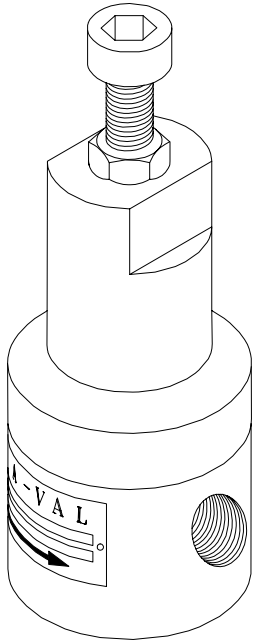


## Model RVC-05 THD WATER PRESSURE RELIEF VALVE



- Stainless steel, Monel, Hastelloy, titanium, Alloy 20, or brass
- 1/4"-2" NPT THD (1/2"-2" flanged; see flanged model RVC-05-FLG)
- Adjustable relief pressures to 5000 PSI (340 Bar) with multiple spring ranges

### Pressure Relief Valve Features

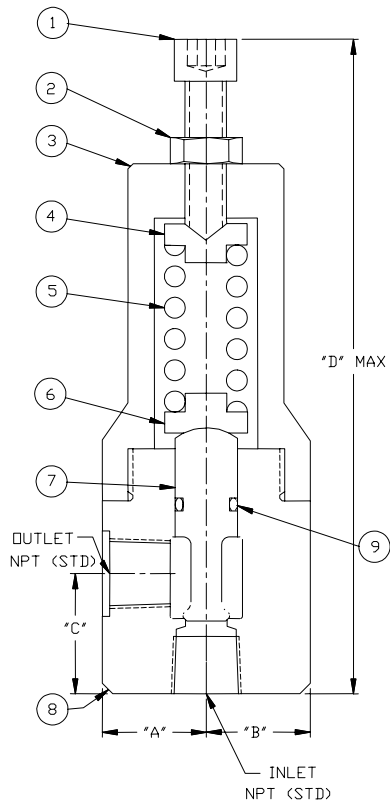
- **Pressure-containing parts** of our safety relief valve are made from solid bar stock materials — unlike castings which have wall thickness variations.
- **High-pressure valve body:** Stainless steel valve standard materials are stainless steel and brass. Special alloys (e.g. Monel, titanium, Alloy 20, and Hastelloy) are also available. For low-pressure relief service, <50 PSI, a Teflon valve body is also available.
- **Poppet:** Stainless steel is standard on every high-pressure valve. Teflon is available for low-pressure valve service (<150 PSI) and when used for corrosion-resistant valve applications.
- **Elastomeric seal:** Viton for stainless steel valves is standard. Choice of elastomers (e.g. Teflon, Kalrez, Parflour, and EPDM) expands relief valve usage to a wide range of applications for fluids and gases. Selection of elastomer usually determines final temperature limitation of the relief valve.
- **Spring chamber:** Standard construction is carbon steel because it is non-wetted; can upgrade to stainless steel when the external environment is corrosive or sanitary.
- **Right-angle valve porting:** Standard construction is bottom inlet, side outlet with NPT pipe threads. Special threads and ANSI or sanitary flanges are also available.

## **Applications**

Safety relief valve should only be used selectively where the materials chosen are compatible with the fluid used and will not cause corrosive buildup or crystallization in the close clearances between the piston and body bore, which could keep the poppet from opening freely. Use only clean, strained, or filtered liquids or gases so that the stainless steel valve can operate without buildup of debris or solid matter which can cause the valve to malfunction. A basket strainer or high-pressure filter with the appropriate material and pressure rating can be purchased from Stra-Val.

## **Principle of Operation**

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



### Material List and Specification

- |    |                  |                                 |
|----|------------------|---------------------------------|
| 1. | Adjusting screw  | Steel                           |
| 2. | Lock nut         | Steel                           |
| 3. | Spring chamber   | Steel                           |
| 4. | Spring pusher    | Steel                           |
| 5. | Adjusting spring | Steel                           |
| 6. | Spring carrier   | Steel                           |
| 7. | * Poppet         | Stainless steel, brass, Teflon  |
| 8. | Body             | Stainless steel                 |
| 9. | Seal             | Viton, Buna, EPDM, Teflon, etc. |

\* Teflon used only for low pressures

### Dimensions

Size	A (in)	B (in)	C (in)	D (in)
1/4	7/8	7/8	1	5-3/4
3/8	1	1	1	6-1/2
1/2	1	1	1-3/8	7-3/8
3/4	1-1/8	1-1/8	1-5/8	8-1/2
1	1-1/2	1-3/16	2	10-1/4
1-1/4	2	1-1/4	2-1/2	11
1-1/2	2	1-1/2	2-1/2	12-1/4
2	2-3/8	1-1/2	3	12-1/2

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

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