



Process Development & Control, LLC

ELASTOMER HINGED CHECK VALVES



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ElastoTITE™ Check Valves

SIZE: 2" – 24" Varies by body style

PRESSURE: Maximum Working Pressure of
150 PSI (10 Bar)

TEMPERATURE: –40° F (–40°C) TO 500° F (260°C)



Features

PDC's Patented Anti-Fatigue Reinforcement Layer – Our ElastoTITE™ Check Valve's New Patented Anti-Fatigue Reinforcement Layer is substantially un-stretchable and capable of resisting abrasion forces that are encountered while the valve is in operation, increasing the life of the valve significantly.

- Elastomer Hinge seal available in Buna N (standard), EPDM, Silicone & Viton
- Available in Cast Short Form Wafer, Thread End, Grooved End, Plain End, Wafer Bar, and Flanged styles
- Fast to Close angled valve plates travel only 60° versus a "dual plate machined seat" that must travel 90° to fully closed.
- Only one external possible leak path versus the two that most competitors have for hinge bar and valve plate stop internals anchoring on sizes 1" to 10" pipeline sizes.
- NO Metal-to-Metal Rotating Parts – The motionless Hinge Bar and Seal Clamp design decreases wear of Hinges, Shafts, Valve Plates, and Springs slashing maintenance requirements and costs.
- Full Port Seatless Design – Provides the largest flow area possible with the smallest pressure loss.
- Springless Design – Our valves operate without the assistance of a spring in the majority of all applications. With the assistance of a spring, the "slamming" action of the plates is all but eliminated.
- A spring is recommended when the valve is placed in a vertical downward flow pipeline position.

Process Development & Control's ElastoTITE™ Full Port Elastomer Hinged Check Valves have low pressure loss, lightweight design and a compact construction. Our Patented Flexible Anti-Fatigue Reinforcement Layer design increases the life of the valve and reduces the need for replacement of the elastomer sealing member during routine maintenance. The elastomer hinge check valve design eliminates a restrictive valve seat and increases the valve's open area and flow coefficient significantly.

Key Applications and Industries

- Blower Equipment
- Compressor Equipment
- Boiler Equipment
- Environmental Systems
- H.V.A.C
- Vacuum Pumps
- Compressed Air and Gas Systems
- Water Systems

Cast Short Form Wafer - Series 87

On Cast Product Series 87: Four rib caged structure with ample alignment grooves and body walls conform to API 594 (Check Valves) recommended thicknesses compared to other elastomer hinged competitors thinner, non-standard walls. Reinforced cast designs have a stronger resistance versus adverse pipe stresses transferring to the valve bore, which serves as the sealing surface.

Size Range	2" – 24"
Temperature	–40° F (–40° C) to 500° F (260° C)
Pressure Rating	Max working pressure of 150 PSI (10 Bar)
Body Style	125 lb and 150 lb Short Form Wafer
Body Material	Carbon Steel, 316 Stainless Steel
Internal Material	Aluminum or 316 Stainless Steel
Seal Material	Buna-N, EPDM, Silicone or Viton
Optional Spring	316 Stainless Steel
Applications	Compressed Air and Gas Systems, Water Systems and Vacuum Pumps

Valves can be installed in a pipeline in any position

Cold Working Pressure (CWP) from –20° F (–28° C) to 100° F (37° C) for 2" thru 14" valve sizes can be up to 200 PSI (13 Bar). Valve sizes 16" and larger CWP is 150 PSI (10 Bar).

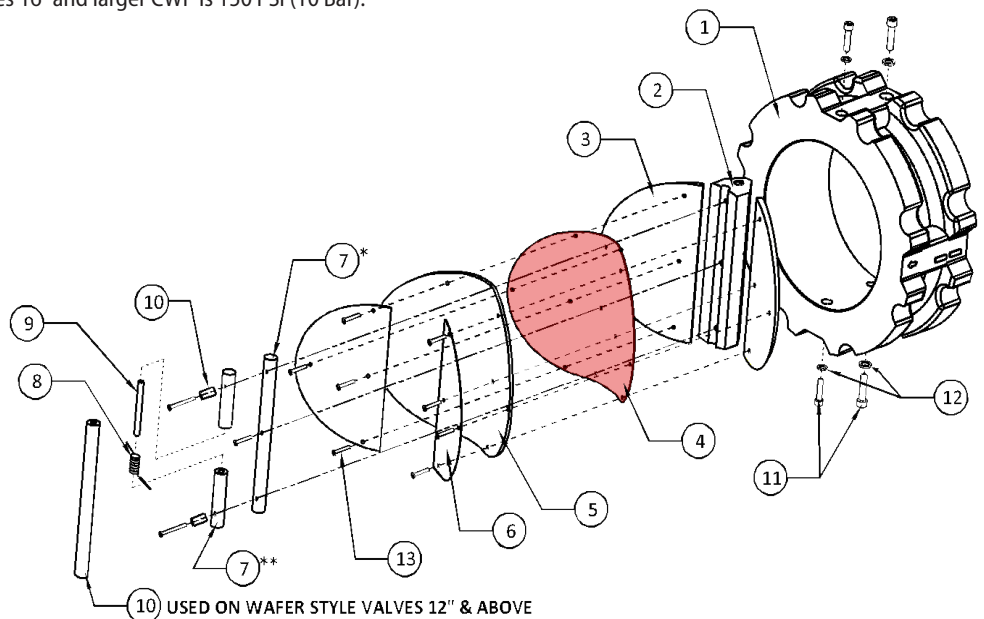


Exploded View Check Valve

1	Valve Body
2	Hinge Bar
3	Valve Plate
4	Anti-Fatigue Layer
5	Valve Seal
6	Seal Retainer Plate
7	Seal Clamp*
7	Seal Clamp End**
8	Spring (Optional)
9	Spring Shaft
10	Travel Limiter
11	Hinge Bar / Travel Limiter Fasteners
12	Hinge Bar / Travel Limiter Seals
13	Internal Fasteners

* Standard - no spring

** Optional - spring loaded valves



Male Thread End - Series 80

Size Range	1" – 12"
Temperature	–40° F (–40° C) to 500° F (260°C)
Pressure Rating	Max working pressure of 150 PSI (10 Bar)
Body Style	Male Thread End (NPT)
Body Material	Carbon Steel, 316 Stainless Steel
Internal Material	Aluminum or 316 Stainless Steel
Seal Material	Buna-N, EPDM, Silicone or Viton
Optional Spring	316 Stainless Steel
Applications	Compressed Air and Gas Systems, Water Systems and Vacuum Pumps
Valves can be installed in a pipeline in any position	

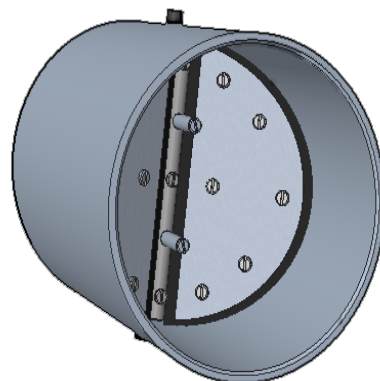
Cold Working Pressure (CWP) from –20° F (–28° C) to 100° F (37°C) can be up to 200 PSI (13 Bar)



Plain End - Series 82

Size Range	1" – 12"
Temperature	–40° F (–40° C) to 500° F (260°C)
Pressure Rating	Max working pressure of 150 PSI (10 Bar)
Body Style	Plain End matching Schedule 40/80 Pipe
Body Material	Carbon Steel, 316 Stainless Steel
Internal Material	Aluminum or 316 Stainless Steel
Seal Material	Buna-N, EPDM, Silicone or Viton
Optional Spring	316 Stainless Steel
Applications	Compressed Air and Gas Systems, Water Systems and Vacuum Pumps
Valves can be installed in a pipeline in any position	

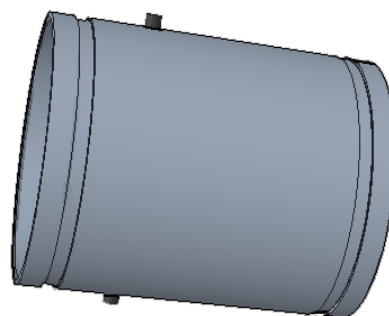
Cold Working Pressure (CWP) from –20° F (–28° C) to 100° F (37°C) can be up to 200 PSI (13 Bar)



Grooved End - Series 83

Size Range	1" – 12"
Temperature	–40° F (–40° C) to 500° F (260°C)
Pressure Rating	Max working pressure of 150 PSI (10 Bar)
Body Style	Grooved End ANSI/AWWA C-606
Body Material	Carbon Steel, 316 Stainless Steel
Internal Material	Aluminum or 316 Stainless Steel
Seal Material	Buna-N, EPDM, Silicone or Viton
Optional Spring	316 Stainless Steel
Applications	Compressed Air and Gas Systems, Water Systems and Vacuum Pumps
Valves can be installed in a pipeline in any position	

Cold Working Pressure (CWP) from –20° F (–28° C) to 100° F (37°C) can be up to 200 PSI (13 Bar)



Wafer Bar Style - Series 87

PDC's Wafer Bar Style Check Valve enables the ability to offer alternate material options like stainless steels, aluminum, brass, or others that originate in bar form.

Size Range	1" – 10"
Temperature	–40° F (–40° C) to 500° F (260°C)
Pressure Rating	Max working pressure of 150 PSI (10 Bar)
Body Style	Wafer Bar ANSI 150 lb or Custom
Body Material	Alternate Material Options
Internal Material	Aluminum or 316 Stainless Steel
Seal Material	Buna-N, EPDM, Silicone or Viton
Optional Spring	316 Stainless Steel
Applications	Compressed Air and Gas Systems, Water Systems and Vacuum Pumps

Valves can be installed in a pipeline in any position

Cold Working Pressure (CWP) from –20° F (–28° C) to 100° F (37°C) can be up to 200 PSI (13 Bar)



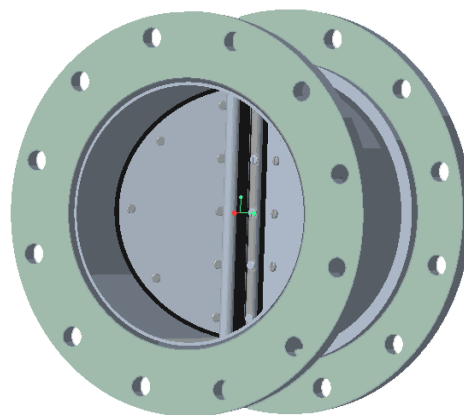
Flanged End - Series 84 Raised Face, Series 85 Flat Face

PDC has the ability to fabricated or cast Flanged End Check Valves.

Size Range	1" – 24"
Temperature	–40° F (–40° C) to 500° F (260°C)
Pressure Rating	Max working pressure of 150 PSI (10 Bar)
Body Style	Flanged Ends ANSI 150 lb
Body Material	Carbon Steel, 316 Stainless Steel
Internal Material	Aluminum or 316 Stainless Steel
Seal Material	Buna-N, EPDM, Silicone or Viton
Optional Spring	316 Stainless Steel
Applications	Compressed Air and Gas Systems, Water Systems and Vacuum Pumps

Valves can be installed in a pipeline in any position

Cold Working Pressure (CWP) from –20° F (–28° C) to 100° F (37°C) for 2" thru 14" valve sizes can be up to 200 PSI (13 Bar). Valve sizes 16" and larger CWP is 150 PSI (10 Bar).





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Quality Certification

PDC Valve is
ISO 9001:2015
certified!

AIS
Compliance

