US Valve TECHNO CHECK VALVES

TECHNO Male-Threaded, Grooved and Plain End Check Valves

Low pressure loss, lightweight design with compact construction

TECHNOLOGY

TECHNO — A well-known Brand with Past History and a Brand New Future!

- Techno Corporation of Erie, Pa. founded in 1952
- Inventor of Elastomer Hinge Dual Plate Check Valve providing for much improved flow at lowest pressure drops.
- Design first patented on November 20, 1952
- Grew to be one of the largest and most famous manufacturers of check valves in the United States.
- Acquired by Newflo Corporation on 12/4/1992. Remained in Erie Pa under same management.
- Mid 1996 Newflo (including Techno Corporation) was acquired by PCC (Precision Castparts Corporation).
- PCC moved Techno to Milbury, Mass in 1999 combining them with TBV (Titanium Ball Valve Co.) in a 54,000 ft^2 facility.
- Techno (along with TBV) was acquired by Cameron International in 2004.
- Techno product line transferred to Cameron Valve and Measurement's 250,000 ft^2 plant in Oklahoma City in 2010.
- US Valve LLC acquires Techno product line from Cameron in April of 2016.
- We are now entirely focused on producing low pressure drop check valves in our Linthicum, Maryland facility.
- Lead times are now a priority with > 100,000 parts in stock and options for same day shipment of most valves.

FEATURES

Design Features

- The stationary hinge-post and hinge-clamp design reduces wear to hinges, pins, valve seats, springs and the need for routine maintenance.
- The valve plate design reduces travel from a fully open to fully closed position and provides complete metal-to-metal valve plate structural support, resulting in a non-slam, quick closure feature.
- Our unique flexible elastomer seal provides final closure around the valve bore with continuous strength and durability to ensure prolonged cycle life, outwearing traditional metal-seated valves.

Technologically Advanced Internal Design

Engineered elastomers, developed for durability beyond the range of ordinary elatomers, provide the hinge and the seal in our unique patented TECHNO design. These tough, flexible, reinforced elastomers are resistant to liquids, gases, steam, chemicals, oil and fuel. The strength and durability of these elastomers prolongs life cycle. The unique resilient seal also provides tight shutoff.

Inherent features include:

- Large free area with resulting low pressure loss
- High sealing integrity from the continuous seal design
- Reduced noise and wear by elimination of metal-to-metal rotating parts
- Stable operation under a wide range of flow rates

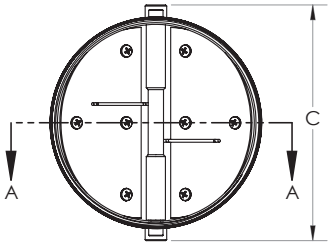
Cost-Efficient, Reliable, Seatless Check Valves

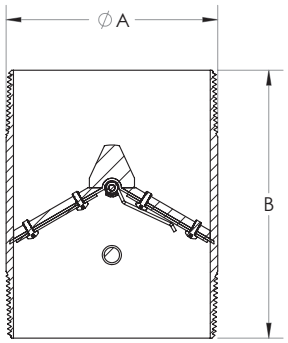
US Valve's TECHNO line has been a leading supplier of high-quality check valves to the industry for many years. A large number of TECHNO products are presently in service, demonstrating a superior performance record.

The TECHNO check valve design enables flexibility in body configurations. In addition to providing male-threaded ends, grooved ends and plain ends, US Valve can supply a combination of end configurations to satisfy your specific requirements. Custom end-to-end dimensions also can be provided upon request.

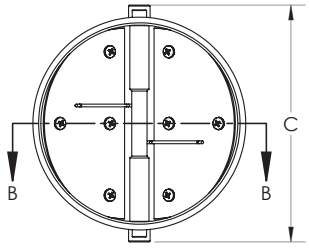
VALVE DIMENSIONS

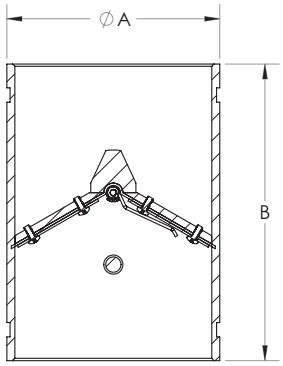
Male NPT



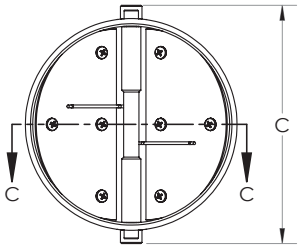


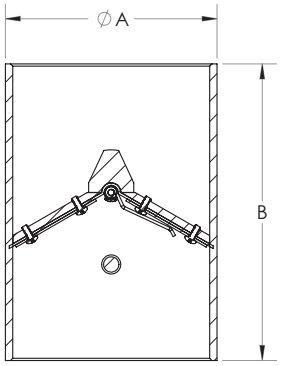
Grooved End





Plain End





MALE NPT BODY (MNPT)

Size	A	B	C
1	1.30	3.50	1.60
1 ¼	1.65	3.50	2.00
1 ½	1.90	4.00	2.30
2	2.35	4.00	2.80
2 ½	2.85	5.00	3.30
3	3.45	5.50	3.90
4	4.45	6.00	4.90
5	5.55	7.00	6.10
6	6.60	8.00	7.10
8	8.60	10.00	9.50
10	10.75	12.00	11.50
12	12.75	14.00	13.80

GROOVED & PLAIN END BODY

Size	A	B	C
1	1.30	5.75	1.60
1 ¼	1.65	5.75	2.00
1 ½	1.90	5.75	2.30
2	2.35	5.75	2.80
2 ½	2.85	5.75	3.30
3	3.45	5.75	3.90
4	4.45	6.75	4.90
5	5.55	7.75	6.10
6	6.60	8.75	7.10
8	8.60	10.75	9.50
10	10.75	12.75	11.50
12	12.75	14.75	13.80

All dimensions in inches

WIDE RANGE OF SIZES & MATERIALS

Techno Male NPT (MNPT), Grooved and Plain End Check Valves are available in a wide range of sizes, materials and configurations to suit your application requirements. Full material availability and valve numbering specifications are shown on page 5, including a list of our standard valve models.

HOW TO ORDER

Size
1.0 = 1″
1.3 = 1-1/4″
1.5 = 1-1/2″
2.0 = 2″
2.5 = 2-1/2″
3.0 = 3″
4.0 = 4″
5.0 = 5″
6.0 = 6″
8.0 = 8″
10.0 = 10″
12.0 = 12″
Through
36.0 = 36″
XXX = Other**

Valve Series
DPW = Dual-Plate Wafer Check, ASME Rated 5050, 5051, 5053
EHF = Elastomer-Hinged Flanged 5003, 5004, 5102, 5107
EHW = Elastomer-Hinged Short-Form Wafer 5118, 5296
EHT = Elastomer-Hinged Threaded Valve (5002)
EHV = Elastomer-Hinged Victaulic®-Grooved Valve (5103)
EHP = Elastomer-Hinged Plain End Valve (5104)

Body Material
AL = Aluminum
BR = Brass 5002 Only
CI = Cast Iron
CS = Carbon Steel
WC = Cast Steel, A216 Grade WCB
36 = 316 Stainless Steel

Internal Material
AL = Aluminum
BR = Brass (5002 Only)
BZ = Bronze (DPW)
AB = Aluminum Bronze (DPW)
CS = Carbon Steel
WC = Cast Steel, A216 Grade WCB
36 = 316 Stainless Steel
XX = Other**

	Size	Valve Series	Body Material	Internal Material
SAMPLE:	6 . 0	E H T	C S	A L

Seal Material
B = Buna-N
U = EPDM
M = Metal (Metal-Hinged Valves Only)
S = Silicone
T = Teflon (Metal-Hinged Valves Only)
V = Viton A
XX = Other**

Spring Material
32 = 302 SS
36 = 316 SS
75 = INCONEL X-750
NS = No Spring
XX = Other**

Valve Rating
A12 = ASME 125
A15 = ASME 150
A60 = ASME 600
A30 = ASME 300
050 = 50 psi-cwp
100 = 100 psi-cwp
125 = 125 psi-cwp
150 = 150 psi-cwp
300 = 300 psi-cwp
450 = 450 psi-cwp
XXX = Other**

End Connections
RF = Raised Face
FF = Flat Face
MP = Male Threaded Ends
FP = Female Threaded Ends
VC = Victaulic Grooved
PE = Plain Ends
XX = Other**

Options*
Consult US Valve for options such as:
Epoxy Coat
Drain Holes
Bypass Holes
Special Ports
Special Paint
Fasteners
Etc.

* We assign option suffix numbers to identify special valves. Once an option number is assigned to specify the special valve, that number can then be used to reorder an identical valve. Consult US Valve for options.

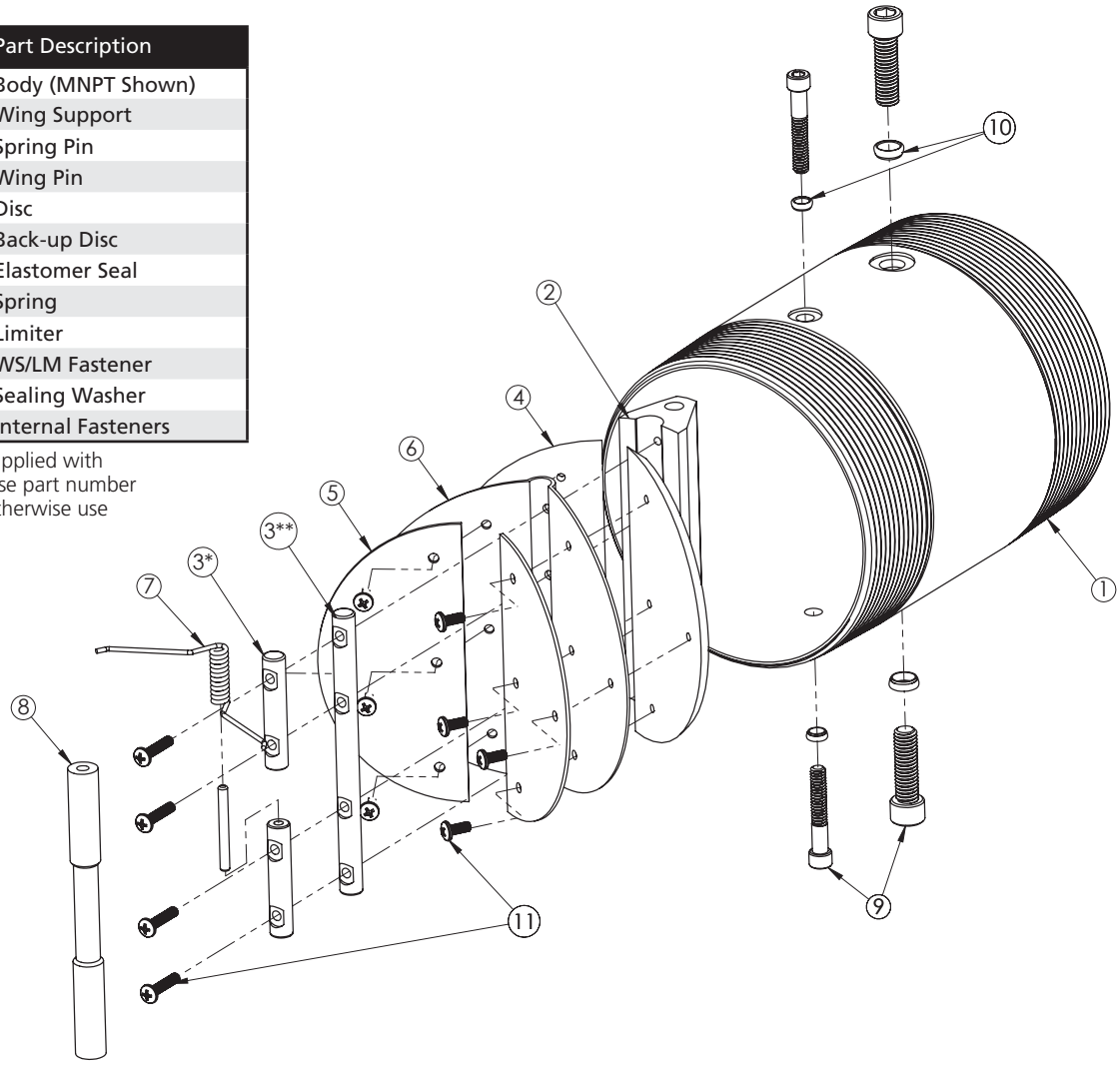
** Other: "X", "XX" or "XXX" indicates a choice other than standards shown.
Note: Certain combinations are not available.

	Seal Material	Spring Material	Valve Rating	End Connections	Options
SAMPLE:	B	3 2	1 5 0	M P	1 4 5

Exploded View

Part No.	Part Description
1	Body (MNPT Shown)
2	Wing Support
3*	Spring Pin
3**	Wing Pin
4	Disc
5	Back-up Disc
6	Elastomer Seal
7	Spring
8	Limiter
9	WS/LM Fastener
10	Sealing Washer
11	Internal Fasteners

Note: If valve is supplied with optional spring, use part number 3* (Spring Pin), otherwise use 3** (Wing Pin).



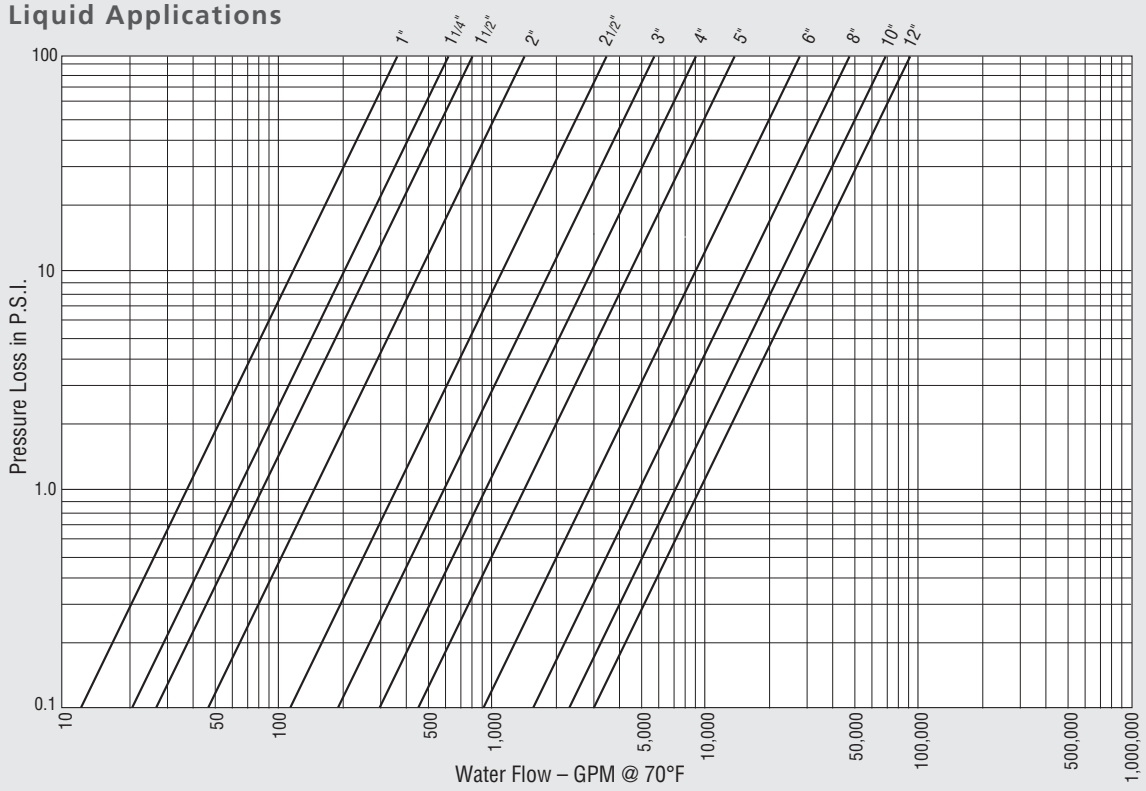
Techno™ Flow Coefficients (Cv) vs. Conventional Designs

Size	Techno Elastomer Hinge	Conventional Duo Disc Design	Conventional Swing Check Design	Conventional Lift Check Valve
1	37	—	22	17
1 ¼	65	—	39	—
1 ½	83	—	55	35
2	145	75	65	63
2 ½	350	95	90	100
3	590	190	135	148
4	920	375	215	260
5	1400	480	680	415
6	2800	820	1270	620
8	4900	1590	2350	1030
10	7200	2900	3850	1630
12	9000	4500	4750	2370

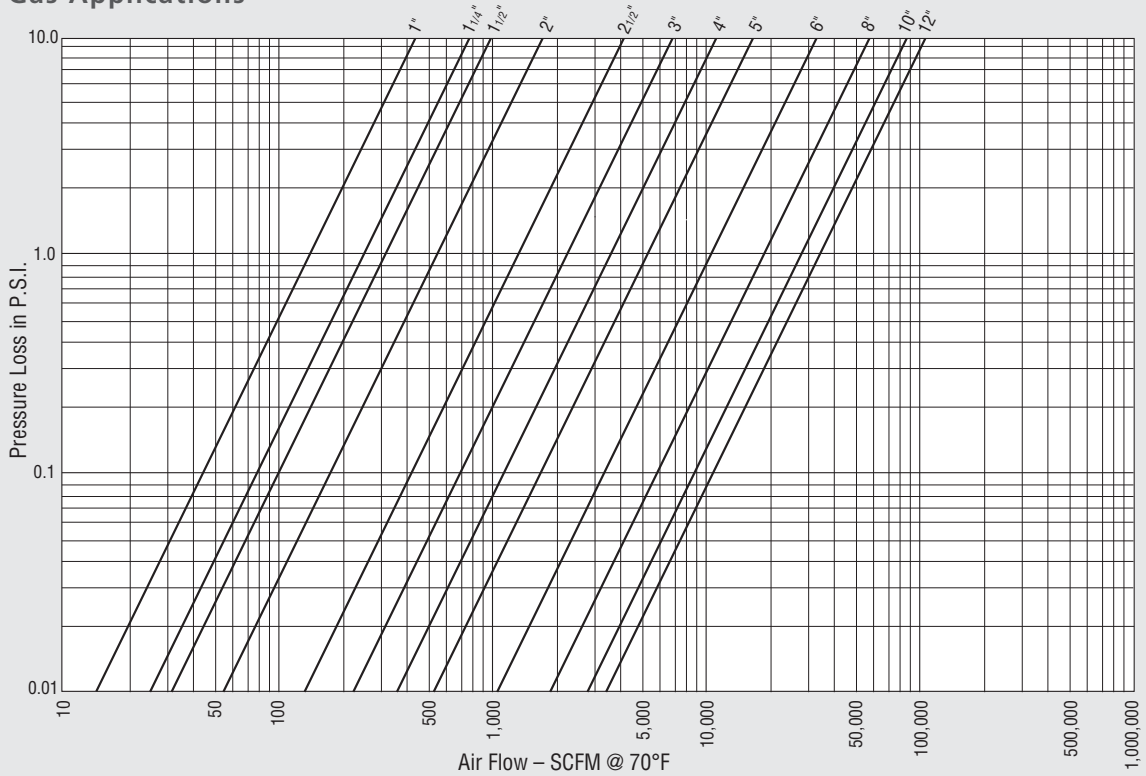
Flow Coefficient Comparisons (Cv) – GPM of water @ 60°F and 1 PSI Pressure Drop. TECHNO is a trademark of US Valve.

Pressure Drop Charts for Water and Air Service

Liquid Applications



Gas Applications



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