

CHEM PROLINE® PTFE DIAPHRAGM RELIEF AND BACK PRESSURE VALVES



APPLICATIONS:

One valve design functions as an all-purpose backpressure valve in many applications:

- **Relief:** protects systems and equipment from over-pressure/pressure surges
- **By-Pass:** prevents pumps from “dead heading”
- **Back-Pressure Regulator:** maintains necessary reverse pressure in closed loop systems
- **Back-Pressure Valve:** enhance pump performance by maintaining backpressure on the pump outlet
- **Anti-Siphon:** used on the outlet of a pump wherever gravity or other downstream conditions may create negative pressure (siphon) and drain a tank. The valve is pre-set to open under pump pressure, but closes bubble-tight when the pump is shut off. Because of the design of the RVDT, this valve actually closes more tightly when unwanted siphon occurs.

STANDARD FEATURES:

- Diaphragm material is PTFE for all sizes and body materials, and is excellent for use with highly aggressive liquids; provides the ultimate in contamination-free sealing
- Large diaphragm area delivers more sensitivity and less pressure drop under flow conditions. Non-leaching feature of fluoropolymer diaphragm makes it ideal for use with ultra-pure water and concentrated etchants, as in the semiconductor industry
- Non-wetted u-cup seal provides a second isolation of the control spring; design includes patented Fail-Dry vent, a safety feature that provides visual warning of seal malfunction. This permits the valve to continue operation until a scheduled maintenance can be planned thereby avoiding a costly shutdown. Fail-Dry connection is 1/8" FNPT

PLASTIC BODY MATERIALS & SIZES:

- Advanced PE machined body 1/2", 3/4" and 1"
- Relief setting is infinitely adjustable from 5psi to 125psi
- Maximum inlet pressure is 150psi

MATERIALS, PIPING CONNECTIONS & QUALITY ASSURANCE:

- Materials used in addition to the body include PTFE wetted diaphragm energized by a non-wetted FKM diaphragm. Spring housing (non wetted) is PVC on all sizes. Springs (non wetted) are zinc-plated steel. External fasteners are stainless steel.

MOUNTING:

- 1/2" through 1" have threaded mounting holes in the base

BACK PRESSURE RELIEF VALVE STRAIGHT (INLINE) - PTFE/FKM:

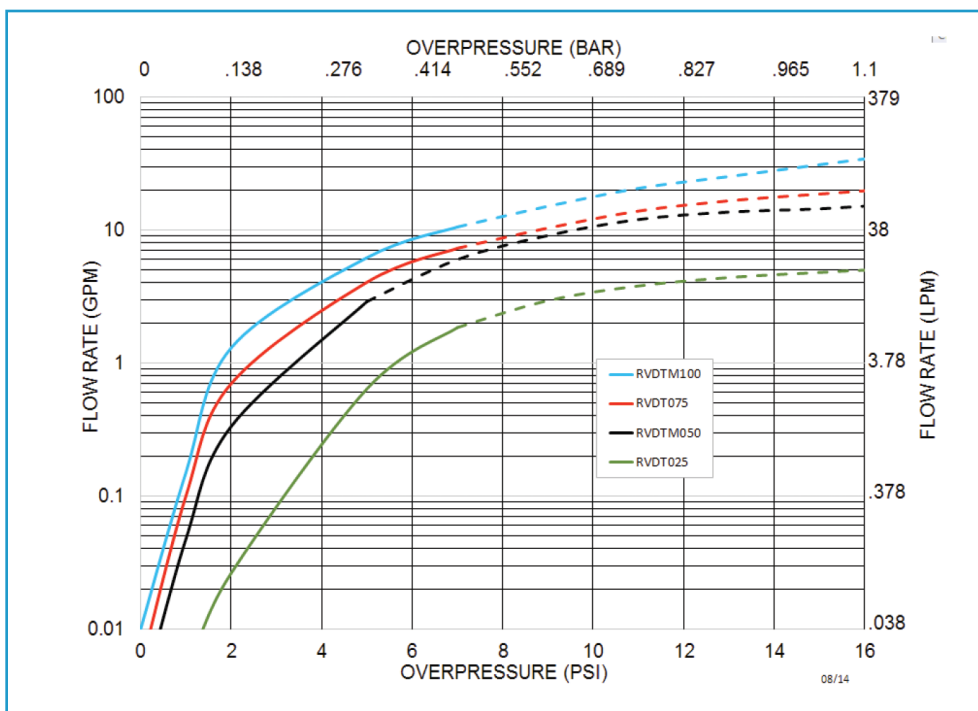
Pipe Size		Range (psi)	MOP / 150psi
inch	mm		Spigot Part Number
1/2	20	5 - 125	582230005
3/4	25		582230007
1	32		582230010

BACK PRESSURE RELIEF VALVE STRAIGHT (INLINE) - PTFE/FKM:

Pipe Size		Range (psi)	MOP / 150psi	
inch	mm		Socket Union Part Number	Butt Union Part Number
1/2	20	5 - 125	582221005	582222005
3/4	25		582221007	582222007
1	32		582221010	582222010

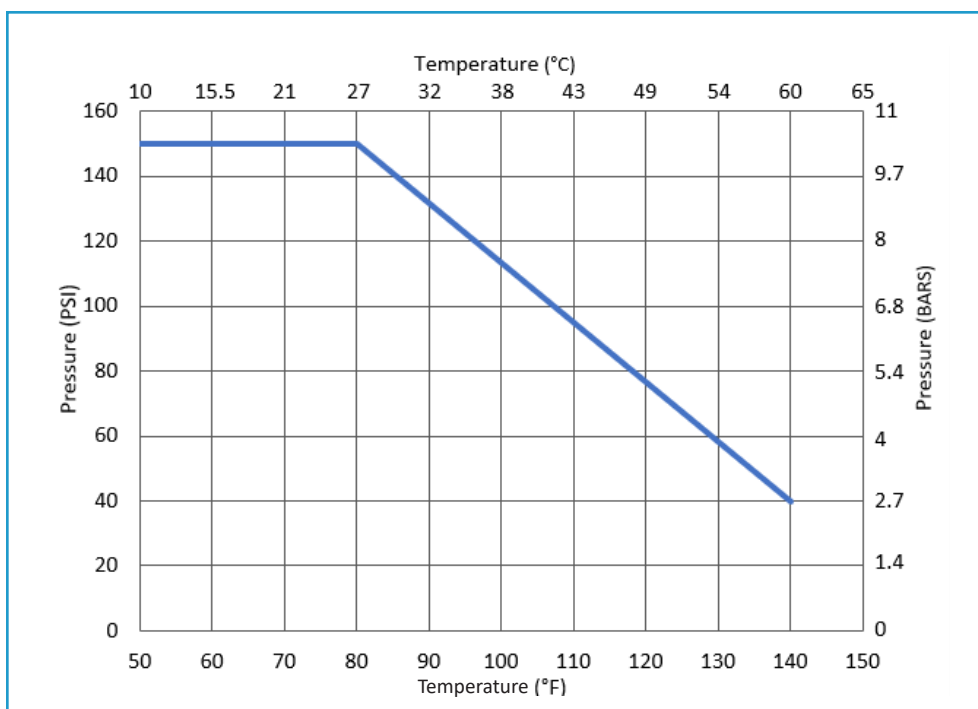
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RVDT (M) 1/4" - 1" FLOW CHART (TESTED WITH CITY WATER)*



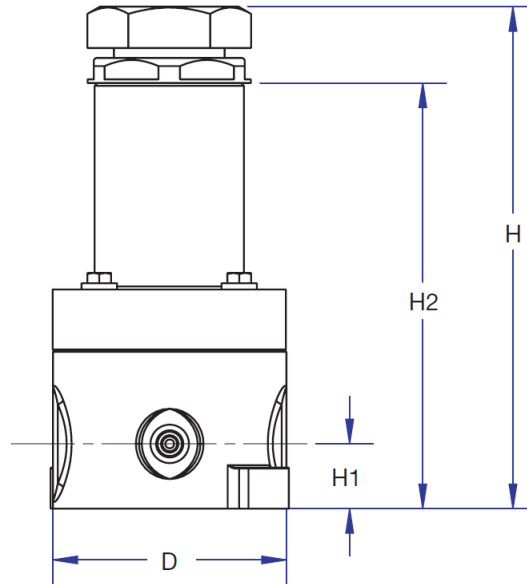
*Tested under laboratory conditions; your results may vary. Solid lines represent recommended flow range for that pipe size.

RVDT RELIEF VALVE PRESSURE/TEMPERATURE DERATING



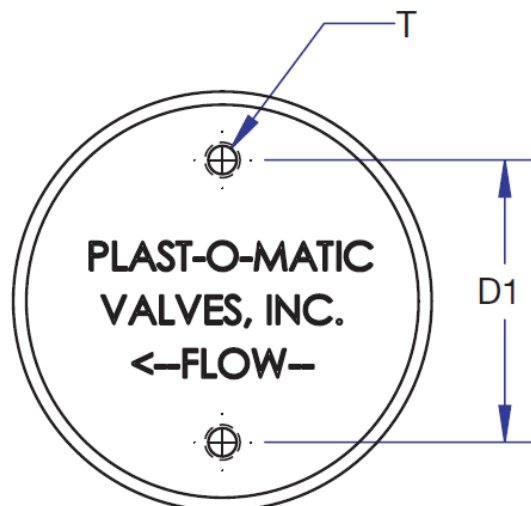
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Model	Pipe Size (inches)	D		D1		D2		D3	
		inches	mm	inches	mm	inches	mm	inches	mm
RVDT 050	1/2	2.5	63.5	1.63	41.4	2.97	75.4	3.36	85.3
RVDT 075	3/4	3	76.2	2	50.8	-	-	-	-
RVDT 100	1	3.5	88.9	2	50.8	4.10	104.1	4.69	119.1



RVDTM

Model	Pipe Size (inches)	H		H1		H2		T
		inches	mm	inches	mm	inches	mm	Thread Size/Hole Size
RVDT 050	1/2	5.83	148.0	0.69	17.4	4.35	110.4	38-32/#8 Thru Hole
RVDT 075	3/4	8.98	228.1	0.78	19.8	6.17	156.7	1/4" - 20"
RVDT 100	1	11.38	289.1	1.19	30.2	8.38	212.9	1/4"-20/ 1/4" Clearance



RVDT