

# PIJTTERSEN

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# **ORDERING INFORMATION**

Use base part number for sealed model 016210 Use base part number for rechargeable models 016210S, 016210SS if factory pre-charge is desired.

### SHIPMENT REGULATIONS

- Pre-charged Prrrrr-O-Lators are defined as hazardous articles. Uncharged Prrrrr-O-Lators requires no special handling and can be shipped via standard shipping methods.
- All domestic shipments of hazardous articles must follow Department of Transportation CFR 49, parts 100 to 185 regulations (DOT).
- International shipments of hazardous articles must follow either International Air Transport Association regulation (IATA) or International Maritime Dangerous Goods Codes (IMDG).

### **⚠** CAUTIONS AND WARNINGS

All High Pressur e Syst ems require a primary pressure regulating device (i.e. regulator, unloader) and a secondar y pressur e relief device (i.e. pop-off valve, relief valve). Failure to install such relief devices could result in personal injury or damage to pump or property. CAT PUMP S does not assum e any liability or responsibili ty for the operation of a c ustomer's high pressure system.

Read all CAUTIONS and WARNINGS before commencing service or operation of any high pressur e system. The CAU TIONS and WARNINGS are included in each service manual and with each Accessor y Data sheet. CA UTIONS and WARNINGS can also be viewed online at www.catpumps.com/cautions-warnings or can be requested directly from CATP UMPS.

# **WARRANTY**

View the Limited Warranty on-line at www.catpumps.com/warranty.

# **Prrrrr-O-Lator Pulsation Dampeners**

#### 016210 - Sealed **MODEL**

	U.S. Measure	Metric Measure	
Maximum Flow	12 gpm	(45 lpm)	
Working Pressure Range (016210)	600-1000 psi*	(30-100 bar	
Precharge		(32 bar)	
Operating Temperature Range		(-15 to 82°C)	
Volume	10 cu.in.	(0.16 l)	
Safety Factor	4/1	(4/1)	
Bladder Material	NBR	(NBR)	
Body Material:			
Lower Body (Wetted Parts)	SS	SS	
Upper Body	Carbon Steel	Carbon Steel	
Port Material	SS	SS	
Port Size	1/2" NPTM	(1/2" NPTM)	
Diameter	2.93"	(74.5 mm)	
Length	4.67"	(118.7 mm)	
Weight	1.81 lbs.	(0.84 kg)	
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\*Optimum pulsation dampening at stated PSI. If full dampening is not critical, performance is acceptable up to 3000 PSI system pressure.

# MODEL 016210S - Rechargeable

Maximum Flow	Metric Measure (45 lpm) (7-210 bar) (32 bar) (-15 to 82°C)
Volume   10 cu.in.     Safety Factor   4/1     Bladder Material   NBR	(0.16 L) (4/1) ( <b>NBR</b> )
Body Material: SS   Lower Body (Wetted Parts) SS   Upper Body Carbon Steel   Port Material SS   Port Size 1/2" NPTM   Diameter 2.93"   Length 5.51"   Weight 2.18 lbs	SS Carbon Steel SS (1/2" NPTM) (74.5 mm) (140 mm) (1.02 kg)

#### **MODEL 016210SS - Rechargeable** (All Stainless Steel) U.S. Measure

U.S. Measure	Metric Measure
12 gpm	(45 lpm)
100-2400 psi	(7-210 bar)
450 psi	(32 bar)
+5 to 180°F	(-15 to 82°C)
10 cu.in.	(0.16 l)
4/1	(4/1)
NBR	(NBR)
	SS
SS	SS
1/2" NPTM	(1/2" NPTM)
2.93"	(74.5 mm)
	(140 mm)
2.18 lbs.	(1.02 kg)
	U.S. Measure

### INSTALLATION INSTRUCTIONS

### **MWARNING**

Do not charge Prrrr-O-Lators (Pulsation Dampeners) with oxygen. Oxygen may cause an explosion causing personal injury, death or property damage.

- Use nitrogen only when charging pulsation dampeners, DO NOT USE OXYGEN.
- 2. Use proper charging tools to charge pulsation dampeners.
- Charge pulsation dampener within specifications stated on data sheet to assure proper pulsation dampening and prevent failure of bladder.

**SELECTION:** The Prrrrr-O-Lator should be selected to match the flow and pressure requirements of the system and satisfy the liquid compatibility.

**INSTALLATION:** The Prrrr-O-Lator should be mounted directly onto the pump discharge manifold for optimum pulsation dampening and to avoid system vibration damage.

**OPERATION:** The Prrrrr-O-Lator should be precharged with **dry Nitrogen only.** 

The standard Prrrr-O-Lator is precharged to 450 PSI, however, it may be adjusted to offer a more precise control of pulsation in critical applications such as reverse osmosis.

"Sealed" Prrrrr-O-Lators are preset at 250 or 450 PSI and are designed to operate over the full range of system pressures from 600 to 1000 PSI.

At a standard temperature of  $70^{\circ}$ F, optimum accumulator performance is obtained when the precharge is calibrated at 50% of the system operating pressure.

**NOTE:** When operating at the lower temperatures, precharge should be 15% higher or 65% of system pressure. When operating at higher temperatures, precharge should be 15% lower or 35% of system pressure.

This precharge should be checked every 12 months for normal operation and more frequently for continuous-duty operation.

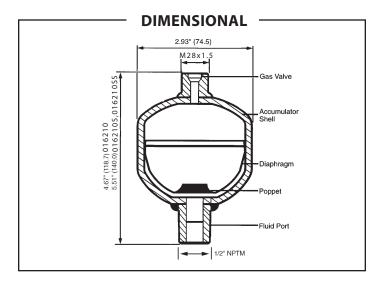
**NOTE:** Up to 50 PSI precharge pressure can be lost during the checking of your precharge.

### FILLING AND GAUGING INSTRUCTIONS

The following are the steps in both checking the precharge of the Prrrrr-O-Lator and recharging if there should be a loss of pressure or a need for adjustment.

**NOTE:** A gas regulator must be mounted between the nitrogen tank and the hose connection from the Filling and Gauging Assembly to enable you to regulate the precharge and to prevent excessive pressure being transmitted directly to the Prrrrr-O-Lator. OVER PRESSURIZATION WILL VOID THE WARRANTY.

- Before checking your precharge, system pressure should be at zero. TURN SYSTEM OFF.
- SLIGHTLY loosen the sealed valve at the top of the Prrrrr-O-Lator using a 6mm long handled allen wrench. Thread on the Filling and Gauging Assembly hand tight.
- 3. Be certain the SIDE BLEED VALVE on the gauging assembly is CLOSED.
- Slowly open the LARGE "T" VALVE at the top of the gauging assembly until completely open. The gauge on the assembly will read the precharge on the Prrrr-Q-I ator.
- Completely back off (CLOSE) the valve on the gas regulator, open the nitrogen tank valve and read the nitrogen tank pressure on the first gauge.
- 6. If the reading on the gauge assembly is 50% of the system pressure, close the top "T" valve and proceed to step 9.
- If the precharge is too high, keep the top "T" valve open and slowly open the small "T" valve on the side of the gauging assembly to bleed of pressure.
- If the pressure is less than 50% of the system pressure, slowly open the gas regulator valve until the desired precharge is reached on the second gauge.
- When the gauge reads the required precharge, close the "T" valve on the top of the gauging assembly to lock the precharge in the Prrrrr-O-Lator.
- 10. Back off (CLOSE) the gas regulator.
- 11. Proceed with opening the small side "T" valve on the gauging assembly to relieve (bleed-off) pressure in the assembly and on the second gauge on the gas regulator.
- 12. Close the side "T" valve on the gauging assembly and remove the assembly from the Prrrr-O-Lator.
- 13. Tighten the Prrrrr-O-Lator sealed valve and resume operation.



30731 Complete Filling and Gauging Assembly (Optional) M28x1.5





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