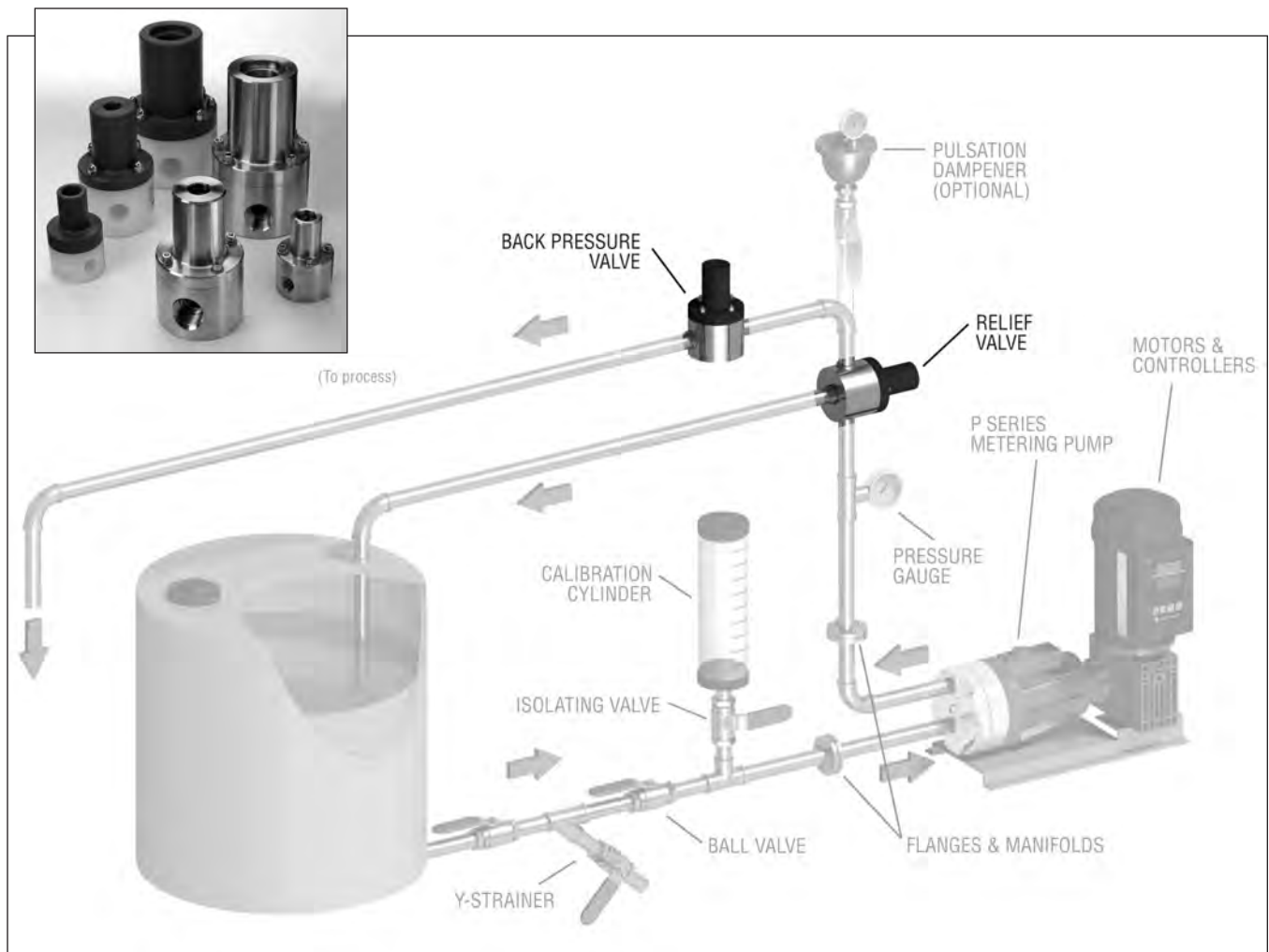


Hydra-Cell[®]

METERING SOLUTIONS[™]

Selection Guide for P Series Pump Accessories & Options



Back Pressure & Pressure Relief Valves

Back pressure valves help ensure that your Hydra-Cell P Series pump provides accurate and predictable flow.

Pressure relief valves protect your pump and system from over-pressure situations.

Available in a choice of wetted materials with PTFE diaphragms, pressure valves are selected according to the valve port size needed for the appropriate maximum flow (GPH or LPH) of your Hydra-Cell P Series pump. Models are available for both NPT and BSTP ports.

Pressure Valves Selection Process

Pressure Valves Selection Process

1. Use the chart at right to determine the valve port size with the appropriate Maximum Flow GPH (LPH) to match the P Series pump selected.

2. Use the charts below to select the appropriate Back Pressure Valve (page 2) and Pressure Relief Valve (page 3).

	Valve Port Size "D"							
	StdFlo		HiFlo		High Pressure			
	3/8"	1/2"	3/4"	1"	1"	2"	1/4"-3/8"-1/2"	1"
Maximum Flow								
GPH	120	210	480	480	1050	2220	700	1200
LPH	450	800	1800	1800	3975	8400	2650	4543

Back Pressure Valve Selection

Port "D"	Wetted Materials*	Pressure Ratings				Maximum Temperature		Model Number	
		Adjustment Range		MWP		°F	°C	NPT Ports	BSPT Ports
		PSI	Bar	PSI	Bar				
3/8"	Polypropylene	10 - 150	0.7 - 10.3	375	26	140	60	111-101	111-101-B
	PVDF	10 - 150	0.7 - 10.3	375	26	140	60	111-103	111-103-B
	316 SST	10 - 150	0.7 - 10.3	375	26	140	60	111-106	111-106-B
	Hastelloy C	10 - 150	0.7 - 10.3	375	26	140	60	111-110	111-110-B
	316 SST	50 - 350	3.5 - 24	2250	155	300	149	111-107	111-107-B
1/2"	Polypropylene	10 - 150	0.7 - 10.3	375	26	140	60	111-121	111-121-B
	PVDF	10 - 150	0.7 - 10.3	375	26	140	60	111-123	111-123-B
	316 SST	10 - 150	0.7 - 10.3	375	26	140	60	111-126	111-126-B
	Hastelloy C	10 - 150	0.7 - 10.3	375	26	140	60	111-130	111-130-B
	316 SST	50 - 350	3.5 - 24	2250	155	300	149	111-127	111-127-B
3/4"	Polypropylene	10 - 150	0.7 - 10.3	375	26	140	60	111-341	111-341-B
	PVDF	10 - 150	0.7 - 10.3	375	26	140	60	111-343	111-343-B
	316 SST	10 - 150	0.7 - 10.3	375	26	140	60	111-346	111-346-B
	Hastelloy C	10 - 150	0.7 - 10.3	375	26	140	60	111-350	111-350-B
	316 SST	50 - 350	3.5 - 24	2250	155	300	149	111-127	111-127-B
1" StdFlo	Polypropylene	10 - 150	0.7 - 10.3	375	26	140	60	111-261	111-261-B
	PVDF	10 - 150	0.7 - 10.3	375	26	140	60	111-263	111-263-B
	316 SST	10 - 150	0.7 - 10.3	375	26	140	60	111-266	111-266-B
	Hastelloy C	10 - 150	0.7 - 10.3	375	26	140	60	111-270	111-270-B
	316 SST	50 - 350	3.5 - 24	2250	155	300	149	111-267	111-267-B
1" HiFlo	Polypropylene	10 - 150	0.7 - 10.3	375	26	140	60	111-361	111-361-B
	PVDF	10 - 150	0.7 - 10.3	375	26	140	60	111-363	111-363-B
	316 SST	10 - 150	0.7 - 10.3	375	26	140	60	111-366	111-366-B
	Hastelloy C	10 - 150	0.7 - 10.3	375	26	140	60	111-370	111-370-B
	316 SST	50 - 350	3.5 - 24	2250	155	300	149	111-287	111-287-B
2"	Polypropylene	10 - 150	0.7 - 10.3	375	26	140	60	111-281	111-281-B
	PVDF	10 - 150	0.7 - 10.3	375	26	140	60	111-283	111-283-B
	316 SST	10 - 150	0.7 - 10.3	375	26	140	60	111-286	111-286-B
	Hastelloy C	10 - 150	0.7 - 10.3	375	26	140	60	111-290	111-290-B
	316 SST	50 - 350	3.5 - 24	2250	155	300	149	111-291	111-291-B

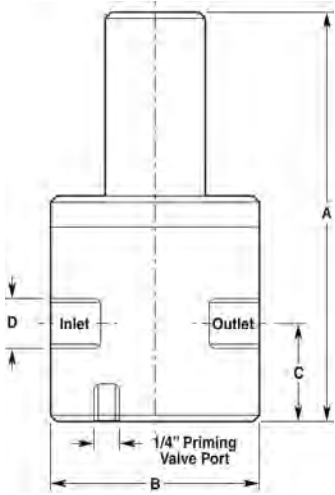
* Diaphragm material is PTFE on all models. Other materials available on request.

Pressure Relief Valve Selection

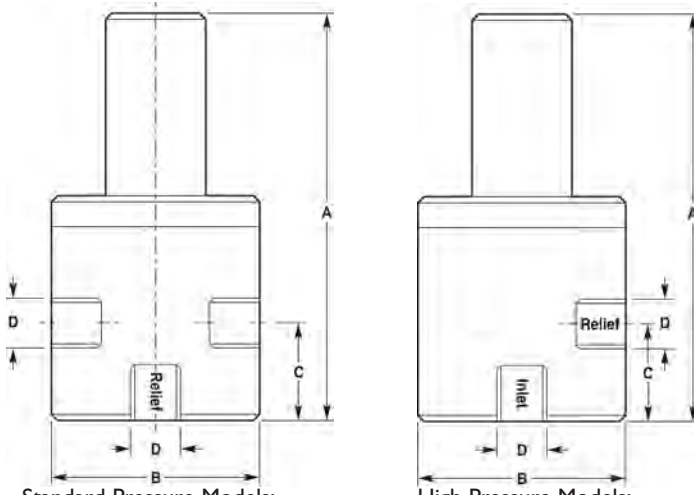
Port "D"	Wetted Materials*	Pressure Ratings				Maximum Temperature		Model Number	
		Adjustment Range		MWP		°F	°C	NPT Ports	BSPT Ports
		PSI	Bar	PSI	Bar				
1/4" High Pressure	316 SST	200 - 2000	13.8 - 138	2500	172	300	149	111-800	111-800-B
	Hastelloy C	200 - 2000	13.8 - 138	2500	172	300	149	111-804	111-804-B
3/8"	Polypropylene	10 - 150	0.7 - 10.3	375	26	140	60	111-401	111-401-B
	PVDF	10 - 150	0.7 - 10.3	375	26	140	60	111-403	111-403-B
	316 SST	10 - 150	0.7 - 10.3	375	26	140	60	111-406	111-406-B
	Hastelloy C	10 - 150	0.7 - 10.3	375	26	140	60	111-410	111-410-B
	316 SST	50 - 350	3.5 - 24	2250	155	300	149	111-407	111-407-B
	Hastelloy C	50 - 350	3.5 - 24	2250	155	300	149	111-411	111-411-B
3/8" High Pressure	316 SST	200 - 2000	13.8 - 138	2500	172	300	149	111-801	111-801-B
	Hastelloy C	200 - 2000	13.8 - 138	2500	172	300	149	111-805	111-805-B
1/2"	Polypropylene	10 - 150	0.7 - 10.3	375	26	140	60	111-421	111-421-B
	PVDF	10 - 150	0.7 - 10.3	375	26	140	60	111-423	111-423-B
	316 SST	10 - 150	0.7 - 10.3	375	26	140	60	111-426	111-426-B
	Hastelloy C	10 - 150	0.7 - 10.3	375	26	140	60	111-430	111-430-B
	316 SST	50 - 350	3.5 - 24	2250	155	300	149	111-427	111-427-B
	Hastelloy C	50 - 350	3.5 - 24	2250	155	300	149	111-431	111-431-B
1/2" High Pressure	316 SST	200 - 2000	13.8 - 138	2500	172	300	149	111-802	111-802-B
	Hastelloy C	200 - 2000	13.8 - 138	2500	172	300	149	111-806	111-806-B
3/4"	Polypropylene	10 - 150	0.7 - 10.3	375	26	140	60	111-641	111-641-B
	PVDF	10 - 150	0.7 - 10.3	375	26	140	60	111-643	111-643-B
	316 SST	10 - 150	0.7 - 10.3	375	26	140	60	111-646	111-646-B
	Hastelloy C	10 - 150	0.7 - 10.3	375	26	140	60	111-650	111-650-B
1" StdFlo	Polypropylene	10 - 150	0.7 - 10.3	375	26	140	60	111-561	111-561-B
	PVDF	10 - 150	0.7 - 10.3	375	26	140	60	111-563	111-563-B
	316 SST	10 - 150	0.7 - 10.3	375	26	140	60	111-566	111-566-B
	Hastelloy C	10 - 150	0.7 - 10.3	375	26	140	60	111-570	111-570-B
	316 SST	50 - 350	3.5 - 24	2250	155	300	149	111-567	111-567-B
	Hastelloy C	50 - 350	3.5 - 24	2250	155	300	149	111-571	111-571-B
1" HiFlo	Polypropylene	10 - 150	0.7 - 10.3	375	26	140	60	111-661	111-661-B
	PVDF	10 - 150	0.7 - 10.3	375	26	140	60	111-663	111-663-B
	316 SST	10 - 150	0.7 - 10.3	375	26	140	60	111-666	111-666-B
	Hastelloy C	10 - 150	0.7 - 10.3	375	26	140	60	111-670	111-670-B
1" High Pressure	316 SST	200 - 2000	13.8 - 138	2500	172	300	149	111-803	111-803-B
	Hastelloy C	200 - 2000	13.8 - 138	2500	172	300	149	111-807	111-807-B
2"	Polypropylene	10 - 150	0.7 - 10.3	375	26	140	60	111-581	111-581-B
	PVDF	10 - 150	0.7 - 10.3	375	26	140	60	111-583	111-583-B
	316 SST	10 - 150	0.7 - 10.3	375	26	140	60	111-586	111-586-B
	Hastelloy C	10 - 150	0.7 - 10.3	375	26	140	60	111-590	111-590-B
	316 SST	50 - 350	3.5 - 24	2250	155	300	149	111-587	111-587-B
	Hastelloy C	50 - 350	3.5 - 24	2250	155	300	149	111-591	111-591-B

* Diaphragm material is PTFE on all models. Other materials available on request.

Back Pressure Valve Dimensions



Pressure Relief Valve Dimensions



Standard Pressure Models:
≤375 PSI (26 bar)

High Pressure Models:
≤2250 PSI (155 bar)

Back Pressure & Relief Valve Dimensions

Material	Port D	A		B		C	
		in	mm	in	mm	in	mm
Polypropylene/PVDF	3/8"	3.9	99.1	2.35	59.7	0.75	19.1
	1/2"	4.6	116.8	2.35	59.7	1.125	28.6
	3/4"	5.85	148.6	3.5	88.9	1.25	31.8
	1" Std Flo	5.85	148.6	3.5	88.9	1.25	31.8
	1" HiFlo	7.5	190.5	4.5	114.3	1.13	28.7
	2"	9.0	228.6	5.0	127.0	2.1	53.3
316 SST	1/4" High Pressure	4.6	116.8	2.375	60.3	0.75	19.1
	3/8"	3.5	88.9	2.35	59.7	0.75	19.1
	3/8" High Pressure	4.6	116.8	2.375	60.3	0.75	19.1
	1/2"	4.2	106.7	2.35	59.7	1.125	28.6
	1/2" High Pressure	4.6	116.8	2.375	60.3	1.1	27.9
	3/4"	5.85	148.6	3.5	88.9	1.25	31.8
	1" Std Flo	5.85	148.6	3.5	88.9	1.25	31.8
	1" HiFlo	7.5	190.5	4.5	114.3	1.13	28.7
	1" High Pressure	5.9	149.9	3.5	88.9	1.25	31.8
	2"	9.0	228.6	5.0	127.0	2.1	53.3
Hastelloy C	1/4" High Pressure	4.6	116.8	2.375	60.3	0.75	19.1
	3/8"	3.5	88.9	2.375	60.3	0.75	19.1
	3/8" High Pressure	4.6	116.8	2.375	60.3	0.75	19.1
	1/2"	4.2	106.7	2.375	60.3	1.125	28.6
	1/2" High Pressure	4.6	116.8	2.375	60.3	1.1	27.9
	3/4"	5.85	148.6	3.5	88.9	1.25	31.8
	1" Std Flo	5.5	139.7	3.5	88.9	1.25	31.8
	1" HiFlo	7.5	190.5	4.5	114.3	1.13	28.7
	1" High Pressure	5.9	149.9	3.5	88.9	1.25	31.8
	2"	9.0	228.6	5.0	127.0	2.1	53.3



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