



Application

Extraction swing check valves are special valves used to prevent the back flow of the service fluid in extraction and bleed lines.

Working medium

- steam

Maximum service temperature:

to +530 °C to DN 900, NPS 36

Technical description

Bodies of extraction swing check valves L10.6 are made of forged, cast or welded semi-finished products depending on parameters specified by the customer. The seat ring is pressed into the body and secured by welding. Its seating surface is hard-faced. The shaft is carried in plain bearings and holds the disc arm with the disc which is secured by a pin. The seating surfaces of the seat and the disc have a plane contact surface. The welded design of the extraction swing check valves meets the requirements of EN ISO 15614-1, PED 97/23/EC or, if required by the customer, ASME CODE, Section IX.

Construction types

- forged - to DN 350, NPS 14
- cast - above DN 350, NPS 14
- welded - from DN 200, NPS 8 to DN 1000, NPS 40

Operation

Self-acting, the safe closing of the disc is realized by the ancillary actuator (pneumatic, hydraulic actuator). Actuator type as specified by the customer.

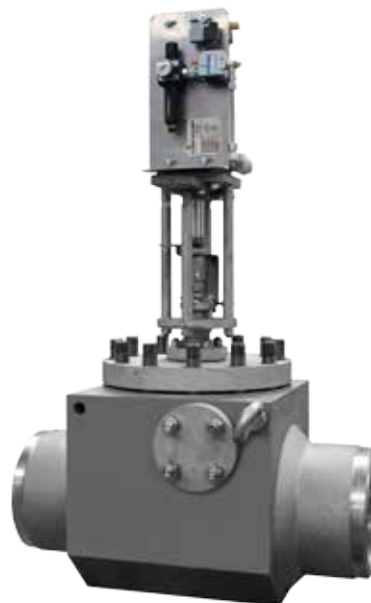
Possible valve equipment

- hand lever
- electric position sensor

Testing

The valves are tested in accordance with:

- EN 12266-1 / ISO 5208
- API 598
- ASME B16.34



Connection to the piping

- **flanged ends** according to EN 1092-1, ASME B16.5, ASME B16.47
- **welding ends** according to EN 12627, ASME B16.25

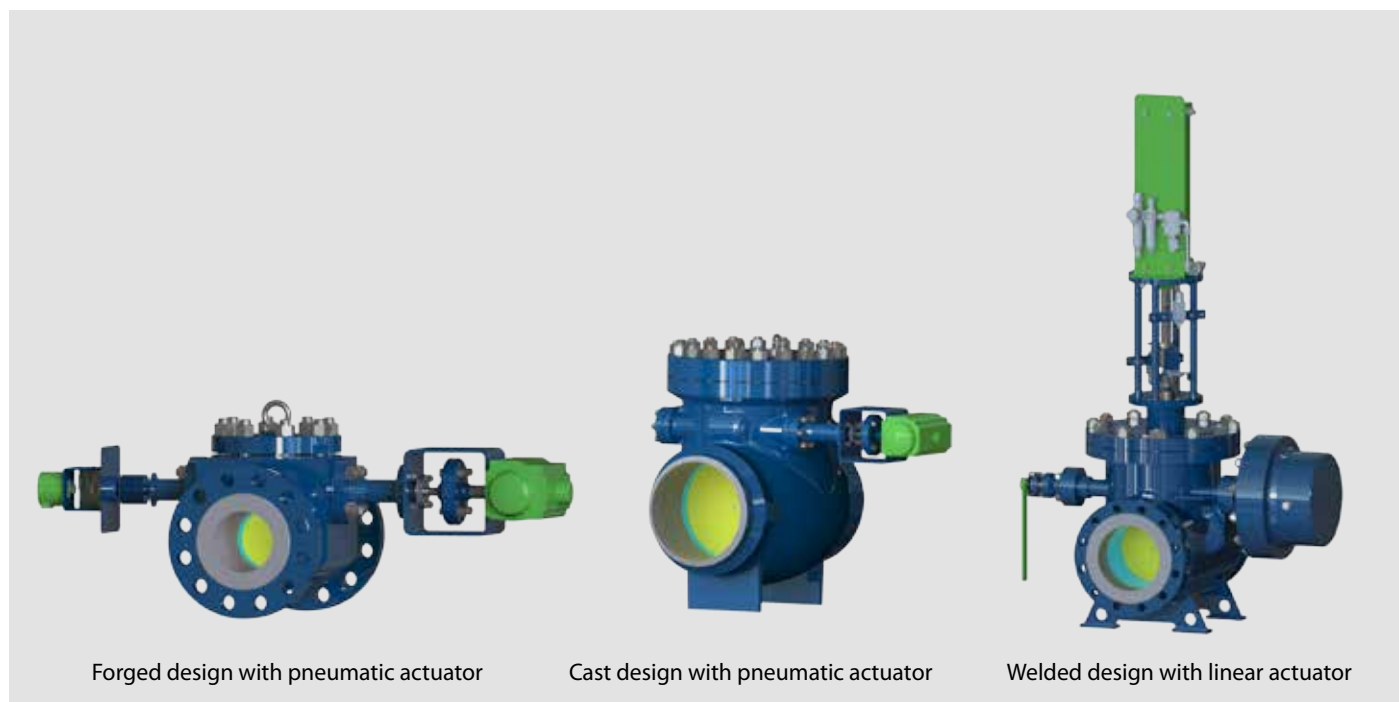
Face-to-face and end-to-end dimensions according to manufacturer's specification.

Installation

The extraction check valves L10.6 may be installed into both horizontal and vertical pipings. When installing the extraction valve into a vertical piping, the fluid has to flow from under the disc (to lift it up), when installing it into a horizontal piping, the cover must be above the valve body ($\pm 10^\circ$).

Advantages

Possibility of use for high pressures PN 160, PN 250 and high temperatures exceeding 500 °C.



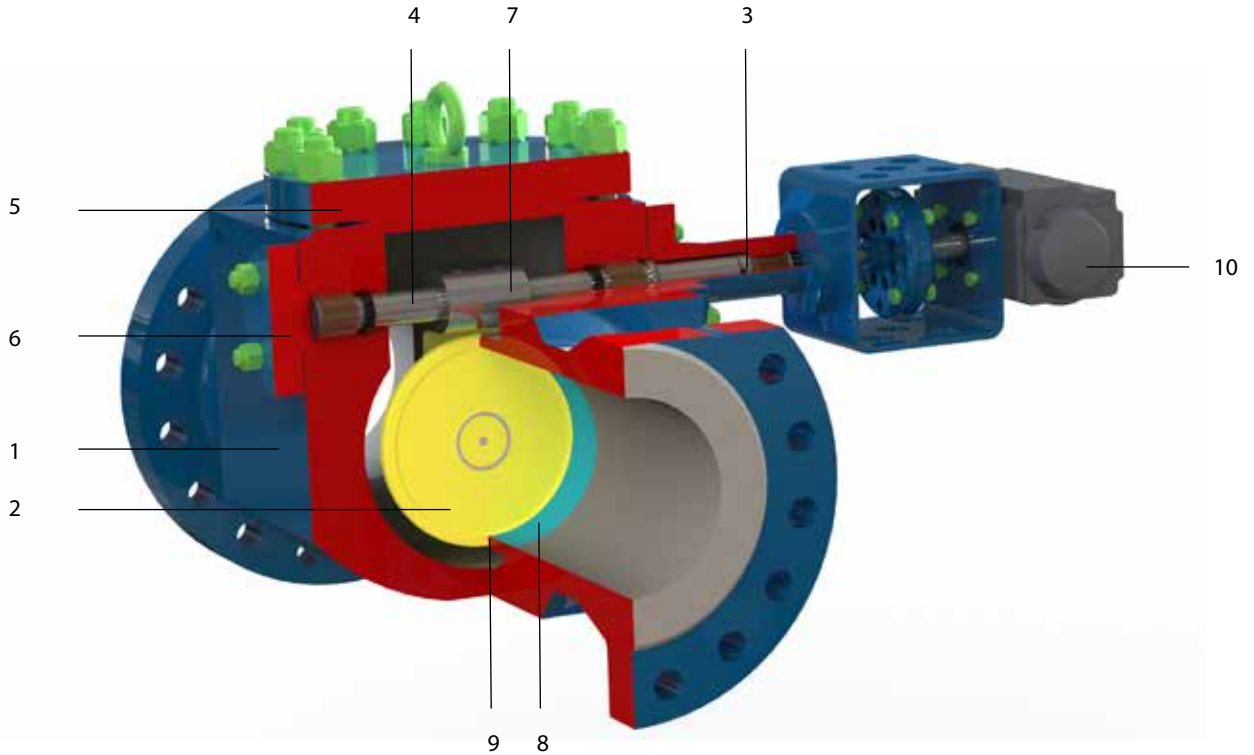
Forged design with pneumatic actuator

Cast design with pneumatic actuator

Welded design with linear actuator

DN 80-350 • PN 100-320 • Tmax 530 °C
 NPS 3 - 14 • Class 300-1500
 Body design: forged

Connection: ☉ EN 1092-1, ASME B16.5, ASME B16.47 FLANGED ENDS
 ☉ EN 12627, ASME B16.25 WELDED ENDS



Material

Position	Component	EN	ASTM
		DN 80 - DN 500 NPS 3-14	
1	Body		A387 Gr. 22
2	Disc		A105
5,6	Cover	1.0425 (P265 GH)	A516 Gr.60
7	Arm	1.7335 (13CrMo4-5)	A182 F12
8	Seat	1.7380 (10CrMo9-10)	A182 F22
3,4	Shaft	1.4021(17022)	A387 Gr. 12
		1.4923(17134)	A276 420T
9	Seat hard facing	STELLIT6	
10	Actuator	Quarter-turn actuator, hydraulic actuator, linear actuator	

Production range

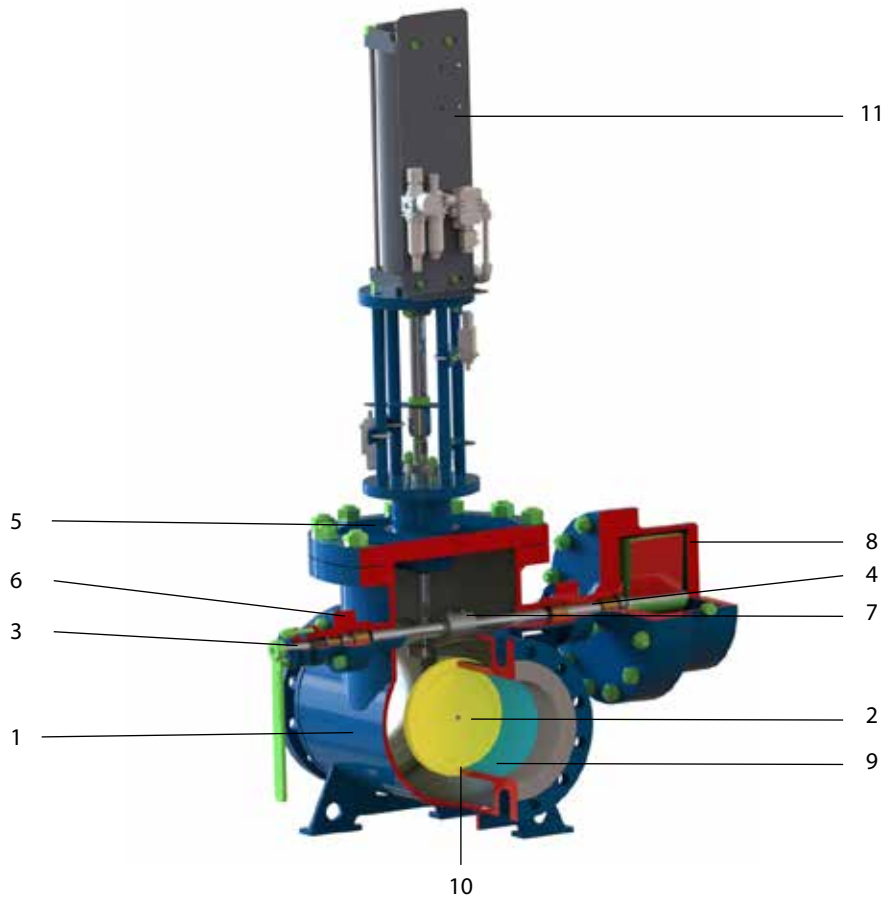
DN	NPS	PN				Class			
		100	160	250	320	300	600	900	1500
80	3"	•	•	•	•	•	•	•	•
100	4"	•	•	•	•	•	•	•	•
125	5"	•	•	•	•	•	•	•	•
150	6"	•	•	•	•	•	•	•	•
200	8"	•	•	•	•	•	•	•	•
250	10"	•	•	•	•	•	•	•	•
300	12"	•	•	•	•	•	•	•	•
350	14"	•	•	•	•	•	•	•	•

*Other sizes upon customer's request.



DN 200-1000 • NPS 8-40 • PN 10-40 • Tmax 300 °C
 Body design: welded

Connection: ☉ EN 1092-1, ASME B16.5, ASME B16.47 FLANGED ENDS
 ☉ EN 12627, ASME B16.25 WELDED ENDS



Material

Position	Component	EN	ASTM
		DN 200 - DN 1000 NPS 8 - 40	
1	Body	1.0425 (P265 GH)	A105
2	Disc		
8	Counterweight cover		
5, 6	Cover		
7	Arm		
9	Seat		
3, 4	Shaft	1.4021(17022)	A276 420T
10	Seat hard facing	13%Cr	
11	Actuator	Quarter-turn actuator, hydraulic actuator, linear actuator	

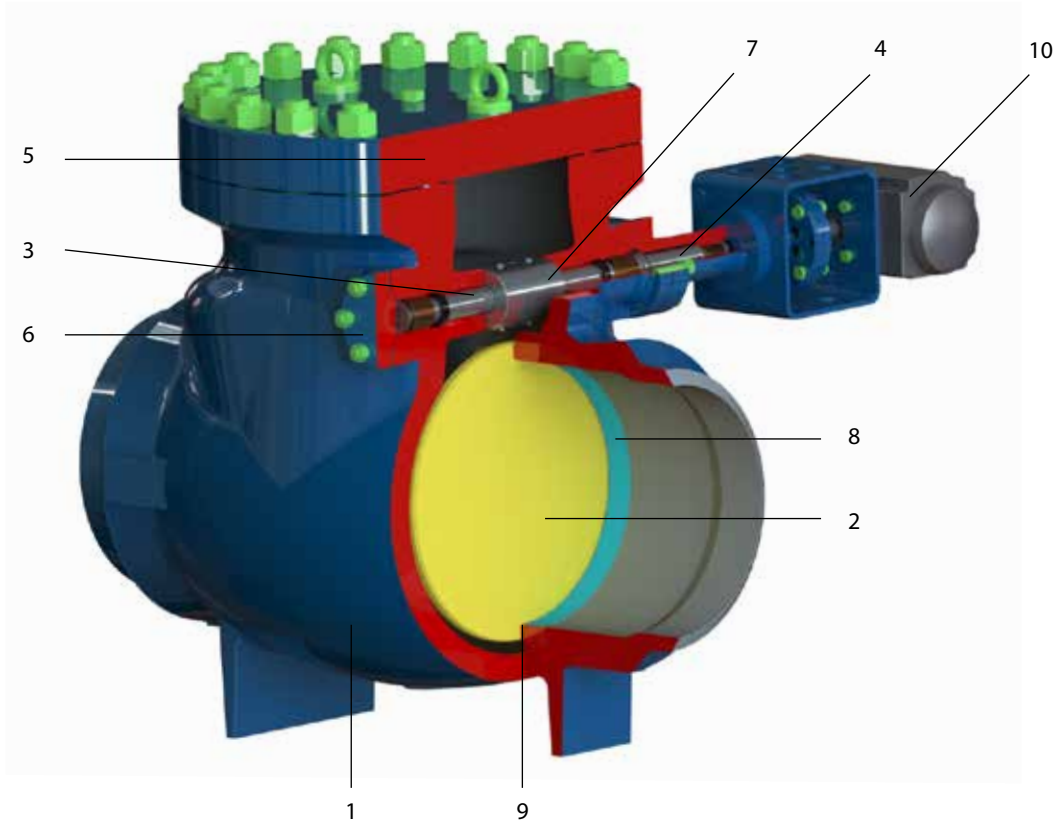
Production range

DN	NPS	PN			
		10	16	25	40
200	8"	•	•	•	•
250	10"	•	•	•	•
300	12"	•	•	•	•
350	14"	•	•	•	
400	16"	•	•	•	
450	18"	•	•	•	
500	20"	•	•	•	
600	24"	•	•	•	
700	28"	•	•		
800	32"	•	•		
900	36"	•	•		
1000	40"	•	•		



DN 400-900 • PN 100 • Tmax 530 °C
 NPS 16-36 • Class 150-600
 Body design: cast

Connection: EN 1092-1, ASME B16.5, ASME B16.47 FLANGED ENDS
 EN 12627, ASME B16.25 WELDED ENDS



Material

Position	Component	EN	ASTM
		DN 400-900	NPS 16-36
1	Body	1.0619, 1.7357, 1.0425, 1.7335, 1.7380, 1.7383, 1.7379	A216 WCB, A217 WC6, A105, A516 Gr.60, A182 F12 Cl.2, A182 F22 Cl.2, A387 Gr.12 Cl.2, A387 Gr.22 Cl.2, A217 WC9
2	Disc		
5, 6	Cover		
7	Arm		
8	Seat		
3, 4	Shaft	1.4021 (17022) 1.4923 (17134)	A276 420T
9	Seat hard facing	STELLIT6	
10	Actuator	Quarter-turn actuator, hydraulic actuator, linear actuator	

Production range

DN	NPS	PN			
		100	150	300	600
400	16"	•	•	•	•
450	18"	•	•	•	•
500	20"	•	•	•	•
600	24"	•	•	•	•
700	28"	•	•	•	•
800	32"	•	•	•	•
900	36"	•	•	•	•