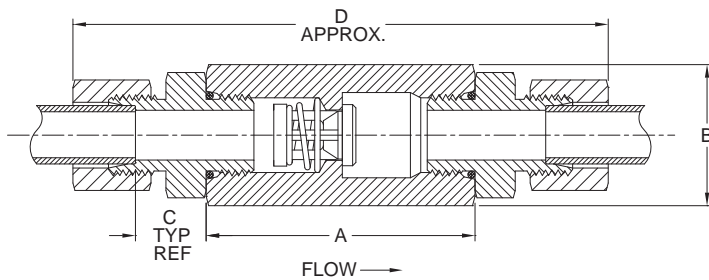


The **Tubing Check (TV)** valve is constructed with **flareless** tube ends designed for minimum pressure drop. The valves are furnished complete with ferrules and nuts. Consult the factory for more information.



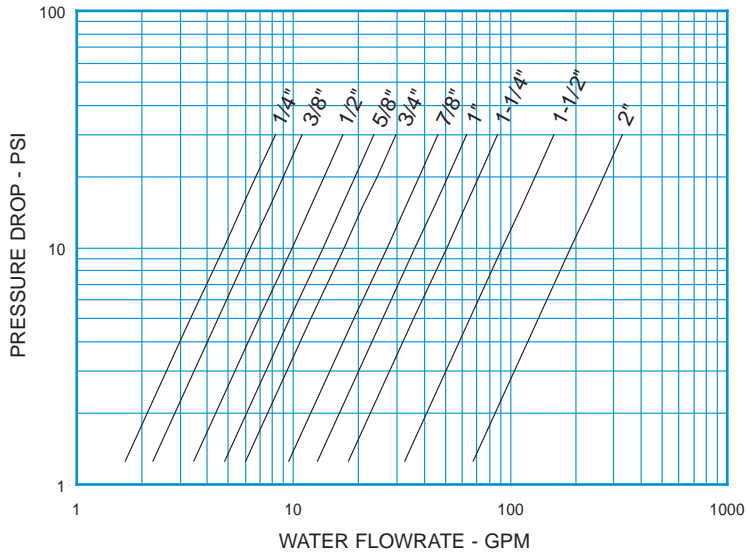
| Tubing O.D. Size | Size Code | A | Hex ^① Size B | C | D | Orifice Diameter |
|------------------|-----------|------|-------------------------|------|------|------------------|
| 1/4 | B | 2.16 | 7/8 | 0.57 | 4.58 | 0.348 |
| 3/8 | C | 2.16 | 7/8 | 0.57 | 4.80 | 0.348 |
| 1/2 | D | 2.48 | 1-1/8 | 0.63 | 5.44 | 0.464 |
| 5/8* | E | 2.63 | 1-1/4 | 0.72 | 5.89 | 0.464 |
| 3/4 | F | 2.93 | 1-1/2 | 0.85 | 6.47 | 0.593 |
| 7/8* | G | 3.34 | 1-3/4 | 0.85 | 6.98 | 0.890 |
| 1 | H | 3.34 | 1-7/8 | 0.81 | 7.18 | 0.890 |
| 1-1/4* | I | 3.48 | 2-1/4 | 0.89 | 7.56 | 1.135 |
| 1-1/2* | J | 3.81 | 2-1/2 | 0.89 | 7.99 | 1.385 |
| 2* | K | 5.09 | 3-1/2 | 1.05 | 9.66 | 2.025 |

^①May be larger and/or round.
 *Not a stock item. Consult factory for delivery.

| Line Size | Non-Shock Pressure-Temperature Rating ^② | | |
|---------------|--|--------------------------------|-------------------------|
| | Stainless Steel (SS) ^③ | Carbon Steel (CS) ^③ | Brass (BR) ^③ |
| 1/4 - 1/2 | 8500 PSIG @ 100°F | 7000 PSIG @ 100°F | 2000 PSIG @ 100°F |
| 5/8 - 1 | 6600 PSIG @ 100°F | 5000 PSIG @ 100°F | 1600 PSIG @ 100°F |
| 1-1/4 - 1-1/2 | 4800 PSIG @ 100°F | 4000 PSIG @ 100°F | 1600 PSIG @ 100°F |
| 2 | 3000 PSIG @ 100°F | 2500 PSIG @ 100°F | 1600 PSIG @ 100°F |

^②Maximum Pressure 1500 PSIG for o-ring seats.
^③See page 53 for material grade information.

Tubing Check
For Water at 72°F



Note: All flow curves and Cv values presume the valves are fully open with 1/2 PSI cracking pressure springs. Consult the factory for more information.

| STYLE TV (TCV) C _v VALUES & VALVE WEIGHTS | | |
|---|-------|----------|
| C _v | SIZE | ALL MATL |
| 1.5 | 1/4 | 6.6 oz. |
| 2.0 | 3/8 | 7.2 oz. |
| 3.1 | 1/2 | 13.0 oz. |
| 4.3 | 5/8 | 1.8 lb. |
| 5.4 | 3/4 | 2.3 lb. |
| 8.5 | 7/8 | 2.7 lb. |
| 11.5 | 1 | 3.0 lb. |
| 16.0 | 1-1/4 | 5.7 lb. |
| 29.0 | 1-1/2 | 7.8 lb. |
| 60.0 | 2 | 15.0 lb. |

See page 48 for Flow Formulae
Valve weights are approximate.

**HOW TO ORDER
CHECK-ALL STYLE TV (TCV)**

BODY MATERIAL ①

BRASS = BR
CARBON STEEL = CS
316 SS = SS

See p. 4 for Temperature ratings

SPRING CRACKING PRESSURES

Replace "X" with actual desired setting.
Must use decimal as a character.

| | |
|------------------|--------|
| (PSI) | FORMAT |
| 0.000 TO 0.999 = | .XXX |
| 1.00 TO 9.99 = | X.XX |
| 10.0 TO 99.9 = | XX.X |
| NO SPRING = | NOSPRG |

STANDARD CRACKING PRESSURES ②

| | | | |
|------------------|------|------|------|
| .125 | .500 | 1.50 | 3.50 |
| (Sizes B-I Only) | | | |

SPECIAL OPTIONS

T = FEP ENCAPSULATED SPRING

See p. 5 for Temperature ratings
Contact the factory for more options

VALVE STYLE

TV

SIZE

| | |
|---------|---|
| 1/4 = | B |
| 3/8 = | C |
| 1/2 = | D |
| 5/8 = | E |
| 3/4 = | F |
| 7/8 = | G |
| 1 = | H |
| 1-1/4 = | I |
| 1-1/2 = | J |
| 2 = | K |

| SEAT MATERIAL | STANDARD END FITTING O-RING MATERIAL |
|---------------------|--------------------------------------|
| AFLAS® = AS | PTFE (TF) |
| BUNA-N = BN | BUNA-N (BN) |
| EPDM = EP | EPDM (EP) |
| KALREZ® = KZ | PTFE (TF) |
| METAL-TO-METAL = MT | SEE NOTE BELOW ④ |
| NEOPRENE = NE | NEOPRENE (NE) |
| PTFE (TF) = TF | PTFE (TF) |
| VITON® = VT | VITON®(VT) |

See p. 4 for Temperature ratings

SPRING MATERIAL

316 SS = SS
HASTELLOY® C = HC
INCONEL® X-750 = IX
MONEL® = MO
17-7PH SS = PH
TITANIUM = TI

See p. 5 for Temperature ratings

Listed above are the most common material selections. Please contact the factory for additional options.

- ① Brass valves have plated Carbon Steel fittings. Consult factory if other body or fitting materials are desired.
- ② .500 PSI is the only standard cracking pressure for spring materials other than Stainless Steel. Cracking pressure tolerance is +/- 15%. .125 PSI springs are not recommended for installations with flow vertical down.
- ③ Seat materials other than metal-to-metal have a maximum pressure rating of 1500 PSI. PTFE seats are not resilient. See page 49 for allowable leakage rates.
- ④ Brass and Carbon Steel valves have Buna-N end fitting o-rings, 316 SS valves have Viton® end fitting o-rings.