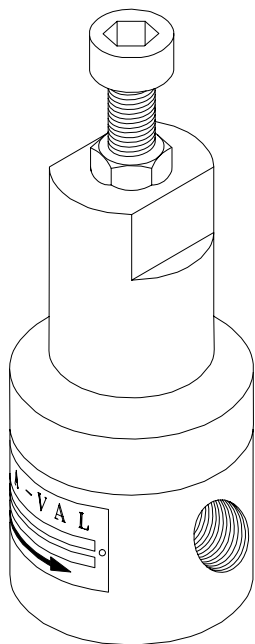


## Model RVL-20 RELIEF VALVE

### ANGLE TYPE, LOW-PRESSURE DIAPHRAGM OPERATED



- Stainless steel, Teflon (PTFE), Hastelloy, titanium, Monel, Kynar, PVDF, PVC, or brass body
- 1/4"-2" NPT THD
- Adjustable relief pressures from 0.50 PSI (0.03 Bar) to 75 PSI (5 Bar)

### Pressure Relief Valve Features

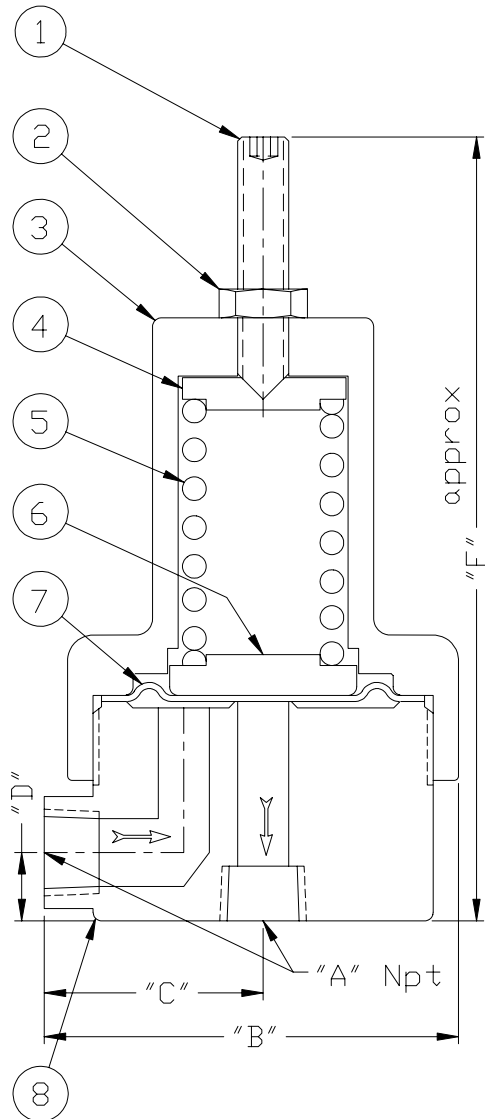
- **Body:** Available in a wide variety of special alloys and high-performance engineered plastics (see above).
- **Elastomeric diaphragm:** Choice of different elastomers includes reinforced Teflon, Viton, Buna, and EPDM (most materials always in stock).
- **Spring chamber:** Standard construction is carbon steel. Alternates: stainless steel, aluminum, and PVC.
- **Right-angle porting:** Side inlet, bottom outlet is standard with this diaphragm valve manufacturer's model. For in-line porting, see diaphragm valve manufacturer's model RVI-20 which is usually the more preferred piping arrangement. Special threads or ANSI and sanitary flanges (tri-clamp flanges) are also available.

## Safety Relief Valve Applications

This safety relief valve can be used for relieving pressures and maintaining upstream line pressures to a specific set pressure. This diaphragm valve can also be used for bypassing fluids or gases. Only clean liquids and gases are recommended. When liquids contain debris or other solid matter that might cause improper operation of the diaphragm valve, a filter or strainer with a fine wire mesh should be installed before the inlet of the valve. Basket strainers or filters can be purchased from Stra-Val to solve this problem. This valve is used where accurate set pressures must be maintained. This is made possible because of the large diaphragm area used to sense the inlet pressure. Compared to higher-pressure piston models, this valve has a very low hysteresis between opening and closing pressures. See available orifice sizes and flow Cv below.

## Principle of Operation

This is a diaphragm and spring type relief valve where the spring constantly opposes the pressure acting against the diaphragm which seals off the inlet port from the outlet port at the valve seat. The desired relief or bypass pressure is achieved by compressing the spring until the spring force is adequate to balance the pressure force acting against the diaphragm. When the inlet pressure exceeds the set pressure, the diaphragm will open to relieve and bypass the excess pressure.



## Material List and Specification

- |    |                 |                 |
|----|-----------------|-----------------|
| 1. | Adjusting screw | Steel           |
| 2. | Lock nut        | Steel           |
| 3. | Spring chamber  | Steel           |
| 4. | Spring pusher   | Steel           |
| 5. | Spring          | Steel           |
| 6. | Spring carrier  | Steel           |
| 7. | Diaphragm       | Teflon / Viton  |
| 8. | * Body          | Stainless steel |

\* Body also available in brass, PVC, Teflon, Monel, and Hastelloy (most sizes)

## Dimensions (inches)

	Dimensions (inches)					Flow data	
	A	B	C	D	E	Orifice max	Cv
1/4	2.38	1.00	.44	5.56	.125	.279	
3/8	2.88	1.25	.50	5.59	.375	2.52	
1/2	2.88	1.25	.63	5.88	.500	4.47	
3/4	2.88	1.25	1.25	6.69	.438	3.42	
3/4	2.88	1.25	1.25	6.69	.438	6.99	
1	4.38	2.00	1.50	9.62	.625	13.7	
1.5	5	2.75	2.00	11.69	.875	2.55	
2	5	2.75	2.50	12.38	.875	25.5	

Note: Dimensions are approximate and are subject to change without notice. Request certified dimensions before final product installation.

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