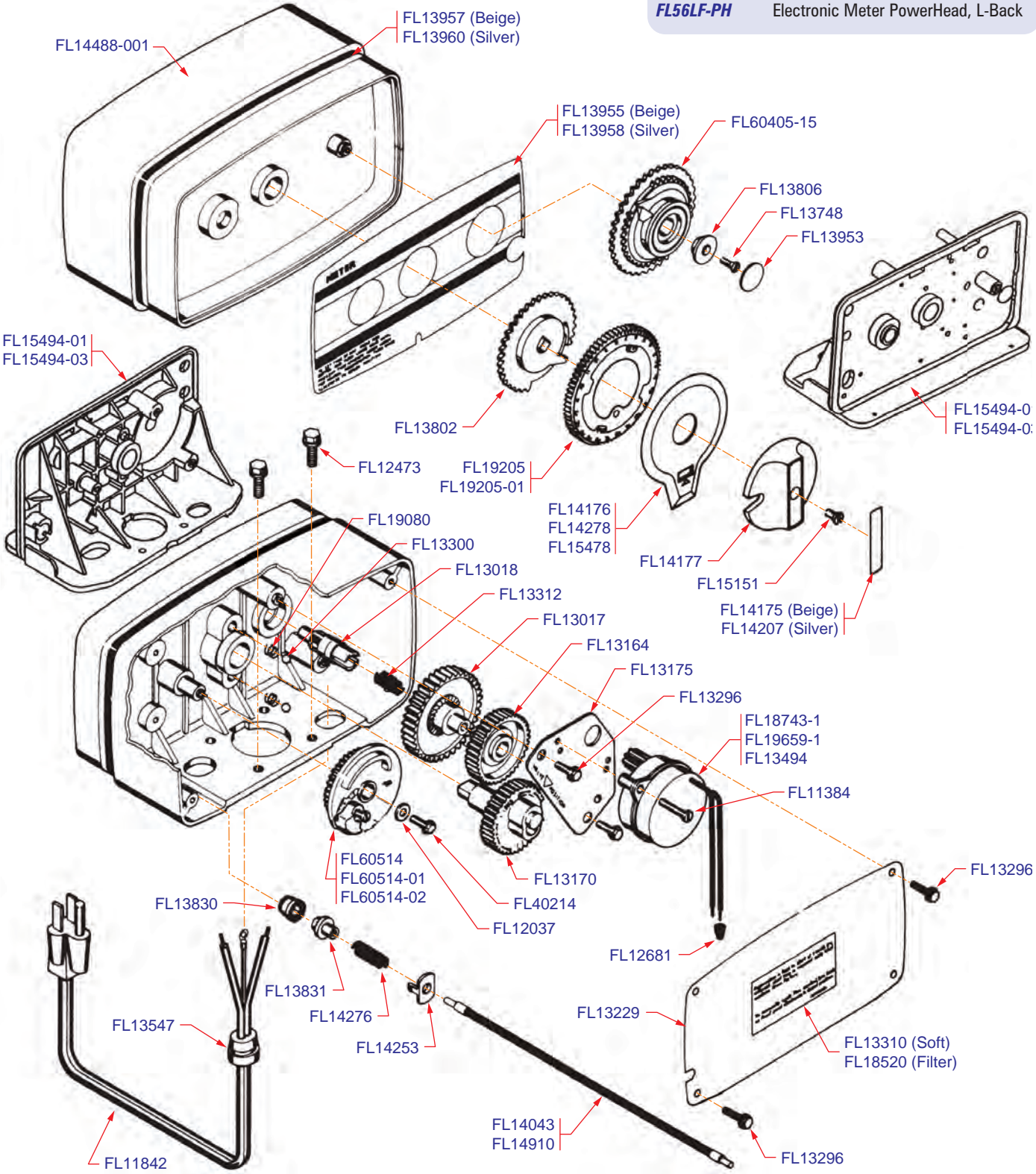


- COMPLETE ASSEMBLIES**
- FL56T-PH** Timer PowerHead 12 Day, Std
 - FL56F-PH** Filter PowerHead 12 Day, Std
 - FL56LT-PH** Timer PowerHead 12 Day, L-Back
 - FL56LF-PH** Filter PowerHead 12 Day, L-Back



COMPLETE ASSEMBLIES

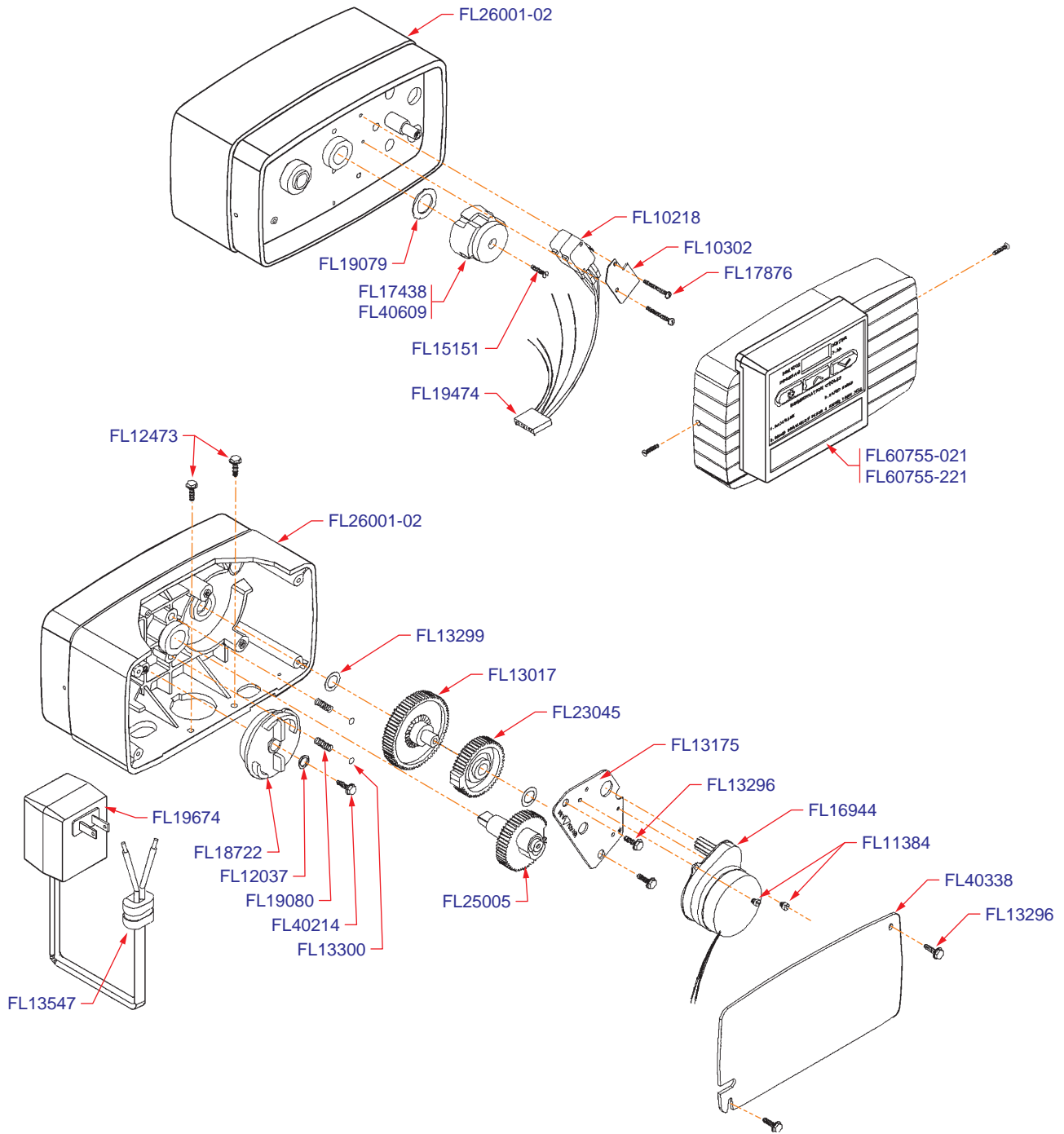
- FL56M-PH** Meter PowerHead
- FL56SE-PH** Electronic Meter PowerHead
- FL56LM-PH** Meter PowerHead, L-Back
- FL56LF-PH** Electronic Meter PowerHead, L-Back



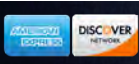
Fleck Parts

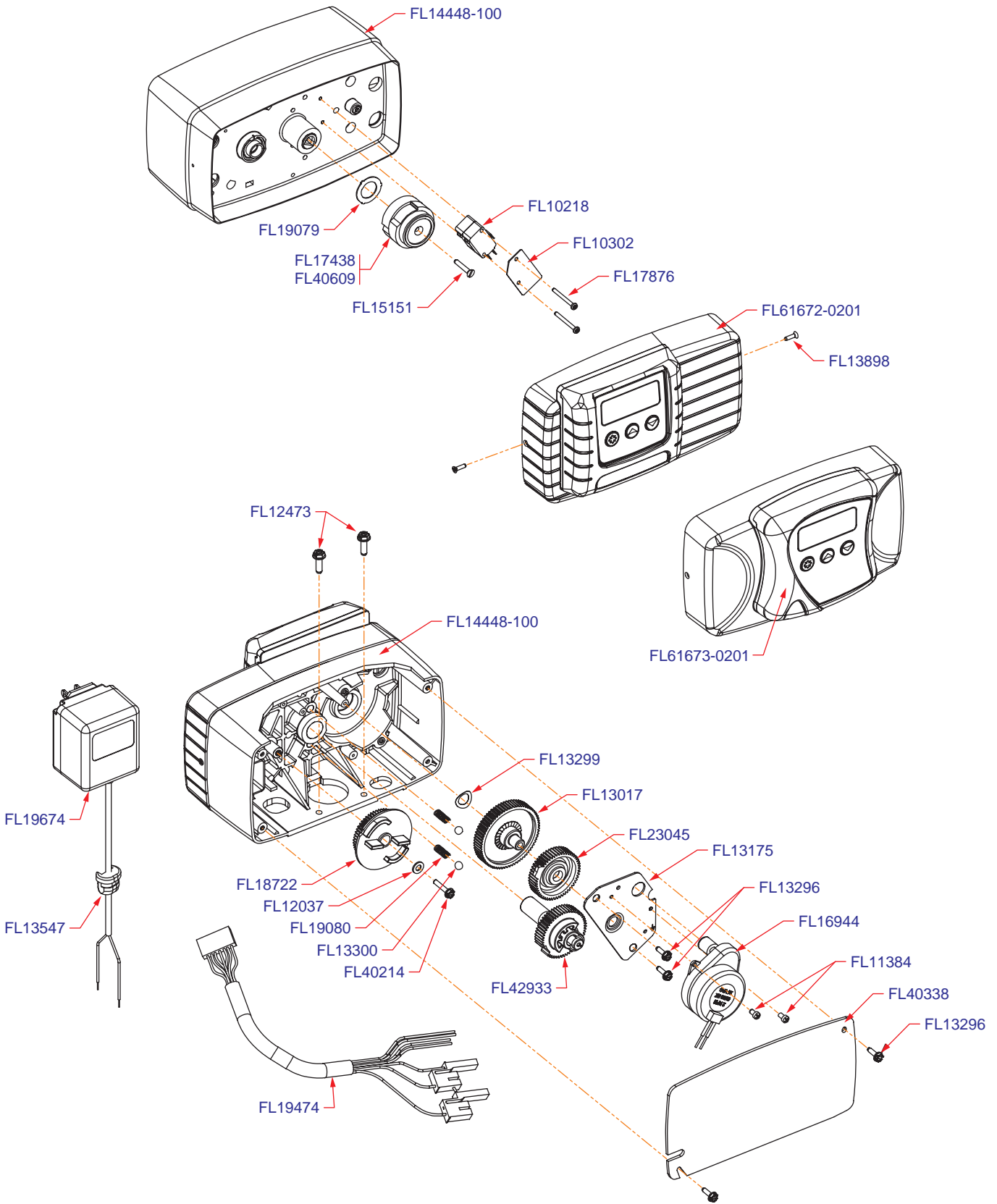


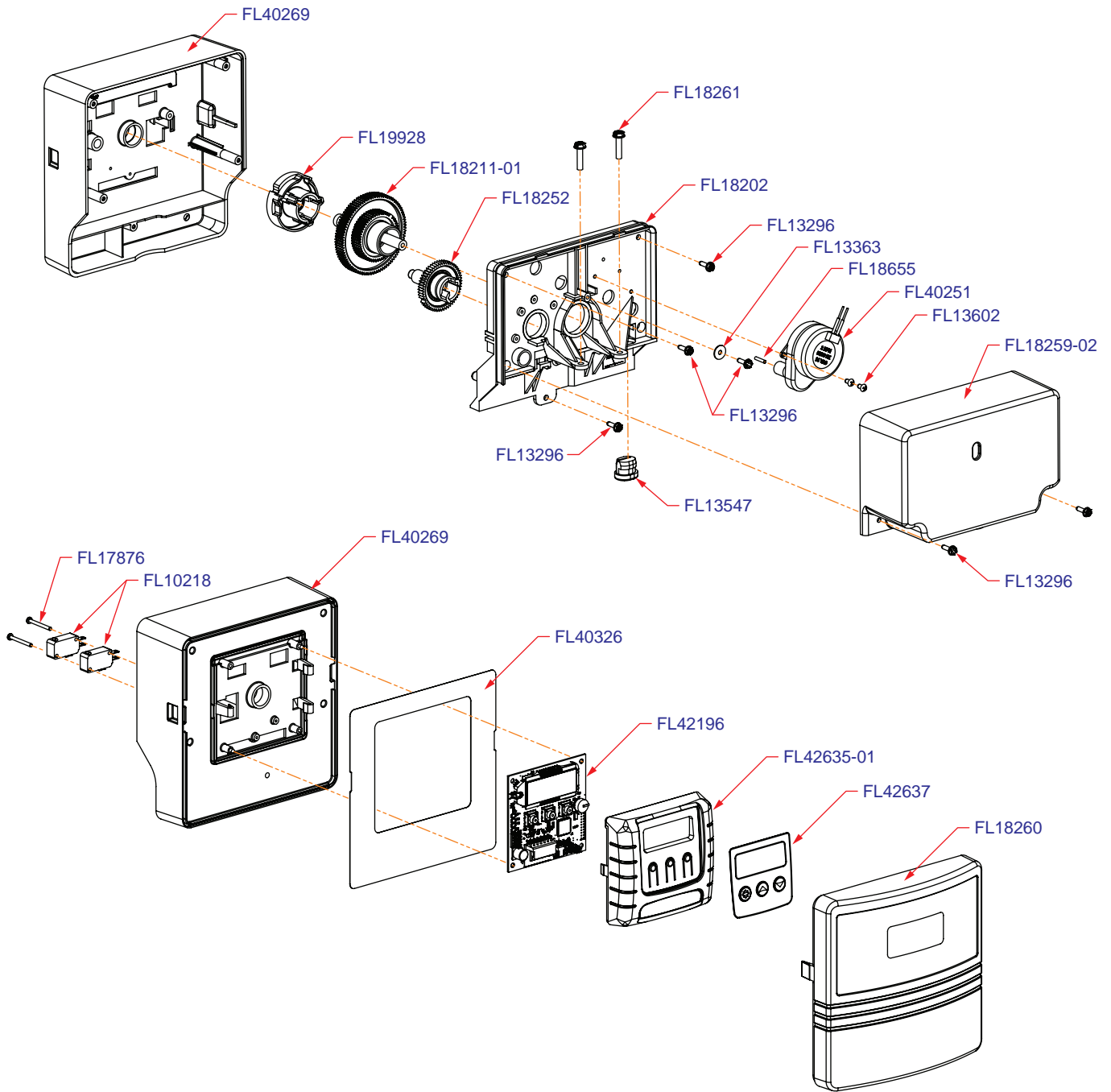
COMPLETE ASSEMBLIES
FL56SE-PH SE Power Head, Metered

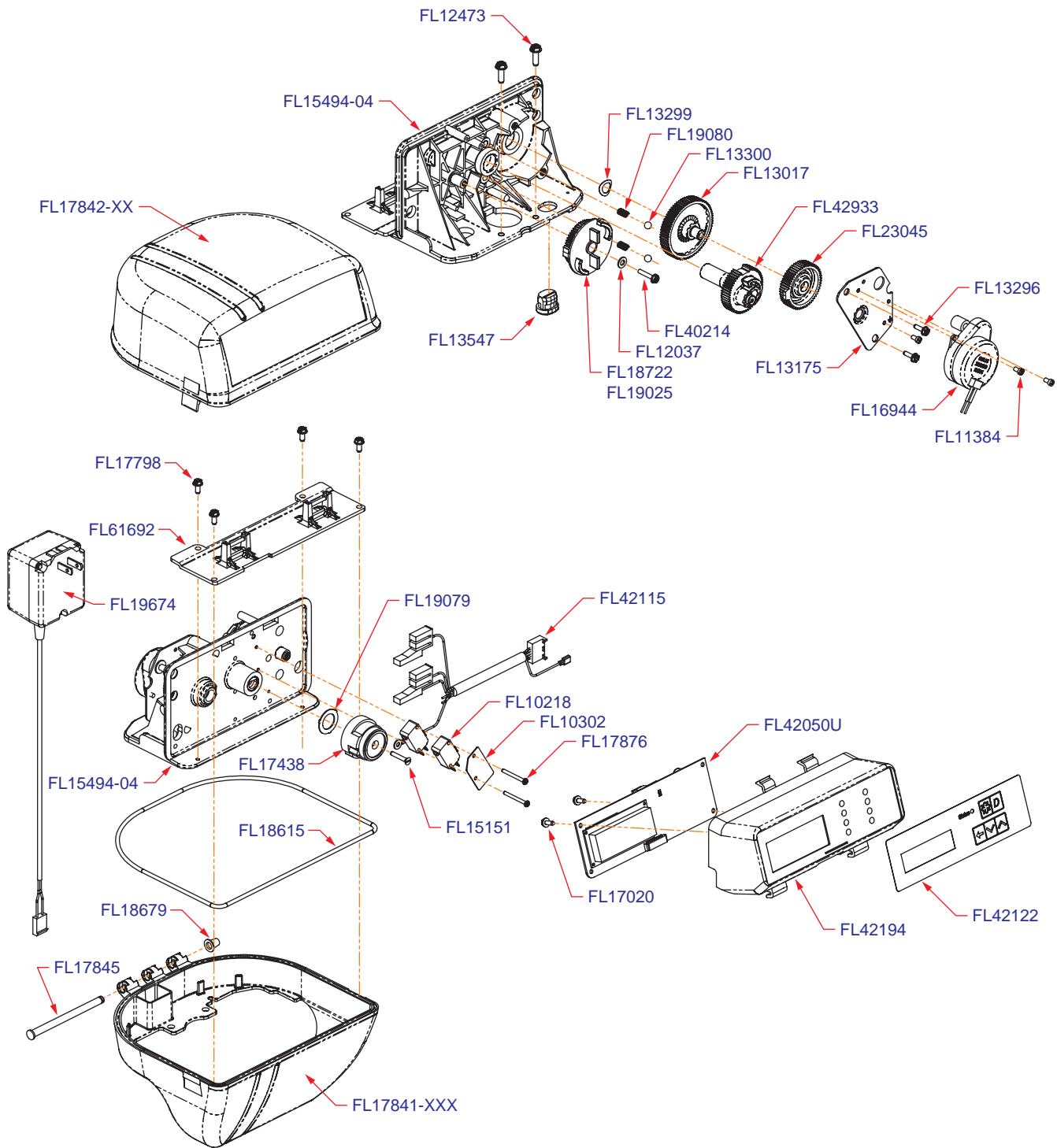


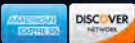
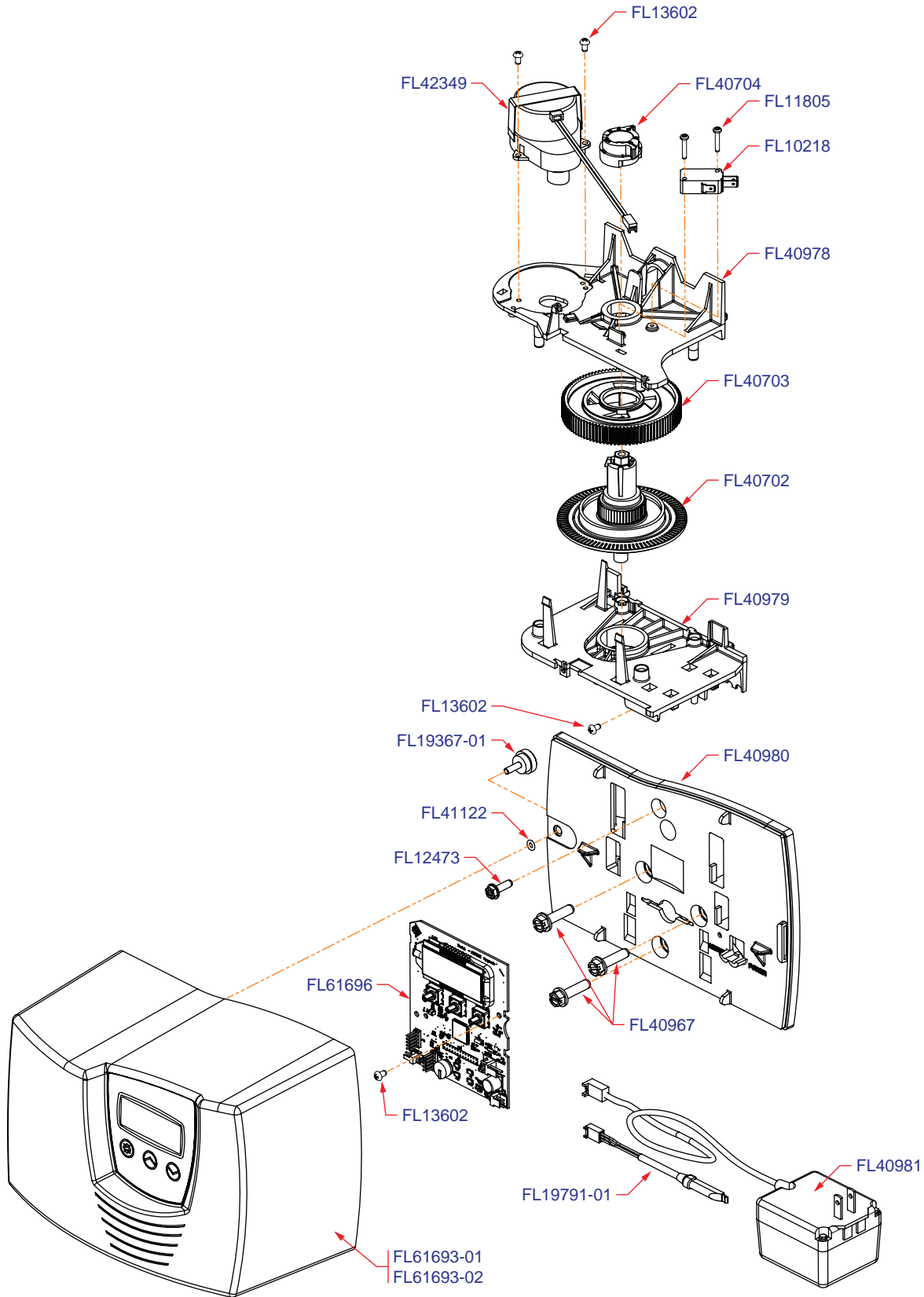
Fleck Parts



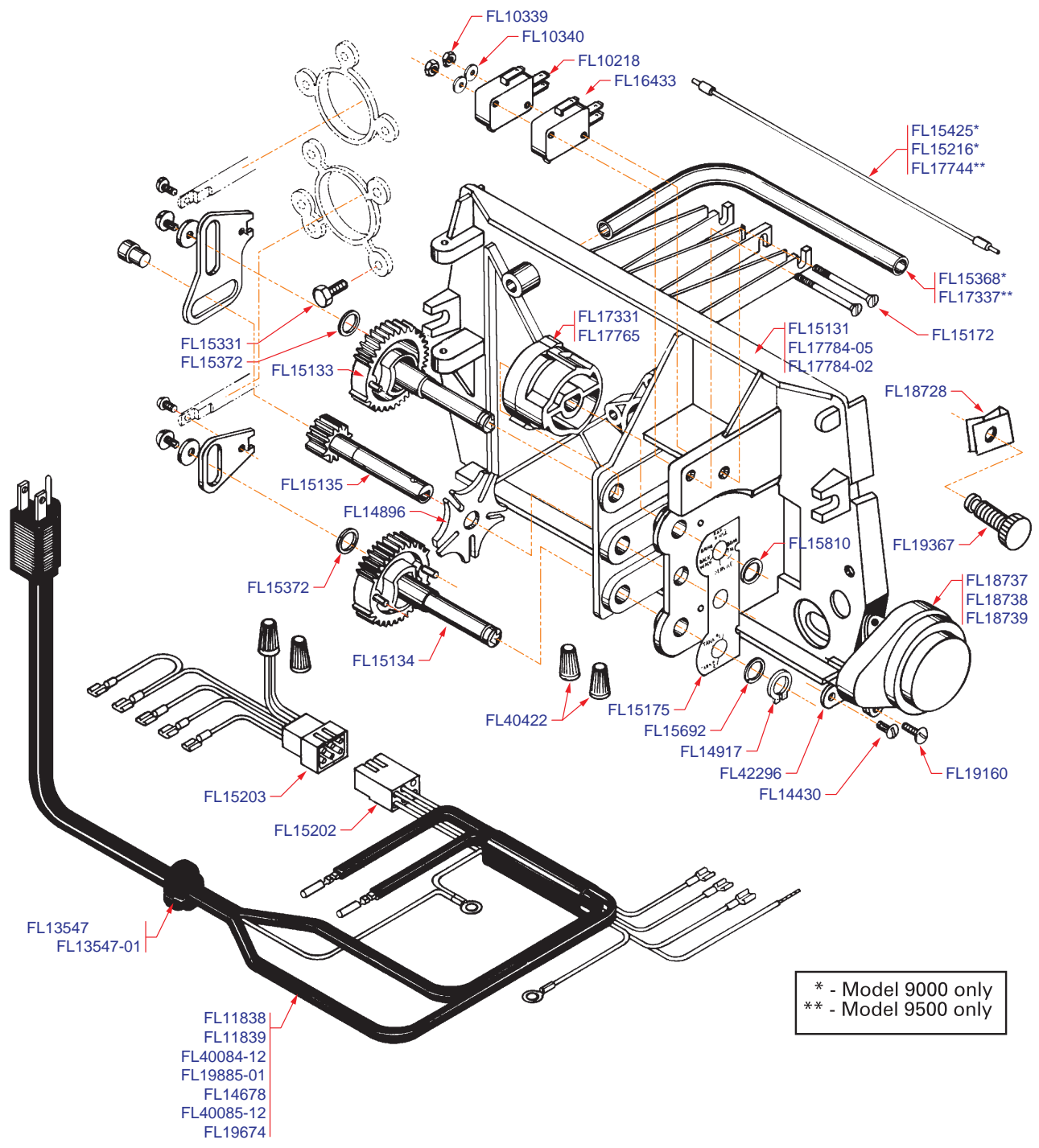








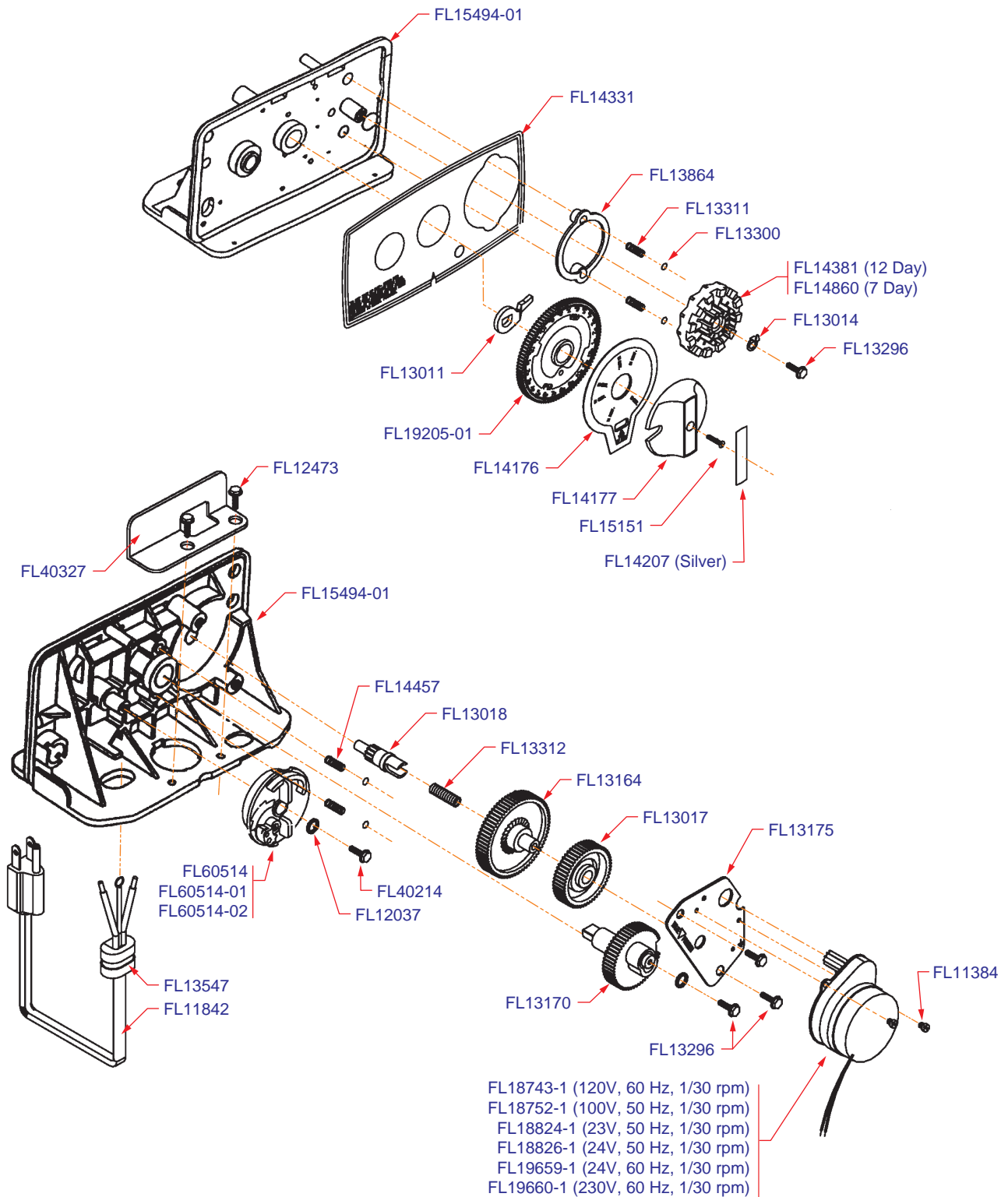
COMPLETE ASSEMBLIES
FL90M-PH Metered Powerhead

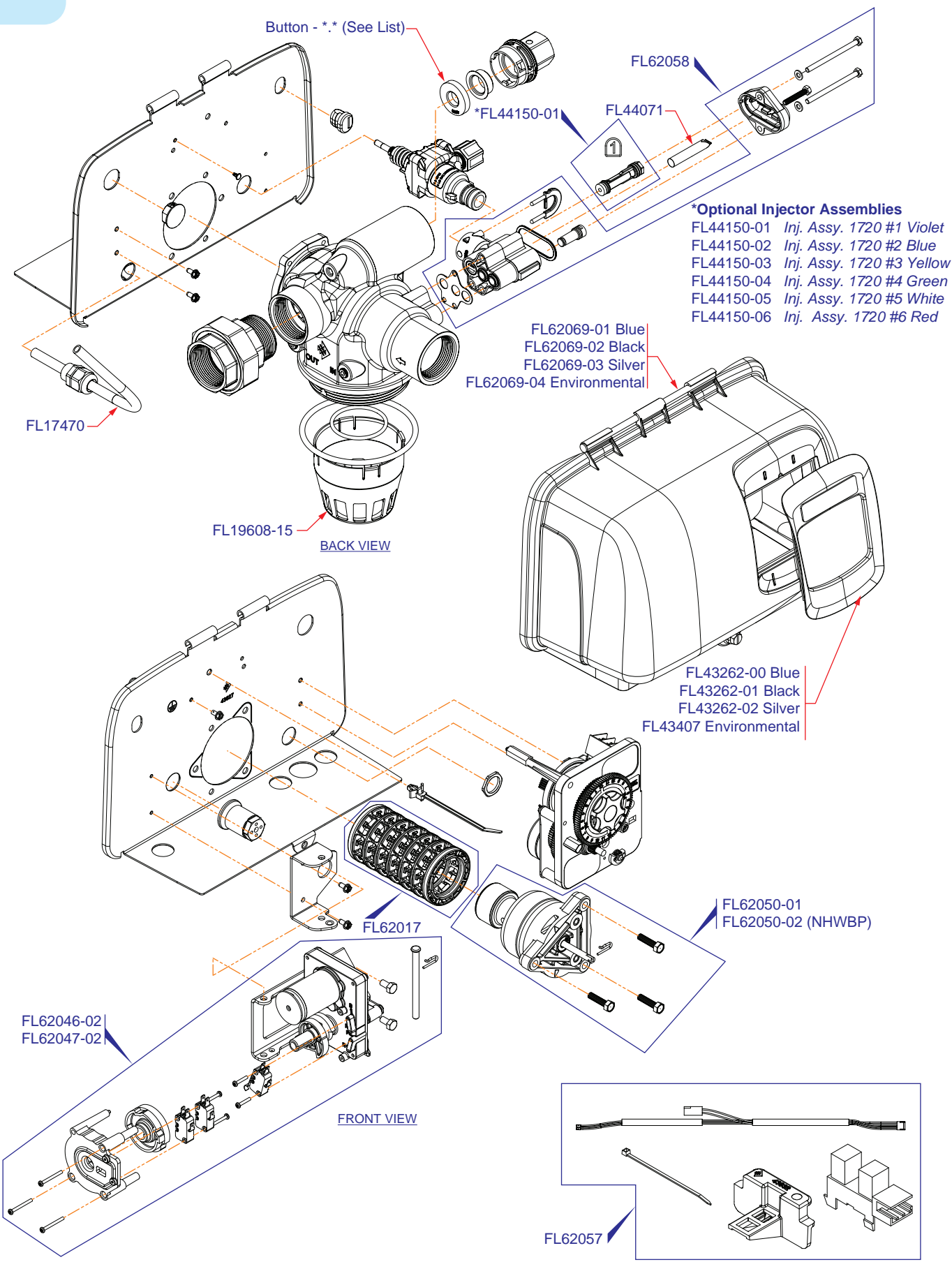


* - Model 9000 only
 ** - Model 9500 only

Fleck Parts

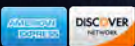
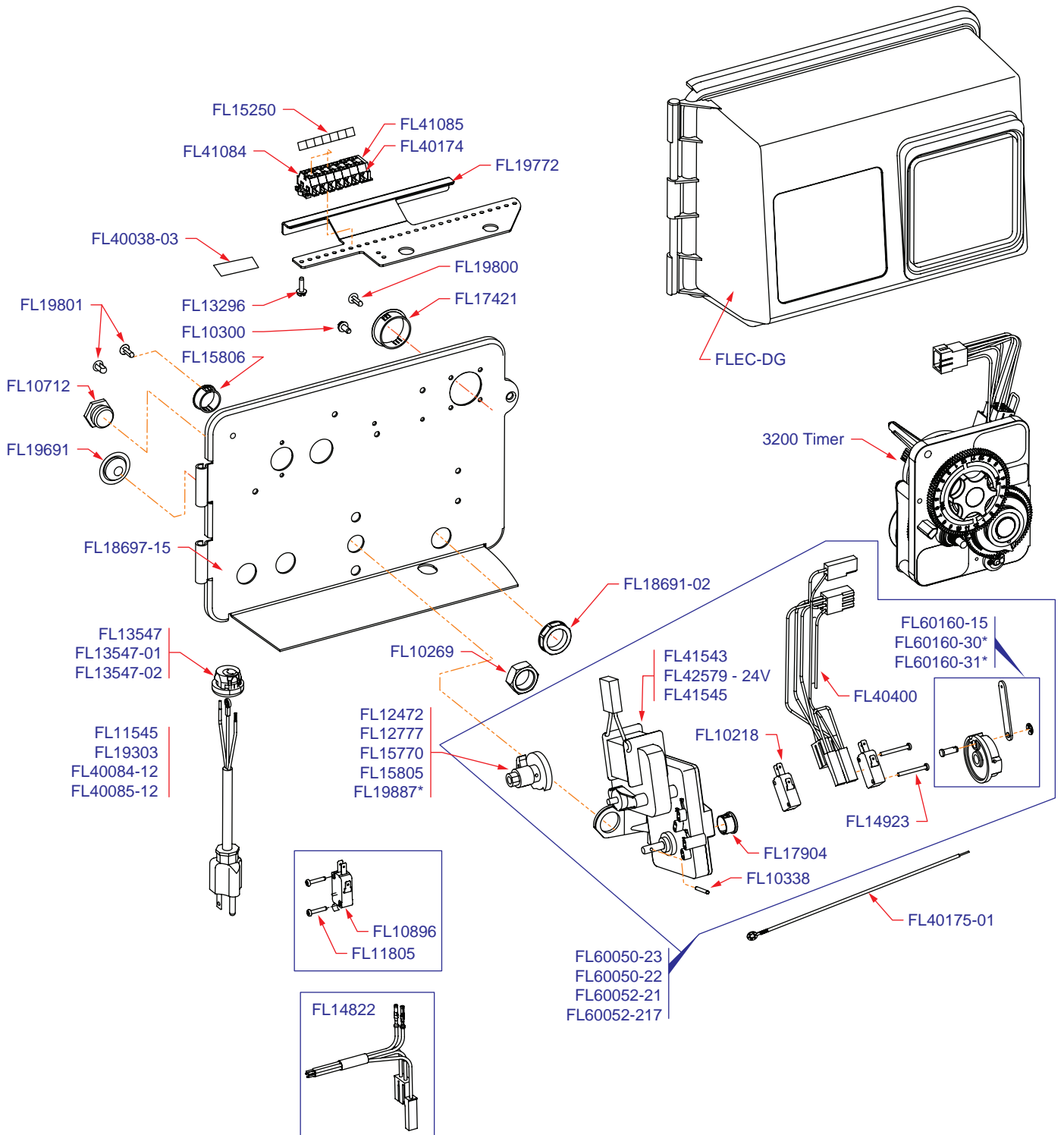


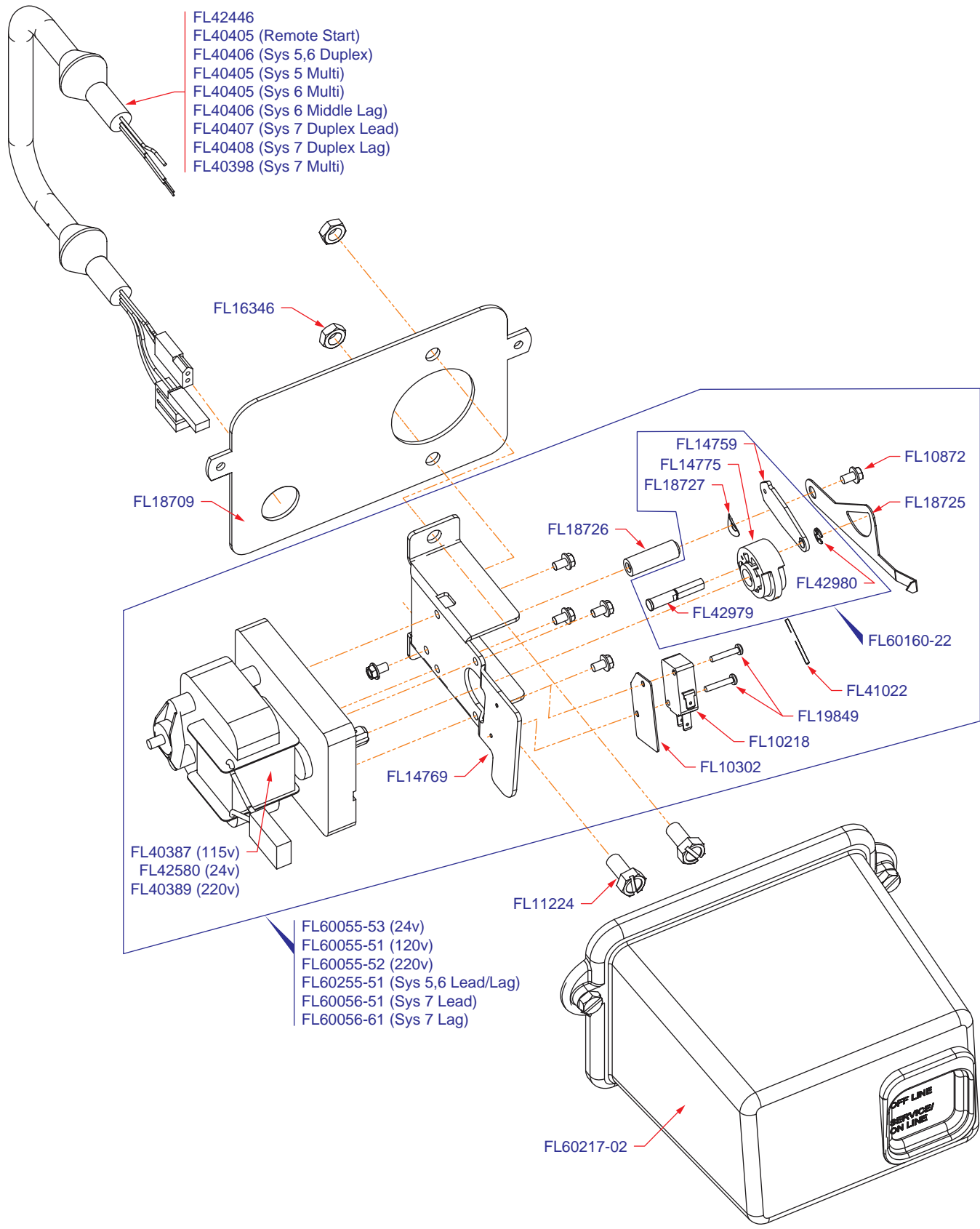




Fleck Parts

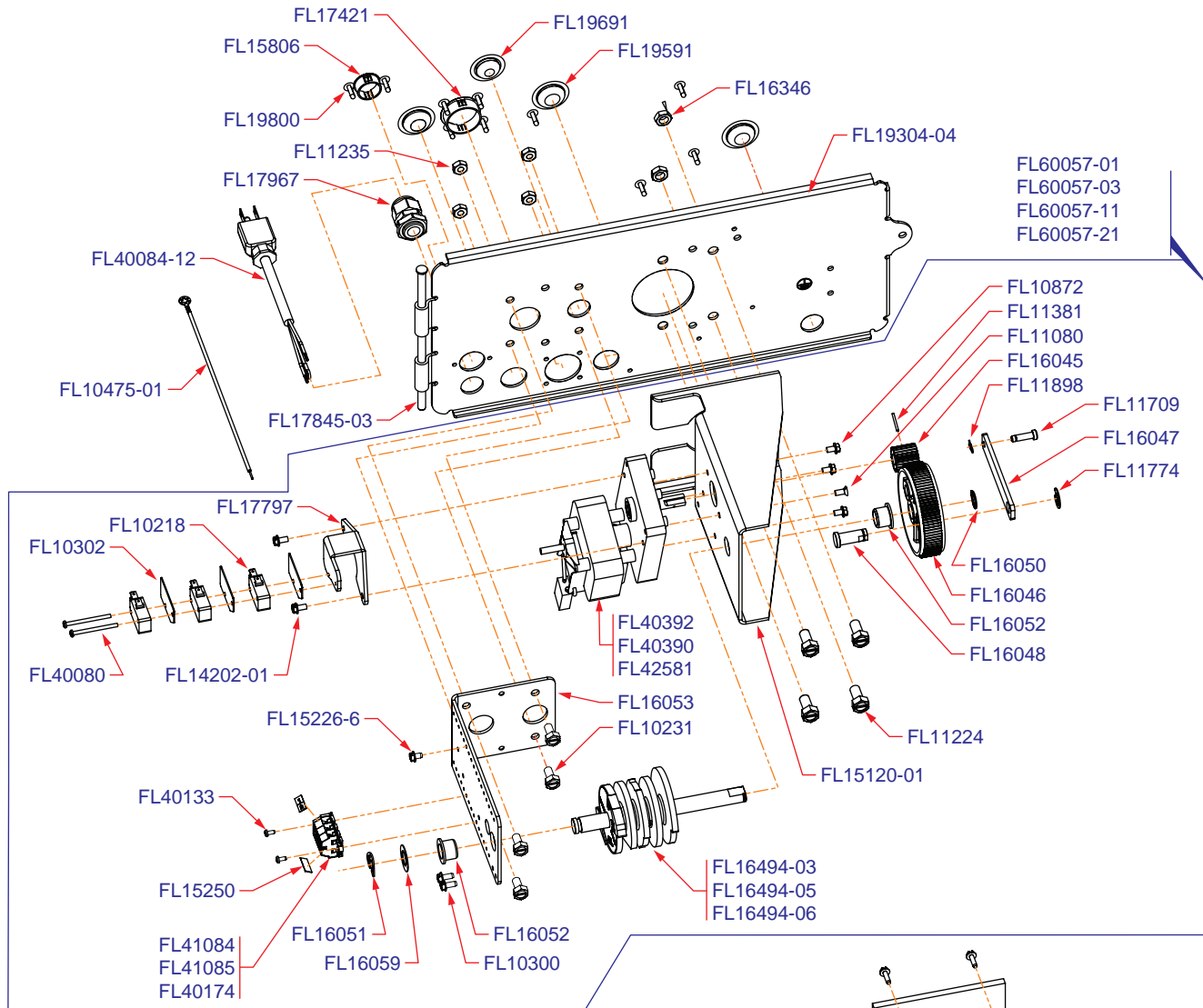




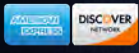
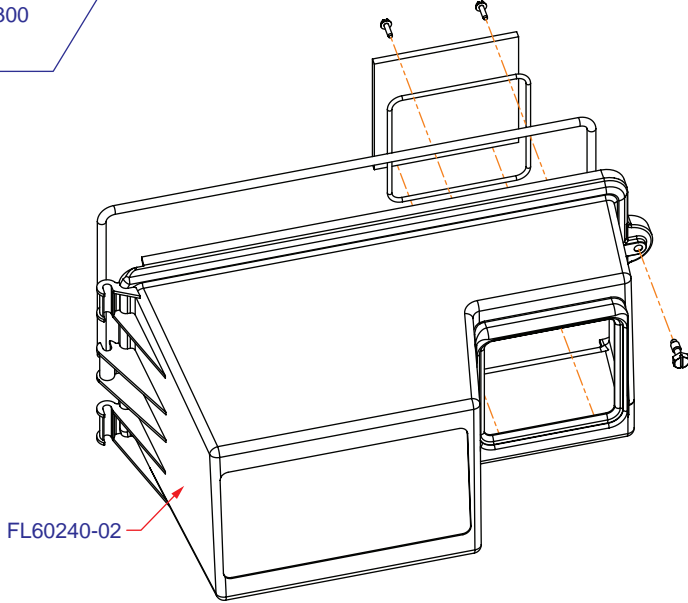


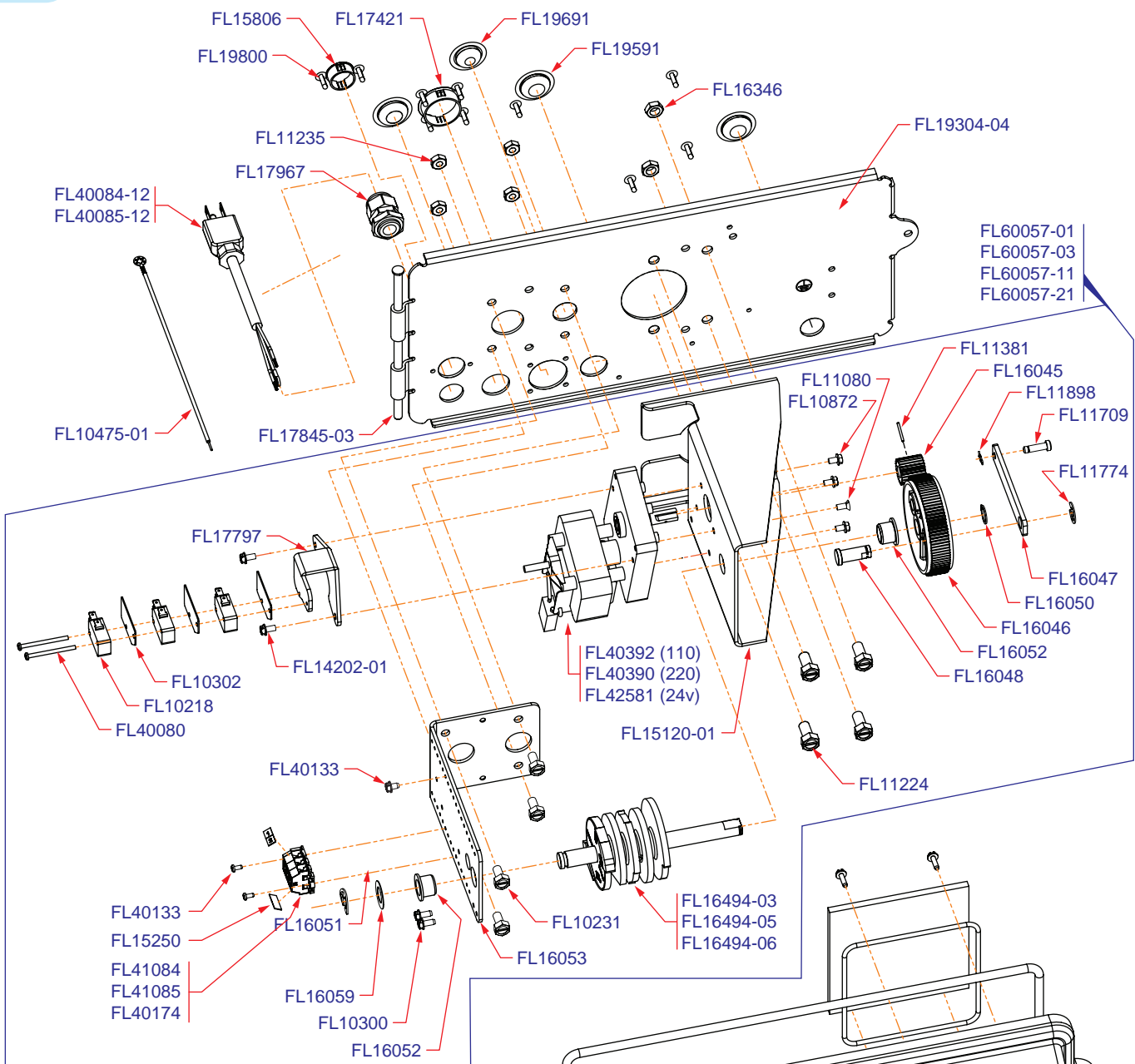
Fleck Parts





- NOT SHOWN**
- FL17470 Cable Guide Assy, 2850/3150
 - FL19856 Ring, Retaining (Used on Cover)
 - FL40396 Harness, Drive, Environmental
 - FL16427-04 Wire, Lead, 12", White
 - FL40396 Harness, Drive, Environmental
 - FL14924 Strain Relief Heyco #1247
 - FL15513 Meter Cable, 17.5", 2"
 - FL15216 Meter Cable, 15.25", 1.5"



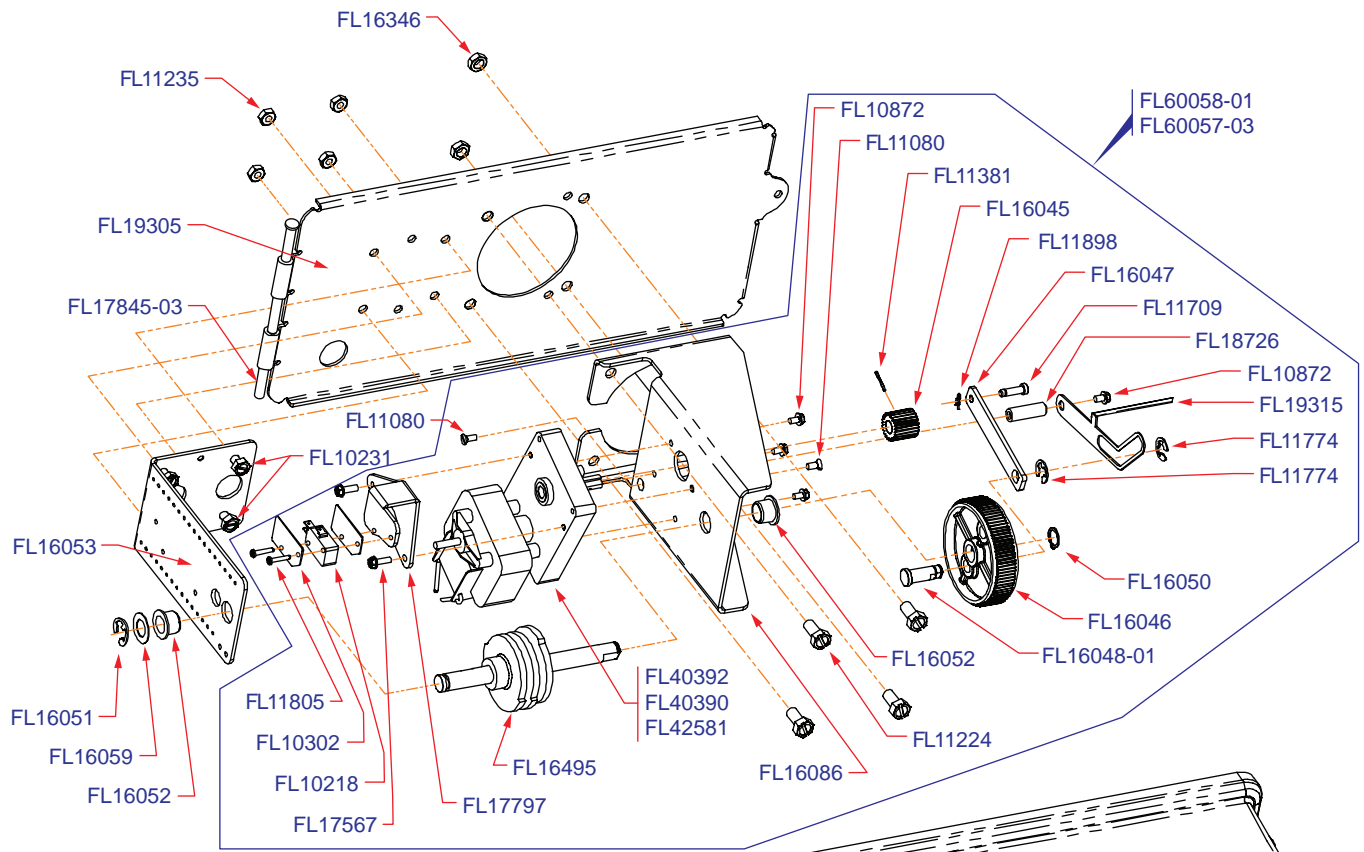


NOT SHOWN

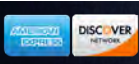
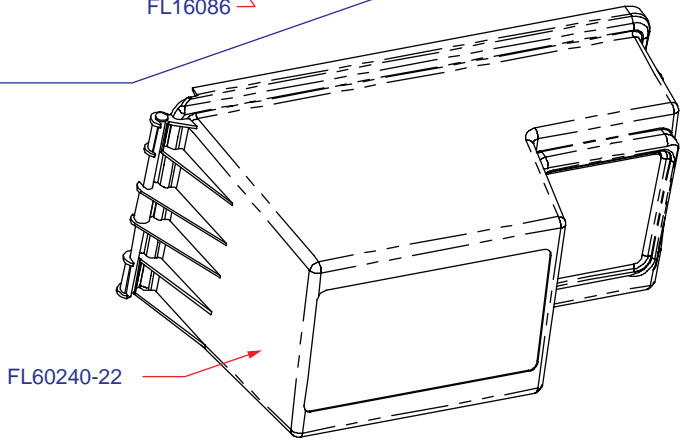
- FL17470 Cable Guide Assy, 2850/3150
- FL19856 Ring, Retaining (Used on Cover)
- FL16427-04 Wire, Lead, 12", White
- FL40396 Harness, Drive, Environmental
- FL14924 Strain Relief Heyco #1247
- FL15513 Meter Cable, 17.5", 2"
- FL15216 Meter Cable, 15.25", 1.5"
- FL18585 Harness, 3900, Aux Switch

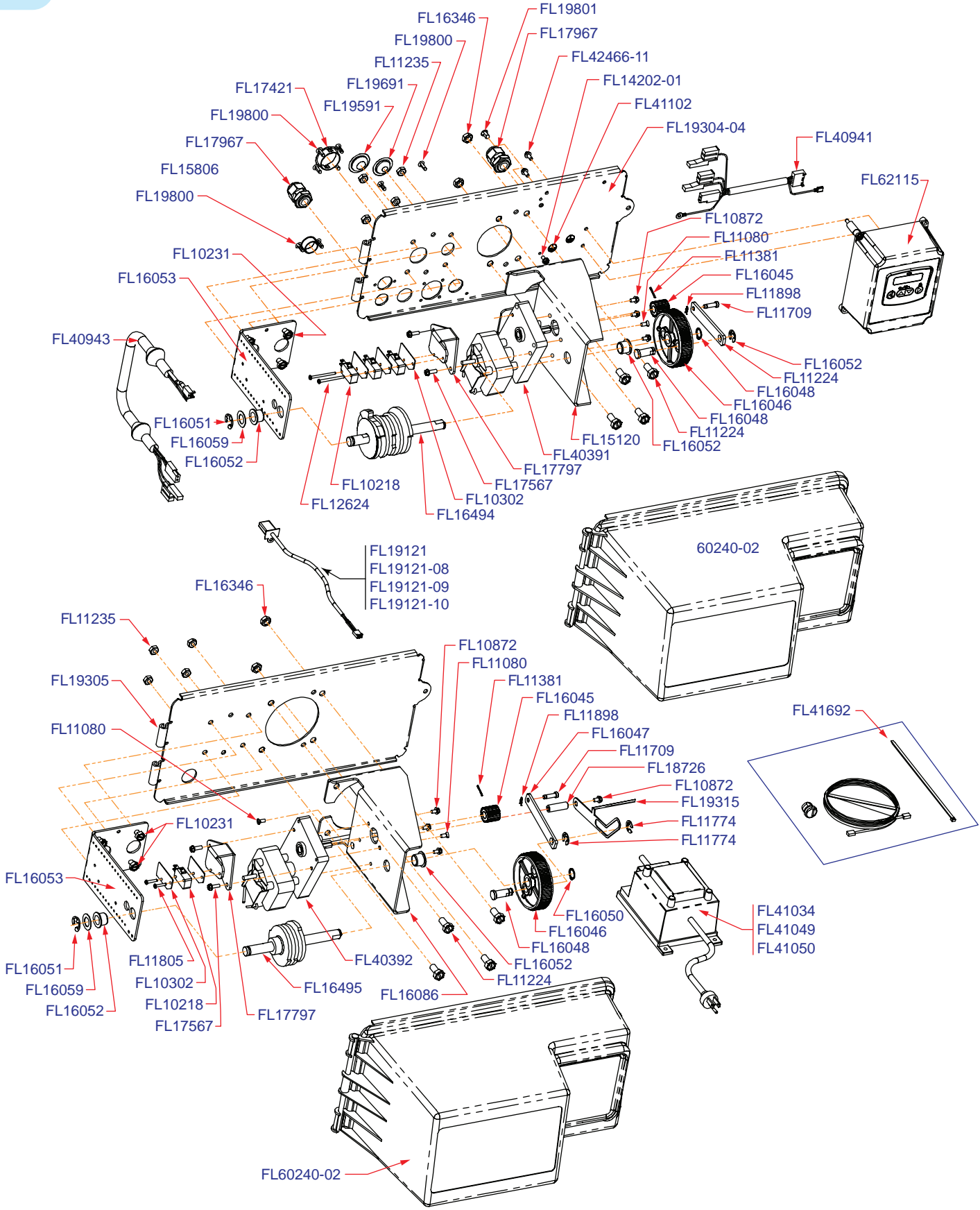
Fleck Parts





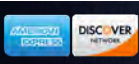
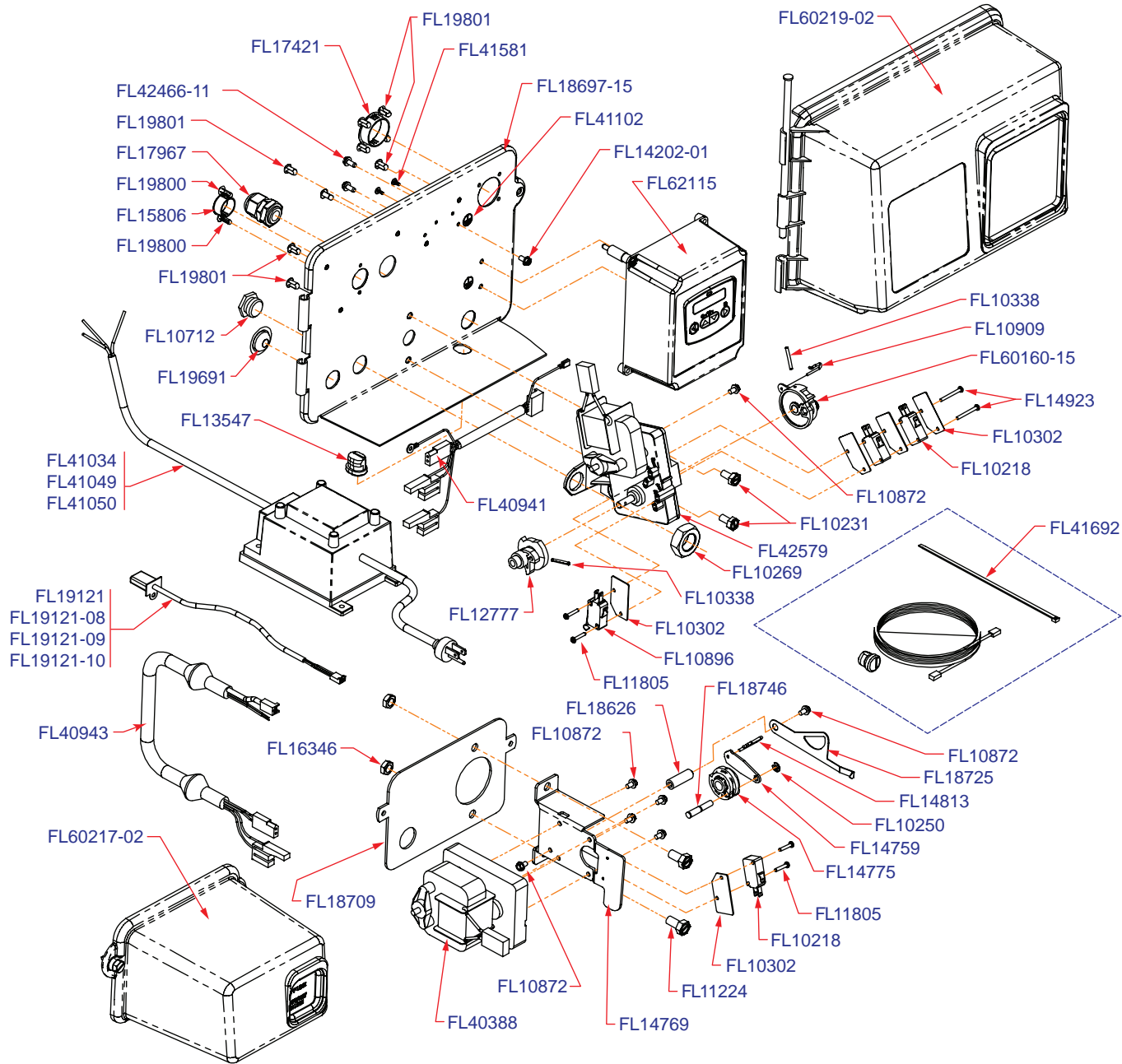
NOT SHOWN
 FL40405 Wire Harness, Enviromental, System 4, Lower
 FL18692 Washer, Sealing
 FL18691 Connector, Conduit
 FL18693 Conduit, Interdrive

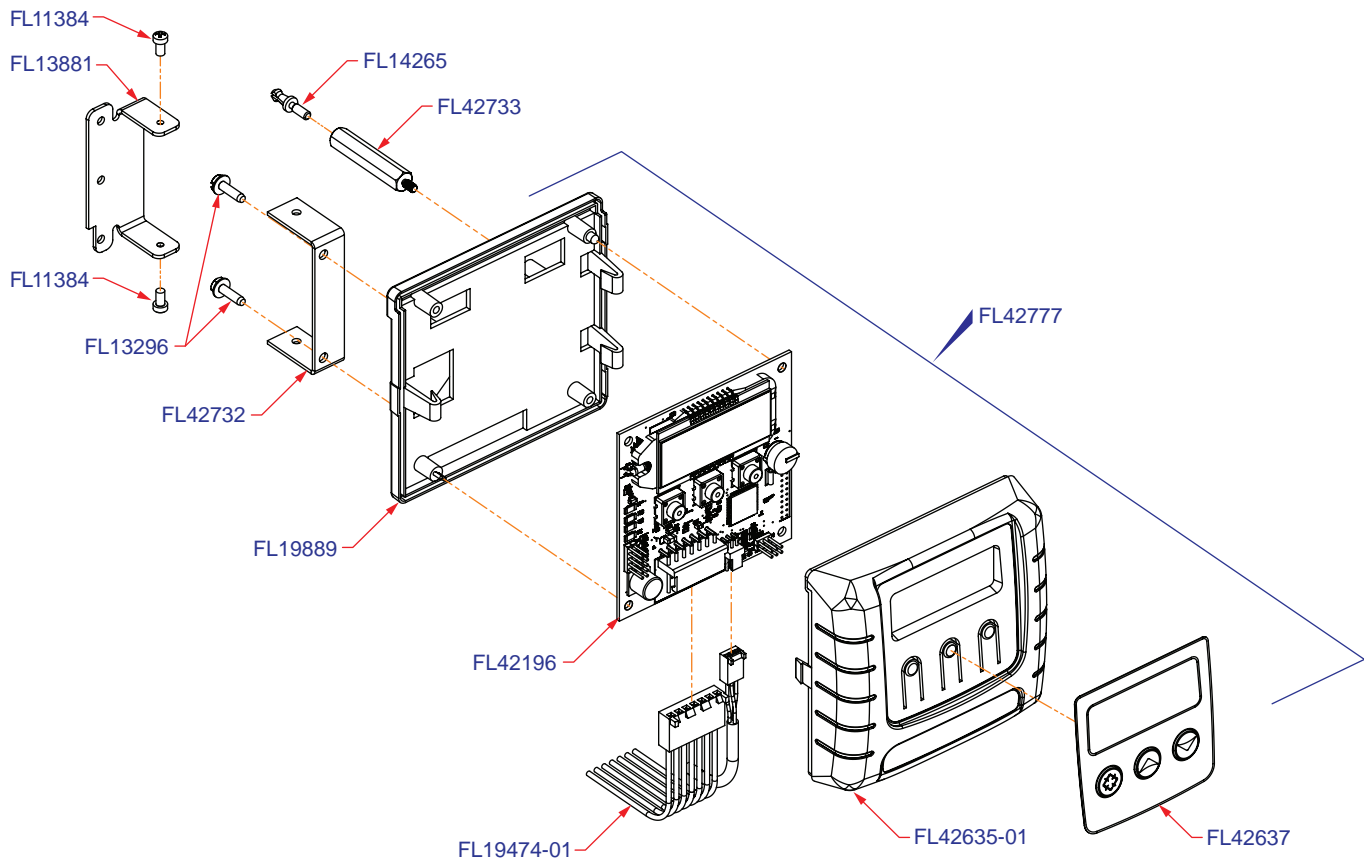


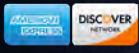
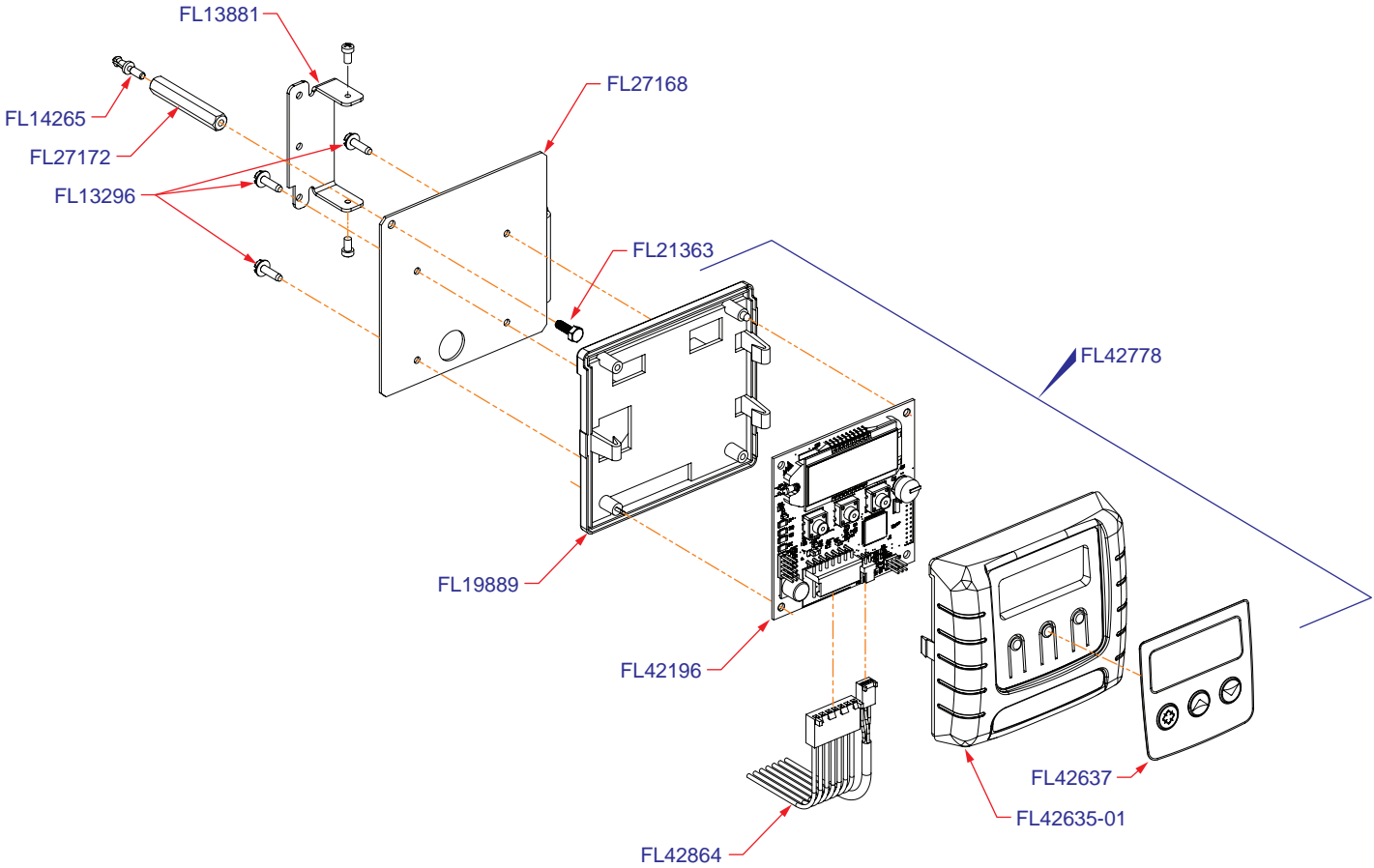


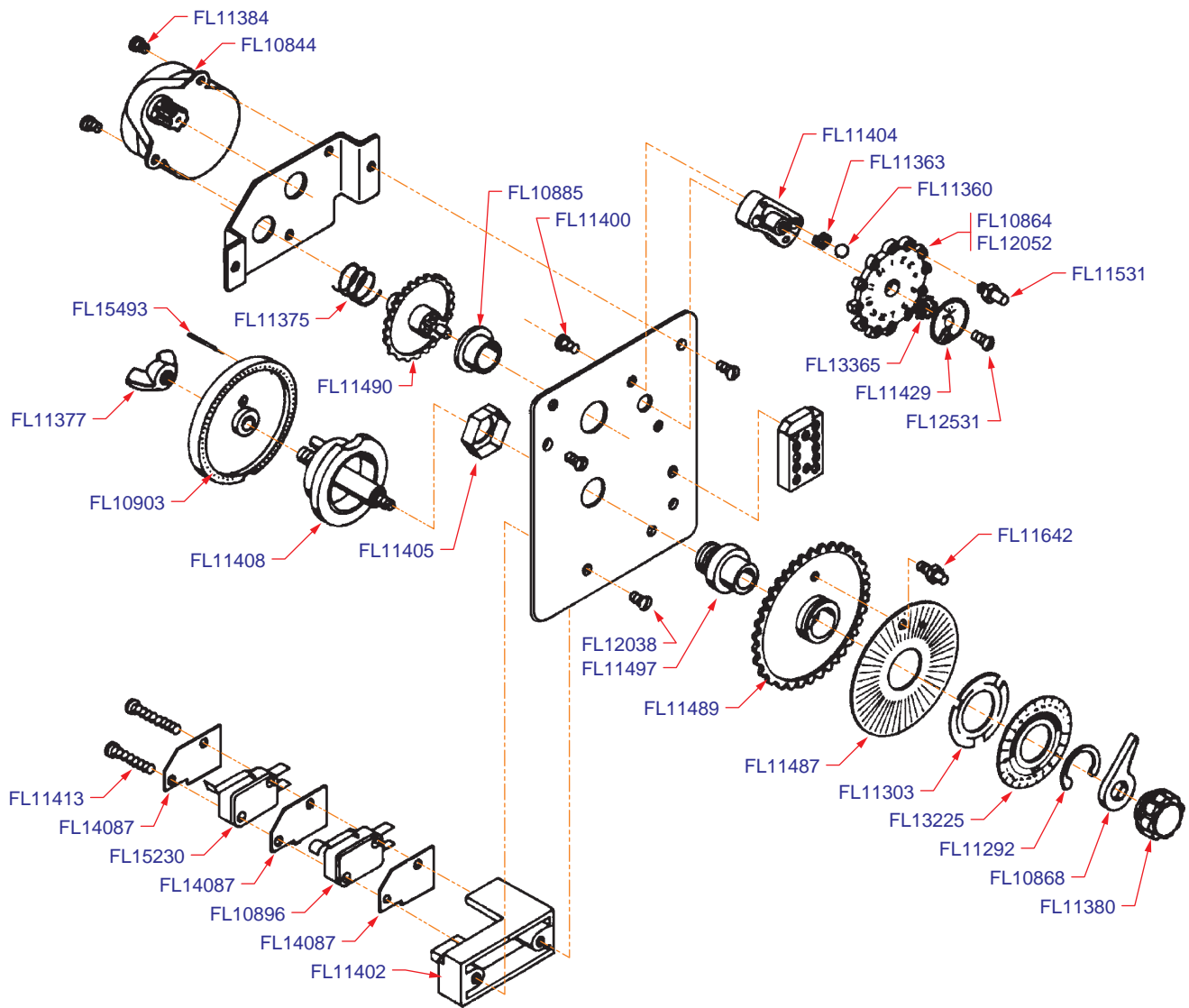
Fleck Parts





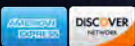
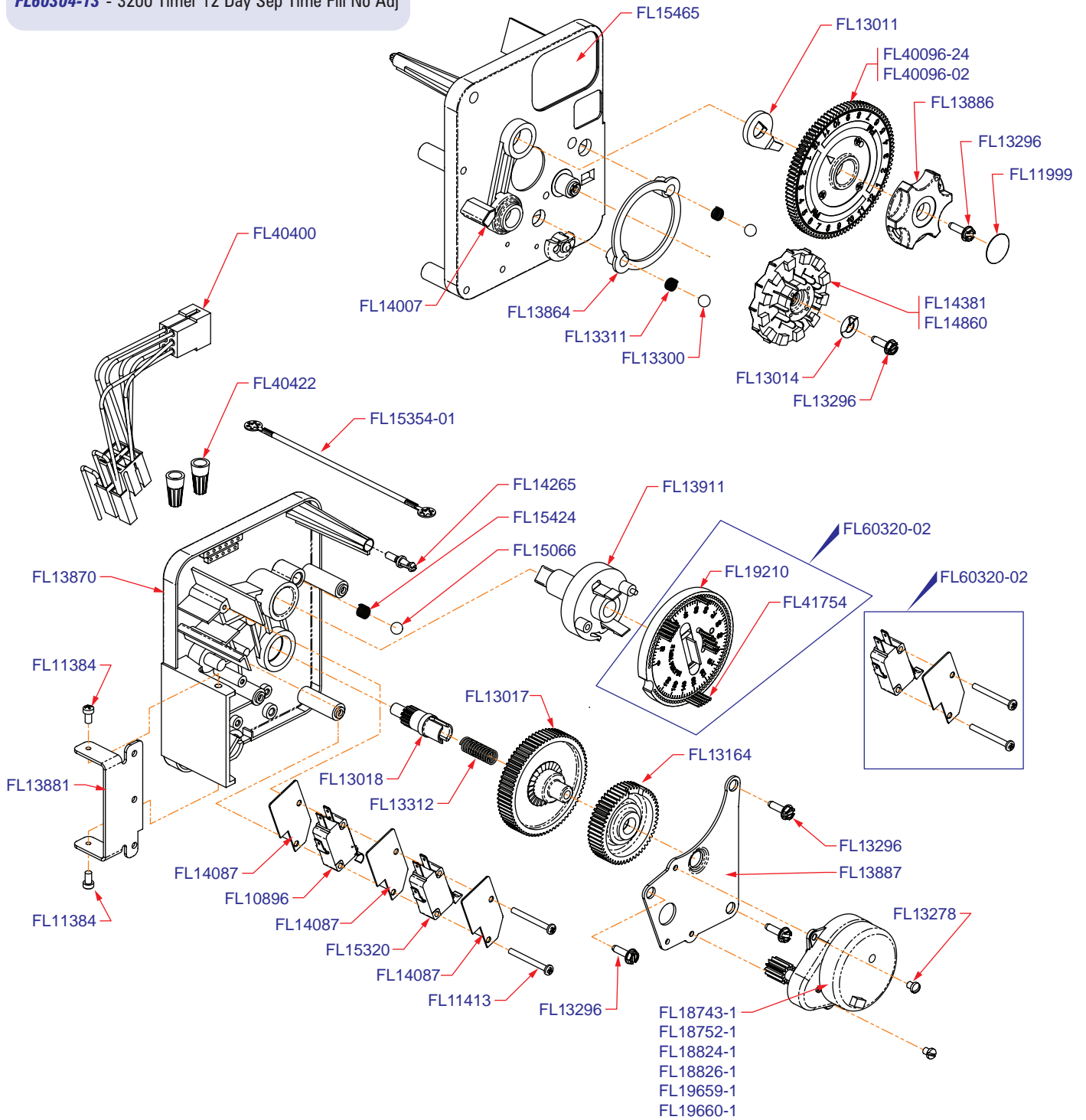






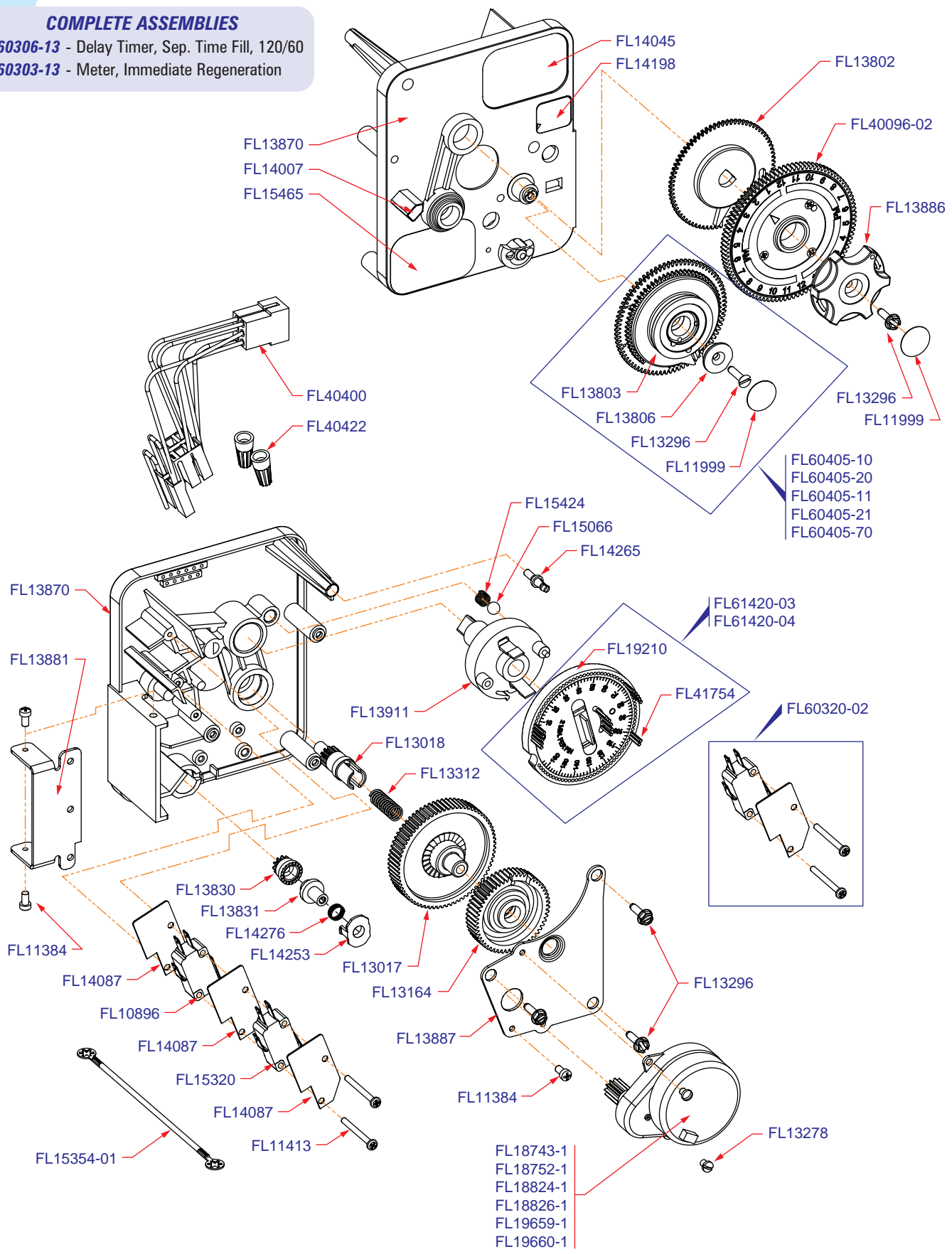
COMPLETE ASSEMBLIES

FL60304-13 - 3200 Timer 12 Day Sep Time Fill No Adj



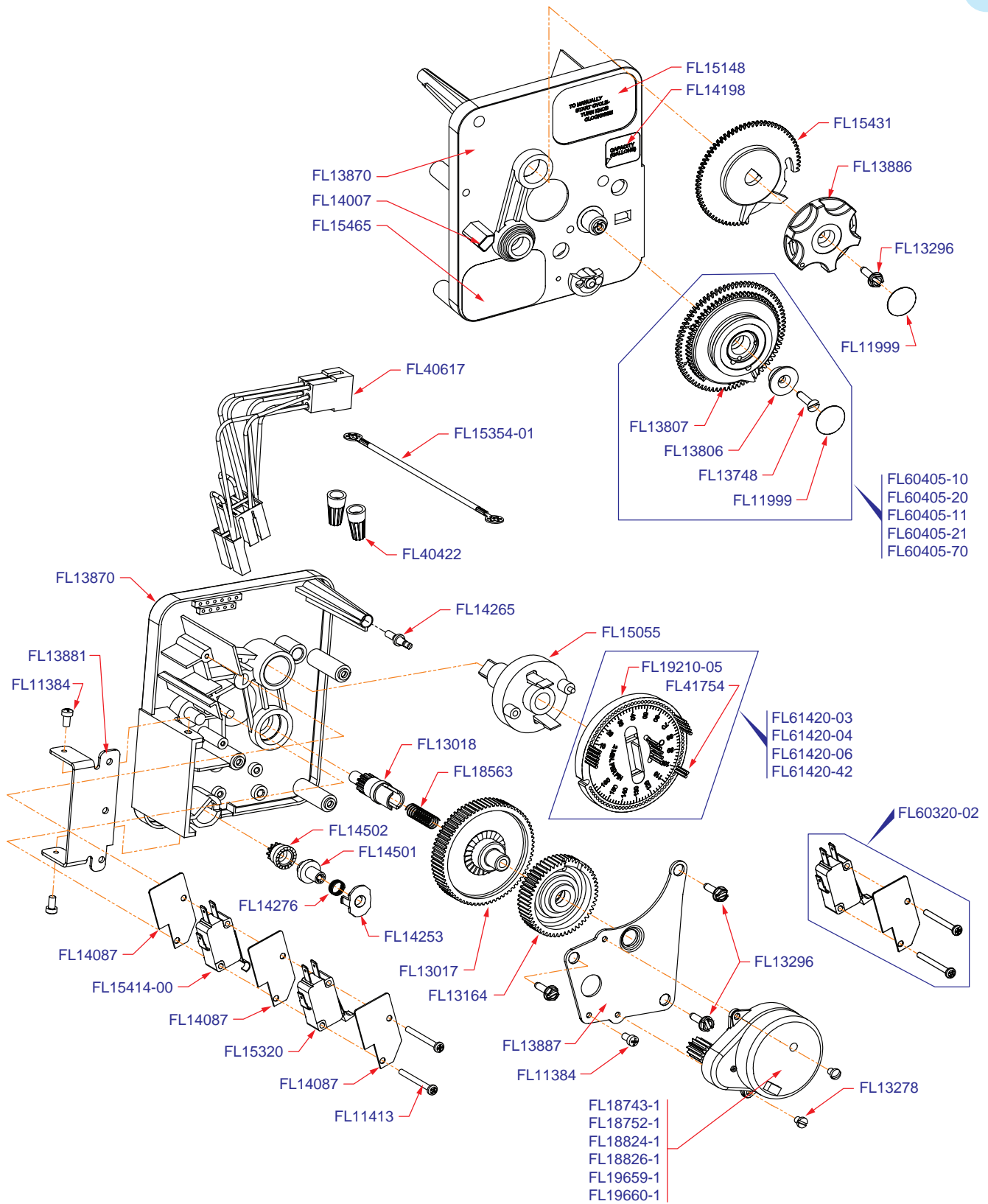
COMPLETE ASSEMBLIES

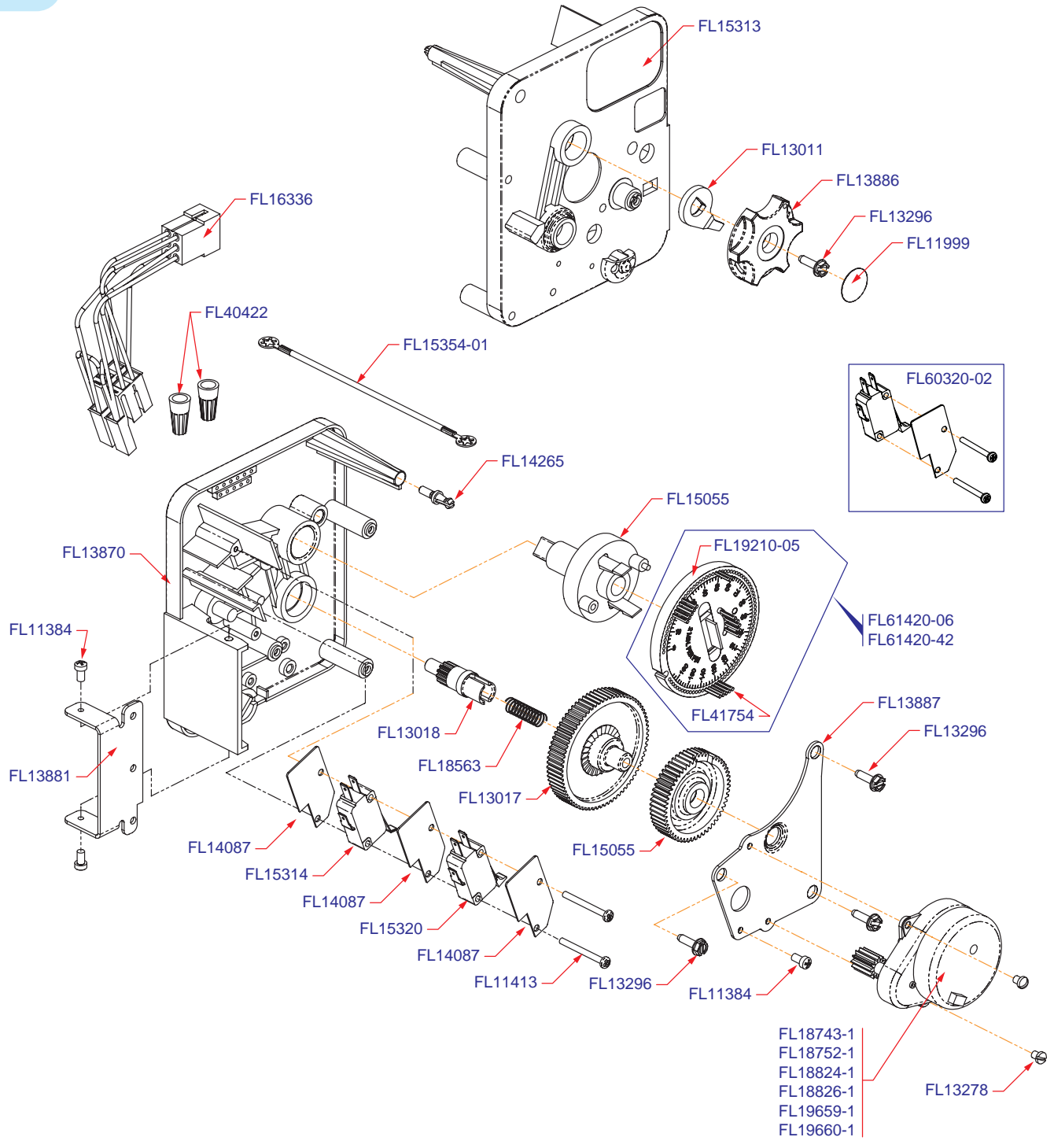
FL60306-13 - Delay Timer, Sep. Time Fill, 120/60
FL60303-13 - Meter, Immediate Regeneration



Fleck Parts

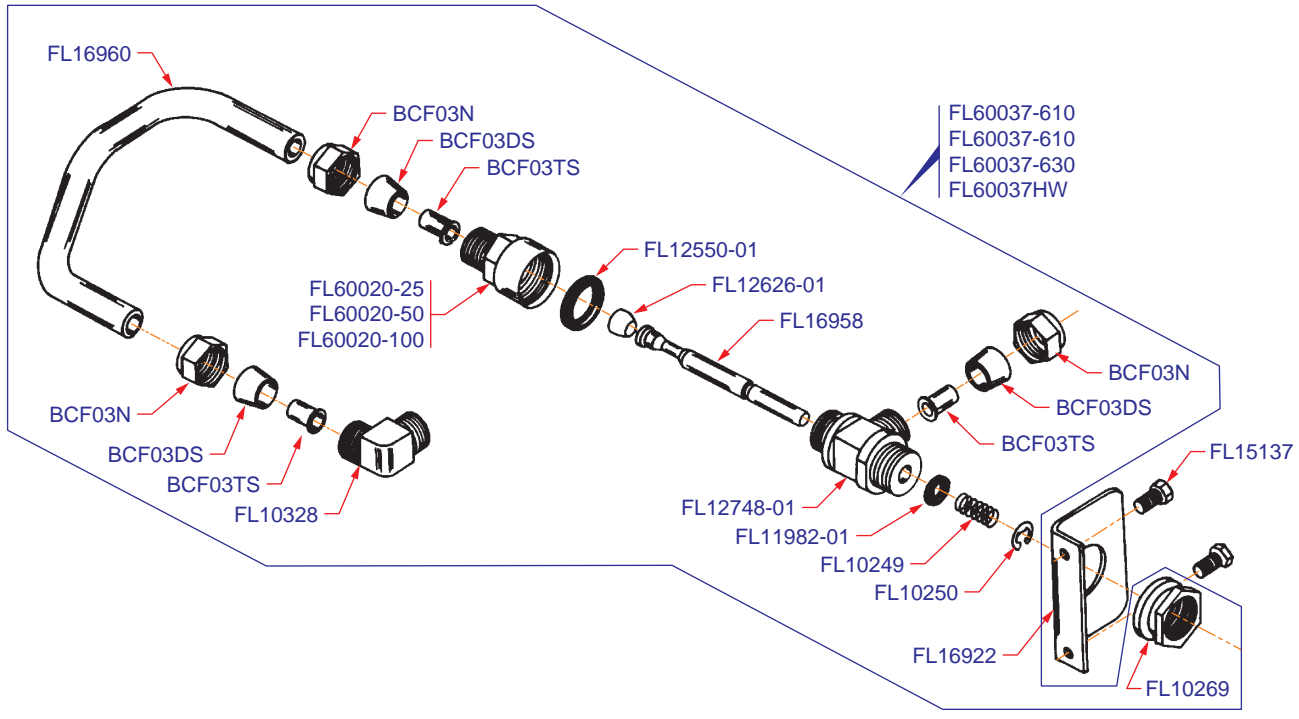




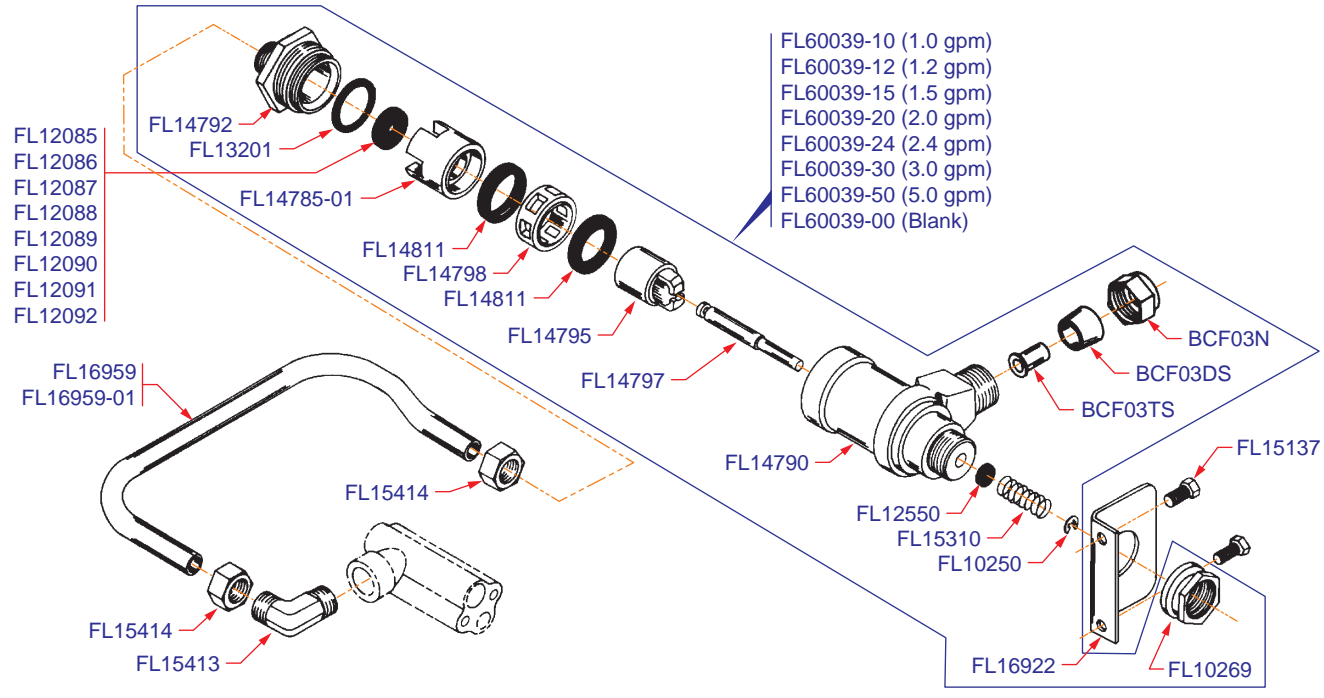


Fleck Parts



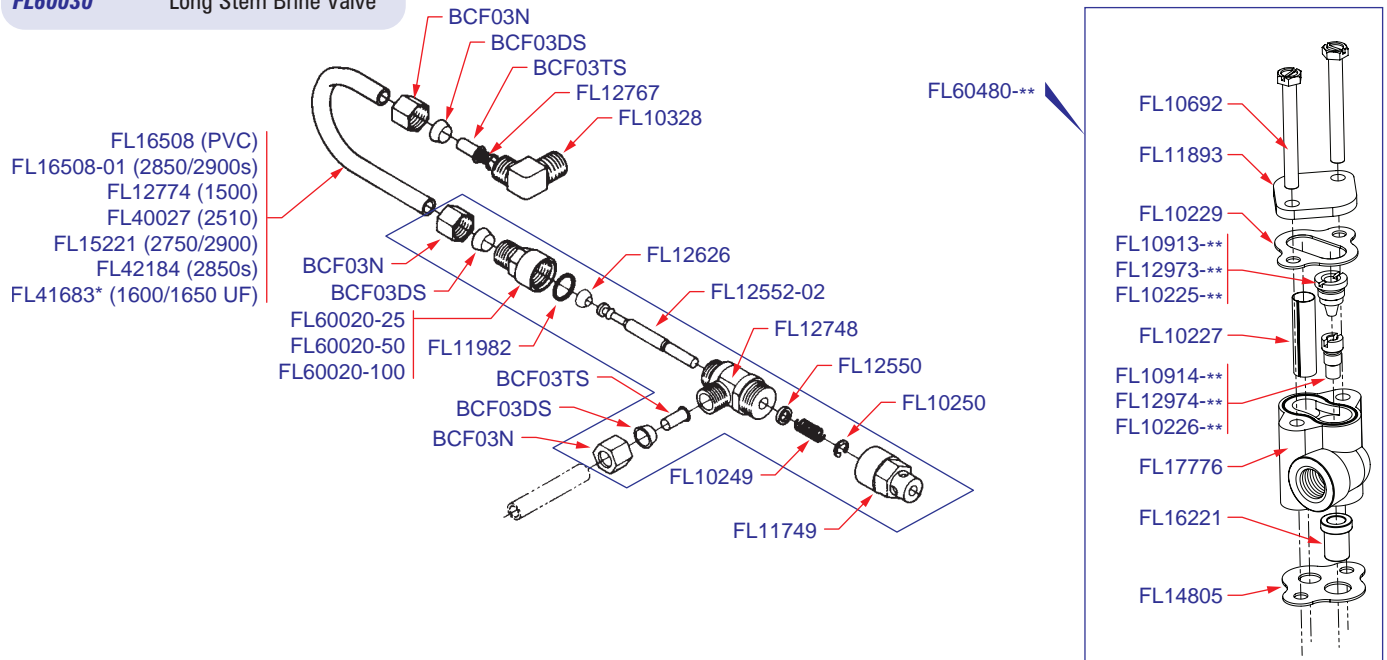


Fleck 1700 Brine System - 9500 Control Valve



COMPLETE ASSEMBLIES

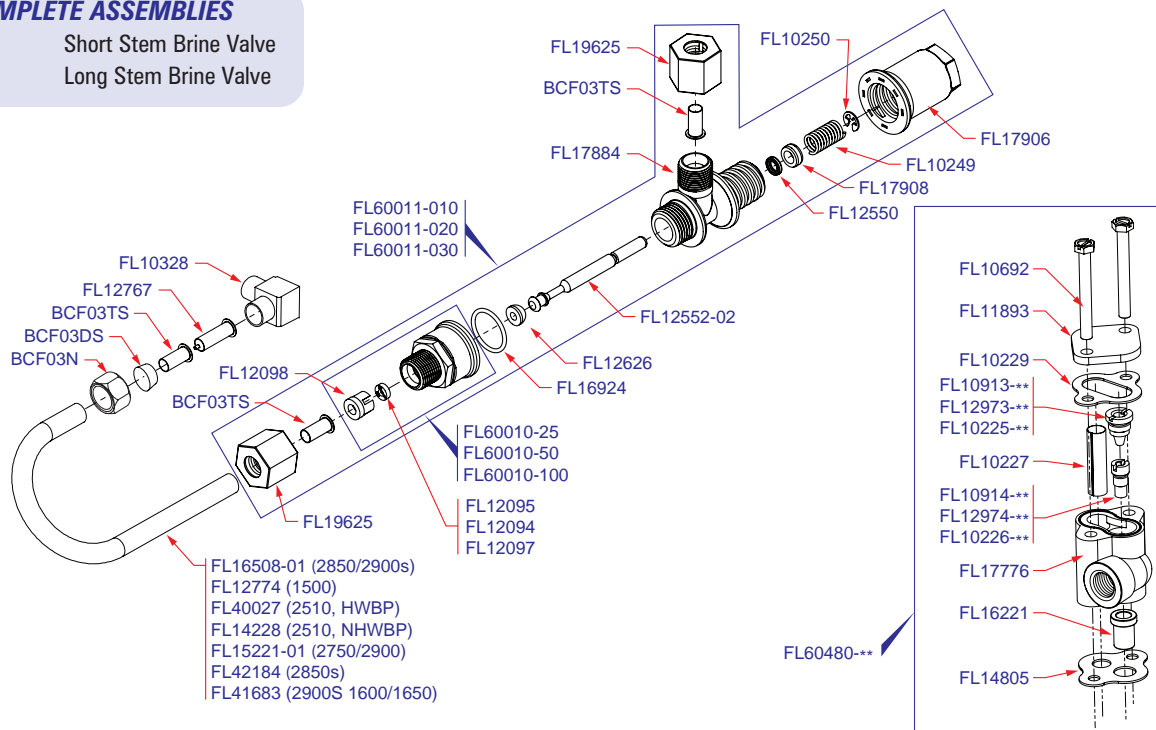
- FL60029** Short Stem Brine Valve
- FL60030** Long Stem Brine Valve



Fleck 1650 Brine System

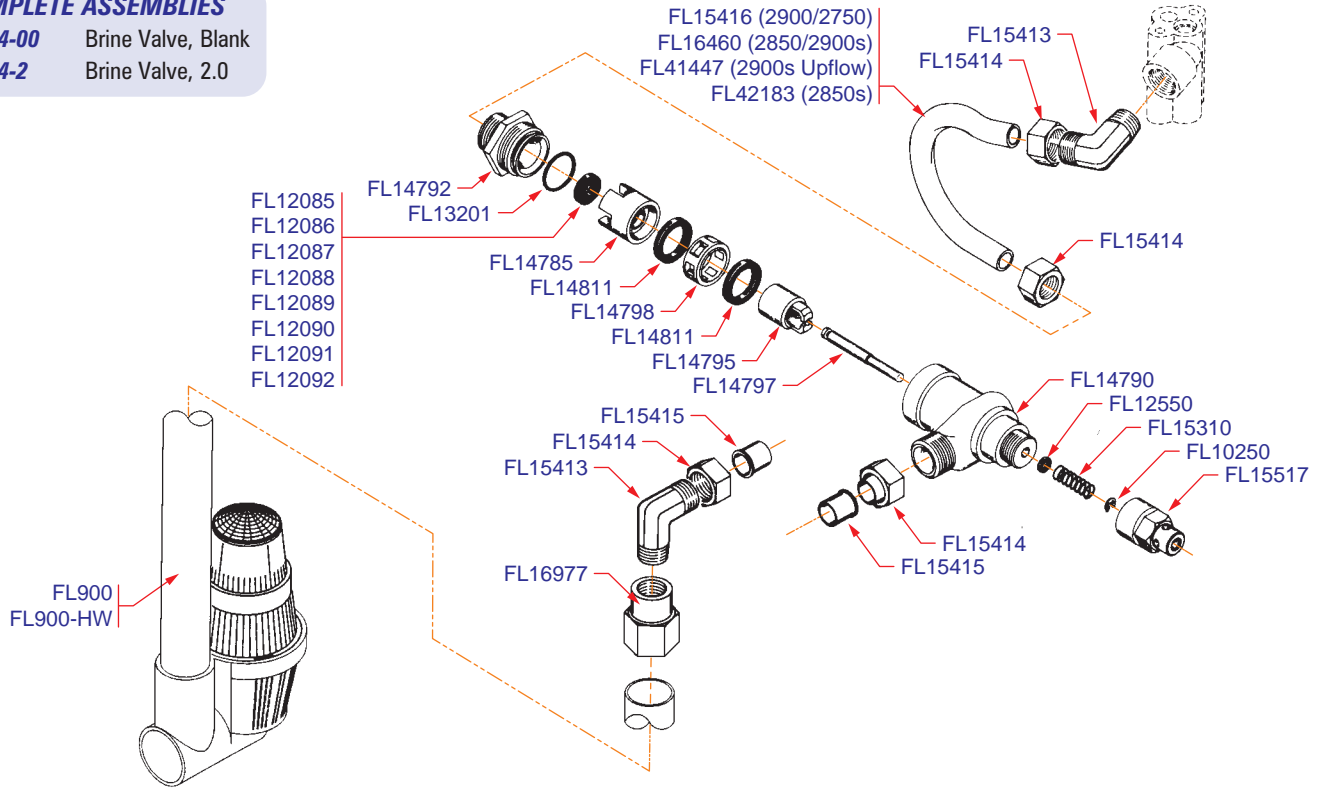
COMPLETE ASSEMBLIES

- FL60011** Short Stem Brine Valve
- FL60030** Long Stem Brine Valve



COMPLETE ASSEMBLIES

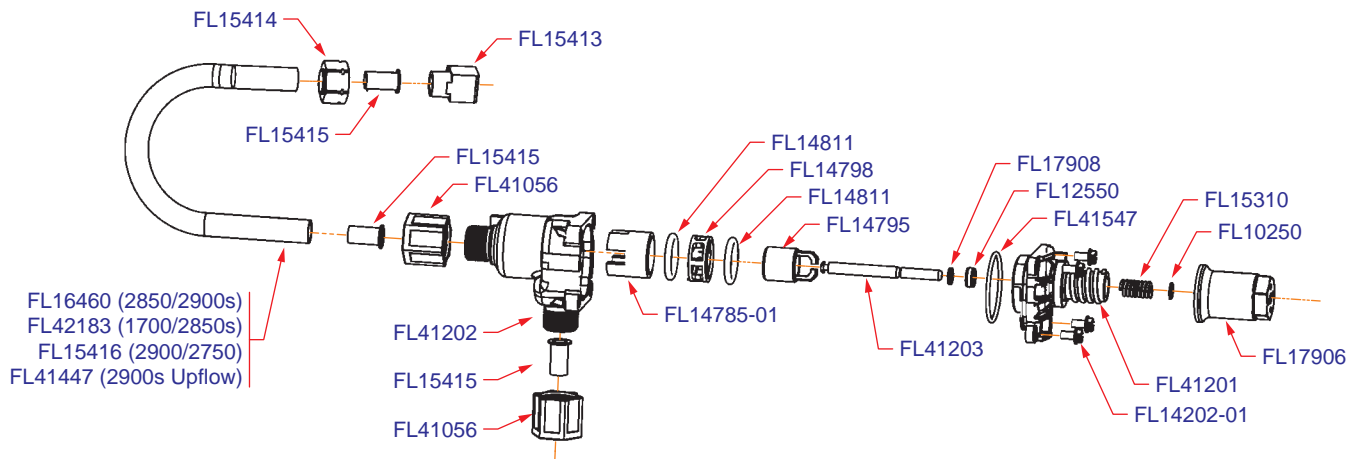
- FL60034-00** Brine Valve, Blank
- FL60034-2** Brine Valve, 2.0



Fleck 1710 Brine System

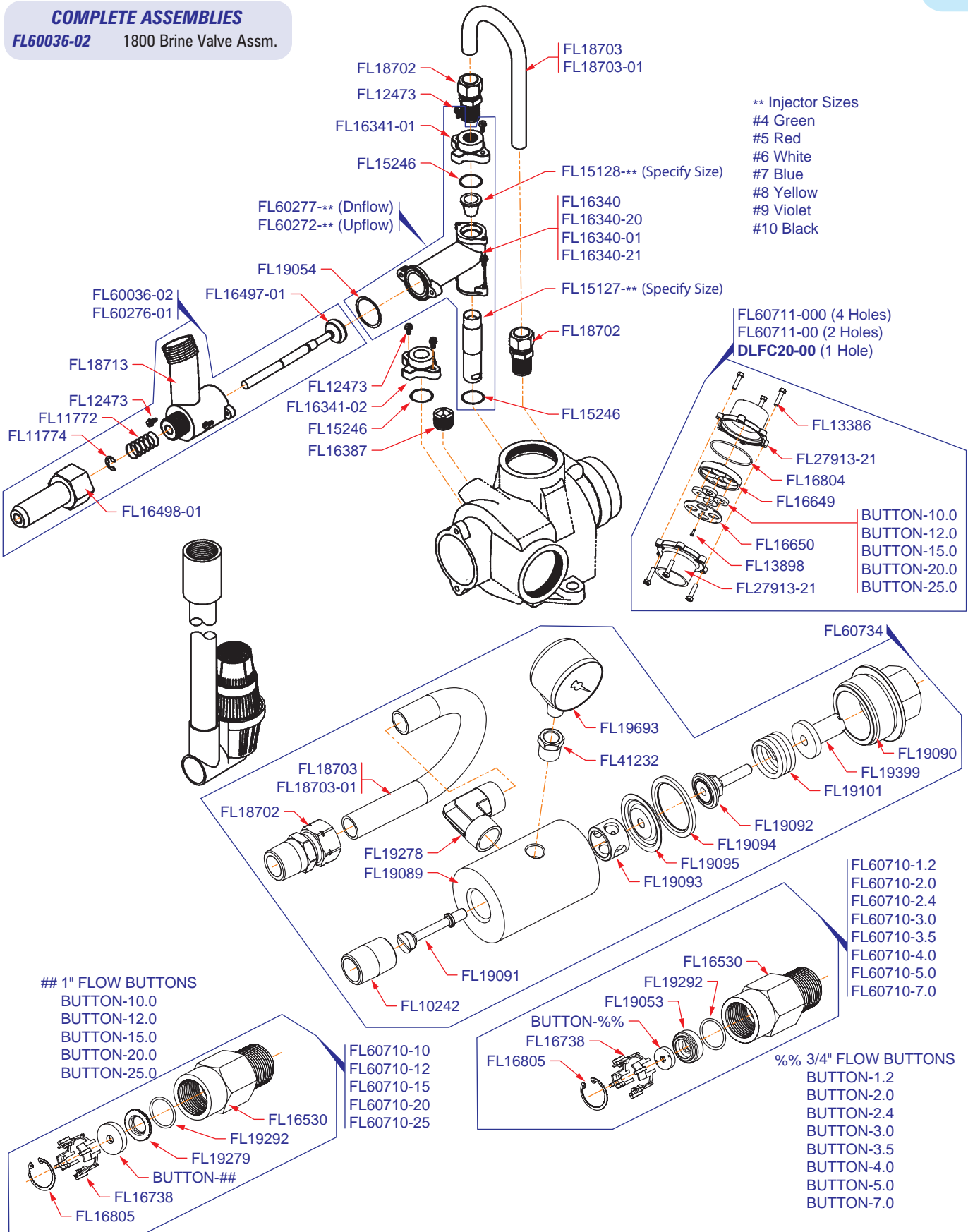
COMPLETE ASSEMBLIES

- FL60604-XX** 1710 Brine Valve Assembly, Blank
(specify flow control 1.0 - 5.0)

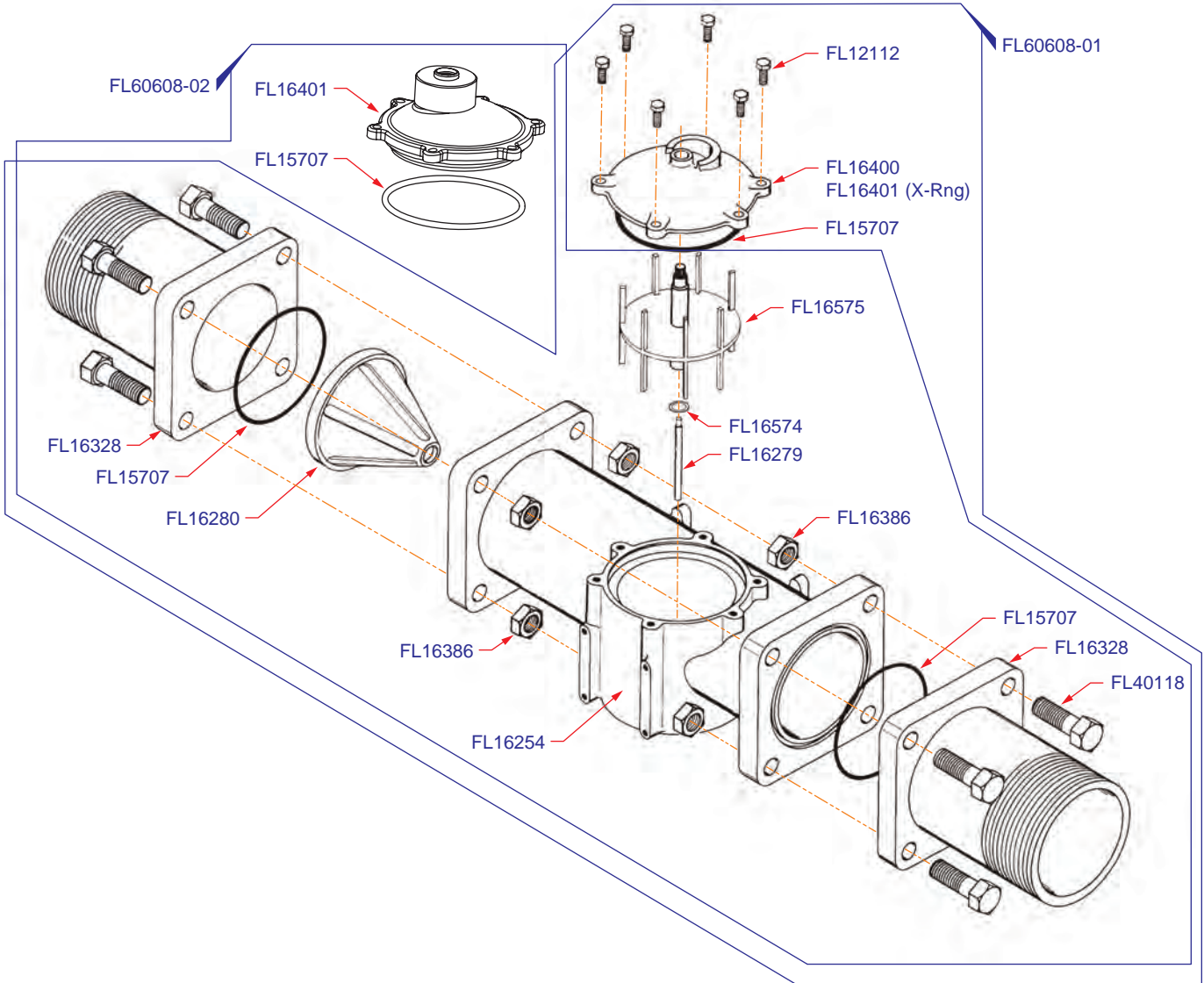


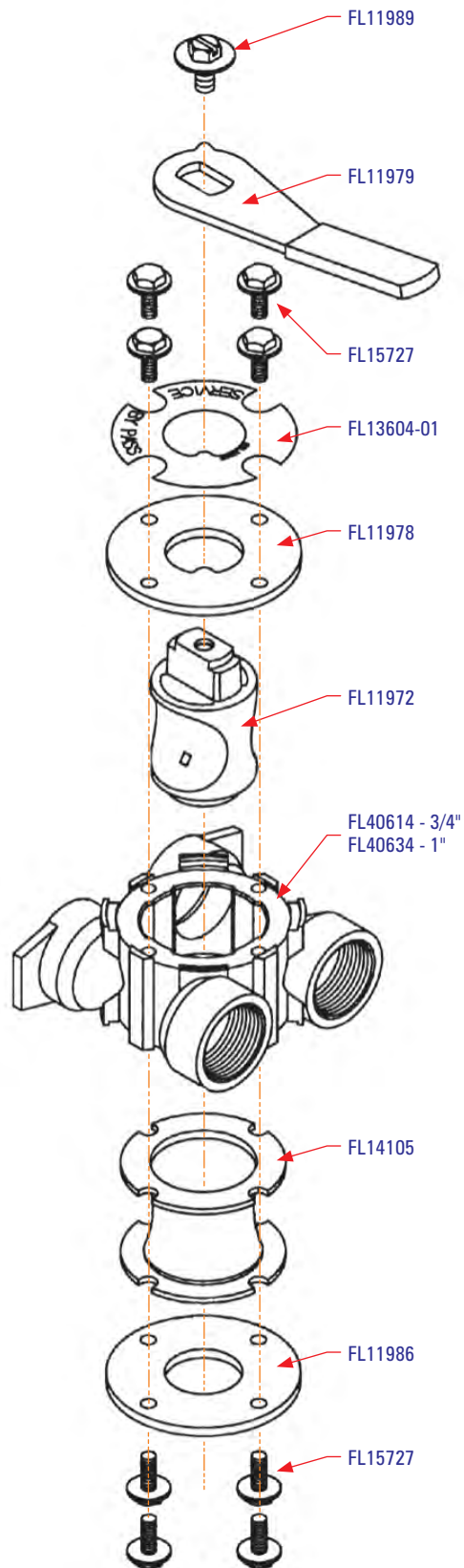
COMPLETE ASSEMBLIES

FL60036-02 1800 Brine Valve Assm.



Fleck Parts





Fleck AIO Parts

AIO-AIR-INLET-SCREEN-DOMED CV10MM	AIO Air Inlet Screen, 3/8" Friction Fit.....	\$11.00
AIO-ICV-ASSEMBLY-2510/5600 FL12777-01	Check Valve	\$10.00
	Inlet Check Valve Assembly	\$69.00
	Air Draw Brine Cam Assembly-2510	\$63.00

Fleck Control Valve & Assembly Parts

* FL10141	Seal, O-Ring, -010.....	\$1.90
FL10150	Fleck Rubber Gromet, Float Rod.....	\$4.50
* FL10207	Tank O-Ring (2 1/4" - 16 Thd).....	\$6.85
FL10209	Seal Quad Ring - Piston Rod.....	\$1.80
FL10218	Micro Switch - Sys. 4,5,6,7.....	\$16.30
* FL10225-0	Stainless Steel Injector Nozzel, #0.....	\$31.10
* FL10225-1	Stainless Steel Injector Nozzel, #1.....	\$31.10
FL10225-2	Stainless Steel Injector Nozzel, #2.....	\$31.10
* FL10225-3	Stainless Steel Injector Nozzel, #3.....	\$33.25
* FL10226-0	Stainless Steel Injector Throat, #0.....	\$31.10
* FL10226-1	Stainless Steel Injector Throat, #1.....	\$31.10
FL10226-2	Stainless Steel Injector Throat, #2.....	\$31.10
* FL10226-3	Stainless Steel Injector Throat, #3.....	\$33.25
FL10227	Injector Screen.....	\$4.50
FL10228	Injector Cover.....	\$15.20
FL10229	Injector Cover Gasket.....	\$1.65
FL10231	Screw, Retainer.....	\$1.70
* FL10234-01	Seal O-Ring - End Plug.....	\$2.60
FL10244	O-Ring - Dist. Tube - 13/16".....	\$2.25
* FL10249	Brine Valve Spring.....	\$1.45
FL10250	Retaining Ring.....	\$1.00
FL10269	Nut, Jam.....	\$9.90
FL10299	Screws - Terminal Blk - #6-20x1/2".....	\$0.70
* FL10300	Screw, Hex Head Thread Cutting.....	\$0.70
* FL10302	Insulator, Limit Switch.....	\$0.80
FL10328	Elbow, 1/4" NPT x 3/8" Tube.....	\$7.10
* FL10329	B.L.F.C. Fitting Nut, 3/8" Tube.....	\$2.50
* FL10330	B.L.F.C. Sleeve, 3/8" Delrin.....	\$1.35
* FL10332	B.L.F.C. Tube Insert, 3/8".....	\$1.80
FL10338	Drive Roll Pin.....	\$1.00
* FL10339	Switch Mount Nut, Hex #4-40.....	\$0.70
* FL10340	Switch Mount Lockwasher.....	\$0.70
* FL10368	Spacer.....	\$33.50
* FL10369	Spacer - Port.....	\$6.75
FL10381	Tank O-Ring (2-1/2" - 8 Thd).....	\$3.40
FL10381-01	Tank O-Ring (2-1/2" - 8 Thd), 560CD Hot Water.....	\$7.45
* FL10545	Seal, Piston.....	\$3.60
* FL10598	End Plug Assembly.....	\$17.10
* FL10598-01	End Plug Assembly, Hot Water.....	\$51.40
* FL10621	Connecting Rod.....	\$4.30
FL10692	Injector Body Screw.....	\$3.40
* FL10696	Piston Pin.....	\$1.80
* FL10757	End Spacer.....	\$3.05
FL10774	Bracket-Motor Mounting.....	\$14.20

Fleck Parts



* FL10815	Discontinued from Fleck	
* <i>FL10844</i>	<i>Discontinued from Fleck</i>	
* <i>FL10868</i>	<i>Discontinued from Fleck</i>	
FL10872	Motor Mt Screw - #8-32 x 5/16"	\$0.70
* FL10885	Discontinued from Fleck	
FL10896	Micro-Switch	\$18.90
* <i>FL10903</i>	<i>Discontinued from Fleck</i>	
* FL10909	Rod Pin	\$1.00
FL10913-1	Injector Nozzle - No. 1, White	\$5.40
FL10913-2	Injector Nozzle - No. 2, Blue	\$5.40
FL10913-3	Injector Nozzle - No. 3, Yellow	\$5.40
FL10913-4	Injector Nozzle - No. 4, Green	\$5.40
FL10914-1	Injector Throat - No. 1, White	\$5.40
FL10914-2	Injector Throat - No. 2, Blue	\$5.40
FL10914-3	Injector Throat - No. 3, Yellow	\$5.40
FL10914-4	Injector Throat - No. 4, Green	\$5.40
FL11180	Flow Control Retainer Screw	\$1.00
FL11183	Seal, O-Ring, -017	\$1.25
FL11205	Special Tube Fitting	\$14.75
FL11206	Union Gasket	\$0.55
FL11207	Special Nut	\$44.10
FL11208	Seal O-Ring	\$3.60
<i>FL11209</i>	<i>Discontinued from Fleck</i>	
* FL11212	2500 Valve Body	\$1,450.00
FL11224	Hex Head Cap Screw	\$1.90
* FL11235	Nut, 1/4 - 20	\$2.15
* FL11238	Screw - Hex Hd.	\$3.50
* <i>FL11247</i>	<i>Discontinued from Fleck</i>	
* <i>FL11292</i>	<i>Discontinued from Fleck</i>	
* <i>FL11298</i>	<i>Discontinued from Fleck</i>	
* <i>FL11303</i>	<i>Discontinued from Fleck</i>	
* FL11335	Screw, #4-40	\$0.45
* <i>FL11360</i>	<i>Discontinued from Fleck</i>	
* <i>FL11363</i>	<i>Discontinued from Fleck</i>	
* <i>FL11375</i>	<i>Discontinued from Fleck</i>	
* <i>FL11377</i>	<i>Discontinued from Fleck</i>	
* <i>FL11380</i>	<i>Discontinued from Fleck</i>	
FL11381	2900 Roll Pin	\$0.70
FL11384	Self Tapping Screw	\$0.70
FL11385-01	Flow Ctrl. Housing, Plastic	\$21.05
* FL11385-03	Flow Control Housing, Brass	\$33.75
* <i>FL11400</i>	<i>Discontinued from Fleck</i>	
* <i>FL11402</i>	<i>Discontinued from Fleck</i>	
* <i>FL11403</i>	<i>Discontinued from Fleck</i>	
* <i>FL11404</i>	<i>Discontinued from Fleck</i>	
* <i>FL11405</i>	<i>Discontinued from Fleck</i>	
* <i>FL11408</i>	<i>Discontinued from Fleck</i>	
* FL11413	Screw, Pan Head #4 - 40	\$1.00
* <i>FL11429</i>	<i>Discontinued from Fleck</i>	
FL11451	Spacer	\$2.60

FL11475	<i>Discontinued - Use Part # FL14805</i>	
* FL11483	Injector Body - Brass	\$119.95
* FL11487	<i>Discontinued from Fleck</i>	
* FL11489	<i>Discontinued from Fleck</i>	
* FL11490-01	<i>Discontinued from Fleck</i>	
* FL11491	<i>Discontinued from Fleck</i>	
* FL11531	<i>Discontinued from Fleck</i>	
* FL11545-01	Fleck Power Cord w/terminals, 4' Black, Euro.....	\$27.00
FL11590	<i>Discontinued from Fleck</i>	
* FL11642	<i>Discontinued from Fleck</i>	
* FL11667	<i>Wire Harness (USE PART NO. FL40400)</i>	
* FL11668	<i>Discontinued from Fleck</i>	
* FL11684	<i>Discontinued from Fleck</i>	
* FL11709	Pin - Drive Link.....	\$13.30
FL11710	Inside Tube O-Ring	\$1.70
FL11720	Seal, Piston 2900/3150.....	\$8.30
FL11726	<i>By-Pass Seal, 5600 - Use FL14105</i>	
* FL11772	Spring, 3100 Brine Valve.....	\$8.00
FL11774	Retaining Ring.....	\$5.05
* FL11805	Screw, Rd. Hd. 4-40 x 5/8.....	\$0.55
FL11826-02	Bracket, Motor, Aux Switch.....	\$6.65
FL11838	<i>Power Cord, Fleck 6'</i>	
* FL11842	Power Cord, 7'.....	\$26.55
FL11893	Injector Cover, SS.....	\$16.10
* FL11898	Clip.....	\$0.80
FL11912-01	Fleck Fitting Assm, Male w/O-Ring.....	\$62.80
FL11966	Dist. Tube Pilot, 13/16".....	\$0.00
* FL11972	ByPass Plug.....	\$19.15
* FL11973	Spring, Brine Valve.....	\$1.80
FL11980	<i>Discontinued from Fleck</i>	
FL11981-01	<i>Discontinued from Fleck</i>	
* FL11982	<i>Discontinued from Fleck</i>	
* FL11999	Button Decal.....	\$2.35
* FL12037	Washer, Plain #10 SS.....	\$0.70
* FL12038	<i>Discontinued from Fleck</i>	
* FL12052	<i>Discontinued from Fleck</i>	
FL12094	B.L.F.C. Button - .25 gpm.....	\$2.80
FL12095	B.L.F.C. Button - .50 gpm.....	\$2.80
FL12097	B.L.F.C. Button - 1.0 gpm.....	\$2.80
FL12112	Screw, 10-24 x 1/2", (End Plug Retainer, 5600).....	\$2.50
* FL12248	<i>Discontinued from Fleck</i>	
FL12281	O-Ring.....	\$9.20
* FL12338	Hose Barb.....	\$2.25
FL12341-01	Valve Body Adapter, Machined.....	\$107.00
FL12399	<i>Discontinued from Fleck</i>	
FL12404	IRC Timer Motor, 110v, 60 hz.....	\$124.85
* FL12461	Discontinued - Adapter Base 2-1/2" - 8 Thd.....	\$126.00
FL12473	Screw, Hex Head.....	\$2.95
FL12550	Quad Ring, -009.....	\$1.45
FL12552	Brine Valve Stem.....	\$16.75

Fleck Parts



* FL12570	Tank O-Ring (Park)	\$8.10
FL12576	Drive Cam - Separate Time Fill	\$7.20
FL12594	Valve Position Lever	\$62.35
* FL12624	<i>Discontinued from Fleck</i>	
* FL12626	<i>Brine Valve Seat - Discontinued from Fleck</i>	
FL12638	O-Ring - Drain	\$2.70
* FL12638-01	O-Ring Drain Hot Water	\$3.40
* FL12660	<i>Discontinued - Nut, 10-24</i>	
* FL12681	<i>Discontinued - Wire Nut</i>	
* FL12732	Nut, Hex 5-40	\$1.00
* FL12747	Flow Control Fitting w/Label	\$32.15
* FL12748	Brine Valve Body	\$47.15
FL12767	Screen - Brine Line	\$5.20
FL12774	1600 Brine Valve J-Tube	\$5.65
FL12777	Shut-off Valve Cam	\$9.65
FL12874	Seal Hook	\$36.90
* FL12953	Piston Retainer	\$2.95
* FL12958	<i>Discontinued - Self-tap Screw, 8-32 x 1/4</i>	
FL12973-1	No. 1 PVC Nozzle	\$13.15
FL12973-2	No. 2 PVC Nozzle	\$12.30
FL12973-3	No. 3 PVC Nozzle	\$13.15
FL12974-1	No. 1 PVC Throat	\$12.90
FL12974-2	No. 2 PVC Throat	\$12.00
FL12974-3	No. 3 PVC Throat	\$12.90
FL12977	Seal, O-Ring, -015	\$0.55
FL13001	Piston Rod Assem, 4600/5600	\$26.80
* FL13001-04	Discontinued from Fleck	\$26.80
* FL13011	Cycle Actuator Arm	\$2.70
* FL13014	Regeneration Pointer	\$1.80
* FL13017	Idler Gear	\$10.90
* FL13018	Idler Shaft	\$6.20
FL13030	Retainer, Distributor Tube O-Ring	\$1.80
FL13163	Injector Body	\$38.35
FL13164	Drive Gear	\$8.65
* FL13165	Cap, Brine Valve	\$3.40
FL13166	Injector Cap	\$8.45
* FL13167	Spacer, Brine Valve	\$5.05
FL13170	Main Gear & Shaft	\$11.05
* FL13172-02	Brine Valve Stem Assembly, w/Seat	\$17.75
FL13173	DLFC Retainer w/O-Ring	\$1.25
* FL13175	Motor Mounting Plate	\$4.95
FL13242	Use Fleck Part No: 43011-01	\$0.00
FL13242-02	SEAL, 5600, EPDM, TR-E	\$5.85
* FL13244	Use Fleck Part No: 13244-01	\$9.20
FL13244-01	Adapter, BLFC w/O-Ring	\$18.80
FL13245	Retainer, BLFC Button	\$3.60
FL13247	Piston, 5600	\$52.10
FL13255	Mounting Clip	\$2.50
* FL13278	Screw, #6 - 32	\$1.35
FL13296	Screw, Hex Washer 6-20 x 1/2	\$1.70

* FL13299	Curved Washer.....	\$2.00
* FL13300	Ball, 1/4" SS.....	\$1.35
FL13301	O-Ring - 011.....	\$1.35
FL13301-01	O-Ring - 011, 560CD.....	\$1.45
FL13302	O-Ring - 014.....	\$1.45
FL13302-01	O-Ring, -014, 560CD.....	\$1.80
FL13303	O-Ring - 021.....	\$2.25
FL13303-01	O-Ring - 021, 560CD.....	\$1.90
FL13304	O-Ring, - 121.....	\$2.35
FL13305	O-Ring, -119.....	\$1.00
* FL13306	Piston Pin For 6600 & 6700.....	\$0.70
* FL13308	Drain Hose Barb.....	\$1.35
* FL13309	Front Label - Brown on Beige.....	\$12.05
* FL13310	Rear Label.....	\$2.35
* FL13311	Spring - Detent -Skipper Wheel.....	\$0.55
* FL13312	Spring - Idler.....	\$1.00
FL13314	Screw, Adapter Clip.....	\$1.90
* FL13315	Screw, Hex Washer Head.....	\$1.80
* FL13348	Tape Stripe - Brown on Beige.....	\$5.65
FL13363	Washer, Plain .145 ID.....	\$0.45
* <i>FL13365</i>	<i>Discontinued from Fleck</i>	
FL13366	Drive Bearing.....	\$6.55
* <i>FL13398-00</i>	<i>Discontinued from Fleck</i>	
* FL13436	Tape Stripe - Blue on Silver.....	\$6.65
FL13446	End Plug Assm. Std - White.....	\$12.25
* FL13446-10	End Plug Assm. Filter - Black.....	\$12.25
* FL13446-20	End Plug Assm. Low Wtr - Grey.....	\$12.25
* FL13446-41	End Plug Assm. 6600, Green, 560CD.....	\$14.40
* <i>FL13489</i>	<i>Discontinued from Fleck</i>	
<i>FL13494</i>	<i>Discontinued from Fleck - Use Part No. 19659</i>	
FL13497	Air Disperser, 5600.....	\$0.70
FL13509	Impeller.....	\$34.00
* FL13546	End Plug Retainer.....	\$10.70
FL13547	Strain Relief, Flat Cord Heyco #30-1.....	\$8.00
FL13547-01	Strain Relief, Round Cord.....	\$8.00
FL13575	O-Ring - Top Of Tank.....	\$8.55
FL13577	O-Ring -226.....	\$6.40
* FL13602	Screw, Rd Head, 6-32 x 5/16.....	\$1.25
FL13633	Distributor Pilot Ring, 13/16".....	\$1.80
FL13634	Distributor Pilot Sleeve.....	\$3.15
* FL13708-40	Adapter - 1" Sweat.....	\$108.55
<i>FL13709</i>	<i>Use Part No: FL19228-01</i>	
FL13741	Hole Plug, 3/4 Dia. (Not Shown).....	\$1.00
FL13748	Screw, 6-20 x 1/2" Flat Head.....	\$0.80
* FL13771	O-Ring, -012.....	\$0.80
* FL13781	Piston, Low Water.....	\$43.00
* FL13802	Cycle Actuator Gear.....	\$5.50
* FL13806	Retainer, Program Wheel.....	\$2.80
FL13830	Pinion, Program Wheel Drive.....	\$2.80
FL13831	Clutch, Drive Pinion.....	\$2.95

Fleck Parts



FL13847	O-Ring, Meter Cover.....	\$6.55
FL13852-01	Piston, Feeder.....	\$46.25
<i>FL13857-01</i>	<i>DISCONTINUED - Use # 40947-02</i>	
* FL13864	Skipper Wheel Ring.....	\$1.90
* FL13870	Timer Housing, 3200.....	\$41.50
* FL13870-03	Timer Housing, 9000.....	\$41.50
* FL13881	Hinge Bracket.....	\$12.70
* <i>FL13886-01</i>	<i>Knob, 3200 w/DOT - Discontinued</i>	
* FL13887	Motor Mounting Plate.....	\$8.20
* FL13899	Rear Label.....	\$1.70
* FL13902	Harness (Not Shown).....	\$16.00
FL13911	Main Drive Gear.....	\$6.65
FL13918-01	Plug, BLFC, Plastic.....	\$15.30
* FL13953	Cover Label - Program Wheel.....	\$2.15
* FL13955	Front Label - Beige.....	\$17.65
* FL13957	Tape Stripe - Beige.....	\$5.75
* FL13958	Front Label - Silver.....	\$18.10
* FL13960	Tape Stripe - Silver.....	\$6.75
* FL13961	Label, 24K.....	\$0.00
FL13969	Label, 18K.....	\$0.00
FL13971	Label, 36K.....	\$0.00
* FL14007	Decal - Time Of Day.....	\$1.70
FL14038	Water Meter Cover.....	\$153.40
* FL14039	Program Wheel Assm, TwinFlo 100.....	\$21.40
FL14043	Meter Cable Assm, 8.25".....	\$32.85
* FL14045	Decal, Instructions.....	\$2.80
* FL14087	Insulator.....	\$1.25
* <i>FL14104</i>	<i>Discontinued from Fleck</i>	
* <i>FL14175</i>	<i>Discontinued from Fleck</i>	
* FL14176	Valve Position Dial - Standard.....	\$12.50
FL14177	Knob - Manual Regeneration, 5600.....	\$5.50
<i>FL14202</i>	<i>Discontinued from Fleck</i>	
* FL14207	Knob Label - Silver.....	\$2.95
* <i>FL14213</i>	<i>Discontinued from Fleck</i>	
* FL14239	Hardness Label, 48k.....	\$0.00
* FL14241	5600 Spacer.....	\$1.90
FL14241-01	Spacer, Hot Water.....	\$14.65
FL14253	Retainer, Clutch Spring.....	\$3.70
* <i>FL14254</i>	<i>Discontinued from Fleck</i>	
* FL14265	Spring Clip.....	\$9.00
FL14276	Spring, Meter Clutch.....	\$2.35
* <i>FL14278</i>	<i>Discontinued from Fleck</i>	
* FL14309	Retainer, Piston Rod.....	\$2.95
FL14364-01	Dist. Tube Pilot, 1.050".....	\$35.10
FL14381	Skipper Wheel Assy, 12 Day.....	\$36.25
* FL14430	Screw, 6 x 1/4" Hex Head.....	\$0.70
* FL14451	Piston, 2750.....	\$60.30
FL14452	Piston Rod, 2500.....	\$17.10
FL14457	Spring - Detent.....	\$0.55
* FL14673	Dist. Tube Pilot, 13/16" HW.....	\$39.40

* FL14678	Power Cord, 220v U.S.	\$37.90
FL14716	Meter Cap Assy, 3/4" - 2" ET	\$266.40
FL14716-01	Meter Cap Assy, 3" ET	\$266.40
* FL14749	2750 Valve Body	\$275.40
* FL14750	<i>Discontinued from Fleck</i>	
* FL14751	<i>Discontinued - Coupling</i>	
* FL14752	Piston - No Hard Water Bypass	\$222.95
* FL14753	Spacer	\$15.20
* FL14754-00	End Plug Assm - (White)	\$30.15
* FL14754-10	End Plug Assm - No Hard Water Bypass (Black)	\$48.70
* FL14757	Piston	\$206.60
* FL14758	Piston Rod	\$57.85
FL14759	Piston Drive Link	\$10.25
* FL14769	Motor Bracket	\$42.75
* FL14770	Back Plate	\$42.40
FL14775	Drive Cam	\$11.80
FL14784	Connecting Rod Bearing	\$5.95
FL14795	Brine Valve Piston	\$47.60
FL14797	Brine Valve Stem	\$16.90
FL14798	Connecting Rod Bearing	\$11.25
* FL14800-02	Cover	\$37.70
FL14801-03C	Injector Nozzle, 3C Yellow	\$6.40
FL14801-04C	Injector Nozzle, 4C Green	\$6.40
FL14801-05C	Injector Nozzle, 5C White	\$6.40
FL14801-06C	Injector Nozzle, 6C Red	\$6.40
FL14802-03C	Injector Throat, 3C Yellow	\$6.40
FL14802-04C	Injector Throat, 4C Green	\$6.40
FL14802-05C	Injector Throat, 5C White	\$6.40
FL14802-06C	Injector Throat, 6C Red	\$6.40
FL14803	<i>Discontinued from Fleck</i>	
FL14804	Screw, Hex Head 18-8 #10-24	\$5.40
FL14805	Injector Body Gasket	\$1.25
FL14811	O-Ring, 1700 Brine Valve	\$2.35
FL14812	O-Ring Coupling	\$3.60
* FL14813	Spring Clip	\$9.65
* FL14818	Piston Rod Snap Ring	\$9.65
FL14822	Motor Lead Wires - Pigtail	\$61.00
* FL14827	<i>Discontinued from Fleck</i>	
FL14860	Skipper Wheel Assm - 7 Day	\$36.25
FL14864	2nd Tank Adapter	\$284.30
* FL14884	<i>Fleck Stainless Steel Backplate - Discontinued from Fleck</i>	\$80.30
FL14896	Geneva Wheel	\$10.25
* FL14906	<i>Discontinued from Fleck</i>	
* FL14910	Cable Assembly, Ext.	\$31.95
* FL14917	Retaining Ring	\$4.85
FL14919	9000 Upper Piston Rod	\$39.40
FL14920	9000 Lower Piston Rod	\$40.05
* FL14921	Piston Rod Link, Upper	\$13.75
FL14922	O-Ring - 035, 3900 Piston	\$8.00
* FL14923	Micro Switch Screw-#4-40 x 1"	\$0.70



* FL14924	Strain Relief (Not Shown).....	\$2.35
* FL14925-02	Brine Valve Stem.....	\$36.00
FL14926	Quad-Ring - Piston Rod.....	\$3.40
* FL14927	NOT AVAILABLE - Use FL18738.....	\$0.00
* FL14928	Discontinued from Fleck.....	\$0.00
FL14968	10½" Meter Cable, 2510	\$35.75
* FL15019	Piston Rod Link, Lower.....	\$12.05
* FL15055	Main Drive Gear.....	\$11.25
* FL15066	Ball 1/4" Dia. Delrin.....	\$1.00
FL15078-01	Adapter Assm. 1" Coupling w/O-Ring.....	\$9.10
* FL15110	Discontinued from Fleck	
* FL15112	Seal.....	\$24.05
* FL15114	3150 Valve Body Only.....	\$1,228.50
* FL15117-01	3150 4" Threaded Mount Adapter.....	\$185.10
* FL15120-01	Bracket - Motor Mounting.....	\$144.70
* FL15125	Piston Rod.....	\$104.75
FL15127-04	Injector Throat, #4 Green.....	\$78.20
FL15127-05	Injector Throat, #5 Red.....	\$78.20
FL15127-06	Injector Throat, #6 White.....	\$78.20
FL15127-07	Injector Throat, #7 Blue.....	\$78.20
FL15127-08	Injector Throat, #8 Yellow.....	\$78.20
* FL15127-09	Injector Throat, #9 Green.....	\$83.45
* FL15127-10	Injector Throat, #10 Black.....	\$78.20
FL15128-04	Injector Nozzle, #4 Green.....	\$24.65
FL15128-05	Injector Nozzle, #5 Red.....	\$24.65
FL15128-06	Injector Nozzle, #6 White.....	\$24.65
* FL15128-07	Injector Nozzle, #7 Blue.....	\$24.65
FL15128-08	Injector Nozzle, #8 Yellow.....	\$24.65
* FL15128-09	Injector Nozzle, #9 Green.....	\$26.35
* FL15128-10	Injector Nozzle, #10 Black.....	\$24.65
FL15131	Back Plate, 9000.....	\$101.80
* FL15132	Discontinued from Fleck	
FL15133	Drive Gear, Assembly, Upper.....	\$9.65
FL15134	Driven Gear, Assembly, Lower.....	\$9.55
FL15135	Drive Gear.....	\$27.00
FL15137	Machine Screw, 10-24 x 3/8.....	\$0.90
FL15150	Meter Cover, 3/4 Ext. Range	\$216.80
* FL15151	Screw - Knob.....	\$0.55
FL15168	Piston, 2500	\$42.75
* FL15172	Screw, Flat Head #4-40.....	\$0.80
* FL15173	Discontinued from Fleck.....	\$0.00
* FL15175	Position Decal.....	\$5.65
* FL15177	Flow Control Housing, 3/4 X 1/2	
* FL15199	Discontinued from Fleck	
* FL15202	Wiring Harness - Drive.....	\$23.50
* FL15203	Wiring Harness - Timer.....	\$33.75
FL15210	O-Ring - Top of "Park" Tank.....	\$20.15
FL15215	Fleck Inj Body, 9000.....	\$19.15
FL15216	Meter Cable Assy, 15.25".....	\$54.80
FL15218	Meter Cap Assembly	\$322.20

* FL15223	Cycle Actuator Gear.....	\$7.85
* FL15224-01	Drive Gear, Program Wheel.....	\$10.25
* FL15226-6	Terminal Block, 260-206.....	\$137.25
* FL15227	Actuator Plate.....	#N/A
* FL15228	Spring.....	\$34.20
* <i>FL15236</i>	<i>(Use Part No FL19367) Screw Assembly</i>	
FL15237	Meter Cover Assembly, 1 Ext. Range.....	\$379.80
* <i>FL15243</i>	<i>Seal, O-Ring, -028</i>	
* FL15246	O-Ring - 116.....	\$1.25
* FL15250	Label, Terminal Strip.....	\$4.05
FL15310	Brine Valve Spring.....	\$3.25
FL15314	Micro Switch.....	\$18.80
FL15320	Micro Switch.....	\$18.80
<i>FL15323</i>	<i>Discontinued from Fleck</i>	
* FL15331	Screw, Hex Washer #10-24.....	\$1.15
* FL15348	O-Ring - 563.....	\$0.55
* <i>FL15354-01</i>	<i>Ground Wire, 4"</i>	
* FL15368	Cable Guide.....	\$18.35
FL15372	Washer, Thrust.....	\$1.80
FL15374	Impeller Assm., 2" Meter.....	\$29.70
* FL15407	Washer, Plain #4.....	\$3.60
FL15413	Male Ell, 3/8 MIPT x 1/2 Tube.....	\$13.95
FL15414	Nut & Sleeve Assm. 1700 Brining.....	\$8.10
FL15415	Tube Insert - 1/2".....	\$2.15
FL15416	Tube, Brine 2900.....	\$39.40
* <i>FL15424</i>	<i>Spring, Detent - Discontinued from Fleck</i>	
FL15425	Meter Cable Assm. - 3/4" Meter.....	\$38.90
* FL15432	Impeller Shaft, Stainless Steel.....	\$41.75
FL15441	Cable Guide Assm. - 2750 Mtr.....	\$24.05
FL15452-90	Meter Cover, 90 Degree.....	\$222.95
* <i>FL15465</i>	<i>Label, Caution - Discontinued from Fleck</i>	
* <i>FL15471</i>	<i>Discontinued from Fleck</i>	
* <i>FL15478</i>	<i>Label, Valve Position Dial</i>	
<i>FL15493</i>	<i>Obsolete, Use Part no. FL41754</i>	
<i>FL15494</i>	<i>5600 L-Back Plate, Meter only</i>	
<i>FL15494-01</i>	<i>5600 L-Back Plate, Timeclock</i>	
FL15495	Fleck Meter Cable, 13.87".....	\$38.90
FL15513	Meter Cable Assm. 17.5".....	\$53.80
FL15532	Fleck Impeller Shaft Seal.....	\$23.50
FL15625	Cable Guide Assm. - 2500 Mtr.....	\$22.95
* FL15692	Spacer.....	\$0.70
FL15707	O-Ring, Meter Cap.....	\$6.20
* FL15713	Mounting Plate.....	\$23.20
* <i>FL15742</i>	<i>Screw, Cover</i>	
* FL15806	Hole Plug,.....	\$1.00
* FL15810	Retaining Ring.....	\$2.50
* <i>FL15820</i>	<i>Discontinued - O-Ring , -134</i>	
* <i>FL15833</i>	<i>Discontinued - Spacer</i>	
* FL15879	Cable Guide, Assembly.....	\$22.95
* <i>FL15926</i>	<i>Discontinued from Fleck</i>	

Fleck Parts



* FL15936	Wire Harness #7 - Lag Valve (Use #FL40403)	
* FL15938	Wire Harness #7 - Lead Valve (Use FL40404)	
* FL15956	Adjusting Disc.....	\$3.40
* FL15967	Gallon Label 3/4" Meter.....	\$6.75
FL15968	Gallon Label, 3/4 Ext. Range.....	\$6.75
* FL15969	Gallon Label 1" Meter.....	\$6.75
FL15970	Gallon Label, 1 Ext. Range.....	\$6.75
FL15971	Gallon Label, 1-1/2" Ext. Range 0 - 50,000 gallon.....	\$6.75
* FL15973	Label, Gallons Ext.....	\$8.55
FL16045	Drive Pinion.....	\$12.25
FL16046	Drive Gear.....	\$47.15
* FL16047	Drive Link.....	\$15.75
* FL16048	Bearing - Drive Link.....	\$17.10
* FL16050	Retaining Ring.....	\$6.55
* FL16051	Retaining Ring, Bowed "E".....	\$7.30
FL16052	Bushing.....	\$9.65
* FL16053	Bracket, Brine Side.....	\$29.05
* FL16054	<i>Discontinued from Fleck</i>	
* FL16059	Washer.....	\$6.40
* FL16067-02	3900 Valve Body.....	\$2,221.45
* FL16068	Seal.....	\$18.00
* FL16069	Spacer - Narrow.....	\$18.55
* FL16070	Spacer - Wide.....	\$28.45
* FL16071	Piston.....	\$252.00
* FL16072	Piston Rod.....	\$104.50
* FL16074	Coupling.....	\$282.25
* FL16076	O-Ring - 042.....	\$5.65
* FL16077	O-Ring - 140.....	\$5.05
FL16078	O-Ring - 149.....	\$5.40
* FL16080	<i>Seal, O-Ring, -032</i>	
* FL16082	Piston-No Hard Water Bypass.....	\$279.00
* FL16086	Bracket - Motor Mounting.....	\$113.85
* FL16088	Pipe Plug - 2" NPT, Use Part Number FL16088-01.....	\$102.70
* FL16092	<i>Piston, Obsolete</i>	
* FL16098	Washer, Nylon.....	\$0.70
* FL16101	<i>Seal, Obsolete Part Number</i>	
* FL16103	<i>Insulator, Not a Sellable Item</i>	
FL16123	Tube Nut - 1/2".....	\$5.20
FL16124	Delrin Sleeve - 1/2".....	\$1.45
* FL16130	Piston, High Backwash.....	\$187.15
* FL16140	<i>Adapter, 1/2"T to 1/4"P**, Not a Sellable Item</i>	
* FL16141	Spacer, Hot Water.....	\$160.15
* FL16142	<i>Spacer, Hot Water, Not a Sellable Item</i>	
FL16174	Silicone, 2 oz.....	\$55.45
* FL16218	Program Wheel Cover.....	\$12.70
* FL16221	Air Dispenser.....	\$11.50
* FL16250-01	2850 Valve Body, Mach.....	\$584.35
* FL16255	Tank Adapter - 6" - 8".....	\$394.20
* FL16257	Flange Segment.....	\$148.60
* FL16258	Flow Dispenser.....	\$220.90

FL16279	Impeller Shaft.....	\$62.80
* FL16340	Injector Body.....	\$175.30
* FL16341-01	Injector Cover.....	\$91.60
* FL16341-02	Cover.....	\$66.40
FL16345	O-Ring - 362.....	\$29.70
* FL16346	Nut, 5/16 -18.....	\$1.35
* FL16387	Pipe Plug, 1/2 NPT.....	\$12.40
* FL16394	O-Ring -029.....	\$0.80
* FL16395	End Plug Assembly.....	\$29.70
* <i>FL16395-01</i>	<i>End Plug Assembly-Hot Water - Discontinued from Fleck</i>	
* FL16398-01	End Plug Assembly.....	\$86.85
* FL16399-01	End Plug Assembly - White.....	\$71.20
* FL16399-11	End Plug Assembly - Black No Hard Water Bypass.....	\$71.20
FL16400	Meter Cap Assy, 3900, Std.....	\$539.00
* <i>FL16427-04</i>	<i>Motor Lead Wire (Not Shown), Obsolete</i>	
FL16433	Micro Switch, Program.....	\$18.45
* FL16436	Piston Rod.....	\$19.25
FL16455	O-Ring -347.....	\$17.65
* FL16482	Flange Segment.....	\$227.05
* FL16483	Flange Ring.....	\$419.80
FL16484	O-Ring -442.....	\$12.80
* FL16493	Hole Plug, 7/8 Dia. (Not Shown).....	\$1.25
* FL16494-03	Cam Assm - 3150/3900 after Brine Refill.....	\$144.65
* FL16494-05	Cam Assm - 3150/3900 Service after Rapid Rinse.....	\$144.65
* FL16495	Cam Assembly, 3900 Lower.....	\$109.25
FL16497-01	Brine Stem Assembly.....	\$113.10
* FL16498-01	Stem Guide Assm.....	\$177.35
* <i>FL16500</i>	<i>Discontinued from Fleck</i>	
* FL16517	Screw.....	\$4.85
FL16575	3" Impeller Assembly.....	\$231.15
* FL16589	Spacer, Hot Water.....	\$4.40
* FL16590	Piston Rod Retainer.....	\$5.65
* FL16638	Spacer, Hot Water.....	\$37.55
* FL16715	Valve Position Dial - Filter.....	\$12.05
* FL16717	Discontinued from Fleck	
* FL16735	12 gpm Washer, Flow Control.....	\$6.10
* FL16736	15 gpm Washer, Flow Control*.....	\$6.10
FL16800	O-Ring - 238.....	\$10.70
* FL16821	Cable Guide Assm (Not Shown).....	\$22.95
FL16916-01	Second Tank Adapter, 9500.....	\$297.00
* <i>FL16919</i>	<i>Discontinued from Fleck</i>	
* FL16922	Bracket, Brine Valve Mounting.....	\$14.95
FL16929	Fleck Brine Valve Stem, Coated.....	\$38.15
* <i>FL16930</i>	<i>Label, Instructions, Not a Sellable Item</i>	
FL16944	Drive Motor, 24V, 60hz, 2 rpm.....	\$127.35
* <i>FL16955</i>	<i>Discontinued from Fleck</i>	
* FL16956	Lower Piston Rod.....	\$49.40
* FL16957	Upper Piston Rod.....	\$51.85
* FL16958	Brine Valve Stem.....	\$41.05
FL16959	1700 Brine Valve Tube, 9500.....	\$61.20

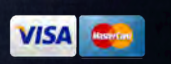
Fleck Parts



* FL16960	Brine Valve Tube.....	\$5.85
FL17052	Coupling, Pipe.....	\$55.45
* FL17054	Screw, #4-40, Not a Sellable Item.....	
FL17061	Coupling Retainer.....	\$24.40
* FL17092	Spacer Disk.....	\$17.10
* FL17110	Upper Piston, 9500.....	\$100.25
* FL17111	Lower Piston, 9500.....	\$231.15
<i>FL17181</i>	<i>Discontinued from Fleck</i>	
* FL17212	End Plug Assembly.....	\$19.60
* <i>FL17212-01</i>	<i>End Plug Assembly, Hot Water, Not a Sellable Item</i>	
* FL17218	Piston For 6600 & 6700.....	\$57.85
FL17224	O-Ring -224.....	\$5.05
* FL17353	900 Copper Elbow.....	\$106.30
* FL17421	Plug, Heyco.....	\$1.25
* FL17470	Cable Guide Assm. - 2850 Mtr.....	\$27.00
* FL17513	Spring Clip.....	\$4.15
* <i>FL17611</i>	<i>Use Fleck Part No: 18763</i>	
FL17723	Drive Pinion Clutch.....	\$7.85
FL17724	Drive Pinion.....	\$9.65
FL17744	Meter Cable Assm., 1½" Std.....	\$59.40
* FL17776	Injector Body, 1600.....	\$18.00
FL17776-01	Injector Body & Cap, 1600.....	\$19.60
FL17777	Injector Body, 1700/1710.....	\$37.15
* FL17797	Bracket - Switch Mounting.....	\$29.70
* <i>FL17870</i>	<i>Label, Capacity Gallons, Not a Sellable Item</i>	
* FL17904	Hole Plug (not shown).....	\$0.55
FL17906	Guide, Brine Valve Stem.....	\$5.20
FL17907	2510 Brine Flow Control Fitting.....	\$18.80
FL17967	Fleck Fitting Assembly, Lique Tight, Black.....	\$16.90
* <i>FL17978</i>	<i>Discontinued from Fleck</i>	
* FL17996	Air Dispenser, 1700 (Not Shown).....	\$4.30
* <i>FL18229</i>	<i>Discontinued from Fleck</i>	
* <i>FL18230</i>	<i>Discontinued from Fleck</i>	
* <i>FL18233</i>	<i>Discontinued from Fleck</i>	
* <i>FL18234</i>	<i>Discontinued from Fleck</i>	
* <i>FL18235</i>	<i>Discontinued from Fleck</i>	
* <i>FL18259</i>	<i>Cover, Black (Specify color), Not a Sellable Item</i>	
FL18260-00	ProFlo Front Cover, Smoke.....	\$31.75
* FL18261	Screw, Hex Head, 10-24 x 13/16.....	\$1.25
* FL18262	Screw, Hex Head, 10-24 x 1.....	\$1.25
* FL18264	Spacer, End.....	\$3.25
* FL18265	Piston, Downflow, 5000.....	\$93.85
* <i>FL18266</i>	<i>Piston, Upflow, 5000, Not a Sellable Item</i>	
* <i>FL18267</i>	<i>Piston Rod, Not a Sellable Item</i>	
* FL18268	End Plug Assembly.....	\$14.75
* FL18271	Screen, Injector, 5000.....	\$1.00
FL18272-0	Injector Assembly, 1610, #0 Red.....	\$6.75
FL18272-1	Injector Assembly, 1610, #1 White.....	\$6.75
* FL18273	Vortex Generator.....	\$0.80
* FL18274-	Injector Nozzle (Specify Size).....	\$1.45

* FL18275-	Injector Throat (Specify Size).....	\$1.90
* FL18275-4	Injector Throat #4, Green.....	\$4.30
* FL18276	Plug, Injector, Softener.....	\$6.65
* FL18277	Injector Cap.....	\$10.45
* FL18279	<i>Discontinued from Fleck</i>	
* FL18301	<i>Discontinued from Fleck</i>	
FL18303	O-Ring, -336.....	\$5.20
* FL18308	<i>Discontinued from Fleck</i>	
FL18312	Drain Retainer.....	\$1.35
* FL18563	Spring, Idler Shaft.....	\$0.70
* FL18584-02	Adapter, Side Mount, 3900.....	\$1,385.25
FL18602	Fitting Package, 900 to 1700.....	\$13.60
FL18603	Fitting Package, 2350 to 1700.....	\$16.75
* FL18619	Washer.....	\$1.70
FL18697-13	Environmental Backplate - 1500 to 2900.....	\$212.75
FL18697-15	Fleck Backplate - NT & XT.....	\$122.75
* FL18698	Nut & Sleeve Assm. 3/8" Hot Wtr.....	\$4.85
FL18702	Tube Fitting, Straight.....	\$36.70
* FL18703	Brine Tube.....	\$29.95
* FL18713	Brine Valve Body.....	\$220.90
* FL18728	Nut, Clip, #8-32.....	\$2.35
FL18737	Fleck Motor 24 Volt 50/60 1 rpm 90/91 SE.....	\$235.25
FL18738	Fleck Motor 120 Volt 1 Rpm 50/60 Hz, 3.5VA, 0.043 AMP.....	\$235.25
* FL18739	Fleck Motor 220 Volt 1 Rpm 50/60 Hz, 2.5VA, 0.02 AMP.....	\$235.25
* FL18743	<i>Discontinued - Use Part Number FL18743-1</i>	
FL18743-1	5600 Tmr/Drv Motor 120/60, Brass Gear.....	\$96.85
FL18746	<i>Fleck Bearing Connecting Rod for 2900 Valve, Obsolete</i>	
* FL18755	O-Ring, -201.....	\$1.25
* FL18770-01	<i>Discontinued from Fleck</i>	
* FL18774	<i>Discontinued from Fleck</i>	
* FL18776	<i>Discontinued from Fleck</i>	
* FL18777	<i>Discontinued from Fleck</i>	
* FL18779	<i>Discontinued from Fleck</i>	
FL18781	<i>Discontinued from Fleck</i>	
* FL18782	<i>Discontinued from Fleck</i>	
* FL18783	<i>Discontinued from Fleck</i>	
FL18784	Fleck Transfer Crank, TwinFlo 100 - Discontinued.....	\$1.70
* FL18785	<i>Discontinued from Fleck</i>	
* FL18786	<i>Discontinued from Fleck</i>	
* FL18787	<i>Discontinued from Fleck</i>	
* FL18792	<i>Discontinued from Fleck</i>	
* FL18796	<i>Discontinued from Fleck</i>	
* FL18798-01	<i>Discontinued from Fleck</i>	
* FL18802	<i>Discontinued from Fleck</i>	
* FL18803	Spacer.....	\$5.05
* FL18807	<i>Discontinued from Fleck</i>	
* FL18808	<i>Discontinued from Fleck</i>	
* FL18809	<i>Discontinued from Fleck</i>	
* FL18810	<i>Discontinued from Fleck</i>	
* FL18815	<i>5000 Valve Body, 1" Dist., Downflow</i>	

Fleck Parts



FL18824	Fleck Motor 220v, 50hz, 1/30rpm - <i>Discontinued</i>	\$130.50
FL18824-1	Motor, 230V, 50HZ 1/30 RPM	\$158.50
* FL18870	<i>Discontinued from Fleck</i>	
* FL18871	<i>Discontinued from Fleck</i>	
* FL18874	Quad Ring - 118 - <i>Discontinued</i>	\$5.65
* FL18875	<i>Discontinued from Fleck</i>	
FL18876	Quad Ring - 123 - <i>Discontinued</i>	\$7.65
* FL18877	<i>Discontinued from Fleck</i>	
* FL18897	<i>Discontinued from Fleck</i>	
* FL18898	<i>Discontinued from Fleck</i>	
* FL18899	<i>Discontinued from Fleck</i>	
* FL19004	<i>Discontinued from Fleck</i>	
* FL19005	<i>Discontinued from Fleck</i>	
* FL19054	Seal, O-Ring, -124	\$4.05
* FL19055	<i>Discontinued from Fleck</i>	
* FL19056	<i>Discontinued from Fleck</i>	
* FL19057	<i>Discontinued from Fleck</i>	
FL19061	Fleck Gear/cam Assembly, Downflow - <i>Discontinued</i>	\$35.15
* FL19062	<i>Discontinued from Fleck</i>	
* FL19111	<i>Discontinued from Fleck</i>	
FL19121-01	SE Meter Cable	\$44.60
FL19121-08	Fleck Meter Cable Assembly, NT, 35" with Connector	\$49.80
FL19151	Flow Washer, 1.0 gpm	\$5.65
FL19152	Flow Washer, 0.8 gpm	\$5.50
FL19169	Motor, 24V, 60 Hz, 1/15 RPM	\$135.90
FL19197	Slip Ring	\$3.15
* FL19205	24 Hour Gear Assembly, Silver 5600	\$16.00
* FL19205-01	<i>Discontinued from Fleck</i>	
* FL19210	Program Wheel Assy, 3200 Std.	\$6.30
* FL19210-02	Program Wheel Assy, 9000 1/15	\$19.90
* FL19210-05	Program Wheel Assy, 9000/3230	\$19.90
* FL19228-01	Adap. Coup. - 5600 w/O-Ring	\$5.40
* FL19237-01	<i>Discontinued from Fleck</i>	
* FL19276	End Plug Assm - Hot Water	\$284.40
FL19322	Adapter Base (2-1/8 – 8 Thd)	\$73.60
FL19328	2510 Valve Body	\$104.95
* FL19351	<i>Discontinued from Fleck</i>	
* FL19353	<i>Discontinued from Fleck</i>	
* FL19354	<i>Discontinued from Fleck</i>	
* FL19355	<i>Discontinued from Fleck</i>	
* FL19367	Cover Screw Assembly	\$3.15
* FL19471-02	<i>Discontinued from Fleck</i>	
FL19569	Clip, SXT Flow Meter	\$3.50
* FL19604-12	<i>Discontinued from Fleck</i>	
* FL19605	<i>Discontinued from Fleck</i>	
FL19608-15	Dispenser, Commercial 1-1/2" 2850/2900/9500	\$19.80
FL19625	GFN Nut	\$5.65
* FL19633	<i>Discontinued from Fleck</i>	
FL19659-1	Motor, 24v., 1/30 rpm	\$107.00
* FL19667	<i>Discontinued from Fleck</i>	

<i>FL19674</i>			
* FL19691	Plug, .750 Diameter, Recessed, Black.....		\$0.70
* FL19697-03	Discontinued from Fleck.....		\$0.00
FL19791-01	Meter Cable, 5600 SE.....		\$35.75
FLM-SS-CABLE-30	30" Elec Meter Cable for Stainless Steel Meters.....		\$60.65
FLM-SS-CABLE-100	100" (8.3 ft) Elec Meter Cable for Stainless Steel Meters.....		\$61.00
FLM-SS-CABLE-304	304" (25 ft) Elec Meter Cable for Stainless Steel Meters.....		\$130.40
* <i>FL19877</i>	<i>Discontinued from Fleck</i>		
* FL19889	Circuit Board Housing, TwinFlo100.....		\$14.40
* <i>FL19890</i>	<i>Discontinued from Fleck</i>		
FL19936	Base Seal, 2510.....		\$14.50
FL19944	2900 Service Manual.....		\$4.60
* FL19998	Clamp Pivot.....		\$12.40
FL40027	1650 Brine Valve J-Tube.....		\$7.85
FL40064	1650 Brine Valve J-Tube.....		\$7.85
FL40096-02	Dial 2AM Regen Assembly, Black.....		\$17.10
* <i>FL40231</i>	<i>Discontinued from Fleck</i>		
* <i>FL40232</i>	<i>Bracket - Discontinued from Fleck</i>		
* FL40264	Back Plate-Stainless Steel, 2750, 2850, 2900.....		\$103.15
FL40384	Drive Motor 120v, 50 Hz.....		\$141.55
FL40387	2900 Lower Drive Motor, 115V, 60 Hz.....		\$194.00
FL40389	Fleck Drive Motor, 220v, SP.....		\$220.90
FL40390	Fleck Drive Motor, 220v, SP.....		\$222.95
FL40392	3900 Drive Motor, 115V, 60 Hz.....		\$212.75
FL40400	Drive Harness.....		\$21.15
FL40422	Wire Nut, Tan.....		\$1.00
FL40538	O-Ring Distributor Retainer, 32mm, 7000, 5810/12.....		\$1.35
FL40576	Clip for 7000 Valve.....		\$1.85
<i>FL40576-01</i>	<i>H Clip for 5810/5812 Valve</i>		
FL40577	Turbine Meter Assembly, 7000 SXT Valve.....		\$153.20
* FL40941	Wire Harness, Upper Drive.....		\$49.15
FL40943	Fleck Wire Harness, Lower Drive w/Strain Relief, 3200NT.....		\$64.90
FL40945	Clip, Brine Retaining, 7000, 5810/12 Valve.....		\$1.80
FL40946	Clip, Drain Retaining 7000, 5810/12 Valve.....		\$1.70
FL40947-02	Brine Valve Plug w/O-Ring.....		\$12.80
FL40950	Injector Screen, 7000 Valve.....		\$6.10
FL40951	7000 Bypass O-Ring.....		\$3.15
FL40959-01	Fleck Plate, Strain Relief, Nut.....		\$3.60
FL40968	Motor, 7000 Valve, Culligan Only.....		\$117.70
FL40979	Lower Support Plate, 7000 Valve.....		\$13.95
<i>FL40981</i>	<i>Transformer, US, 24V, 9.6VA, 7000 Valve - Discontinued from Fleck</i>		
* <i>FL41034</i>	<i>OBSOLETE - Transformer, 120/24V, 108A, 3200NT</i>		
FL41056	Nut Assy, 1/2".....		\$16.45
<i>FL41428</i>	<i>2900s Valve Body, Machd, NPT U.S. Tap</i>		
FL41543	Fleck Drive Motor, 115V 50/60HZ, 2510 w/Bracket.....		\$162.60
FL41545	Drive Motor, 230v, 50/60HZ FAM 1.....		\$171.80
FL41754	Fleck Spring Pin 1/16" x 5/8" Stainless Steel.....		\$0.55
<i>FL42250</i>	<i>Drive Motor, 120v, 1 rpm, 50/60 hz - Discontinued</i>		
<i>FL42349</i>	<i>Motor, 24V, 2 rpm, 7000 - Discontinued, Replaced w/FL40968</i>		
FL42466-11	Fleck 3200 NXT Tmer.....		\$516.60



FL42561	Fleck Silicone Packet.....	\$2.05
FL42579	Drive Motor, 24v DC, 50-60hz FAM 1.....	\$170.30
* FL42777	Fleck SXT Timer Assembly for 9000/9100/9500 Valve.....	\$325.25
FL42778	Fleck SXT Timer Assembly for 2510/2750/2850 Valve.....	\$319.10
<i>FL43011-01</i>	<i>Seal, EPDM, 65 Duro - Discontinued, Replaced w/FL13242-02</i>	
FL43262-00	Bezel, Blue,2815,5800.....	\$5.65
FL43262-01	Bezel, Black, 2815, 5800.....	\$5.65
FL43262-02	Bezel, Silver, 2815, 5800.....	\$36.70
<i>FL43407</i>	<i>Bezel, 5800, Environmental - Not a Sellable Item</i>	
FL43719	Injector Screen, 5810/12.....	\$7.55
FL43773	Housing, Internal DLFC.....	\$6.35
<i>FL43779</i>	<i>Fleck Transformer, 2510SE</i>	
<i>FL43822-01</i>	<i>Label, Injector, #1 - Not a Sellable Item</i>	
<i>FL43822-02</i>	<i>Label, Injector, #2 - Not a Sellable Item</i>	
<i>FL43822-03</i>	<i>Label, Injector, #3 - Not a Sellable Item</i>	
<i>FL43822-04</i>	<i>Label, Injector, #4 - Not a Sellable Item</i>	
<i>FL43822-05</i>	<i>Label, Injector, #5 - Not a Sellable Item</i>	
<i>FL43822-06</i>	<i>Label, Injector, #6 - Not a Sellable Item</i>	
FL43978	Motor, 24V, 60Hz, 1/30 RPM, Plug.....	\$163.75
FL15M-SS-UNION	Fitting, Union, 1.5", NPT.....	\$186.75
FL44025	Fitting, Union, 1.5", BSP.....	\$171.50
FL44071	Injector Screen, 2815.....	\$8.50
FL44114	Motor, 24V, 50Hz, 1/30 RPM, PLUG.....	\$163.75
FL44143	Power Supply. AC.....	\$81.10
FL44144	Transformer, 2510,2750,2850,2900,3150,39.....	\$143.10
FL44149	Autotrol Transformer.....	\$22.80
FL44150-01	Injector Assy, 1720, #1 VIOLET.....	\$9.75
FL44150-02	Injector Assy, 1720, #2 BLUE.....	\$17.70
FL44150-03	Injector Assy, 1720, #3 YELLOW.....	\$17.70
FL44150-04	Injector Assy, 1720, #4 GREEN.....	\$9.75
FL44150-05	Injector Assy, 1720, #5 WHITE.....	\$17.70
FL44150-06	Injector Assy, 1720, #6 RED.....	\$17.70
FL44164	Power Supply, Intl 24V DC 3M, 2A.....	\$113.20
FL44182	Retainer, DLFC, 2815.....	\$21.40
FL60002-27	500 Air Check with 27" Tube.....	\$5.70
FL60002-32	500 Air Check with 32" Tube.....	\$5.65
FL500	500 Residential, 3/8".....	\$9.10
<i>FL60002-36</i>	<i>500 Air Check with 36" Tube</i>	
FL500-48	500 Air Check with 48" Tube.....	\$8.80
FL900	900 Commercial, 1".....	\$45.55
FL900-HW	900 Hot Water Air Check.....	\$83.30
FL60010-100	1650 BLFC, 1.0 GPM, Plastic.....	\$30.60
FL60010-50	1650 BLFC, .50 GPM Plastic.....	\$30.60
* FL60010-25	1650 BLFC, .25 GPM Plastic.....	\$30.60
FL60011	1650 Brine Valve Less BLFC.....	\$70.50
FL2310	2310 Safety Valve, PVC.....	\$17.30
FL60016-01	Brine Valve, 7000 Valve.....	\$37.35
FL60020-100	Brine Line Flow Control, 1.0.....	\$48.85
FL60020-50	Brine Line Flow Control, .50.....	\$45.65
FL60020-25	Brine Line Flow Control, .25.....	\$48.85

* FL60022-X

FL60026-SAN
FL60028
FL60029
FL60030

BLFC Button, Specify Size

400A/2350 Hot Water Float Assy. \$32.40
2300 Float & Rod (White) 30" \$11.40
1600 Short Stem Brine Valve \$90.70
1600 Long Stem Brine Valve - Discontinued from Fleck

* FL60031

FL60032
FL60032-001
FL60034-00
FL60034-2

Discontinued from Fleck

Brine Valve, 5600 \$19.80
Hot Water Brine Valve, 4650 \$25.60
1700 Brine Valve, Blank \$223.20
1700 Brine Valve, 2.0 \$223.20

FL60037-620
FL60037-630
FL60036-02
FL2350
FL60039-00

Fleck Brine Valve 9500/1600 .50 GPM \$84.80
Fleck Brine Valve 9500/1600 1.0 GPM \$84.80
Brine Valve, 1800, Design 3 \$520.50
2350 Safety Valve Only \$181.15
1700 Brine Valve, 9500, Blank \$257.75

FL60039-20
FL60055-51
FL60057-01
FL60058-01
FL60068

1700 Brine Valve, 9500, 2.0 gpm \$226.80
2900 Lower Drive Assembly, 120/60 \$273.60
3150, 3900 Upper Drive Assembly, System 5 or 7 \$513.80
3900 Lower Drive Motor Assembly, System 4, 120 Volt \$438.25
2310 Float & Rod (Grey) \$8.15

FL60080-00
FL60080-01
FL60084-01
FL60084-0021
FL60085

1600 Injector Assy, #0 Comp \$68.75
Injector Drain Assy, 2.4 DLFC/.50 BLFC \$62.50
Fleck Inj/Drain Assy. 2.4 DLFC/.50 BLFC \$129.50
Inj/Drain, #0, 1.5 DLFC, .25 BLFC \$129.50
2500 Meter Assy, 3/4 Standard Range \$313.20

FL60086
FL60086-50
FL60087
FL60088-180
FL60090

5600/9000 Meter Assy, 3/4 Standard Range \$214.20
6600/6700 Meter Assy, Electronic \$219.60
9000 Extended Range Meter Assy \$237.60
Fleck Meter Assem, 3/4" Dual Ports \$219.60
1500, 2500, 2510 & 2750 Piston \$77.60

FL60090-HF
FL60091-HF
FL60096-00

2750/2900 Piston Assembly \$108.80
2750 Hot Water Piston Assembly \$195.65
Discontinued from Fleck

* FL60098

FL60102-00
FL60102-031
FL60102-10
FL60102-20
FL60102-62
FL60102-71

Discontinued from Fleck

5600 Piston Assembly, Standard \$62.95
4650 Piston Assembly, Hot Water \$164.95
5600 Piston Assembly, Filter \$62.95
5600 Piston Assembly, Low Water \$63.30
56SE/6700 Piston Assembly, Upflow \$104.20
5600 SE Piston Assy, Downflow (Also 6600 DF) \$102.70

FL60103
FL60104
FL60105
FL60105-01
FL60106

2900 Piston, Lower Hard Water Bypass \$390.60
2900 Piston, Lower No Hard Water Bypass \$403.20
2850 Piston Assy, HWBP, Cold Water \$154.00
2850 Piston Assy, Hot Water \$572.75
3900, 3150 Piston Assembly, Std. \$284.40

* FL60106-01

* FL60106-10
FL60107-00
FL60107-10
FL60108

3150 Piston, HWBP, Hot Water 180 Degrees \$864.00
3150 Piston, Upflow \$286.20
3900 Piston, Lower Hard Water Bypassv \$554.10
3900 Piston, Lower No Hard Water Bypass \$569.20
9500 Piston Assembly, Top \$134.80

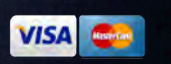
Fleck Parts



FL60108-01	9500 Piston Assembly, Upper, Hot Water.....	\$333.40
FL60109	9500 Piston Assembly, Lower.....	\$225.00
FL60109-01	9500 Piston Assembly, Lower, Hot Water.....	\$560.45
<i>FL60112</i>	<i>Piston Assembly, TwinFlo 100 - Discontinued</i>	
FL60113-01	3150 Piston Assembly, NHWBP, Downflow.....	\$611.60
FL60114-00	2850 Filter Piston Assy, Conversion, NHWBP.....	\$773.20
FL60114-01	2850 Piston Assembly, NHWBP, Cold Water.....	\$501.15
FL60114-03	2850 Piston Assembly, 1700/1710 Conversion, NHWBP.....	\$916.35
FL60115-00	5000 Piston Assembly, Downflow.....	\$114.65
FL60115-10	5000 Piston Assembly, Upflow.....	\$136.95
FL60120	Seal Kit, 5000 Valve.....	\$55.25
FL60121	1500, 2500, 2510 & 2750 Seal Kit.....	\$31.90
FL60122	Seal & Spacer Kit, 2500/2750/2750/2900 Upper, H/W.....	\$139.80
* <i>FL60123</i>	<i>Discontinued from Fleck</i>	
FL60125	5600, 6600, 6700 & 9000 Upper Seal Kit.....	\$28.05
FL60125-05	4650 Hot Water Seal & Spacer Kit.....	\$66.40
FL60125-15	5600 Silicone Seal & Spacer Kit.....	\$57.35
FL60125-HW	Fleck Seal & Spacer Kit 5600/9000 Top HW.....	\$90.90
FL60128	2900 Seal & Spacer Kit, Lower.....	\$66.85
FL60129	2850 Seal & Spacer Kit - Brass.....	\$157.30
* <i>FL60129-HW</i>	<i>2850 Seal Kit (Discontinued Use Part #FL60129)</i>	
FL60129-20	2850 Seal & Spacer Kit - Plastic.....	\$218.70
<i>FL60129-30</i>	<i>2850 Seal & Spacer Kit - Plastic Spacer, Chem Resistant Seal - Discontinued from Fleck</i>	
FL60131	3150 & 3900 Seal Kit, Upper.....	\$109.00
FL60131-10	3150 & 3900 Seal Kit, Upper, Silicone Chemical Resistant Seal.....	\$294.55
FL60131-01	3150 & 3900 Seal Kit, Upper, Hot Water, 180 Degrees.....	\$1,026.80
FL60132	3900 Seal & Spacer Kit, Lower.....	\$125.40
FL60133-01	Seal & Spacer Kit, 9500 Lower, Hot & Cold, Brass.....	\$232.20
FL60133-20	Seal & Spacer Kit, 9500 Lower, Hot & Cold, Plastic.....	\$345.60
FL60134	Seal & Spacer Kit, 9500 Upper Brass, Hot & Cold.....	\$112.05
FL60134-20	Seal & Spacer Kit, 9500 Upper Plastic, Hot & Cold.....	\$161.30
<i>FL60147</i>	<i>Seal & Spacer Kit, TwinFlo 100 Upper - Discontinued from Fleck</i>	
<i>FL60148</i>	<i>Seal & Spacer Kit, TwinFlo 100 Lower - Discontinued from Fleck</i>	
FL60160-00	Drive Cam, Rapid Rinse, White.....	\$38.35
FL60160-10	Drive Cam, Separate Time Fill, Black.....	\$38.90
FL60160-15	Drive Cam, Separate Time Fill, Blue, 2510/2750/2850/1500.....	\$38.90
FL60160-40	Drive Cam, Separate Time Fill, Gray, 2850S.....	\$63.25
<i>FL60171-01</i>	<i>Service kit, Motor, 9000/9500, 120v. - Discontinued from Fleck</i>	
FL60217-02	2900 Lower Cover, Black Environmental.....	\$64.35
* <i>FL60232-10</i>	<i>Discontinued from Fleck</i>	
FL60277-06	1800 Injector Assembly, #6 Downflow.....	\$428.15
FL60320-03	Auxiliary Micro Switch, 5600.....	\$20.25
* FL60303-13	3200 7-Day Timer, STF, 120/60.....	\$370.00
FL60304-13	3200 12-Day Timer, STF, No Adj, 120/60.....	\$166.50
FL60306-13	3210 Delay Timer, STF, 120/60.....	\$156.25
FL60306-13C	3210 Delay Timer, STF, 120/60.....	\$165.50
FL60320-02	Aux. Switch Assy, 3200/9000.....	\$47.15
FL60320-03	Aux. Switch Assy, 5600.....	\$22.25
FL60320-07	Aux. Switch Assy, 2500/2850.....	\$25.85
<i>FL60320-09</i>	<i>Switch Assy, 9000 Drive Cam</i>	

FL60320-12	Switch Assy, 2850 SPG Drive Motor.....	\$31.40
FL60350	Brine Valve Assy, 9000.....	\$27.80
FL60365-00	2750 Flow Ctrl Less Button.....	\$50.75
* FL60366-20	Brass DLFC 1" FIPT, 2.0 gpm.....	\$74.95
* FL60366-24	Brass DLFC 1" FIPT, 2.4 gpm.....	\$74.95
* FL60366-30	Brass DLFC 1" FIPT, 3.0 gpm.....	\$74.95
* FL60366-35	Brass DLFC 1" FIPT, 3.5 gpm.....	\$74.95
* FL60366-40	Brass DLFC 1" FIPT, 4.0 gpm.....	\$74.95
* FL60366-50	Brass DLFC 1" FIPT, 5.0 gpm.....	\$74.95
* FL60366-60	Brass DLFC 1" FIPT, 6.0 gpm.....	\$74.95
* FL60366-70	Brass DLFC 1" FIPT, 7.0 gpm.....	\$74.95
* FL60369-02	Motor Plate & Gear, 5600.....	\$15.65
FL60376-13	9000 Timer, 1/30 rpm, 120/60.....	\$168.25
FL60381-03	Commercial Injector, 3C.....	\$113.50
FL60381-04	Commercial Injector, 4C.....	\$113.50
FL60385-0383	Injector Drain,9000/9100 1.0 BLFC, #3 Injector, 5.0 DLFC.....	\$129.50
* FL60389	9000, 1" Meter Module.....	\$820.75
* FL60390	9000, 1" Mtr Mod. Ext. Range.....	\$829.50
* <i>FL60393</i>	<i>Discontinued - 2900 Meter Module, 2" - Replaced with FL61934-10</i>	
* <i>FL60394</i>	<i>Discontinued - 2900 Mtr Module, 2" Ext. Range - Replaced with FL61934-10</i>	
* <i>FL60399</i>	<i>Discontinued - 2900 Meter Module, 2" Mtr Body w/Internal 1 1/2" Low Flow Sleeve</i>	
FL60400	Top Piston, 9000.....	\$107.60
FL60400-01	9000 Top Piston Assm., Hot Wtr.....	\$177.35
FL60401	Lower Piston, 9000.....	\$197.90
FL60401-01	9000 Lower Piston Assm., HW.....	\$239.40
FL60405-15	Program Wheel w/3/4" Std. Label, w/People Label.....	\$21.05
FL60405-20	Program Wheel, w/3/4" Ext Label 1-1/2" STD set at 100.....	\$22.05
FL60405-21	Program Wheel, 40M3 Ext.....	\$18.20
FL60405-70	Program Wheel, w/1-1/2" Ext Label.....	\$23.95
FL60405-71	Program Wheel, 200M3 Ext.....	\$22.40
FL60421	Seal Kit, 9000 Low.....	\$99.55
FL60421-HW	Fleck Seal & Spacer Kit 5600/9000 Lower, Hot Water.....	\$196.20
FL60425-16	Check Valve, 2510AIO, Plastic.....	\$157.95
FL60480-03	Fleck Injector Assembly, #3.....	\$62.90
FL60503	Clamp Ring Assembly, 2510.....	\$36.00
* FL60514	Brine Cam Assembly, 3-18.....	\$10.90
FL60514-01	5600 Brine Cam Assem, 36#.....	\$10.90
FL60602-20	1710 Brine Valve, 2850, Plastic 2.0 gpm, NHWBP.....	\$181.35
FL60604-20	1710 Brine Valve, 2850/2900S, Plastic 2.0 gpm, HWBP.....	\$181.35
FL60605-20	1710 Brine Valve.....	\$181.35
* <i>FL60608-01</i>	<i>Discontinued - 3900 Meter Module, 3"</i>	
* <i>FL60608-02</i>	<i>Discontinued - 3900 Meter Module, 3" Ext. Range</i>	
* <i>FL60610-01</i>	<i>Discontinued - 2850/9500 1 1/2" Meter Mod.</i>	
* <i>FL60610-02</i>	<i>Discontinued - 2850, 9500 1 1/2" Mtr Module, Extended Range</i>	
<i>FL60613</i>	<i>Discontinued - 1" Electronic Meter Assembly Brass Body PDL</i>	
FL60626	Electronic Meter Assy. w/Clips & Screws.....	\$234.00
FL60702-25	FLECK DLFC 1" MPT x 1" FPT, 25 GPM BRASS.....	\$101.35
* FL60704-0	Brass DLFC, Blank.....	\$31.50
FL60705-0	Plastic DLFC, Blank.....	\$15.05
FL60710-2.0	Brine Line Flow Control, 1" FNPT X 1" MNPT, 2 gpm.....	\$123.60

Fleck Parts



* FL60710-5.0	Brine Line Flow Control, 1" FNPT X 1" MNPT, 5 gpm.....	\$119.30
* FL60710-10.0	Brine Line Flow Control, 1" FNPT X 1" MNPT, 10 gpm.....	\$125.30
* FL60710-15.0	Brine Line Flow Control, 1" FNPT X 1" MNPT, 15 gpm.....	\$125.30
* FL60711-00	Drain Line Flow Control, 2" NPT, 20-50 GPM.....	\$260.60
* FL60711-000	Drain Line Flow Control, 2" NPT, 50-100 GPM.....	\$260.60
FL950Y-20	2nd Tank Assembly, 18" Tanks.....	\$190.45
* FL60900-37	Small Parts Kit, 1710 Brine.....	\$15.75
FL61024	Actuator Assy, 2350 Brine.....	\$139.05
FL61415	Sidemount Adapter, NPT.....	\$703.55
FL61415-20	Sidemount Adapter, BSP.....	\$705.20
FL61417	3900 Side Mount Adapter Assembly.....	\$1,643.85
FL61419	1.05" Distributor Pilot Adapter.....	\$5.05
FL61419-02	32MM Distributor Pilot Adapter.....	\$0.00
FL61438	Seal Kit, 7000 Valve.....	\$41.05
FL61445-1	Filter In/Out Head Assembly, w/out Bypass.....	\$139.10
FL61450-12	Brine Line Flow Control Assm, 0.125 gpm, 3/8", 7000.....	\$22.25
FL61450-25	Brine Line Flow Control Assm, 0.25 gpm, 3/8", 7000.....	\$22.25
FL61450-100	Brine Line Flow Control Assm, 1.0 gpm, 3/8", 7000.....	\$22.25
FL61450-50	Brine Line Flow Control Assm, .50 gpm, 3/8", 7000.....	\$22.25
FL61451-100	Brine Line Flow Control Assm, 1.0 gpm, 1/2", 7000.....	\$26.45
FL61452-10	Piston, High Flow, 7000 Valve.....	\$243.00
FL61452-20	Piston, Filter, 7000 Valve.....	\$119.35
FL61453-10	Piston, STD 7000 Valve.....	\$94.05
FL61454-0	Injector, #0, 7000 Valve.....	\$24.05
FL61454-00	Injector, #00, 7000 Valve.....	\$24.05
FL61454-000	Injector, #000, 7000 Valve.....	\$24.05
FL61454-1	Injector, #1, 7000 Valve.....	\$24.05
FL61454-2	Injector, #2, 7000 Valve.....	\$24.05
FL61454-3	Injector, #3, 7000 Valve.....	\$24.05
FL61454-4	Injector, #4, 7000 Valve.....	\$24.05
FL61456-15	7000, Drain Line Flow Control, 1", 15.0 gpm.....	\$23.15
<i>FL61460</i>	<i>Obsolete - Circuit Board Kit, 7000 Replaced by FL61696</i>	
FL61530	Seal Kit, 2900 Single Cast Upper.....	\$51.75
FL61540	Piston, 2900S Upper DNFLW.....	\$133.25
FL61550	Piston, 2900S Lower HWBP.....	\$390.60
FL61555	Piston, 2900S Lower NHWBP.....	\$397.80
FL61560-09	Meter Assy, 1-1/2" InIn, NPT Elec, Plas, Brs Nipples, Turb.....	\$541.80
FL61560-13	Meter Assy 1-1/2", InIn, NPT, Elec.....	\$424.80
FL61564-40	1" Blending Valve.....	\$332.75
FL61630-00	2850S Piston Assembly, HWBP.....	\$136.45
FL61631-00	2850S NHWBP Conversion Kit.....	\$442.80
FL61632	2850S Seal & Spacer Kit.....	\$139.30
<i>FL61633-00</i>	<i>Obsolete - Use Fleck Part No. FL18737</i>	
<i>FL61633-01</i>	<i>Obsolete - Use Fleck Part No. FL18738</i>	
<i>FL61633-02</i>	<i>Obsolete - Use Fleck Part No. FL18739</i>	
FL61670-00	2510 Piston Assembly with Seal & Spacer Kit.....	\$94.70
FL61672-0201	5600 SXT Timer Assembly, Front Sqr, Black.....	\$286.00
FL61673-0201	5600 SXT Circuit Board Assembly.....	\$286.00
FL61693-01	Fleck Cover Assy, Gray, 7000SXT.....	\$74.15
FL61693-02	Fleck Cover Assy, Black, 7000SXT.....	\$72.70

FL61696	7000 SXT Cicut Board.....	\$257.75
FL61763	Kit, Communication Cable, CAT 5E.....	\$90.80
FL61837	Fleck 5800 Piston & Seal Kit Package.....	\$160.15
FL61933-10	Meter Assy, 1-1/2" NPT, Std, SS Inline, Paddle, Univ Cap.....	\$945.00
FL61933-11	Meter Assy, 1-1/2" NPT, EXT, SS.....	\$971.60
FL61933-20	Meter Assy, 1-1/2" INLN, BSP, SS, PDL.....	\$945.00
FL61936	Meter Cap, 3/4" to 3" Extended Range.....	\$62.85
FL61936-01	Meter Cap, 3/4" to 3" Standard Range.....	\$73.30
FL61956-01	Fleck 5810 Piston & Seal Kit Package Downflow.....	\$97.75
FL61956-02	Fleck 5810 Piston & Seal Kit Package, Upflow.....	\$91.45
* FL61956-03	Fleck 5810 Piston & Seal Kit Package, Filter Valve.....	\$109.55
FL61959	Injector Plug w/O-Ring for Filter.....	\$7.75
FL61961	Mounting Kit, 5810/5812.....	\$22.40
FL61983-01	Valve Body Assembly, 5810 - Not a Sellable Item.....	\$270.85
FL62017	2815, Seals and Spacers Kit.....	\$163.15
FL62018-10	Timer Assy, EM, 2815, 12 Day, 60Hz.....	\$168.35
FL62018-11	Timer Assy, EM, 2815, 12 Day, 50Hz.....	\$168.35
FL60218-20	Timer Assy, EM, 2815, 7 Day, 60Hz.....	\$168.35
FL60218-21	Timer Assy, EM, 2815, 7 Day, 50Hz.....	\$168.35
FL62018-30	Timer Assy, EM, 2815, 12 Day, 60Hz 12AM.....	\$168.35
FL62018-31	Timer Assy, EM, 2815, 12 Day, 50Hz 12AM.....	\$168.35
FL62018-40	Timer Assy, EM, 2815, 7 Day, 60Hz 12AM.....	\$168.35
FL62018-41	Timer Assy, EM, 2815, 7 Day, 50Hz 12AM.....	\$168.35
FL62019-11	Timer Assy, EM, 2815, Delay, 60Hz 1-1/2"STD.....	\$92.60
FL62019-12	Timer Assy, EM, 2815, Delay, 50Hz 1-1/2"STD.....	\$92.60
FL62019-13	Timer Assy, EM, 2815, Delay, 60Hz 1-1/2", 40M3, EXT.....	\$92.60
FL62019-14	Timer Assy, EM, 2815, Delay, 50Hz 1-1/2", 40M3, EXT.....	\$92.60
FL62019-21	Timer Assy, EM, 2815, Delay, 60Hz 1-1/2", EXT.....	\$92.60
FL62019-22	Timer Assy, EM, 2815, Delay, 50Hz 1-1/2", EXT.....	\$92.60
FL62019-23	Timer Assy, EM, 2815, Delay, 60Hz 1-1/2", 200M3, EXT.....	\$92.60
FL62019-24	Timer Assy, EM, 2815, Delay, 50Hz 1-1/2", 200M3, EXT.....	\$92.60
FL62020-00	Brine Valve Assy, No Flow Washer.....	\$48.30
FL62020-10	Brine Valve, 1720, 1.0 GPM.....	\$53.15
FL62020-20	Brine Valve, 1720, 2.0 GPM.....	\$49.80
FL62020-50	Brine Valve, 1720, 5.0 GPM.....	\$49.80
FL62033	Retainer Assy, 1.7-7 GPM, Flow Washer, 5812.....	\$6.30
FL62034	Retainer Assy, 8-25 GPM, Flow Washer, 5812.....	\$6.00
FL62035	Retainer Assy, 30-45 GPM, Flow Washer, 5812.....	\$12.00
FL62046-01	<i>Drive Assy, 2815, Switch - Not a Sellable Item</i>	
FL62046-02	Drive Assy, 2815, Switch, AUX SWT BF.....	\$208.15
FL62046-03	Drive Assy, 2815, Switch, AUX SWT RR - Not a Sellable Item	
FL62047-01	<i>Drive Assy, 2815, Optical - Not a Sellable Item</i>	
FL62047-02	Drive Assy, 2815, Optical, AUX SWT BF.....	\$208.15
FL62047-03	<i>Drive Assy, 2815, Optical, AUX SWT RR - Not a Sellable Item</i>	
FL62049-01	Kit, 1" & 1-1/2" Meter, Std.....	\$88.00
FL62049-02	Kit, 1" & 1-1/2" Meter, Ext.....	\$103.55
FL62050-01	Plug/Piston Ass, 2815, Bypass.....	\$81.50
FL62050-02	Plug/Piston Ass, 2815, NHWBP.....	\$209.25
FL62055	Kit, Wire Harness, EM.....	\$33.30
FL62057	Kit, Meter Sleeve, 1-1/2" to 1" + L1043:AH1044.....	\$22.70

Fleck Parts



FL62058	Kit, Injector Assembly	\$48.55
FL62066	Timer Assy. SXT, DC, 2815	\$238.50
FL62067	Timer Assy, XTR2, 2815	\$263.25
FL62068	Seals Kit 5 PK	\$62.10
FL62069-01	2815 Black Cover/Blue Bezel, Clear Window	\$47.80
FL62069-02	2815 Black Cover/Black Bezel, Clear Window	\$47.80
FL62069-03	2815 Black Cover/Silver Bezel, Clear Window	\$64.40
FL62069-04	2815 Black Environmental Cover	\$75.30
FL62070	Hardware Kit 5 PK	\$62.10
FL62072	Kit, Meter Sleeve, 1-1/2" to 1"	\$47.30
FL62081	Filter Plate Kit, 2815	\$31.35
FL62103-02	2900 Upper Powerhead, Environmental Backplate, 120v w/Cord, Less Timer	\$175.55
FL62103-08	2510, 2750, 2850 Powerhead, Environmental Backplate, 24v, Less Timer, SXT, NXT2, XT	\$185.40
FL62103-30	2900 Upper Powerhead, Environmental Backplate, 24v, NXT2, XT	\$392.40
FL62103-39	Fleck 2900 Lower PH, 24v, Accepts NXT2 and XT Timers	\$311.40
FL62103-50	3900 Upper Powerhead, Environmental Backplate, 24v, NXT2, XT	\$1,033.20
FL62103-59	Fleck 3900 Lower PH, 24v/60hz, Accepts NXT2 and XT Timers	\$664.20
FL62115	Fleck NXT2 Timer Assm, Excludes 2815	\$588.60
FL62115-01	Fleck NXT2 Timer Assembly, 2815	\$588.60

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NELSEN

C O R P O R A T I O N

C-Series, Signature Series, Clack WS & Connected Series, DROP Series, Autotrol Control Valve Parts

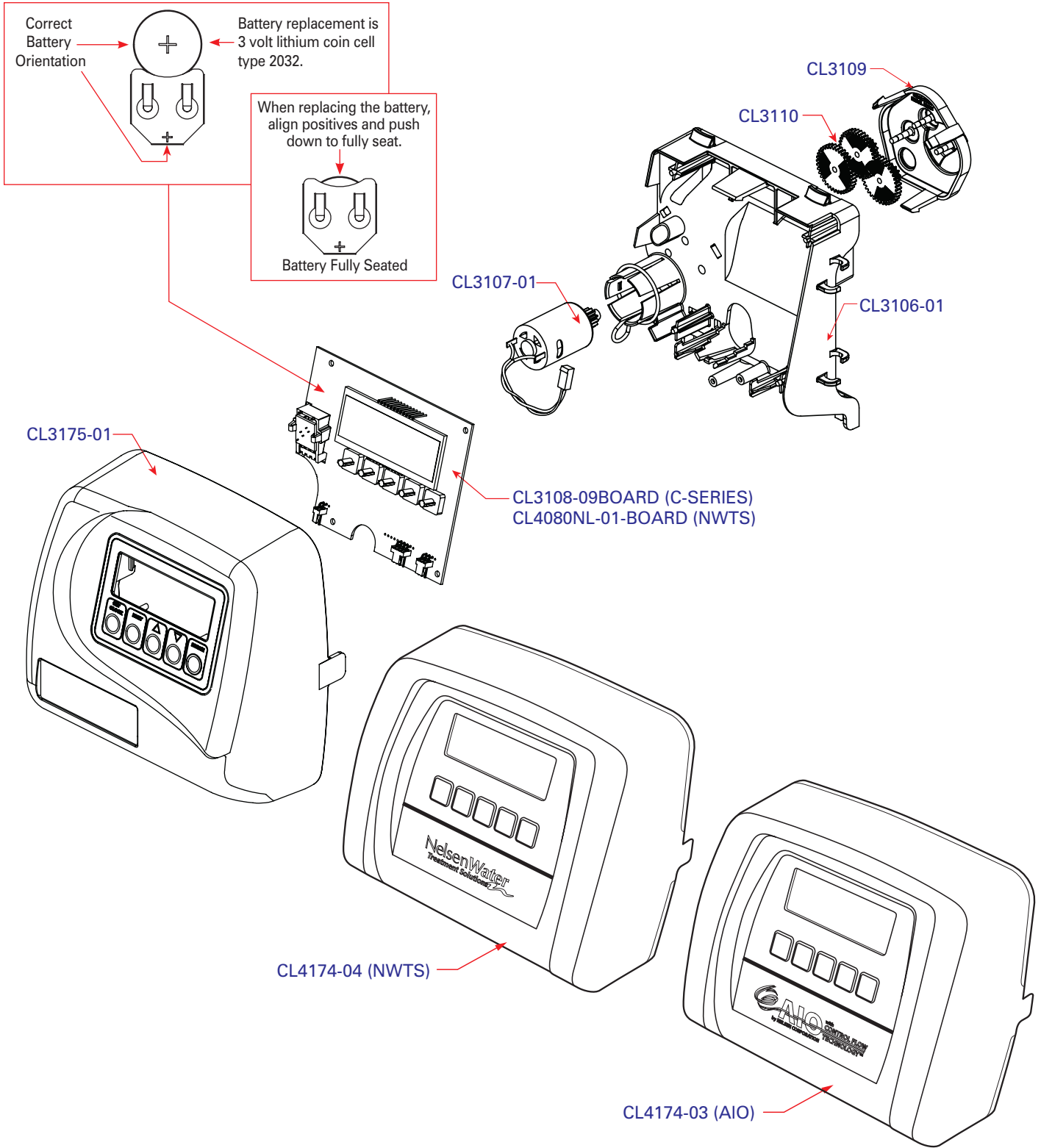
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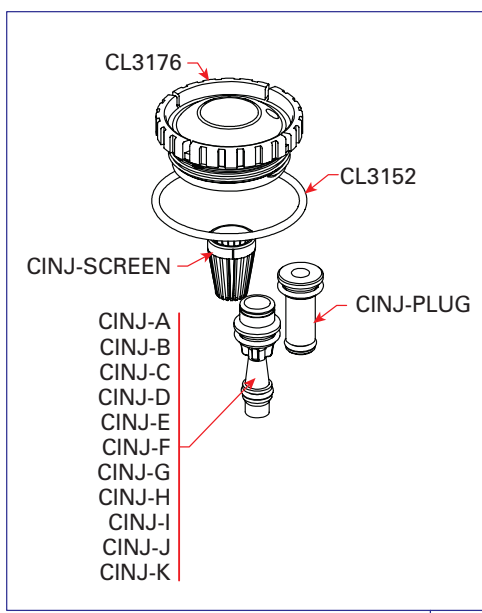
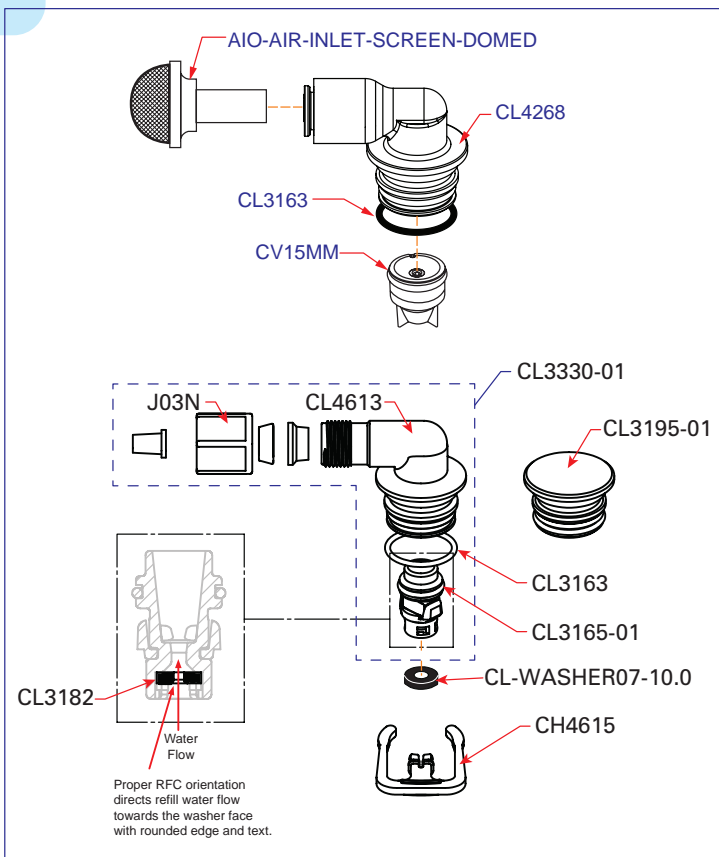
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C-Series, Signature, Clack

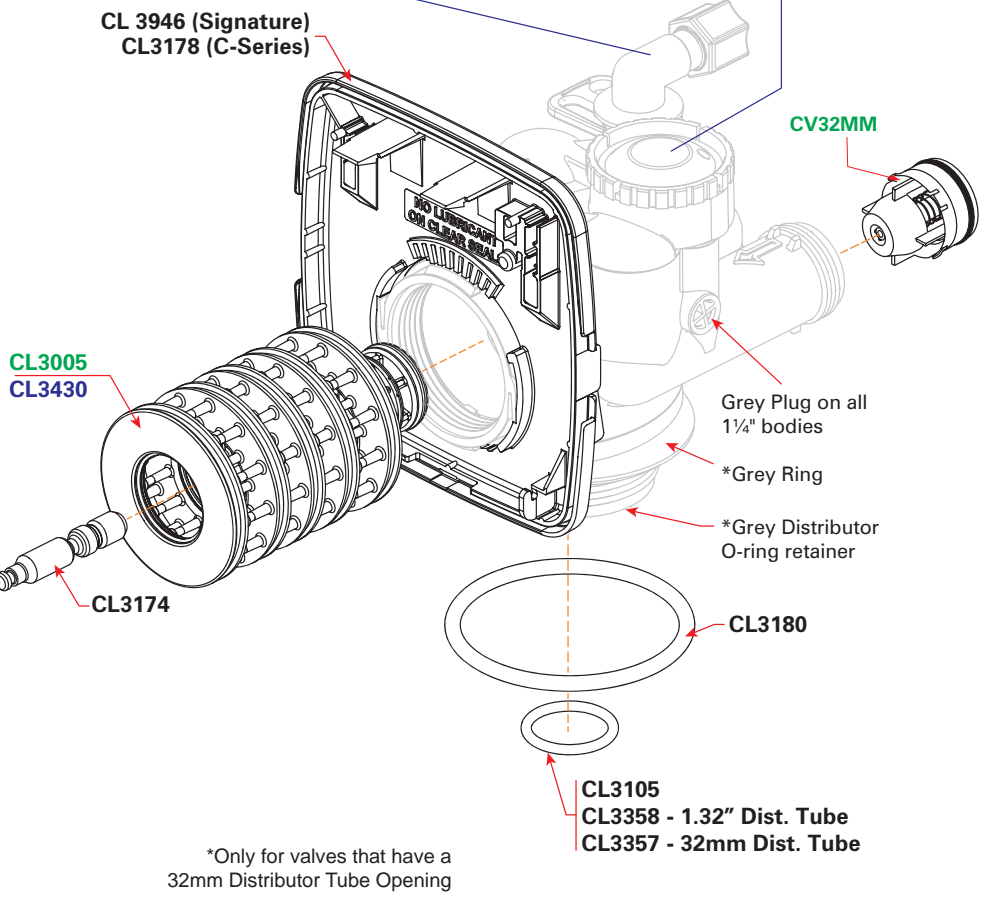
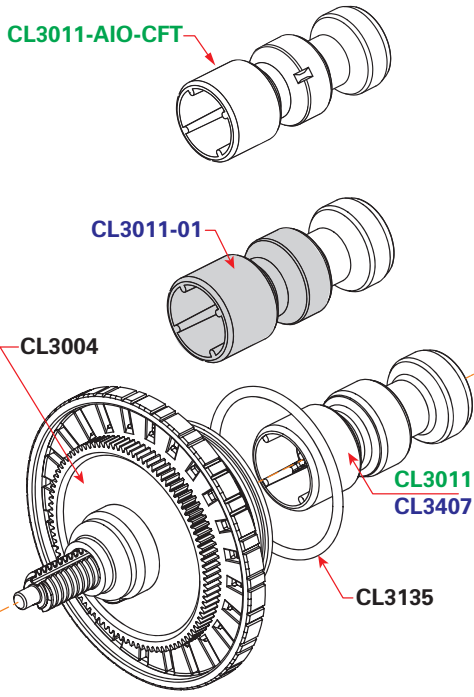






C-Series
 1" Control Valves - Green
 1 1/4" Control Valves - Blue
 Applies to 1" & 1 1/4" - Black

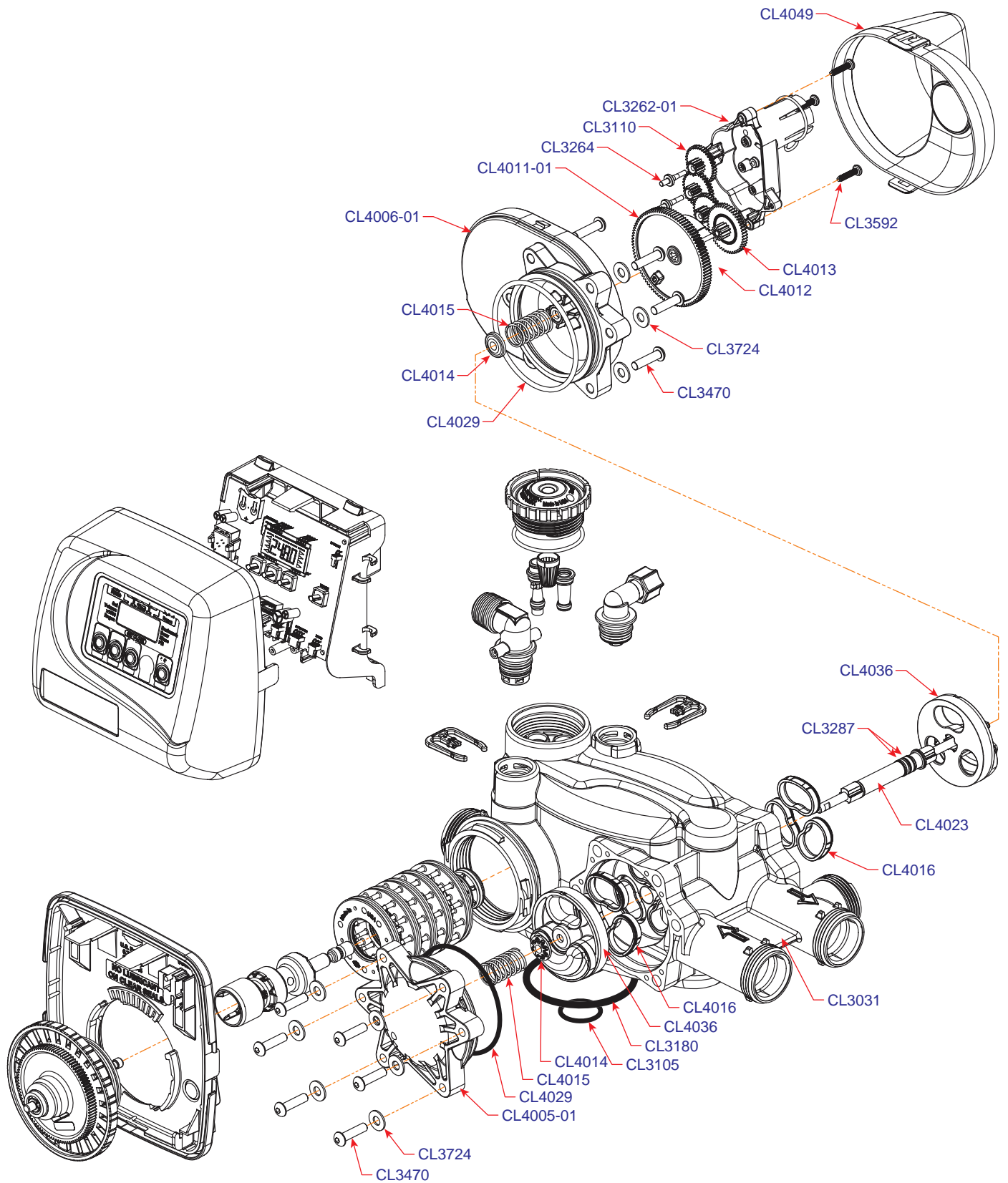
CL 3946 (Signature)
 CL3178 (C-Series)

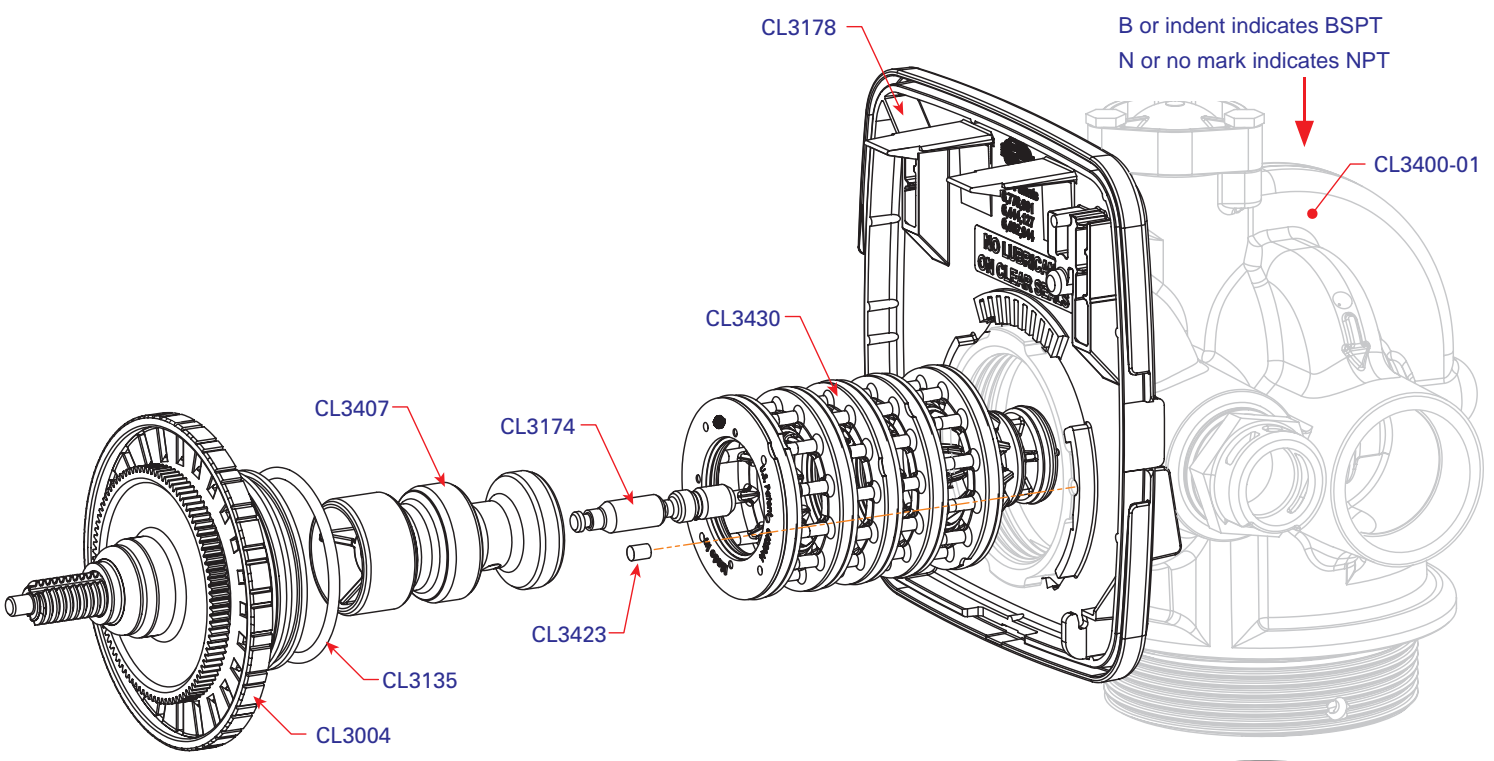


*Only for valves that have a 32mm Distributor Tube Opening

C-Series, Signature, Clack

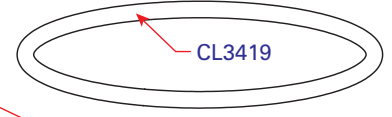




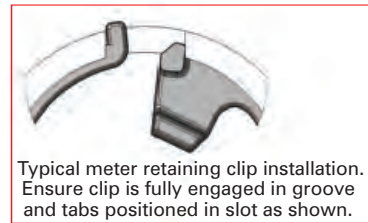


B or indent indicates BSPT
N or no mark indicates NPT

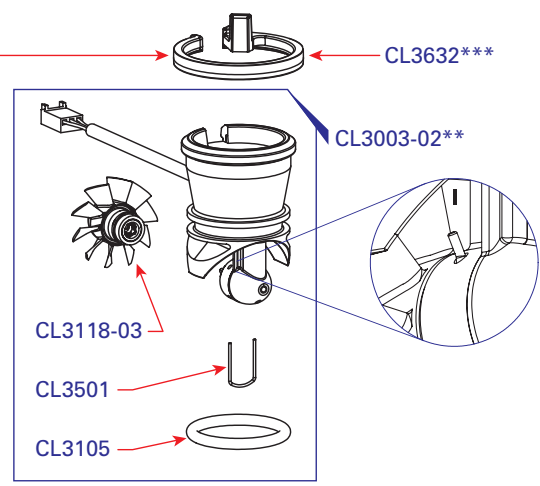
CL3400-01



Install D1300 upper diffuser (not shown)



Typical meter retaining clip installation. Ensure clip is fully engaged in groove and tabs positioned in slot as shown.



CL3418 - NPT Threads
CL3441 - BSPT Threads

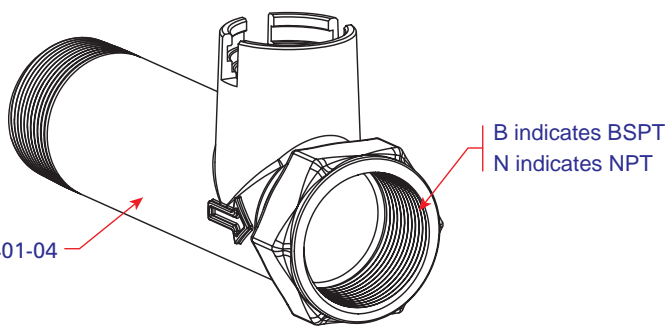
BSPT threads on inlet and outlet ports on the C3400BSPT-01 and C3401BSPT-04. NPT threads on drain and injector ports on C3400BSPT-01.

*C3174 WS1 Regenerant Piston not used for backwash only valves. C3010-15Z Injector Plug and C3195-01 WS1 Refi II Port Plug ASY must be used for backwash only valves.

**Order number C3003-02 includes C3118-03, C3501 and C3105.

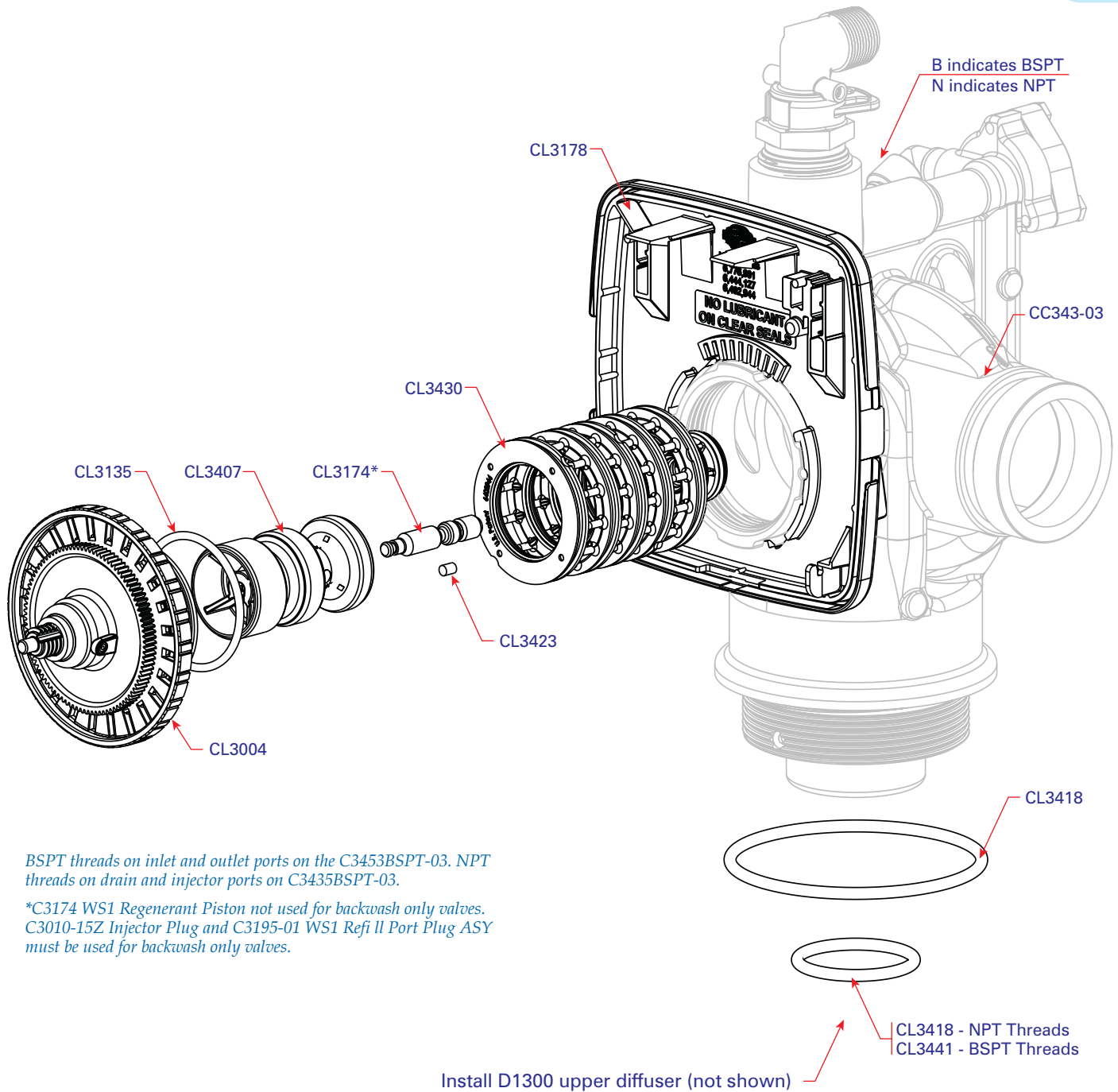
***In 2008, a modification was made to Meter Housing to use C3632 WS1.5/2/3 Meter Retaining Clip. Do not use C3632 on old style housings which have holes through the casting to accept the U-shaped C3223 WS2 Meter Clip.

If using a meter on WS1.5" valves, select 1.5 if valve software records in gallons and 38 if valve software records in cubic meters.



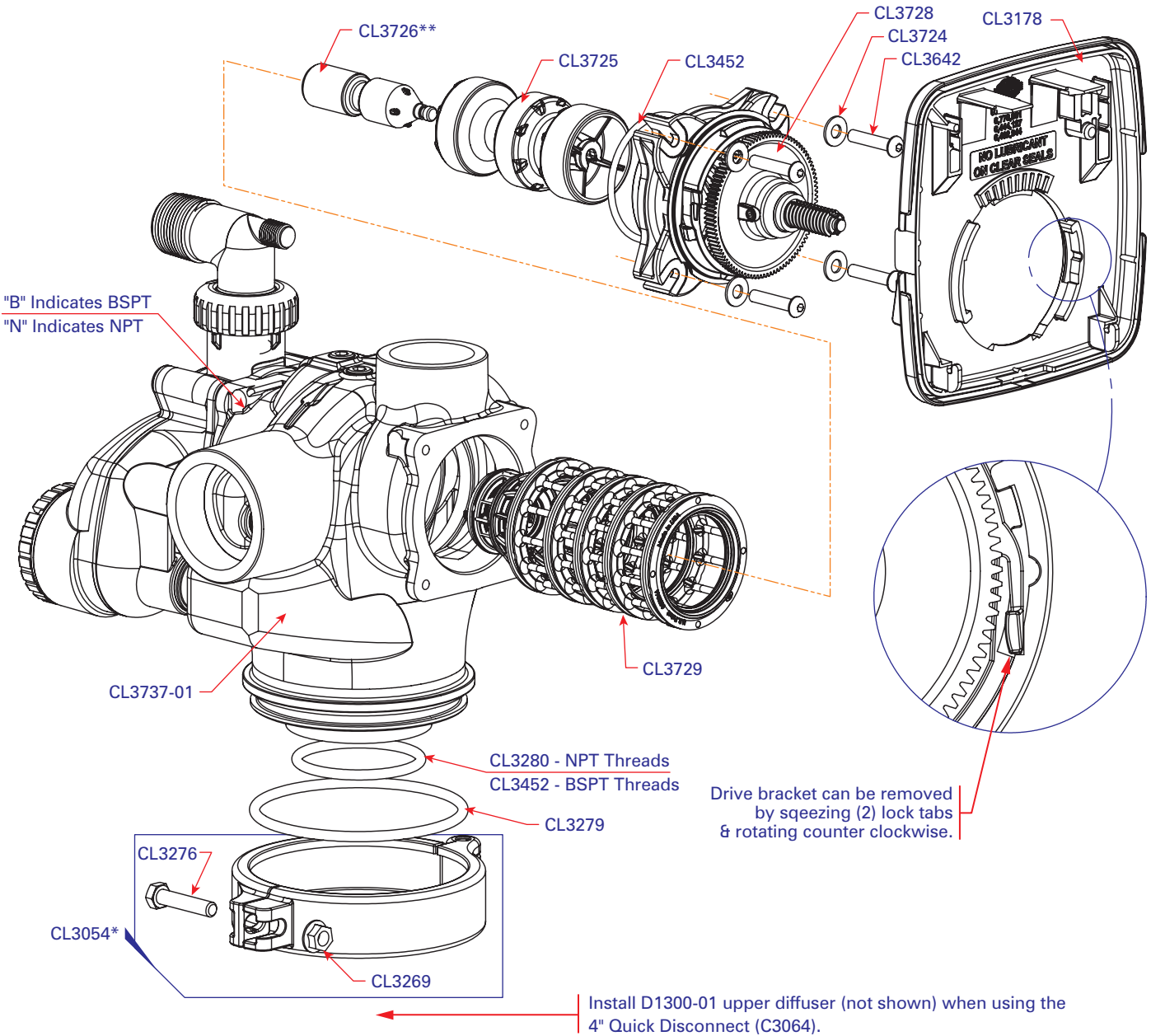
C-Series, Signature, Clack





BSPT threads on inlet and outlet ports on the C3453BSPT-03. NPT threads on drain and injector ports on C3435BSPT-03.

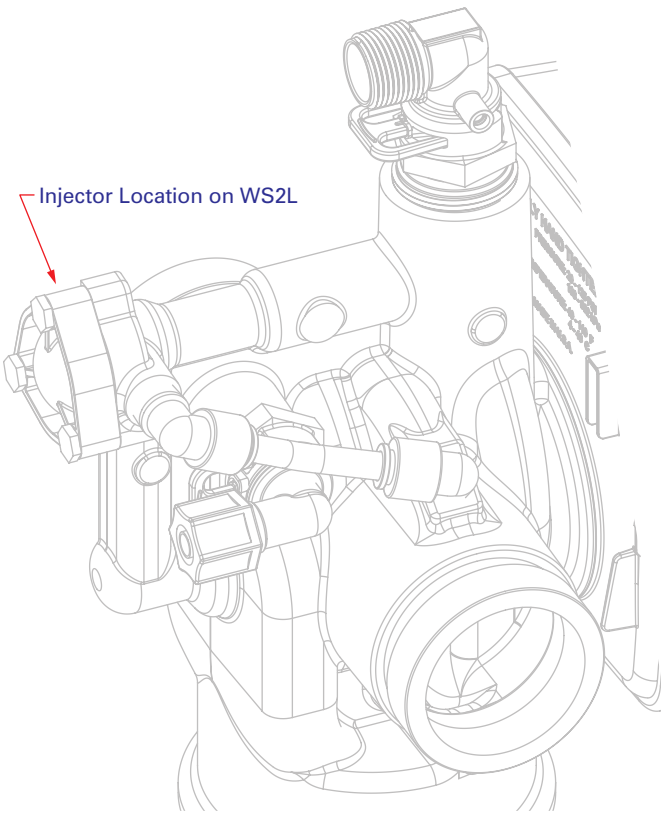
*C3174 WS1 Regenerant Piston not used for backwash only valves. C3010-15Z Injector Plug and C3195-01 WS1 Refi II Port Plug ASY must be used for backwash only valves.

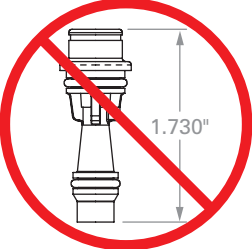
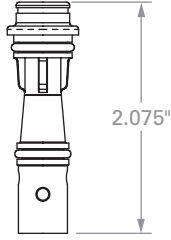



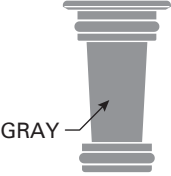
* C3054 WS2H 4IN BASE CLAMP ASY includes a C3276 WS2H BOLT HEX 5/16 - 18 x 1-3/4 and C3269 WS2H NUT 5/16 - 18 SS HEX
BSPT threads on inlet and outlet ports on the C3737BSPT-01.
NPT threads on the drain port on C3737BSPT-01.
** C3726 WS2 Brine Piston is used for backwash only valves.

C-Series, Signature, Clack





WS1 & 1.25 INJECTOR	WS1.5 INJECTOR
ALL THROATS ARE COLORED AND ALL NOZZLES ARE WHITE	ALL THROATS ARE BLACK AND ALL NOZZLES ARE COLORED
	
DO NOT USE ON WS1.5" VALVES	

WS1 & 1.25 INJECTOR PLUG	WS1.5 INJECTOR PLUG
	
DO NOT USE ON WS1.5" VALVES	

CL3422

CL3403

Injector Nozzle (Color)

Injector Throat (Black)

CLINJ-15C
CLINJ-15D
CLINJ-15E
CLINJ-15F
CLINJ-15G
CLINJ-15H

CL3404

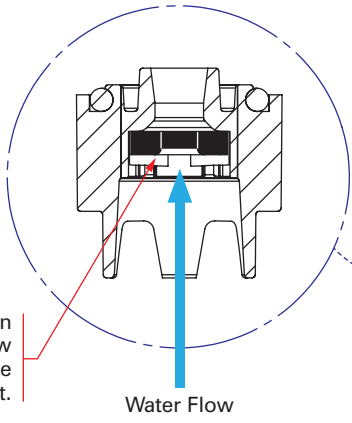
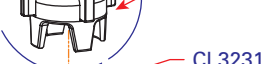
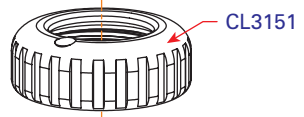
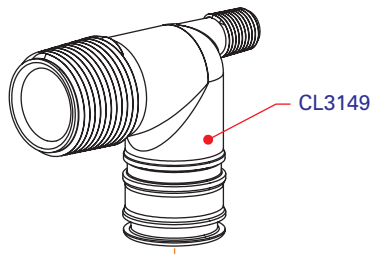
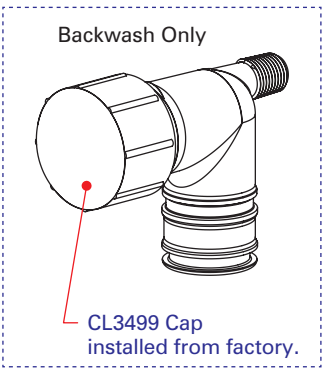
WS2 Injector A - G

CLINJ-2A
CLINJ-2B
CLINJ-2C
CLINJ-2D
CLINJ-2E
CLINJ-2G

4.140"

BLACK

STAMPED IDENTIFIER



*Any C3162-XXX flow control may be used. WS2 valves are shipped with a C3162-022 (2.2 gpm) flow control. Flow control sizes range from 0.7 up to 10 gpm. WS2 valves can only be set for minutes of fill because various sizes of flow controls can be used.

To calculate for pounds or kilograms of salt, take minutes of fill times the flow rate of the flow control being used to arrive at the number of gallons of water be added to the brine tank. Each gallon of water will dissolve approximately 3 pounds of salt.

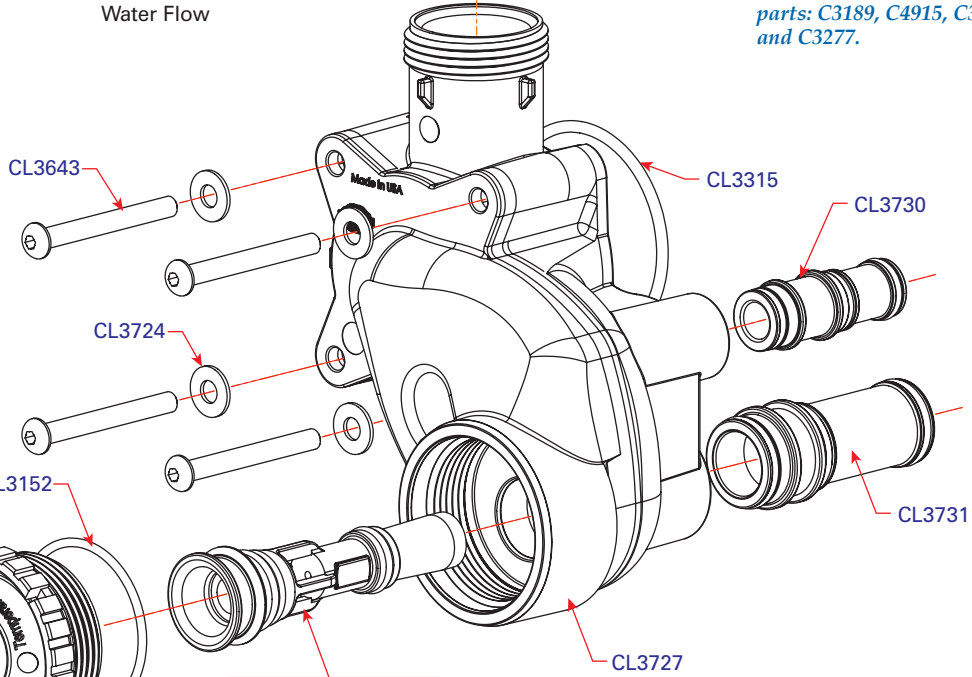
**Use of C4915 may severely reduce brine draw rates.

A C3731 WS2 INJ DRAW TUBE DOWN ASY contains one C1262 O-RING 118 and two C3639 O-RING 119.

A C3730 WS2 INJ FEED TUBE DOWN ASY contains three C3638 O-RING 113.

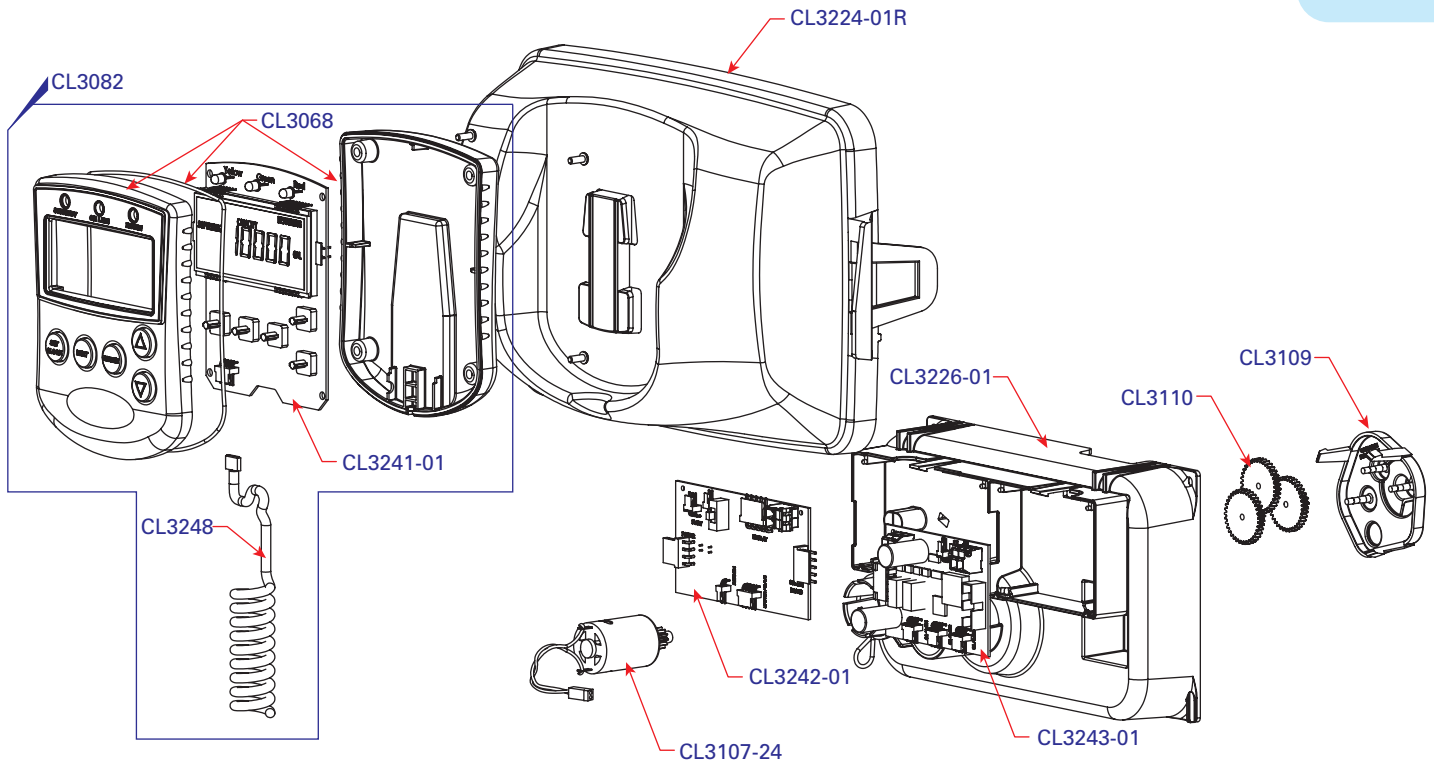
C3010-2X injectors and the C3010-15ADAPTER contain a C3283 O-RING 117 and a C3284 O-RING 114. The C3010-15ADAPTER can be used with any C3010-15X injector so the 2" valve can be used on smaller tank sizes. The C3010-15X injector contains one C3416 O-RING 012 (lower) and one C3171 O-RING 013 (upper).

Backwash Only Valves include a C3499 but do not include the following parts: C3189, C4915, C3162-022, C3231 and C3277.



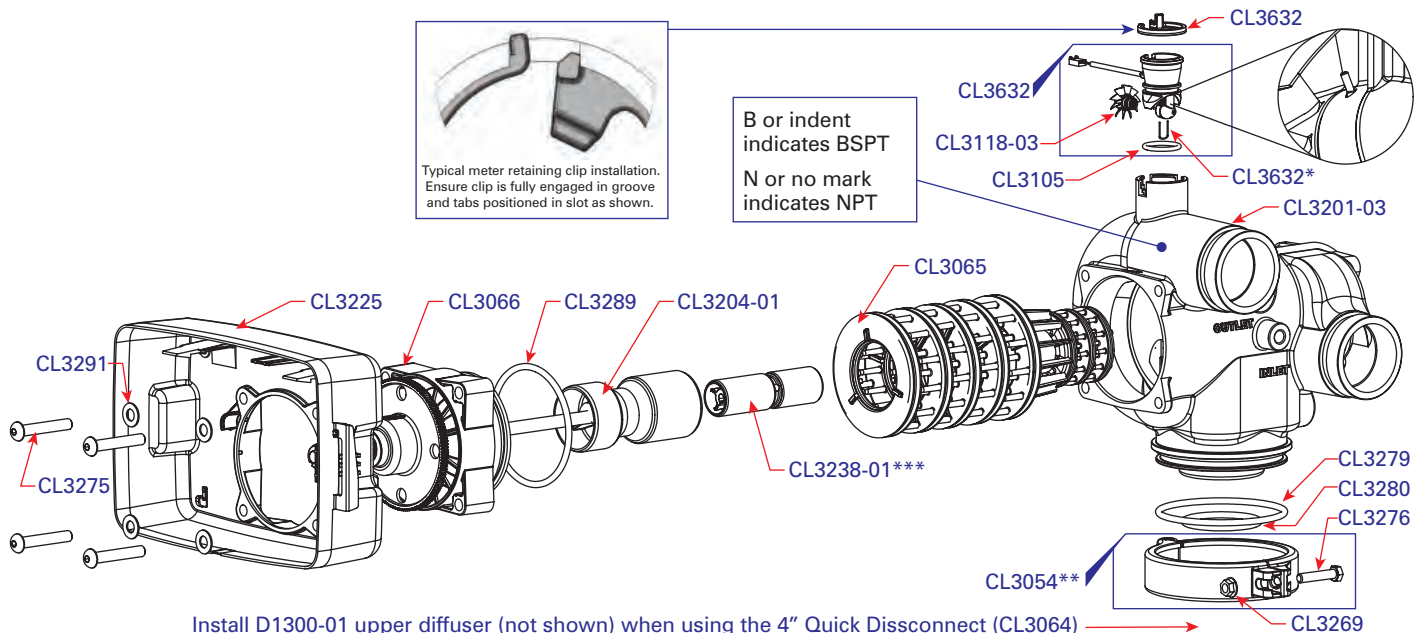
- | | |
|----------|---------|
| CINJ-15C | CINJ-2A |
| CINJ-15D | CINJ-2B |
| CINJ-15E | CINJ-2C |
| CINJ-15F | CINJ-2D |
| CINJ-15G | CINJ-2E |
| CINJ-15H | CINJ-2F |
| | CINJ-2G |





* Contains items C3068, C3241-01 & C3248 Pod Assembly, PC Board and Cable

WS2H Control Valve Assembly

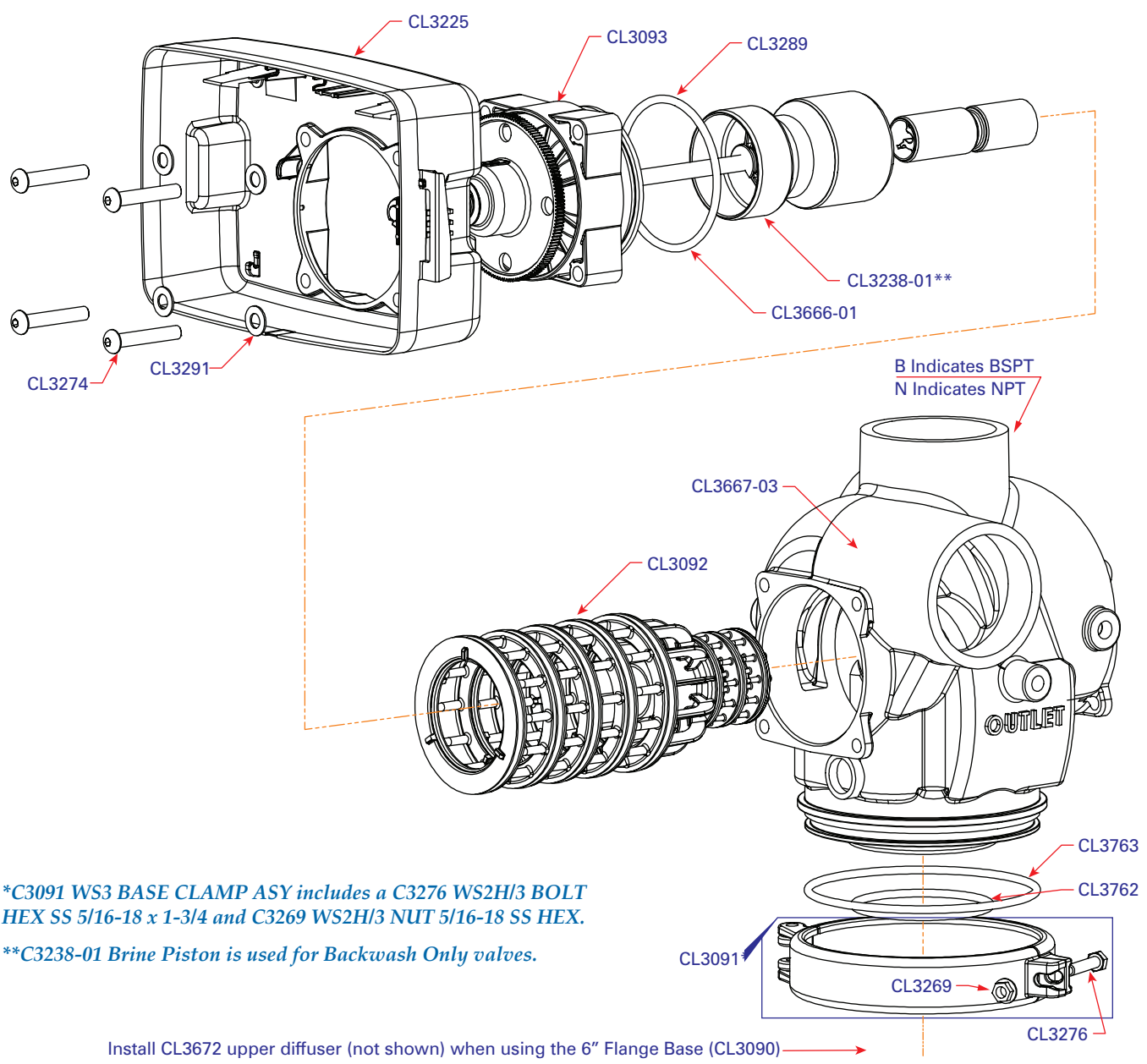


Install D1300-01 upper diffuser (not shown) when using the 4" Quick Disconnect (CL3064)

* In 2008 a modification was made to Meter Housings to use C3632 WS1.5/2/3 Meter Retaining Clip. Do not use C3632 on old style housings which have holes through the castings to accept the U-shaped C3223 WS2 Meter Clip.

**C3054 WS2 4 IN BASE CLAMP ASY includes a C3276 WS2 BOLT HEX SS 5/16-18 x 1-3/4 and C3269 WS2 NUT 5/16-18 SS HEX.

***C3238-01 Brine Piston is used for Backwash Only valves.



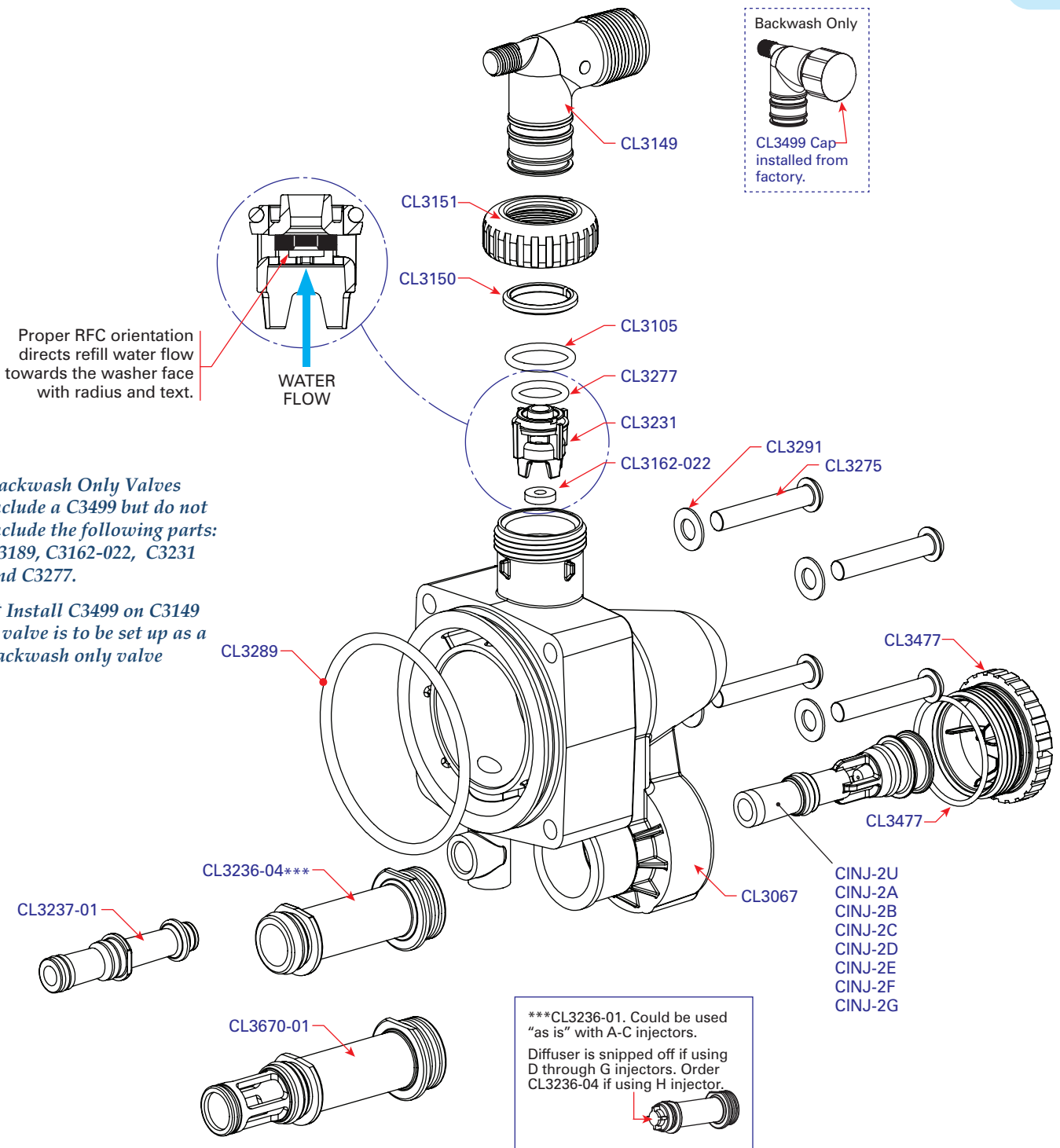
*C3091 WS3 BASE CLAMP ASY includes a C3276 WS2H/3 BOLT HEX SS 5/16-18 x 1-3/4 and C3269 WS2H/3 NUT 5/16-18 SS HEX.

**C3238-01 Brine Piston is used for Backwash Only valves.

Install CL3672 upper diffuser (not shown) when using the 6" Flange Base (CL3090)

C-Series, Signature, Clack





Backwash Only Valves include a C3499 but do not include the following parts: C3189, C3162-022, C3231 and C3277.

** Install C3499 on C3149 if valve is to be set up as a backwash only valve

*Any C3162-XXX flow control may be used. C3237-01 WS2H SOFTFILL TUBE ASY contains a C3155 O-RING 112, C3287 O-RING 110 and a C3288 O-RING 206.

C3236-04 WS2H INJECTOR TUBE ASY A thru H contains a C3285 O-RING 213 and a C3286 O-RING 216.

C3670-01 WS3 INJECTOR TUBE DOWNFLOW ASY contains a C3285 O-RING 213, C3286 O-RING 216 and a C3163 O-RING 019.

C3010-2A through C3010-2G injectors and the C3010-15ADAPTER contain a C3283 O-RING 117 and a C3284 O-RING 114. The C3010-15ADAPTER can be used with any C3010-15X injector so the 2H valve can be used on smaller tank sizes. The C3010-15X injector contains one C3416 O-RING 012 (lower) and one C3171 O-RING 013 (upper). C3010-2H injectors use a C3283 O-RING 117 and C1263 O-RING 116.

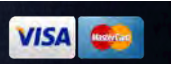
AIO Parts

AIO-AIR-INLET-SCREEN-DOMED	AIO Air Inlet Screen, 3/8" Friction Fit.....	\$11.00
CL3011-AIO-CFT	NWTS 1" AIO-Control Flow Technology Piston Assembly.....	\$55.30
CV15MM	Check Valve, 15MM,	\$20.00
CV32MM	32mm AIO Inlet Check Valve.....	\$31.00

Control Valve & Assembly Parts

CL3002	Drive Assembly.....	\$43.00
CL3003	Meter Assembly.....	\$99.00
CL3003-01	Meter Plug Assembly.....	\$7.45
CL3003-02	WS1.5/2/2H/3 Commercial Meter Assembly.....	\$133.00
CL3004	Drive Cap Assembly.....	\$45.30
CL3005	C-Series 1" Spacer Stack Assembly.....	\$64.75
CL3011	C-Series 1" Downflow Piston Assembly.....	\$18.25
CL3011-01	C-Series 1" Upflow Piston Assembly.....	\$43.50
CL3013	C-Series 1" Mixing Valve Assembly.....	\$47.50
CL3020	1.25 Body Assembly Downflow (1.32" Dist.).....	\$128.00
CL3020-01	1.25 Mixing Valve Body Downflow Assembly (1.32" Dist.).....	\$152.00
CL3020-02	1.25 Body ASY Downflow (32mm Dist.).....	\$128.00
CL3020-03	C-Series 1.25" Mixing Valve Body Assembly (32mm Distributor).....	\$152.00
CL3040	WS1.5 Meter Assembly Male x Female NPT.....	\$615.00
CL3052	WS2/2H DLFC Retainer Assembly.....	\$84.00
CL3053	WS2 2-1/2" Groove Lock Clamp Assembly.....	\$171.00
CL3054	WS2QC/2H 4" Base Clamp Assembly.....	\$98.00
CL3065	WS2H Spacer Stack Assembly.....	\$198.00
CL3066	WS2H Drive Assembly.....	\$305.00
CL3067	WS2H/3 Brine Body Assembly.....	\$84.00
CL3068	WS2H/3 Pod Front/Back Covers.....	\$68.25
CL3069FF	C-Series Motorized Alternating Valve (MAV) Female x Female.....	\$265.00
CL3069MM	C-Series Motorized Alternating Valve (MAV) Male x Male.....	\$265.00
CL3070FF	C-Series No Hard Water Bypass Valve Female x Female.....	\$248.00
CL3070FM	C-Series No Hard Water Bypass Valve Female x Male.....	\$248.00
CL3072	C-Series & 1.5 MAV/No Hard Water Bypass Drive Assembly.....	\$49.50
CL3073	MAV/No Hard Water Bypass Cover Assembly.....	\$37.75
CL3074	C-Series & 1.5 MAV/No Hard Water Bypass Stack Assembly.....	\$31.50
CL3076	Motorized Alternating Valve 2 NPT Revision 2.....	\$831.00
CL3077	MAV/No Hard Water By-Pass Stack Assembly (Piston Style).....	\$57.00
CL3078	MAV/No Hard Water By-Pass Drive Cap Assembly (Piston Style).....	\$81.75
CL3081	WS1.5 Retainer DLFC Assembly.....	\$32.60
CL3082	WS2H/3 Pod Assembly Complete w/Board.....	\$532.00
CL3084	WS3 Motorized Alternating Valve Stack Assembly.....	\$122.00
CL3085	WS3 Motorized Alternating Valve Drive Cap Assembly.....	\$224.00
CL3091	WS3 Base Clamp Assembly.....	\$148.00
CL3092	WS3 Stack Assembly.....	\$207.00
CL3093	WS3 Drive Assembly.....	\$250.00
CL3105	O-Ring 215, Adapter Fitting Assemblies.....	\$0.60
CL3107-01	C-Series Drive Motor.....	\$22.70
CL3108-11BOARD	C-Series PC Board With Battery Replacement.....	\$152.00
CL3108CS-03BOARD	C-Series CS PC Board With Battery Replacement, Rev. 03.....	\$152.00
CL3109	C-Series Drive Gear Cover.....	\$4.20
CL3110	C-Series Drive Reducing Gear, 12 x 36.....	\$2.30

C-Series, Signature, Clack



CL3116-06	Label For Injector Plug.....	\$0.25
CL3118-01	C-Series 1" Turbine Assembly.....	\$29.10
CL3118-03	WS1.5/2 Turbine Assembly.....	\$35.70
CL3135	O-Ring 228 (Drive Cap Assembly).....	\$2.00
CL3145	C-Series 1" Bypass Rotor.....	\$5.85
CL3146	C-Series 1" Bypass Cap.....	\$2.95
CL3147	C-Series 1" Bypass Handle.....	\$2.00
CL3148	C-Series 1" Bypass Rotor Seal Retainer.....	\$0.60
CL3149	Fitting, 1" PVC Male NPT Elbow.....	\$3.85
CL3150	Split Ring.....	\$0.65
CL3151	Nut 1" QC.....	\$2.00
CL3152	O-Ring 135, Injector & Bypass Cap.....	\$1.40
CL3155	O-Ring 112, Bypass Rotor Stem.....	\$0.45
CL3156	O-Ring 214, Rotor Seal Retainer.....	\$0.60
CL3158-01	C-Series Drain Elbow 3/4 Male Assembly.....	\$6.35
CL3158-02	C-Series Drain Elbow 3/4" Male Assembly (No Silencer).....	\$4.20
CL3158-03	Drain Elbow 3/4" Male No Hole.....	\$2.65
CL3158-04	WS2 Drain Elbow 3/4" Male NPT No Silencer.....	\$35.60
CL3159-01	DLFC Retainer Assembly.....	\$2.45
CL3163	O-Ring 019 (Brine & Drain Elbow).....	\$0.60
CL3164	WS1 Fitting 1" Plastic Male NPT.....	\$7.20
CL3165-01	C-Series Refill Flow Control Retainer Assembly.....	\$6.50
CL3166	Drain Fitting Body 1" w/Check Valve.....	\$8.35
CL3166-01	Fitting Flow Control Body Female.....	\$5.60
CL3167	C-Series 1" Drain Fitting Adapter.....	\$6.35
CL3170	O-Ring 011.....	\$0.45
CL3171	O-Ring 013.....	\$0.45
CL3174	Regenerant Piston.....	\$12.70
CL3175-01	Front Cover Assembly.....	\$23.50
CL3175-01	WS1 Front Cover Assembly Black.....	\$23.50
CL3175-01A	WS1 Front Cover Assembly Almond.....	23.50
CL3175-01B	WS1 Front Cover Assembly Blue.....	\$23.50
CL3175-01R	WS1 Front Cover Assembly Platinum.....	\$23.50
CL3175-01W	WS1 Front Cover Assembly White.....	\$23.50
CL3175EE-01	Front Cover Assembly.....	\$23.50
CL3175EE-01	WS1.5EE Front Cover Assembly Black.....	\$23.50
CL3175EE-01W	WS1EE Front Cover Assembly White.....	\$23.50
CL3175TC-01	WS1TC Front Cover Assembly Black.....	\$23.50
CL3175TC-01A	WS1TC Front Cover Assembly Almond.....	\$23.50
CL3175TC-01B	WS1TC Front Cover Assembly Blue.....	\$23.50
CL3175TC-01R	WS1TC Front Cover Assembly Platinum.....	\$23.50
CL3175TC-01W	WS1TC Front Cover Assembly White.....	\$23.50
CL3176	C-Series 1" Injector Cap.....	\$3.35
CL3177	C-Series 1" Injector Screen.....	\$2.95
CL3178	C-Series 1" Drive Back Plate.....	\$11.15
CL3180	O-Ring 337, (Mineral Tank), 1" & 1-1/4" Valves.....	\$3.25
CL3182	Refill Flow Control (0.5 gpm).....	\$1.70
CL3186	Transformer 110v-12v.....	\$30.20
CL3186-01	Transformer Cord Only.....	\$23.45
CL3188	Fitting, 1" Brass Sweat.....	\$14.30

CL3188-01	Fitting, 3/4" Brass Sweat.....	\$10.75
CL3189	Fitting, 3/4" and 1" PVC Solvent Elbow.....	\$3.85
CL3191-01	C-Series 1" Bypass Vertical Adapter.....	\$27.55
CL3192	C-Series WS1 Nut 3/4" Drain Elbow.....	\$1.80
CL3192-01	Refill Port Plug, Backwash Only Valve.....	\$1.80
CL3192-TUBEINSERT	C-Series Poly Tube Insert, 5/8".....	\$1.85
CL3195-01	C-Series 1" Refill Port Plug Assembly.....	\$9.30
CL3196CTN	C-Series 1" Individual Carton.....	\$3.70
CL3201-03	WS2H Body with V3468 Plug.....	\$2,205.00
CL3202-01	WS2H Base (4" Threaded).....	\$206.00
CL3204-01	WS2H Piston.....	\$128.00
CL3221	WS Remote Meter Turbine Assembly with 15' Cord.....	\$155.00
CL3224-01R	WS2H/3 Front Cover Assembly Platinum.....	\$69.25
CL3225	WS2H/3 Back Plate.....	\$49.75
CL3226-01	WS2H/3 Drive Bracket Assembly.....	\$31.20
CL3231	WS2/2H/3 Refill Flow Control Retainer.....	\$6.10
CL3236-04	WS2H Injector Tube Assembly A through H.....	\$11.20
CL3237-01	WS2H/3 Soft Water Fill Tube Assembly.....	\$10.05
CL3238-01	WS2H/3 Brine Piston.....	\$95.00
CL3241-01BOARD	WS2H/3 PC Board Display (Pod).....	\$311.00
CL3242-01BOARD	WS2H/3 PC Board Valve.....	\$438.00
CL3243-01BOARD	WS2H/3 PC Board System with Relay.....	\$353.00
CL3248	WS2H/3 Cable Display Pod.....	\$107.00
CL3260-02	WS2H/2QC 2" Side Mount Base Assembly NPT.....	\$491.00
CL3261-01	WS2 Flange Base.....	\$299.00
CL3262-01	WS1.5/2L Alternator/2 Bypass Reduction Gear Cover Asy.....	\$9.85
CL3264	WS2H Bypass Reduction Gear Axle.....	\$1.25
CL3269	WS2H/3 Nut 5/16-18 SS Hex.....	\$0.95
CL3273	Bolt Hex Head SS HCS 3/8 – 16 x 3/4.....	\$2.15
CL3275	WS2H/3 Screw BSHD SS 3/8 – 16 x 2-1/4.....	\$5.35
CL3276	WS2H/3 Bolt Hex SS 5/16-18 x 1-3/4.....	\$2.60
CL3277	O-Ring 211 (Refill Flow Control Asy).....	\$0.85
CL3278	O-Ring 338 (WS2 DLFC).....	\$4.10
CL3279	O-Ring 346 (WS2H Body).....	\$5.55
CL3280	O-Ring 332 (WS2H/QC Dist Pilot NPT, WS2/2H Side Mount Body).....	\$3.10
CL3289	O-Ring 344 (WS2H/3 Drive Cap).....	\$5.65
CL3290	WS2 Groove Lock Seal 2-1/2".....	\$66.50
CL3291	WS2H/3 Washer SS 3/8.....	\$0.35
CL3293	WS2H Washer SS 5/16 Flat.....	\$0.30
CL3301	Microswitch.....	\$12.05
CL3302	Molex Connector.....	\$2.85
CL3303	Molex Terminal.....	\$1.00
CL3304	Screws, SS 4/40 x 3/4.....	\$1.00
CL3305	Retaining Ring, SS 1/4.....	\$1.00
CL3306	Washer, ID-0.257, OC-1.640.....	\$4.35
CL3315	O-Ring 231 (WS2H Injector Housing).....	\$3.60
CL3316	C-Series Fitting 1" Plastic Male BSPT.....	\$6.25
CL3317	C-Series Fitting 1-1/4" Plastic Male NPT.....	\$6.95
CL3330	C-Series Elbow Cap (H4613) and O-Ring (V3163).....	\$2.40
CL3330-01	C-Series Brine Elbow Assembly with RFC (Refill Flow Control).....	\$10.45

C-Series, Signature, Clack



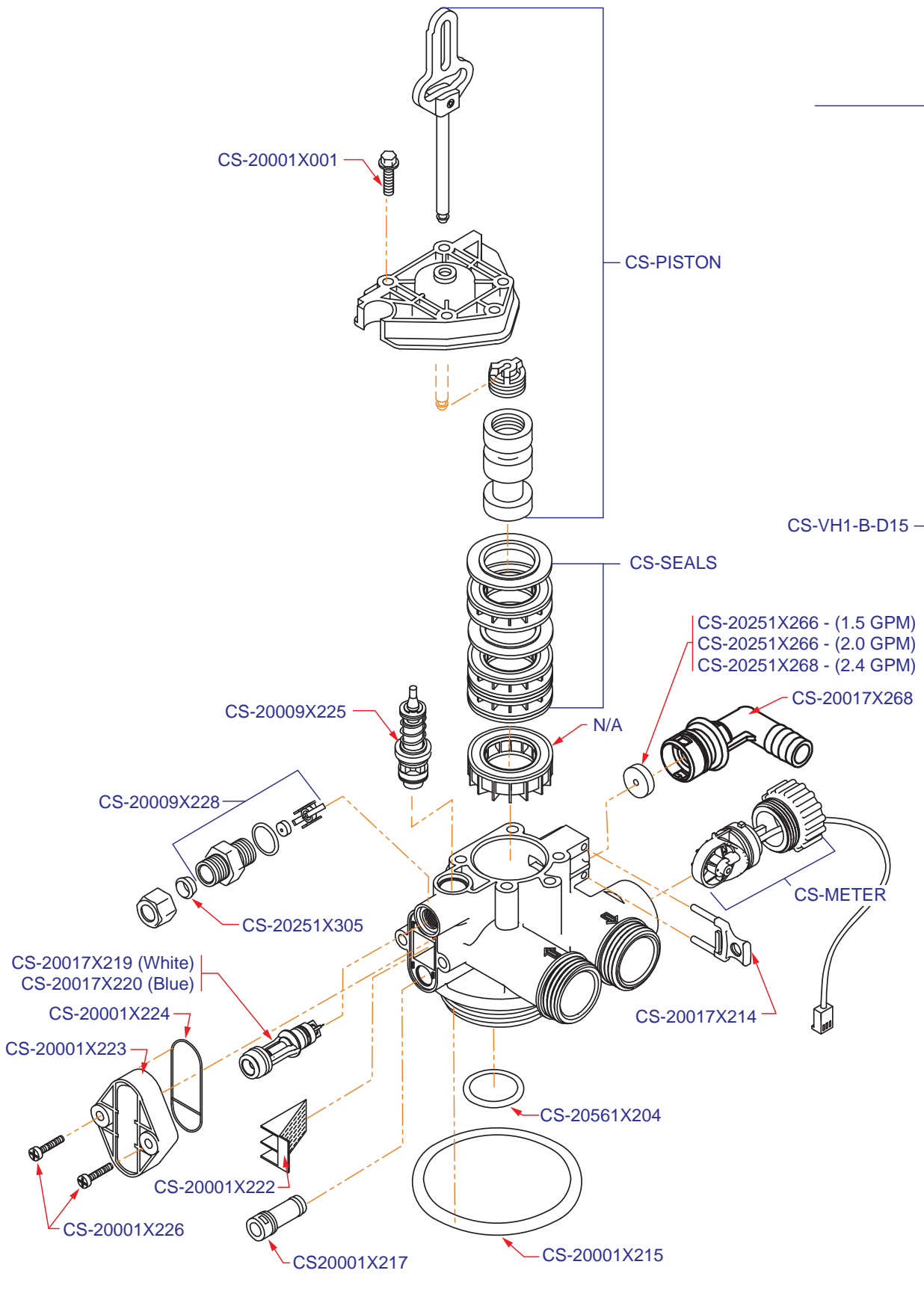
CL3335	C-Series Washer Stepped (Series Regeneration)	\$17.35
CL3340	C-Series Interconnect Cable (Series Regeneration)	\$16.85
CL3352	C-Series Fitting 1.25" and 1.5" PVC Solvent	\$6.20
CL3357	O-ring 218 (Distributor Tube Opening 32mm)	\$1.85
CL3358	O-ring 219 (Distributor Tube Opening 1.32")	\$1.85
CL3361	C-Series Fitting 1-1/4" Plastic Male BSPT	\$6.95
CL3375-LF	C-Series Fitting 1-1/4" & 1-1/2" Brass Sweat LF	\$52.00
CL3379	C-Series Fitting Bypass Plastic Male	\$6.75
CL3401-04	WS1.5 Meter Housing NPT SS	\$511.00
CL3404	WS1.5 Injector Screen	\$4.45
CL3407	1.25", 1.5" Downflow Piston	\$71.50
CL3408-EE	WS1.5EE/WS2LEE PC Board Alternating Replacement w/Battery	\$152.00
CL3414	WS1.5 DLFC Adapter	\$7.55
CL3415	WS1.5 BLFC Adapter	\$6.35
CL3416	O-Ring 012 (Injector WS1.5)	\$0.95
CL3417	O-Ring 220 (Injector Cap WS1.5)	\$1.50
CL3418	O-Ring 328 (Distributor Tube w/NPT Threads)	\$6.60
CL3419	O-Ring 347 (Top of Tank)	\$7.40
CL3422	Bolt 1/4 x 1 Hex Head	\$1.15
CL3423	WS1.5 Backplate Dowel	\$0.80
CL3428	WS1.5 Refill Retainer Assembly	\$9.65
CL3430-01	1.25, 1.5 & 2L Spacer Stack Assembly	\$93.00
CL3434-01	WS1.5 Refill Adapter Asy (5/8" O.D. Tube x 3/4" NPT Male)	\$14.50
CL3436	WS1.5 Injector Plug	\$9.60
CL3437	WS1.5 Flow Straightener	\$5.15
CL3441	O-Ring 226 (Distributor Tube with BSPT Threads)	\$7.30
CL3444	WS2H/2QC Screw Hex Cap 5/16 – 18 x 2 SS	\$3.15
CL3445	WS2H/2QC Washer Split Lock 5/16 SS	\$0.50
CL3447	WS2H/2QC Nut Hex 5/16 – 8 Full SS	\$1.10
CL3452	O-Ring 230 (Drive Cap Asy)	\$2.10
CL3461	WS2H/3 AC 24V Adapter No Cord	\$85.00
CL3461-01	WS2H/3 AC 20V Adapter	\$37.25
CL3465	WS2H/3 Plug 1/4" Hex BSPT	\$2.80
CL3467	WS1 Bypass Inline Adapter Fittings	\$14.30
CL3468	WS2H/3 Plug 1/4" Hex NPT	\$2.80
CL3473	C-Series Motor/DP Wire Harness Two Pin 8' Long	\$14.30
CL3474	WS Alt Connection Cord 8' Black For Single Meter (3 Wire Interconnect)	\$14.50
CL3474-01	WS Alt Connection Cord 8' Black For Two Meters (2 Wire Interconnect)	\$14.50
CL3476	WS Motor Assembly With 8' Cord	\$43.90
CL3477	WS2H/3 Injector Cap Machined	\$7.60
CL3480	WS2H Screw Pod 18-8 SS 6-32 x 3/8	\$0.30
CL3488	WS2 Flow Straightener	\$35.30
CL3498	WS1.5 Brine Elbow Assembly with Refill Flow Control 1/2"	\$14.00
CL3499	WS2H/3 Fitting Cap 1" Threaded	\$5.55
CL3501	WS1.5/2 Turbine Clip	\$2.70
CL3504FF	C-Series Motorized Alternating Valve Body Female x Female	\$44.80
CL3504MM	C-Series Motorized Alternating Valve Body Male x Male	\$44.80
CL3506-01	C-Series & 1.5 Motorized Alternating Valve/No Hard Water Bypass Piston	\$70.40
CL3521FF	No Hard Water Bypass Body Assembly Female x Female	\$42.60
CL3521FM	No Hard Water Bypass Body Assembly Female x Male	\$42.60

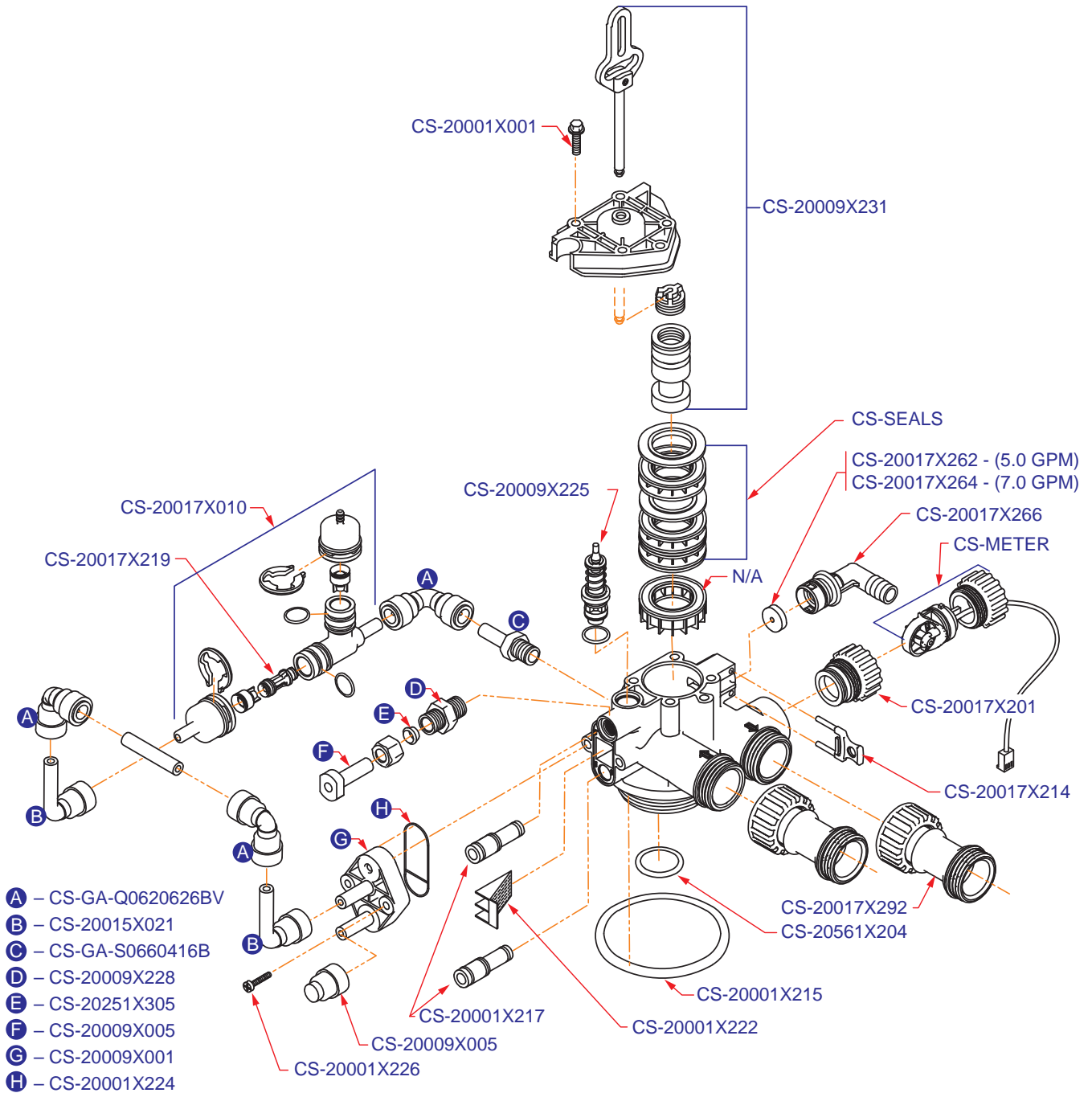
CL3525-01	1.5" MAV Body NPT Revised (Piston Style).....	\$613.00
CL3527	Screw 1/4-20 X 3/4 BHS GS SS.....	\$0.70
CL3552	WS1 Brine Elbow Assembly with Refill Fill Flow Control 1/2".....	\$10.80
CL3592	Screw #8 – 3/4 PHPN T-25 SS.....	\$0.50
CL3602	WS3 Flow Straightener.....	\$62.60
CL3628	WS1 Fitting 3/4 Brass Shark Bite.....	\$27.00
CL3629	WS1 Fitting 1 Brass Shark Bite.....	\$38.40
CL3632	WS1.5/2/3 Meter Retaining Clip.....	\$6.30
CL3633-01	WS2 MAV Body NPT (Piston Style).....	\$693.00
CL3634-01	WS2 MAV/No Hard Water By-Pass 2" Piston (Piston Style).....	\$64.25
CL3641	O-Ring 225 (Distributor Tube with NPT Threads).....	\$2.15
CL3642	Bolt BHCS SS 1/4-20 x 1.25.....	\$1.40
CL3645	WS1.5 DLFC Flange Outlet F NPT.....	\$91.70
CL3646	WS1.5 DLFC Flange Inlet M NPT.....	\$84.75
CL3652	Bolt Hex Head SS HCS 5/16-18 x 3/4.....	\$1.85
CL3666-01	WS3 Piston.....	\$185.00
CL3667-03	WS3 Body W/V3468 Plug.....	\$2,253.00
CL3670-01	WS3 Injector Tube Downflow Assembly.....	\$18.25
CL3671-01	WS3 Flange Base.....	\$322.00
CL3672	WS3 Top Baffle Diffuser 3"/90mm.....	\$32.10
CL3674-02	WS3 Side Mount Base Assembly NPT.....	\$708.00
CL3693-01	WS3 Motorized Alternating Valve Body NPT.....	\$1,009.00
CL3695-01	WS3 Motorized Alternating Valve Piston.....	\$93.80
CL3696	WS3 Motorized Alternating Valve Cover.....	\$28.60
CL3700-01	WS2 Body Downflow NPT Threads.....	\$1,569.00
CL3724	Washer Flat SS 1/4.....	\$0.35
CL3725	WS2 Piston Downflow Assembly.....	\$82.60
CL3726	WS2 Brine Piston Assembly.....	\$39.50
CL3727	WS2 Injector Body Assembly.....	\$60.40
CL3728	WS2 Drive Cap Assembly.....	\$94.20
CL3729	WS2 Stack Assembly.....	\$104.70
CL3730	WS2 Injector Feed Tube Assembly Downflow.....	\$9.30
CL3731	WS2 Injector Draw Tube Assembly Downflow.....	\$10.05
CL3737-01	WS2 QC Body NPT.....	\$1,569.00
CL3754-01	WS2 Meter Housing Male x Female NPT.....	\$517.00
CL3762	O-Ring 341 (For Valve Bodies W/NPT or BSPT Threads).....	\$4.85
CL3763	O-Ring 361 (WS3 Body).....	\$9.10
CL3765-01	WS3 DLFC Housing NPT.....	\$363.00
CL3766	WS3 DLFC Retainer.....	\$91.50
CL3767	WS3 DLFC Retainer Cover.....	\$35.60
CL3768	WS3 DLFC Retainer Ring.....	\$35.60
CL3769	O-Ring 336.....	\$3.60
CL3789	Bolt BHCS SS 3/8-16X1-3/4.....	\$3.40
CL3807	WS2 Auxillary Switch Actuator.....	\$17.80
CL3808	WS2 Auxillary Switch Washer.....	\$17.70
CL3811	Allen Wrench 7/32 Inch.....	\$2.75
CL3818TC-2T04BRD	3 Button Circuit Board with Mylar Face.....	\$110.80
CL4144-01	C-Series Liquifit Brine Elbow w/Refill Flow Control.....	\$10.20
CL4612	Elbow Cap 1/2".....	\$2.55
CL4613	Elbow Cap 3/8, Refill Port.....	\$2.25

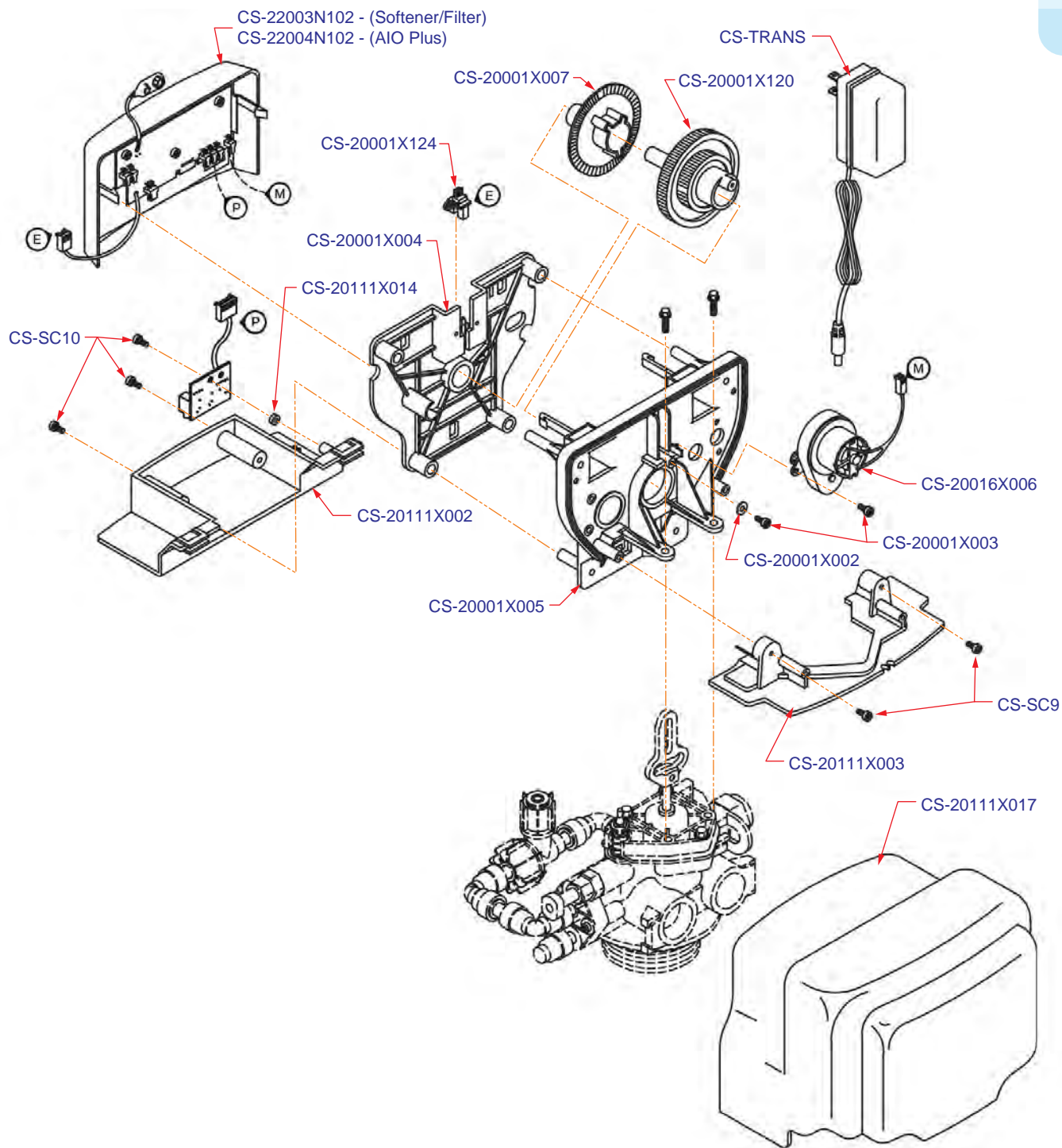
C-Series, Signature, Clack

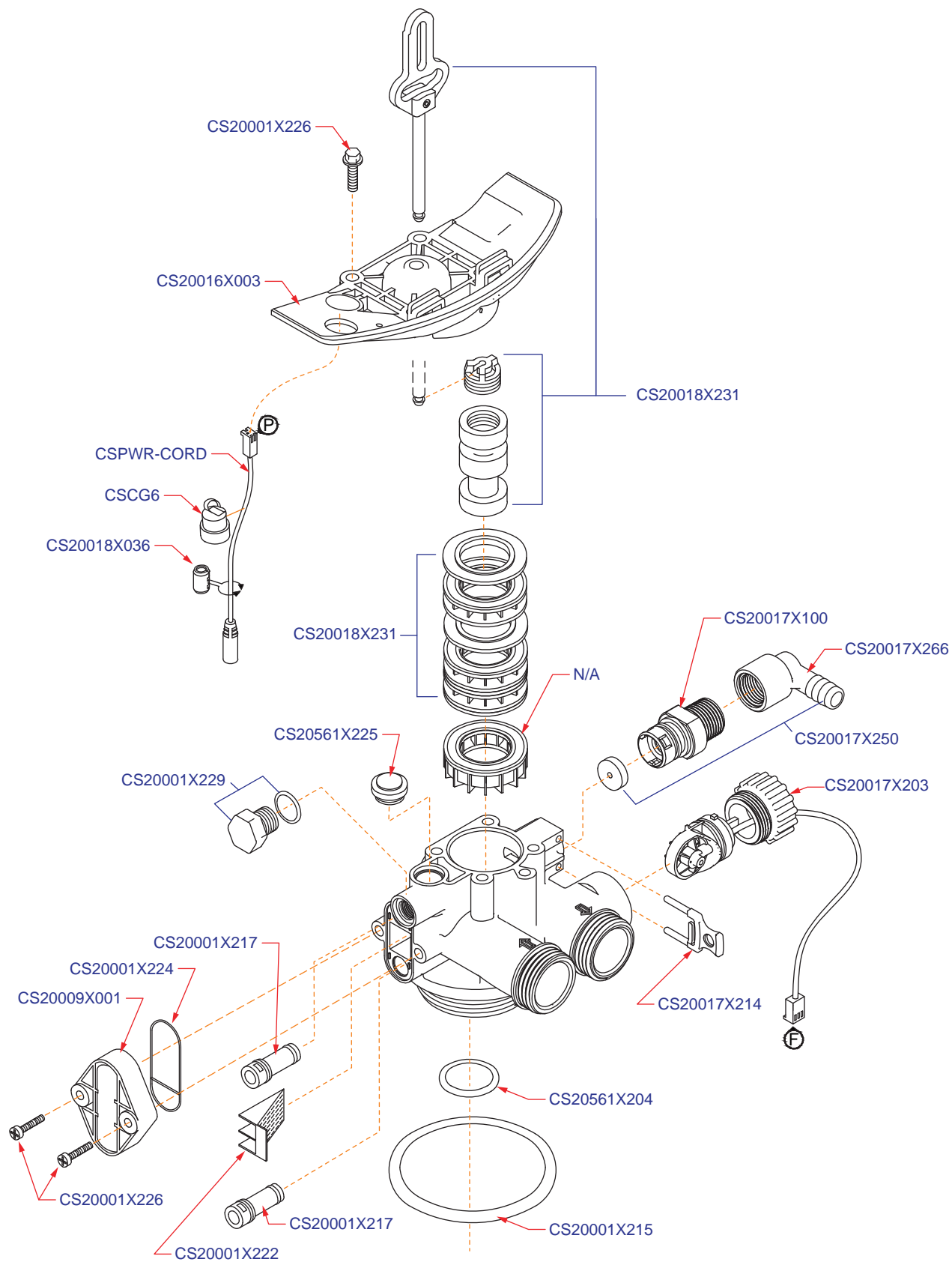


CL4615	Elbow Locking Clip	\$0.80
CL4650	Elbow 1/2" w/Nut & Insert	\$10.15
CLINJ-15B	WS1.5/2L Injector Assembly B Violet	\$35.50
CLINJ-15C	WS1.5/2L Injector Assembly C Red	\$35.50
CLINJ-15D	WS1.5/2L Injector Assembly D White	\$35.50
CLINJ-15E	WS1.5/2L Injector Assembly E Blue	\$35.50
CLINJ-15F	WS1.5/2L Injector Assembly F Yellow	\$35.50
CLINJ-15G	WS1.5/2L Injector Assembly G Green	\$35.50
CLINJ-15H	WS1.5/2L Injector Assembly H Orange	\$35.50
CLINJ-15-PLUG	WS1.5/2L Injector Assembly Z Plug	\$11.50
CLINJ-2-15	WS2/2H to WS1.5 Injector Adaptor Assembly	\$40.10
CLINJ-2A	WS2/2H/3 Injector Assembly A	\$43.20
CLINJ-2B	WS2/2H/3 Injector Assembly B	\$43.20
CLINJ-2C	WS2/2H/3 Injector Assembly C	\$43.20
CLINJ-2D	WS2/2H/3 Injector Assembly D	\$43.20
CLINJ-2E	WS2/2H/3 Injector Assembly E	\$43.20
CLINJ-2F	WS2/2H/3 Injector Assembly F	\$43.20
CLINJ-2G	WS2/2H/3 Injector Assembly G	\$43.20
CLINJ-2H	WS2/2H/3 Injector Assembly H - Order w/C3236-04	\$80.20
CLINJ-2R	WS2/2H Injector R Modified Assembly w/V3010-15B	\$60.75
CLINJ-2S	WS2/2H Injector S Modified Assembly w/V3010-15C	\$60.75
CLINJ-2T	WS2/2H Injector T Modified Assembly w/V3010-15D	\$60.75
CLINJ-2U	WS2/2H Injector U Modified Assembly w/V3010-15E	\$60.75
CLINJ-A	C-Series Injector Assembly A Black	\$6.35
CL-INJ-A-LABEL	Clack Label For Injector - A	\$0.25
CLINJ-B	C-Series Injector Assembly B Brown	\$6.35
CL-INJ-B-LABEL	Clack Label For Injector - B	\$0.25
CLINJ-C	C-Series Injector Assembly C Violet	\$6.35
CL-INJ-C-LABEL	Clack Label For Injector - C	\$0.25
CLINJ-D	C-Series Injector Assembly D Red	\$6.35
CL-INJ-D-LABEL	Clack Label For Injector - D	\$0.25
CLINJ-E	C-Series Injector Assembly E White	\$6.35
CL-INJ-E-LABEL	Clack Label For Injector - E	\$0.25
CLINJ-F	C-Series Injector Assembly F Blue	\$6.35
CL-INJ-F-LABEL	Clack Label For Injector - F	\$0.25
CLINJ-G	C-Series Injector Assembly G Yellow	\$6.35
CL-INJ-G-LABEL	Clack Label For Injector - G	\$0.25
CLINJ-H	C-Series Injector Assembly H Green	\$6.35
CLINJ-I	C-Series Injector Assembly I Orange	\$6.35
CLINJ-J	C-Series Injector Assembly J Light Blue	\$6.35
CLINJ-K	C-Series Injector Assembly K Light Green	\$6.35
CLINJ-Z	C-Series Injector Assembly Z Plug	\$2.20
COR60FL	O-Ring 6" Flange Adapter	\$26.60



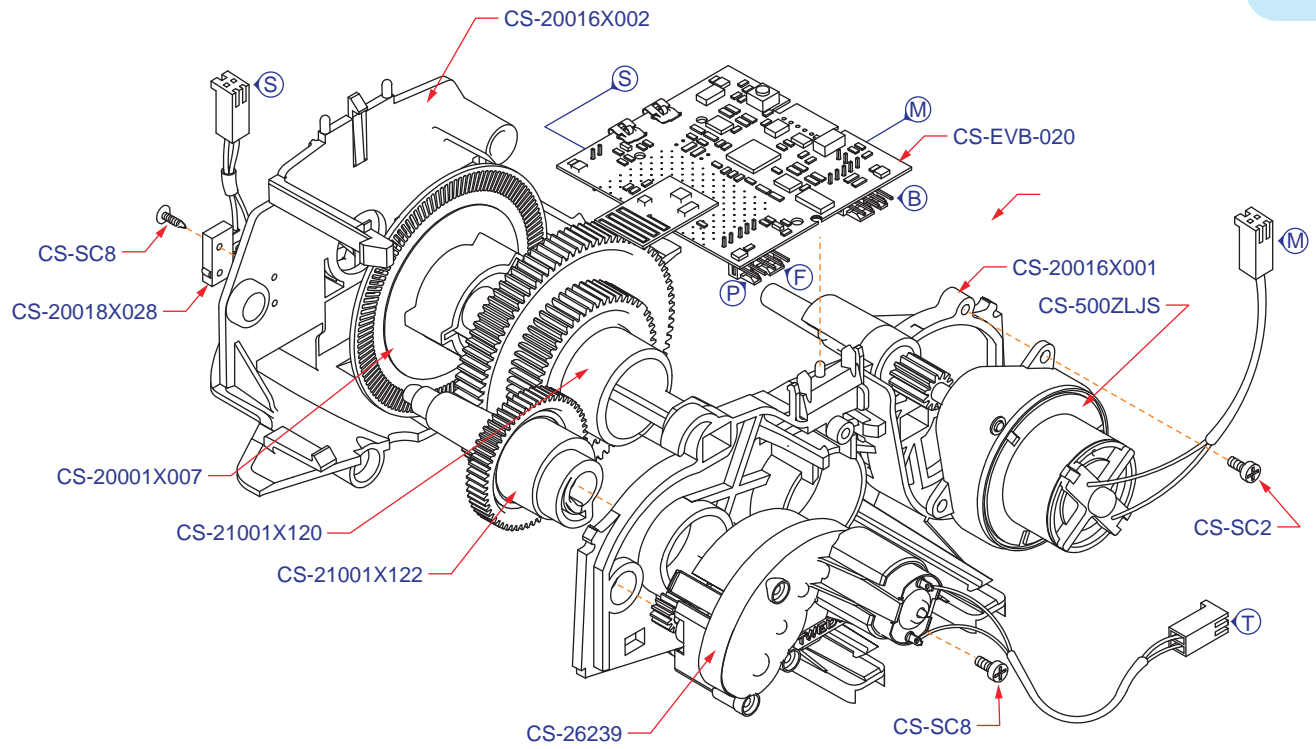




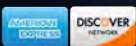
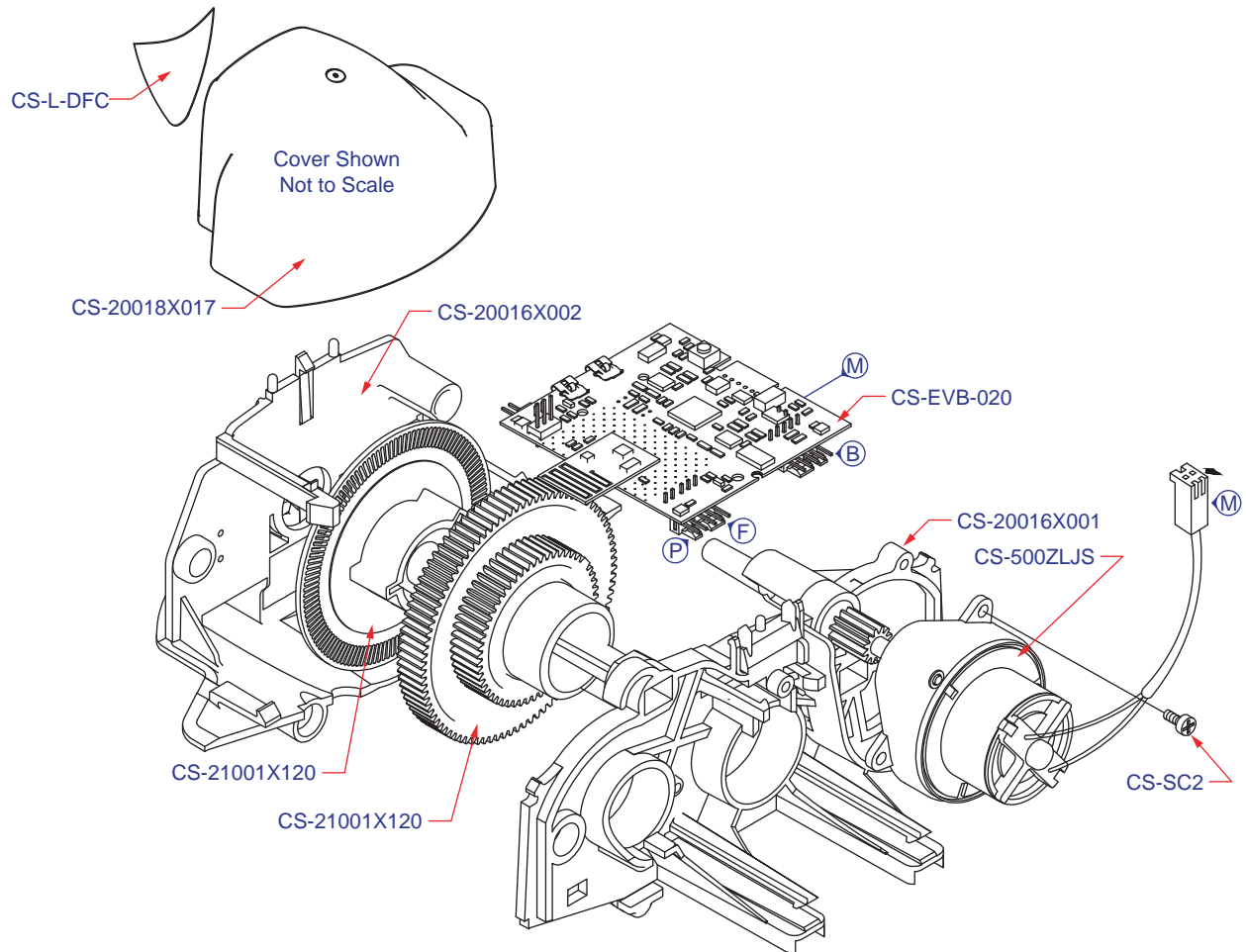


Autotrol, C-Series, Connected



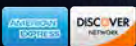


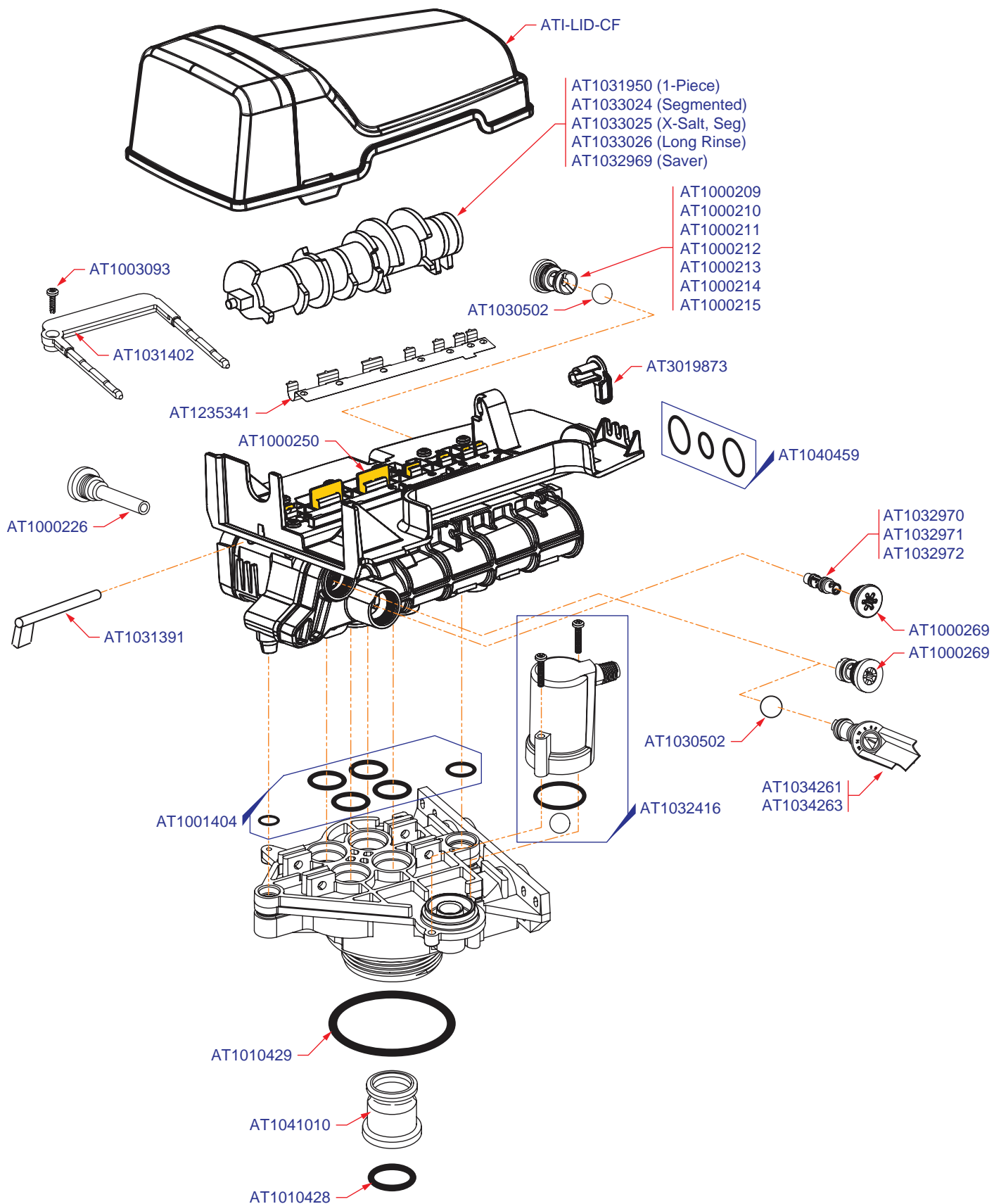
DROP Series Filter Powerhead



CS-20001X001	10-24 X 13/16 Hex Head Screw.....	\$0.40
CS-20001X002	Piston Washer.....	\$1.40
CS-20001X003	Motor Screw.....	\$0.30
CS-20001X004	Front Plate.....	\$13.70
CS-20001X005	Back Plate.....	\$17.20
CS-20001X007	Encoder Wheel.....	\$4.40
CS-20001X122	Brine Cam.....	\$4.50
CS-20001X124	Encoder.....	\$4.80
CS-20001X215	Tank O-Ring.....	\$7.40
CS-20001X217	Injector Plug.....	\$18.00
CS-20001X219-1D	Injector w/Check Valve.....	\$13.20
CS-20001X222	Injector Screen.....	\$3.40
CS-20001X223	Injector Cap.....	\$13.90
CS-20001X224	Injector Cap Seal.....	\$10.60
CS-20001X226	10-24 X 1 Hex Screw.....	\$0.10
CS-20009x001	Injector Cap, AIO Plus.....	\$9.60
CS-20009X005	3/8" Plug.....	\$2.70
CS-20009x225	Brine Valve.....	\$26.00
CS-20001X229	Brine Cavity Plug.....	\$29.50
CS-20009X228	Brine Line Flow Control Assy.....	\$4.80
CS-20009x231	Connected Series AIO Plus Piston Assembly.....	\$80.60
CS-20015X021	Stem Elbow.....	\$10.40
CS-20016X001	Main/Back Plate.....	\$8.50
CS-20016X002	Secondary/Front Plate.....	\$5.90
CS-20016X003	RS1 Base Plate.....	\$11.50
CS-20016X006	Motor.....	\$60.00
CS-20017x010	External Air Injection Assembly.....	\$61.80
CS-20017X100	Drain Line Flow Control Housing.....	\$5.80
CS-20017x201	Flow Meter Plug.....	\$20.60
CS-20017X203	Meter Assembly.....	\$76.90
CS-20017X214	DLFC Clip.....	\$1.50
CS-20017X219	Injector w/Check Ball - White.....	\$13.90
CS-20017X220	Injector w/Check Ball - Blue.....	\$13.90
CS-20017X266	Drain Line Flow Control Housing.....	\$4.10
CS-20017x292	Extension.....	\$15.80
CS-20017x293	Inlet Check Valve.....	\$25.10
CS-20018X017	RS1 Slide Cover.....	\$18.60
CS-20018X028	Micro Switch (sm) EG5428-ND.....	\$19.60
CS-20018X036	DC Power Cord Choke (Clip-On).....	\$3.60
CS-20018X231	Drop Universal Piston.....	\$104.90
CS-20111X002	Lower Front Base for Cover.....	\$6.80
CS-20111X003	Lower Back Base for Cover.....	\$5.10
CS-20111X014	Circuit Board Washer.....	\$0.10
CS-20111X017	Valve Cover.....	\$27.50
CS-20251X266	DLFC 1.5 Button.....	\$3.10
CS-20251X267	DLFC 2.0 Button.....	\$3.10
CS-20251X268	DLFC 2.4 Button.....	\$3.10
CS-20251X270	DLFC 3.5 Button.....	\$3.10
CS-20251X272	DLFC 5.0 Button.....	\$12.00
CS-20251X273	DLFC 7.0 Button.....	\$12.00

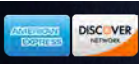
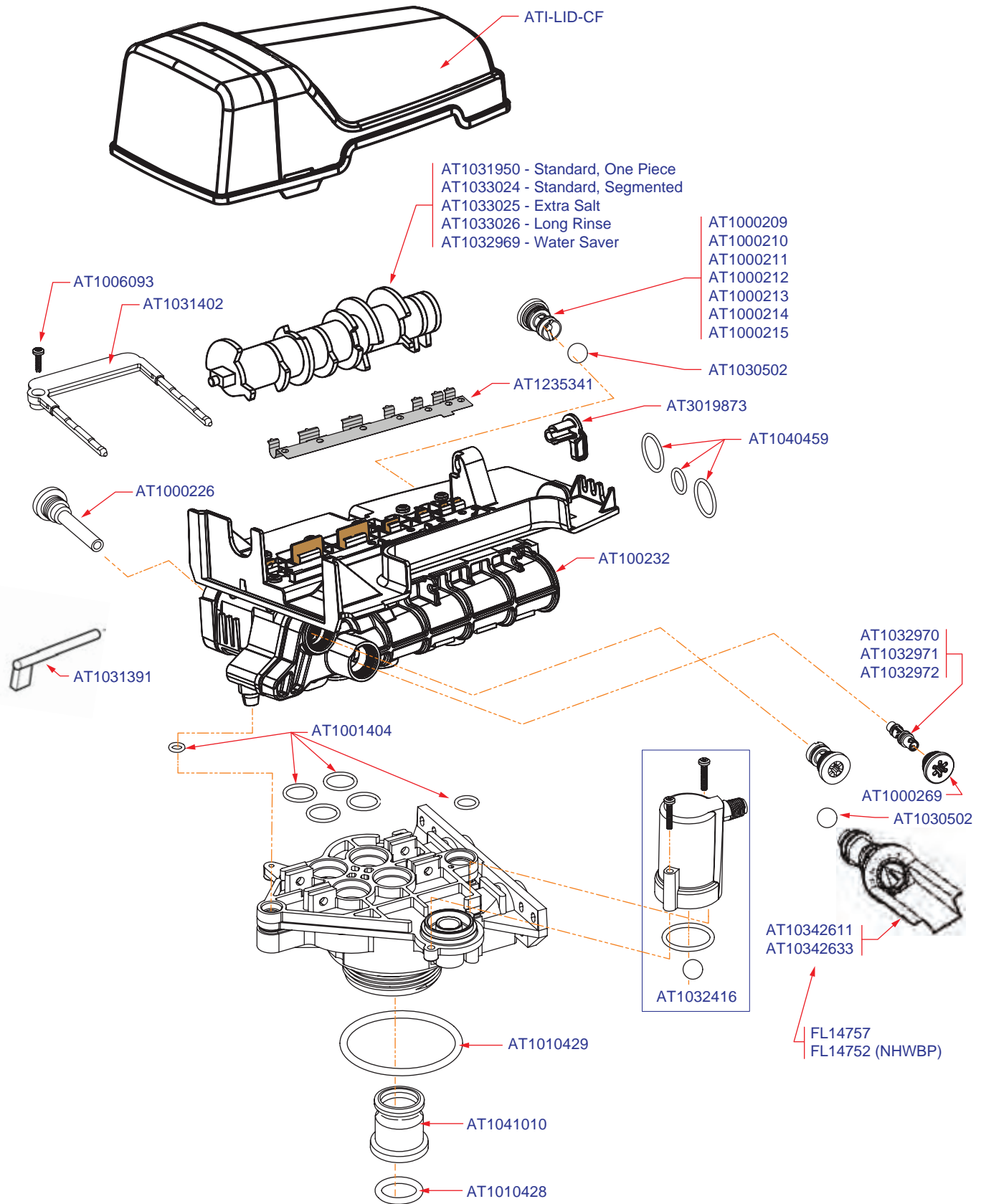
CS-20251X305	Chemical Feed Ferrule.....	\$0.20
CS-20251X305	Brine Line Ferrule.....	\$2.10
CS-20561X204	Distributor Tube O-Ring.....	\$0.80
CS-20561X225	Brine Valve Assembly.....	\$24.80
CS-20561X253	Replacement Seal & Spacer Kit.....	\$42.60
CS-21001X120	Main Gear.....	\$6.80
CS-21001X122	TWEDO Cam.....	\$6.60
CS-21003X100	Powerhead Assembly.....	\$476.10
CS-22003N102	Nelsen Softener/Filter Powerhead Assembly.....	\$200.10
CS-22004N102	Nelsen AIO Plus Powerhead Assembly.....	\$200.10
CS-26239	TWEDO Motor.....	Call
CS-500ZLJS	Signature Motor.....	Call
CS-BOARD ENCLOSURE	Circuit Board Assembly.....	Call
CS-CG6	Cord Grip.....	\$0.40
CS-EVB-020	DROP Board.....	\$150.80
CS-GA-Q0620626BV	3/8" Push Lock 90° Elbow.....	\$10.10
CS-GA-S0660416B	Stem Adapter.....	\$2.60
CS-L-DFC	RS1 DROP Label.....	\$8.50
CS-METER	Flow Meter.....	\$80.60
CS-MTR-CORD3	Motor Lead.....	Call
CS-PISTON	Connected Series Piston Assembly, Softener.....	\$75.40
CS-PWR-CORD	Power Lead, 8".....	\$19.60
CS-SC10	Screw.....	\$0.10
CS-SC11	Micro Switch (sm).....	\$0.20
CS-SC2	Motor Screw.....	\$0.20
CS-SC8	Board Screw.....	\$0.20
CS-SC9	Screw.....	\$0.10
CS-SEALS	Seal and Spacer Kit.....	\$44.60
CS-TRANS	Power Supply.....	\$38.50
CS-VH1-B-D15	Valve Body Complete.....	\$100.00

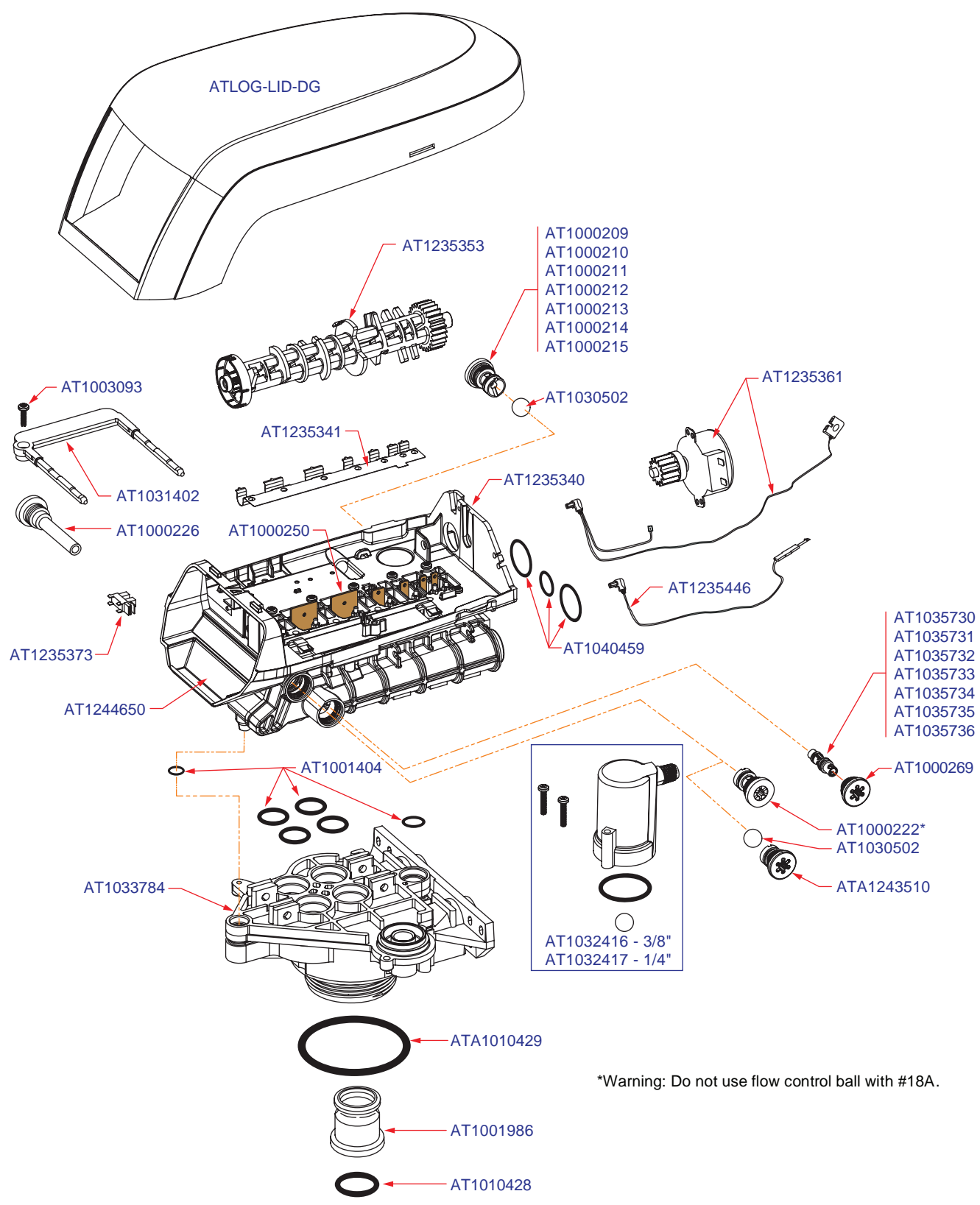




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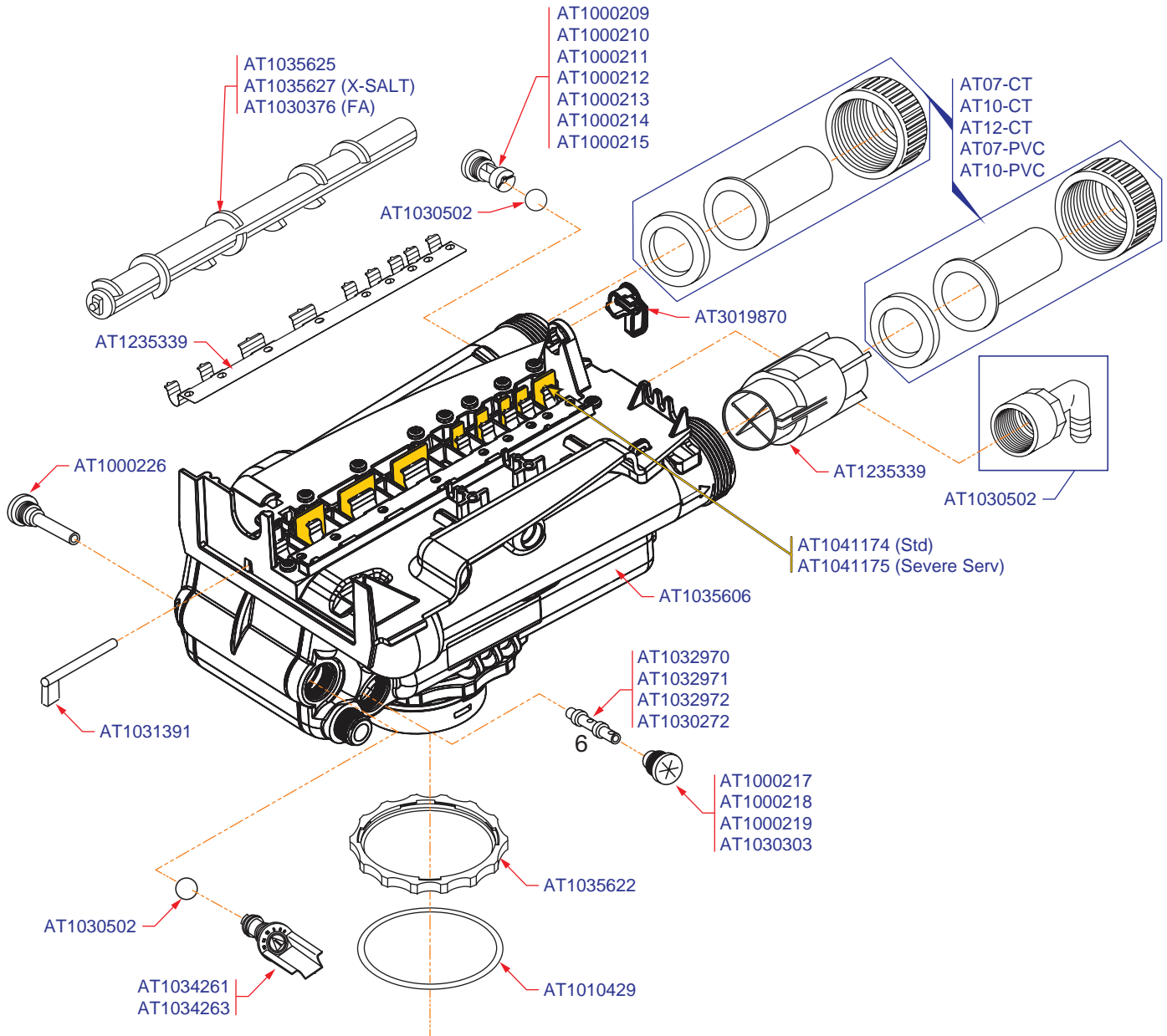


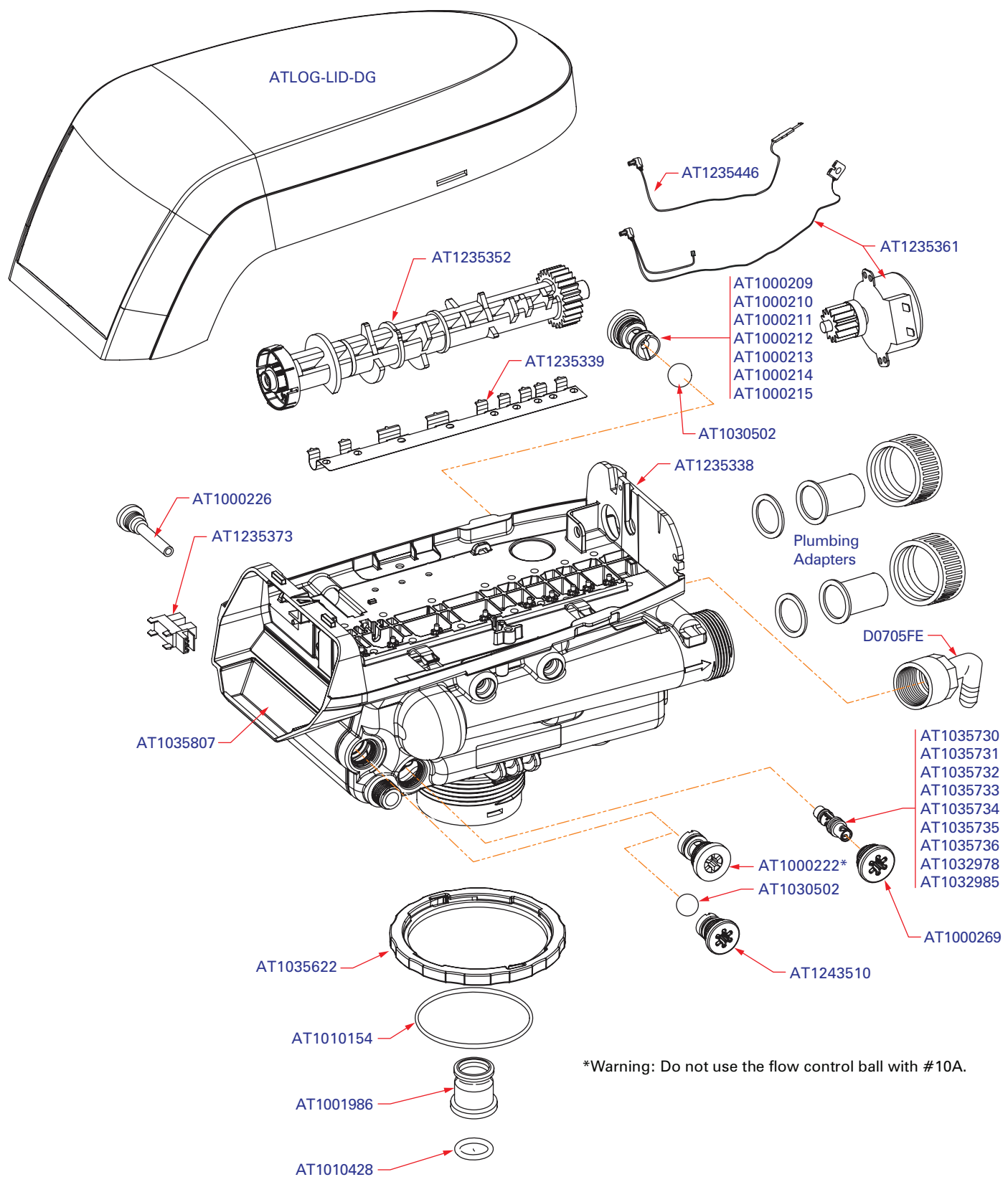


*Warning: Do not use flow control ball with #18A.

Autotrol







*Warning: Do not use the flow control ball with #10A.

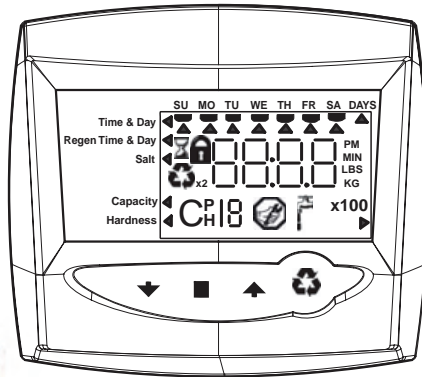


COMPLETE ASSEMBLIES

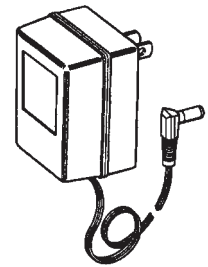
- AT1242146** Logix 740 Controller
- AT1242148** Logix 740F Controller
- AT1242150** Logix 742 Controller

- AT1242163** Logix 760 Controller
- AT1242166** Logix 760F Controller
- AT1242168** Logix 762 Controller

- AT1000811** Transformer



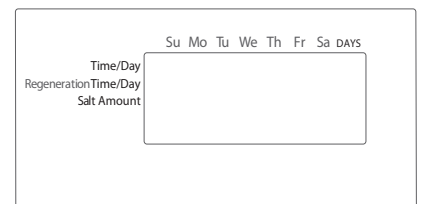
700 Series Control



AC Adapter



LOGIX 740 CONTROLLER



700 Control Overlays

Autotrol 460 Timer

COMPLETE ASSEMBLIES

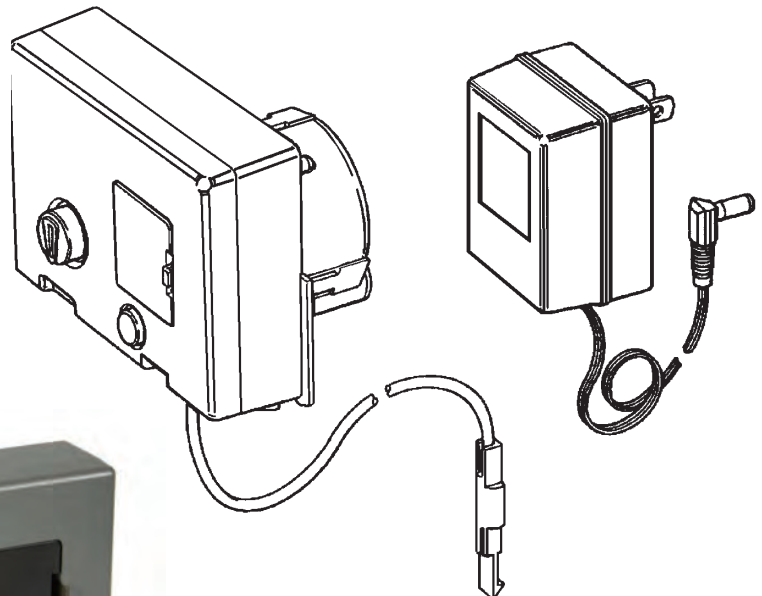
- AT1040534** - 460i Timer 12 Volt



460i CONTROLLER



460TC CONTROLLER



* AT1000094	Access Cover, 460i.....	\$4.05
AT1000209	Backwash Assembly #7.....	\$17.75
AT1000210	Backwash Assembly #8.....	\$17.75
AT1000211	Backwash Assembly #9.....	\$17.75
AT1000212	Backwash Assembly #10.....	\$17.75
AT1000213	Backwash Assembly #12.....	\$17.75
AT1000214	Backwash Assembly #13.....	\$19.35
AT1000215	Backwash Assembly #14.....	\$19.35
AT1000217	<i>Discontinued - Injector Cap, Size A for 255 Valve Bodies</i>	
* AT1000218	<i>Discontinued - Injector Cap, Size B</i>	
* AT1000219	<i>Discontinued - Injector Cap, Size C</i>	
* AT1000222	<i>Obsolete - Use Part No. AT1243511</i>	
AT1000226	Injector Screen/Cap Assembly.....	\$8.15
AT1000232	Control Body, 255 W/Top Plate.....	\$320.00
* AT1000238	<i>Discontinued - 255 Valve Body and Top Plate for 940 or 960</i>	
* AT1000248	<i>Discontinued - 255 Top Plate with Springs for 900 Series Controls</i>	
AT1000250	Valve Disc Kit, 255 Valve.....	\$42.10
* AT1000252	<i>Discontinued - Valve Disk Kit, Severe Service, 255 Valve</i>	
AT1000269	Injector Cap, Blank.....	\$7.85
AT1000297	<i>Obsolete - Camshaft Bearing Extended for i-Lid</i>	
AT1000317	Magnum Inlet Valve Cartridge.....	\$270.00
AT1000365	Magnum Rinse Valve Cartridge.....	\$270.00
AT1000366	Magnum It NHWB Cartridge.....	\$194.00
* AT1000810	<i>Transformer, Japanese</i>	
AT1000811	<i>Discontinued - Use Part No. FL44149</i>	
* AT1000812	Transformer, Australian.....	\$23.50
* AT1000813	Transformer, British.....	\$23.50
* AT1000814	Transformer, European.....	\$22.95
* AT1000824	<i>Discontinued - Camshaft Assembly, 940 or 960</i>	
* AT1000982	Plumbing Adapter, 3/4" PVC NPT Male.....	\$13.75
AT1001404	O-Ring Kit (6 O-Ring).....	\$15.85
* AT1001408	<i>Obsolete - Elbow Adapter w/Nut 90°</i>	
AT1001569	<i>Obsolete - Autotrol Motor, 12v - 60hz, 440i</i>	
AT1001580	New Valve Spring.....	\$1.15
* AT1001986	Riser Tube Insert, 13/16".....	\$5.50
* AT1002735	Elbow Connector.....	\$16.55
* AT1004104	<i>Discontinued - Cover Clip</i>	
* AT1005120	<i>Discontinued - Nut, No. 10-24</i>	
* AT1005571	<i>Discontinued - Screw, No. 10-24 x 1"</i>	
* AT1005615	<i>Obsolete - Screw, #4 - 40 x 1/4"</i>	
* AT1005638	<i>Discontinued - Bolt #10 - 24</i>	
* AT1005664	<i>Discontinued - Screw, Air Check 8-32 x 1.5"</i>	
* AT1005952	<i>Discontinued - Screw</i>	
* AT1006091	<i>Screw, #6 x 1/2"</i>	
* AT1006093	<i>Screw, Top Plate #8 x 9/16 "</i>	
* AT1006601	<i>Bowed Washer</i>	
* AT1007483	<i>Wire Nut</i>	
* AT1009021	Cap / Plug.....	\$2.60
* AT1009056	<i>Cap / Plug</i>	
* AT1010003	<i>Discontinued - O-Ring, 168FA Valve</i>	



* AT1010103	Discontinued - O-Ring, 26F, 1/16 x 1/4 x 3/8	
* AT1010104	Discontinued - O-Ring, 27F, 1/16 x 5/16 x 7/16	
* AT1010107	Discontinued - O-Ring	
* AT1010108	Discontinued - O-Ring, 1/16 x 9/16 x 11/16	
* AT1010110	Discontinued - O-Ring* 1/16 x 11/16 x 13/16	
* AT1010117	Discontinued - O-Ring, 32F, 3/32 x 3/8 x 9/16	
* AT1010138	O-Ring, 44F, 3/16 x 3/4 x 1	
* AT1010143	Discontinued - O-Ring, Air Check	
* AT1010154	O-Ring.....	\$11.95
* AT1010402	Discontinued - O-Ring, 48F, 1/16 x 3/8 x 1/2	
* AT1010407	Discontinued - O-Ring, 37F, 3/32 x 5/8 x 13/16	
* AT1010410	Discontinued - O-Ring 35F, BN, 3/32 x 7/8 x 1-1/16	
* AT1010411	Discontinued - O-Ring 38F, BN, 3/32 x 1-1/16 x 1-1/4	
* AT1010412	Discontinued - O-Ring, 49F, 3/32 x 1-1/8 x 1-5/16	
AT1010419	Discontinued - O-Ring, Bypass	
* AT1010428	Discontinued - O-Ring, 1" Riser	
AT1010429	Use Part # AT1010154 O-Ring	
* AT1010431	Discontinued - O-Ring, 39F, 3/32 x 11/16 x 7/8	
AT1013600	Torx Key Wrench	
AT1014081	Silicone, - Tube 5.3 oz.....	\$33.40
* AT1030000	460I Timer with Transformer.....	\$446.00
* AT1030042	Discontinued - Turb Deflector, 13/16	
* AT1030043	Discontinued - Turb Deflector, 1.050	
* AT1030044	Discontinued - Moon Shaped Adapter	
* AT1030272	D Size Injector, Green.....	\$12.70
* AT1030334	Plugged Refill Flow Control, Performa.....	\$21.25
AT1030355	External DLFC, 5.0 gpm.....	\$26.60
AT1030357	External DLFC, 7.0 gpm.....	\$25.30
AT1030358	External DLFC, 8.0 gpm.....	\$27.80
AT1030360	External DLFC, 10.0 gpm.....	\$27.80
* AT1030501	Discontinued - Bearing, Camshaft - Cvr Code 34	
AT1030502	Ball, BR Control.....	\$1.80
* AT1030528	Ball, Air Check, 0.75 Dia. EP.....	\$2.15
* AT1030533	Discontinued - End Cap	
* AT1030534	Discontinued - Knob, White	
* AT1030535	Discontinued - Knob, Black	
* AT1030538	Discontinued - Washer	
AT1030540	Tube Adapter, 3/4.....	\$13.75
AT1030541	Gasket, 1" Pipe or Tube.....	\$1.15
* AT1030545	Tube Adapter, 1.....	\$15.65
* AT1030566	Adapter Nut, 3/4" Pipe	
* AT1030567	Adapter Nut, 1" Pipe	
* AT1030568	Plumbing Adapt, 1" BSPT Brass	
* AT1030569	Plumbing Adapt, 1" NPT Brass	
AT1030570	Nut, 3/4 T Adapter	
* AT1030571	Discontinued - Nut, 1 T Adapter	
* AT1030572	Obsolete	
* AT1030576	Plumbing Adapt, 3/4" BSPT Brass	
* AT1030578	Plumbing Adapter, 3/4" PVC.....	\$17.75
* AT1030579	Plumbing Adapter, 1" PVC.....	\$17.75

* AT1030605	Obsolete	
* AT1030640	Discontinued - Retainer, 1" Riser	
* AT1030641	Discontinued - Adapter, 1" Riser	
* AT1030659	Day Dial Washer	
* AT1030821	Gear Retainer Spring, 24 hr	
* AT1030830	Comprs. Spring	
AT1030846	Timer Motor, 120V	
* AT1030850	Motor, 24v/60 Hz	
* AT1031391	Timer Lock Pin.....	\$8.80
* AT1031402	Locking Bar, English Language.....	\$21.60
AT1031496	Output Connector	
* AT1031582	Obsolete	
* AT1031740	Obsolete - Skipper Wheel Assm, 6 Day	
* AT1031742	Obsolete - Skipper Wheel Assm, 7 Day	
* AT1031751	Motor Cover	
AT1031756	Trip Assembly, 6 Day	
AT1031939	Discontinued - Air Check Body, 1/4" Male	
* AT1031950	Camshaft, One Piece.....	\$20.35
AT1032259	Discontinued - Air Check Body, 3/8" Male	
AT1032350	Turbine Assembly.....	\$79.80
* AT1032416	Air Check Kit, 3/8" Male.....	\$29.00
AT1032417	Air Check Kit, 1/4" Male.....	\$24.20
* AT1032969	Camshaft Assembly, Water Saver.....	\$52.50
AT1032970	Injector w/O-Ring, White, "A".....	\$10.15
AT1032971	Injector w/O-Ring, Blue, "B".....	\$10.15
AT1032972	Injector w/O-Ring, Red, "C".....	\$9.70
AT1032973	Discontinued - Injector Cap w/O-Ring, "A"	
AT1032974	Discontinued - Injector Cap w/O-Ring, "B"	
AT1032975	Discontinued - Injector Cap w/O-Ring, "C"	
* AT1032985	Discontinued - Injector Cap Assembly with O-Ring.....	\$6.55
AT1032991	Discontinued - Injector Cap and Screen (155 Only)	
AT1032992	Discontinued - Screen Cap w/O-Ring	
AT1032994	Obsolete	
AT1032996	Discontinued - Use Part No. AT1034263	
AT1033013	Discontinued - Valve Disc Set (168 and 155 Valve).....	\$73.75
* AT1033024	CamShaft, Standard 155.....	\$32.00
AT1033025	CamShaft, XL155 LR, Extra Salt.....	\$45.60
* AT1033026	Cam Assembly LR.....	\$40.00
* AT1033036	Discontinued - 168 CamShaft, Standard	
* AT1033037	Discontinued - 168 LR CamShaft, Extra Salt	
* AT1033038	Discontinued - Camshaft Assm, Long Rinse	
* AT1033039	Discontinued - 163 V. CamShaft Assembly	
* AT1033040	Discontinued - Camshaft Assm, FA Valve	
* AT1033057	Turbine Wheel.....	\$29.90
AT1033064	Discontinued - Tank Adapter (Obsolete, Replaced by AT1033784)	
* AT1033065	Discontinued - Threaded Air Check Kit, w/Adapter	
* AT1033066	Threaded A.C. Adapter Kit, 155.....	\$11.25
* AT1033067	Discontinued - 255 Top Plate Assem, 440/460I	
* AT1033270	Discontinued - Regeneration Switch Kit, 255, 440i or 460i	
* AT1033272	Discontinued - Regeneration Switch Kit, 163	



AT1033352	Turbine Cable Assembly, 10Ft.....	\$101.25
* AT1033418	<i>Discontinued - Top Plate w/Springs. 163, 168</i>	
* AT1033435	<i>Discontinued - #6 B.W. (1.0 gpm @ 60 psi)</i>	
* AT1033436	<i>Discontinued - #7 B.W. (1.2 gpm @ 60 psi)</i>	
* AT1033437	<i>Discontinued - #8 B.W. (1.6 gpm @ 60 psi)</i>	
* AT1033438	<i>Discontinued - #9 B.W. (2.0 gpm @ 60 psi)</i>	
* AT1033439	<i>Discontinued - #10 B.W. (2.5 gpm @ 60 psi)</i>	
* AT1033440	<i>Discontinued - #12 B.W. (3.5 gpm @ 60 psi)</i>	
AT1033444	Turbine Assembly, Internal.....	\$35.90
AT1033504	<i>Discontinued - Shaft Stem</i>	
* AT1033511	<i>Discontinued - Bypass Valve Stem w/O-Rings</i>	
* AT1033784	255 Tank Adapter Assembly (New Style).....	\$213.00
AT1034078	<i>Discontinued - Autotrol Turbine, 2" w/Brass Adapters</i>	
* AT1034118	<i>Discontinued - Injector w/O-Ring, FA "B" Blue</i>	
* AT1034119	<i>Discontinued - Injector w/O-Ring, FA "C" Red</i>	
* AT1034120	<i>Discontinued - Injector Cap w/O-Ring, FA "C"</i>	
* AT1034162	<i>Discontinued - Backwash Assembly #6</i>	
* AT1034167	<i>Discontinued - Spacer, External Turbine, 168</i>	
* AT1034261	Brine Control Assembly, 1-10 lbs. Salt.....	\$53.30
AT1034263	Brine Control Assembly, 3-19 lbs. Salt.....	\$53.30
AT1035622	Tank Adapter Ring.....	\$12.50
* AT1035624	263 Cam Shaft, Grey.....	\$26.60
AT1035625	268 Cam Shaft, Black.....	\$26.60
AT1035627	268 X-Salt Cam Shaft, White.....	\$26.60
* AT1035730	E Injector with O-Rings, 6-inch Tank - Yellow.....	\$12.15
AT1035731	F Injector with O-Rings, 7-inch Tank - Peach.....	\$12.15
AT1035732	G Injector with O-Rings, 8-inch Tank - Tan.....	\$12.15
AT1035733	H Injector with O-Rings, 9-inch Tank - Lt Purple.....	\$12.15
AT1035734	J Injector with O-Rings, 10-inch Tank - Lt Blue.....	\$12.15
AT1035735	K Injector with O-Rings, 12-inch Tank - Pink.....	\$12.15
AT1035736	L Injector with O-Rings, 13-14 inch Tank - Orange.....	\$12.15
AT1035778	<i>Discontinued - Camshaft Clip, Performa, (440i and 460i)</i>	
* AT1040339	Manifold Service Kit.....	\$24.40
AT1040459	O-Ring Kit (3 O-Rings).....	\$9.45
* AT1040524	256 ByPass Installation Kit/Also for 255 Turbine.....	\$25.30
* AT1040525	<i>Discontinued - Regeneration Switch Kit, 168</i>	
* AT1040526	<i>Discontinued - Valve Disk Kit, Severe Serv, 163, 168, 155</i>	
* AT1040527	<i>Discontinued - Riser Kit, 13/16"</i>	
* AT1040528	<i>Discontinued - Riser Kit, 1</i>	
* AT1040529	<i>Discontinued - Valve Disk Kit, 163 Valve</i>	
AT1040534	460I Timer with Transformer.....	\$436.00
AT1040670	Injector for 14-inch Tank - 0.5 gpm (includes O-Rings).....	\$45.80
AT1040671	Injector for 16-inch Tank - 0.5 gpm (includes O-Rings).....	\$45.80
AT1040672	Injector for 18-inch Tank - 0.6 gpm (includes O-Rings).....	\$45.80
AT1040673	Injector for 21-inch Tank - 0.9 gpm (includes O-Rings).....	\$45.80
AT1040674	Injector for 24-inch Tank - 1.4 gpm (includes O-Rings).....	\$45.80
AT1040675	Injector for 30-inch Tank - 2.0 gpm (includes O-Rings).....	\$45.80
AT1040676	Injector for 36-inch Tank - 3.3 gpm (includes O-Rings).....	\$45.80
AT1040780	<i>Discontinued - 440I Timer with Transformer</i>	
* AT1041116	<i>Discontinued - Regeneration Switch Kit, .1 amp., 263, 268, 269</i>	

* AT1041117	Regeneration Switch Kit, 5 amp., 263, 268, 269.....	\$81.75
AT1041174	Valve Disk Kit, Standard 263, 268, 269.....	\$84.50
* AT1041175	<i>Discontinued - Valve Disk Kit, Severe Service 263, 268, 269</i>	
AT1051019	<i>Discontinued - 940 Timer</i>	
AT1230336	<i>Discontinued - 440i 3-Cycle Timer w/Transformer</i>	
AT1231647	<i>Discontinued - 440i 59-Minute Timer w/Transformer</i>	
AT1232370	O-Ring, EPDM, -318, 70 Duro.....	\$2.25
AT1234763	<i>Discontinued - 440i Control, 3-Cycle Filter, 12V - 60 Hz w/Transformer (Performa Filter)</i>	
* AT1234851	263 Plugged Injector.....	\$12.70
* AT1235338	Top Plate, Performa 263, 268, 278 Logix Valve.....	\$67.25
AT1235339	Logix Single Piece Spring.....	\$17.20
* AT1235340	Top Plate, 252/255 Logix Valve.....	\$67.25
AT1235341	Spring, One Piece, 253-255 Valve.....	\$17.20
AT1235352	Cam, 263/268 Performa Logix Valve, Std, Black.....	\$36.20
* AT1235353	Cam, 253/255 Logix Valve, Std, Black.....	\$29.90
AT1235361	<i>Discontinued - Motor/Optical Cable Assembly</i>	
* AT1235373	<i>Discontinued - Photo Interrupter Sensor Module</i>	
* AT1235446	Turbine Sensor Cable, Logix Demand Valves.....	\$31.40
AT1235448	<i>Discontinued - Outdoor AC Adapter, 120v to 12v</i>	
* AT1236246	Valve Cover, 253/278 Logix Valves, Dk Gray.....	\$14.05
* AT1236251	Cam, 255 Logix Valve, Twin.....	\$33.80
AT1238861	<i>Discontinued - Logix Motor/Pinion Assm. W/Optical Power Cable</i>	
AT1239760	Blender Kit, 253-278 Logix Valves.....	\$13.05
AT1242146	740 Controller w/Conditioner Faceplate Overlay.....	\$192.50
AT1242148	740F Controller w/Filter Faceplate Overlay.....	\$192.50
AT1242150	742 Controller w/Conditioner Faceplate.....	\$220.00
AT1242163	760 Controller w/Conditioner Faceplate Overlay.....	\$353.00
* AT1242166	760F Controller w/Filter Faceplate Overlay.....	\$385.00
AT1242168	762 Controller w/control panel.....	\$399.00
AT1243510	<i>Discontinued - 0.33 GPM "Cone Style" Brine Refill Flow Controller</i>	
* AT1243511	<i>Discontinued - Refill Control .33 GPM</i>	
* AT1244650	255 Valve Body Assembly w/o Flow Controls.....	\$293.00
* AT1244651	Performa Valve Body Assembly w/o Flow Controls.....	\$293.00
* AT1268102	Logix 762/742 No Salt Detector Refill.....	\$127.00
AT3019221	Logix Motor/Optical Cable/Sensor.....	\$99.00
AT3023536	Autotrol Turbine, 2 W/Brass Adapters.....	\$718.00
CL1300-01	WS2H Top Baffle Diffuser 2"/63mm.....	\$34.80
CL3001	C-Series Body Assembly (Downflow).....	\$78.50
CL3001-02	C-Series Mixing Valve Body Assembly.....	\$95.50
CL3001-02UP	C-Series Mixing Valve Body Upflow Assembly.....	\$95.50
CL3001UP	C-Series Body Upflow Assembly.....	\$84.25

Autotrol



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NELSEN

C O R P O R A T I O N™

Technical & Engineering

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Angstrom Unit:

A unit of wavelength of light equal to one tenth of a millimicron or one ten-millionth of a millimeter.

Etching:

The deterioration by chemical change on the surface of glassware caused by the action of high temperatures and detergents, and it is more prevalent or intensified in soft or softened water supplies. Very high water temperatures in automatic dishwashers can cause detergent phosphate compounds to change into even more aggressive forms. If enough dish soil or water hardness is available, it will react with the most aggressive of these sequestering phosphates. Otherwise, however, the excessive detergent agents can actually extract elements directly from the glassware composition. In early stages, incipient etching appears as a rainbow colored film similar to an oil-on-water film. As etching progresses, this changes to opaqueness, which appears similar to filming except that it cannot be removed or repaired since etching is an actual eating away of the glass. It is sometimes called "soft water filming". The solution to chemical etching is to use less detergent, water temperatures below 140°F, and sufficient amounts of water during the rinse cycle. (Poor rinsing can also be caused by overloading the dishwasher.) Mechanical etching can occur when two glasses rub against each other in the dishwasher. (See also Water Spotting.)

Flux:

Gallons per day of permeate passing through each square foot of membrane surface.

Iron Bacteria:

Organisms which are capable of utilizing ferrous iron, either from the water or from steel pipe, in their metabolism and precipitating ferric hydroxide in their sheaths and gelatinous deposits. These organisms tend to collect in pipelines and tanks during periods of low flow and to break loose in slugs of turbid water to create staining, taste and odor problems.

Jackson Turbidity Unit (JTU):

An arbitrary unit of turbidity originally based on a suspension of a specific type of silica with the turbidity measured in a Jackson Candle Turbidimeter. Now called a Nephelometer.

Langelier's Index:

A calculated number used to predict whether or not a water will precipitate, be in equilibrium with, or dissolve calcium carbonate. It is sometimes erroneously assumed that any water which tends to dissolve calcium carbonate is automatically corrosive.

Micron:

A linear measure equal to one millionth of a meter or .00003937 inch. The symbol for the micron is the Greek letter "μ".

Sequestering Agent:

A chemical compound sometimes fed into water to tie up undesirable ions, keeps them in solution, and eliminates or reduces the normal effects of these ions. For example, polyphosphates can sequester hardness and prevent reactions with soap.

Uniformity Coefficient:

The degree of variation in the size of the grains that constitute a granular material; the ratio of (a) the diameter of a grain size that is barely too large to pass through a sieve that allows 60 percent of the material (by weight) to pass through, to (b) the diameter of a grain of a size that is barely too large to pass through a sieve that allows 10 percent of the material (by weight) to pass through. The coefficient is unity for any material having grains all the same size, and it increases above unity with variation in size of grain.

Virus:

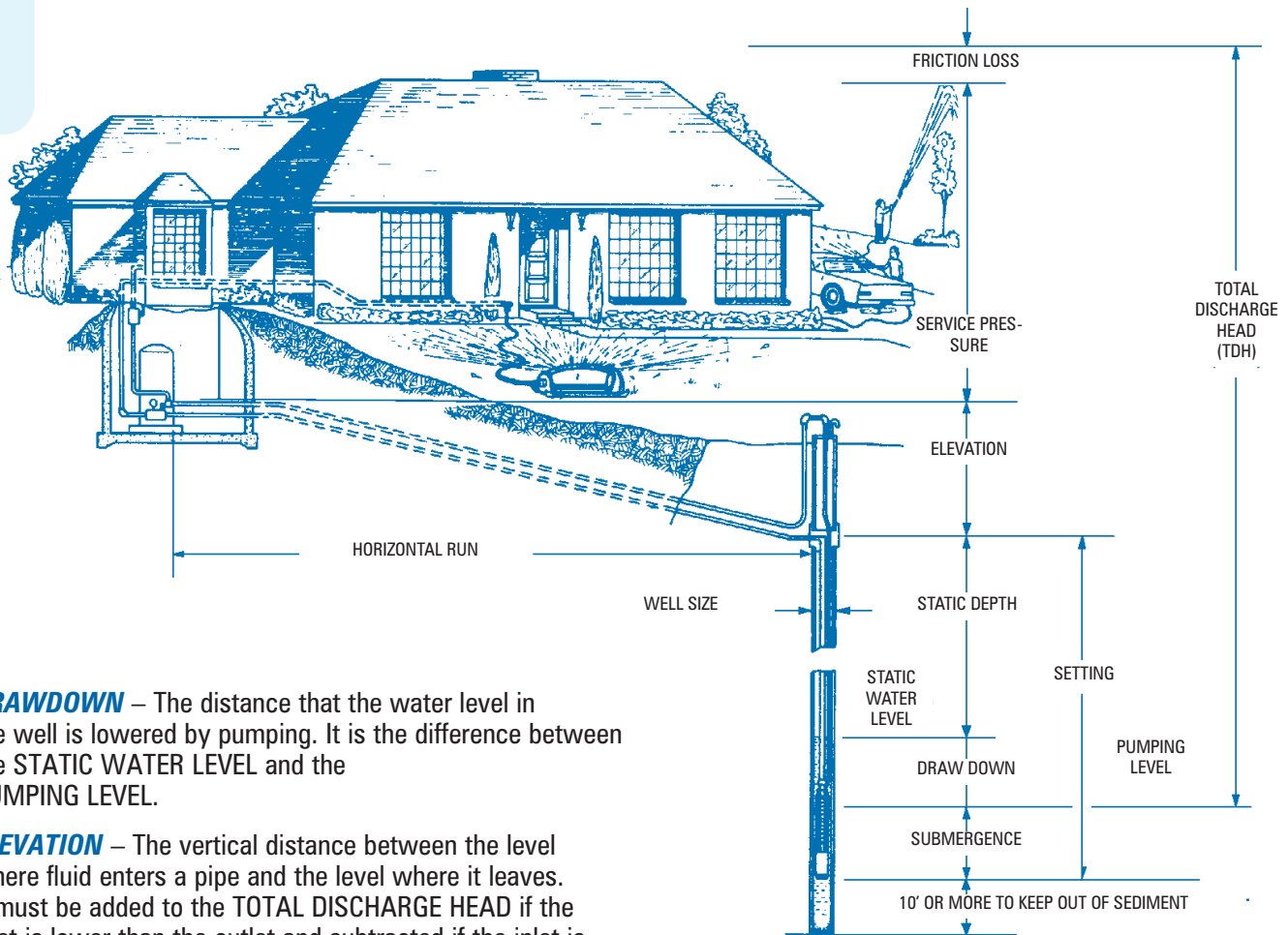
The smallest form of life known to be capable of producing disease or infection, usually considered to be of large molecular size. They multiply by assembly of component fragments in living cells, rather than by cell division, as do most bacteria.

Water Hammer:

The shock wave or series of waves caused by the resistance of inertia to an abrupt change (acceleration or deceleration) of water flow through a water piping system. Water hammer may produce an instantaneous pressure many times greater than the normal pressure. For this reason, many building codes now require the installation of a "water hammer arrestor," a device to absorb these shock waves and prevent damage to appliances such as washing machines.

Water Spotting:

Cloudy milk-like film, spots, streaks, or heavy white deposits left on surfaces after water has dried from them, especially noticeable on clear glassware and cars after washing. Spotting is caused by minerals that had been dissolved in the water remaining behind after the water has evaporated. Soft water spotting can be wiped off easily with a damp cloth or rinsed off with a little fresh water. Hard water deposits, on the other hand, are comprised of the more tenacious calcium and magnesium salts. Hard water films typically require harsh abrasives or an acid cleaner to remove them. A third type of water residue film is due to silica (SiO₂) deposits. Silica spotting is rare, but it is more difficult or impractical to be removed when it does occur. If glassware films won't dissolve in acids such as vinegar or lemon juice, they may be due to silica spotting or etching. If the spot won't dissolve in acid, but can be scratched off with a razor blade or pinpoint, it's likely a silica film. (See also Etching.)



DRAWDOWN – The distance that the water level in the well is lowered by pumping. It is the difference between the **STATIC WATER LEVEL** and the **PUMPING LEVEL**.

ELEVATION – The vertical distance between the level where fluid enters a pipe and the level where it leaves. It must be added to the **TOTAL DISCHARGE HEAD** if the inlet is lower than the outlet and subtracted if the inlet is higher. As a rule of good installation practice, however, pipes should slope continuously upward from the inlet to the outlet to prevent entrapment of air.

FRICTION LOSS – The loss of pressure or head due to the resistance to flow in the pipe and fittings. Friction loss is influenced by pipe size and fluid velocity, and is usually expressed in feet of head.

HORIZONTAL RUN – The horizontal distance between the point where fluid enters a pipe and the point at which it leaves.

PUMPING LEVEL – The lowest water level reached during pumping operation.

SERVICE PRESSURE – The range of pressure in the pressure tank during the pumping cycle, usually expressed on pounds per square inch gauge (P.S.I.G.)

SETTING – The vertical distance from the level at which the discharge pipe leaves the well to the bottom of the pump or jet assembly in the well.

STATIC OR STANDING WATER LEVEL – The undisturbed level of water in the well before pumping.

SUBMERGENCE – The vertical distance between **PUMPING LEVEL** and the bottom of the pump or jet assembly. Submergence must be sufficient to insure that the suction opening of the pump or jet assembly is always covered with water, while maintaining enough clearance from the bottom of the well to keep it out of sediment (at least 10 feet clearance is recommended).

TOTAL DISCHARGE HEAD – The total pressure or head the pump must develop. It is the sum of the depth to **PUMPING LEVEL**, **THE ELEVATION**, **THE SERVICE PRESSURE**, and **THE FRICTION LOSS**. Of course, all of these measurements must be expressed in the same units, usually feet of head, before adding them together.

WATER SYSTEM SELECTION:

In selecting the proper water system for a given installation, facts about the water source as well as the water requirements must be considered. Assuming the water source is a well, the following information is needed:

1. Well size – (diameter)
2. Depth to pumping level
3. Well capacity (maximum pumping rate it will sustain)
4. Elevation and total length of piping
5. Amount of capacity required
6. Amount of pressure required

WELL SIZE:

The inside diameter of the well must be known since it may be the determining factor as to the type of pump which can be used. Submersible pumps require well at least 4 inches in diameter. Packer type jet systems can be installed in wells with diameters as small as two inches.

DEPTH-TO-PUMPING LEVEL:

The depth to the water level at maximum draw down determines the type of pump that must be used. For depths of 25 feet or less, at or near sea level, shallow well “suction lift” type pumps are adequate. Each 1000 feet of elevation above sea level reduces the shallow well depth limit by one foot. For example, the maximum practical suction lift in the Denver area, which is 5000 feet above sea level, would be 25 minus 5, or 20 feet. For lifts greater than the maximum suction limit, deep well type pumps, which have a pumping mechanism in the well, are required. The pumping level may be estimated from the well drillers test log.

WELL CAPACITY:

The maximum pumping rate the well will sustain must be known to assure that the capacity of the water system selected does not exceed that rate. As in the case of pumping level, well capacity may be obtained from the well drillers log.

ELEVATION AND TOTAL LENGTH OF PIPING:

The elevation the total length of piping are required to compute the pressure drop in the system. This computation is made by adding the elevation to the drop caused by pipe friction. Pressure drop due to friction is calculated by using the friction loss tables.

AMOUNT OF CAPACITY REQUIRED:

In determining the required capacity of a water system, it is important to provide for the peak demand rather than for the average use rate. A good rule of thumb to follow is to allow for one gallon per minute of pump capacity for each household outlet. For farm water systems, adequate water must not only be provided for household purposes and animal drinking, but for cleaning and fire protection as well. Average water consumption per day for various animals is shown in Table 1. The pump selected should have sufficient capacity to pump the entire daily requirement in two hours.

As an example, assume a farm with 20 milk cows, 100 hogs, 500 chickens, two milk houses and eight household outlets. The daily water consumption of the animals would be as follows:

Milk cows —	20 x 35	= 700
Hogs —	100 x 4	= 400
Chickens —	500/100 x 6	= 30
Total Daily Usage		1130
Pumping Capacity for 2 Hours (120 minutes)		
Period	1130 ÷ 120	= 9.4 G.P.M.
Milk House Outlets		= 2.0
Household Outlets		= 8.0
		19.4 G.P.M.

A 19 gallon per minute pump will provide sufficient water for the farm needs, including fire protection. The Well Capacity should be compared to the Pump Capacity to make sure the well can sustain a pumping rate of 19 gallons per minute. If it will not, an extra large pressure tank, or a two-pump system with storage tank will be required.

Table 1

AVE. WATER CONSUMPTION FOR HOME/FARM USE

A. Home Use

For overall daily consumption, checks of families of various sizes in different parts of the country indicate 100 gallons per day per person is a very good average.

Outlet	Total Gallons Per Usage	Flow Rate (gpm)
Shower	25-60	5
Bathtub	35	5
Lavatory	1-2	4
Toilet - Flush	3-7	4
Kitchen Sink		5
Laundry Tub		7
Washer - Automatic	30-50	5
Dishwasher	10-20	2
Water Softener	up to 150	7
Garden Hose 1/2"		3
Garden Hose 3/4"		6
Sprinkler - Lawn		3-7

B. Farm Use

	Gallons Per Day
Horse, Mule, Steer	12
Dry Cow	15
Milking Cow	35
Hog	4
Sheep	2
Chickens/100	6
Turkeys/100	20
Fire	20-60 GPM

(Based upon a study of over 20 sources by the Water Source and Use Subcommittee of the Water Systems Council. Values given are average. They do not include the extremes.)



AMOUNT OF PRESSURE REQUIRED:

Discharge Pressure of the pump must be sufficient to balance Pumping Depth plus Pipe Friction plus Elevation plus tank pressure. Water system pressure tanks usually operate within the pressure range of 20 to 40 lbs. per square inch. However, recent high demands for pressure, caused by automatic washers and other appliances, have resulted in many systems being set for 30 – 50, or even 40 – 60 ranges. An example for determining the required discharge pressure for a typical submersible pump system is shown below. Assume a pumping rate of 12 gallons per minute.

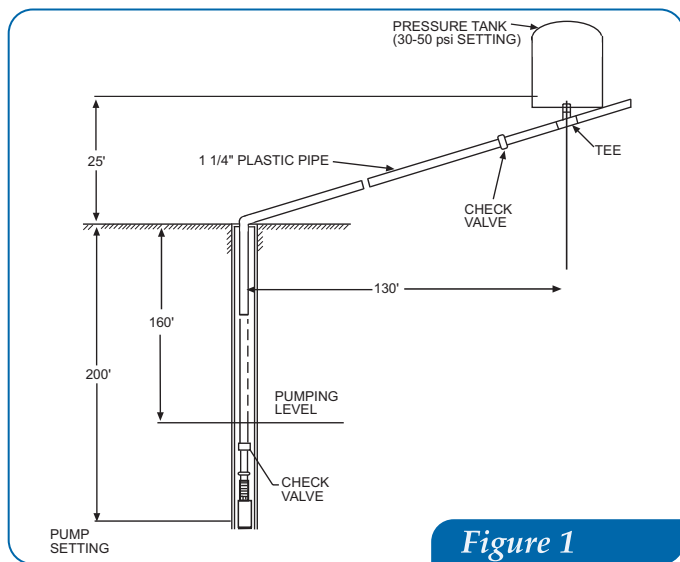


Figure 1

1. Convert all measurements to the same units. In this case, we will change tank pressure from pounds per square inch to equivalent feet of head by multiplying by 2.31, as shown in the engineering formulas on Page 416. Using 40 P.S.I. as the average tank pressure, $40 \times 2.31 = 92.4$ feet of head.

2. Compute pipe friction by using the tables on Pages 413 – 415.

- (1) 1-1/4" Plastic Tee = $1 \times 3 = 3$ ft Equivalent Pipe Length
 - (2) 1-1/4" Check Valve = $2 \times 7 = 14$ ft Equivalent Pipe Length
 - (1) 1-1/4" Elbow = $1 \times 1.7 = 1.7$ ft Equivalent Pipe Length
-
- 18.7 ft Total for fittings

PRESSURE DROP FROM PIPE FRICTION
 $\frac{(200^* + 130 + 18.7) \times 2.33}{100} = 8.1$ ft

TOTAL DYNAMIC PUMPING HEAD
 $8.1 + 160^* + 25 + 92.4 = 285.5$ ft

NOTE: While total pipe length must be used to compute pressure loss due to pipe friction, only the distance to pumping levels is included with elevation in the summation for total pumping head.

PRESSURE AT PUMP DISCHARGE,
 IN LBS. PER SQUARE INCH

$$\frac{285.5}{2.31} = 123.6 \text{ PSI}$$

TOTAL LIFT, EXCLUSIVE OF TANK PRESSURE
 $285.5 - 92.4 = 193.1$ ft (round off to 200 ft)

To select the proper submersible pump for this installation, first choose the appropriate table in the catalog, which would be for a 12 gpm rated pump. Follow the 200 ft Depth-to-Water column down until a pump is found that has the entire desired pressure range covered. The 1 hp model meets the required performance. Now check the performance at 200 ft. and 60 P.S.I. pressure to make sure that the pump will generate sufficient pressure to actuate the pressure switch at the cut-out point with at least 10 psi to spare.

NOTE: In selecting jet pumps, either shallow or deep well type, the friction loss of the piping in the well is included in the performance tables. Therefore, only elevation and friction loss outside the well need to be calculated. If the offset (horizontal distance between the pump and the well) is greater than 35 ft, the offset piping should be increased one pipe size.

TANK SELECTION:

Selection of the proper tank completes the water system. Pressure tanks used with water systems are of the hydro-pneumatic type. Compressed air in the tank acts as a giant spring to provide a pressure range, between pump stops and starts, during which a reasonable amount of water can be withdrawn. This is necessary to prevent the pump motor from cycling too often, and to provide a smooth flow of water to the outlets, without water hammer.

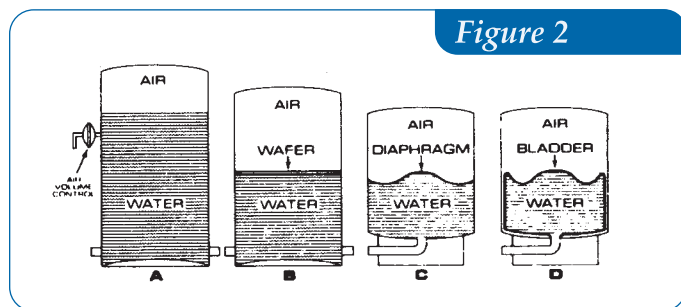


Figure 2

FIGURE 2. Types of pressure storage tanks. Figure 2A shows plain steel tanks; Figure 2B, the plain steel tank with floating wafer; 2C, the diaphragm tank; 2D the bladder tank.

TABLE 2: SEVEN MINUTE PEAK DEMAND PERIOD USAGE

OUTLETS	FLOW RATE GPM	TOTAL USAGE GALLONS	BATHROOMS IN HOME			
			1	1½	2-2½	3-4
Shower or Bath Tub	5	35	35	35	53	70
Lavatory	4	2	2	4	6	8
Toilet	4	5	5	10	15	20
Kitchen Sink	5	3	3	3	3	3
Automatic Washer	5	35	-	18	18	18
Dishwasher	2	14	-	-	3	3
Normal seven minute peak demand (gallons)			45	70	98	122
Minimum sized pump to meet peak demand without supplemental supply			7 GPM (420 GPH)	10 GPM (600 GPH)	14 GPM (840 GPH)	17 GPM (1020 GPH)

Note: Values given are average and do not include higher or lower extremes. *Peak demand can occur several times during morning and evening hours. Additional requirements: Farm, irrigation and sprinkling are shown in part 3 of this section. These values must be added to the peak demand figures if usage will occur during normal demand periods.

In order for the system to operate satisfactorily, the proper compressed air-to-water ratio must be maintained. Since air is soluble in water, the air charge in a plain tank must be constantly replenished by some type of air volume control as in "A", Fig. 2, or the compressed air must be separated from the water as shown in "B", "C", "D". The Wafer, "B", floats up and down on the water and, thus reduces air-to-water contact area, while the Diaphragm, "C", and Bladder, "D", hermetically seal the air from the water. Diaphragm and Bladder type tanks are pre-charged with air at the factory. An air charging valve is provided in these types of tanks to allow the installer to change the pre-charge pressure. Pre-charging a tank increases the amount of water that can be withdrawn between operating cycles of the pump. To select the proper pressure tank, follow the instructions below.

1: Determine the peak demand for a seven minute period, which is the average time of higher water usage by such devices as automatic washers and showers. The Peak Demand is found by reading down the column in **Table 2** under the number of bathrooms. For example, the Peak Demand for a home with 1½ bathrooms is 70 gallons.

- 2: Follow the same column down to the "Minimum sized pump requirement", which is 10GPM, or 600 GPH for the 1½ bathroom example.
- 3: Check to make sure the well and the pump selected have sufficient capacity to meet or exceed the Peak Demand rate. If they do not, go to Step 4. If they do have sufficient capacity, select the tank from **Table 3**. Continuing with our 10 GPM example and assuming a pressure switch setting of 30 – 50 lbs per in², it is found that an 80 gallon Plain steel tank would be required, compared to only a 45 gallon size in the Wafer type or 40 gallon for the bladder or diaphragm types.

For farms or other installations requiring water in addition to household use, the extra gallons needed during the seven minute Peak Demand period must be estimated using **Table 2**. The additional gallons are then added to the amount found in **Table 2**, above. For instance, if the 1½ bathroom house, in the example above, had as estimated increase usage of 35 gallons during the peak demand period, the total water needed during the period would be 35+70 or 105 gallons. Divide 105 by 7 to get the use rate of 15 gallons per minute. Enter Table 3, for 30 – 50 lbs per in² pressure, to find the tank size required, which is 150 gallon Plain steel, 80 gallon Wafer, or 75 gallon Bladder or Diaphragm types. If a standard tank is not available in the indicated size use the next larger standard size.

- 4: If the well and pump do not have the capacity to meet the Peak Demand, an extra large pressure tank, or a 2-pump system may be necessary. In a 2-pump system, the well pump pumps into a storage tank at a rate which does not exceed the well capacity. This pump is controlled by a switch actuated by water level in the storage tank. A second pump, of the centrifugal "booster" type, pumps from the storage tank to the pressure tank. It is actuated by a pressure switch. Consult your representative on specific installations requiring supplemental water storage.

TABLE 3: TANK SELECTION CHART – GALLONS
(based on present industry practices)

Pump Capacity PGH GPM	Minimum Drawdown (Gals)	Switch Setting (Pounds per Square Inch)									
		20-40			30-50			40-60			
		A	B	C	A	B	C	A	B	C	
240	4	4	20	15	15	30	20	15	40	20	20
240	4	4	20	15	15	30	20	15	40	20	20
300	5	5	30	20	15	40	25	20	50	25	25
360	6	6	35	20	20	45	25	25	55	30	30
420	7	7	10	25	20	55	30	25	75	40	30
480	8	8	40	30	25	65	35	30	85	45	35
540	9	9	50	30	30	70	40	35	95	50	40
600	10	10	55	35	30	80	45	40	105	55	45
660	11	12	60	40	35	95	50	45	125	65	55
720	12	13	70	45	40	105	60	50	135	70	60
780	13	15	80	50	45	120	65	60	155	80	70
840	14	17	90	60	55	135	75	65	175	90	75
900	15	19	100	65	60	150	80	75	195	105	85
960	16	20	110	70	65	160	90	75	205	115	95
1020	17	23	120	80	70	185	100	90	240	125	105
1080	18	25	135	85	80	200	110	95	260	140	115
1140	19	27	150	95	85	215	120	105	280	150	125
1200	20	30	160	105	95	240	130	115	310	165	140
1400	21	33	175	115	105	265	140	125	340	180	150
1320	22	36	190	120	110	290	155	140	370	190	160
1380	23	38	205	130	120	305	165	145	390	205	175
1440	24	41	220	140	130	330	175	150	425	225	185
1500	25	44	235	150	140	350	190	170	455	225	185
1560	26	47	250	160	145	375	205	180	485	260	215
1620	27	50	270	175	155	400	230	190	515	275	230
1680	28	53	285	185	165	425	230	205	550	290	240
1740	29	57	305	195	175	460	245	220	590	310	260
1800	30	60	320	205	190	480	260	230	620	330	275

A - plain steel tank, B - Supercharged, floating wafer tank, C - Precharged bladder or diaphragm tank



FRICION LOSS:

Pipe friction is the resistance to flow created by the interior surface of the pipe through which a liquid is moving. The smaller the diameter of the pipe, or greater the rate of flow, the greater the amount of friction (friction loss).

Friction loss is expressed as feet of head in 100 feet of pipe

and will vary depending upon the material of which the pipe is made. The following charts show friction losses in steel, copper, and plastic pipe, Pipe size should be sufficiently large so that not more than 10% of the total dynamic head is in friction loss.

EQUIVALENT NUMBER OF FEET STRAIGHT PIPE FOR DIFFERENT FITTINGS

Size of Fittings, Inches	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"	5"	6"
90° Ell	1.5	2.0	2.7	3.5	4.3	5.5	6.5	8.0	10.0	14.0	15.0
45° Ell	0.8	1.0	1.3	1.7	2.0	2.5	3.0	3.8	5.0	6.3	7.1
Long Sweep Ell	1.0	1.4	1.7	2.3	2.7	3.5	4.2	5.2	7.0	9.0	11.0
Close Return Bend	3.6	5.0	6.0	8.3	10.0	13.0	15.0	18.0	24.0	31.0	37.0
Tee-Straight Run	1.0	2.0	2.0	3.0	3.0	4.0	5.0				
Tee-Side Inlet or Outlet	3.3	4.5	5.7	7.6	9.0	12.0	14.0	17.0	22.0	27.0	31.0
Globe Valve Open	17.0	22.0	27.0	36.0	43.0	55.0	67.0	82.0	110.0	140.0	160.0
Angle Valve Open	8.4	12.0	15.0	18.0	22.0	28.0	33.0	42.0	58.0	70.0	83.0
Gate Valve - Fully Open	0.4	0.5	0.6	0.8	1.0	1.2	1.4	1.7	2.3	2.9	3.5
Check Valve (Swing)	4.0	5.0	7.0	9.0	11.0	13.0	16.0	20.0	26.0	33.0	39.0
Check Valve (Spring)	4.0	6.0	8.0	12.0	14.0	19.0	23.0	32.0	43.0	58.0	

EXAMPLE:

(A) 100 ft. of 2" plastic pipe with one (1) 90° elbow and one (1) swing check valve.

90° elbow — Equivalent to 5.5 ft. of straight pipe
 Swing Check — Equivalent to 13.0 ft. of straight pipe
 100 ft. of pipe — Equivalent to 100.0 ft. of straight pipe
 118.5 ft. = Total equivalent pipe

Figure friction loss for 118.5 ft. of pipe

(B) Assume flow to be 80 GPM through 2" plastic pipe.

1. Friction loss table shows 10.9 ft. loss per 100 ft. of pipe.
2. In step (A) we have determined total feet of pipe to be 118.5 ft.
3. Convert 118.5 ft. to percentage $118.5 \div 100 = 1.185$.
4. Multiply $10.9 \times 1.185 = 12.9165$ or 12.92 ft. = Total friction loss in this system

Volume

1 U.S. Gallon...	}	231.0 in ³
		0.137 ft ³
		3.785 liters
		.00379 meters ³
		0.833 Imp gal
0.238 42-gal barrel		
1 Imperial Gallon.....		1.2 U.S. gal
1 Cubic Foot.....	}	7.48 U.S. gal
		0.0283 meter ³
1 Liter.....		0.2642 U.S. gal
1 Cubic Meter.....	}	35.314 ft ³
		264.2 U.S. gal
1 Acre Foot.....	}	43,560 ft ³
		325,829 U.S. gal
1 Acre Inch.....	}	3,630 ft ³
		27,100 U.S. gal

Length

1 Inch.....		2.54 centimeters
1 Meter.....	}	3.28 feet
		39.37 inches
1 Rod		16.5 feet
1 Mile.....		5280 Feet (1.61 Kilometers)

Weight

1 U.S. Gallon of Water	8.33 lb
1 Cubic foot of Water.....	62.35 lb
1 Kilogram or Litre.....	2.2 lb
1 Imperial Gallon	10.0 lb

Capacity

1 Cubic Foot Per Second (2nd foot) (C.F.S.).....	449 gpm
1 Acre Foot Per Day.....	227 gpm
1 Acre Inch Per Hour.....	454 gpm
1 Cubic Meter Per Minute.....	264.2 gpm
1,000,000 Gal. Per Day.....	595 gpm

Horsepower

1 H.P. Equals...
 .746 kilowatts of 746 watts
 33,000 ft lbs per minute
 550 ft lbs per second

H.P. Input Equals...
 Horsepower input to motor
 1.34 x kilowatts input to motor

Water H.P. Equals...
 Horsepower required to lift water at a definite rate to a given distance assuming 100% efficiency

$$\frac{\text{G.P.M.} \times \text{total head (in ft.)}}{3960}$$

Brake H.P. Equals...
 H.P. delivered by motor
 H.P. required by pump
 H.P. input x motor efficiency
 1.34 x KW input x motor efficiency

$$\frac{\text{Water horsepower}}{\text{Pump efficiency}}$$

$$\frac{\text{G.P.M.} \times \text{total head (ft.)}}{3960 \times \text{pump efficiency}}$$

$$\frac{\text{G.P.M.} \times \text{total head (lbs/in}^2\text{)}}{103,000 \times \text{pump efficiency}}$$

Head

1 Pound Per Square Inch (p.s.i.).....	}	2.31 ft. head of water
		2.04 in. mercury
		0.07 kg/cm ²
1 Foot of Water.....	}	0.433 lb/in ²
		.885 in. mercury
1 Inch of Mercury (or vacuum).....		1.132 ft of water
1 Kilogram Per Square Cm.....		14.22 lb/in ²
1 Atmosphere (at sea level).....	}	14.7 lb/in ²
		34.0 ft of water
		10.35 meters of water
1 Meter of Water.....		3.28 feet of water

To Find Capacity of a Tank or Cistern

$$\left(\begin{array}{c} \text{Diameter} \\ \text{of Tank} \\ \text{In Feet} \\ \text{Squared} \end{array} \right) \times .7854 \times \left(\begin{array}{c} \text{Height} \\ \text{of Tank} \\ \text{In Feet} \end{array} \right) \times 7.48 = \text{Capacity U.S. Gallons}$$

Efficiency

Efficiency Equals.....	$\frac{\text{Power Output}}{\text{Power Input}}$
Motor Efficiency Equals	$\frac{\text{H.P. Output}}{\text{K.W. input} \times 1.34}$
Pump Efficiency Equals.....	$\frac{\text{G.P.M.} \times \text{total head (ft.)}}{103,000 \times \text{B.H.P.}}$

Electric Power

AC	=	Alternating Current Power
DC	=	Direct Current
E	=	Volts
I	=	Amperes
W	=	Watts
KW	=	Kilowatts
Apparent Power	=	Volts x amperes = Volt amperes
Apparent Power	=	E I
Useful Power W	=	E I x P.F.
Power Factor	=	ratio of useful power to apparent power
Power Factor	=	$\frac{W}{e i} = \text{PF}$
KW Hr.	=	Kilowatt Hour
Single Phase Power W	=	E x I x PF
3 Phase Power W	=	1.73 x E x I x PF
Where E	=	Average voltage between phases
I	=	Average current in each phase

Recognized Treatment Techniques for meeting the National Primary Drinking Water Regulations with the Application of Point-Of-Use-Systems:

National Primary Drinking Water Regulations (NPDWRs or primary standards) are legally enforceable standards that apply to public drinking water systems. Primary standards protect drinking water quality by limiting the levels of specific contaminants that can adversely affect public health and are known or anticipated to occur in drinking water. The following tables divide these contaminants into Microorganisms, Radio Nuclides, Inorganic Chemicals, Organic Chemical and Disinfectant/ Disinfectant By-products.

For simplicity, WQA uses the term Point-Of-Use (POU) when referring to both treatment at the tap and for whole house treatment.

Except for instances of contamination through inhalation or dermal adsorption, the WQA notes that in-home treatment of drinking and cooking water only is often the most economical and preferred method of choice for consumer protection from these drinking water health contaminants. Of course, the particular contaminant found in the water will determine the appropriate treatment technique.

The recognized treatment methods listed here reflect the fact that point-of-use systems on the market today may differ widely in their effectiveness to treat any specific contaminant. Also, many of these can appear in a variety of forms (ionic and/or organic). Examples include arsenic, lead, chromium and mercury which may require different or multiple treatment techniques. Anyone contemplating use of such point-of-use equipment for a specific application

or purpose should make their selection only after careful investigation and substantiation of the performance capabilities. As part of the installation procedure, the performance of the system should be verified through an appropriate water analysis. In addition, the product water should be monitored and appropriately serviced to ensure continued satisfactory performance.

It is the general consensus of the manufacturers and sellers of the point-of-use systems employing the listed technologies that, if these systems are defect-free, properly applied and installed and maintained strictly according to the manufacturers' installation and maintenance instructions, they may be considered for use in meeting the requirements of the National Primary Drinking Water Regulations (NPDWR).

Note: This document addresses the United States Environmental Protection Agency National Primary Drinking Water Regulations in effect at its time of publication. These regulations are continually being reviewed and updated at the federal level. Accordingly, this list of recognized treatment technologies will be reviewed and amended periodically.

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National Primary Drinking Water Regulations



Contaminants	MCLG+	MCL+	Treatment Methods
Turbidity		0.5 to 1 NTU in 95% of samples; maximum of 5 NTU under certain circumstances	Coagulation/Filtration Sediment Reduction Reverse Osmosis Cartridge Filtration matched to turbidity particle size Submicron Filtration Ultrafiltration Distillation
Coliform bacteria	zero	zero in 95% of samples	Turbidity or sediment reduction to 1 NTU, then: Disinfection Ozone Ultraviolet Radiation Submicron (absolute) Filtration (<0.45 micron) Chlorination Iodine (Polyiodide Resins) Distillation
Viruses	zero	99.99% reduction or inactivation	Turbidity reduction to 1 NTU, disinfection: Chemical Oxidation/Disinfection Chlorination Ozone Iodine Ultraviolet Radiation Distillation
Giardia lamblia and Cryptosporidium cysts	zero	99.9% reduction or inactivation	Turbidity or sediment reduction to 1 NTU, then: Disinfection Ultraviolet Light Ozone Absolute Filtration of less than 3 micron-sized particles Distillation
Legionella	zero	TT	Sediment reduction to one NTU turbidity, then: disinfection Ultraviolet Light Ozone Chlorination Iodine
Heterotrophic Pate Count (HPC)	zero	TT	Sediment reduction to one NTU turbidity, then: disinfection Ultraviolet Light Ozone Chlorination Iodine

Primary (Health-Related) Radionuclide Contaminants

Contaminants	MCLG+	MCL+	Treatment Methods
Beta particle and photon activity (formerly man-made radionuclides)	none	4 mrem/year	Ion Exchange (mixed bed) Reverse Osmosis Electrodialysis Distillation
Gross alpha particle activity	none	15 pCi/L*	Treatment method depends on the specific radionuclide-e.g., radium, radon or uranium. See below.
Radium 226 and Radium 228	none	5 pCi/L	Cation Exchange Distillation Reverse Osmosis Electrodialysis
Radon	zero (P)*	300 pCi/L (P)*	Activated Carbon Air Stripping
Uranium	zero (P)*	0.03 mg/L (P)*	Coagulation/Filtration Anion Exchange Reverse Osmosis Electrodialysis Submicron Filtration Activated Alumina Distillation

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* = 1 pCi = 2.2 atom disintegrations per minute

TT = Treatment Technique



Primary (Health -Related) Inorganic Contaminants

Contaminants	MCLG +	MCL+	Treatment Methods	
Antimony	0.006	0.006 Reverse Osmosis Distillation	Coagulation/Filtration Ultrafiltration	Submicron Filtration
Arsenic (total)	zero (P)*	0.01		
Arsenic (+3)			Chemical oxidation to convert to Arsenic +5, then use Arsenic +5 treatment methods	
Arsenic (+5)			Coagulation/Filtration Anion Exchange Reverse Osmosis Iron Oxide Media Iron/Alumina Media	Submicron Filtration Activated Alumina Distillation Electrodialysis
Arsenic (organic complexes)			Activated Carbon	
Asbestos	7 MFL	7 million fibers per liter (MFL) (longer than microns)	Coagulation/Filtration Reverse Osmosis Ultrafiltration	Submicron Filtration Distillation
Barium	2.0	2.0 Distillation	Cation Exchange Electrodialysis	Reverse Osmosis
Beryllium	0.004	0.004	Coagulation/Filtration Activated Alumina Reverse Osmosis Electrodialysis Submicron Filtration/Activated Carbon	Ultrafiltration Cation Exchange Distillation
Cadmium	0.005	0.005 Submicron Filtration Reverse Osmosis Electrodialysis	Coagulation/Filtration Cation Exchange Distillation	Ultrafiltration
Chromium (total)	0.1	0.1		
Chromium (+3)	1	Reverse Osmosis Electrodialysis	Coagulation/Filtration Distillation	Cation Exchange
Chromium (+6)		Distillation	Anion Exchange Electrodialysis	Reverse Osmosis
Chromium (organic complexes)			Activated Carbon	
Copper	1.3	1.3 (action level) pH Adjustment Polyphosphate Silicate Feed Cation Exchange (20% - 90%)	Corrosion Control Distillation Electrodialysis	Reverse Osmosis
Cyanide	0.2	0.2 Reverse Osmosis Electrodialysis	Chemical Oxidation Distillation	Anion Exchange
Fluoride	4.0	4.0	Activated Alumina Reverse Osmosis Electrodialysis	Bone Char Distillation
Lead	zero	0.015 (action level)	Cation Exchange (20% - 90%) Coagulation/Filtration Submicron Filtration/Activated Carbon Reverse Osmosis	Electrodialysis Distillation
Mercury (total)	0.002	0.002		
Mercury (+2)	0.002	0.002 (total mercury) Distillation	Submicron Filtration/Activated Carbon Cation Exchange (20% - 90%) Electrodialysis	Reverse Osmosis
Mercury (HgCl 3 -1)			Anion Exchange Distillation	Reverse Osmosis Electrodialysis
Mercury (organic complexes)			Activated Carbon	

Contaminants	MCLG+	MCL+	Treatment Methods
Nickel	0.1	0.1	Cation Exchange Distillation Reverse Osmosis Electrodialysis
Nitrate plus nitrate (as nitrogen)	10	10	Anion Exchange Distillation Reverse Osmosis (sensitive to pressure) Electrodialysis
Nitrite (as nitrogen)	1	1	Chemical Oxidation/Disinfection Anion Exchange Distillation Reverse Osmosis Electrodialysis
Selenium (total)	0.05	0.05	
Selenium (+4)	0.05 (total selenium)	0.05	Coagulation/Filtration Anion Exchange Reverse Osmosis Ultrafiltration Submicron Filtration/Activated Carbon Electrodialysis Activated Alumina Distillation
Selenium (+6)			Anion Exchange Reverse Osmosis Electrodialysis Activated Alumina Distillation
Sulfate	500 (P)*	500 (P)*	Anion Exchange Distillation Reverse Osmosis Electrodialysis
Thallium	0.0005	0.002	Cation Exchange Distillation Activated Alumina

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Primary (Health-Related) Organic Contaminants

Contaminants	MCLG+	MCL+	Treatment Methods
Acrylamide	zero (action level)	0.0005	Control of water treatment chemicals and surfaces in contact with water
Alachlor	zero	0.002	Activated Carbon
Atrazine	0.003	0.003	Activated Carbon
Benz(a)anthracene	zero (P)*	0.0001 (P)*	Activated Carbon
Benzene	zero	0.005	Activated Carbon Air Stripping
Benzo(a)pyrene	zero	0.0002	Activated Carbon
Carbofuran	0.04	0.04	Activated Carbon
Carbon tetrachloride	zero	0.005	Activated Carbon Air Stripping
Chlordane	zero	0.002	Activated Carbon
Chlorobenzene	0.1	0.1	Activated Carbon Air Stripping
2, 4-D	0.07	0.07	Activated Carbon
Dalapon	0.2	0.2	Activated Carbon
1,2-Dibromo 3-chloropropane(DBCP)	zero	0.0002	Activated Carbon Air Stripping
o-Dichlorobenzene	0.6	0.6	Activated Carbon Air Stripping
p-Dichlorobenzene	0.075	0.075	Activated Carbon Air Stripping
1,2-Dichloroethane)	zero	0.005	Activated Carbon Air Stripping
1,1-Dichloroethylene	0.007	0.007	Activated Carbon Air Stripping
Dichloromethane	zero	0.005	Air Stripping

Contaminants	MCLG+	MCL+	Treatment Methods	
cis-1,2-Dichloroethylene	0.07	0.07	Activated Carbon	Air Stripping
trans-1,2-Dichloroethylene	0.1	0.1	Activated Carbon	Air Stripping
1,2-Dichloropropane	zero	0.005	Activated Carbon	Air Stripping
Di(2-ethylhexyl)adipate	0.4	0.4	Activated Carbon	Air Stripping
Di(2ethylhexyl)phthalate	zero	0.006	Activated Carbon	
Dinoseb	0.007	0.007	Activated Carbon	
Dioxin(2,3,7,8-TCDD)	zero	0.0000003	Activated Carbon	
Diquat	0.02	0.02	Activated Carbon	
Endothall	0.1	0.1	Activated Carbon	
Endrin	0.002	0.002	Activated Carbon	
Epichlorohydrin	zero (action level)	0.002	Control of water treatment chemicals and surfaces in contact with water	
Ethylbenzene	0.7	0.7	Activated Carbon	Air Stripping
Ethylene Dibromide	zero	0.00005	Activated Carbon	Air Stripping
Glyphosate	0.7	0.7	Activated Carbon	Oxidation
Heptachlor	zero	0.0004	Activated Carbon	
Heptachlor Epoxide	zero	0.0002	Activated Carbon	
Hexachlorobenzene	zero	0.001	Activated Carbon	
Hexachlorocyclopentadiene	0.05	0.05	Activated Carbon	Air Stripping
Lindane	0.0002	0.0002	Activated Carbon	
Methoxychlor	0.04	0.04	Activated Carbon	
Oxamyl (Vydate)	0.2	0.2	Activated Carbon	
Pentachlorophenol	zero	0.001	Activated Carbon	
Picloram	0.5	0.5	Activated Carbon	
Polychlorinated byphenyls (PCBs)	zero	0.0005	Activated Carbon	
Simazine	0.004	0.004	Activated Carbon	
Styrene	0.1	0.1	Activated Carbon	Air Stripping
Tetrachloroethylene	zero	0.005	Activated Carbon	Air Stripping
Toluene	1	1	Activated Carbon	Air Stripping
Toxaphene	zero	0.003	Activated Carbon	
2,4,5-TP (silvex)	0.05	0.05	Activated Carbon	
1,2,4-Trichlorobenzene	0.07	0.07	Activated Carbon	Air Stripping
1,1,1-Trichloroethane	0.2	0.2	Activated Carbon	Air Stripping
1,1,2-Trichloroethane	0.003	0.005	Activated Carbon	Air Stripping
Trichloroethylene	zero	0.005	Activated Carbon	Air Stripping
Vinyl chloride	zero	0.002	Air Stripping	
Xylenes (total)	10	10	Activated Carbon	Air Stripping

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Primary (Health-Related) Disinfectants/Disinfectant By-Products

Contaminants	MCLG+	MCL+	Treatment Methods	
Bromate	zero	0.010	Activated Carbon	Air Stripping
Bromodichloromethane	zero	see TTHMs	Activated Carbon	Air Stripping
Bromoform	zero	see TTHMs	Activated Carbon	Air Stripping
Chloramines	4 (total chlorine)	4 (total chlorine)	Activated Carbon	
Chlorine	4 (as free chlorine)	4 (as free chlorine)	Activated Carbon	
Chlorine Dioxide	0.3 (as ClO ₂)	0.8 (as ClO ₂)	Activated Carbon	
Chorite	0.8	1.0	Activated Carbon	
Chloroform	zero	see TTHMs	Activated Carbon	Air Stripping
Dibromochloromethane	0.06	see TTHMs	Activated Carbon	Air Stripping
Dichloroacetic Acid	zero	see HAA5	Activated Carbon	
Haloacetic Acids (HAA5)	zero	0.06 (0.050) (P)*	Activated Carbon	
Trichloroacetic Acid	0.3	see HAA5	Activated Carbon	
Total Trihalomethanes (TTHMs)	zero	0.080 0.040 (P)*	Activated Carbon	Air Stripping
Bromodichloromethane			Reverse Osmosis (20-90%)	Distillation (20-90%)
Bromoform			Ultrapurification for precursor removal prior to chlorination	
Chloroform				
Dichlorobromomethane				

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Microorganisms

Contaminant	MCLG1 (mg/L) ²	MCL or TT1 (mg/L) ²	Potential Health Effects from Long-Term Exposure Above the MCL (unless specified as short-term)	Sources of Contaminant in Drinking Water
Cryptosporidium	zero	TT3	Gastrointestinal illness (such as diarrhea, vomiting, and cramps)	Human and animal fecal waste
Giardia lamblia	zero	TT3	Gastrointestinal illness (such as diarrhea, vomiting, and cramps)	Human and animal fecal waste
Heterotrophic plate count (HPC)	n/a	TT3	HPC has no health effects; it is an analytic method used to measure the variety of bacteria that are common in water. The lower the concentration of bacteria in drinking water, the better maintained the water system is.	HPC measures a range of bacteria that are naturally present in the environment
Legionella	zero	TT3	Legionnaire's Disease, a type of pneumonia	Found naturally in water; multiplies in heating systems
Total Coliforms (including fecal coliform and E. Coli) Quick reference guide	zero	5.0% ⁴	Not a health threat in itself; it is used to indicate whether other potentially harmful bacteria may be present ⁵	Coliforms are naturally present in the environment; as well as feces; fecal coliforms and E-coli only come from human and animal fecal waste.
Turbidity	n/a	TT3	Turbidity is a measure of the cloudiness of water. It is used to indicate water quality and filtration effectiveness (such as whether disease-causing organisms are present). Higher turbidity levels are often associated with higher levels of disease-causing microorganisms such as viruses, parasites and some bacteria. These organisms can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.	Soil runoff
Viruses (enteric)	zero	TT3	Gastrointestinal illness (such as diarrhea, vomiting, and cramps)	Human and animal fecal waste

Recognized Treatment Techniques for Meeting the National Secondary Drinking Water Regulations with the Application of Point-Of-Use Systems

National Secondary Drinking Water Regulations (NSDWRs or secondary standards) are non-enforceable guidelines for contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effect (such as taste, odor or color) in drinking water. EPA recommends secondary standards to water systems but does not require systems to comply. However, states may choose to adopt them as enforceable standards.

Note: This document addresses the United States Environmental Protection Agency National Primary Drinking Water Regulations in effect at its time of publication. These regulations are continually being reviewed and updated at the federal level. Accordingly, this list of recognized treatment technologies will be reviewed and amended periodically.

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Contaminant	SMCL, MG/L+	Treatment Methods	
Alkalinity (measured as calcium carbonate, CaCO ₃)	No federal limit Low alkalinity - <30mg/L High alkalinity - >300 mg/L	Raise alkalinity by feeding 1.5 mg/L of soda ash for each on mg/L of alkalinity needed or calcite filtration Lower alkalinity by feeding white vinegar (acetic acid), citric acid or any acid; add carbon dioxide; ion exchange dealkalization; reverse osmosis; distillation or electro dialysis	
Aluminum (Al ⁺³) on case-by-case	0.05 to 0.2 depending Reverse Osmosis circumstances	Cation Exchange Ultrafiltration Distillation	Electrodialysis Deionization
Chloride (Cl ⁻¹)	250	Reverse Osmosis Anion Exchange Deionization	Distillation Electrodialysis
Color	15 color units	Anion Exchange Activated Carbon Filtration Chlorination	Reverse Osmosis Distillation Ozonation
<i>Note: Color units are based on the APHA recommended standard of 1 color unit being equal to 1 mg/L of platinum or chloroplatinate ion.</i>			
Copper (Cu ⁺²)	1.0	Reverse Osmosis Cation Exchange (20-90%)	Corrosion Control Distillation
Corrosivity	Non-corrosive	Calcite or Calcite/Magnesium Oxide (Magnesia) (5 to 1) Filter to raise pH Soda Ash Chemical Feed Polyphosphate Feed Sodium Silicate Feed Remove all hydrogen peroxide Reduce TDS via Reverse Osmosis (partial, split stream treatment) Coatings Insulating Unions with Ground straps around all insulating breaks in metal pipe	
Fluoride (F ⁻¹)	2.0	Activated Alumina Reverse Osmosis	Electrodialysis Distillation
Foaming agents (MBAS)	0.5	Chlorination Activated Carbon Ozonation	Reverse Osmosis Distillation
Hard Water (measured as calcium carbonate CaCO ₃)	No federal limit Soft - <17.1 Slightly hard -17.1 to 60 Moderate -60 to 120 Hard - 120 to 180 Very Hard - >180	Remove all calcium and magnesium ions with a cation exchange water softener (general limit is 1710 mg/L total hardness. Above 70 grains per gallon, install two softeners in a series.	



Contaminant	SMCL, MG/L+	Treatment Methods	
Iron	0.3 (total iron)		
Ferrous Iron (Fe ⁺²)		Filtration (oxidizing filters) Electrodialysis Pressure Aeration/Filtration Oxidation/Precipitation/Filtration	Distillation Cation Exchange Reverse Osmosis*
Ferric Iron (Fe ⁺³)	0.3 (total iron)	Filtration Greensand Calcite (also raise pH to 7.2)	Sand Cartridges
Sequestered iron Iron Bacteria		Strong oxidation and/or fine (10 micron or <) filtration Disinfection and Retention followed by activated carbon filtration for dechlorination	
Colloidal Iron		Coagulation/Filtration	Submicron Filtration
<i>*Ferrous Iron (clean water iron) is readily converted to ferric iron (red water iron) in the presence of any air or oxidizing material; precipitating ferric iron must be prevented to avoid fouling and interference with effective reverse osmosis membrane rejection.</i>			
Manganese (Mn ⁺²)	0.05	Filtration (Oxidizing Filters) Reverse Osmosis Oxidation/Precipitation/Filtration Pressure Aeration/Filtration	Cation Exchange Distillation Electrodialysis
Manganese (Mn ⁺⁴)		Filtration Sand Cartridges	Calcite (raise pH to 7.2) Greensand
Sequestered Manganese		Strong Oxidation and/or fine filtration	
Colloidal Manganese		Coagulation/Filtration	Submicron Filtration
<i>*Manganese must be maintained in the soluble manganous (Mn⁺²) state to avoid fouling and interference with effective reverse osmosis membrane rejection.</i>			
Methyl Tertiary Butyl Ether (MTBE)	No federal limit	Activated Carbon (similar to chloroform and TTHMs, except the treatment life of the activated carbon may be one-half or less of that for chloroform when MTBE will begin to break through). For MBTE concentrations greater than 0.1 mg/L, pre-treat with high air-to-water ratio air stripping prior to activated carbon filtration.	
Odor	3 threshold odor number	Activated Carbon Oxidation followed by retention and filtration Disinfection for sulfate-reducing bacteria If H ₂ S is in the hot water only, remove the hot water anode rod or replace it with an aluminum anode rod.	Air Stripping
Note: Chlorine and hydrogen sulfide are examples of odors that may be reduced by the treatment methods suggested.			
pH	6.5 – 8.5	Neutralizing filter (calcite or calcite plus magnesia oxide). pH may be increased by alkalies and may be decreased by acids. Chemical feed of soda ash to raise pH or white vinegar to lower pH.	
Silver (Ag ⁺¹)	0.1	Coagulation/Filtration Submicron Filtration/Activated Carbon Ion Exchange (Anion or Cation depending on complexed Ion Species)	Distillation Reverse Osmosis
Sulfate (SO ₄ -2)	250	Reverse Osmosis Anion Exchange	Distillation Electrodialysis
Total dissolved solids (TDS)	500	Reverse Osmosis Deionization by Ion Exchange (Cation/Anion in two bed or mixed bed)	Distillation Electrodialysis
Zinc (Zn+2)	5	Reverse Osmosis Cation Exchange	Distillation Electrodialysis

(P)* = Proposed Standard

SMCL (mg/L+) = Secondary Maximum Contaminant Level expressed in milligrams per liter (unless otherwise specified).

SOFTENER SELECTION

We are now ready to proceed with a typical approach to selecting a water softener. Information is first gathered on all of the aspects of the boiler system discussed in this section. A listing of all our design factors should first be assembled. The following represents a typical boiler plant from which we can calculate the demand for a softener.

(1) DETERMINE WATER HARDNESS

Analysis received or taken is in parts per million (PPM). Convert to grains per gallon (GPG).
 $342 \div 17.1 = 20$ GPG.

(2) DETERMINE BOILER HORSEPOWER

Boiler rating is in pounds per hour of steam. Convert to Horsepower.
 $3,450$ pounds per hour $\div 34.5 = 100$ H.P.

(3) DETERMINE MAXIMUM GALLONS PER HOUR MAKE-UP

Boiler rating is 100 horsepower. Convert H.P. to gallons per hour make-up.
 100 H.P. $\times 4.25$ gallons per hour make-up.

(4) DETERMINE AMOUNT OF CONDENSATE RETURNED TO SYSTEM AND CALCULATE NET MAKE-UP REQUIREMENT

Make-up per hour is 425 gallons. Condensate returned is 50% or 213 gallons per hour.
 $425 - 213 = 212$ net gallons make-up per hour.

(5) DETERMINE TOTAL DAILY MAKE-UP REQUIREMENTS

212 gallons net make-up per hour. Boiler system operates 16 hours per day.
 212 gallons per hr. $\times 16$ hrs. = 3,392 gallons per operating day.

(6) DETERMINE TOTAL GRAINS OF HARDNESS TO BE REMOVED DAILY

3,392 gallons per day with a hardness of 20 grains per gallon.
 $3,392$ gallons $\times 20$ GPG = 67,840 grains of hardness needed to be removed daily.

The answer in our sixth step of 67,840 grains of hardness to be removed daily, brings us to our final approach in selecting a water softener. Due to the nature of the importance of obtaining soft water for the boiler feed water, we must allow for a margin of error in our sizing process. This margin is commonly 15%. Multiplication of the 67,840 grains per day by 1.15 results in a total removal demand of 78,016 grains per day needed to be removed.

COMPENSATED HARDNESS:

When sizing water conditioning equipment, the hardness should be based on compensated hardness. Compensated hardness takes into consideration minerals and other factors that will reduce the softening capacity of a softener. These items cannot be picked up in a standard hardness test. To arrive at compensated hardness multiple the figure on the right by the hardness in grains per gallon.

YOUR TEST HARDNESS	MULTIPLY BY	COMPENSATED HARDNESS	ALWAYS DETERMINE BOTH (1) FLOW RATE (2) CAPACITY TOTAL IN GRAINS
1-20	1.1	=	
21 - 40	1.2	=	
41 - 70	1.3	=	
71 - 100	1.4	=	
101 - Plus	1.5	=	

CONTINUOUS HARDNESS LEAKAGE in ppm as CaCO ₃			
TDS*	SALT DOSAGE PER CU. FT		
	6lbs	10lbs	12lbs
250	1.25	.6	.2
500	5	2.5	.8
750	12	6	1.75
1000	20	10	3
1500	45	23	7
2000	-	40	13
2500	-	-	20
3000	-	-	30

*Raw Water TDS as CaCO₃

TERMS DEFINED		
TERM	GRAINS PER GAL	MILLIGRAMS PER LITER
Soft	1.0 or less	17.0 or less
Slightly Hard	1.0 to 3.5	17.1 to 60
Moderately Hard	3.5 to 7.0	60 to 120
Hard	7.0 to 10.5	120 to 180
Very Hard	10.5 or over	180 or over

Use this chart to determine softener model /size for a given hardness and given number of people in household, the setting required for regeneration cycle, and optional meter setting (gallons). See note below chart for KEY to reading the chart.

		NUMBER OF PEOPLE USING SOFTENED WATER IN HOUSEHOLD							
		1 75gal	2 150gal	3 225gal	4 300gal	5 375gal	6 450gal	7 525gal	8 600gal
HARDNESS (GRAINS PER GALLON)	1 - 5	15k 12 1700	15k 12 1600	15k 6 1500	15k 6 1500	15k 4 1400	30k 6 3500	30k 4 3400	30k 3 3300
	6 - 10	15k 12 800	15k 4 750	15k 3 650	30k 4 1500	30k 4 1400	30k 3 1300	30k 3 1200	45k 4 2100
	11 - 15	15k 6 500	15k 3 400	30k 4 950	30k 3 900	30k 3 800	45k 3 1300	45k 3 1200	45k 2 100
	16 - 20	15k 4 375	15k 2 300	30k 3 675	45k 4 1100	45k 3 1000	45k 3 900	60k 3 1200	60k 2 1100
	21 - 25	15k 4 250	30k 4 600	30k 3 500	45k 3 800	45k 2 700	60k 3 100	60k 2 900	90k 3 1600
	26 - 30	30k 6 450	30k 3 400	45k 3 550	45k 2 500	60k 2 700	90k 3 1200	120k 3 1600	120k 3 1500
	31 - 35	30k 6 400	30k 3 350	45k 3 550	60k 3 700	90k 4 1200	90k 3 1100	120k 3 1500	120k 3 1400
	36 - 40	30k 4 400	45k 4 525	45k 2 450	60k 2 600	90k 3 975	120k 3 1350	120k 3 1200	- - -
	41 - 45	45k 6 500	45k 3 400	60k 3 500	90k 3 900	90k 3 800	120k 3 100	- - -	- - -
	46 - 50	45k 6 500	60k 4 600	90k 4 950	90k 3 850	120k 3 1100	- - -	- - -	- - -

KEY TO EACH HORIZONTAL SEGMENT OF CHART:
 First line in row = Softener Size (THOUSANDS OF GRAINS) Model
 Second line = Number of DAYS between regeneration cycle (where timer is installed)
 Third line = Meter setting (GALLONS used between regeneration) where optional meter is installed.

Meter settings based on softener capacities at minimum brining (6 lbs / cu. ft.)

Tank Dia. Inches	Sq Ft Bed Area	Cu Ft Per Inch Of Height	Side Shell Height Only	Cu Ft Capacity With 50% ± Freeboard	Bed Depth Inches	Free Board Inches	Flow Rate		Maximum Softener Salt		Minimum Softener Salt	
							Softener ²	Filter ¹	Capacity @ 30,000 Grains	@ 15#/Cu Ft	Capacity @ 20,000 Grains	@ 6#/Cu Ft
6"	.196	.016	31"	.35	21	10	2	1	10,500	5.25	7,000	2.1
7"	.267	.022	40"	.56	26	14	2.6	1.3	18,000	9	12,000	3.6
8"	.35	.029	31"	0.5	18	13	3.5	1.75	16,000	7.5	10,500	3
8"	.35	.029	40"	0.8	28	12	3.5	1.75	24,000	12	16,000	4.8
9"	.44	.04	44"	1.0	27	17	4	2.2	30,000	15	20,000	15
10"	.54	.045	40"	1.25	28	12	5	2.7	40,000	18.75	25,000	7.5
10"	.54	.045	50"	1.50	34	16	5	2.7	45,000	22.50	30,000	9
12"	.78	0.65	42"	1.8	28	14	7	4	54,000	27	36,000	10.8
12"	.78	0.65	48"	1.0	31	17	7	4	60,000	30	40,000	12.0
13"	.92	.077	50"	2.5	33	17	9	4.6	75,000	37.5	50,000	15
14"	1.07	.089	54"	3	34	20	10	5	90,000	45	60,000	18
16"	1.39	.116	54"	4	35	19	14	7	120,000	60	80,000	24
18"	1.77	.147	54"	5	34	20	18	9	150,000	75	100,000	30
20"	2.18	.182	60"	7	39	21	20	11	210,000	105	140,000	42
21"	2.41	.2	54"	7	36	18	24	12	210,000	105	140,000	42
22"	2.64	.220	56"	8.0	37	19	26	13	240,000	120	160,000	48
24"	3.14	.261	60"	10	38	22	30	15	300,000	150	200,000	60
30"	4.91	.409	60"	15	37	23	50	25	450,000	225	300,000	90
30"	4.91	.409	72"	20	49	23	50	25	600,000	300	400,000	120
36"	7.07	.589	60"	20	34	26	70	35	600,000	300	400,000	120
42"	9.62	.801	60"	30	38	22	95	50	900,000	450	600,000	180
48"	12.57	1.05	60"	40	38	22	125	60	1,200,000	600	800,000	240
54"	15.90	1.32	60"	50	38	22	160	80	1,500,000	750	1,000,000	360
54"	15.90	1.32	72"	60	46	26	160	80	1,800,000	900	1,200,000	300
60"	19.63	1.64	60"	65	40	20	200	100	1,950,000	975	1,300,000	390
60"	19.63	1.64	72"	80	49	23	200	100	2,400,000	1200	1,600,000	480
66"	23.76	1.98	60"	80	40	20	240	120	2,400,000	1200	1,600,000	480
72"	28.27	2.36	60"	95	40	20	280	140	2,850,000	1425	1,900,000	570
72"	28.27	2.36	72"	110	48	24	280	140	3,300,000	1650	2,200,000	660
78"	33.18	2.76	60"	110	40	20	330	165	3,300,000	1650	2,200,000	660
84"	38.48	3.2	60"	130	40	20	380	190	3,900,000	1950	2,600,000	780
90"	44.18	3.68	60"	150	40	20	440	220	4,500,000	2250	3,000,000	900
96"	50.27	4.19	60"	170	40	20	500	250	5,100,000	2550	3,400,000	1020
102"	56.75	4.73	60"	190	40	20	560	280	5,700,000	2850	3,800,000	1140
108"	63.62	5.3	60"	215	40	20	640	320	6,450,000	3225	4,300,000	1290
114"	70.88	5.91	60"	240	40	20	700	350	7,200,000	3600	4,800,000	1440
120"	78.54	6.54	60"	260	40	20	780	390	7,800,000	3900	5,200,000	1560
126"	86.59	7.22	60"	300	41	19	860	430	9,000,000	4500	6,000,000	1800
132"	95.03	7.92	60"	315	40	20	950	475	9,450,000	4725	6,300,000	1890
138"	103.87	8.66	60"	350	40	20	1040	520	10,500,000	5250	7,000,000	2100
144"	113.10	9.42	60"	380	40	20	1130	565	11,400,000	5700	7,600,000	2280

¹ Figured @ 10 gpm per square foot of bed area. FLOW RATE OF FILTER IS 50% OF BACKWASH RATE.
² Figured @ 5 gpm per square foot of bed area. FLOW RATE OF SOFTENER IS TWICE BACKWASH RATE.

NOTE: Because of varying conditions, tables are for guidelines only.



Tank Diameter Inches	Tank Diameter Square Ft. Bed Area	Cu. Ft. Per Inch of Height	Backwash Rate In G.P.M. Per Square Foot Of Bed Area At			
			5 GPM	8 GPM	10 GPM	15 GPM
6	0.196	0.016	1.0	1.6	2.0	3.0
7	0.267	0.022	1.3	2.1	2.7	4.0
8	0.349	0.029	1.8	2.8	3.5	5.2
9	0.442	0.037	2.2	3.5	4.4	6.6
10	0.545	0.045	2.8	4.4	5.5	8.2
12	0.785	0.065	4.0	6.3	7.9	11.8
13	0.922	0.077	4.6	7.4	9.2	13.8
14	1.07	0.089	5.4	8.6	10.7	16.0
16	1.40	0.12	7.0	11.2	14.0	21.0
18	1.77	0.15	8.9	14.2	17.7	26.6
21	2.41	0.20	12.	19.2	24.0	36.2
24	3.14	0.26	15.7	25.1	31.4	47.1
30	4.91	0.41	24.5	39.4	49.0	73.6
36	7.07	0.59	35.4	56.6	70.7	106.1
42	9.62	0.80	48.1	76.9	96.2	144.3
48	12.60	1.05	62.9	100.6	125.7	188.6
63	20.00	1.67	100.0	160.0	200.0	300.0

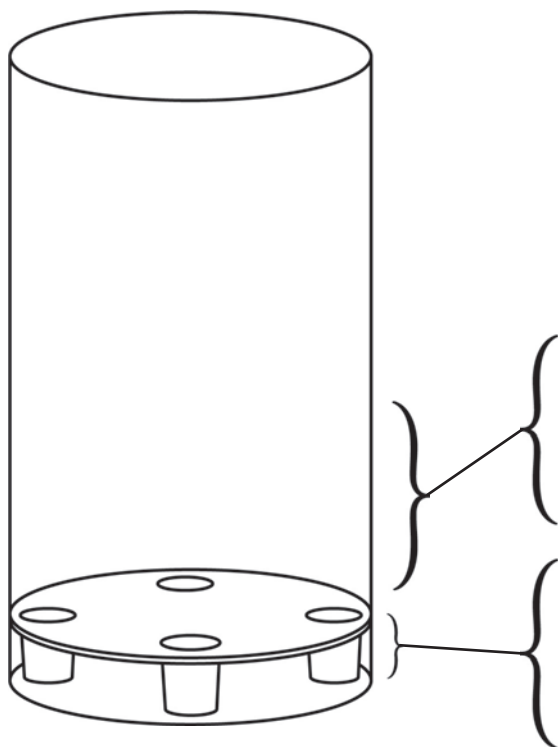
Media	Pounds Ft 3	Service Rate GPM/Sq. Ft.	Backwash Rate GPM/Sq. Ft.	Bed Depth Inches	Bed Expansion%
BIRM (regular)	50	3.5 to 5	10 to 12	30 to 36	35 to 50
Mang. Greensand	85	5	8 to 12	30	35 to 50
Carbon	35	5	8 to 10	26 to 30	30 to 40
FilterAg.	25	5	8 to 10	24 to 36	35 to 50
Calcite	100	3 to 6	8 to 12	24 to 30	35
Corosex	100	5 to 6	8 to 12	24 to 30	35
Resin (reg)	50	20 to 30	3 to 8	24 to 30	50
Resin (fine mesh)	50	15 to 20	2.5 to 4	20 to 30	5
Pyrolox	125	5	25 to 30	X	15 to 30
KDF	171	15	30	10+	10 to 15
ChemSorb	55	15 to 20	18 to 20	X	30 to 50
MTM	45	5	8 to 10	24 to 36	20 to 40

Resin Volume Cubic Foot	Salting Capacities Per ft ³			
	6#	9#	12#	15#
1.0	20,000	24,000	27,000	30,000
1.5	30,000	36,000	40,500	45,000
2.0	40,000	48,000	54,000	60,000
2.5	50,000	60,000	67,500	75,000
3.0	60,000	72,000	81,000	90,000
4.0	80,000	96,000	108,000	120,000
5.0	100,000	120,000	135,000	150,000
6.0	120,000	144,000	162,000	180,000
7.0	140,000	168,000	189,000	210,000
8.0	160,000	192,000	216,000	240,000
9.0	180,000	216,000	243,000	270,000
10.0	200,000	240,000	270,000	300,000
12.0	240,000	288,000	324,000	360,000
15.0	300,000	360,000	405,000	450,000
20.0	400,000	480,000	540,000	600,000
25.0	500,000	600,000	675,000	750,000
30.0	600,000	720,000	810,000	900,000
35.0	700,000	840,000	945,000	1,050,000
40.0	800,000	960,000	1,080,000	1,200,000
45.0	900,000	1,080,000	1,215,000	1,350,000
50.0	1,000,000	1,200,000	1,350,000	1,500,000
55.0	1,100,000	1,320,000	1,485,000	1,650,000
60.0	1,200,000	1,440,000	1,620,000	1,800,000
70.0	1,400,000	1,680,000	1,890,000	2,100,000

Saturated Brine Make-Up:

No Grid = 1½ Hours With Grid = 4 Hours

1 gallon of fresh water will dissolve 3 pounds of salt.



Liquid/Salt Capacity:

- 11" x 11" x 38" = 19 Gallons, 156# Salt
- 15" x 17" x 36" = 33 Gallons, 275# Salt
- 18" x 33" = 36 Gallons, 375# Salt
- 18" x 40" = 43 Gallons, 450# Salt
- 24" x 41" = 81 Gallons, 700# Salt
- 24" x 50" = 100 Gallons, 850# Salt
- 30" x 48" = 145 Gallons, 1200# Salt
- 39" x 48" = 250 Gallons, 2200# Salt

Water in contact with dry salt as follows:

- 11" Tank = 1/6 gallon per inch
- 15" x 17" = 1/3 gallon per inch
- 18" Tank = 1/3 gallon per inch
- 24" Tank = 2/3 gallon per inch
- 30" Tank = 1 gallon per inch
- 39" Tank = 1½ gallons per inch

Liquid Measurement Without Salt:

- 11" Tank = 1/2 gallon per inch
- 15" x 17" Tank = 1 gallon per inch
- 18" Tank = 1 gallon per inch
- 24" Tank = 2 gallons per inch
- 30" Tank = 3 gallons per inch
- 39" Tank = 4.4 gallons per inch

BRINE TANK CAPACITY AND AREA BRINE DATA

Tank Dia. (Inches)	Tank Area (Sq. Ft)	Brine Per Inch of Height (Gallons)*	Salt Per Inch Saturated Brine Solution (LBS)
18	1.76	1.10	2.86
20	2.16	1.33	3.48
24	3.14	1.95	5.07
30	4.90	3.04	7.90
36	7.06	4.40	11.4
42	9.62	5.97	15.5
48	12.57	7.8	20.2
54	15.90	9.9	25.2
60	19.63	12.2	31.8
66	23.76	14.7	38.2
72	28.27	17.5	45.5

* gallons without salt in tank (brine only)

RESIN EXCHANGE CAPACITY

20,000 grain approximate per cu. ft.
6 lbs. salt-sodium chloride

25,000 grain approximate per cu. ft.
8 lbs. salt-sodium chloride

30,000 grain approximate per cu. ft.
15 lbs. salt-sodium chloride

NOTE: To convert parts per million (ppm) or milligrams per liter (mgl) to grains divide by 17.1.

EXAMPLE: Water Hardness of 250 ppm
(250 ppm ÷ 17.1 ppm/gr) = 14.6 gr.

HANDY CONVERSION FACTORS

GPG (grains per gallon) = PPM ÷ 17.1

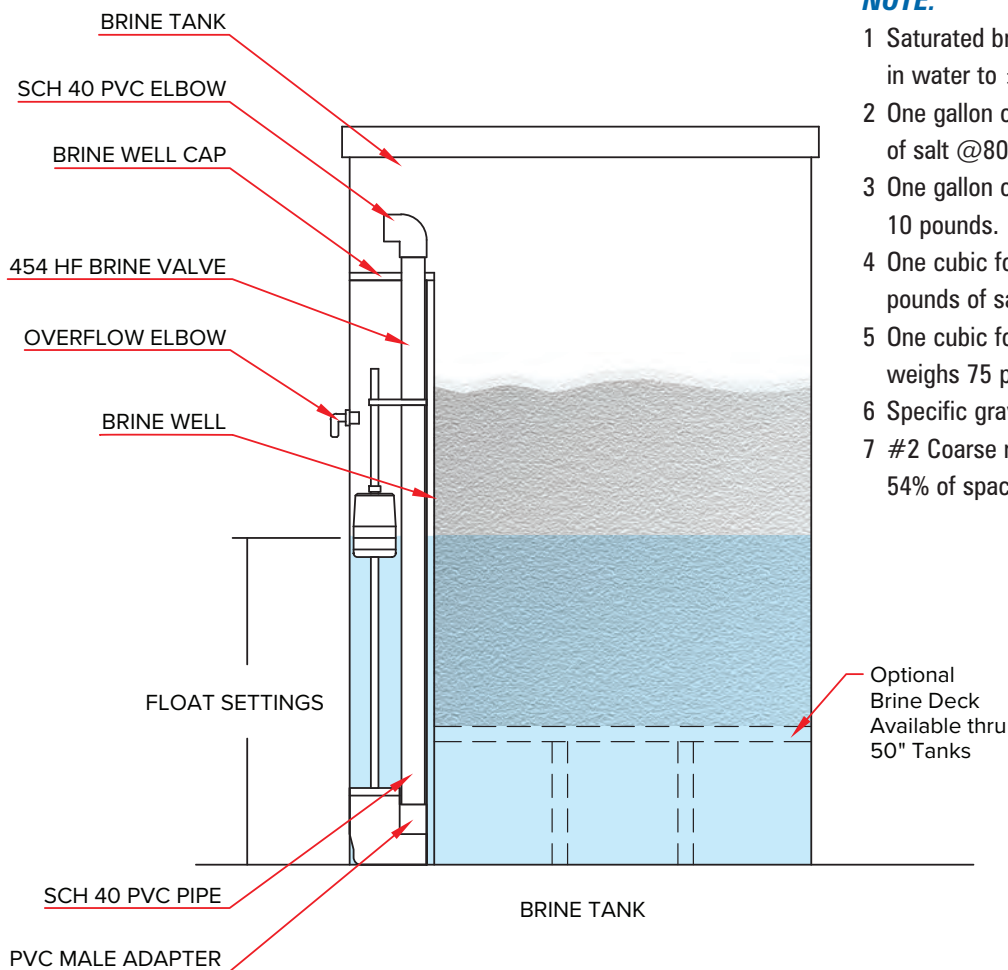
PPM (part per million) = MG/L (milligrams/liter)

PSI = Rise in Feet X .434

i.e.: 5 story building = 50' x .434

= 22 PSI loss on 5th Floor

Square Foot of Bed Area = D2 x .785



NOTE:

- 1 Saturated brine is when salt dissolves in water to ± 26% by weight.
- 2 One gallon of 26% brine has 2.6 pounds of salt @80° F.
- 3 One gallon of 26% brine solution weighs 10 pounds.
- 4 One cubic foot of 26% brine has 19.5 pounds of salt.
- 5 One cubic foot of 26% brine solution weighs 75 pounds.
- 6 Specific gravity of 26% brine at 60°F is 1.2.
- 7 #2 Coarse rock salt is ± 46% and voids are 54% of space in a salt tank.

How to Size Feed Pumps

In many water treatment systems, a chemical feed pump is necessary to successfully supply good quality water. Bacterial iron and hydrogen sulfide may require chlorination or potassium permanganate. Clear water iron can be treated in the same manner. Polyphosphate can be used to treat low hardness waters, waters containing low levels of clear water iron, or aggressive waters.

The following formula can be used to size feed pumps for all of these applications:

$$\begin{array}{r} \text{Well pump} \\ \text{output rate} \\ \text{(gpm)} \end{array} \times \begin{array}{r} \text{Required} \\ \text{dosage} \\ \text{(ppm)} \end{array} \times 1440 \div \begin{array}{r} \text{Solution} \\ \text{strength} \\ \text{(ppm)} \end{array} \\ = \text{FEED PUMP OUTPUT IN GPD}$$

From the formula, it can be seen we need three pieces of information:

1. Well pump output rate
2. The required dosage
3. The solution strength of the compound to be fed

Let's go through each one separately.

WELL PUMP OUTPUT RATE

The well pump output rate can be determined quite easily. Don't confuse this with the flow rate delivered by one or two taps in the home. What is required is how fast the well pump refills the pressure tank – the reason being is that the well pump controls the feed pump and well pump may be filling the pressure tank more rapidly than the water is being used in the home.

To determine the output rate open a tap until the well pump turns on. Immediately turn off the tap and time how long the well pump runs. Then, using a one-gallon container, close the tap and dump the gallon of water down the drain. Continue doing this and counting each gallon until the pump starts again. You now have the information to calculate the well pump output rate.

For Example: *The well pump required two minutes to refill the pressure tank and you found it took 21 gallons before the pump started again.*

$$\frac{21 \text{ gallons}}{2 \text{ minutes}} = 10.5 \text{ gpm}$$

DOSAGE REQUIRED

The dosage required can be estimated by the following:

- 3 ppm of chlorine is required for each ppm of hydrogen sulfide.
- 1 ppm of chlorine is required for each ppm of iron.
- 0.7 of potassium permanganate is required for both iron and hydrogen sulfide.
- 2 to 5 ppm of polyphosphate is required for hardness and clear water iron treatment.

NOTE: *Don't neglect the ppm of chlorine residual required in chlorination. For example, treat a supply containing two ppm of iron and four ppm of hydrogen sulfide, a dosage of 15 ppm of chlorine is required.*

$$\begin{array}{r} (2 \text{ ppm Fe}) (1 \text{ ppm Chlorine}) \\ + (4 \text{ ppm H}_2\text{S}) (3 \text{ ppm Chlorine}) \\ + 1 \text{ ppm residual} \\ = 15 \text{ ppm total Chlorine} \end{array}$$

SOLUTION STRENGTH

The final piece of information required is the solution strength. Typical concentrations are:

- Straight 5.25% bleach is 52,500 ppm
- Straight 12.5% bleach is 125,000 ppm
- Potassium permanganate dissolved at 1/4 lb per gallon is 30,000 ppm
- Polyphosphate dissolved at one lb. per 10 gallons is 12,000 ppm

We are now ready to size the feed pump. Using our example above, treat the iron and hydrogen sulfide with straight 5.25 % bleach:

$$(10.5 \text{ gpm}) (15 \text{ ppm}) [1440] \div (52,500 \text{ ppm}) = 4.3 \text{ gpd}$$

This means we need a feed pump with an output of 4.3 gallons per day. Our PM-16 can pump 20 gpd at its maximum setting, therefore we would set the pump at 2.15.

$$\frac{4.3}{20} \times 10 = 2.15$$

The "10" in the formula above is the maximum dial setting on the PM-16, and "20" is the maximum feed rate of the PM 16.

Now this is a very low setting on the pump. Try to arrive at a feed rate that is near mid-scale on the dial of the pump. This is easily done by adjusting the solution strength of the compound being fed.

For example, we can dilute one gallon of bleach with one gallon of water, double our feed pump setting and still maintain a 15 PPM dosage. We can dilute one gallon of bleach with two gallons of water and triple the feed pump setting. By getting a feed rate near the mid-setting of the pump, we give ourselves room for adjustment.

This method of sizing feed pumps will get you close to the required dosage. However, there is no substitute for actually measuring the residual in the treated water. Slight adjustments in the feed rate setting are normally required.

Polyphosphate Treatment For Water Systems

In order to size a MEC-O-MATIC feed pump for polyphosphate feeding it is necessary to know:

- the polyphosphate residual (ppm), and
- the well pump rate (gpm).

Rule 1: One pound of polyphosphate per 10 gallons water = 12,000 ppm (solution strength)

Rule 2: One pound of polyphosphate typically treats 40,000 gallons of water at a 2 ppm concentration (residual).

Formula: [Well pump rate (gpm) x polyphosphate residual (ppm) x 1440 (conversion factor)] ÷ solution strength = required feed pump output (gpd)

Example:

$$\begin{aligned} \text{Well pump rate} &= 10\text{gpm} \\ \text{Polyphosphate residual} &= 4\text{ ppm} \\ (10 \times 4 \times 1400) &\div 12,000 = \\ 56,000 &\div 12,000 = 4.66 \end{aligned}$$

feed pump output (gpd), with 10 = well pump rate;
4 = the desired concentration of polyphosphate;
1440 = the conversion factor to change gpm to gpd;
12,000 = the solution strength based on the above Rule 1; and 4.66 = the feed pump output (gpd) based on well pump rate and polyphosphate residual.

It is advisable to slug the system initially at 10 ppm for approximately 30 days to clean out the lines at a faster rate.

Useful Data:

Polyphosphate @ 1 lb/10 gal = 12,000 ppm

5.25% bleach = 52,500 ppm

12.5% bleach = 125,000 ppm

Potassium Permanganate @ 0.25 lbs/gal = 30,000 ppm

- It requires 3 ppm chlorine for each ppm of hydrogen sulfide.
- It requires 1 ppm chlorine for each ppm of iron.
- It requires 0.7 ppm potassium permanganate for each ppm of hydrogen sulfide or iron.
- Do not neglect the residual required for chlorine applications.
- Do not mix potassium permanganate stronger than 0.25 lbs/gal or the maximum solubility will be exceeded.

Sizing Feed Pumps

In sizing feed pumps for iron and hydrogen sulfide removal using chlorine bleach or potassium permanganate, the following formula can be used:

$$\begin{array}{ccccccc} \text{Well pump} & & \text{Required} & & \text{Solution} & & \text{Feed rate} \\ \text{flow rate} & \times & \text{dosage} & \times & \text{(1440)} & \div & \text{required} \\ \text{in gpm} & & \text{in ppm} & & \text{in ppm} & & \text{in ppm} \\ & & & & & \text{strength} & = \end{array}$$

Size the chemical feed pump so that its maximum capacity is double the required feeding.

Chemical Requirements for Iron Oxidation

Oxidant	Amount needed to oxidize 1 ppm Iron
Oxygen (O ₂)	0.14 ppm
Chlorine (Cl ₂)	0.62 ppm
Ozone (O ₃)	0.86 ppm
Potassium Permanganate (KMnO ₄)	1.0 ppm
Iodine (I ₃)	3.6 ppm
Hydrogen Peroxide	0.5 ppm

The minimum retention time for the above is 20 minutes with the exception of iodine which needs 25 minutes.

Chemical Requirements for Manganese Oxidation

Oxidant	Amount needed to oxidize 1 ppm Mn
Oxygen (O ₂)	0.21 ppm
Chlorine (Cl ₂)	2.00 ppm
Ozone (O ₃)	1.60 ppm
Potassium Permanganate (KMnO ₄)	2.70 ppm
Iodine (I ₃)	7.20 ppm
Hydrogen Peroxide	1.00 ppm

The minimum retention time for the above is 20 minutes with the exception of potassium permanganate which requires 25 minutes and iodine which requires 30 minutes.

Chemical Requirements for Manganese Oxidation

Oxidant	Amount needed to oxidize 1 ppm H ₂ S
Chlorine (Cl ₂)	3.0 ppm
Potassium Permanganate (KMnO ₄)	6.0 ppm
Iodine (I ₃)	10.8 ppm
Hydrogen Peroxide (H ₂ O ₂)	1.05 ppm
Ozone (O ₃)	2.0 ppm

The minimum contact time for the above oxidizing agents is 30 minutes with the exception of potassium permanganate which requires 35 minutes and iodine which is 45 minutes.

The following information lists estimated water usage for various establishments. Remember that these are only estimates.

TYPE OF ESTABLISHMENT	GALLONS/DAY
Airports (per passenger)	3 to 5
Apartments, Multi Family (per resident)	60
Camps:	
Construction, semipermanent (per worker)	50
Day with no meals served (per camper)	15
Resorts, day and night with limited plumbing (per camper)	50
Tourist with central bath and toilet facilities (per person)	35
Cottages with seasonal occupancy (per resident)	50
Country Clubs (per non-resident member)	25
Dwellings:	
Boarding houses (per boarder)	50
Luxury (per person)	100 to 150
Multiple family apartments (per resident)	40
Rooming houses (per resident)	60
Single family (per resident)	50 to 75
Factories (gal per person per shift)	15 to 35
Hotels with private baths (two persons/room)	60
Hotels without private baths (per person)	50
Hospitals (per bed)	250 to 400
Laundries, self-service (gallons/washing/customer)	50
Motel with bath, toilet and kitchen (per bed space)	50
Motels with bed and toilet - no kitchen (per bed space)	40
Parks:	
Overnight with flush toilets (per camper)	25
Trailers with individual bath units (per camper)	50
Picnic Areas:	
With bath houses, showers and flush toilets (per picnicker)	20
With toilet facilities only (gallon/picnicker)	10
Restaurants with toilet facilities (per patron)	7 to 10
Restaurants with bars and cocktail lounge (add per person)	2
Schools:	
Boarding (per person)	75 to 100
Day with cafeteria, gymnasium and showers (per pupil)	25
Day without cafeteria, gymnasium or shower (per pupil)	15
Service stations (per vehicle)	10
Stores (per toilet room)	400
Swimming pools (per swimmer)	10
Theaters: Indoor or Drive-In (per auditorium seat/car space)	5
Workers: Construction (per person/shift)	50
Workers: Office (per person/shift)	15

SOURCE: Adapted from U.S. Public Health Service, 1962 Manual of Individual Water Supplies

To use this chart, determine if the fixtures are open to the public or are for private use. Multiply the actual number of fixtures by the weighted value listed in the chart below. Take the total value to the following page.

Fixture	Occupancy	Type	Cold Value	Hot Value	Total Value
Water Closet	Public	Flush Valve	10	-	10
Water Closet	Public	Flush Tank	5	-	5
Urinal	Public	1" Valve	10	-	10
Urinal	Public	3/4" Valve	5	-	5
Lavatory	Public	Faucet	1.5	1.5	2
Bathtub	Public	Faucet	3	3	4
Shower	Public	Mixing Valve	3	3	4
Service Sink	Public	Faucet	2.25	2.25	3
Kitchen Sink	Public	Faucet	3	3	4
Drinking Fountain	Public	Valve	0.25	-	0.25
Dish Machine	Restaurant	Valve	-	1	1
Laundry Machine	Public	8#	2.25	2.25	3
Laundry Machine	Public	16#	3	3	4
Water Closet	Private	Flush Valve	6	-	6
Water Closet	Private	Flush Tank	3	-	3
Lavatory	Private	Faucet	0.75	0.75	1
Bathtub	Private	Faucet	1.5	1.5	2
Shower Stall	Private	Mixing Valve	1.5	1.5	2
Kitchen Sink	Private	Faucet	1.5	1.5	2
Laundry	Sink Private	Faucet	2.25	2.25	3
Dishwasher	Private	Automatic	-	1	1
Clothes Washer	Private	8#	1.5	1.5	2

SCHOOLS

Number of Students	Gallons per day required	Peak Demand with flush valves	Peak Demand with flush tanks	HOT ONLY Peak Flow	HOT ONLY Peak Flow
100	2,500	60	30	15	500
200	5,000	90	50	23	1,200
300	7,500	120	80	30	1,800
400	10,000	150	90	40	2,400
500	12,500	180	100	50	3,000
800	20,000	250	130	60	4,800
1000	25,000	300	160	70	6,000

APARTMENTS AND MOBILE HOME PARKS

Units	All Soft	Peak Flow	Hot Only	Hot Peak Flow
4	720	22	240	12
5	900	25	300	15
6	1,000	30	360	20
8	1,440	40	480	26
10	1,800	50	600	30
15	2,700	75	900	45
20	3,600	90	1,200	45
30	5,400	110	1,800	65
40	7,200	125	2,400	75
50	9,000	140	3,000	85
100	18,000	220	6,000	110

Systems that are predominately Flush Tanks		Systems that are predominately Flush Valve	
Load	Demand (GPM)	Load	Demand (GPM)
1	3.0		
2	5.0		
3	6.5		
4	8.0		
5	9.4	5	15.0
6	10.7	6	17.4
7	11.8	7	19.8
8	12.8	8	22.2
9	13.7	9	24.6
10	14.6	10	27.0
11	15.4	11	27.8
12	16.0	12	28.6
13	16.5	13	29.4
14	17.0	14	30.2
15	17.5	15	31.0
16	18.0	16	31.8
17	18.4	17	32.6
18	18.8	18	33.4
19	19.2	19	34.2
20	19.6	20	35.0
25	21.5	25	38.0
30	23.3	30	42.0
35	24.9	35	44.0
40	26.3	40	46.0
45	27.7	45	48.0
50	29.1	50	50.0
60	32.0	60	54.0
70	35.0	70	58.0
80	38.0	80	61.2
90	41.0	90	64.3
100	43.5	100	67.5
120	48.0	120	73.0
140	52.5	140	77.0
160	57.0	160	81.0
180	61.0	180	85.5
200	65.0	200	90.0
225	75.0	225	95.5
250	75.0	250	101.0
275	80.0	275	104.5
300	85.0	300	108.0
400	105.0	400	127.0
500	124.0	500	143.0
750	170.0	750	177.0
1000	208.0	1000	208.0
1250	239.0	1250	239.0
1500	269.0	1500	269.0
1750	297.0	1750	297.0
2000	325.0	2000	325.0
2500	380.0	2500	380.0
3000	433.0	3000	433.0
4000	525.0	4000	525.0

Use the chart below for determining the peak flow rate required for flush valves.

Total number of valves online	Apartment Buildings Hotel Guest Rooms	Office Buildings Hotels Motels	Residences Municipal Buildings Department	Industrial Plants Hospitals Clubs, Stores Shopping Ctrs.	Transportation Terminals, University Buildings Restaurants	Public Schools hand operated flush valves Theaters Comfort Stations	Public Schools seat operated flush valves
1	35	40	35	35	35	35	35
2	40	45	40	40	50	50	60
3	45	50	45	50	60	60	60
4	45	50	50	60	60	60	90
5	50	55	60	70	70	90	100
6	50	60	60	70	80	90	120
7	50	60	70	80	90	120	140
8	60	70	70	90	100	120	150
9	60	70	80	100	120	150	160
10	60	70	80	100	120	150	180
11	70	80	90	110	120	180	200
12	70	80	90	120	140	180	200
14	70	90	100	120	150	200	200
16	70	90	100	140	160	200	225
18	70	90	120	140	180	220	250
20	80	100	120	150	180	240	275
22	80	100	120	160	180	240	275
24	80	100	120	160	200	240	300
26	80	100	140	160	200	240	300
28	90	120	140	160	200	240	350
30	90	120	140	180	225	240	350
35	90	120	140	180	225	270	350
40	90	120	140	180	225	270	350
45	90	120	150	180	225	270	350
50	90	130	150	180	225	300	400
60	90	130	150	180	225	330	400
70	90	130	150	180	225	330	400
80	100	140	160	200	225	330	400
90	100	140	160	200	225	330	400
100	100	140	160	200	225	330	400
200	140	160	180	225	250	400	450



Pressure Correction Factors for Thin Film Composite (T.F.C.) Membrane Production Rate

Pressure ^ pse ^ kPa	Correction Factor	Percent Rejection*
10 69	.17	84
15 103	.25	88
20 138	.33	90
25 172	.42	92
30 207	.50	93
35 241	.58	93
40 276	.67	94
45 310	.75	94
50 345	.83	94
55 379	.92	94
60 414	1.00	94
65 448	1.08	94
70 483	1.17	95
75 517	1.25	95
80 552	1.33	95
85 586	1.42	95
90 621	1.50	96
95 655	1.58	96
100 689	1.67	96

To adjust from 60 psi (414kPa) to another pressure multiply the production rate by the correction factor.

To adjust from pressure to standard conditions divide by the factor.

*Percent rejection of Total Dissolved Solids

Temperature Correction Factors for Thin Film Composite (T.F.C.) Membrane Production Rate

Temperature F C	Correction Factor
50 10.0	1.711
51 10.6	1.676
52 11.1	1.642
53 11.6	1.611
54 12.2	1.576
55 12.8	1.541
56 13.4	1.508
57 13.9	1.480
58 14.4	1.453
59 15.0	1.422
60 15.5	1.396
61 16.1	1.366
62 16.7	1.337
63 17.2	1.313
64 17.8	1.285
65 18.4	1.258
66 18.9	1.236
67 19.5	1.210
68 20.0	1.189
69 20.6	1.164
70 21.1	1.144
71 21.7	1.120
72 22.2	1.101
73 22.8	1.078
74 23.4	1.056
75 23.9	1.038
76 24.5	1.017
77 25.0	1.000
78 25.6	0.982
79 26.1	0.968
80 26.7	0.951
81 27.2	0.937
82 27.8	0.921
83 28.4	0.905
84 28.9	0.892
85 29.5	0.877

To adjust from 77° F (25° C) to another temperature, multiply the production rate by the correction factor.

To adjust from a temperature to standard conditions divide by the factor.

All sales of goods by Nelsen Corporation ("Nelsen") to any party purchasing goods ("Buyer") shall be upon the following terms and conditions:

1. ORDERS – If Buyer orders any goods from Nelsen, Buyer shall use Nelsen's part number, size and other definitive information necessary to correctly complete the order. All orders by Buyer are subject to acceptance by Nelsen and Nelsen reserves the right to correct any errors or omissions in any orders, quotations, invoices or other documents associated with the sale of goods. Nelsen shall not be bound by any typographical or other errors in its quotations or other communications with Buyer.

2. QUOTES – Any firm quote for the sale of goods provided by Nelsen to Buyer in writing shall be valid for the shorter of: (a) the period of time set forth in such quote; or (b) 30 days thereafter.

3. BINDING AGREEMENT – Buyer's acceptance of goods purchased from Nelsen constitutes Buyer's agreement to all Sale Terms and Conditions contained herein. Any inconsistent or additional terms contained in Buyer's purchase order or other communication are hereby rejected unless expressly accepted in writing by Nelsen within ten (10) days after its receipt of such purchase order or other communication. These Sale Terms and Conditions shall not be modified other than in writing signed by Nelsen and Buyer.

4. ACCEPTANCE – Buyer shall inspect the goods upon delivery and shall notify Nelsen immediately in writing of all defects in the goods, including, but not limited to, defective materials or workmanship. If there is any shipping damage to the goods, Buyer shall immediately file a claim with the carrier. Buyer's failure to notify Nelsen or file a claim with the carrier shall be conclusive evidence that no defects or damages existed upon delivery. In particular, any claim by Buyer of shortages or errors in the delivered goods must be made by Buyer upon receipt of the goods on the delivery receipt or such claim will be considered waived. The goods sold hereunder do not include installation or any installation hangers, supports, tie downs, interconnecting piping or bypass piping, unless agreed in writing by Nelsen.

5. TITLE; RISK OF LOSS – Unless otherwise agreed in writing by Nelsen and Buyer, title in and risk of loss for all goods sold by Nelsen shall pass to Buyer upon delivery to carrier at F.O.B. Nelsen's or its agent's facility. Nelsen bears no responsibility for the shipment of the goods and any claims for lost or damaged goods in transit shall be brought by Buyer solely against the carrier. If arranged by Nelsen, the goods will be delivered via United Parcel Service, Federal Express, US Postal Service or other carrier selected by Nelsen; provided Buyer may select the carrier by providing Nelsen written notice thereof prior to shipment and making all arrangements associated with such shipment. Unless otherwise agreed in writing by Nelsen, all costs of shipment shall be borne solely by Buyer and Buyer acknowledges that any shipping weights, dimensions or ship dates provided by Nelsen are approximated and subject to change. If shipping is arranged by Nelsen, Nelsen will assign its rights against the carrier to Buyer for any lost, damaged or delayed goods, to the extent permitted.

6. PRICES AND TAXES – Unless otherwise agreed in writing by Nelsen and Buyer, all prices shall be at Nelsen's price as of the date of shipment. Prices do not include installation, training or other services provided by Nelsen or its agents, unless otherwise specified in writing by Nelsen. A special handling fee determined by Nelsen may be added to any prices where goods or parts must be special ordered by Nelsen or if the goods require dismantling to satisfy Buyer's requirements. A minimum billing of \$25 applies to all purchases from Nelsen. Prices are F.O.B. Nelsen's or its agent's facility. Any local, state or federal taxes levied on the purchased goods shall be the responsibility of Buyer.

7. PAYMENT TERMS – Unless otherwise agreed in writing by Nelsen and Buyer, all prices for purchased goods shall be due upon shipment of the goods at Nelsen's or its agent's facility by cash, certified check or money order, credit card or other immediately available funds. Nelsen reserves the right to determine the credit cards which it accepts and the right to charge an additional administration fee for any payments by credit card.

8. CHECK PAYMENT PROGRAM – Nelsen may permit Buyer to pay by check upon shipment of the goods at Nelsen's or its agent's facility if Buyer qualifies for Nelsen's check payment program. To apply for Nelsen's check

payment program, Buyer must provide: (a) the names of three (3) suppliers who have satisfactorily accepted Buyer's checks for at least one (1) year and certify that they have experienced no issues with returned or insufficient funds (NSF) checks with Buyer; and (b) the name of Buyer's bank. Inclusion in Nelsen's check payment program is at Nelsen's discretion. Any returned or NSF checks from Buyer are charged a \$25 fee for each check. Upon Buyer having three (3) returned or NSF checks with Nelsen in any twelve (12) month period, Nelsen may remove Buyer from its check payment program.

9. NET 30 DAYS – Nelsen may permit Buyer to pay by invoice by opening an account with Nelsen if Buyer qualifies for Nelsen's account program. To apply for Nelsen's account program, Buyer must provide: (a) the names of three (3) suppliers who have satisfactorily been paid by Buyer under invoice terms for at least one (1) year and certify that they have experienced no issues with non-payment or overdue payment with Buyer under the terms of the invoices; and (b) the name of Buyer's bank. Nelsen may also require, in its discretion, financial statements of Buyer for periods designated by Nelsen. Inclusion in Nelsen's account program is at Nelsen's discretion. All Nelsen invoices shall be due and payable within 30 days after the date of shipment.

10. INTEREST; ENFORCEMENT COSTS – Any portion of the purchase price which is not paid in accordance with the terms of payment herein shall bear interest from the due date at the rate of 1.5% per month until paid. In the event Nelsen is required to commence collection proceedings against Buyer, Buyer shall be liable for all costs and expenses of Nelsen associated with the collection of its past due amounts, including attorney fees and court costs, which shall be due and payable by Buyer to Nelsen upon demand.

11. DELAY IN PERFORMANCE – Nelsen shall not be responsible or liable for any delays or failures in manufacture, assembly or delivery due to any cause or condition beyond the control of Nelsen, including, without limitation, any delays in the manufacture or delivery of the goods from Nelsen's third party vendors, delays or problems with shipment, strikes or labor difficulties, fire, floods, acts of the elements, shortage of materials or equipment, war, riots or civil commotions or other acts of God. In the event of any shortage of Nelsen's goods, for any reason, Nelsen may pro-rate the supply of its goods among its customers in any manner determined by Nelsen.

12. DELIVERY – Any dates or schedules which may be specified for the delivery of the purchased goods have been stated only approximately and are estimates. Nelsen shall not incur any liability, either direct or indirect, nor shall any order be canceled, as a result of any delays in meeting such dates or schedules. In the event Buyer requests a delay in shipping of the goods, Nelsen may charge a storage fee, determined in Nelsen's discretion, after the initial shipping date, which fee shall be due and payable by Buyer upon Nelsen's demand.

13. LIMITED WARRANTY – Any goods manufactured by a third party are subject to the manufacturer's warranty only and Nelsen's sole responsibility for such third party goods shall be to pass such manufacturer warranty, if any, to Buyer. Any goods manufactured by Nelsen may have a limited warranty separately provided by Nelsen in writing apart from these Sale Terms and Conditions. Buyer should carefully review any separate limited warranty.

EXCEPT AS PROVIDED ABOVE AND TO THE EXTENT PERMITTED BY LAW, THERE ARE NO OTHER REPRESENTATIONS OR WARRANTIES WITH RESPECT TO THE GOODS, EITHER EXPRESS OR IMPLIED, WRITTEN OR ORAL, OR ARISING UNDER CUSTOM OF TRADE, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. NO REPRESENTATIONS OR WARRANTIES AT ANY TIME MADE BY ANY EMPLOYEE, AGENT OR REPRESENTATIVE OF NELSEN SHALL BE EFFECTIVE TO VARY OR EXPAND ANY WRITTEN WARRANTY OR THE TERMS HEREOF. TO THE EXTENT A WAIVER OF IMPLIED WARRANTIES IS PROHIBITED BY LAW, ANY IMPLIED WARRANTIES ON PURCHASED GOODS SHALL BE LIMITED TO THE DURATION OF ANY WRITTEN WARRANTY PROVIDED BY NELSEN.

Unless otherwise in a written warranty provided by Nelsen, any warranty provided by Nelsen shall apply solely to authorized dealers of Nelsen's products who purchased the goods directly from Nelsen and shall not apply, directly or indirectly, to any consumer of the goods.

Buyer acknowledges that some systems may include interconnecting piping that may have leaks, even if air or hydraulically tested at the time of manufacture, due to pipe vibrations and handling. For example, galvanized pipe threads are diligently assembled with recommended thread sealants but may have leaks discovered at the time of installation or start up. The installer of the goods is responsible for checking the system for leaks upon startup and making any repairs if necessary.

All claims for breach of any warranty must be made to Nelsen within the time period provided in the applicable warranty.

14. LIMITATION OF LIABILITY – In no event shall Nelsen be liable to Buyer or to any third party for consequential, incidental, special or punitive damages, or for lost profits or loss of use, resulting from or in any manner related to the goods, their delivery, non-delivery, use, or inability to use the same, whether such damages be claimed under contract, tort or any other legal theory. Buyer agrees that the sole and exclusive remedy of Buyer shall be the repair or replacement of any defective goods. Any replaced goods, or parts therein, shall be retained by and become the property of Nelsen. If Nelsen determines that repair or replacement of defective goods is not commercially practicable, Nelsen will issue a credit in favor of Buyer in an amount not to exceed the purchase price of the goods.

ANY AND ALL CLAIMS ASSERTED BY BUYER OR ANY OTHER PERSON OR ENTITY SHALL BE RAISED IN SUCH PARTY'S INDIVIDUAL CAPACITY AND MAY NOT BE RAISED AS A PLAINTIFF OR CLASS MEMBER IN ANY PURPORTED CLASS OR REPRESENTATIVE PROCEEDING.

This limitation of liability shall survive the termination, expiration or cancellation of this agreement.

15. RETURNED GOODS – The shipment of returned, repaired or replaced goods to and from a designated Nelsen location shall be at the sole cost, risk and responsibility of Buyer, unless otherwise agreed in writing by Nelsen. Any goods returned by Buyer must have a RGA (Returned Goods Authorization) number prior to shipment to Nelsen, who may refuse acceptance of any returns without a RGA number clearly visible on the outside of the shipping package. Nelsen shall not be liable for any costs or expenses associated with the removal or re-installation of goods or any damage to property or injury to persons involved in such removal or re-installation of goods. Nothing in these Sale Terms and Conditions shall require Nelsen to accept the return of any non-warranted goods.

16. THIRD PARTY VENDORS – Nelsen is not responsible for any delays caused by third parties used by Nelsen to produce, manufacture, assemble or ship the goods. It is understood by Buyer that the price for the goods is based on Nelsen's cost of goods and services from its third party vendors and Nelsen shall not be bound by the price of goods hereunder if any third party fails to provide any materials or services as promised or agreed.

17. CANCELLATION OR CHANGE ORDERS – No orders of cataloged, stock goods may be withdrawn or canceled by Buyer after the third party manufacturer has shipped the goods to Nelsen or after Nelsen has begun the assembly or shipment of the goods, unless Nelsen shall have approved such cancellation in writing and been paid a cancellation charge determined by Nelsen. Orders of non-cataloged or special order goods may not be withdrawn or cancelled by Buyer at any time, unless Nelsen shall have approved such cancellation in writing and Nelsen shall have been paid a cancellation charge determined by Nelsen. If Buyer shall request changes in its order after receipt thereof by Nelsen, it shall be responsible for all charges reasonably incurred by Nelsen with respect to such changes. All cancelled orders are subject to a cancellation charge in Nelsen's discretion.

18. NELSEN CHANGES – Nelsen reserves the right to make changes in the design or materials used with manufactured goods when deemed necessary or otherwise, without prior notice to Buyer.

19. CATALOGED ITEMS – Nelsen includes both stock goods and non-stock goods in its catalog. As not all goods are available from each Nelsen location, purchases may ship from any Nelsen location. All freight charges are paid by Buyer, unless agreed in writing by Nelsen or paid by the third party manufacturer.

20. INFRINGEMENT CLAIMS – Nelsen makes no representation or warranty that the purchased goods shall be free of any claim of infringement of the intellectual property rights of any third party.

21. REMEDIES UPON DEFAULT – Buyer shall be in default under these Sale Terms and Conditions upon: (a) the failure of Buyer to perform its obligations hereunder, including, without limitation, payment in full of the purchase price for the goods; or (b) the insolvency, filing of any voluntary or involuntary petition of bankruptcy, assignment for the benefit of creditors or dissolution, liquidation, or the winding up of the business of Buyer. Upon Buyer's default, Nelsen shall have any and all remedies available at law or equity. In addition to any other remedies, Nelsen may refuse to provide the goods or any installation, start-up or training services not yet performed. Failure by Nelsen to exercise any rights under these Sale Terms and Conditions shall not constitute a waiver of such rights. Default by Buyer shall, at Nelsen's option, render the total purchase price and all other obligations at once due and payable.

22. INDEMNIFICATION – Buyer shall indemnify Nelsen against all claims, losses, liabilities and expenses (including, but not limited to, attorney fees and court costs) on account of any damage to property or injury/death of persons (including Buyer's employees) arising out of Buyer's unloading, storage, handling, use or disposal of the goods, except for any portion of damages attributable to Nelsen's gross negligence. This indemnity obligation of Buyer will survive the expiration, termination or cancellation of this contract.

23. APPLICABLE LAW – These Sale Terms and Conditions shall be construed in accordance with the laws of the State of Ohio. Further, Nelsen and Buyer agree to submit to the jurisdiction of the state or federal courts located in Summit County, Ohio for purposes of resolving any dispute or claim arising in connection with a transaction.

24. ASSIGNMENT; THIRD PARTY BENEFICIARIES – Buyer shall not assign these Sale Terms and Conditions without written approval of Nelsen. Any attempt by Buyer to assign any rights, duties, or obligations under these Sale Terms and Conditions without such written approval shall be void. These Sale Terms and Conditions shall inure to the benefit of Nelsen and its successors and assigns. Nothing in this contract shall be construed as creating any act or beneficial right in or on behalf of any third party.

25. NON-WAIVER; SEVERABILITY – The failure of Nelsen to insist on or enforce the strict performance of any term of this agreement, or to exercise any right hereunder, shall not be construed as a waiver or relinquishment, to any extent, of its right to assert or rely upon such term or right on any future occasion. If any provision of these Sale Terms and Conditions shall be held to be invalid, illegal, or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

26. INTEGRATION – There are no understandings between the parties hereto as to the subject matter of this contract other than as set forth herein. All previous communications between the parties concerning the subject matter of this contract, whether verbal or written, if any, including, but not limited to, any Buyer's purchase order, are hereby abrogated and withdrawn, and this contract constitutes the whole of the agreement between the parties. Any additional terms and conditions of a purchase order or change order shall not apply hereto unless agreed by the parties in writing. Receipt of the goods delivered hereunder shall be deemed to be an acceptance by Buyer of these Sale Terms and Conditions. Any different terms or conditions in Buyer's purchase order, regardless of whether such terms and conditions are material or not, shall not be binding unless expressly accepted in writing by Nelsen and Nelsen specifically objects to the inclusion of any different or additional terms or conditions by Buyer. If Buyer has included or includes different or additional terms and conditions in its purchase order, acceptance, confirmation or other written document, neither the delivery of all or part of the goods, nor any other action by Nelsen except a written writing of acceptance from Nelsen, shall constitute acceptance of such additional or different terms, but instead these Sale Terms and Conditions shall govern.

NELSEN'S NATIONWIDE SUPPORT

OHIO

PH: 330.745.6000 · 800.362.9686
FAX: 330.745.8635 · 888.544.8780

ARIZONA

PH: 602.442.0203 · 866.445.4299
FAX: 602.442.0447

TEXAS

PH: 210.714.2566 · 855.674.0357
FAX: 210.714.2571

FLORIDA - Tampa

PH: 813.712.2270 · 866.712.6796
FAX: 813.712.2274

FLORIDA - Ft. Myers

PH: 813.712.2270 · 866.712.6796
FAX: 813.712.2274



THE NAME YOU KNOW. THE NAME YOU TRUST.

At Nelsen, we treat our customers, our partners and our employees like family—honestly, respectfully and fairly. We serve professional dealers in the United States and across the globe with the best from Clack, Pentair, Enpress, Stenner and more than 200 other vendors.

While we're proud of our great products and service, our greatest accomplishment by far is the strong relationships we've built for more than 65 years.