

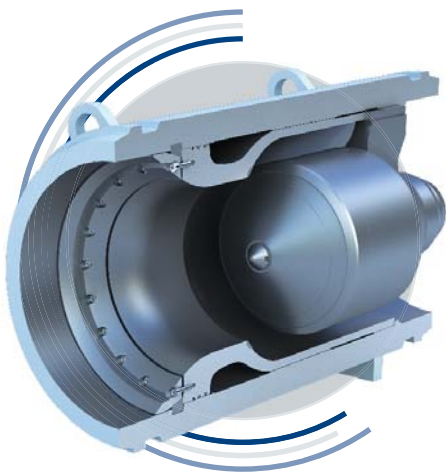
AXIAL CHECK VALVES

NPS 2" – 56" Class 150 - 900

APPLICATION

Designed to prevent medium return (back) flow for pipelines transporting **oil, natural gas, petrochemical products at the temperature up to +100°C**. Upon Customer's request valve can be manufactured **up to 250°C**.

DESIGN FEATURES



Axial flow check valve body is made of forgings or castings undergoing 100% ultrasonic testing.

Valve design is maintenance-free but all internal parts can be easily disassembled in case of general repair.

Damping system is used for non-slam operation. It consists of a camera filled with hydraulic liquid and a damping disk solidly connected with closure stem that moves inside the camera. Sealing system of the camera ensures its tightness and wouldn't require hydraulic liquid changing during full service life. Tight shut-off is provided by highly erosive-resistant stainless steel sealing (metal-to-metal).

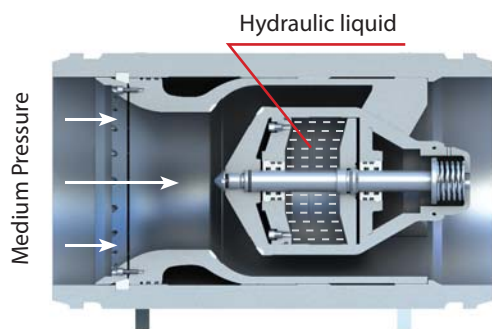
Valve can be manufactured without damping system upon Customer's request.

PRINCIPLE OF OPERATION

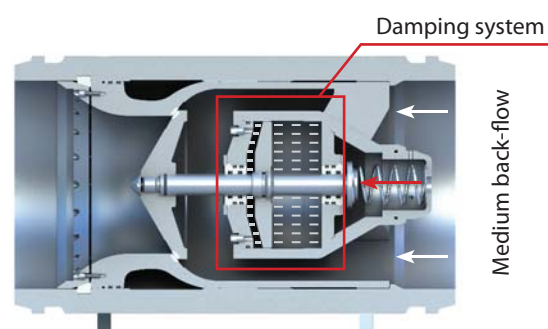
The opening of the Axial Check Valve occurs under the influence of input medium flow pressure on the locking element.

In case of medium back-flow the locking element is returned in «closed» position by spring action.

Position "Opened"



Position "Closed"



CLIMATIC CATEGORY

Climatic categories:

- regions with temperate climate and ambient temperature from -40°C up to +40°C;
- regions with cold climate and ambient temperature from -60°C up to +40°C;
- regions with warm climate and ambient temperature from -10°C up to +50°C.

Axial Check valves with another climatic category can be manufactured upon Customer's request.



CONNECTION TO THE PIPELINE



Medium flow direction – according to the marking.

Installation position:

- at horizontal pipelines –any;
- at vertical pipelines (inclined) pipelines – inlet elbow downwards.

Connection to the pipeline:

- **flanged;**
- **butt-welded.**

Installation type: Axial check valve can be supplied with counter components (flanges, gaskets, fasteners)

Axial check valve can be supplied with pup pieces separated from valve or welded to it.

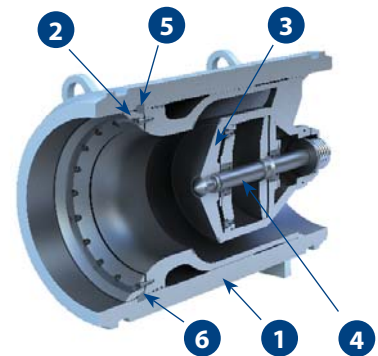
Installation type:

- **aboveground;**
- **underground.**

MATERIAL SPECIFICATION

Material of basic components depends on Customer's requirements and is chosen individually in each case.

Nº	Component	Material
1	Body	A350LF2 or A352LCB
2	Seat	A352 LCC
3	Disc	A352 LCC
4	Stem	A182 F316
5	Seat overlay	Corrosion-resistant 13CR
6	Disc overlay	Corrosion-resistant 13CR



OPERATIONAL CHARACTERISTICS

Reliability factors:

- **service life** -30 years;
- **warranty period** – 24 months from the day of putting into operation.

SCOPE OF SUPPLY

Scope of supply:

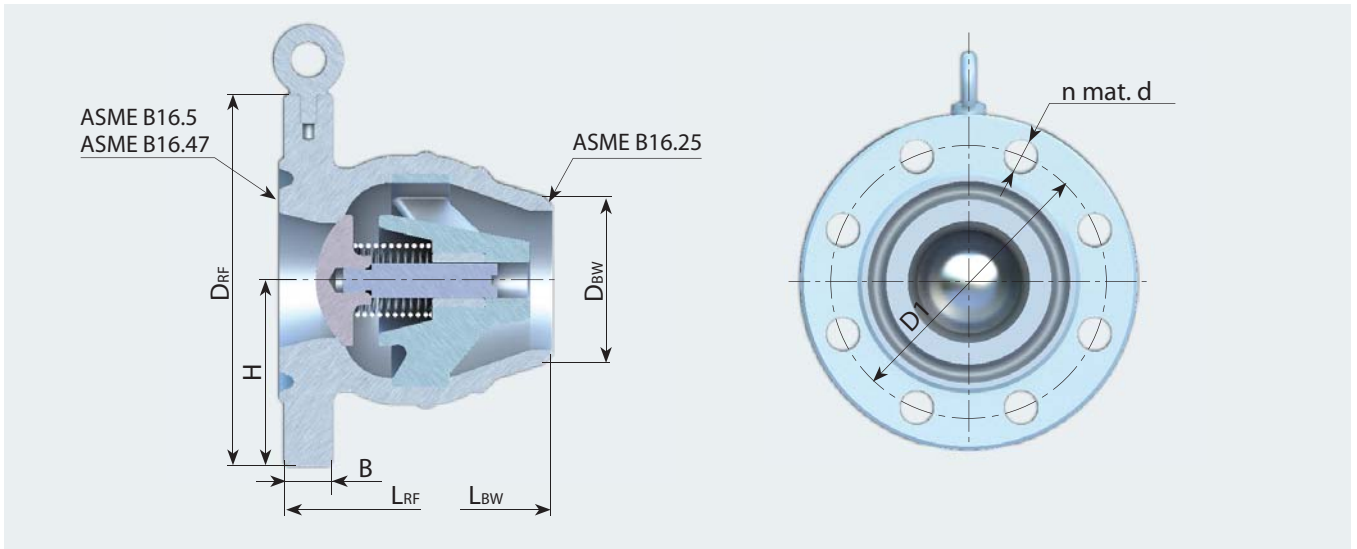
- Fully assembled axial check valve according to specification;
- Quick wear parts kit, tools and accessories specified at the time of the order;
- Supply documents package according to Customer's request.

Following valve equipment is specified at the time of the order:

- Counter flanges, fasteners and gaskets;
- Adapter rings (coils);
- Thermal jacket.

MAIN DIMENSIONS

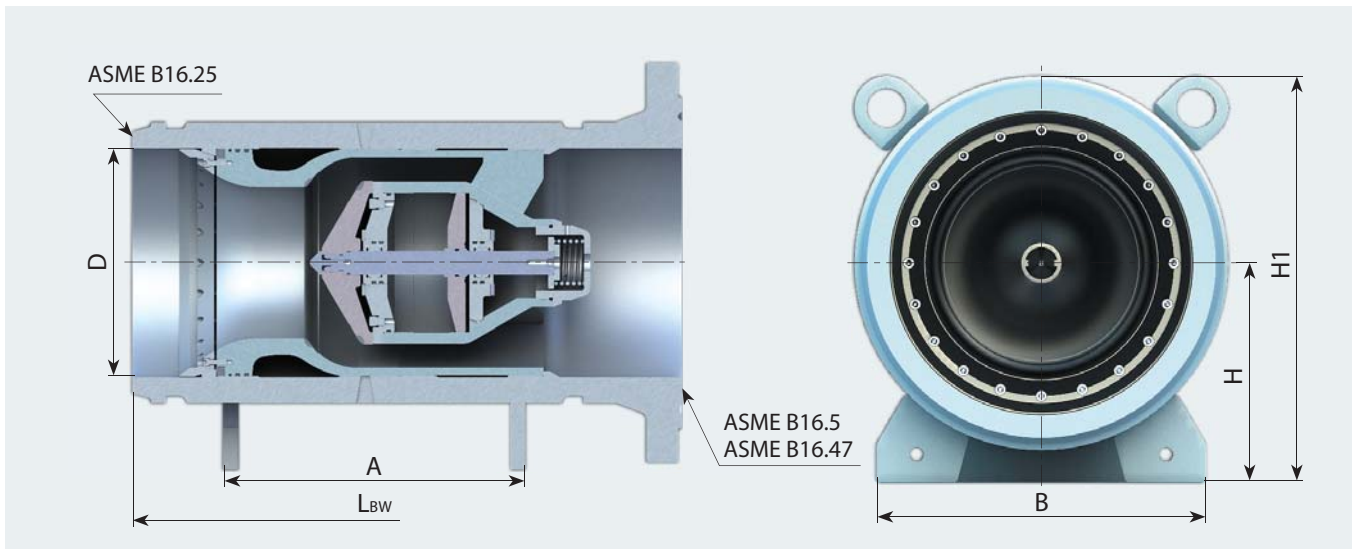
AXIAL CHECK VALVES PT41001 NPS 2"-14" Class 150-900



NPS	Class	Dimensions, mm									Weight, kg
		D _{RF}	D _{BW}	d	n	D1	L _{RF}	L _{BW}	H	B	
2"	150	160	58	18	4	125	320	216	80	17	41,7
	400	175	22	87,5		23					
	600	195	64	26		145	435	267	97,5	25	52,8
	900									27	
3"	150	195	91	18	8	160	435	282	97,5	19	60,7
	400	210		22		170			105	27	
	600	230		26		180	525	318	115	31	90
	900									33	
4"	150	230	116	22	8	190	550	305	115	21	130
	400	250		26		200			125	29	
	600	265		30		210	575	432	132,5	35	139
	900									37	
6"	150	300	168	26	8	250	695	403	150	25	180
	400	340		33		280			170	35	
	600	350		33		290	825	444	145	43	200
	900									47	
8"	150	360	232	26	12	310	785	419	180	27	250
	400	405		33		345			202,5	41	
	600	430		39		360	955	660	215	51	300
	900									57	
10"	150	425	262	30	12	370	940	457	212,5	29	300
	400	470		39		400			235	45	
	600	500		39		430	1120	622	250	57	320
	900									65	
12"	150	485	330	30	12	430	1090	502	242,5	32	516
	400	530		39		460			265	50	
	600	585		45		500	1300	711	292,5	66	530
	900									74	
14"	150	550	-	33	16	490	1230	-	275	36	630
	400	595		39		525			297,5	56	
	600-900	655		52		560	1250	327,5	85,8	650	

MAIN DIMENSIONS

AXIAL CHECK VALVES PT41001 NPS 16"-56" Class 150-900



NPS	Class	Dimensions, mm						Weight, kg
		D	H	H ₁	L _{BW}	A	B	
16"	150-900	378	273	505	800	500	410	550
20"	150-900	487	330	622	850	550	451	785
28"	150-800	695	436	834	1150	750	667	1730
40"	150-800	992	580	1120	1650	1050	844	4350
48"	150-800	1160	675	1312	1500	900	968	4600
56"	150-800	1360	775	1512	1700	1100	1010	6350

