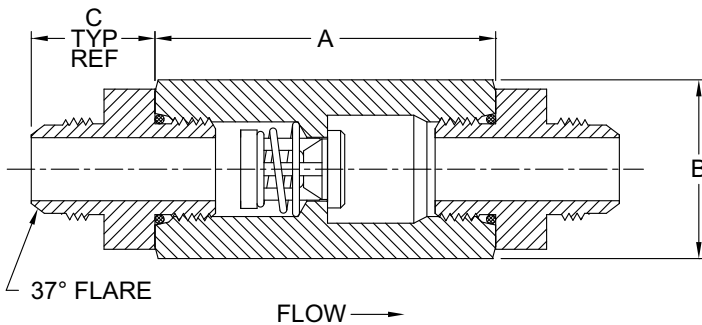


The **Tubing Check Valve-Flared (TF)** is a three-piece constructed check valve with 37° flared end fittings that conform to SAE J514 & ISO 8434-2 . These valves are designed for maximum flow with minimal pressure drop. Consult the factory for more information.



Tubing O.D. Size	Size Code	A	Hex <sup>①</sup> Size B	C	Orifice Diameter
1/4	B	2.16	7/8	0.89	0.348
3/8	C	2.16	7/8	0.91	0.348
1/2	D	2.47	1-1/8	1.04	0.464
5/8*	E	2.63	1-1/4	1.20	0.464
3/4	F	2.92	1-1/2	1.38	0.593
7/8*	G	3.34	1-3/4	1.40	0.890
1	H	3.34	1-7/8	1.46	0.890
1-1/4*	I	3.48	2-1/4	1.58	1.135
1-1/2*	J	3.81	2-1/2	1.79	1.385
2*	K	5.09	3-1/2	2.19	2.025

<sup>①</sup> May be larger and/or round.

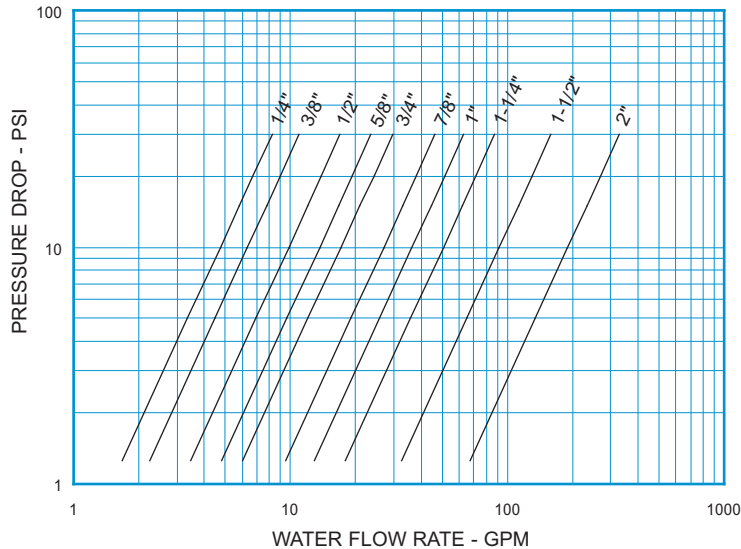
\*Not a stock item. Consult factory for delivery.

Line Size	Non-Shock Pressure-Temperature Rating <sup>②</sup>		
	Stainless Steel (SS) <sup>③</sup>	Carbon Steel (CS) <sup>③</sup>	Brass (BR) <sup>③</sup>
1/4 - 1/2	8500 PSIG @ 100°F	7000 PSIG @ 100°F	3000 PSIG @ 100°F
5/8 - 1	6600 PSIG @ 100°F	5000 PSIG @ 100°F	1600 PSIG @ 100°F
1-1/4 - 1-1/2	5800 PSIG @ 100°F	4000 PSIG @ 100°F	1600 PSIG @ 100°F
2	3000 PSIG @ 100°F	2500 PSIG @ 100°F	1600 PSIG @ 100°F

<sup>②</sup> Maximum Pressure 1500 PSIG for o-ring seats.

<sup>③</sup> See page 55 for material grade information.

**Tubing Check Valve Flared**  
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 TF (TCVF) C <sub>v</sub> VALUES & VALVE WEIGHTS		
C <sub>v</sub>	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 50 for Flow Formulae.  
Valve weights are approximate.

**HOW TO ORDER  
CHECK-ALL STYLE TF (TCVF)**

**BODY MATERIAL**<sup>①</sup>  
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  
.000 TO .999 = .XXX  
1.00 TO 9.99 = X.XX  
10.0 TO 99.9 = XX.X  
NO SPRING = NOSPRG  
**STANDARD CRACKING PRESSURES**<sup>②</sup>  
.125 .500 1.50 3.50  
(Sizes B-I Only)

**Note:** Many other cracking pressures are available. Consult factory.

**SPECIAL OPTIONS**  
T = FEP ENCAPSULATED SPRING  
-O = Outer o-ring seals same as seat  
See p. 5 for temperature rating  
Contact the factory for more options

**VALVE STYLE**

**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 <sup>④</sup> = EP	EPDM <sup>④</sup> (EP)
KALREZ® = KZ	PTFE (TF)
"METAL-TO-METAL" = MT	SEE NOTE BELOW <sup>⑤</sup>
NEOPRENE = NE	NEOPRENE (NE)
PTFE (TF) = TF	PTFE (TF)
VITON® = VT	VITON®(VT)

See p. 4 for temperature ratings

**SPRING MATERIAL**  
316 SS = SS  
ALLOY C-276 = 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. "Metal-to-Metal" and PTFE seats are not resilient. See page 51 for allowable leakage rates.
- ④ EP seats not recommended for use with Carbon Steel valves.
- ⑤ Fitting o-rings are the same as the seat for standard seat materials. For "metal-to-metal" seated valves, end fitting o-rings are Buna-N for brass and carbon steel valves and Viton® for stainless steel valves. Consult the factory for further information.