API Design Swing and Piston Check Valves - SERIES 39

Check Valves are self acted by the media pressure and are devised to prevent the flow return to the pressurized side of the system. Piston Check Valves provide a larger pressure drop in the pipe line, this design permits a faster closure reaction and more tightness. Swing Check Valves are provided with a bolted disc that opens by the medium pressure and closes against a vertical seat when the system pressure is off and there is a back flow. Piston Check Valves are provided with a guided piston which is loaded by a spring and closes the disc against a horizontal valve seat.

Body to cover joint design to apply a uniform load to the gasket		
(Swing Disc) Disc hold by bolted arm		(Piston Type) spring loaded to allow installa- tion on vertical lines
(Swing Disc) Vertical seat, avoids trapping of media particles		
(Swing Disc), Full Bore, low presure drop		
(Piston assure	Type) Guided piston to a correct seal	

API 602 / ASME B.16.34 design* Self Acting Non return valves * Closure element by bolted arm or guided piston* Uni-directional design (observe arrow direction when installing)* Standard Design Pressure Range: ANSI Class 800* Standard Size range ½" to 2"* Design Temperature Range: up to 425°C (observe pressure / Temperature relation chart to ANSI B.16.34) * face to face length ANSI B.16.34 * Ends: ANSI B.16.25 and BW ANSI B.16.11 SW and Threaded NPT standard * Inspection and Test standards API 598



Main Parts and Materials

N°	PART	MATERIALES
1	BODY	ASTM A105N
2	SEAT	(SEE TRIM CHART)
3	DISC	(SEE TRIM CHART)
4	SPRING (PISTON TYPE)	AISI 302
5	UNION GASKET	SPIRAL WOUND ST. STEEL
6	COVER	ASTM A105N

Fig. 39A0	Disc	Seat
TRIM #1	A216WCB+13Cr	A105+13Cr
TRIM #5	A216WCB+HF	A105+HF
TRIM #8	A216WCB+13Cr	A105+HF

* HF = Material endurecido / Hard faced

Main Valve Dimensions (mm)

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inch	mm	-		Øu	ØA	
1⁄2"	15	79	61	9	22,2	9,6
3⁄4"	20	92	61	12	27,7	12,7
1"	25	111	78	17,5	34,5	12,7
11⁄4"	32	120	84	22,5	43,2	12,7
11⁄2"	40	120	101	29,5	49,1	12,7
2"	50	140	120	35	61,1	15,9

Options

Special Alloy valves * Pressure Seal for high pressure service*

Main Duties

Process*Saturated Steam (Trim #5) *Oil products*

API Design Swing Check Valves - SERIES 3S

Check Valves are self acted by the media pressure and are devised to prevent the flow return to the pressurized side of the system. Swing Check Valves are provided with a bolted disc that opens by the medium pressure and closes against a vertical seat when the system pressure is off and there is a back flow. Swing Check Valves are featured by its rugged design, simple design and easy maintenance.



API 6D/ASME B16.34 Design Self Acting Non return valves * Closure element by bolted arm * Uni-directional design (observe arrow direction when installing)* Standard Design Pressure Range: ANSI Class 150#, 300# (others on request: 600#, 900#, 1500#, 2500#)* Standard Size range 2" – 36"* Design Temperature Range: 450°C (observe pressure / Temperature relation chart to ANSI B.16.34) * face to face length ANSI B.16.10 * Ends: Flanged to ANSI B.16.5, RF & RTJ finishing, / BW ends to ANSI B.16.25 and SW to ANSI B.16.11 standard * Inspection and Test standards API 598



Main Parts and Materials

N°	PART	MATERIALES
1	BODY	ASTM A216 WCB
2	SEAT	(SEE TRIM CHART)
3	DISC	(SEE TRIM CHART)
4	ARM	STEEL
5	UNION GASKET	SPIRAL WOUND ST. STEEL
6	COVER	ASTM A216 WCB

(Standard Materials, other material are provided on request)

Fig.3SA0	Disc	Seat
TRIM #1	F6A	A276-410
TRIM #5	F6A+HF	A276-410+HF
TRIM #8	F6A	A276-410+HF

* HF = Material endurecido / Hard faced

Main Valve Dimensions (mm)

	DN	50	65	80	100	125	150	200	250	300
L (RF) (150#)		203	216	241	292	330	356	495	622	699
L (RF) (300#)		267	292	318	356	400	445	533	622	711
H (150#)		132	147	176	198	255	320	380	440	480
H (300#)		144	169	210	260	295	326	380	440	520
K (150#)		120	140	152	191	216	241	298	362	432
nxød (150#)		4x19	4x19	4x19	8x19	8x22	8x22	8x22	12x25	12x25
K (300#)		127	149	168	200	235	270	330	387	451
nxød (300#)		8x19	8x22	8x22	8x22	8x22	12x22	12x25	16x29	16x32

Options

Main Duties

Diverse materials of construction and Trim combinations * Special designs*

Process*Saturated Steam (Trim #5) *Oil products*