



## Permeate Pump ERP 1000

### Performance

<b>PERFORMANCE - FILL RATE @ 60 PSI FEED</b>			
Product		Time to fill	
Qty (ml)	Tank (psi)	With perm	W/o pump
4989 ml	60 psi	1hr13min	
4232 ml	40 psi		1hrs 42min
300 ml	60 psi	7 min	
1047ml	60 psi	22.5 min.	
1800 ml	40 psi		1.1 hrs.

Data shown in graph above shows strong advantage of Perm pump in tank pressure achieved, time to completely fill the tank, and total amount of water. Perm pump allows 50% greater tank pressure (60 psi vs 40 psi), 18% more water (4989ml vs 4232 ml), in 28% less time (1:13 min vs 1:42min).

The last three lines in the chart show a significant benefit for the Perm Pump in withdrawal of small amounts of water. A glass full (10.6 oz) takes 7 minutes to refill with a Perm system. 6 cups (36.9 oz), enough for a pot of coffee is replenished in 22.5 minutes with the Perm Pump. 1800 ml or 63.5 oz) must be withdrawn from a conventional system to allow the hydraulic shut off valve to reopen allowing the system to refill. It takes 62 min. to replenish 1800 ml, a 176% increase in time to refill.

<b>PERFORMANCE - FILL RATE @ 30 PSI FEED</b>			
Product		Time to fill	
Qty (ml)	Tank (psi)	With perm	W/o pump
2947 ml	24 psi	2hr10min	
2636 ml	22 psi		4hrs 41min
300 ml	24 psi	15 min	
1047ml	24 psi	35 min.	
**	22 psi		4.20 hrs.

Data shown in graph above shows strong advantage of Perm pump for low feed water pressures. Perm pump allows slightly more tank pressure (24 psi vs 22 psi), 12% more water (2947ml vs 2636 ml), in less than half the time (2:10 min vs 4:41min). The last three lines in the chart shows a huge benefit for the Perm Pump in withdrawal of small amounts of water. A glass full (10.6 oz) takes 15 minutes to refill with a Perm system. 6 cups (36.9 oz), enough for a pot of coffee is replenished in 35 minutes with the Perm Pump. No data was taken to determine quantity that must be withdrawn from a conventional system to allow the hydraulic shut off valve to reopen allowing the system to refill, although it was observed that the product tank pressure fell to 11 psi before refill commenced. It then took 4 hours 20 min. to completely refill the tank, or 800% increase in time to refill.

## Technical Specifications

**DESIGN:** The Permeate Pump is a non-electrical, hydraulically driven pump. It uses a reciprocating positive displacement, single action diaphragm to create dramatic efficiency improvements for RO based water purification.

**WEIGHT:** Approximately 1 lb.

**WETTED MATERIALS (PERMEATE SIDE):** NSF-listed, FDA-approved thermoplastic, EPDM.

**NON-WETTED MATERIALS:** Stainless Steel, Polypropylene.

**MOUNTING:** The Permeate Pump should always be mounted in a horizontal position (i.e. with its outlet ports facing upwards). If required, a special ABS mounting clip with two (2) #10 stainless steel screws is available.

**FITTINGS:** Nominal port openings fit 1/4" tubing. Optional Jaco and John Guest fittings (both straight and elbow) are also for 1/4", 5/16", and 3/8" tubing.