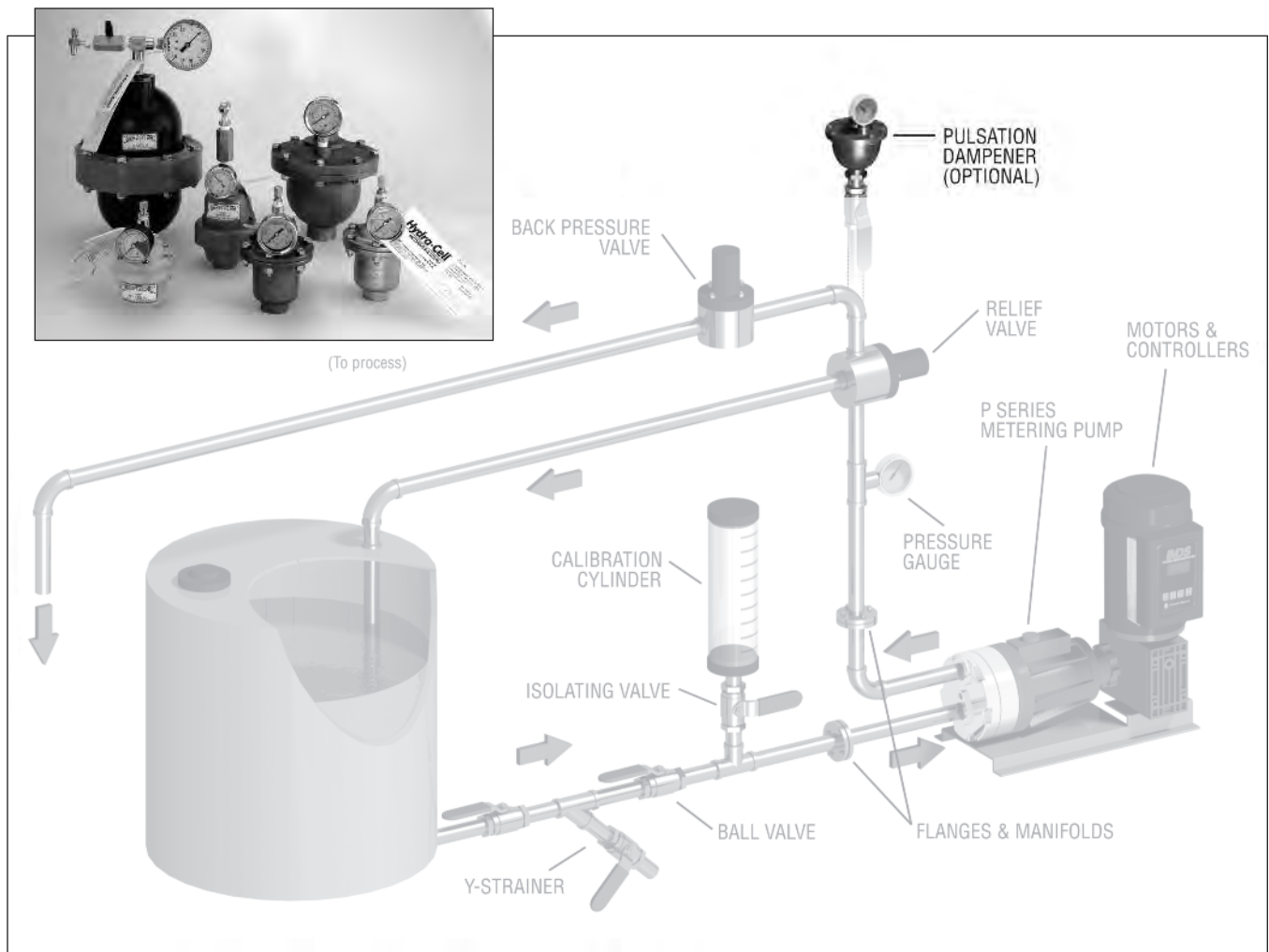


Hydra-Cell[®]

METERING SOLUTIONS[™]

Selection Guide for P Series Pump Accessories & Options



Pulsation Dampeners

Pulsation dampeners protect your pumping system and its components by removing virtually all hydraulic shock and vibration resulting from the reciprocating stroking action of a positive displacement pump.

Available in a variety of housing construction and bladder materials to cover different applications, pulsation dampeners are selected based on the size dampener (in cubic inches) needed to match your Hydra-Cell P Series pump model and discharge pulsation.

Pulsation Dampener Selection Process

Determine application

- Discharge pulsation (< 1000 psig or > 1000 psig)
- Inlet stabilization
 - High inlet pressure (>30 psig); or
 - Low inlet pressure (suction lift / <30 psig positive pressure)

Select dampener size (cu. in. volume)

Based on the P Series pump model and application, select the appropriate cubic inch size from the chart at right.

Air Control Pump Model	Application			
	Discharge Pulsation		Inlet Stabilization	
	Chargeable <1000 psig	Chargeable >1000 psig	Chargeable >30 psig	J-Style <30 psig
P100	4 Cu. In.	12 Cu. In.	4 Cu. In.	10 Cu. In.
P200	4 Cu. In.	12 Cu. In.	4 Cu. In.	10 Cu. In.
P300	4 Cu. In.	12 Cu. In.	4 Cu. In.	10 Cu. In.
P400	4 Cu. In.	N/A	4 Cu. In.	10 Cu. In.
P500	4 Cu. In.	12 Cu. In.	10 Cu. In.	10 Cu. In.
P600	10 Cu. In.	N/A	N/A	10 Cu. In.

Select dampener model

Use the appropriate dampener size chart in this bulletin to select the specific model with the desired housing materials, bladder material, pressure and temperature performance. (Contact Wanner Engineering for special order units with other construction materials and temperature limits.)

For bladder material application recommendations, see page 4

4-Cubic-Inch Dampeners

- 1/2" FNPT inlet port (female)
- Bolted fasteners
- Wetted materials of construction
- Chargeable air control standard

4-cubic-inch: Metallic Construction

Bladder	Maximum PSI	Temperature °F (°C)		Construction Material	
		Minimum	Maximum	SST Part #	Hastelloy C Part #
Buna-N	1000	10 (-12)	190 (88)	110-060	110-090
Neoprene	1000	0 (-18)	200 (93)	110-062	110-092
EPDM	1000	-40 (-40)	280 (140)	110-063	110-093
Viton	1000	-10 (-23)	350 (177)	110-065	110-095
PTFE	600	40 (5)	250 (121)	110-068	110-098

4-cubic-inch: Polypropylene Construction

Bladder	Maximum PSI	Temperature °F (°C)		Part #
		Minimum	Maximum	
Buna-N	150	32 (0)	175 (79)	110-000
Neoprene	150	32 (0)	175 (79)	110-002
EPDM	150	32 (0)	175 (79)	110-003
Viton	150	32 (0)	175 (79)	110-005
PTFE	150	40 (5)	175 (79)	110-008

Note: A Pulse Dampener Charging Kit (Part #110-900) is recommended for use with 4-Cubic-Inch Dampeners.

4-cubic-inch: PVDF Construction

Bladder	Maximum PSI	Temperature °F (°C)		Part #
		Minimum	Maximum	
Buna-N	150	10 (-12)	190 (88)	110-020
Neoprene	150	10 (-12)	200 (93)	110-022
EPDM	150	10 (-12)	250 (121)	110-023
Viton	150	10 (-12)	250 (121)	110-025
PTFE	150	40 (5)	250 (121)	110-028

10-Cubic-Inch Dampeners

- 1/2" FNPT inlet port (female)
- Wetted materials of construction
- Bolted fasteners
- Chargeable air control standard
- Optional J-style air control

10-cubic-inch: Metallic Construction

Bladder	Maximum PSI	Temperature °F (°C)		Construction Material		
		Minimum	Maximum	CS Part #	SST Part #	Hastelloy C Part #
Buna-N	1000	10 (-12)	190 (88)	110-240	110-260	110-290
Neoprene	1000	0 (-18)	200 (93)	110-242	110-262	110-292
EPDM	1000	-40 (-40)	280 (140)	110-243	110-263	110-293
Viton	1000	-10 (-23)	350 (177)	110-245	110-265	110-295
PTFE	150	40 (5)	250 (121)	110-248	110-268	110-298

10-cubic-inch: Polypropylene Construction

Bladder	Maximum PSI	Temperature °F (°C)		Part #
		Minimum	Maximum	
Buna-N	150	32 (0)	175 (79)	110-200
Neoprene	150	32 (0)	175 (79)	110-202
EPDM	150	32 (0)	175 (79)	110-203
Viton	150	32 (0)	175 (79)	110-205
PTFE	150	40 (5)	175 (79)	110-208

10-cubic-inch: PVDF Construction

Bladder	Maximum PSI	Temperature °F (°C)		Part #
		Minimum	Maximum	
Buna-N	150	10 (-12)	190 (88)	110-220
Neoprene	150	10 (-12)	200 (93)	110-222
EPDM	150	10 (-12)	250 (121)	110-223
Viton	150	10 (-12)	250 (121)	110-225
PTFE	150	40 (5)	250 (121)	110-228

Inlet Stabilizers with J-Style Control

10-cubic-inch: PVC Construction

Bladder	Maximum PSI	Temperature °F (°C)		Part #
		Minimum	Maximum	
Buna-N	30	32 (0)	140 (60)	110-210-J
Neoprene	30	32 (0)	140 (60)	110-212-J
EPDM	30	32 (0)	140 (60)	110-213-J
Viton	30	32 (0)	140 (60)	110-215-J
PTFE	30	40 (5)	140 (60)	110-218-J

12-Cubic-Inch Dampeners

- 1/2" FNPT inlet port (female)
- Wetted materials of construction
- Bolted fasteners - PTFE bladder
- Ring fasteners - Buna-N, EPDM & Viton bladders
- Chargeable air control standard

12-cubic-inch: SST Construction

Bladder	Maximum PSI	Temperature °F (°C)		Part #
		Minimum	Maximum	
Buna-N	4000	10 (-12)	190 (88)	110-360
EPDM	4000	-40 (-40)	280 (140)	110-363
Viton	4000	-10 (-23)	350 (177)	110-365
PTFE	2000	40 (5)	250 (121)	110-368

Bladder Options

Bladder Material	Application Recommendations
Buna-N	Good flex life; use with petroleum, solvents, and oil-based fluids
Neoprene	Good abrasion resistance and flex; use with moderate chemicals
EPDM	Good for extreme cold; good chemical resistance with ketones, caustics
Viton	Good for hot and aggressive fluids; use with aromatics, solvents, acids, and oils
PTFE	Bellows design, excellent flex life; use with highly aggressive fluids



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