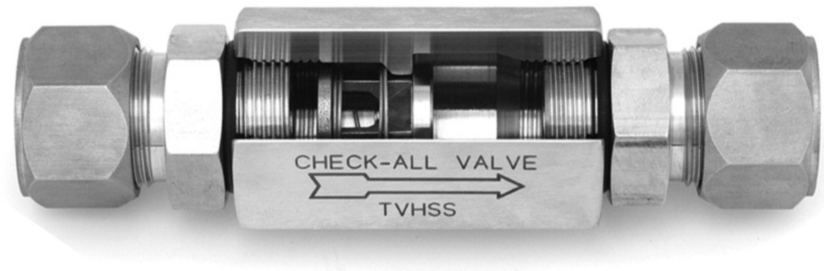
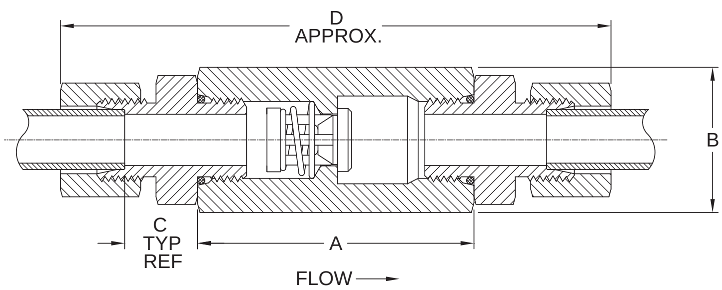
PED 97/23/EC COMPLIANT
See page 56 for Details

TUBING CHECK



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.



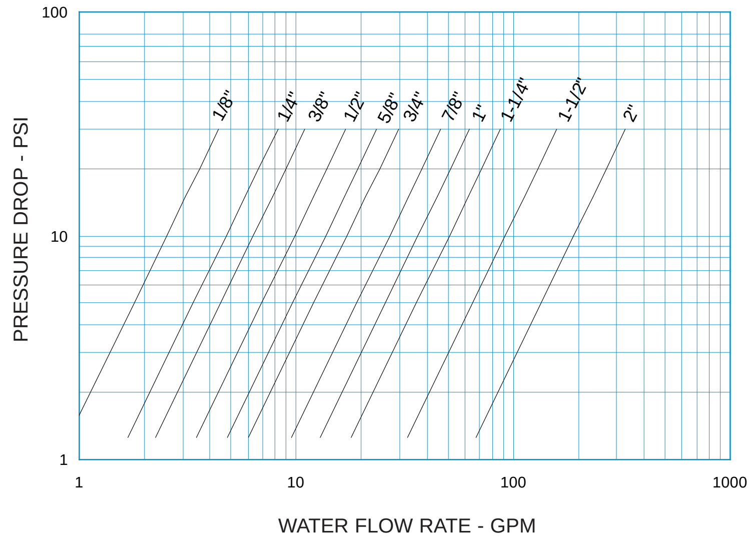
Tubing O.D. Size	Size Code	A	Hex ① Size B	C	D	Orifice Diameter
1/8	A	2.16	7/8	0.42	3.99	0.348
1/4	B	2.16	7/8	0.57	4.58	0.348
3/8	C	2.16	7/8	0.57	4.80	0.348
1/2	D	2.48	1-1/8	0.63	5.44	0.464
5/8*	E	2.63	1-1/4	0.72	5.89	0.464
3/4	F	2.93	1-1/2	0.85	6.47	0.593
7/8*	G	3.34	1-3/4	0.85	6.98	0.890
1	H	3.34	1-7/8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

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

Line Size	Non-Shock Pressure-Temperature Rating ②	
	Stainless Steel (SS) and Carbon Steel ③	Brass (BR) ③
1/8 - 3/8	8000 PSIG @ 100°F	3000 PSIG @ 100°F
1/2	6600 PSIG @ 100°F	3000 PSIG @ 100°F
5/8 - 3/4	6000 PSIG @ 100°F	1600 PSIG @ 100°F
7/8 - 1	5000 PSIG @ 100°F	1600 PSIG @ 100°F
1-1/4 - 1-1/2	4000 PSIG @ 100°F	1600 PSIG @ 100°F
2	2600 PSIG @ 100°F	1600 PSIG @ 100°F

② **Maximum Pressure 1500 PSIG for o-ring seats.**
③ **See page 55 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
0.8	1/8	6.9 oz.
1.5	1/4	7.6 oz.
2.0	3/8	8.1 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	4.9 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 TV (TCV)

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[2]
.125 .500 1.50 3.50
(Sizes A-I Only)

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

BODY MATERIAL[1]
BRASS = BR
CARBON STEEL = CS
316 SS = SS
See p. 4 for temperature ratings

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

T V

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]	STANDARD END FITTING O-RING MATERIAL
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. 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.**