

TECHNO Full-Flanged Check Valves

Lightweight, seatless design provides virtually no pressure loss across the valve, reducing wear and resistance to flow

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 ft² facility.
- Techno (along with TBV) was acquired by Cameron International in 2004.
- Techno product line transferred to Cameron Valve and Measurement's 250,000 ft² 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.

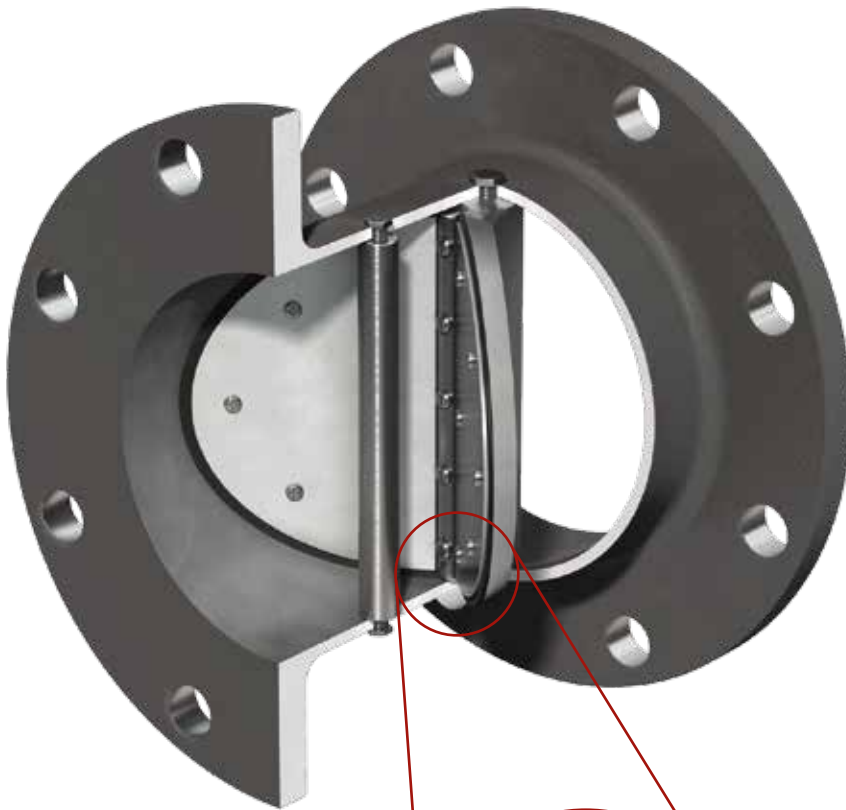


FEATURES

Design Features

US Valve's TECHNO™ full-flanged check valves offer the following features:

- For the most efficient piping layout, the check valve can be mounted in almost any position.
- Unrestricted full-port seatless design provides free flowthrough with virtually no pressure loss.
- The stationary hinge-post and hinge-clamp designs reduce wear to hinges, pins, valve seats and springs.



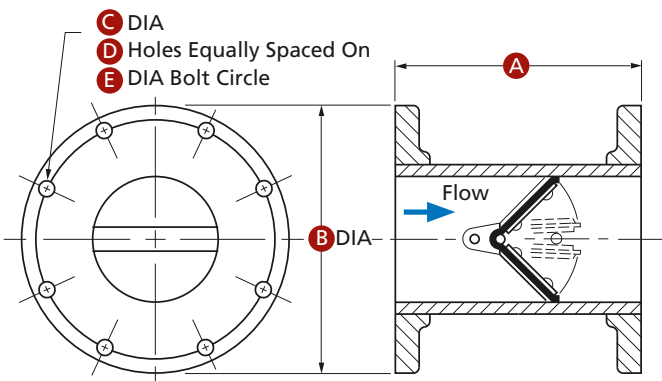
Unique Flexible Elastomer Seal

Continuous elastomer seal provides closure around valve bore with the strength and durability to ensure prolonged life cycle, outwearing traditional metal-seated valves.

Non-Slam Quick-Closure Feature

The valve plate design reduces travel from fully open to fully closed position and offers complete metal-to-metal valve plate structural support.

TECHNO CHECK STYLE 5003 WITH 150# RAISED FACE FLANGED ENDS

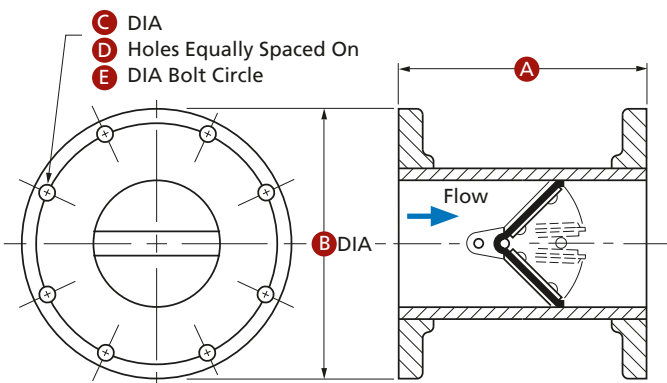


General Dimensions for Style 5003

Valve Size (in.)	A	B	C	D	E
1	3	4-1/4	5/8	4	3-1/8
1-1/4	4-1/2	4-5/8	5/8	4	3-1/2
1-1/2	4-1/2	5	5/8	4	3-7/8
2	4-1/2	6	3/4	4	4-3/4
2-1/2	5	7	3/4	4	5-1/2
3	5	7-1/2	3/4	4	6
4	5-1/2	9	3/4	8	7-1/2
5	6	10	7/8	8	8-1/2
6	7	11	7/8	8	9-1/2
8	9	13-1/2	7/8	8	11-3/4
10	11	16	1	12	14-1/4
12	13	19	1	12	17
14	15	21	1-1/8	12	18-3/4
16	17	23-1/2	1-1/8	16	21-1/4
18	19	25	1-1/4	16	22-3/4
20	21	27-1/2	1-1/4	20	25
24	25	32	1-3/8	20	29-1/2

All dimensions are in inches.

TECHNO CHECK STYLE 5104 WITH 150# FLAT FACE FLANGED ENDS



Standard Models and Materials

Style	Body	Internals*	Cold Working Pressure (psi)
5003	Steel	316 Stainless Steel	150
5003-316	316 Stainless Steel	316 Stainless Steel	150
5004-CIL	Cast Iron Lightweight	Aluminum	50
5004-CAL	Cast Aluminum Lightweight	Aluminum	50

* Standard Elastomer: Buna-N

Consult US Valve for materials, sizes and pressure ratings not shown.

Optional Materials Selection

Internal Materials

- Aluminum
- 316 Stainless Steel

Sealing Member Materials

MATERIAL TEMPERATURE RANGE*

- Buna-N -60° F to 225° F (-51° C to 107° C)
- EPDM -40° F to 300° F (-40° C to 149° C)
- Viton® -20° F to 400° F (-29° C to 204° C)
- Silicone -100° F to 500° F (-73° C to 260° C)

* This temperature range is for general guidance.
The figures may vary with application.

Spring Material

- 302 Stainless Steel

General Dimensions for Style 5004-CIL and 5004-CAL

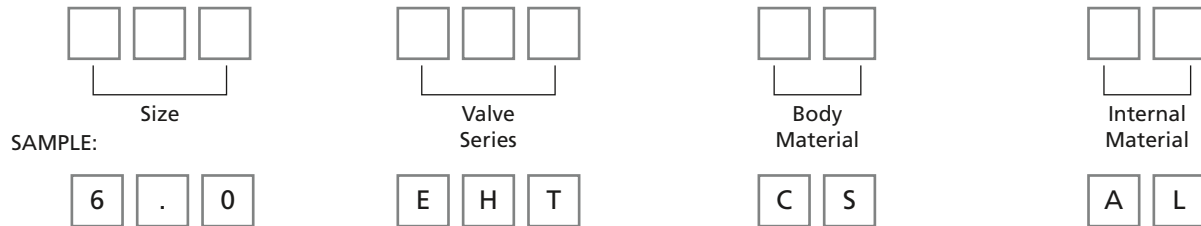
Valve Size (in.)	A	B	C	D	E
2	4-1/2	6	3/4	4	4-3/4
2-1/2	5	7	3/4	4	5-1/2
3	5	7-1/2	3/4	4	6
4	5-1/2	9	3/4	8	7-1/2
5	6	10	7/8	8	8-1/2
6	7	11	7/8	8	9-1/2
8	9	13-1/2	7/8	8	11-3/4
10	11	16	1	12	14-1/4
12	13	19	1	12	17
14	15	21	1-1/8	12	18-3/4

All dimensions are in inches.

For sizes above 14", see Style 5003.

HOW TO ORDER

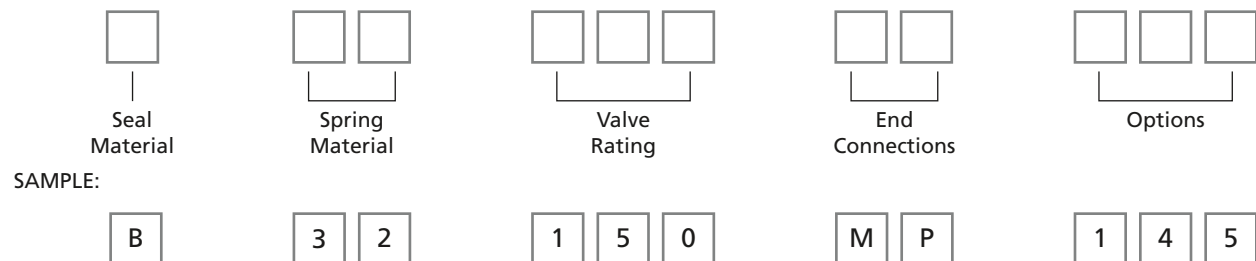
Size	Valve Series	Body Material	Internal Material
1.0 = 1"	DPW = Dual-Plate Wafer Check, ASME Rated 5050, 5051, 5053	AL = Aluminum	AL = Aluminum
1.3 = 1-1/4"		BR = Brass 5002 Only	BR = Brass (5002 Only)
1.5 = 1-1/2"	EHF = Elastomer-Hinged Flanged 5003, 5004, 5102, 5107	CI = Cast Iron	BZ = Bronze (DPW)
2.0 = 2"	EHW = Elastomer-Hinged Short-Form Wafer 5118, 5296	CS = Carbon Steel	AB = Aluminum Bronze (DPW)
2.5 = 2-1/2"		WC = Cast Steel, A216 Grade WCB	CS = Carbon Steel
3.0 = 3"	EHT = Elastomer-Hinged Threaded Valve (5002)	36 = 316 Stainless Steel	WC = Cast Steel, A216 Grade WCB
4.0 = 4"	EHV = Elastomer-Hinged Victaulic®-Grooved Valve (5103)		36 = 316 Stainless Steel
5.0 = 5"	EHP = Elastomer-Hinged Plain End Valve (5104)		XX = Other**
6.0 = 6"			
8.0 = 8"			
10.0 = 10"			
12.0 = 12"			
Through			
36.0 = 36"			
XXX = Other**			



Seal Material	Spring Material	Valve Rating	End Connections	Options*
B = Buna-N	32 = 302 SS	A12 = ASME 125	RF = Raised Face	Consult US Valve for options such as: Epoxy Coat Drain Holes Bypass Holes Special Ports Special Paint Fasteners Etc.
U = EPDM	36 = 316 SS	A15 = ASME 150	FF = Flat Face	
M = Metal (Metal-Hinged Valves Only)	75 = INCONEL X-750	A60 = ASME 600	MP = Male Threaded Ends	
S = Silicone	NS = No Spring	A30 = ASME 300	FP = Female Threaded Ends	
T = Teflon (Metal-Hinged Valves Only)	XX = Other**	050 = 50 psi-cwp	VC = Victaulic Grooved	
V = Viton A		100 = 100 psi-cwp	PE = Plain Ends	
XX = Other**		125 = 125 psi-cwp	XX = Other**	
		150 = 150 psi-cwp		
		300 = 300 psi-cwp		
		450 = 450 psi-cwp		
		XXX = Other**		

* 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.

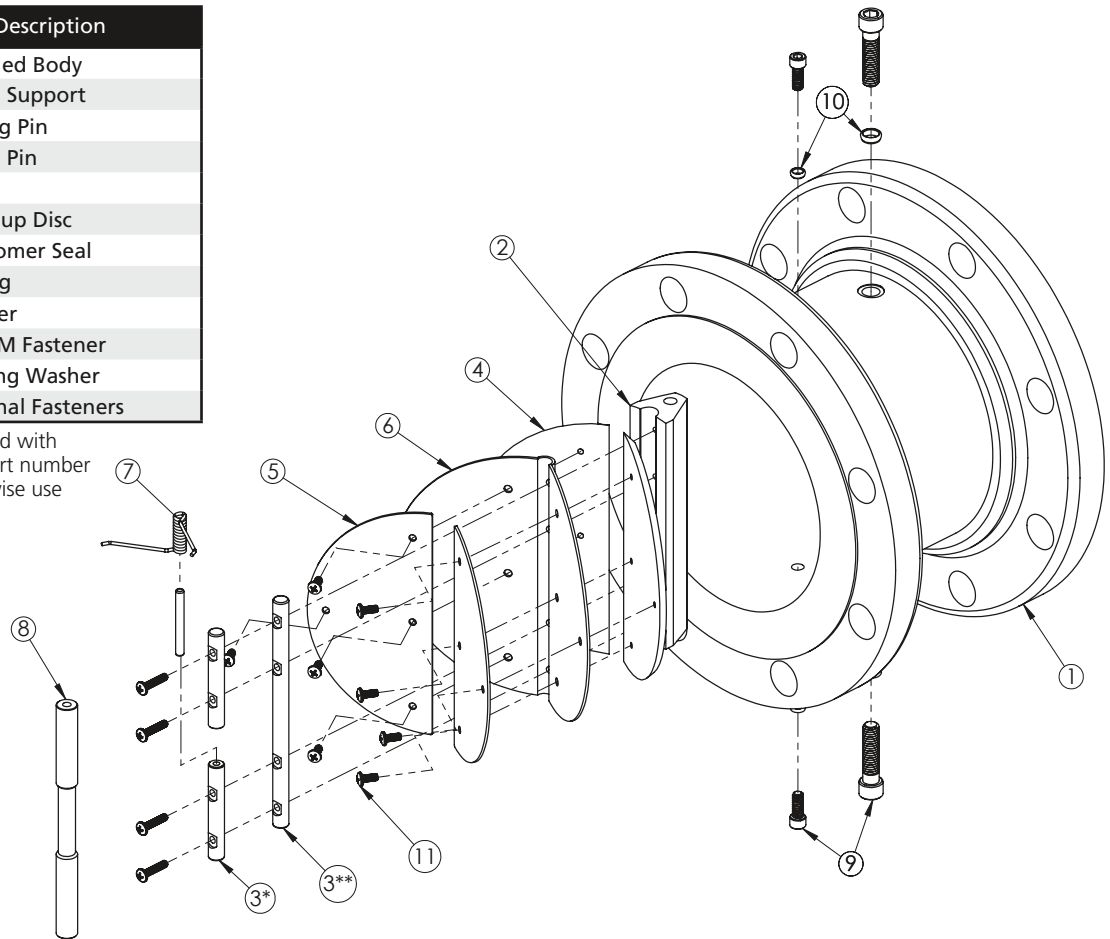
** Other: "X", "XX" or "XXX" indicates a choice other than standards shown.
Note: Certain combinations are not available.



Exploded View

Part No.	Part Description
1	Flanged Body
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).

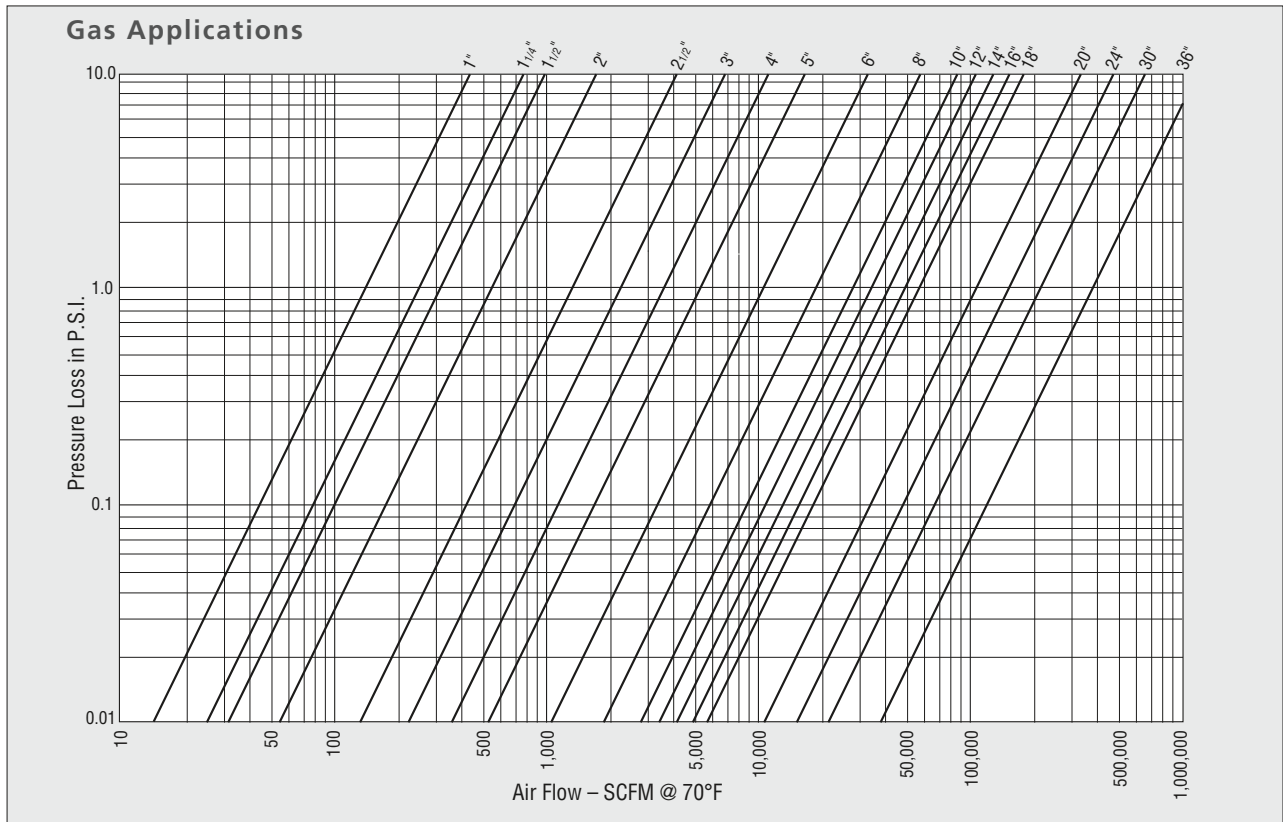
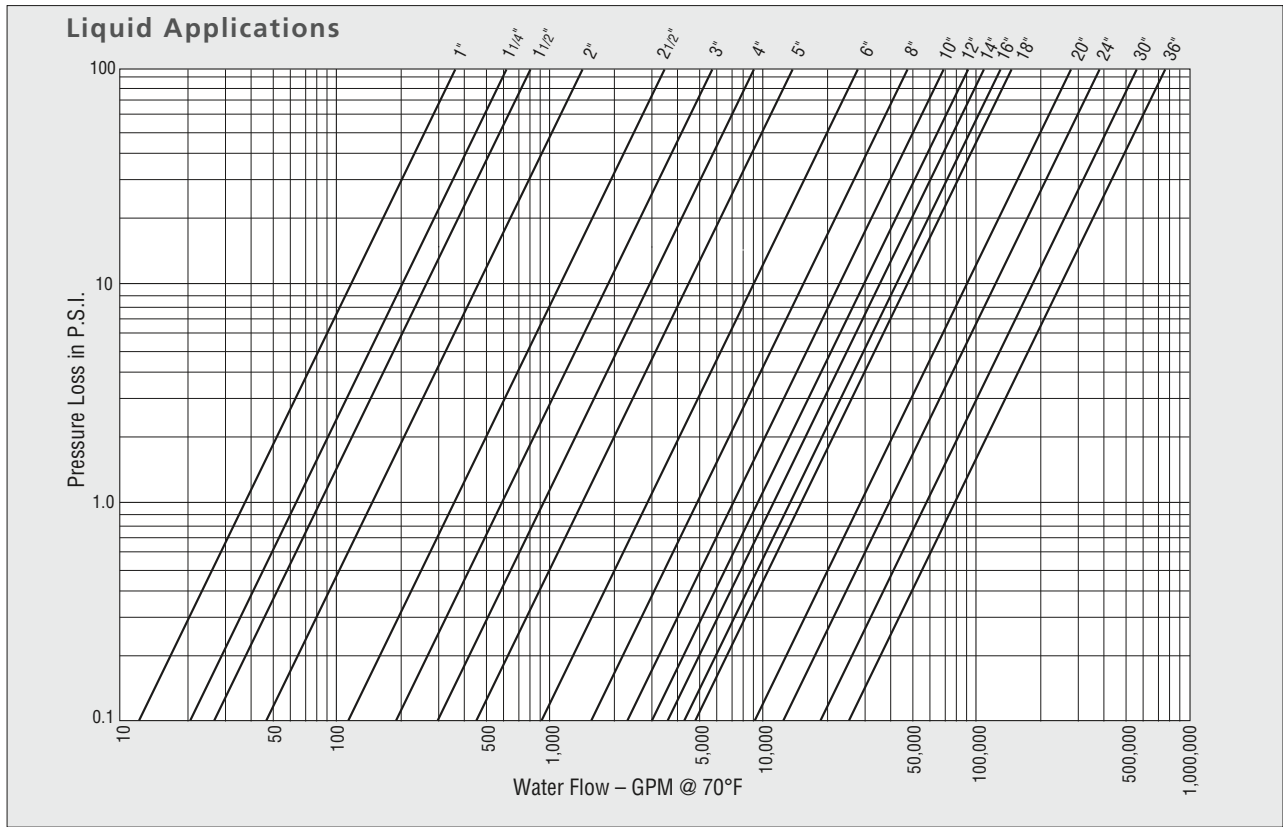


Techno™ Flow Coefficients (Cv) vs. Conventional Designs

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
14	11000	5900	7400	3500
16	13000	8700	9550	5100
18	15000	10900	13000	6400
20	28000	14300	22000	7700
24	39000	23000	—	11100
30	58000	37000	—	—
36	75000	59000	—	—

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





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