



Phone (toll-free): (888) 380-9660
Phone (local): (973) 340-9955
Fax: (973) 340-9933
Web: www.straval.com

20 Bushes Lane
Elmwood Park, NJ 07407

Model RVL20-TC

Tri-Clamp Sanitary Relief valve 1-1/2-2"



Features

- **Body & Spring Chamber:** Standard material is polished 316L stainless steel.

- **Diaphragm:** Standard Diaphragm is PTFE lined toward the product side, with Viton on the nonwetted, air side. Rated for 150 psi max pressure. For very low pressures, a more flexible all Viton or all Buna diaphragm is available and is recommended.
- **V-Band Clamp:** All 300 series stainless steel rated for 800 psi
- **Right-angle porting:** Standard construction is side inlet, bottom outlet as illustrated. When the valve is rotated 90 deg with the inlet connection facing down, the valve becomes self draining
- **Internal surfaces:** 20RA is standard with electro-polishing available as an option. see pricing pages

Applications

Use these valves for emergency relief for liquids, gases or clean steam where pressures must be relieved quickly to reduce damage that could result from overpressure in a sanitary piping system. Where the overpressure needs to be controlled more gradually, such as in back pressure or bypass applications use our **Back-pressure/Bypass valves** which will reduce the probability of pressure spikes that often occur when relief valves are selected for pressure control applications. Valve should only be used selectively where the materials chosen are compatible with the fluid used and will not cause solidification or crystallization which could keep the valve from opening properly to relieve overpressure in the system. Use only clean, strained, or filtered liquids or gases so that the valve can operate without buildup of debris or solid matter which can cause the valve to malfunction. A strainer or filter with the appropriate perf or mesh and pressure rating can be purchased from Straval. Although this type of relief valve normally discharges to atmosphere, the valve can discharge to some minimal elevated pressures, but would require the pressure adjustment to be compensated due to the additional spring load.

Valves meet ANSI/FCI Class VI seat leakage standards bubble tight with Viton or Buna diaphragms. The slightly harder PTFE lined diaphragms may not achieve bubble tight conditions and will approach closer to a Class IV leakage standard).

Options

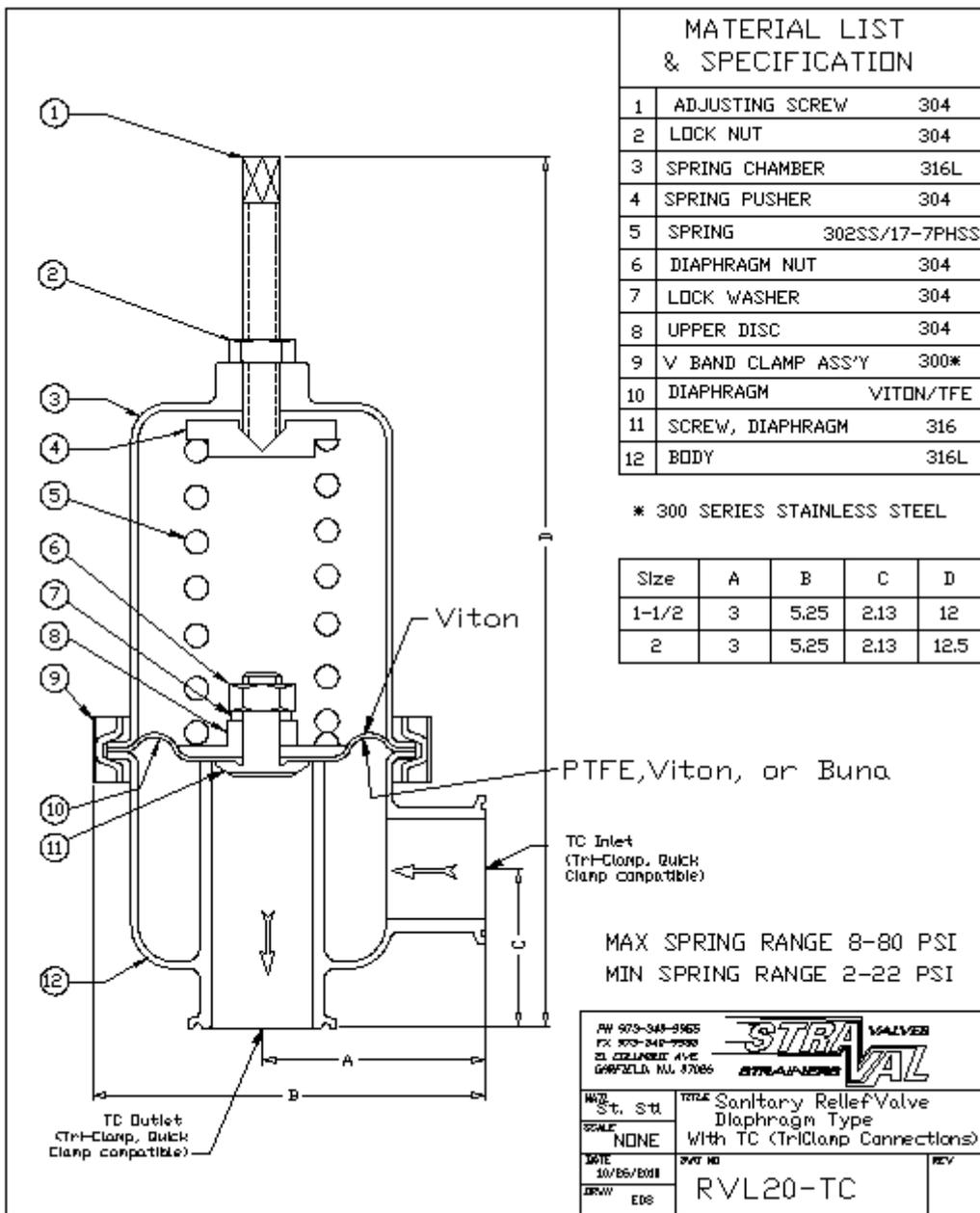
Scroll down below to select the valve size, spring range, material options in the customized pricing and ordering section indicated by the red arrows. You have the ability to customize your valve choices by selecting first the size, the desired spring range, diaphragm and the valve needs to be electro-polished. Once these selections are made a price quote can be generated and printed directly to your computer or immediately e-mailed to you.

When ordering don't forget to state your desired relief set pressure if you expect the valve to relieve at only one pressure. This pressure will be added to the nameplate. **If the set pressure is not specified, the valve will be set at or below the stated spring range as selected for the order and no set pressure will be added to the nameplate.**

Principle of Operation

This is a direct-operated poppet and spring type relief valve where the spring constantly opposes the pressure acting against the flexible diaphragm 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 diaphragm. When the inlet pressure exceeds the set pressure, the diaphragm will open to relieve the excess pressure. The valve will operate in a vertical orientation as illustrated, horizontal, or any other orientation. When the valve is oriented with the inlet connection facing down, the valve becomes self draining.

These valves are not equipped with a manual lever release. However, manual override is accomplished by first locking the spring lock nut to the adjusting screw and backing it out enough to open the diaphragm to release pressure, and then repositioning it to its original preset locked condition without losing the original set pressure. This procedure is recommended periodically to flush the seat and to check for proper opening of the valve piston.



**MATERIAL LIST
& SPECIFICATION**

1	ADJUSTING SCREW	304
2	LOCK NUT	304
3	SPRING CHAMBER	316L
4	SPRING PUSHER	304
5	SPRING	302SS/17-7PHSS
6	DIAPHRAGM NUT	304
7	LOCK WASHER	304
8	UPPER DISC	304
9	V BAND CLAMP ASS'Y	300*
10	DIAPHRAGM	VITON/TFE
11	SCREW, DIAPHRAGM	316
12	BODY	316L

* 300 SERIES STAINLESS STEEL

Size	A	B	C	D
1-1/2	3	5.25	2.13	12
2	3	5.25	2.13	12.5

TC Inlet
(Tri-Clamp, Quick
Clamp compatible)

MAX SPRING RANGE 8-80 PSI
MIN SPRING RANGE 2-22 PSI

TC Outlet
(Tri-Clamp, Quick
Clamp compatible)

PTFE, Viton, or Buna

Viton

STRAVAL VALVES
VALVE

PH 903-348-9165
FX 903-340-9990
23 COLLINGS AVE
GARFIELD, N.J. 07066

MAT	St. Stl	TITLE	Sanitary Relief Valve Diaphragm Type With TC (TriClamp Connections)
SCALE	NONE	DRAWN	EDS
DATE	10/05/2011	PART NO	RVL20-TC
REV		REV	

1" RVL20-10TC

Sanitary Tri-Clamp Connections 150 psi (~10 bar) rating

Multiple Spring Ranges from: 2-80 psig (0.138-5.52 barg) Select spring from pricing page

1 1/2" RVL20-15TC

Sanitary Tri-Clamp Connections 150 psi (~10 bar) rating

Multiple Spring Ranges from: 2-80 psig (0.138-5.52 barg) Select spring from pricing page

2" RVL20-20TC

Sanitary Tri-Clamp Connections 150 psi (~10 bar) rating

Multiple Spring Ranges from: 2-80 psig (0.138-5.52 barg) Select spring from pricing page

The spring ranges listed above are not achievable with one spring, but are compressed to show overall product capability.

Select a specific spring range in the pricing pages or specify a set pressure when ordering.