



API 6D Swing Check Valve



QR code

KVS
KEYSTONE VALVE SUPPLY
U.S.A



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Introduction

GPI Swing Check Valves are designed for oil and natural gas industry or other critical service applications with operating pressure from 150 Class to 1500 Class.

All Swing Check Valves are API-6D latest edition monogrammed equipment and available in bore sizes ranging from 2" through 36".

Applications

GPI Swing check valves are commonly used to:

- Prevent backflow in pipelines
- Prevent leakage to the environment in the event of a pipeline rupture
- Protect the integrity of upstream equipment

Design Principle

GPI Swing Check Valves are primarily used in oil and gas pipelines to prevent backflow.

GPI Swing Check Valves can be utilized in surface and subsea manifold production systems, or where a pipeline requires isolation.

GPI Swing Check Valves are available in a wide range of materials to suit various pressures, temperatures, and service conditions.

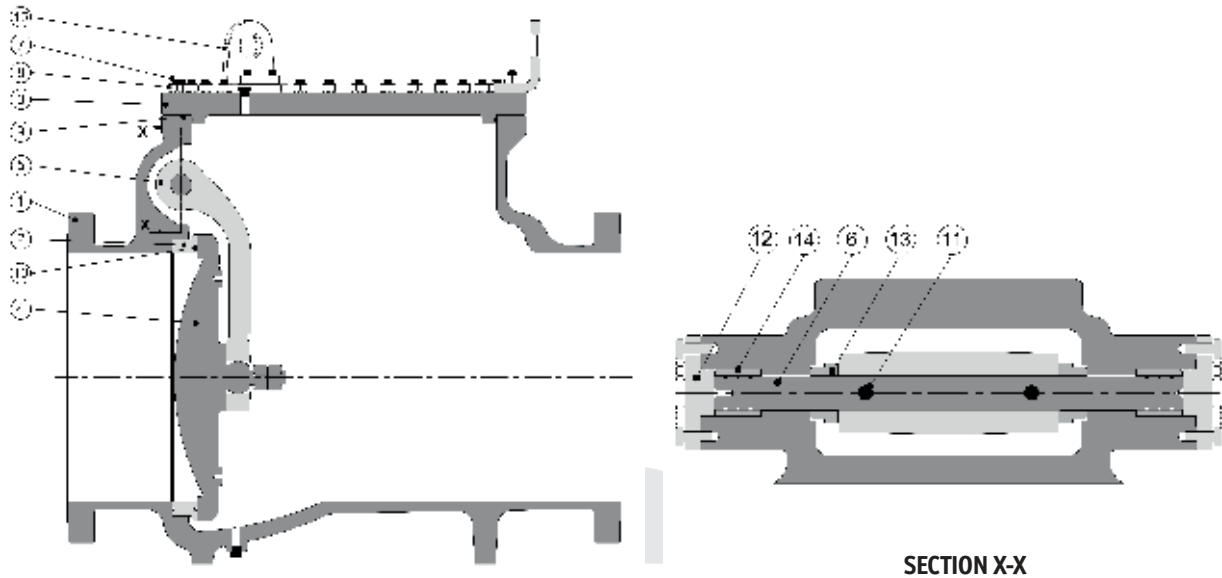
Standards and Specification

Basic Design	API 6D
Manufacturing	API 6D
Face to Face Dimension/End To End Dimension	API 6D / ASME B16.10
Flange End Dimension	ASME B16.5 (2" to 24")
	ASME B16.47 (26" and larger sizes)
Body Wall Thickness	ASME B16.34
Raised face Dimension	ASME B16.5
Inspection & Testing	API 6D / API 598
Fire Safe Design	API 6 FA
Design Standard	CE/PED (Module H)

Design Features

- Simplicity of valve installation is a key feature.
- **GPIL** Swing Check Valve is a one-piece body, top entry design for reliable operation and extended seat seal life. Top entry construction allows field service and inline maintenance if necessary.
- **GPIL** Swing Check Valves can be installed on off shore or on shore pipeline system on product or service lines wherever non-return protection is required.
- **GPIL** Swing Check Valves are full bore valves. The full bore as per API-6D assures unrestricted flow and allows pigging and hot tapping.
- **GPIL** Swing Check Valves are self-activating safety valves that permit gases and liquid to flow in only one direction preventing pressure flow from reversing which would damage equipment.
- These are classified as one way directional valves and don't require any outside power supply to operate, since they use the pressure drop created by the media flow.
- The Clapper is the only moving part which swings to allow flow. If the moment flow ceases the clapper returns to the closed position and creates an instant barrier to reverse the flow.
- The full bore design ensures low pressure drop across the valve and less turbulence than reduced bore valves.
- The Valves are supplied with raised face or ring type joint flanges. Flanges are back-faced to provide a smooth bolting surface to allow even bolt loading during installation in the pipeline.
- The Clapper is one piece cast design that is attached to the Valve Clapper Arm with secured and positively located fasteners.
- As a standard, to create a zero leakage seal, the Clapper contains an elastomer seal (upto 6" valve sizes) and the seat contains an elastomer seal (above 6" valve sizes).
- **GPIL** Swing Check Valves are manufactured and tested as per API 6D standards. Every valve receives a hydrostatic body shell test at 1.5 times its rated working pressure and a hydrostatic seat test at 1.1 times its rated working pressure. Additional pressure testing is available, including air and nitrogen testing.

Internal Configuration

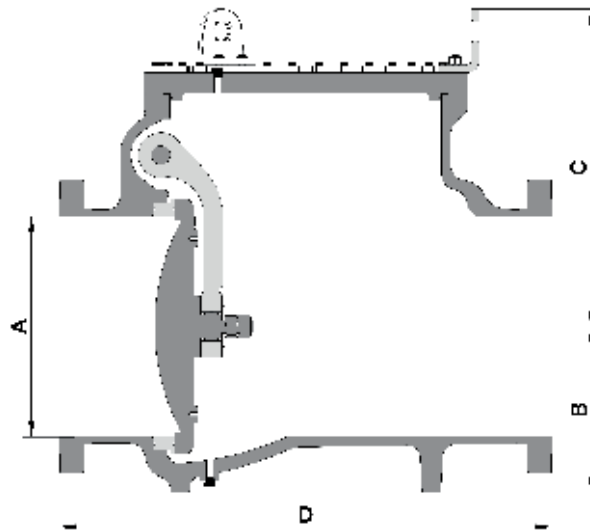


Part No.	Part Name	Qty.
1	Body	1
2	Seat Ring	1
3	Top Cover	1
4	Disc	1
5	Hinge	1
6	Hinge Pin	1
7	Top Cover Stud	Varies
8	Top Cover Nut	Varies
9	Gasket	1
10	O-Ring	1
11	Reamer Bolt	2
12	Side Cover	2
13	Spacer	2
14	Bush	2
15	Lifting Lug	Varies

Part No.	Part Name	Trim 1 -29°C to 200°C (NACE)	Trim 2 -46°C to 200°C (NACE)	Trim 3 -29°C to 200°C (Non - NACE)	Trim 4 -46°C to 200°C (Non - NACE)
1	Body	ASTM A216 WCC	ASTM A352 LCC	ASTM A216 WCC	ASTM A352 LCC
2	Seat Ring	ASTM A351 CF8M	ASTM A351 CF8M	ASTM A351 CF8M	ASTM A351 CF8M
3	Top Cover	ASTM A350 LF6 CL.2 / ASTM A216 WCC	ASTM A350 LF6 CL.2 / ASTM A352 LCC	ASTM A350 LF6 CL.2 / ASTM A216 WCC	ASTM A350 LF6 CL.2 / ASTM A352 LCC
4	Disc	ASTM A351 CF8M	ASTM A351 CF8M	ASTM A351 CF8M	ASTM A351 CF8M
5	Hinge	ASTM A216 WCC	ASTM A352 LCC	ASTM A216 WCC	ASTM A352 LCC
6	Hinge Pin	AISI 4130-60K	AISI 4130-60K	AISI 4130-60K	AISI 4130-60K
7	Top Cover Stud	ASTM A193 B7M ASTM A320 L7M	ASTM A320 L7M	ASTM A193 B7 ASTM A193 B7M ASTM A320 L7M	ASTM A193 L7 ASTM A320 L7M
8	Top Cover Nut	ASTM A194 2HM	ASTM A194 2HM	ASTM A194 2H ASTM A194 2HM	ASTM A194 2H ASTM A194 2HM
9	Gasket	SW 316 SS + Graphite	SW 316 SS + Graphite	SW 316 SS + Graphite	SW 316 SS + Graphite
10	O-Ring	Viton B	Viton GFLT	Viton B	Viton GFLT

Note - Alternate material can be made available as per customer requirement.

Dimensional Data



VALVE SIZE (IN)	PRESSURE CLASS	DIMENSIONS (IN)				VALVE SIZE (IN)	PRESSURE CLASS	DIMENSIONS (IN)			
		A (Min)	B (Approx.)	C (Approx.)	D (RF)			A (Min)	B (Approx.)	C (Approx.)	D (RF)
2	150	1.94	3	4.25	8	12	150	11.94	10	22	27.5
	300	1.94	3.25	4.25	10.5		300	11.94	10.75	22.5	28
	600	1.94	3.25	4.25	11.5		600	11.94	11.5	23.5	33
	900	1.94	4.25	7.25	14.5		900	11.94	12.25	24.25	38
	1500	1.94	4.25	5.31	14.5		150	15.19	13	23.25	34
3	150	2.94	3.75	5.31	9.5	16	300	15.19	13.5	24.5	34
	300	2.94	4.12	5.31	12.5		600	15.19	14.25	25	39
	600	2.94	4.12	5.31	14		900	14.69	15	25.75	44.5
	900	2.94	4.75	7.44	15		18	150	17.19	15.5	26.25
	1500	2.94	5.25	7.44	18.5	300		17.19	16	28.5	38.5
150	3.94	4.5	5.88	11.5	600	17.19		16.5	30.85	43	
4	300	3.94	5	5.88	14	20	900	16.69	17	31.5	48
	600	3.94	5.38	6.12	17		150	19.19	15.5	27.25	38.5
	900	3.94	5.75	8.19	18		300	19.19	16.5	29.5	40
	1500	3.94	6.12	8.31	21.5	600	19.19	17.5	31.5	47	
	6	150	5.94	5.5	8	14	22	900	18.56	18.5	33.5
300		5.94	6.25	8.62	17.5	150		21.19	17.75	30	42
600		5.94	7	9	22	300		21.19	18	34	44
900		5.94	7.5	9.25	24	600		21.19	18.5	38.25	51
1500		5.69	7.75	9.5	27.75	24	150	23.19	17.25	34.5	51
8	150	7.94	7.25	14.37	19.5		300	23.19	19.25	36	53
	300	7.94	8	14.75	21		600	23.19	20.5	38.75	55
	600	7.94	8.88	15.15	26	36	150	34.44	26	49.75	77
	900	7.94	9.5	16.75	29		300	34.44	27.25	52.5	82
	1500	7.56	10.25	18	32.75		600	34.44	28.5	55	82
10	150	9.94	9	17.75	24.5						
	300	9.94	9.5	18.75	24.5						
	600	9.94	10.75	19.75	31						
	900	9.94	11.25	20.75	33						
	1500	9.44	11.75	21.75	39						

Note - Configurations, Sizes and pressure class not given in above table will be made available upon customer requirement.



Limited Product Warranty

All products manufactured or sold by **GPIL** are warranted against defects of material and workmanship for a period of twelve (12) months from the date of installation or eighteen (18) months from date of shipment. Whichever period first expires, when all such products are used in the service and within the pressure range for which they were manufactured.

In the case of products or parts not wholly of **GPIL's** manufacture, **GPIL's** liability shall be limited to the extent of **GPIL's** recovery from the original manufacturer of such products or parts under its warranty or liability to **GPIL**.

Any repair work performed by **GPIL** or service location is warranted for one year from completion of such repairs and applies only to work performed. If, within these specified periods, **GPIL** receives notice from Buyer of any alleged defect in or non-conformance of any product or repair and if in **GPIL's** sole judgment the product or repair does not conform or is found to be defective in material or workmanship, then, Buyer shall, at **GPIL's** request, return the part or product F.O.B. to **GPIL's** designated plant or service location.

GPIL has no liability for removal or reinstallation of products or equipment. **GPIL**, at its option and expense, shall repair or replace the defective part or product, or repay to Buyer the full price paid by Buyer for such defective part, repair or product. Any repayment of purchase price shall be without interest.

GPIL's warranty liability, including defects caused by **GPIL's** negligence, shall be limited to such repair, replacement or refund, and shall not include claims for labour costs, expenses of Buyer resulting from such defects, recovery under general tort law or strict liability or for damages resulting from delays, loss of use, or other direct, indirect, incidental or consequential damages of any kind.

GPIL will not be responsible for failures of products which have been in any way tampered with or altered by anyone other than an authorized representative of **GPIL**, failures due to lack of compliance with recommended maintenance procedures or products which have been repaired or altered in such a way (in **GPIL's** judgment) as to affect the products adversely.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, STATUTORY OR IMPLIED, INCLUDING THE WARRANTY OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE WHICH EXCEED THE FOREGOING WARRANTY.

This warranty and the rights and obligations there under shall be construed and governed by the laws of India for the time being in force and any disputes under this shall be subject to the courts at Kolhapur.

If you have questions regarding this warranty or if you would like information about other **GPIL** products and services please contact us at the phone numbers listed below.

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