

CHECK VALVE ACID-PROOF TYPE ZZA25

CHARACTERISTIC:

Diameter	-	15 -300 mm;
Pressure	-	25 bar (flanged may be drilled for 6, 10, 16, 40, bar)
Temperature	-	up to 250°C for acids, bases and other aggressive media;
	-	up to 560°C for non-toxic media; (with PTFE sealing up to 200°C);
Medium	-	acids, liquors, water, steam and other non-toxic and non aggressive liquid and gas media, engine fuel.

VERSIONS:

type - body material / ends / disc and disc ring / others

Example: ZZA25 / --- / --- / ---

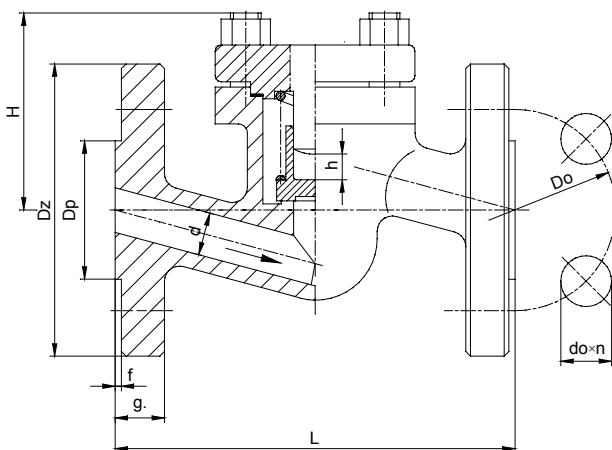
Example: ZZB25 / S / P / ---

Type - body material	Sign	Ends	Sign	Disc and disc ring	Sign	Others	Sign
X6CrNi18-10 or GX5CrNi19-10	ZZA25	Standard - flanged	---	Standard	---	-----	---
		Butt weld ends	S	PTFE ring	P		
X2CrNiMo17-12-2 or GX5CrNiMo19-11-2	ZZB25	Socket weld	SW	NBR ring	N		
		Threaded	G				

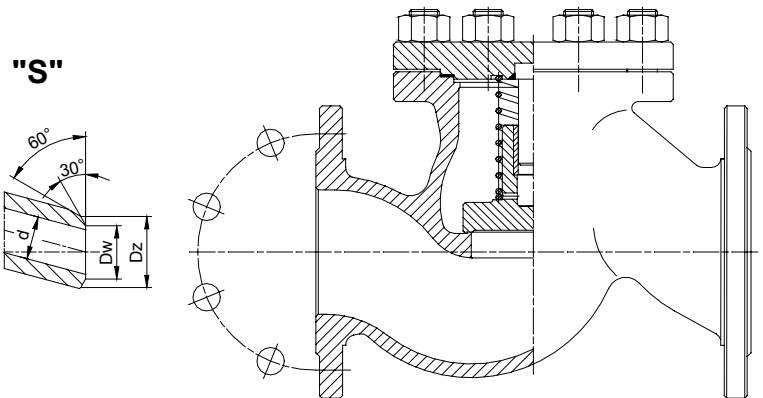
APPLICATION:

The check valves are designed to keep pipeline safe from returning the medium.

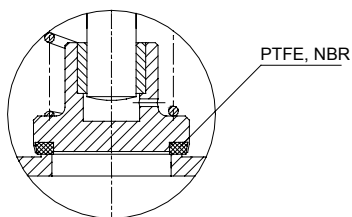
DN 15 - 50



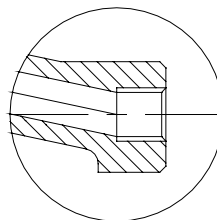
DN 65 - 300



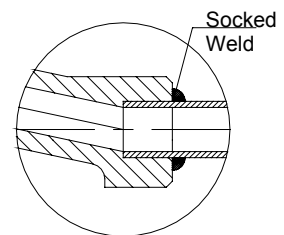
T_{MAX} 200°C



"G"



"SW"



MATERIALS:

Versions	ZZA25	ZZB25	ZZA25	ZZB25
Parts	DN 15 - 50		DN 65 - 300	
Body, bonnet	X6CrNiTi18-10 (1.4541)	X2CrNiMo17-12-2 (1.4404)	GX5CrNi19-10 (1.4308)	GX5CrNiMo19-11-2 (1.4408)
Disc	X6CrNiTi18-10 (1.4541)	X2CrNiMo17-12-2 (1.4404)	X6CrNiTi18-10 (1.4541)	X2CrNiMo17-12-2 (1.4404)
Spring	X6CrNiTi18-10 (1.4541)			
Gasket	Grafit			

Special materials on request; modifications reserved.

DIMENSIONS:

DN	Standard - flanged															With butt weld ends			
	PN 25 , 40										PN 16					Dz	Dw	Weight	
	Dz	Dp	Do	do	n	L	g.	f	H	h	Weight	Dz	Dp	Do	do				n
15	95	45	65	14	4	130	16	2	65	10	2,50	95	45	65	14	4	22	17	1,10
20	105	58	75	14	4	150	18	2	65	10	2,90	105	58	75	14	4	28	22	1,40
25	115	68	85	14	4	160	18	2	65	10	3,30	115	68	85	14	4	35	28,5	1,70
32	140	78	100	18	4	180	18	2	85	15	6,80	140	78	100	18	4	44	37	3,60
40	150	88	110	18	4	200	18	3	95	17	9,00	150	88	110	18	4	50	43	4,70
50	165	102	125	18	4	230	20	3	110	21	10,50	165	102	125	18	4	62	54	6,10
65	185	122	145	18	8	290	22	3	155	22	17,50	185	122	145	18	4	77	69	12,70
80	200	138	160	18	8	310	24	3	170	26	27,00	200	138	160	18	8	91	81	18,50
100	235	162	190	22	8	350	24	3	195	32	41,00	220	158	180	18	8	117	104	36,00
125	270	188	220	26	8	400	26	3	200	40	54,00	250	184	210	18	8	144	130,5	49,00
150	300	218	250	26	8	480	28	3	225	44	90,00	285	212	240	22	8	172	156,5	76,00
200	375	285	320	30	12	600	34	3	270	60	150,00	340	268	295	22	12	223	204,5	140,00
250	450	306	385	33	12	730	38	3	290	70	195,00	405	320	355	26	12	278	256,5	165,00
300	515	410	450	33	16	850	42	3	410	130	360,00	460	370	410	26	12	329	306,5	280,00

Dimensions in mm; modifications reserved.

TECHNICAL DATA:

Body material	Medium	PN	Maximal working pressure at working temperature															
			20°C	100°C	150°C	200°C	250°C	300°C	350°C	400°C	450°C	480°C	500°C	510°C	520°C	530°C	540°C	550°C
			bar															
X6CrNiTi18-10 (1.4541)	aggressive media	25	25	24,8	23,3	22,1	21,1	-	-	-	-	-	-	-	-	-	-	
GX5CrNi19-10 (1.4308)		25	25	19,1	17,0	14,9	14,0	-	-	-	-	-	-	-	-	-	-	
X6CrNiTi18-10 (1.4541)	non aggressive media	25	25	24,8	23,3	22,1	21,1	19,9	19,2	18,6	18,2	17,9	17,7	17,7	17,6	17,6	17,5	16,9
GX5CrNi19-10 (1.4308)		25	25	19,1	17,0	14,9	14,0	13,1	12,2	11,3	10,4	10,0	9,5	-	-	-	-	
X2CrNiMo17-12-2 (1.4404)	Aggressive media	25	25,0	25,0	24,4	23,2	22,9	-	-	-	-	-	-	-	-	-	-	
GX5CrNiMo19-11-2 (1.4408)		25	25,0	20,2	18,2	16,1	14,9	-	-	-	-	-	-	-	-	-	-	
X2CrNiMo17-12-2 (1.4404)	Non Aggressive media	25	25,0	25,0	24,4	23,2	22,9	21,6	20,7	20,1	19,6	19,4	19,1	19,0	19,0	18,9	18,9	18,8
GX5CrNiMo19-11-2 (1.4408)		25	25,0	20,2	18,2	16,1	14,9	13,7	13,1	12,5	12,1	12,1	12,0	-	-	-	-	

MOUNTING AND OPERATING:

The valve can only be mounted and operated by skilled, properly trained and qualified personnel. Incorrect assembly or operation of the valve may have substantial impact on the entire system such as fluid leakage, reduction in system's function etc.

Before a valve is installed the pipeline must be clean from any mechanical impurities. The compatibility of critical parameters of the flow must be checked with the parameters of the valve. Check valve can be mounted to a pipe-line in any position. The direction of flow should only comply with the arrow marked on the body. The valve should be operated strictly with its assign. In order to provide valve's reliability the following suggestions must be observed:

- medium flowing through the valve is supposed to be clean out of any mechanical impurities;
- the valve must be protected from any mechanical damages during its work;
- nominal parameters marked on the valve must be observed.

CHECK VALVE TYPE 292

CHARACTERISTIC:

- Diameter - 15 -300 mm;
- Pressure - 40 bar (flanges may be drilled for PN 6, 10, 16, 25 bar);
- Temperature - up to 560°C (with PTFE sealing up to $\leq 200^{\circ}\text{C}$);
- Medium - water, steam and other non-toxic, non aggressive liquid and gas media and engine fuel, sea water.

VERSIONS:

type / ends / body material / disc and disc ring / others

Example: 292 / --- / --- / --- / ---

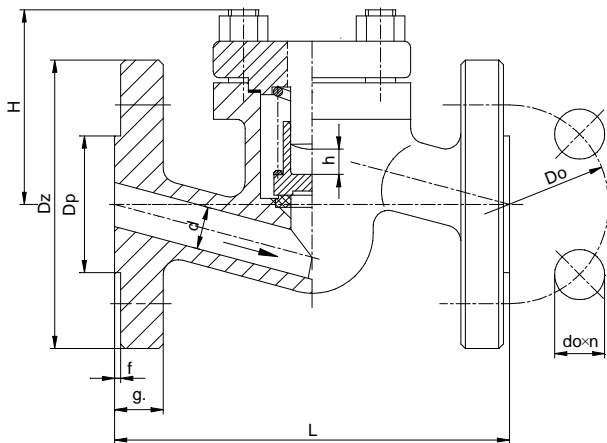
Example: 292 / S / U / P / WM

Ends	Sign	Body material	Sign	Disc and disc ring	Sign	Others	Sign
Standard - flanged	---	(P250GH) C 22.8 or GP240GH	---	Standard	---		
Butt weld ends	S	16Mo3 or G20Mo5	U	PTFE ring	P	Sea version	WM
Socket weld	SW	13CrMo4-5 or G17CrMo5-5	A	NBR ring	N		
Threaded	G			STELLIT ring	L		

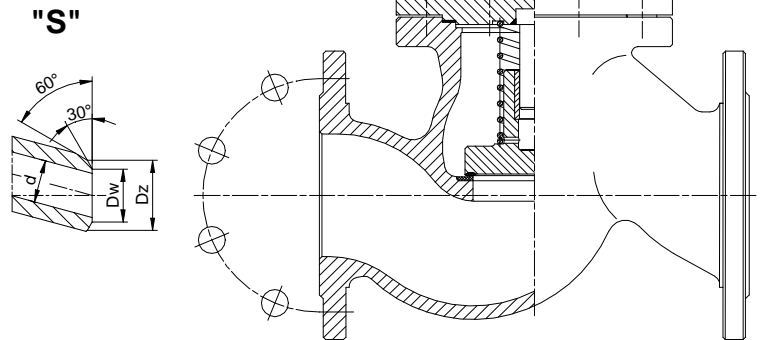
APPLICATION:

The check valve is designed to keep pipeline safe from returning the medium.

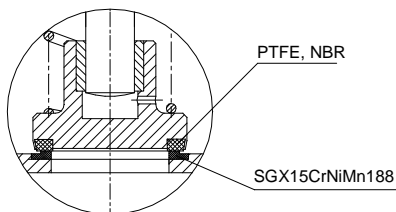
DN 15 - 50



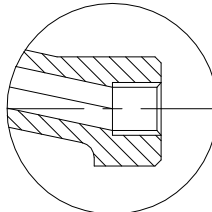
DN 65 - 300



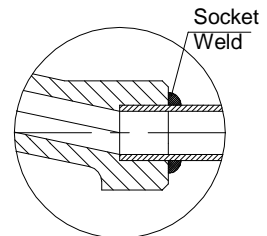
T_{MAX} 200°C



"G"



"SW"



MATERIALS:

Versions	Standard	U	A	Standard	U	A
Parts	T _{MAX} 450°C	T _{MAX} 530°C	T _{MAX} 560°C	T _{MAX} 450°C	T _{MAX} 500°C	T _{MAX} 550°C
	DN 15 - 50			DN 65 - 300		
Body, bonnet	P250GH) C22.8 (1.0460)	16Mo3 (1.5415)	13CrMo4-5 (1.7335)	GP240GH (1.0619)	G20Mo5 (1.5419)	G17CrMo5-5 (1.7357)
Seat ring DN15-25	X17CrNi16-2					
Seat ring	G 18 8 Mn (1.4370) or Stellite, or CW306G					
Disc	X30Cr13 (1.4028), X17CrNi16-2 (1.4057), P245GH (1.0352), CW306G, 13CrMo4-5 (1.7335)					
Disc ring	G 18 8 Mn (1.4370) or Stellite, CW306G, PTFE, NBR					
Spring	51CrV4 (1.2241)					
Gasket	Grafit					

Special materials on request; modifications reserved.

DIMENSIONS:

DN	Standard - flanged															With butt weld ends			
	PN 40										PN 16					Dz	Dw	Weight	
	Dz	Dp	Do	do	n	L	g.	f	H	h	Weight	Dz	Dp	Do	do				n
15	95	45	65	14	4	130	16	2	65	10	2,50	95	45	65	14	4	22	17	1,10
20	105	58	75	14	4	150	18	2	65	10	2,90	105	58	75	14	4	28	22	1,40
25	115	68	85	14	4	160	18	2	65	10	3,30	115	68	85	14	4	35	28,5	1,70
32	140	78	100	18	4	180	18	2	85	15	6,80	140	78	100	18	4	44	37	3,60
40	150	88	110	18	4	200	18	3	95	17	9,00	150	88	110	18	4	50	43	4,70
50	165	102	125	18	4	230	20	3	110	21	10,50	165	102	125	18	4	62	54	6,10
65	185	122	145	18	8	290	22	3	155	22	17,50	185	122	145	18	4	77	69	12,70
80	200	138	160	18	8	310	24	3	170	26	27,00	200	138	160	18	8	91	81	18,50
100	235	162	190	22	8	350	24	3	195	32	41,00	220	158	180	18	8	117	104	36,00
125	270	188	220	26	8	400	26	3	200	40	54,00	250	184	210	18	8	144	130,5	49,00
150	300	218	250	26	8	480	28	3	225	44	90,00	285	212	240	22	8	172	156,5	76,00
200	375	285	320	30	12	600	34	3	270	60	150,00	340	268	295	22	12	223	204,5	140,00
250	450	306	385	33	12	730	38	3	290	70	195,00	405	320	355	26	12	278	256,5	165,00
300	515	410	450	33	16	850	42	3	410	130	360,00	460	370	410	26	12	329	306,5	280,00

Dimensions in mm; modifications reserved.

TECHNICAL DATA:

Body material	PN	Maximal working pressure at working temperature																	
		20°C	100°C	150°C	200°C	250°C	300°C	350°C	400°C	450°C	480°C	500°C	510°C	520°C	530°C	540°C	550°C	560°C	
		bar																	
(P250GH)C 22.8 (1.0460)	40	40,0	40,0	40,0	36,2	32,4	28,6	24,8	20,9	13,1	-	-	-	-	-	-	-	-	
16Mo3 (1.5415)	40	40,0	40,0	40,0	40,0	39,0	34,3	32,4	30,5	29,5	22,4	17,7	14,5	11,2	9,0	-	-	-	
13CrMo4-5 (1.7335)	40	40,0	40,0	40,0	40,0	40,0	39,8	38,1	36,2	34,3	29,3	26,1	22,0	17,9	14,9	11,6	9,3	7,6	
GP240GH (1.0619)	40	40,0	31,6	28,9	26,3	24,1	20,3	25,7	19,5	12,5	-	-	-	-	-	-	-	-	
G20Mo5 (1.5419)	40	40,0	33,2	30,9	28,6	26,7	24,8	23,3	22,5	21,8	16,4	12,8	-	-	-	-	-	-	
G17CrMo5-5 (1.7357)	40	40,0	40,0	40,0	40,0	40,0	40,0	40,0	38,1	27,6	21,5	15,4	13,7	11,9	10,2	8,4	6,7	-	

MOUNTING AND OPERATING:

The valve can only be mounted and operated by skilled, properly trained and qualified personnel. Incorrect assembly or operation of the valve may have substantial impact on the entire system such as fluid leakage, reduction in system's function etc.

Before a valve is installed the pipeline must be clean from any mechanical impurities. The compatibility of critical parameters of the flow must be checked with the parameters of the valve. Check valve can be mounted to a pipe-line in any position. The direction of flow should only comply with the arrow marked on the body. The valve should be operated strictly with its assign. In order to provide valve's reliability the following suggestions must be observed:

- medium flowing through the valve is supposed to be clean out of any mechanical impurities;
- the valve must be protected from any mechanical damages during its work;
- nominal parameters marked on the valve must be observed.

CHECK VALVE ACID-PROOF TYPE ZZA40

CHARACTERISTIC:

Diameter	-	15 -300 mm;
Pressure	-	40 bar (flanged may be drilled for 6, 10, 16, 25, bar)
Temperature	-	up to 250°C for acids, bases and other aggressive media;
	-	up to 560°C for non-toxic media; (with PTFE sealing up to 200°C);
Medium	-	acids, liquors, water, steam and other non-toxic and non aggressive liquid and gas media, engine fuel.

VERSIONS:

type - body material / ends / disc and disc ring / others

Example: ZZA40 / --- / --- / ---

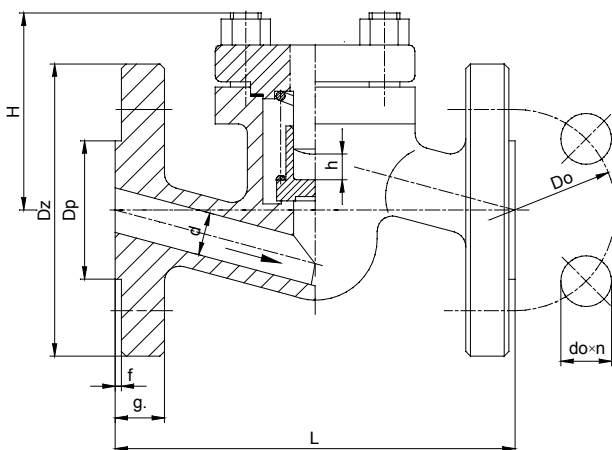
Example: ZZB40 / S / P / ---

Type - body material	Sign	Ends	Sign	Disc and disc ring	Sign	Others	Sign
X6CrNi18-10 or GX5CrNi19-10	ZZA40	Standard - flanged	---	Standard	---	-----	---
X2CrNiMo17-12-2 or GX5CrNiMo19-11-2	ZZB40	Butt weld ends	S	PTFE ring	P		
		Socket weld	SW	NBR ring	N		
		Threaded	G				

APPLICATION:

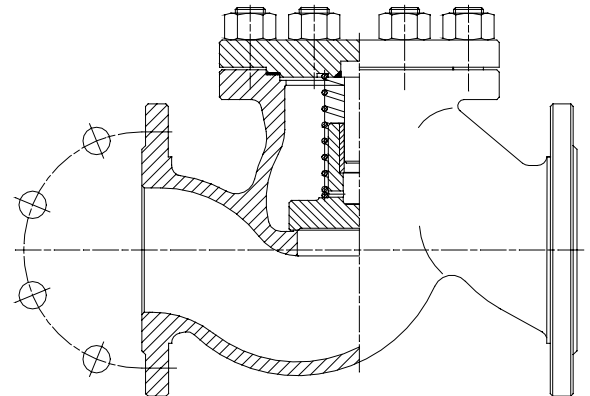
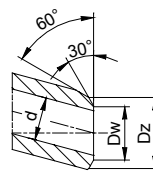
The check valves are designed to keep pipeline safe from returning the medium.

DN 15 - 50

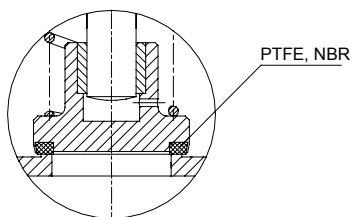


DN 65 - 300

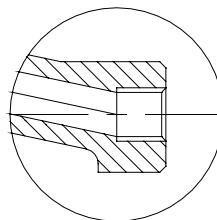
"S"



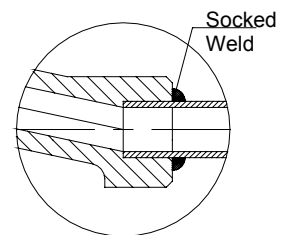
T_{MAX} 200°C



"G"



"SW"



MATERIALS:

Versions	ZZA40	ZZB40	ZZA40	ZZB40
Parts	DN 15 - 50		DN 65 - 300	
Body, bonnet	X6CrNiTi18-10 (1.4541)	X2CrNiMo17-12-2 (1.4404)	GX5CrNi19-10 (1.4308)	GX5CrNiMo19-11-2 (1.4408)
Disc	X6CrNiTi18-10 (1.4541)	X2CrNiMo17-12-2 (1.4404)	X6CrNiTi18-10 (1.4541)	X2CrNiMo17-12-2 (1.4404)
Spring	X6CrNiTi18-10 (1.4541)			
Gasket	Grafit			

Special materials on request; modifications reserved.

DIMENSIONS:

DN	Standard - flanged															With butt weld ends			
	PN 40										PN 16					Dz	Dw	Weight	
	Dz	Dp	Do	do	n	L	g.	f	H	h	Weight	Dz	Dp	Do	do				n
15	95	45	65	14	4	130	16	2	65	10	2,50	95	45	65	14	4	22	17	1,10
20	105	58	75	14	4	150	18	2	65	10	2,90	105	58	75	14	4	28	22	1,40
25	115	68	85	14	4	160	18	2	65	10	3,30	115	68	85	14	4	35	28,5	1,70
32	140	78	100	18	4	180	18	2	85	15	6,80	140	78	100	18	4	44	37	3,60
40	150	88	110	18	4	200	18	3	95	17	9,00	150	88	110	18	4	50	43	4,70
50	165	102	125	18	4	230	20	3	110	21	10,50	165	102	125	18	4	62	54	6,10
65	185	122	145	18	8	290	22	3	155	22	17,50	185	122	145	18	4	77	69	12,70
80	200	138	160	18	8	310	24	3	170	26	27,00	200	138	160	18	8	91	81	18,50
100	235	162	190	22	8	350	24	3	195	32	41,00	220	158	180	18	8	117	104	36,00
125	270	188	220	26	8	400	26	3	200	40	54,00	250	184	210	18	8	144	130,5	49,00
150	300	218	250	26	8	480	28	3	225	44	90,00	285	212	240	22	8	172	156,5	76,00
200	375	285	320	30	12	600	34	3	270	60	150,00	340	268	295	22	12	223	204,5	140,00
250	450	306	385	33	12	730	38	3	290	70	195,00	405	320	355	26	12	278	256,5	165,00
300	515	410	450	33	16	850	42	3	410	130	360,00	460	370	410	26	12	329	306,5	280,00

Dimensions in mm; modifications reserved.

TECHNICAL DATA:

Body material	Medium	PN	Maximal working pressure at working temperature															
			20°C	100°C	150°C	200°C	250°C	300°C	350°C	400°C	450°C	480°C	500°C	510°C	520°C	530°C	540°C	550°C
			bar															
X6CrNiTi18-10 (1.4541)	aggressive media	40	40,0	39,6	37,3	35,4	33,7	-	-	-	-	-	-	-	-	-	-	
GX5CrNi19-10 (1.4308)		40	40,0	35,2	30,5	27,1	23,8	-	-	-	-	-	-	-	-	-	-	
X6CrNiTi18-10 (1.4541)	non aggressive media	40	40,0	39,6	37,3	35,4	33,7	31,8	30,6	29,7	29,0	28,7	28,3	28,0	27,8	27,5	27,2	27,0
GX5CrNi19-10 (1.4308)		40	40,0	35,2	30,5	27,1	23,8	22,4	20,9	19,5	18,1	16,7	15,2	-	-	-	-	-
X2CrNiMo17-12-2 (1.4404)	Aggressive media	40	40,0	40,0	39,1	37,1	36,7	-	-	-	-	-	-	-	-	-	-	-
GX5CrNiMo19-11-2 (1.4408)		40	40,0	32,4	29,1	25,7	23,8	-	-	-	-	-	-	-	-	-	-	-
X2CrNiMo17-12-2 (1.4404)	Non Aggressive media	40	40,0	40,0	39,1	37,1	36,7	34,5	33,1	32,1	31,3	30,7	30,5	30,4	30,3	30,3	30,3	30,2
GX5CrNiMo19-11-2 (1.4408)		40	40,0	32,4	29,1	25,7	23,8	21,9	20,9	20,0	19,4	19,2	19,1	-	-	-	-	-

MOUNTING AND OPERATING:

The valve can only be mounted and operated by skilled, properly trained and qualified personnel. Incorrect assembly or operation of the valve may have substantial impact on the entire system such as fluid leakage, reduction in system's function etc.

Before a valve is installed the pipeline must be clean from any mechanical impurities. The compatibility of critical parameters of the flow must be checked with the parameters of the valve. Check valve can be mounted to a pipe-line in any position. The direction of flow should only comply with the arrow marked on the body. The valve should be operated strictly with its assign. In order to provide valve's reliability the following suggestions must be observed:

- medium flowing through the valve is supposed to be clean out of any mechanical impurities;
- the valve must be protected from any mechanical damages during its work;
- nominal parameters marked on the valve must be observed.

CHECK VALVE TYPE 464

CHARACTERISTIC:

Diameter	-	10 -200 mm;
Pressure	-	100 bar;
Temperature	-	up to 560°C (with PTFE sealing up to $\leq 200^\circ\text{C}$);
Medium	-	water, steam and other non-toxic, non aggressive liquid and gas media and engine fuel.

VERSIONS:

type / ends / body material / disc and disc ring / others

Example: 464 / --- / --- / --- / ---

Example: 464 / S / U / P / ---

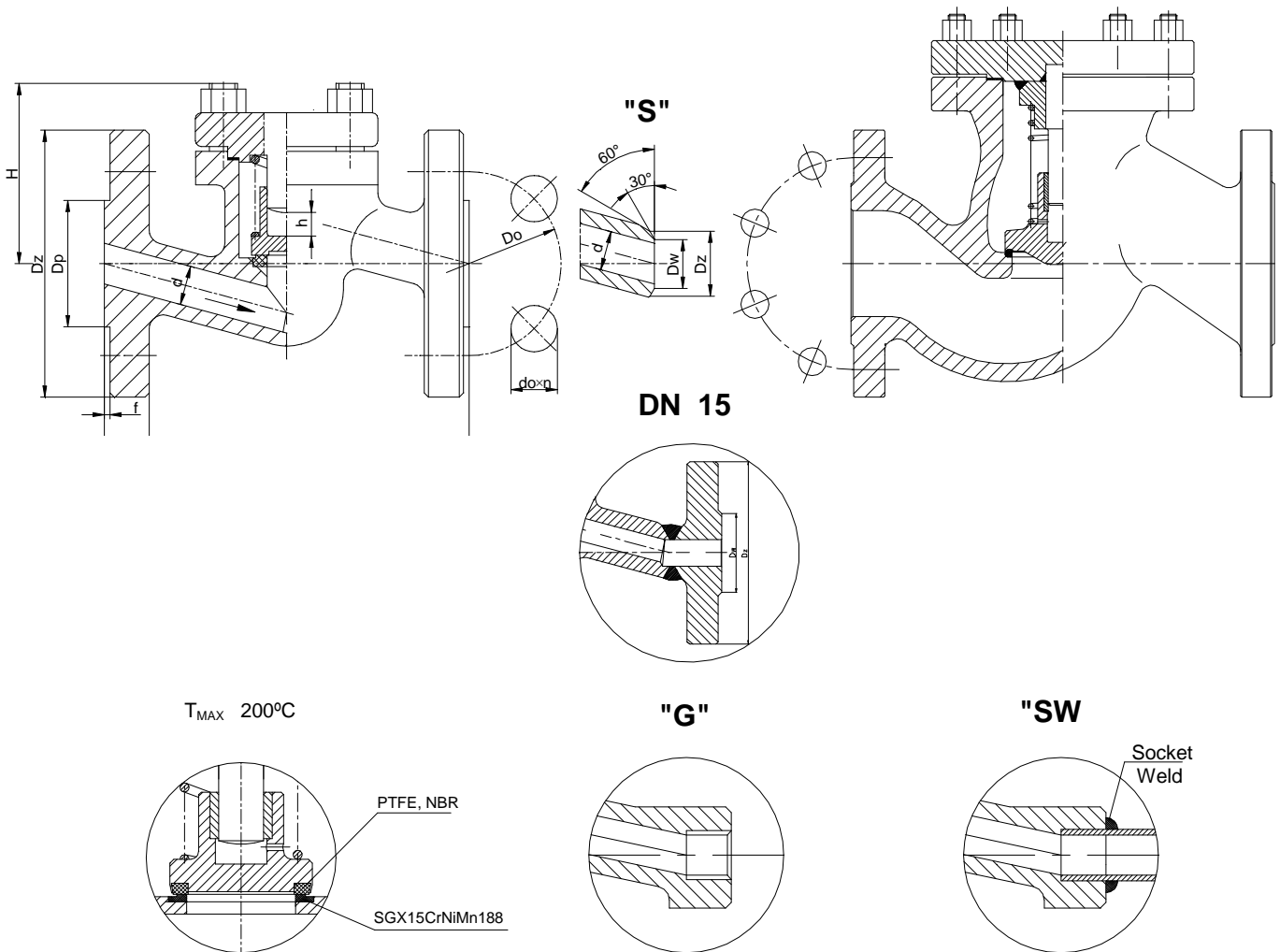
Ends	Sign	Body material	Sign	Disc and disc ring	Sign	Others	Sign
Standard – flanged	---	(P250GH) C 22.8 or GP240GH	---	Standard	---	-----	---
Butt weld ends	S			PTFE ring	P		
Socket weld	SW	16Mo3 or G20Mo5	U	NBR ring	N		
Threaded	G	13CrMo4-5 or G17CrMo5-5	A	STELLIT ring	L		

APPLICATION:

The check valve is designed to keep pipeline safe from returning the medium.

DN 20 ÷ 40

DN 50 ÷ 200



MATERIALS:

Versions	Standard	U	A	Standard	U	A
Parts	T _{MAX} 450°C	T _{MAX} 530°C	T _{MAX} 560°C	T _{MAX} 450°C	T _{MAX} 500°C	T _{MAX} 550°C
	DN 15 - 40			DN 50 - 200		
Body, bonnet	(P250GH) C22.8 (1.0460)	16Mo3 (1.5415)	13CrMo4-5 (1.7335)	GP240GH (1.0619)	G20Mo5 (1.5419)	G17CrMo5-5 (1.7357)
Seat ring DN15-25	X17CrNi16-2 (1.4057)					
Seat ring	G 18 8 Mn (1.4370) or Stellite					
Disc	X30Cr13 (1.4028) , X17CrNi16-2 (1.4057) , P245GH (1.0352) , 13CrMo4-5 (1.7335)					
Disc ring	G 18 8 Mn (1.4370) or Stellite , or PTFE , NBR					
Spring	51CrV4 (1.2241)					
Gasket	Grafit + austenite					

Special materials on request; modifications reserved.

DIMENSIONS:

Standard - flanged													With butt weld ends			
DN	d	Dz	Dp	Do	do	n	L	g.	f	H	h	Weight	Dz	Dw	L	Weight
10	-	-	-	-	-	-	-	-	-	-	-	-	20	13	160	2,70
15	14	105	45	75	14	4	210	20	2	70	13	4,00	22	17	160	2,70
20	19	130	58	90	18	4	230	22	2	75	13	6,20	28	21,5	160	2,70
25	23	140	68	100	22	4	230	24	2	75	13	8,30	35	28,5	160	2,70
32	30	155	78	110	22	4	260	24	2	95	16	11,50	44	36	230	5,20
40	38	170	88	125	22	4	260	28	3	95	18	14,80	50	43	230	7,70
50	45	195	102	145	26	4	300	28	3	140	22	15,70	62	54	300	12,90
65	62	220	122	170	26	8	340	30	3	170	30	37,50	77	69	340	26,30
80	73	230	138	180	26	8	380	32	3	195	40	40,30	91	81	380	27,50
100	94	265	162	210	30	8	430	36	3	200	55	54,00	117	104	430	37,20
125	120	315	188	250	33	8	500	40	3	225	65	76,00	144	127	500	48,90
150	144	355	218	290	33	12	550	44	3	300	70	151,00	172	154	550	101,10
200	195	430	285	360	36	12	650	52	3	400	100	215,00	223	199,5	650	135,00

Dimensions in mm; modifications reserved.

TECHNICAL DATA:

Body material	PN	Maximal working pressure at working temperature																
		20°C	100°C	150°C	200°C	250°C	300°C	350°C	400°C	450°C	480°C	500°C	510°C	520°C	530°C	540°C	550°C	560°C
(P250GH)C 22.8 (1.0460)	100	100,0	92,8	88,0	83,3	76,1	69,0	64,2	59,5	32,8	-	-	-	-	-	-	-	-
16Mo3 (1.5415)	100	100,0	100,0	100,0	100,0	97,6	85,7	80,9	76,1	73,8	56,0	44,2	36,1	28,0	22,3	-	-	-
13CrMo4-5 (1.7335)	100	100,0	100,0	100,0	100,0	100,0	99,5	95,2	90,4	85,7	73,4	65,2	54,9	44,7	37,1	29,0	23,3	19,0
GP240GH (1.0619)	100	100,0	78,9	72,4	65,8	60,1	54,5	50,8	48,9	31,2	-	-	-	-	-	-	-	-
G20Mo5 (1.5419)	100	100,0	82,9	77,1	71,4	66,7	62,0	58,3	56,4	54,5	40,9	31,9	-	-	-	-	-	-
G17CrMo5-5 (1.7357)	100	100,0	100,0	100,0	100,0	100,0	100,0	100,0	95,2	69,1	51,8	38,6	34,2	29,8	25,4	21,1	16,7	-

MOUNTING AND OPERATING:

The valve can only be mounted and operated by skilled, properly trained and qualified personnel. Incorrect assembly or operation of the valve may have substantial impact on the entire system such as fluid leakage, reduction in system's function etc.

Before a valve is installed the pipeline must be clean from any mechanical impurities. The compatibility of critical parameters of the flow must be checked with the parameters of the valve. Check valve can be mounted to a pipe-line in any position. The direction of flow should only comply with the arrow marked on the body. The valve should be operated strictly with its assign. In order to provide valve's reliability the following suggestions must be observed:

- medium flowing through the valve is supposed to be clean out of any mechanical impurities;
- the valve must be protected from any mechanical damages during its work;
- nominal parameters marked on the valve must be observed.

CHECK VALVE TYPE ZZA100

CHARACTERISTIC:

Diameter	-	10 -200 mm;
Pressure	-	100 bar;
Temperature	-	up to 250°C for acids, bases and other aggressive media;
	-	up to 550°C for non-toxic media; (with PTFE sealing up to 200°C);
Medium	-	acids, liquors, water, steam and other non-toxic and non aggressive liquid and gas media, engine fuel.

VERSIONS: type - body material / ends / disc and disc ring / others

Example: ZZA100 / --- / --- / ---

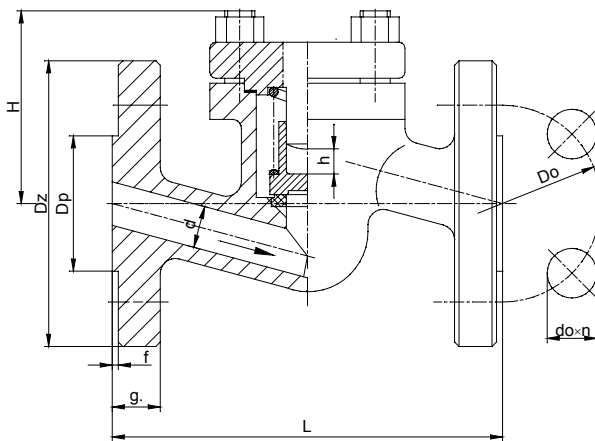
Example: ZZB100 / S / L / ---

Type - body material	Sign	Ends	Sign	Disc and disc ring	Sign	Others	Sign
X6CrNi18-10 or GX5CrNi19-10	ZZA100	Standard - flanged	---	Standard	---	-----	---
		Butt weld ends	S	PTFE ring	P		
X2CrNiMo17-12-2 or GX5CrNiMo19-11-2	ZZB100	Socket weld	SW	NBR ring	N		
		Threaded	G	STELLIT ring	L		

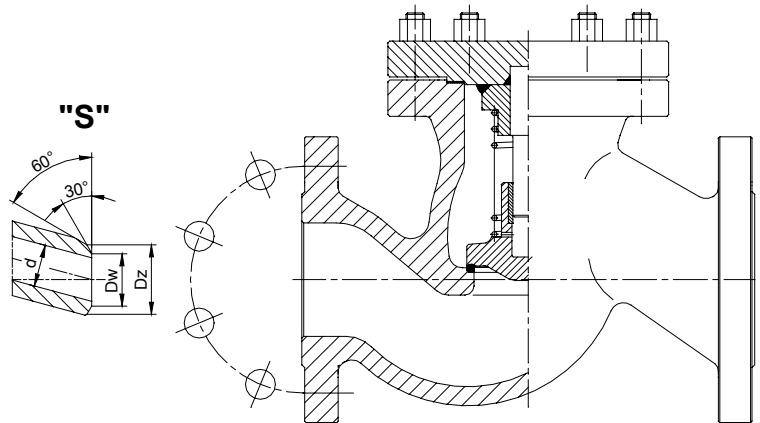
APPLICATION:

The check valve is designed to keep pipeline safe from returning the medium.

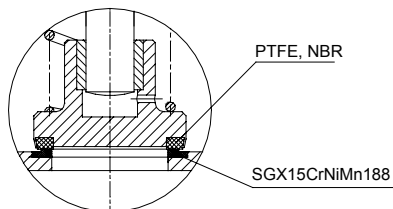
DN 10 ÷ 40



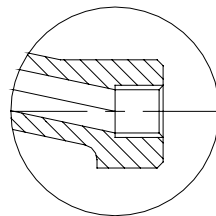
DN 50 ÷ 200



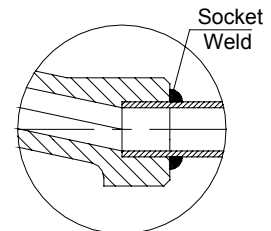
T_{MAX} 200°C



"G"



"SW"



MATERIALS:

Versions	ZZA100	ZZB100	ZZA100	ZZB100
Parts	DN 10 - 50		DN 65 - 200	
Body, bonnet	X6CrNiTi18-10 (1.4541)	X2CrNiMo17-12-2 (1.4404)	GX5CrNi19-10 (1.4308)	GX5CrNiMo19-11-2 (1.4408)
Disc	X6CrNiTi18-10 (1.4541)	X2CrNiMo17-12-2 (1.4404)	X6CrNiTi18-10 (1.4541)	X2CrNiMo17-12-2 (1.4404)
Spring	X6CrNiTi18-10 (1.4541)			
Gasket	Grafit			

Special materials on request; modifications reserved.

DIMENSIONS:

Standard - flanged													With butt weld ends			
DN	d	Dz	Dp	Do	do	n	L	g.	f	H	h	Weight	Dz	Dw	L	Weight
10	-	-	-	-	-	-	-	-	-	-	-	-	20	13	160	2,70
15	14	105	45	75	14	4	210	20	2	70	13	4,00	22	17	160	2,70
20	19	130	58	90	18	4	230	22	2	75	13	6,20	28	21,5	160	2,70
25	23	140	68	100	22	4	230	24	2	75	13	8,30	35	28,5	160	2,70
32	30	155	78	110	22	4	260	24	2	95	16	11,50	44	36	230	5,20
40	38	170	88	125	22	4	260	28	3	95	18	14,80	50	43	230	7,70
50	45	180	102	135	22	4	300	26	3	140	22	15,70	62	54	300	12,90
65	62	205	122	160	22	8	340	26	3	170	30	37,50	77	69	340	26,30
80	73	215	138	170	22	8	380	28	3	195	40	40,30	91	81	380	27,50
100	94	250	162	200	22	8	430	30	3	200	55	54,00	117	104	430	37,20
125	120	295	188	240	26	8	500	34	3	225	65	76,00	144	127	500	48,90
150	144	345	218	290	33	8	550	36	3	300	70	151,00	172	154	550	101,10
200	195	415	285	345	36	12	650	42	3	400	100	215,00	223	199,5	650	135,00

Dimensions in mm; modifications reserved.

TECHNICAL DATA:

Body material	Medium	PN	Maximal working pressure at working temperature															
			20°C	100°C	150°C	200°C	250°C	300°C	350°C	400°C	450°C	480°C	500°C	510°C	520°C	530°C	540°C	550°C
X6CrNiTi18-10 (1.4541)	aggressive media	100	100,0	99,0	93,3	88,5	84,2	-	-	-	-	-	-	-	-	-	-	-
GX5CrNi19-10 (1.4308)		100	100,0	90,9	81,9	74,7	69,0	-	-	-	-	-	-	-	-	-	-	-
X6CrNiTi18-10 (1.4541)	non aggressive media	100	100,0	99,0	93,3	88,5	84,2	79,5	76,6	74,2	72,6	71,5	70,9	70,0	69,5	68,7	68,0	67,6
GX5CrNi19-10 (1.4308)		100	100,0	88,1	76,2	67,9	59,5	55,9	52,4	48,8	45,2	41,6	38,1	-	-	-	-	-
X2CrNiMo17-12-2 (1.4404)	Aggressive media	100	100,0	100,0	97,6	92,9	91,6	-	-	-	-	-	-	-	-	-	-	-
GX5CrNiMo19-11-2 (1.4408)		100	100,0	80,9	72,6	64,3	59,5	-	-	-	-	-	-	-	-	-	-	-
X2CrNiMo17-12-2 (1.4404)	Non Aggressive media	100	100,0	100,0	97,6	92,9	91,6	86,3	82,7	80,4	78,3	77,3	76,2	76,1	75,9	75,8	75,6	75,6
GX5CrNiMo19-11-2 (1.4408)		100	100,0	80,9	72,6	64,3	59,5	54,8	52,4	50,0	48,6	48,2	47,9	-	-	-	-	-

MOUNTING AND OPERATING:

The valve can only be mounted and operated by skilled, properly trained and qualified personnel. Incorrect assembly or operation of the valve may have substantial impact on the entire system such as fluid leakage, reduction in system's function etc.

Before a valve is installed the pipeline must be clean from any mechanical impurities. The compatibility of critical parameters of the flow must be checked with the parameters of the valve. Check valve can be mounted to a pipe-line in any position. The direction of flow should only comply with the arrow marked on the body. The valve should be operated strictly with its assign. In order to provide valve's reliability the following suggestions must be observed:

- medium flowing through the valve is supposed to be clean out of any mechanical impurities;
- the valve must be protected from any mechanical damages during its work;
- nominal parameters marked on the valve must be observed.

CHECK VALVE TYPE 564

CHARACTERISTIC:

Diameter	-	15 -200 mm;
Pressure	-	160 bar;
Temperature	-	up to 560°C;
Medium	-	water, steam and other non-toxic, non aggressive liquid and gas media and engine fuel.

VERSIONS:

type / ends / body material / disc and disc ring / others

Example: 564 / --- / --- / --- / ---

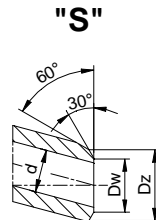
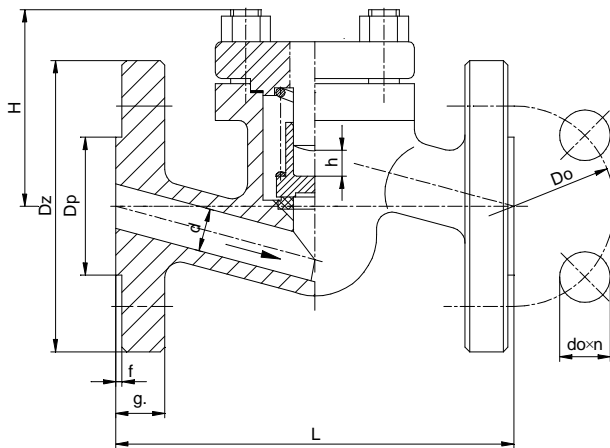
Example: 564 / S / U / --- / ---

Ends	Sign	Body material	Sign	Disc and disc ring	Sign	Others	Sign
Standard – flanged	---	(P250GH) C 22.8 or GP240GH	---	Standard	---	-----	---
Butt weld ends	S			STELLIT ring	L		
Socket weld	SW	16Mo3 or G20Mo5	U				
Threaded	G	13CrMo4-5 or G17CrMo5-5	A				

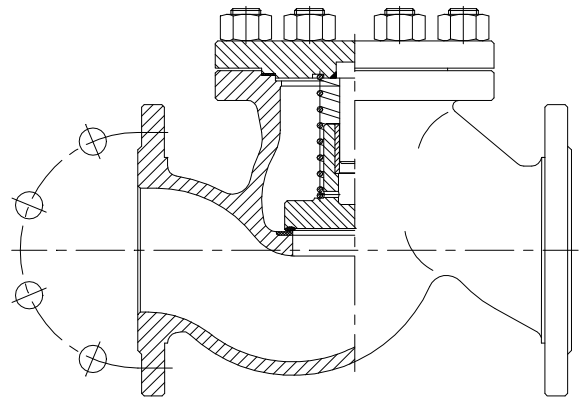
APPLICATION:

The check valve is designed to keep pipeline safe from returning the medium.

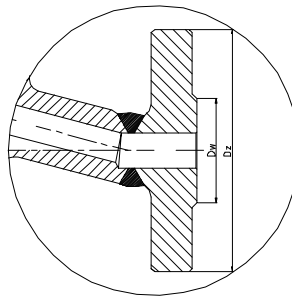
DN 20 ÷ 40



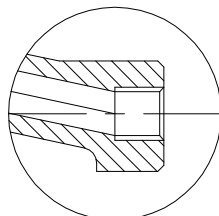
DN 50 ÷ 200



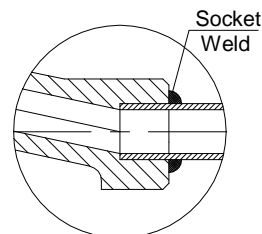
DN 15



"G"



"SW"



MATERIALS:

Versions	Standard	U	A	Standard	U	A
Parts	T _{MAX} 450°C	T _{MAX} 530°C	T _{MAX} 560°C	T _{MAX} 450°C	T _{MAX} 500°C	T _{MAX} 550°C
	DN 15 - 40			DN 50 - 200		
Body, bonnet	(P250GH) C22.8 (1.0460)	16Mo3 (1.5415)	13CrMo4-5 (1.7335)	GP240GH (1.0619)	G20Mo5 (1.5419)	G17CrMo5-5 (1.7357)
Seat ring DN15-25	X17CrNi16-2 (1.4057)					
Seat ring , disc ring	G 18 8 Mn (1.4370) or Stellite					
Disc	X30Cr13 (1.4028) , X17CrNi16-2 (1.4057) , P245GH (1.0352) , 13CrMo4-5 (1.7335)					
Spring	51CrV4 (1.2241)					
Gasket	Grafit + austenite					

Special materials on request; modifications reserved.

DIMENSIONS:

Standard - flanged													Butt weld ends „S”			
DN	d	Dz	Dp	Do	do	n	L	g.	f	H	h	Weight	Dz	Dw	L	Weight
15	14	105	45	75	14	4	210	20	2	70	13	4,00	22	17	160	2,70
20	19	130	58	90	18	4	230	22	2	75	13	6,20	28	21	160	2,70
25	23	140	68	100	18	4	230	24	2	75	13	8,30	35	27	160	2,70
32	30	155	78	110	22	4	260	24	2	95	16	11,50	44	34,5	230	5,20
40	38	170	88	125	22	4	260	28	3	95	18	14,80	50	43	230	7,70
50	45	195	102	145	26	4	300	30	3	140	22	15,70	62	52,5	300	12,90
65	62	220	122	170	26	8	340	34	3	170	30	37,50	77	65	340	26,30
80	73	230	138	180	26	8	380	36	3	195	40	40,30	91	76,5	380	27,50
100	94	265	162	210	30	8	430	40	3	200	55	54,00	117	98,5	430	37,20
125	120	315	188	250	33	8	500	44	3	225	95	76,00	144	120,5	500	48,90
150	144	355	218	290	33	12	550	50	3	300	100	151,00	172	144,5	550	101,10
200	195	430	285	360	36	12	650	6-0	3	400	110	210,00	223	189	650	145,00

Dimensions in mm; modifications reserved.

TECHNICAL DATA:

Body material	PN	Maximal working pressure at working temperature																
		20°C	100°C	150°C	200°C	250°C	300°C	350°C	400°C	450°C	480°C	500°C	510°C	520°C	530°C	540°C	550°C	560°C
		bar																
(P250GH)C 22.8 (1.0460)	160	160,0	160,0	160,0	144,8	129,5	114,3	99,1	83,8	52,5	-	-	-	-	-	-	-	-
16Mo3 (1.5415)	160	160,0	160,0	160,0	160,0	156,1	137,1	129,5	121,9	118,0	89,7	70,8	57,8	44,9	35,8			
13CrMo4-5 (1.7335)	160	160,0	160,0	160,0	160,0	160,0	159,2	152,3	144,7	137,1	117,4	104,3	87,9	71,6	59,4	46,4	37,3	30,4
GP240GH (1.0619)	160	160,0	126,3	115,8	105,3	96,2	87,2	81,3	78,2	49,9	-	-	-	-	-	-	-	-
G20Mo5 (1.5419)	160	160,0	132,7	123,4	114,3	106,7	99,2	93,3	90,2	87,2	65,5	51,1	-	-	-	-	-	-
G17CrMo5-5 (1.7357)	160	160,0	160,0	160,0	160,0	160,0	160,0	160,0	152,3	110,5	84,1	61,7	54,7	47,7	40,7	33,7	26,7	-

MOUNTING AND OPERATING:

The valve can only be mounted and operated by skilled, properly trained and qualified personnel. Incorrect assembly or operation of the valve may have substantial impact on the entire system such as fluid leakage, reduction in system's function etc.

Before a valve is installed the pipeline must be clean from any mechanical impurities. The compatibility of critical parameters of the flow must be checked with the parameters of the valve. Check valve can be mounted to a pipe-line in any position. The direction of flow should only comply with the arrow marked on the body. The valve should be operated strictly with its assign. In order to provide valve's reliability the following suggestions must be observed:

- medium flowing through the valve is supposed to be clean out of any mechanical impurities;
- the valve must be protected from any mechanical damages during its work;
- nominal parameters marked on the valve must be observed.

CHECK VALVE TYPE ZZA160

CHARACTERISTIC:

Diameter	-	15 -200 mm;
Pressure	-	160 bar;
Temperature	-	up to 250°C for acids, bases and other aggressive media;
	-	up to 550°C for non-toxic media; (with PTFE sealing up to 200°C);
Medium	-	acids, liquors, water, steam and other non-toxic and non aggressive liquid and gas media, engine fuel.

VERSIONS:

type - body material / ends / disc and disc ring / others

Example: ZZA160 / --- / --- / ---

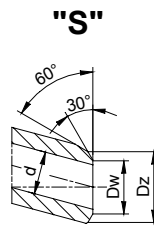
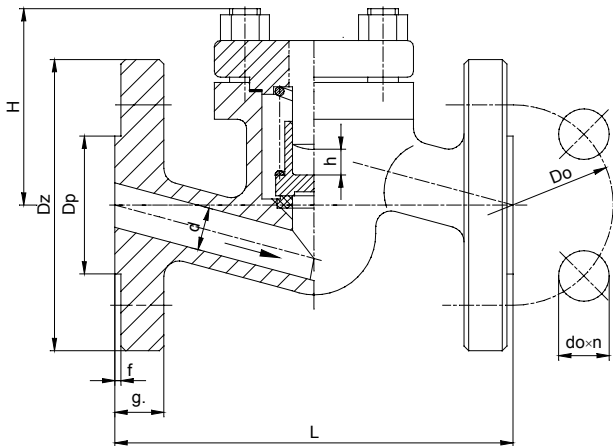
Example: ZZB160 / S / R / ---

Type - body material	Sign	Ends	Sign	Disc and disc ring	Sign	Others	Sign
X6CrNi18-10 or GX5CrNi19-10	ZZA160	Standard - flanged	---	Standard	---	-----	---
		Butt weld ends	S	Stellite	L		
		Socket weld	SW				
X2CrNiMo17-12-2 or GX5CrNiMo19-11-2	ZZB160	Threaded	G				

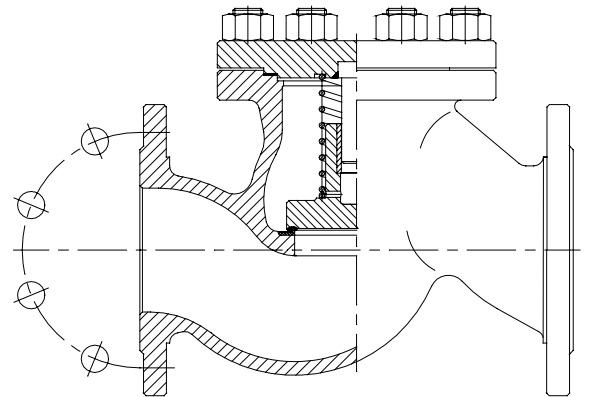
APPLICATION:

The check valve is designed to keep pipeline safe from returning the medium.

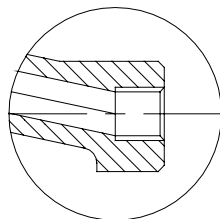
DN 15 ÷ 40



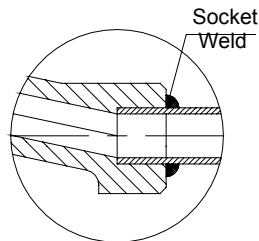
DN 50 ÷ 200



"G"



"SW"



MATERIALS:

Versions	ZZA40	ZZB40	ZZA40	ZZB40
Parts	DN 15 - 50		DN 65 - 300	
Body, bonnet	X6CrNiTi18-10 (1.4541)	X2CrNiMo17-12-2 (1.4404)	GX5CrNi19-10 (1.4308)	GX5CrNiMo19-11-2 (1.4408)
Disc	X6CrNiTi18-10 (1.4541)	X2CrNiMo17-12-2 (1.4404)	X6CrNiTi18-10 (1.4541)	X2CrNiMo17-12-2 (1.4404)
Spring	X6CrNiTi18-10 (1.4541)			
Gasket	Grafit			

Special materials on request; modifications reserved.

DIMENSIONS:

Standard - flanged													Do spawania „S”			
DN	d	Dz	Dp	Do	do	n	L	g.	f	H	h	Weight	Dz	Dw	L	Weight
15	14	105	45	75	14	4	210	20	2	70	13	4,00	22	17	160	2,70
20	19	130	58	90	18	4	230	22	2	75	13	6,20	28	21	160	2,70
25	23	140	68	100	18	4	230	24	2	75	13	8,30	35	27	160	2,70
32	30	155	78	110	22	4	260	24	2	95	16	11,50	44	34,5	230	5,20
40	38	170	88	125	22	4	260	28	3	95	18	14,80	50	43	230	7,70
50	45	195	102	145	26	4	300	30	3	140	22	15,70	62	52,5	300	12,90
65	62	220	122	170	26	8	340	34	3	170	30	37,50	77	65	340	26,30
80	73	230	138	180	26	8	380	36	3	195	40	40,30	91	76,5	380	27,50
100	94	265	162	210	30	8	430	40	3	200	55	54,00	117	98,5	430	37,20
125	120	315	188	250	33	8	500	44	3	225	95	76,00	144	120,5	500	48,90
150	144	355	218	290	33	12	550	50	3	300	100	151,00	172	144,5	550	101,10
200	195	430	285	360	36	12	650	6-0	3	400	110	210,00	223	189	650	145,00

Dimensions in mm; modifications reserved.

TECHNICAL DATA:

Body material	Medium	PN	Nominal working pressure at working temperature															
			20°C	100°C	150°C	200°C	250°C	300°C	350°C	400°C	450°C	480°C	500°C	510°C	520°C	530°C	540°C	550°C
X6CrNiTi18-10 (1.4541)	Aggressive media	160	160	159	149	142	135	-	-	-	-	-	-	-	-	-	-	-
		160	160	122	109	95	89	-	-	-	-	-	-	-	-	-	-	-
X6CrNiTi18-10 (1.4541)	Non Aggressive media	160	160	159	149	142	135	127	123	119	116	115	113	113	113	113	112	108
		160	160	122	109	95	89	84	78	72	67	64	61	-	-	-	-	-
X2CrNiMo17-12-2 (1.4404)	Aggressive media	160	160	160	156	149	147	-	-	-	-	-	-	-	-	-	-	-
		160	160	129	116	103	95	-	-	-	-	-	-	-	-	-	-	-
X2CrNiMo17-12-2 (1.4404)	Non Aggressive media	160	160	160	156	149	147	138	132	129	125	123	122	122	121	121	121	121
		160	160	129	116	103	95	88	84	80	78	78	77	-	-	-	-	-

MOUNTING AND OPERATING:

The valve can only be mounted and operated by skilled, properly trained and qualified personnel. Incorrect assembly or operation of the valve may have substantial impact on the entire system such as fluid leakage, reduction in system's function etc.

Before a valve is installed the pipeline must be clean from any mechanical impurities. The compatibility of critical parameters of the flow must be checked with the parameters of the valve. Stop globe valve can be mounted to a pipe-line in any position. The direction of flow should only comply with the arrow marked on the body. The valve should be operated strictly with its assign. In order to provide valve's reliability the following suggestions must be observed:

- medium flowing through the valve is supposed to be clean out of any mechanical impurities;
- the valve must be protected from any mechanical damages during its work;
- nominal parameters marked on the valve must be observed.

CHECK VALVE ACID-PROOF TYPE ZZA250

CHARACTERISTIC:

Diameter	-	15 -125 mm;
Pressure	-	250 bar
Temperature	-	up to 250°C for acids, bases and other aggressive media;
	-	up to 560°C for non-toxic media; (with PTFE sealing up to 200°C);
Medium	-	acids, liquors, water, steam and other non-toxic and non aggressive liquid and gas media, engine fuel.

VERSIONS:

type - body material / ends / disc and disc ring / others

Example: ZZA250 / --- / --- / ---

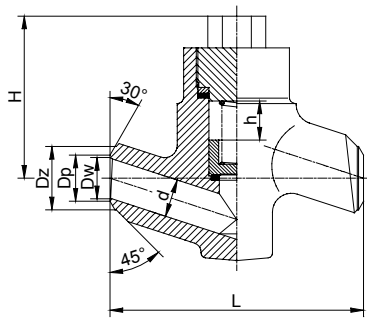
Example: ZZB250 / S / P / ---

Type - body material	Sign	Ends	Sign	Disc and disc ring	Sign	Others	Sign
X6CrNi18-10 or GX5CrNi19-10	ZZA250	Standard - flanged	---	Standard	---	-----	---
X2CrNiMo17-12-2 or GX5CrNiMo19-11-2	ZZB250	Butt weld ends	S	PTFE ring	P		
		Socket weld	SW	NBR ring	N		
		Threaded	G				

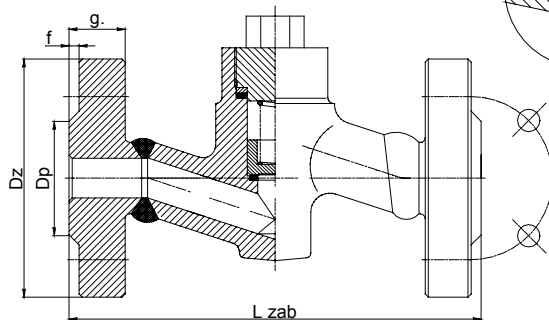
APPLICATION:

The check valves are designed to keep pipeline safe from returning the medium.

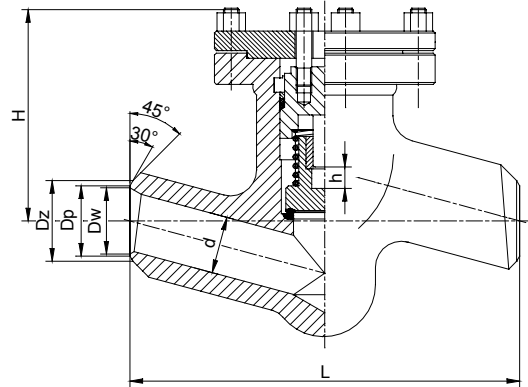
DN 15 ÷ 25



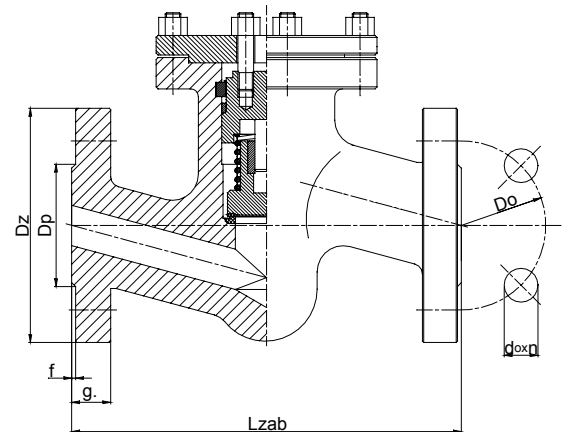
"K"



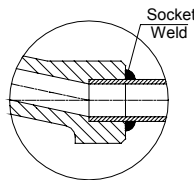
DN 32 ÷ 125



"K"



"SW"



MATERIALS:

Versions	ZZA250	ZZB250	ZZA250	ZZB250
Parts	DN 15 - 50		DN 65 - 125	
Body, bonnet	X6CrNiTi18-10 (1.4541)	X2CrNiMo17-12-2 (1.4404)	GX5CrNi19-10 (1.4308)	GX5CrNiMo19-11-2 (1.4408)
Disc	X6CrNiTi18-10 (1.4541)	X2CrNiMo17-12-2 (1.4404)	X6CrNiTi18-10 (1.4541)	X2CrNiMo17-12-2 (1.4404)
Spring	X6CrNiTi18-10 (1.4541)			
Gasket	Grafit			

Special materials on request; modifications reserved.

DIMENSIONS:

Standard – butt weld ends						H	h	Flanged - "K"									
DN	d	Dz	Dw	L	Weight			DN	Dz	Dp	Do	do	n	L _{zab}	g.	f	Weight
15	14	22	16	160	4,00	235	15	15	130	45	90	18	4	230	26	2	8,70
20	20	28	19,5	160	4,00	240	15	20	150	58	105	22	4	260	28	2	11,30
25	24	35	26,5	160	4,00	240	15	25	150	68	105	22	4	260	28	2	13,30
32	32	44	32,5	300	15,00	365	27	32	-	-	-	-	-	-	-	-	-
40	38	50	38,5	300	15,00	365	27	40	185	88	135	26	4	300	34	3	30,20
50	48	62	45	300	15,00	365	27	50	200	102	150	26	8	350	38	3	32,00
65	62	77	59,5	340	26,50	450	30	65	230	122	180	26	8	400	42	3	57,80
80	76	117	93	380	55,50	580	40	80	255	138	200	30	8	450	46	3	93,00
100	92	144	116,5	430	71,00	620	55	100	300	162	235	33	8	520	54	3	138,50
125	112	172	138,5	500	91,00	670	65	125	340	188	275	33	12	600	60	3	186,90

Dimensions in mm; modifications reserved.

TECHNICAL DATA:

Body material	Medium	PN	Nominal working pressure at working temperature															
			20°C	100°C	150°C	200°C	250°C	300°C	350°C	400°C	450°C	480°C	500°C	510°C	520°C	530°C	540°C	550°C
			bar															
X6CrNiTi18-10 (1.4541)	Aggressive media	250	250	248	233	221	211	-	-	-	-	-	-	-	-	-	-	-
GX5CrNi19-10 (1.4308)		250	238	191	170	149	140	-	-	-	-	-	-	-	-	-	-	-
X6CrNiTi18-10 (1.4541)	Non Aggressive media	250	250	248	233	221	211	199	192	186	182	180	177	177	176	176	175	169
GX5CrNi19-10 (1.4308)		250	238	191	170	149	140	131	122	113	104	98	95	-	-	-	-	-

MOUNTING AND OPERATING:

The valve can only be mounted and operated by skilled, properly trained and qualified personnel. Incorrect assembly or operation of the valve may have substantial impact on the entire system such as fluid leakage, reduction in system's function etc.

Before a valve is installed the pipeline must be clean from any mechanical impurities. The compatibility of critical parameters of the flow must be checked with the parameters of the valve. Check valve can be mounted to a pipe-line in any position. The direction of flow should only comply with the arrow marked on the body. The valve should be operated strictly with its assign. In order to provide valve's reliability the following suggestions must be observed:

- medium flowing through the valve is supposed to be clean out of any mechanical impurities;
- the valve must be protected from any mechanical damages during its work;
- nominal parameters marked on the valve must be observed.

CHECK VALVE TYPE 481

CHARACTERISTIC:

- Diameter - 15 -125 mm;
- Pressure - 250 bar;
- Temperature - up to 670°C;
- Medium - water, steam and other non-toxic, non aggressive liquid and gas media.

VERSIONS:

type / ends / body material / disc and disc ring / others

Example: 481 / --- / --- / --- / ---

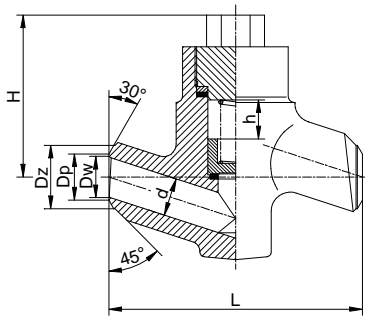
Example: 481 / K / U / --- / ---

Ends	Sign	Body material	Sign	Disc and disc ring	Sign	Others	Sign
Standard-butt weld ends	---	(P250GH) C 22.8	---	Standard	---	-----	---
Socket weld	SW	16Mo3	U	Stellite ring	L		
Flange by DIN or ANSI,	K	13CrMo4-5	A				
		11CrMo9-10	B				
		14MoV6-3	C				
		X10CrMoVNb9-1	E				

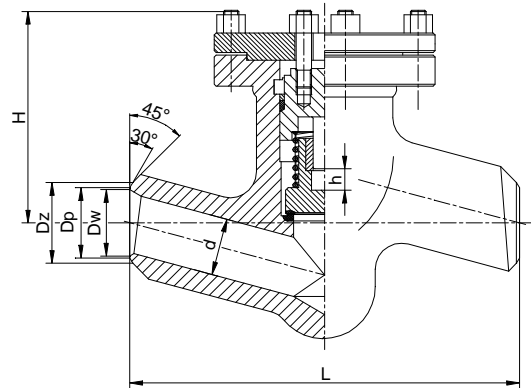
APPLICATION:

The check valve is designed to keep pipeline safe from returning the medium.

DN 15 ÷ 25



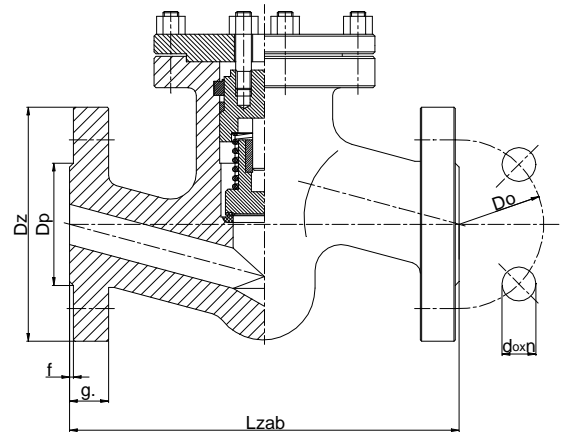
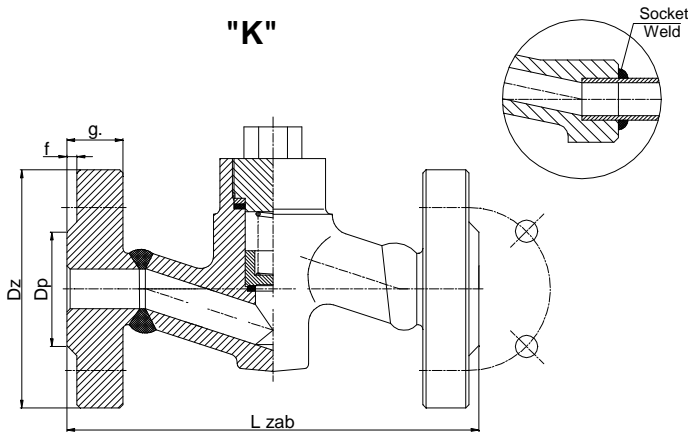
DN 32 ÷ 125



"SW"

"K"

"K"



MATERIALS:

Versions	Standard	U	A	B	C	E
Parts	T _{MAX} 450°C	T _{MAX} 530°C	T _{MAX} 560°C	T _{MAX} 600°C	T _{MAX} 570°C	T _{MAX} 670°C
Body, bonnet	(P250GH) C22.8 (1.0460)	16Mo3 (1.5415)	13CrMo4-5 (1.7335)	11CrMo9-10 (1.7383)	14MoV6-3 (1.7715)	X10CrMoVNb9-1 (1.4903)
Seat ring	BT9 or G 18 8 Mn (1.4370) or Stellite					
Disc	X20Cr13 (1.4021) , P245GH (1.0352)					X10CrMoVNb9-1
Disc ring	G 18 8 Mn (1.4370) or Stellite					
Spring	51CrV4 (1.2241)					
Gasket	Grafite + austenite					
Bonnet DN > 32	P265GH (1.0425)					

Special materials on request; modifications reserved.

DIMENSIONS:

Standard – butt weld ends						H		Flanged - "K"									
DN	d	Dz	Dw	L	Weight	H	h	DN	Dz	Dp	Do	do	n	L _{zab}	g.	f	Weight
15	14	22	16	160	4,00	100	15	15	130	45	90	18	4	230	26	2	8,70
20	20	28	19,5	160	4,00	100	15	20	150	58	105	22	4	260	28	2	11,30
25	24	35	26,5	160	4,00	100	15	25	150	68	105	22	4	260	28	2	13,30
32	30	44	32,5	300	15,00	146	27	32	-	-	-	-	-	-	-	-	-
40	38	50	38,5	300	15,00	146	27	40	185	88	135	26	4	300	34	3	30,20
50	44	62	45	300	15,00	146	27	50	200	102	150	26	8	350	38	3	32,00
65	62	77	59,5	340	26,50	145	30	65	230	122	180	26	8	400	42	3	57,80
80	76	117	93	380	55,50	203	40	80	255	138	200	30	8	450	46	3	93,00
100	92	144	116,5	430	71,00	240	55	100	300	162	235	33	8	520	54	3	138,50
125	112	172	138,5	500	91,00	305	65	125	340	188	275	33	12	600	60	3	186,90

Dimensions in mm; modifications reserved.

TECHNICAL DATA:

Body material	PN	Maximal working pressure at working temperature																
		20°C	100°C	150°C	200°C	250°C	300°C	350°C	400°C	450°C	480°C	500°C	520°C	530°C	540°C	560°C	570°C	600°C
(P250GH)C 22.8 (1.0460) 16Mo3 (1.5415) 13CrMo4-5 (1.7335) 14MoV6-3 (1.7715) 11CrMo9-10 (1.7383)		bar																
	250	250,0	250,0	250,0	250,0	250,0	250,0	250,0	250,0	250,0	165,0	-	-	-	-	-	-	-
	250	250,0	250,0	250,0	250,0	250,0	250,0	250,0	250,0	250,0	222,0	176,0	141,0	112,0	-	-	-	-
	250	250,0	250,0	250,0	250,0	250,0	250,0	250,0	250,0	250,0	250,0	250,0	224,0	186,0	146,0	95,0	79,0	-
	250	250,0	250,0	250,0	250,0	250,0	250,0	250,0	250,0	250,0	250,0	250,0	250,0	250,0	250,0	205,0	174,0	-
X10CrMoVNb9-1 (1.4903)		bar																
	250	250,0	250,0	250,0	250,0	250,0	250,0	250,0	250,0	250,0	224,0	198,0	174,0	155,0	134,0	117,0	100,0	86,0

MOUNTING AND OPERATING:

The valve can only be mounted and operated by skilled, properly trained and qualified personnel. Incorrect assembly or operation of the valve may have substantial impact on the entire system such as fluid leakage, reduction in system's function etc.

Before a valve is installed the pipeline must be clean from any mechanical impurities. The compatibility of critical parameters of the flow must be checked with the parameters of the valve. Stop globe valve can be mounted to a pipe-line in any position. The direction of flow should only comply with the arrow marked on the body. The valve should be operated strictly with its assign. In order to provide valve's reliability the following suggestions must be observed:

- medium flowing through the valve is supposed to be clean out of any mechanical impurities;
- the valve must be protected from any mechanical damages during its work;
- nominal parameters marked on the valve must be observed.



Klinger Portugal, Lda.
Via José Régio, 36
Centro Empresarial Vilar do Pinheiro
4485-860 Vila do Conde
T: +351 22 947 0910
E-mail: geral@klinger.pt

Delegação Lisboa
Rua de Cabo Verde, 8
Prior Velho 2685-316
T: +351 21 940 6620
E-mail: lisboa@klinger.pt