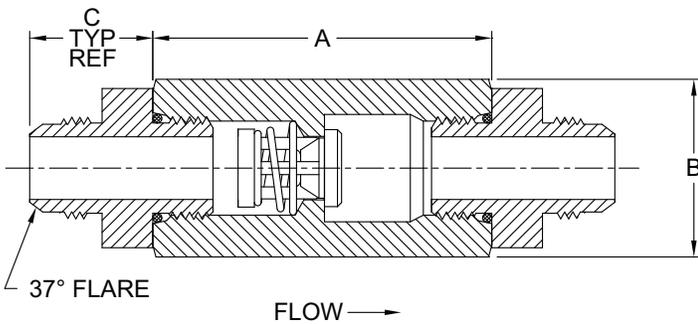


The **Tubing Check Valve-Flared (TF)** is a three-piece constructed check valve with 37° flared end fittings that conform to SAE J514 & ISO 8434-2 . These valves are designed for maximum flow with minimal pressure drop. The TF valve can also be used as a low pressure relief valve or vacuum breaker by using the desired spring settings.

NOTE: Many valves in this series can be supplied with B16.34 certification. Consult the factory for more information.



Tubing O.D. Size	Size Code	A	Hex ¹ Size B	C	Orifice Diameter
1/8	A	2.16	7/8	0.69	0.348
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

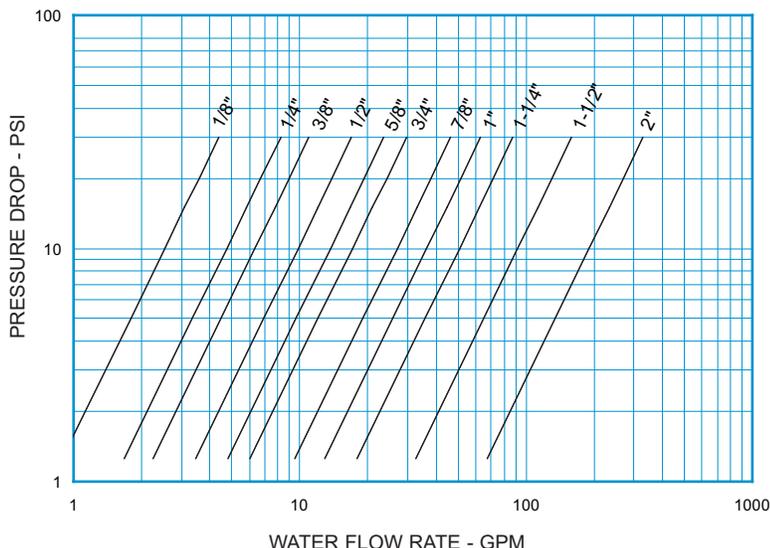
¹May be larger and/or round.

Line Size	Non-Shock Pressure-Temperature Rating ²		
	Stainless Steel (SS) ³	Carbon Steel (CS) ³	Brass (BR) ³
1/8" - 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

²Maximum Pressure 1500 PSIG for o-ring seats.

³See page 54 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 C _v VALUES & VALVE WEIGHTS		
C _v	SIZE	ALL MATL
0.8	1/8	5.5 oz.
1.5	1/4	6.6 oz.
2.0	3/8	7.2 oz.
3.1	1/2	13 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 lb.

See page 49 for Flow Formulae.
Valve weights are approximate.

HOW TO ORDER CHECK-ALL STYLE TF

BODY MATERIAL ②

BRASS = BR
CARBON STEEL = CS
316 SS = SS

See p. 3 for temperature ratings

SPRING CRACKING PRESSURES

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

(PSI)	FORMAT	EXAMPLE
.000 TO .999	= .XXX	.500
1.00 TO 9.99	= X.XX	1.50
10.0 TO 99.9	= XX.X	15.0
NO SPRING	= NOSPRG	NOSPRG

STANDARD CRACKING PRESSURES ①

.125	.500	1.50	3.50
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(Sizes A-I Only)

Note: Many other cracking pressures are available. All spring tolerances +/- 15%.

SPECIAL OPTIONS

T = FEP ENCAPSULATED SPRING
-0 = Outer o-ring seals same as seat

See pages 3 & 4 for temperature rating
Contact the factory for more options

TF

VALVE STYLE

SIZE

1/8	= A
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 ③

AFLAS®	= AS
BUNA-N	= BN
EPDM ④	= EP
KALREZ®	= KZ
"METAL-TO-METAL"	= MT
NEOPRENE	= NE
PTFE (TF)	= TF
VITON®	= VT

See p. 3 for temperature ratings

**STANDARD END FITTING
O-RING MATERIAL**

PTFE (TF)
BUNA-N (BN)
EPDM ④ (EP)
PTFE (TF)
SEE NOTE BELOW ⑤
NEOPRENE (NE)
PTFE (TF)
VITON®(VT)

SPRING MATERIAL

316 SS = SS
ALLOY C-276 = HC
ALLOY X750 OR INCONEL® X750 = IX
ALLOY 400 OR MONEL® = MO
17-7PH SS = PH
TITANIUM = TI

See p. 4 for temperature ratings

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

- ① .500 PSI is the only standard cracking pressure for spring materials other than Stainless Steel. .125 PSI springs are not recommended for installations with flow vertical down.
- ② Brass valves have plated Carbon Steel tube fittings if applicable. Consult factory if other body or fitting materials are desired.
- 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 50 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.