



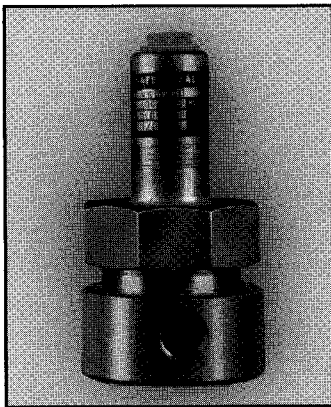
BACK PRESSURE & SAFETY VALVES

DESCRIPTION

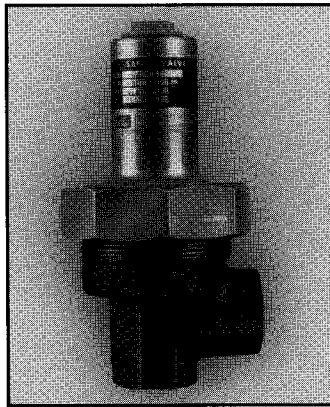
Milton Roy safety valves prevent damage to metering pump systems due to excessive pressure. Undesirable pressure buildup can result from valve closure or other obstructions to flow in the pump discharge piping. Models are available for flow rates to 2400 gph (9084 l/h). The "H" series is available for pressures up to 1500 psi (105 kg/cm²); the "L" series is available for pressures up to 150 psi (10.5 kg/cm²).

Milton Roy back pressure valves provide added resistance over and above natural pipe system pressure for the metering pump to work into. Most metering pumps require a discharge pressure at least 40 psi greater than inlet pressure to meter accurately. The valve is designed to provide back pressure only while the pump is running. It will not provide leak tight sealing with the pump shut off. If "anti-siphoning" is needed with the pump shut off, use of a positive shut off valve is recommended. Models are available for flow rates to 2400 gph (9084 l/h). The "H" series is available with pressures to 200 psi (14 kg/cm²); the "L" series is available with pressures to 150 psi (10.5 kg/cm²).

1/2" "H" SERIES



1" "H" SERIES



"H" SERIES FEATURES

Milton Roy "H" Series valves are available in 1/2" and 1" with either 316 SS or Alloy 20 wetted parts. Each valve is set at the factory per your specification, but is also field adjustable.

- Externally adjustable pressure setting
- In-line servicing
- PTFE diaphragm isolates spring and other upper body components from contact with process liquid
- Non-chattering, precision mechanism
- Compliance with Hydraulic Institute Standards, API 675 accessory requirements
- Low cost
- One year warranty

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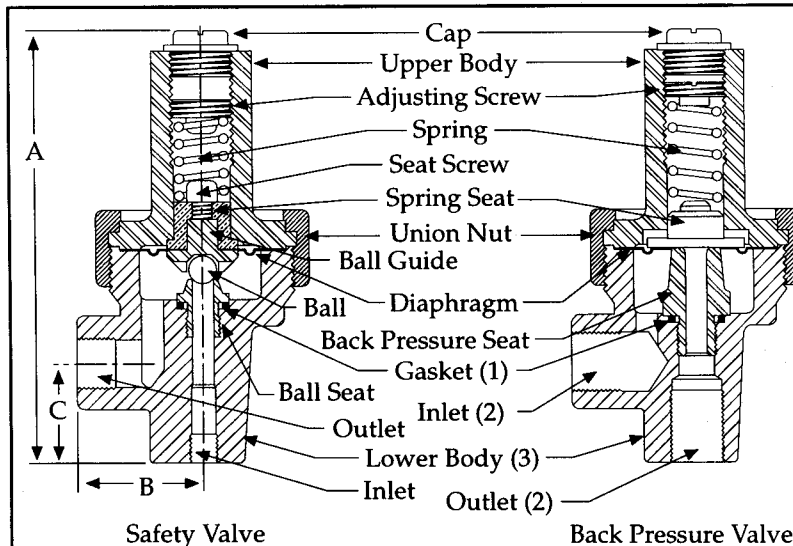
4 rue Lavoisier . ZA Lavoisier . 95223 HERBLAY CEDEX

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Demande de prix / e-mail : service-commercial@motralec.com

www.motralec.com

"H" SERIES PARTS & DIMENSIONS



NOTES:

1. Gasket is used on 1/2" size valves only.
2. When using back pressure valves with set pressures above 70 psi (4.9 kg/cm²), connections are reversed; i.e., the bottom port of the valve becomes the inlet connection.
3. Lower body appearance varies with valve size.
4. A, B, and C dimensions may differ slightly for some lower body materials of construction.

Valve Size	Inlet/Outlet	A (4)		B (4)		C (4)		Average Shipping Weight (lbs.)
		in	cm	in	cm	in	cm	
1/2"	1/2"-14	6.0	15	1.9	5	0.9	2	5
1"	1"-11 1/2	8.5	22	2.5	6	1.6	4	12

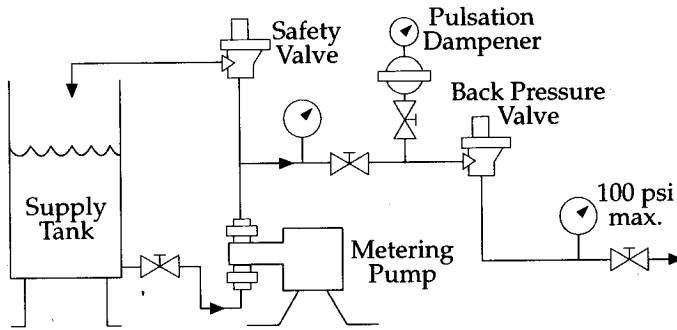
Valves

AD 4301
Effective 1/15/96



MILTON ROY

"H" SERIES TYPICAL INSTALLATION



NOTE:

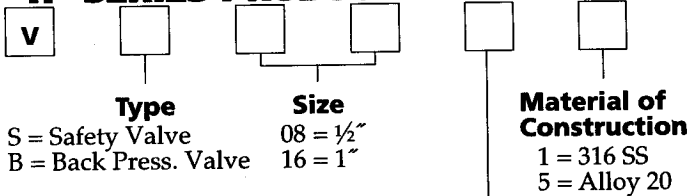
"H" Series safety valves must discharge to atmospheric pressure. Also, use of a pulsation dampener in conjunction with a back pressure valve will result in extended valve life (cycling with each pump stroke is eliminated). Maximum allowable pressure downstream of back pressure valve is 100 psi.

"H" SERIES MATERIALS

Other materials are available for special applications.

Part	316 SS	Alloy 20
Lower Body	316 SS	Alloy 20
Daiphragm	PTFE	PTFE
Seat Gasket	PTFE	PTFE
Seat	316 SS	Alloy 20
Safety Valves Only		
Ball Guide	316 SS	Alloy 20
Ball	316 SS	Alloy 20

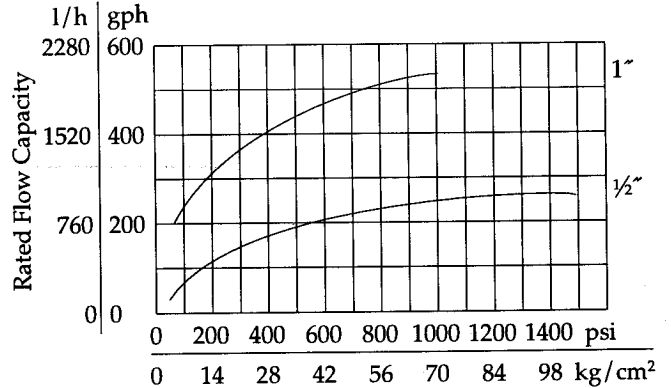
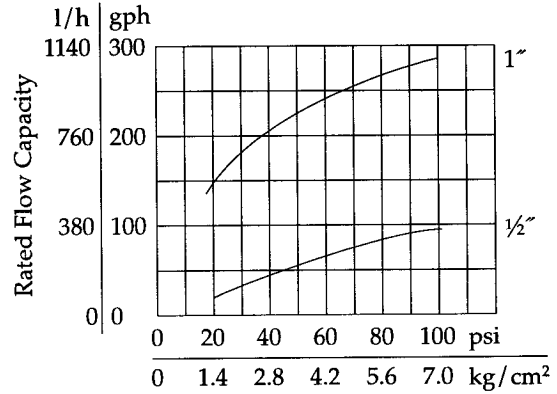
"H" SERIES PRODUCT CODE



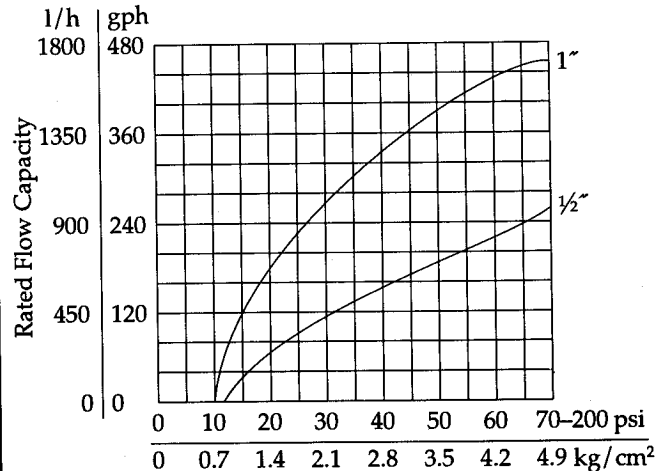
Set Pressure Range			
Safety Valves		Back Press. Valves	
1/2"	1"	1/2"	1"
2 = 20-49	2 = 20-375	2 = 5-35	2 = 5-35
4 = 50-300	3 = 376-1000	3 = 36-70	3 = 36-70
5 = 301-600		4 = 71-100	4 = 71-125
6 = 601-1200		5 = 101-200	5 = 126-200
7 = 1201-1500			

"H" SERIES PERFORMANCE CURVES

Safety Valve Curves

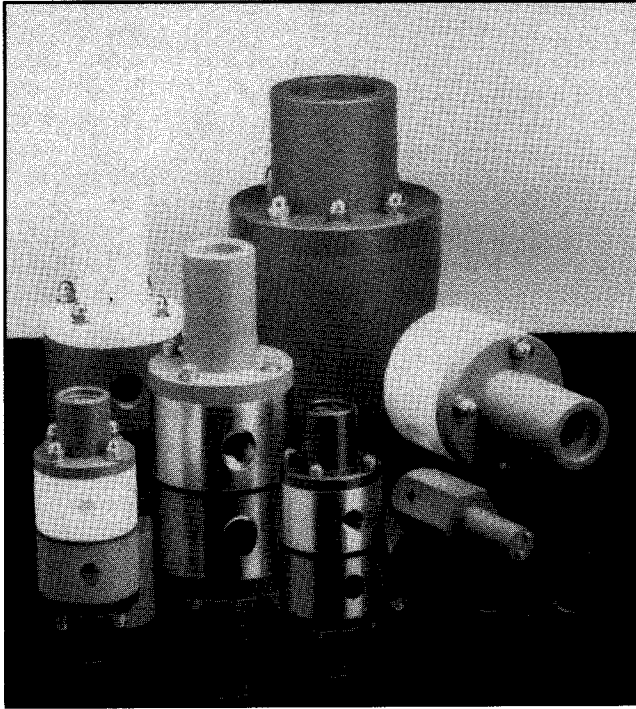


Back Pressure Valve Curves





"L" SERIES FAMILY

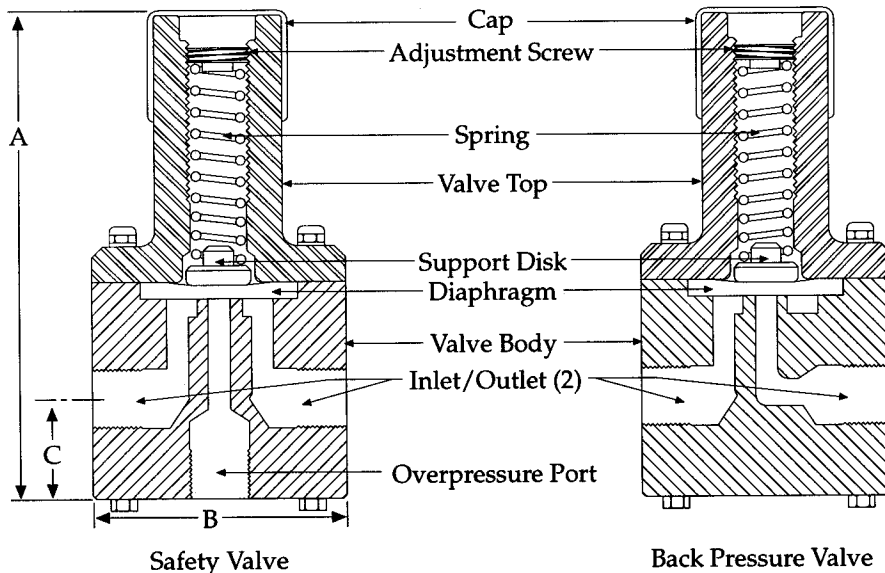


"L" SERIES FEATURES

Milton Roy "L" Series valves are available in 1/4" through 2". Materials of construction include PVC, CPVC, PP, PVDF, PTFE, 316 SS, Alloy 20, and hastelloy C276. Valves are field adjustable, and are factory preset at 50 psi.

- High reliability/low cost
- Robust machined construction
- Vulcanized PFA/EPDM diaphragm
- Externally adjustable from 0 to 150 psi standard
- Ventable to suction line
- Wide range of materials
- Tamper resistant adjustment screw

"L" SERIES PARTS & DIMENSIONS



NOTES:

1. Max temperature is 110°F for PVC valves and 250°F for 316, Alloy 20, and Hastelloy C276 valves with steel top.
2. Inlet and outlet port are interchangeable on safety valves. Inlet and outlet ports are marked with arrows on the valve body of back pressure valves, and are not interchangeable.

Valve Size	Inlet/Outlet	A (4)		B (4)		C (4)		Avg. Ship. Weight	
		in	cm	in	cm	in	cm	Plastic	Metallic
1/4"	1/4" NPT	3.500	8.890	2.375	6.033	0.750	1.905	1 lb.	2 lbs.
1/2"	1/2" NPT	5.500	13.970	3.500	8.890	1.125	2.858	2 lbs.	7 lbs.
3/4"	3/4" NPT	5.500	13.970	3.500	8.890	1.125	2.858	2 lbs.	7 lbs.
1"	1" NPT	6.250	15.875	3.500	8.890	1.375	3.493	2 lbs.	7 lbs.
1 1/2"	1 1/2" NPT	9.000	22.860	5.500	13.970	2.250	5.715	8 lbs.	28 lbs.
2"	2" NPT	9.000	22.860	5.500	13.970	2.250	5.175	8 lbs.	28 lbs.

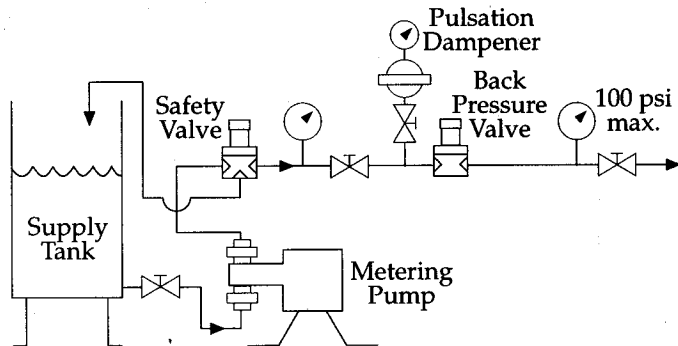
Valves

AD 4301
Effective 2/15/96



MILTON ROY

"L" SERIES TYPICAL INSTALLATION



NOTE:

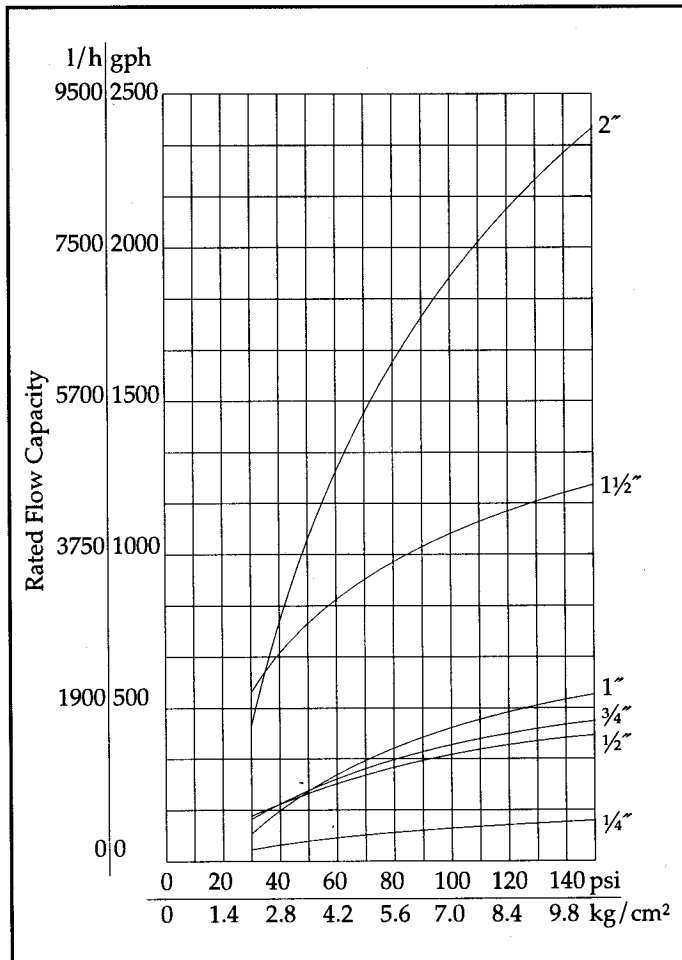
It is recommended that "L" Series safety valves discharge to atmospheric pressure. Also, use of a pulsation dampener in conjunction with a back pressure valve will result in extended valve life (cycling with each pump stroke is eliminated). Maximum allowable pressure downstream of back pressure valve should not exceed valve rated pressure.

"L" SERIES MATERIALS

Other materials are available for special applications.

Part	Material of Construction
Diaphragm	PTFE faced EPDM or Viton
Valve Top	Standard: PVC Optional: Steel, 316 SS
Valve Bottom	Choice of PVC, CPVC, PP, PTFE, PVDF, 216 SS, Alloy 20, or Hastalloy C276

"L" SERIES PERFORMANCE CURVES



"L" SERIES PRODUCT CODE



Type
S = Safety Valve
B = Back Press. Valve

Size
04 = 1/4"
08 = 1/2"
12 = 3/4"
16 = 1"
24 = 1 1/2"
32 = 2"

Material of Construction
1 = 316 SS*
2 = PVC
5 = Alloy 20*
6 = Hastelloy C
C = CPVC
P = Polypropylene
V = PVDF
T = PTFE

AVAILABLE ACCESSORIES

In addition to metering pumps & chemical feed systems, Milton Roy offers the following accessories:

- Calibration Columns
- Pulsation Dampeners
- Gauge Glasses
- Dissolving Baskets
- Valve Actuators
- Pressure Gauges
- Floats
- Tanks
- Traps
- Mixers

NOTE:

* 316 SS and Alloy 20 are not available in 1/2" and 1" sizes. Order from the "H" Series valve line.

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All information contained herein subject to change without notice.

