

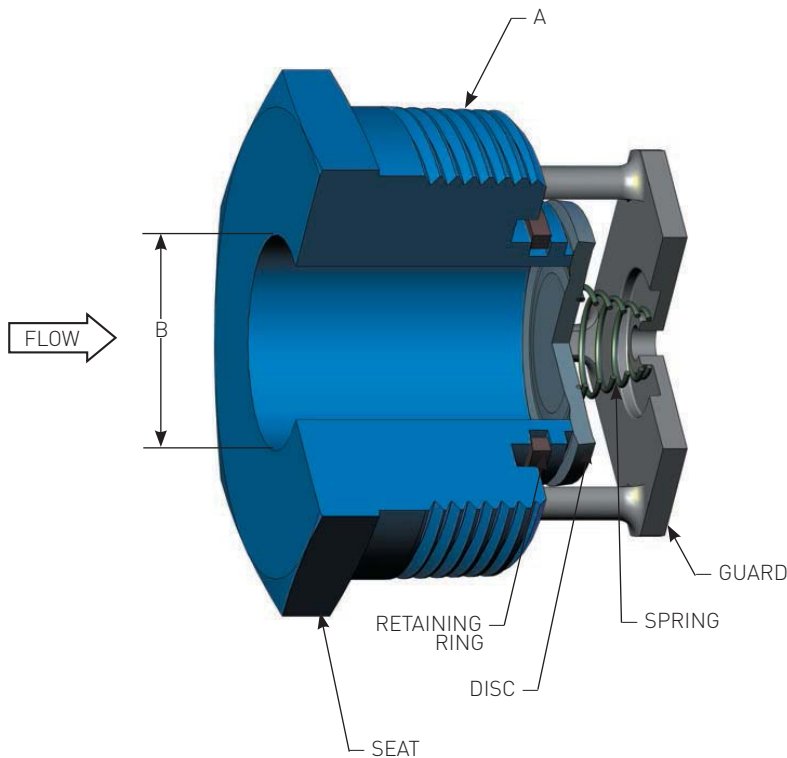
Vacuum Breaker

DFT® Vacuum Breakers provide effective protection against collapse of pressure vessels, tanks and rolls. They prevent condensate “back-up” when equipment is shut down or inlet steam is reduced by modulating control valves. In piping systems, DFT Vacuum Breakers are used to break siphons, prevent pipe collapse during transient pressure drops, and to provide addition of air on the downstream side of check valves to dampen water hammer.



FEATURES:

- 1" to 4" size (Outside diameter)
- 450 to 6000 CWP
- Threaded O.D. (MNPT)
- Unthreaded inlet bore
- Stainless steel construction
- Spring-assisted silent closing
- Horizontal or vertical installation
- Tight shutoff - lapped disc & seat
- Easy maintenance
- Versatile
- Options:
 - Inconel® X-750 spring
 - Soft seat



Consult pages 40 and 41 for Pressure/Temperature ratings and soft seat materials.

Vacuum Breaker

| Vacuum Breaker | | | | Cracking Pressure | |
|-----------------------|-------------------------|--------|------|-------------------|-----------------|
| A Nominal Size (MNPT) | B Unthreaded Inlet Bore | Weight | Cv | PSI | Inches of Water |
| 1 | .56 | .38 | 5.8 | .60 (1) | 16.7 |
| 1 1/2 | .88 | .88 | 13.2 | .45 | 12.5 |
| 2 | 1.09 | 1.25 | 23.1 | .38 | 10.5 |
| 2 1/2 | 1.50 | 2.25 | 36 | .20 | 5.5 |
| 3 | 1.72 | 3.75 | 57.4 | .14 | 3.9 |
| 4 | 2.22 | 7.00 | 90 | .15 | 4.3 |

*Cracking pressure for vertical flow will be slightly different: upward flow, slightly higher; downward flow, slightly less.

COLD, NON-SHOCK PRESSURE RATING (PSIG) (2)

| | 1" | 1 1/2" | 2" | 2 1/2" | 3" | 4" |
|----------------------|------|--------|------|--------|-----|-----|
| Vacuum Breaker BSSV | 2500 | 2000 | 1500 | 850 | 700 | 450 |
| Vacuum Breaker BSSV6 | 6000 | 5500 | 3000 | 1100 | 900 | 450 |

MATERIALS OF CONSTRUCTION

| COMPONENT | Vacuum Breaker BSSV | High Pressure Vacuum Breaker BSSV6 |
|----------------|---------------------|------------------------------------|
| Seat | 303 SS | 316 SS |
| Disc | 316 SS | 316 SS |
| Guard | CF8M (3) | CF8M |
| Spring | 316 SS | 316 SS |
| Retaining Ring | 316 SS | 316 SS |

| Sat. Steam Pressure (PSIG) Ref. (4) | Temperature (°F) | Adjusted Rating as Percent of Cold Rating |
|-------------------------------------|------------------|---|
| -3 | 200 | 86% |
| 15 | 250 | 82% |
| 52 | 300 | 78% |
| 232 | 400 | 71% |
| 407 | 450 | 69% |
| 665 | 500 | 66% |
| 1526 | 600 | 62% |
| 3075 | 700 | 60% |

All stainless steel construction is suitable for cryogenic service. For pressure rating at elevated temperatures for standard metal-seated valves, reduce above rating per chart above.

Maximum valve temperature rating is limited by soft seal (if any) and spring materials in chart above.

- Notes:**
1. Light spring available: Cracking Pressure = .24 PSI (6.5 inches of water)
 2. Contingent on service ratings of matching pipe and fittings.
 3. 1" units have a 303 SS guard.
 4. Saturated steam pressure is given for reference only; pressure limit of valve is the adjusted rating at the given temperature.

All dimensions are in inches. Weights are in pounds. CP: Cracking Pressure (psig)