MSA

CATALOGUE OF VALVES


3102

Contents

Ball valves

K 83 TW	fully welded body ball valves made of forged steel	4
K 83 TB	bolted body ball valves made of forged steel	6
K 89	metal seated ball valves	8
K 88	cryogenic ball valves	10

Valves according to API standards

C 09.2	cast steel gate valves	12
C 09.2	cryogenic gate valves	14
C 09.1	cast steel globe valves	16
C 09	cast steel swing check valves	18
C 09.4	cast steel swing check valves according to API 6D	20

Valves according to DIN and ČSN standards

S 38	cast steel gate valves	22
S 42	high-pressure gate valves with pressure-seal bonnet	24
S 85.1	cast steel slab gate valves	26
S 85.2	welded body slab gate valves	28
L 10 127	forged steel swing check valves	30

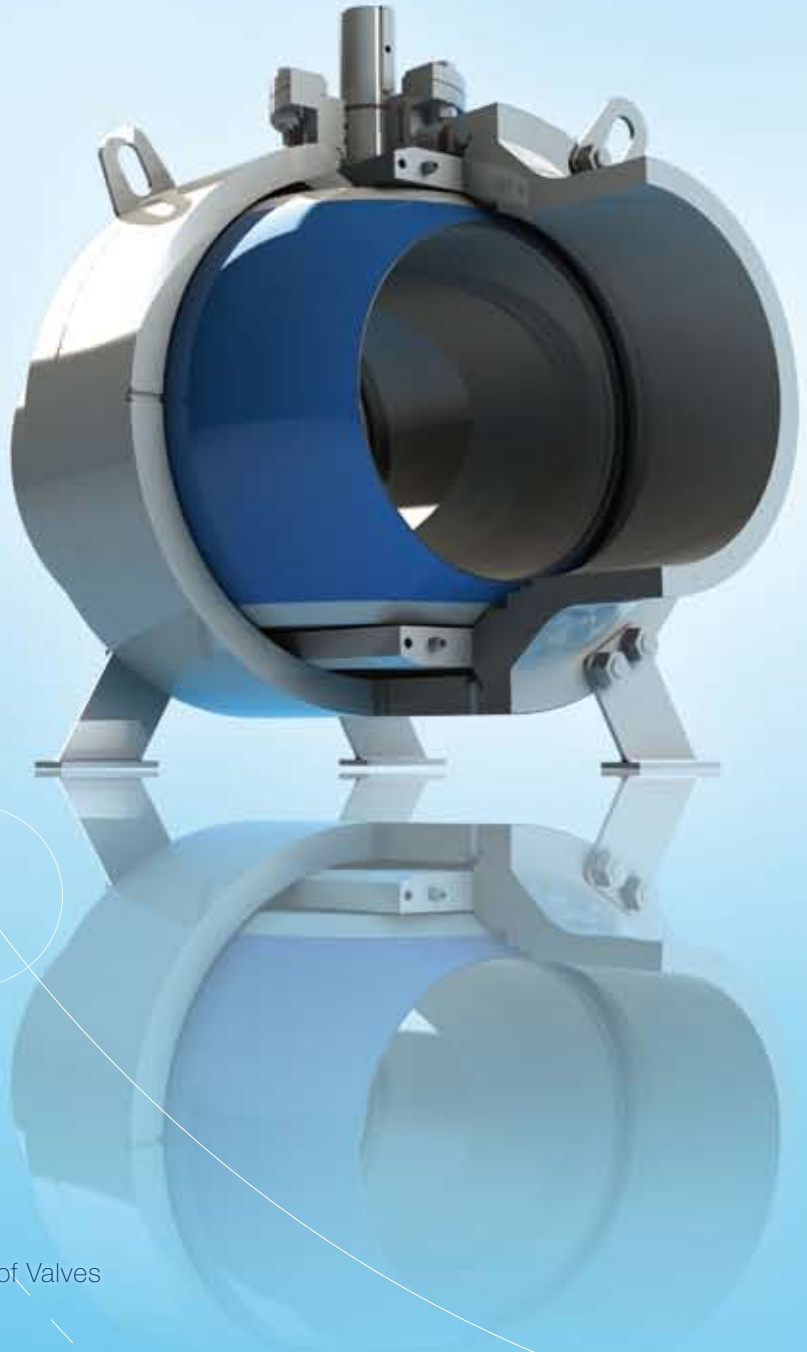
Valves for nuclear power plants

A 00	gate valves	32
A 01	quick-acting gate valves with electrical actuator	34
A 01	quick-acting gate valves with pneumatic actuator	36
A 10, A 11	bellows-type globe valves, regulating bellows-type gate valves	38
A 49	regulating butterfly valves	40
A 41	non-slam swing check valves	42
A 42	swing check valves with remote indication of stop device position	44
C 23	swing check valves	46
A 44	swing check valves with pressure seal bonnet	48

Ball valves

K 83 TW

fully welded body ball valves
made of forged steel



Basic technical data:

- gas, petroleum, acid working medium, water
- flanged or welded connection
- range of working temperatures from –60 °C to +200 °C
- CLASS 150–1500, NPS 2”–56”

Description:

Ball valve body is made of three forgings that are mutually welded. Seat thrust to a ball is created by cylindrical pressing springs at low pressure and it is increased by working medium pressure in pipeline at high pressure. The ball valves are supplied in BB design (Block and Bleed) or DBB design (Double Block and Bleed) that means it is possible to empty a body cavity in fully closed or open positions.

Operation:

- without control
- hand wheel
- electrical actuator
- hydro-pneumatic actuator
- electro-hydraulic actuator
- pneumatic actuator
- hydraulic actuator

Production range:

CLASS PN		150 16, 25		300 40, 50		400 63		600 100		900 160		1500 250	
NPS	DN	BW	FL	BW	FL	BW	FL	BW	FL	BW	FL	BW	FL
2	50	■	■	■	■	■	■	■	■	■	■	■	■
3	80	■	■	■	■	■	■	■	■	■	■	■	■
4	100	■	■	■	■	■	■	■	■	■	■	■	■
6	150	■	■	■	■	■	■	■	■	■	■	■	■
8	200	■	■	■	■	■	■	■	■	■	■	■	■
10	250	■	■	■	■	■	■	■	■	■	■	■	■
12	300	■	■	■	■	■	■	■	■	■	■	■	■
14	350	■	■	■	■	■	■	■	■	■	■	■	■
16	400	■	■	■	■	■	■	■	■	■	■	■	■
18	450	■	■	■	■	■	■	■	■	■	■	■	■
20	500	■	■	■	■	■	■	■	■	■	■	■	■
22	550	■	■	■	■	■	■	■	■	■	■	■	■
24	600	■	■	■	■	■	■	■	■	■	■	■	■
26	650	■	■	■	■	■	■	■	■	■	■		
28	700	■	■	■	■	■	■	■	■	■	■		
30	750	■	■	■	■	■	■	■	■	■	■		
32	800	■	■	■	■	■	■	■	■	■	■		
34	850	■	■	■	■	■	■	■	■	■	■		
36	900	■	■	■	■	■	■	■	■	■	■		
40	1000	■	■	■	■	■	■	■	■	■	■		
42	1050	■	■	■	■	■	■	■	■	■	■		
44	1100	■	■	■	■	■	■	■	■	■	■		
48	1200	■	■	■	■	■	■	■	■	■	■		
56	1400	■	■	■	■	■	■	■	■				

BW – butt welded ends, FL – flanged ends

Ball valves

K 83 TB

bolted body ball valves
made of forged steel

Basic technical data:

- gas, petroleum, acid working medium, water
- flanged or welded connection
- range of working temperatures from –60 °C to +200 °C
- CLASS 150–1500, NPS 2”–56”

Description:

Ball valve body is made of three forgings that are mutually joined with bolts. Seat thrust to a ball is created by cylindrical pressing springs at low pressure and it is increased by working medium pressure in pipeline at high pressure. The ball valves are delivered in BB design (Block and Bleed) or DBB design (Double Block and Bleed) that means it is possible to empty a body cavity in fully closed or open position.

Operation:

- without control
- hand wheel
- electrical actuator
- hydro-pneumatic actuator
- electro-hydraulic actuator
- pneumatic actuator
- hydraulic actuator

Production range:

CLASS PN		150 16, 25		300 40, 50		400 63		600 100		900 160		1500 250	
NPS	DN	BW	FL	BW	FL	BW	FL	BW	FL	BW	FL	BW	FL
2	50	■	■	■	■	■	■	■	■	■	■	■	■
3	80	■	■	■	■	■	■	■	■	■	■	■	■
4	100	■	■	■	■	■	■	■	■	■	■	■	■
6	150	■	■	■	■	■	■	■	■	■	■	■	■
8	200	■	■	■	■	■	■	■	■	■	■	■	■
10	250	■	■	■	■	■	■	■	■	■	■	■	■
12	300	■	■	■	■	■	■	■	■	■	■	■	■
14	350	■	■	■	■	■	■	■	■	■	■	■	■
16	400	■	■	■	■	■	■	■	■	■	■	■	■
18	450	■	■	■	■	■	■	■	■	■	■	■	■
20	500	■	■	■	■	■	■	■	■	■	■	■	■
22	550	■	■	■	■	■	■	■	■	■	■	■	■
24	600	■	■	■	■	■	■	■	■	■	■	■	■
26	650	■	■	■	■	■	■	■	■	■	■		
28	700	■	■	■	■	■	■	■	■	■	■		
30	750	■	■	■	■	■	■	■	■	■	■		
32	800	■	■	■	■	■	■	■	■	■	■		
34	850	■	■	■	■	■	■	■	■	■	■		
36	900	■	■	■	■	■	■	■	■	■	■		
40	1000	■	■	■	■	■	■	■	■	■	■		
42	1050	■	■	■	■	■	■	■	■	■	■		
44	1100	■	■	■	■	■	■	■	■	■	■		
48	1200	■	■	■	■	■	■	■	■	■			
56	1400	■	■	■	■	■	■	■	■				

BW – butt welded ends, FL – flanged ends

Ball valves

K 89

metal seated ball valves

Basic technical data:

- media with high temperatures and abrasive media
- flanged or welded connection
- range of working temperatures from –50 °C to +550 °C
- CLASS 150–600, NPS 2”–20”

Description:

Ball valve body is made of three forgings that are mutually joined with bolts. Ball valve is applied for full opening or closing of working medium flow. Metal seated ball valve is equipped with an anti-blow stem and antistatic device. It has got a stem extension that decreases the temperature affecting an actuator. Special “O” rings are substituted with graphite glands at the temperatures above +260 °C. Based on required operating temperature a ceramic layer of seats is chosen and ball is coated with high-speed hot spraying HVOF in accordance with required working temperature. Ball valve is also equipped with drainage and venting ended with a small ball valve or gate valve, outlet of which is located in a distance from external ball valve shell with respect to ball valve insulation expected according to the working temperature.

Operation:

- hand wheel with gear box
- electrical actuator
- pneumatic actuator

Production range:

CLASS PN		150 16, 25		300 40, 50		400 63		600 100	
NPS	DN	BW	FL	BW	FL	BW	FL	BW	FL
2	50								
3	80								
4	100								
6	150								
8	200								
10	250								
12	300								
14	350								
16	400								
18	450								
20	500								

BW – butt welded ends, FL – flanged ends

Ball valves

K 88

cryogenic ball valves

Basic technical data:

- liquefied gas media
- flanged or welded connection
- range of working temperatures from –50 °C to -196 °C
- CLASS 150–900, NPS 2”–30”

Description:

Ball valve is used for full opening or closing of working medium flow. Cryogenic ball valve body is made from three forgings joined mutually with bolts. The ball valves meet standard requirements for automatic pressure release from body cavity and they are equipped with anti-blow stem and antistatic device. It has an extension piece that is designed as a pressure vessel with high ability to carry heat away, the extension piece has got a collar welded on its upper part. Inner extension piece of stem is supported on sliding and guiding cases, its sealing is performed in upper part of controlling pin.

Operation:

- hand wheel with gear box
- electrical actuator
- pneumatic actuator

Production range:

CLASS PN		150 16, 25		300 40, 50		400 63		600 100		900 160	
NPS	DN	BW	FL	BW	FL	BW	FL	BW	FL	BW	FL
2	50										
3	80										
4	100										
6	150										
8	200										
10	250										
12	300										
14	350										
16	400										
18	450										
20	500										
22	550										
24	600										
26	650										
28	700										
30	750										

BW – butt welded ends, FL – flanged ends

Valves according to API standards

C 09.2

cast steel gate valves

Basic technical data:

- water, saturated steam, air, oil, crude petroleum and petroleum products, nonaggressive fluids
- flanged or welded connection
- range of working temperatures from –60 °C to +650 °C
- CLASS 150–1500, NPS 2”–56”

Description:

Gate valve is a yoke type with butt-weld or flanged ends, with unreduced flow and flexible wedge. Body, bonnet and yoke are cast; a wedge can be forged or cast. Seats are welded in gate valve body and hard alloy overlays are applied on seat sealing surface. Gate valve is equipped with a rising non-turning stem and bolted body-bonnet joint.

Operation:

- hand wheel
- hand wheel with gear box
- electrical actuator

Production range:

CLASS	150		300		600		900		1500	
NPS	BW	FL	BW	FL	BW	FL	BW	FL	BW	FL
2	■	■	■	■	■	■	■	■	■	■
2,5	■	■	■	■	■	■				
3	■	■	■	■	■	■	■	■	■	■
4	■	■	■	■	■	■	■	■	■	■
6	■	■	■	■	■	■	■	■	■	■
8	■	■	■	■	■	■	■	■		■
10	■	■	■	■	■	■		■		■
12	■	■	■	■	■	■		■		■
14	■	■	■	■	■	■				
16	■	■	■	■	■	■				
18	■	■	■	■		■				
20	■	■	■	■	■	■				
24	■	■	■	■	■	■				
28	■	■								
30	■	■	■	■						
32		■								
36		■		■						
40		■								
42		■								
48		■								
54		■								
56		■								

BW – butt welded ends, FL – flanged ends

Valves according to API standards

C 09.2

cryogenic gate valves

Basic technical data:

- liquefied gas and liquefied LNG
- flanged or welded connection
- range of working temperatures from –196 °C to +538 °C
- CLASS 150–1500, NPS 2”–12”

Description:

Gate valve is a one-way, yoke type with extension pieces with butt-weld or flanged ends, with unreduced flow. A body and yoke bonnet is cast, an extension piece is welded, and a wedge can be forged or cast. Seats are welded in gate valve body and may be supplied with overlay. Gate valve is equipped with a non-turning stem and bolted body-bonnet joint.

Operation:

- hand wheel
- hand wheel with gearing
- electrical actuator

Production range:

CLASS	150		300		600		900		1500	
NPS	BW	FL	BW	FL	BW	FL	BW	FL	BW	FL
2	■	■	■	■	■	■	■	■	■	■
2,5	■	■	■	■	■	■				
3	■	■	■	■	■	■	■	■	■	■
4	■	■	■	■	■	■	■	■	■	■
6	■	■	■	■	■	■	■	■	■	■
8	■	■	■	■						
10	■	■	■	■						
12	■	■								

BW – butt welded ends, FL – flanged ends

Valves according to API standards

C 09.1

cast steel globe valves

Basic technical data:

- water, saturated steam, oil, crude petroleum and petroleum products, nonaggressive fluids
- flanged or welded connection
- range of working temperatures from –60 °C to +650 °C
- CLASS 150–600, NPS 2”–14”

Description:

Valve body is made of cast steel with flanged or butt-weld ends. A stem with external threads is either rising turning or rising non-turning. A stem nut is supported in a head of yoke bonnet tightly or on rolling bearings.

Operation:

- hand wheel
- hand wheel with gearing
- electrical actuator

Production range:

NPS	CLASS					
	150		300		600	
	BW	FL	BW	FL	BW	FL
2	■	■	■	■	■	■
2,5		■		■		■
3	■	■	■	■	■	■
4	■	■	■	■	■	■
6	■	■	■	■	■	■
8	■	■	■	■		■
10	■	■		■		
12	■	■		■		
14		■				

BW – butt welded ends, FL – flanged ends

Valves according to API standards

C 09

cast steel swing check valves

Basic technical data:

- water, steam, oil, crude petroleum and petroleum products, nonaggressive fluids
- flanged or welded connection
- range of working temperatures from –46 °C to +650 °C
- CLASS 150–600, NPS 2”–24”

Description:

Swing check valve body is made of cast steel with flanged or butt-welded ends. A seat is welded in the body; a plate is supported in an arm turning in a special suspension.

Production range:

NPS	CLASS					
	150		300		600	
	BW	FL	BW	FL	BW	FL
2						
2,5						
3						
4						
6						
8						
10						
12						
14						
16						
18						
20						
24						

BW – butt welded ends, FL – flanged ends

Valves according to API standards

C 09.4

cast steel swing check valves
according to API 6D

Basic technical data:

- water, steam, oil, crude petroleum and petroleum products, nonaggressive fluids
- flanged connection
- range of working temperatures from –46 °C to +650 °C
- CLASS 150–1500, NPS 2”–12”

Description:

Swing check valve body is made of cast steel with flanged ends. A seat is screwed or welded in the body, or it is integrated into the body, a disc is supported in an arm turning in the special suspension. Flanges are integral parts of valve body.

Production range:

	CLASS				
	150	300	600	900	1500
NPS	FL	FL	FL	FL	FL
2					
3					
4					
6					
8					
10					
12					

FL – flanged ends

Valves according to DIN and ČSN standards

S 38

cast steel gate valves

Basic technical data:

- water, steam, air, oil, petroleum and petroleum products, nonaggressive fluids
- flanged or welded connection
- range of working temperatures from –60 °C to +550 °C
- PN 16–100, DN 50–1000

Description:

Gate valve body is made of cast steel with flanged or butt-welded ends. A body-bonnet joint is flanged.

Operation:

- hand wheel with gearing
- electrical actuator
- remote control

Production range:

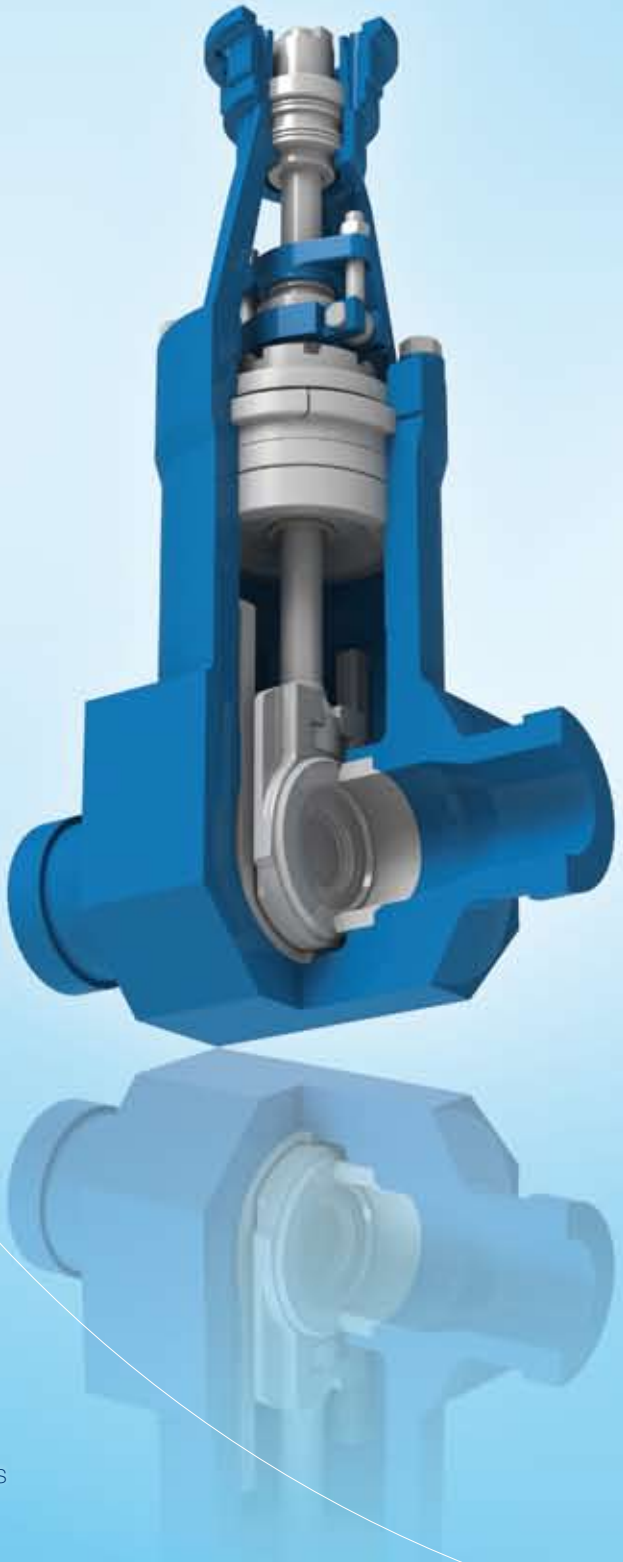
DN	PN									
	16		25		40		63		100	
	BW	FL	BW	FL	BW	FL	BW	FL	BW	FL
50	■	■	■	■	■	■	■	■	■	■
65	■	■	■	■	■	■	■	■	■	■
80	■	■	■	■	■	■	■	■	■	■
100	■	■	■	■	■	■	■	■	■	■
125	■	■	■	■	■	■	■	■	■	■
150	■	■	■	■	■	■	■	■	■	■
200	■	■	■	■	■	■	■	■	■	■
250	■	■	■	■	■	■	■	■	■	■
300	■	■	■	■	■	■	■	■	■	■
350	■	■	■	■	■	■	■	■	■	■
400	■	■	■	■	■	■	■	■	■	■
450	■		■							
500	■	■	■	■	■	■	■	■	■	
600	■	■	■	■		■	■			
700	■	■		■	■	■	■			
800		■		■	■		■			
1000		■								

BW – butt welded ends, FL – flanged ends

Valves according to DIN and ČSN standards

S 42

high-pressure gate valves
with pressure-seal bonnet



Basic technical data:

- water, steam, air, nonaggressive fluids
- flanged or welded connection
- range of working temperatures from –20 °C to +575 °C
- PN 160–400, DN 65/50–400/300

Description:

Gate valve body is made of welded forged pieces. Gate valve wedge is flexible. Body cavity is sealed with pressure-seal bonnet with a graphite ring. The pressure of working medium acting on the bonnet is used for sealing.

Operation:

- hand wheel
- electrical actuator
- remote control

Production range:

DN	PN							
	160		250		320		400	
	BW	FL	BW	FL	BW	FL	BW	FL
65/50	■	■	■	■	■	■	■	■
80/75	■	■	■	■	■	■	■	■
100/75	■	■	■	■	■	■	■	■
125/110	■	■	■	■	■	■	■	■
150/110	■	■	■	■	■	■	■	■
175/150	■	■	■	■	■	■	■	■
200/150	■	■	■	■	■	■	■	■
250/200	■	■	■	■	■	■	■	
250/225	■	■	■	■	■	■	■	
275/225	■	■	■	■	■		■	
300/225	■	■	■		■		■	
350/275	■		■		■		■	
400/300	■		■		■		■	

BW – butt welded ends, FL – flanged ends

Valves according to DIN and ČSN standards

S 85.1

cast steel slab gate valves

Basic technical data:

- petroleum and petroleum products
- flanged or welded connection
- range of working temperatures from –60 °C to +50 °C
- PN 16–160, DN 300–1200

Description:

The whole body is welded from castings of a bottom, body and pup pieces that are made of wrought material. A closing device is a parallel slab with flow opening in upper part.

Operation:

- electrical actuator with gearing
- combination of electric actuator with emergency pneumatic actuator

Production range:

CLASS PN		150 16, 25		300 40, 50		400 63		600 80, 100		900 125, 160	
NPS	DN	BW	FL	BW	FL	BW	FL	BW	FL	BW	FL
12	300										
16	400										
20	500										
24	600										
28	700										
32	800										
40	1000										
42	1050										
48	1200										

BW – butt welded ends, FL – flanged ends

Valves according to DIN and ČSN standards

S 85.2

welded body slab gate valves

Basic technical data:

- petroleum and petroleum products
- flanged or welded connection
- range of working temperatures from –60 °C to +80 °C
- CLASS 150–300, NPS 12”–48”

Description:

Gate valve is welded from steel metal sheets and is manufactured with butt-weld or flanged ends. A stem with external thread is turning, rising. Closing device is a parallel slab with flow opening in upper part or in lower part according to the customer’s requirements.

Operation:

- hand wheel with gearing
- electrical actuator with gearing

Production range:

CLASS		150		300	
NPS		BW	FL	BW	FL
12	300				
16	400				
20	500				
24	600				
28	700				
32	800				
40	1000				
42	1050				
48	1200				

BW – butt welded ends, FL – flanged ends

Valves according to DIN and ČSN standards

L 10 127

forged steel swing check valves

Basic technical data:

- water, steam, air, nonaggressive fluids
- welded connection
- range of working temperatures from –20 °C to +575 °C
- PN 160–400, DN 65/50–300/225

Description:

Swing check valve body is made of forged steel with butt-weld ends. Swing check valve disc is hung in special turning pin; seat is welded in body. Sealing of bonnet joint is provided with spiral graphite packing.

Production range:

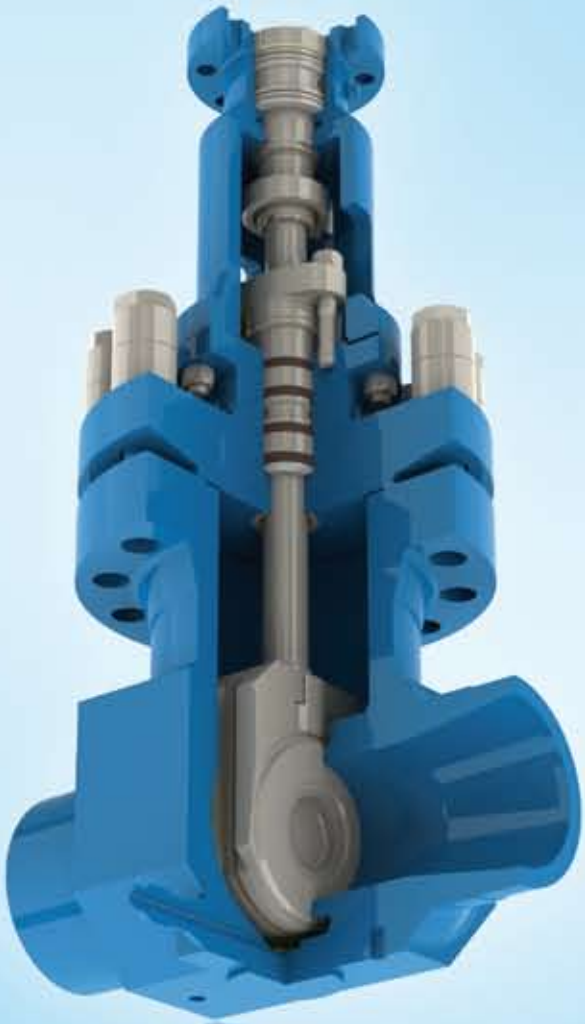
DN	PN			
	160	250	320	400
	BW	BW	BW	BW
65/50				
80/75				
100/75				
125/40				
150/110				
200/150				
250/200				
300/225				

BW – butt welded ends

Valves for nuclear power plants

A 00

gate valves



Basic technical data:

- water, steam, air, gas, oil, nonaggressive fluids
- welded connection
- for working temperatures up to +350 °C
- working pressure up to 20,0 MPa
- range of type dimensions DN 50–800
- material – carbon steel
  – austenitic steel

Description:

Gate valve body is made of forged steel with butt-weld ends. A body-bonnet joint is flanged with integral graphite sealing. A flexible one-piece wedge is used for sizes up to DN 150 and a double disc wedge is used for DN 200 and above.

Operation:

- hand wheel
- electric actuator
- remote control

Production range:

PN	040	160	250
DN	BW	BW	BW
50	■	■	■
65	■	■	■
80	■	■	■
100	■	■	
80/100			■
125	■	■	
100/125			■
150	■	■	
125/150			■
200	■	■	
200/225		■	■
250	■	■	■
300	■	■	■
300/350			■
350	■	■	
400	■	■	
500	■	■	
600	■	■	
800	■	■	

BW – butt welded ends

Valves for nuclear power plants

A 01

quick-acting gate valves
with electrical actuator

Basic technical data:

- water, steam, air, gas, oil, nonaggressive fluids
- welded connection
- for working temperatures up to +350 °C
- working pressure up to 20,0 MPa
- range of type dimensions DN 50–300
- actuating time ≤ 10 s
- material – carbon steel
  – austenitic steel

Description:

Gate valve body is made of forged steel with butt-weld ends. A body-bonnet joint is flanged with integral graphite sealing. A flexible one-piece wedge is used for sizes up to DN 150 and a double disc wedge is used for DN 200 and above.

Operation:

- electric actuator

Production range:

PN	040	160	250
DN	BW	BW	BW
50	■	■	■
65	■	■	■
80	■	■	■
100	■	■	
80/100			■
125	■	■	
100/125			■
150	■	■	
125/150			■
200	■	■	
200/225		■	■
250	■	■	■
300	■		■

BW – butt welded ends

Valves for nuclear power plants

A 01

quick-acting gate valves
with pneumatic actuator

Basic technical data:

- water, steam, air, gas, oil, nonaggressive fluids
- welded connection
- for working temperatures up to +300 °C
- working pressure up to 20,0 MPa
- range of type dimensions DN 100–600
- actuating time ≤ 10 s
- operating pressure of air 4,5 MPa ± 0,5 MPa
- material – carbon steel
  – austenitic steel

Description:

Gate valve body is made of forged steel with butt-weld ends. A steel bonnet is also forged; a flanged joint of body-bonnet is equipped with special sealing.

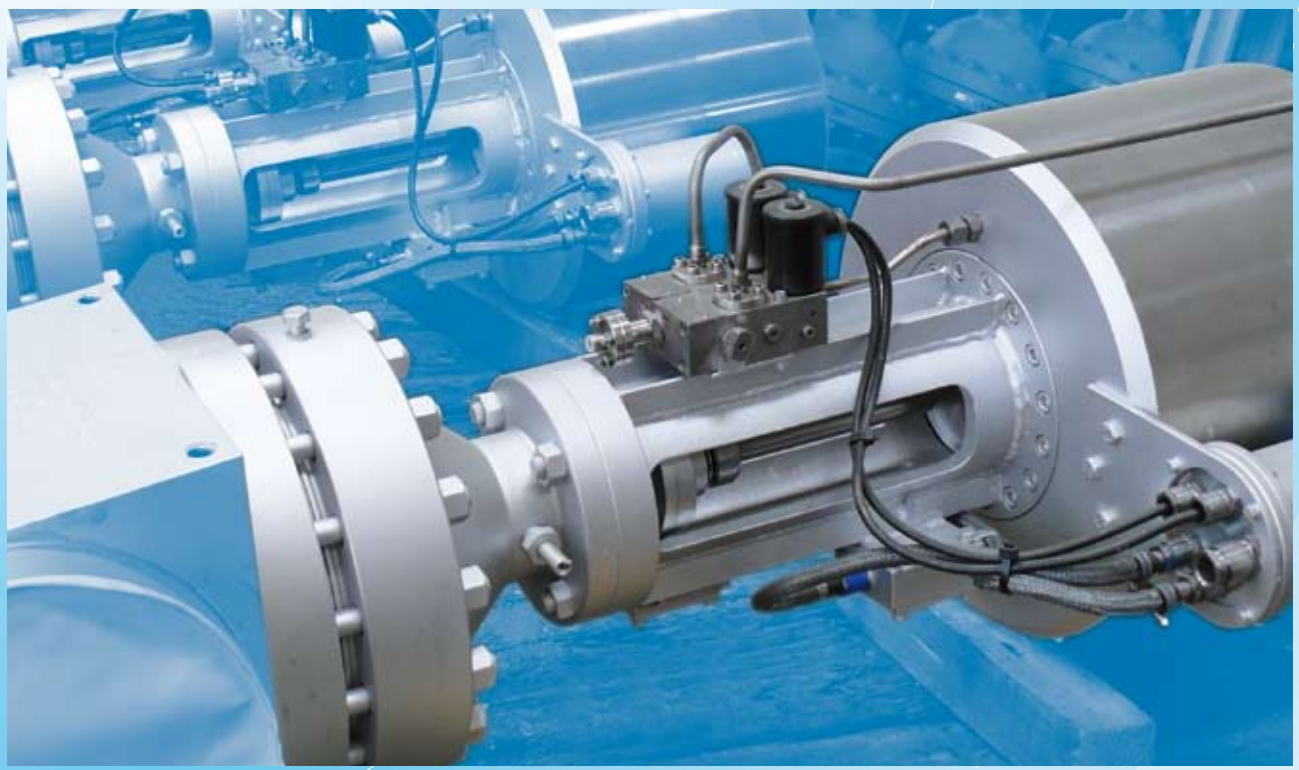
Operation:

- pneumatic actuator – type air-air

Production range:

PN	040	100	160	250
DN	BW	BW	BW	BW
100	■			
150	■			
200	■			■
250	■			
300	■			
400	■	■	■	
450	■	■	■	
500	■	■	■	
600	■	■	■	

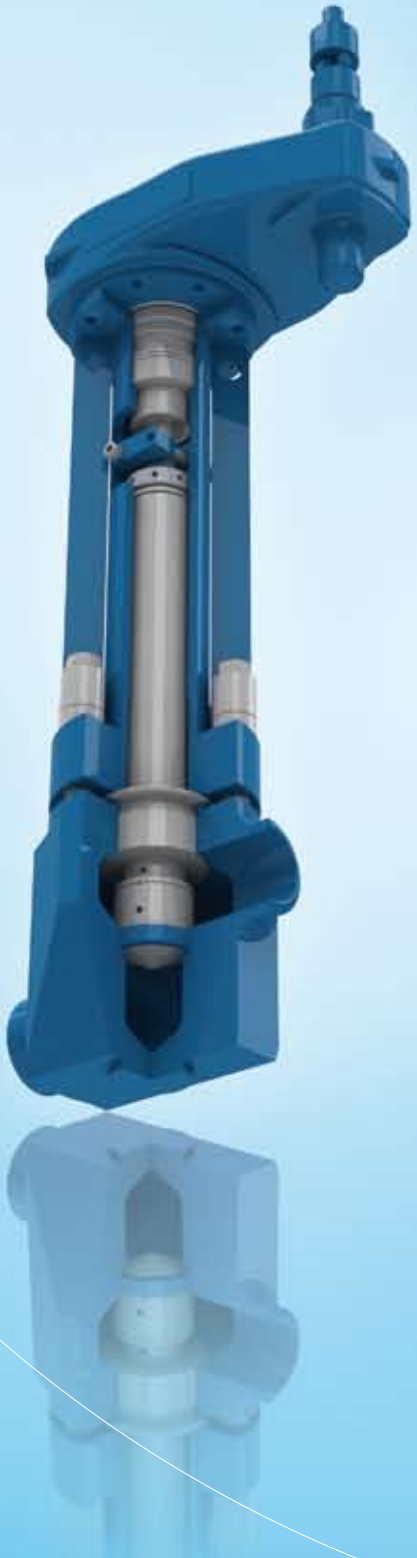
BW – butt welded ends



Valves for nuclear power plants

A 10, A 11

bellows-type globe valves,
regulating bellows-type gate valves



Basic technical data:

- water, steam, air, gas, oil, nonaggressive fluids
- welded connection
- for working temperatures up to +350 °C
- working pressure up to 20,0 MPa
- range of type dimensions DN 50–150
- material – carbon steel
  – austenitic steel

Description:

Globe valve body is made of forged steel with butt-weld ends. A body-bonnet joint is flanged with integral graphite sealing. Stem sealing against the external environment is provided by bellows.

Operation:

- hand wheel
- electrical actuator
- remote control

Production range:

PN	040	160	250
DN	BW	BW	BW
50	■	■	■
65	■	■	■
80	■	■	■
100	■	■	
80/100			■
125	■	■	
100/125			■
150	■	■	■
125/150			■

BW – butt welded ends

Valves for nuclear power plants

A 49

regulating butterfly valves

Basic technical data:

- water, nonaggressive fluids
- welded connection
- for working temperatures up to +300 °C
- working pressure up to 11,0 MPa
- range of type dimensions to DN 800
- material – carbon steel + austenitic steel

Description:

Regulating valve body is made of forged steel with butt-weld ends and inner austenitic overlay. A valve disc has got special design for regulation.

Operation:

- electrical actuator (direct or remote)

Production range:

PN	160
DN	BW
800	

BW – butt welded ends

Valves for nuclear power plants

A 41

non-slam swing check valves

Basic technical data:

- water, steam, air, gas, oil, nonaggressive fluids
- welded connection
- for working temperatures up to +350 °C
- working pressure up to 20,0 MPa
- range of type dimensions DN 50–800
- material – carbon steel
  – austenitic steel

Description:

Swing check valve body is made of forged steel with butt-weld or flanged ends. MSA, a.s. also manufactures swing check valves of special steel SAF 2507 with high corrosive resistance to working medium (sea water). A valve disc turns on pins. Non-slam swing check valve has minimal dimensions and weight in comparison with conventional design of swing check valve.

Operation:

- self-acting

Production range:

PN	040	160	250
DN	BW	BW	BW
50	■	■	■
65	■	■	■
80	■	■	■
100	■	■	
80/100			■
125	■	■	
100/125			■
150	■	■	
125/150			■
200	■	■	
200/225			■
250	■	■	■
300	■	■	■
350		■	
300/350			■
400	■	■	
500	■	■	
600	■	■	
800		■	

BW – butt welded ends

Valves for nuclear power plants

A 42

swing check valves with remote indication of stop device position

Basic technical data:

- water, steam, air, gas, oil, nonaggressive fluids
- welded connection
- for working temperatures up to +350 °C
- working pressure up to 20,0 MPa
- range of type dimensions DN 100–600
- material – carbon steel
  – austenitic steel

Description:

Swing check valve body is made of forged steel with butt-weld ends. A disc hangs in turning pin that is fixed above the flow axis. A body-bonnet joint is flanged with graphite sealing. Possible repair of valve does not require its removal from the pipeline. The position indication of disc is located on the valve bonnet and a sensor is controlled from the disc.

Operation:

- self-sealing

Production range:

PN	040	160	250
DN	BW	BW	BW
100	■	■	
80/100			■
125	■	■	
100/125			■
150	■	■	
125/150			■
200	■		
200/225			
250	■		
300	■	■	■
300/350			■
400	■	■	
450			
500	■	■	
600	■	■	

BW – butt welded ends

Valves for nuclear power plants

C 23

swing check valves

Basic technical data:

- water, steam, air, gas, oil, nonaggressive fluids
- welded connection
- for working temperatures up to +350 °C
- working pressure up to 20,0 MPa
- range of type dimensions DN 50–600
- material – carbon steel
  – austenitic steel

Description:

Swing check valve body is made of forged steel with butt-weld ends. A disc hangs in turning pin that is fixed above the flow axis. A body-bonnet joint is flanged. Possible repair of valve does not require its removal from the pipeline.

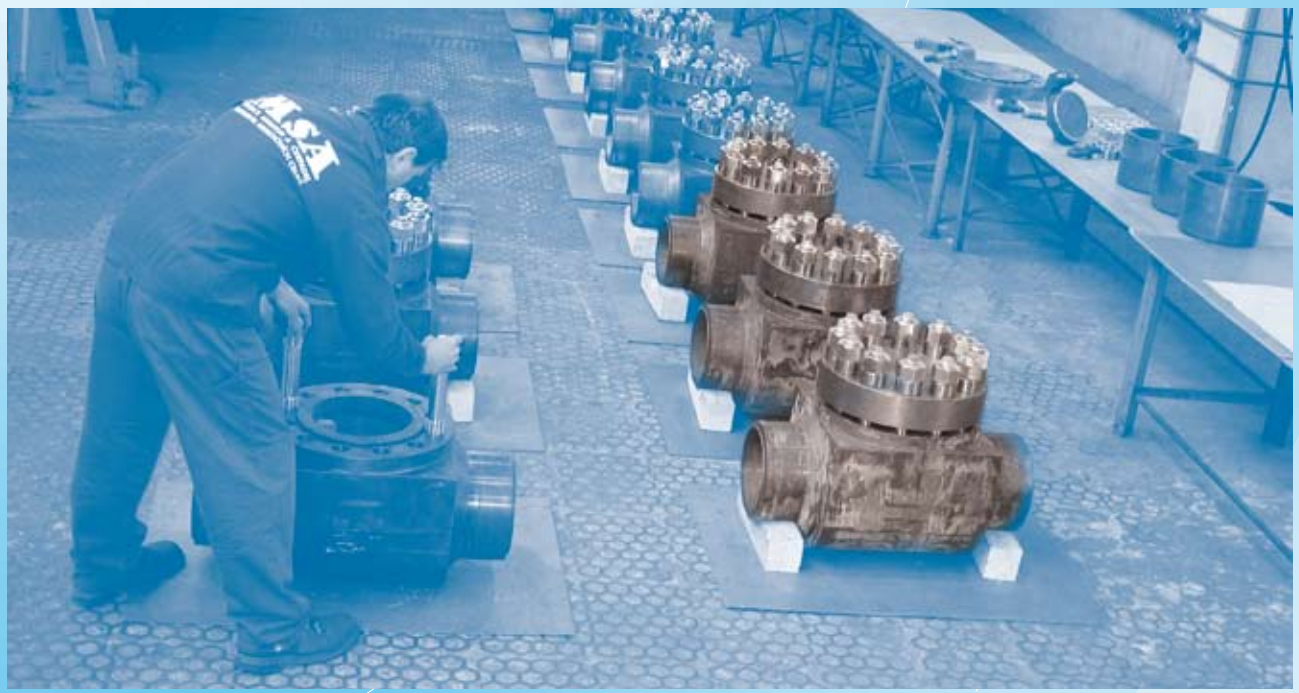
Operation:

- self-sealing

Production range:

PN	040	160	250
DN	BW	BW	BW
50	■	■	■
65	■	■	■
80	■	■	■
100	■	■	
80/100			■
125	■	■	
100/125			■
150	■	■	
125/150			■
200	■	■	
200/225			■
250	■	■	■
300	■	■	■
350		■	
300/350			■
400	■	■	
500	■	■	
600	■	■	

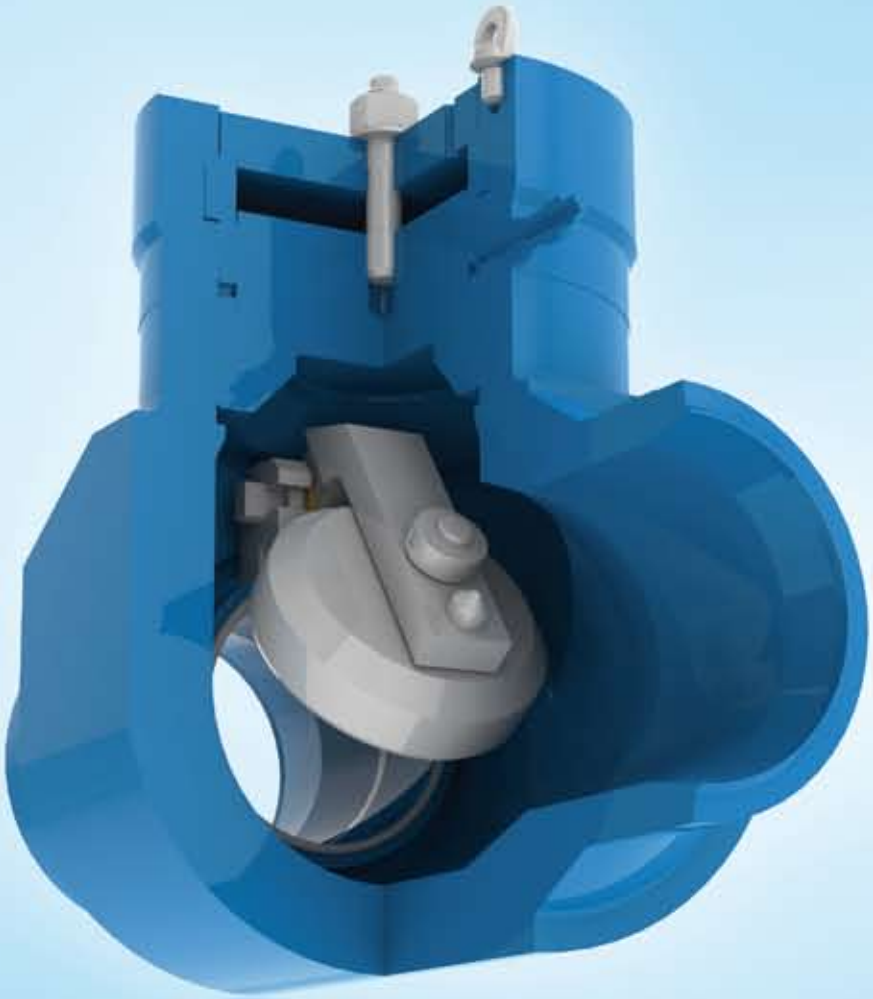
BW – butt welded ends



Valves for nuclear power plants

A 44

swing check valves
with pressure seal bonnet



Basic technical data:

- water, steam, air, gas, oil, nonaggressive fluids
- welded connection
- for working temperatures up to +350 °C
- working pressure up to 20,0 MPa
- range of type dimensions DN 100–300
- material – carbon steel
  – austenitic steel

Description:

Swing check valve body is made of forged steel with butt-weld ends. A disc hangs in turning pin that is fixed above the flow axis. A bonnet is self-sealing with graphite sealing. Possible repair of valve does not require its removal from the pipeline.

Operation:

- self-sealing

Production range:

PN	160	250
DN	BW	BW
100	■	
80/100		■
125	■	
100/125		■
150	■	
125/150		■
200	■	
200/225	■	
250	■	■
300	■	■

BW – butt welded ends

Research and development

MSA, a.s. puts great emphasis on intensive development of new products to improve continually existing product assortment range. New products are tested at own as well as external testing facilities where valve properties are verified under real operating conditions. All valves are monitored regularly during their service life and obtained knowledge is applied to the development and manufacture of new products.

Attention at research and development activities is focused especially on applying new materials, design strength and rigidity, operating abilities and controllability of valves with respect to service conditions requested.

Aim of designers and technologists MSA, a.s. is valve production of high technical level and reliability, long service life at low production costs and ecologically desirable way of manufacture.

Quality Inspection

Crucial significance is laid on quality inspection during the whole manufacturing process. It is monitored entirely, includes testing and inspe-ction of particular manufacturing stages from acceptance of all input raw materials and sub-deliveries, through manufacturing in-process inspections of individual valve components and assembly tests up to final pressure testing of finished products.

Quality system of MSA, a.s. is based on strict observance of EN ISO 9001:2008 and API Spec Q1 (Specification D – number 0239) standards. MSA, a.s. has implemented and used the Environmental Management System ČSN EN ISO 14001:2005 for valve research and development as well.

Standards and certification

Valve research, development and certification are supported by the whole range of technical standards, specifications and certificates according to the requirements of domestic and foreign legislation as well as individual customer´s requirements. The general system certification is followed by product and export certificates connected with the requirements of national standards of export countries. A special group is presented by the certificates connected with nuclear power safety for the application within nuclear power facilities and the certificate connected with the European Union Directives. The valves of MSA, a.s. production are also getting importance with purpose certification when a product is subject to various technical and technological tests at independent organizations.

MSA, a.s.
Hlučínská 41, 747 22 Dolní Benešov, Czech Republic
tel.: + 420 553 881 111, fax: + 420 553 881 200
e-mail: sales@msa.cz

www.msa.cz