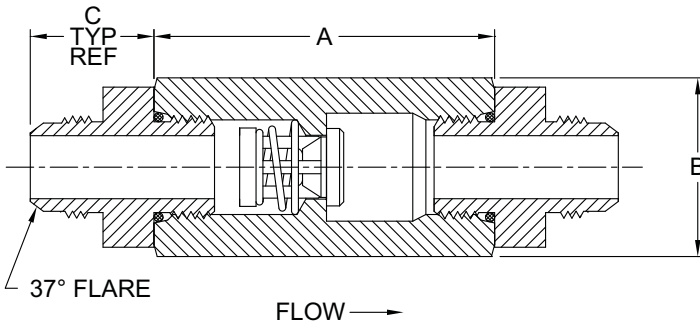


The **Tubing Check Valve-Flared (TF)** is a three-piece constructed check valve with 37° flared end fittings that conform to SAE J514 & ISO 8434-2 . These valves are designed for maximum flow with minimal pressure drop. The TF valve can also be used as a low pressure relief valve or vacuum breaker by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



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	1-7/8	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

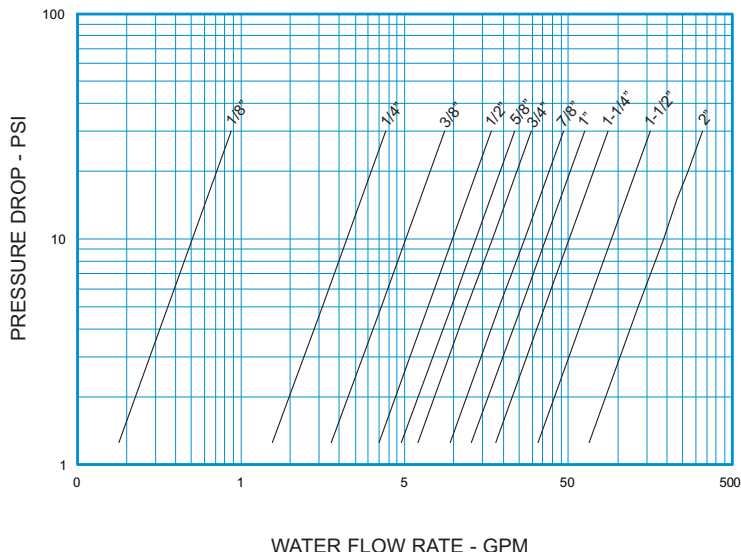
^①May be larger and/or round.

Line Size	Non-Shock Pressure-Temperature Rating ^②		
	Stainless Steel (SS) ^③	Carbon Steel (CS) ^③	Brass (BR) ^③
1/8" - 1/2"	7700 PSIG @ 100°F	6000 PSIG @ 100°F	3000 PSIG @ 100°F
5/8" - 3/4"	6000 PSIG @ 100°F	5000 PSIG @ 100°F	1600 PSIG @ 100°F
7/8"	5400 PSIG @ 100°F	5000 PSIG @ 100°F	1600 PSIG @ 100°F
1"	5400 PSIG @ 100°F	4500 PSIG @ 100°F	1600 PSIG @ 100°F
1-1/4"	3600 PSIG @ 100°F	4000 PSIG @ 100°F	1600 PSIG @ 100°F
1-1/2"	2400 PSIG @ 100°F	3000 PSIG @ 100°F	1600 PSIG @ 100°F
2"	1800 PSIG @ 100°F	2000 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
0.08	1/8	5.5 oz.
0.7	1/4	6.6 oz.
1.6	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 (PSI)
Must use decimal as a character unless selecting NO SPRING. *Specify Exact Setting*

SPRING RANGES	EXAMPLE
.000 TO .999	= .500
1.00 TO 9.99	= 1.50
10.0 TO 85.0	= 15.0
NO SPRING	= NOSPRG

STANDARD CRACKING PRESSURES ①

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

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.