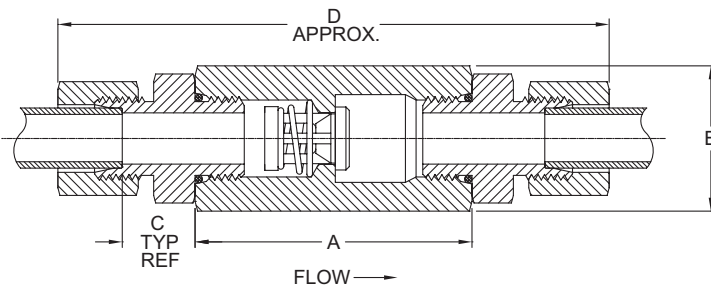


The **Tubing Check (TV)** valve is constructed with compression tube fittings (flareless) and is designed for a minimum pressure drop. The valves are furnished complete with ferrules and nuts. The TV valve can also be used as a low pressure relief valve or vacuum breaker by using the desired spring settings.

NOTE: Consult the factory for instrumentation applications or for more information.



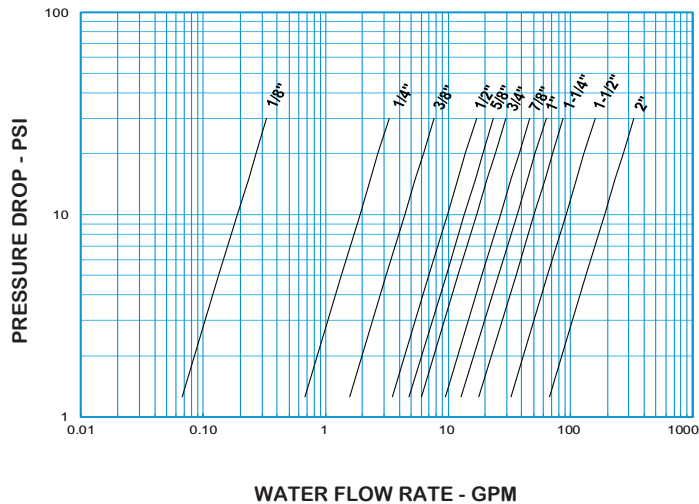
Tubing O.D. Size	Size Code	A	Hex ¹ Size B	C	D	Orifice Diameter
1/8	A	2.16	7/8	0.42	3.99	0.348
1/4	B	2.16	7/8	0.57	4.58	0.348
3/8	C	2.16	7/8	0.57	4.80	0.348
1/2	D	2.48	1-1/8	0.63	5.44	0.464
5/8	E	2.63	1-1/4	0.72	5.89	0.464
3/4	F	2.93	1-1/2	0.85	6.47	0.593
7/8	G	3.34	1-7/8	0.85	6.98	0.890
1	H	3.34	1-7/8	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

¹ May be larger and/or round.

Line Size	Non-Shock Pressure-Temp. Rating @ 100°F	
	Consult factory for P-T rating above @ 100°F	
	Stainless Steel (SS) and Carbon Steel ²	Brass (BR) ²
1/8"	4500 PSIG (1500 PSIG for o-ring seats)	3000 PSIG (1500 PSIG for o-ring seats)
1/4" - 1/2"	5000 PSIG (1500 PSIG for o-ring seats)	3000 PSIG (1500 PSIG for o-ring seats)
5/8"	5000 PSIG (1500 PSIG for o-ring seats)	1600 PSIG (1500 PSIG for o-ring seats)
3/4"	4500 PSIG (1500 PSIG for o-ring seats)	1600 PSIG (1500 PSIG for o-ring seats)
7/8" - 1"	4000 PSIG (1500 PSIG for o-ring seats)	1600 PSIG (1500 PSIG for o-ring seats)
1-1/4" - 1-1/2"	3000 PSIG (1500 PSIG for o-ring seats)	1600 PSIG (1500 PSIG for o-ring seats)
2"	2000 PSIG (1500 PSIG for o-ring seats)	1600 PSIG (1500 PSIG for o-ring seats)

² See page 56 for material grade information.

Tubing Check Valve 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 C _v VALUES & VALVE WEIGHTS		
C _v	SIZE	ALL MATL
0.06	1/8	6.9 oz.
0.6	1/4	7.6 oz.
1.4	3/8	8.1 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	4.9 lb.
29.0	1-1/2	7.8 lb.
60.0	2	15 lb.

See page 51 for Flow Formulae.
Valve weights are approximate.

HOW TO ORDER CHECK-ALL STYLE TV

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)

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

SPECIAL OPTIONS

T = FEP ENCAPSULATED SPRING
-O = Outer o-ring seals same as seat
Contact the factory for more options
See pages 3 & 4 for temperature rating

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	PTFE (TF)
BUNA-N = BN	BUNA-N (BN)
EPDM ⁴ = EP	EPDM ⁴ (EP)
KALREZ® = KZ	PTFE (TF)
"METAL-TO-METAL" = MT	SEE NOTE BELOW ⁵
NEOPRENE = NE	NEOPRENE (NE)
PTFE (TF) = TF	PTFE (TF)
VITON™ = VT	VITON™ (VT)

See p. 3 for temp 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
INCONEL® X750 OR ALLOY X750 = IX
MONEL® 400 = 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 52 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.