

# DATA SHEET

## PULSATION DAMPENERS



**Carbon Steel/Stainless Steel Models: 6026, 6028, 6029, 6030**

**Stainless Steel Model: 6031**



Model 6028



Model 6029

### FEATURES

- Nitrogen precharged to eliminate moisture and bladder deterioration.
- Broader bladder design provides greater pulsation reduction for smoother performance and longer system component life.
- 316 Stainless Steel housing for critical applications.
- Sealed valve for positive pressure lock.

### SHIPMENT REGULATIONS

- Pre-charged pulsation dampeners are defined as hazardous articles. **These articles use the proper shipping name of "Articles, Pressurized, Hydraulic" and use the identification number of "UN3164."**
- Uncharged pulsation dampeners require 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).

### ORDERING INFORMATION

Use base part number for sealed models 6026 or 6028.

Use base part number for rechargeable models 6029,6030, or 6031 if factory pre-charge is desired.

Add .800 to base part number for rechargeable models (i.e. 6029.800) for:

1. No pre-charge (remove factory pressure)
2. A pre-charge different from factory (indicate desired pre-charge on purchase order)

Note: A handling charge will apply.

### SPECIFICATIONS

#### MODELS 6026 and 6028 - Sealed

	U.S.	Metric
Maximum Flow	15 gpm	57 lpm
Working Pressure Range (6026)	300 - 600 psi*	20 - 41 bar
Working Pressure Range (6028)	600 - 1000 psi*	41 - 69 bar
Precharge (6026 Sealed)	250 psi	17 bar
Precharge (6028 Sealed)	450 psi	31 bar
Operating Temperature Range	+5 to 180°F	-15 to 82°C
Volume	10 cu. in.	0.16 l
Safety Factor	4/1	4/1
Bladder Material	NBR	NBR
Lower Body (Wetted Parts)	Coated Carbon Steel	
Upper Body	Carbon Steel	
Port Material	SS	SS
Port Size - Male	1/2" NPT	1/2" NPT
Diameter	2.93"	74.5 mm
Length	4.67"	118.7 mm
Weight	1.81 lbs.	0.84 kg

\*Optimum pulsation dampening at stated psi. If full dampening is not critical, performance is acceptable up to 3000 psi system pressure.

#### MODELS 6029 and 6030 - Rechargeable

Maximum Flow	15 gpm	57 lpm
Working Pressure Range	100 - 3000 psi	6.9 - 207 bar
Precharge (Rechargeable)	450 psi	31 bar
Operating Temp. Range (6029)	+5 to 180°F	-15 to 82°C
Operating Temp. Range (6030)	+5 to 300°F	-15 to 149°C
Volume	10 cu. in.	0.16 L
Safety Factor	4/1	4/1
Bladder Material (6029)	NBR	NBR
Bladder Material (6030)	FPM	FPM
Lower Body (Wetted Parts)	SS	SS
Upper Body	Carbon Steel	Carbon Steel
Port Material	SS	SS
Port Size - Male	1/2" NPT	1/2" NPT
Diameter	2.93"	74.5 mm
Length	5.51"	140 mm
Weight	2.18 lbs.	1.02 kg

#### MODEL 6031 - Rechargeable (All Stainless Steel)

Maximum Flow	15 gpm	57 lpm
Working Pressure Range	100 - 2400 psi	6.9 - 165 bar
Precharge (Rechargeable)	450 psi	31 bar
Operating Temperature Range	+5 to 180°F	-15 to 82°C
Volume	10 cu. in.	0.16 l
Safety Factor	4/1	4/1
Bladder Material	NBR	NBR
Body and Port Material	SS	SS
Port Size - Male	1/2" NPT	1/2" NPT
Diameter	2.93"	74.5 mm
Length	5.51"	140 mm
Weight	2.18 lbs.	1.02 kg

## INSTALLATION INSTRUCTIONS

### ⚠ WARNING

**Do not charge pulsation dampeners with oxygen. Oxygen may cause an explosion causing personal injury, death or property damage.**

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

**SELECTION:** The pulsation dampener should be selected to match the flow and pressure requirements of the system and satisfy the liquid compatibility.

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

**OPERATION:** The pulsation dampener should be precharged with **dry Nitrogen only**.

The standard pulsation dampener 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” pulsation dampeners are preset at 250 or 450 psi and are designed to operate over the full range of system pressures from 600 to 1000 psi.

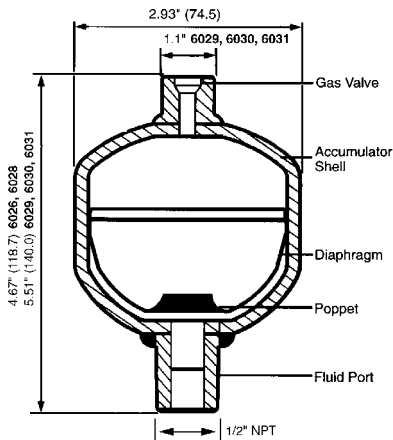
At a standard temperature of 70°F, optimum accumulator performance is obtained when the precharge is calibrated at 50% of the system operating pressure.

**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.

## DIMENSIONAL



## FILLING AND GAUGING INSTRUCTIONS

The following are the steps in both checking the precharge of the pulsation dampener 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 pulsation dampener. Over pressurization will void the warranty.

1. Before checking your precharge, system pressure should be at zero. turn system off.
2. Slightly loosen the sealed valve at the top of the pulsation dampener 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.
4. 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 pulsation dampener.
5. 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.
7. 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 off pressure.
8. 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.
9. When the gauge reads the required precharge, close the “T” valve on the top of the gauging assembly to lock the precharge in the pulsation dampener.
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 pulsation dampener.
13. Tighten the pulsation dampener sealed valve and resume operation.

## OPTIONAL TOOLS AND SPARE PARTS

- 30940 Complete Filling and Gauging Assembly (Optional)
- 30941 Allen Wrench (Included in Assembly)
- 6099 Pressure Gauge (Included in Assembly)
- 76501 Charging Screw w/ Seal Washer



## WARRANTY

View the Limited Warranty on-line at [www.catpumps.com/warranty](http://www.catpumps.com/warranty).



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