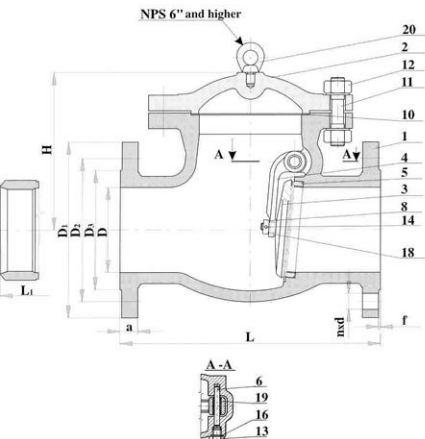


# Swing check valve

C 09 408 (PN 100)

CLASS 600



## Application

Swing check valves with flanged and butt-weld ends are pipeline valves designed to automatically prevent reverse flow of medium. They are used for: non-aggressive liquids, water, steam, oil, crude oil and oil products. Operating parameters meet requirements of ASME/ANSI B 16.34 standard. Application for other operating liquids must be discussed with the manufacturer. Ambient temperature is from -13°F to +122°F (-25°C do +50°C).

Characteristics of working conditions for materials:

Pressure-temperature ratings are according to ANSI / ASME B 16.34

## Technical description

Swing check valves with flanged or butt-weld ends, full bore, consist of a body, cover, disc and arm. Seat is screwed or welded into body. Disc bears on seat sealing surface and is carried in an arm revolving on a special hinge pin. Connecting flanges for the flanged type are integral part of body casting.

## Face-to-face dimensions:

Main and connection dimensions of a standard design are given in the table. Face-to-face dimensions and other dimensions meet ANSI B 16.10 standard, flange connecting dimensions correspond to ANSI B 16.5 standard. Butt-weld ends are as per ASME B 16.25.

## Materials:

Swing check valves are manufactured from the following materials - ASTM A 216 WCB, ASTM A 352 LCC, ASTM A 352 LCB, ASTM A 217 WC6, ASTM A 217 C5, ASTM A 217 C12.

Body materials can be supplied according to customer's requirements.

## Testing

Swing check valves are pressure tested according to API 598 for: strength and tightness, sealing tightness by low pressure (based on customer's order), sealing tightness by high pressure.

## Installation

Swing check valves can be installed either into horizontal or vertical pipeline. In vertical pipeline disc must be in upper position and flow direction must be upwards.

## Order specification:

Specifications necessary for order: type number, nominal diameter, pressure class, connection type, wedge type, control, body and bonnet material, trim, operating parameters, tests, accompanying documentations.

## CLASS 600

NPS	D	D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>	L=L <sub>1</sub>	a	f	n	d	H	kg
2"	51	165	127	92	292	33	7	8	19	195	28
2.5"	64	191	149	105	330	36	7	8	22	215	45
3"	76	210	168,5	127	356	39	7	8	22	240	49
4"	102	273	216	157	432	46	7	8	25	275	94,5
6"	152	356	292,1	216	559	55	7	12	28	310	240
8"	200	419	349,3	270	660	63	7	12	32	370	337
10"	248	508	431,8	324	787	71	7	16	35	426	588
12"	298	559	489	381	838	74	7	20	35	505	748
14"	327	604	527	413	889	77	7	20	38	560	913
16"	375	686	603	470	991	84	7	20	41	650	1025

**Basic standards for design**

Basic design	ASME B 16.34
Face-to face dimensions	ASME B 16.10
Flange dimensions	ASME B 16.5
Ends dimensions	ASME B 16.25
Testing	API 598
Pressure-temperature ratings	ASME B 16.34

**Gasket materials**

No.	Name	Class	Body material:				
			WCB	LCC	WC6	C5	C12
		150, 300	Spiral wound graphite gasket				
10	Cover sealing	600	RTJ rings				
			Soft low carbon steel		AISI 321		
16	Plug sealing	150- 600	AISI 316, AISI 321				

**TRIM - materials according to API 600**

No.	Name	TRIM Nr.				
		1	5	8	11	12
3a	Disc sealing surface	13 Cr overlay	Stellite 6	13 Cr overlay	Monel overlay	316 overlay
5a	Seat sealing surface	13 Cr overlay	Stellite 6	Stellite 6	Stellite 6	Stellite 6
6	Pin	A 182 F6a	A 182 F6a	A 182 F6a	Monel	A 182 F 316

**Standard material specification (\* )**

No.	Name	WCB	LCC	WC6	C5	C12
Trim No.		1, 5, 8, 11, 12	12	5	5	5
1	Body	A 216 WCB	A 352 LCC	A 217 WC6	A 217 C5	A 217 C12
2	Cover	A 216 WCB	A 352 LCC	A 217 WC6	A 217 C5	A 217 C12
3	Disc	A 276 410 T A 216 WCB +overlay A 182 F 316 A 105 + overlay	A 182 F 316 A 352 LCC + overlay	A 182 F9 + overlay A 217 WC6 + overlay	A 182 F9 + overlay A 217 C5 + overlay	A 182 F9 + overlay A 217 C12 + overlay
4	Arm	A 216 WCB	A 352 LCC	A 217 WC6	A 217 C5	A 217 C12
5	Seat	A 106 B + overlay	A 350 LF2 mod. + overlay	A 182 F5 + overlay	A 182 F5 + overlay	A 182 F5 + overlay
8	Nuts	AISI 316				
11	Bolts	A 193 B7 A 193 B7M	A 320 L7M	A 193 B7	A 193 B7	A 193 B7
12	Nuts	A 194 2H A 194 2HM	A 194 7M	A 194 2H	A 194 2H	A 194 2H
13	Plug	AISI 1035 A 276 430	A 276 430	A 276 430	A 276 430	A 276 430
14	Pin	AISI 304				
18,1 9	Arm sleeve	0,5 % C – 15 % Cr [ČSN 41 7029 ]				
17	Name plate	AISI 304				
20		carbon steel A 105				

(\* ) - Body material according to customer's requirements.

Change of technical data and drawings reserved.