

GATE VALVE S38

PN 10–100; DN 40–500, 800; T_{MAX} : 540 °C



GATE VALVE S38

APPLICATION

- water, steam, gases, other working substances in the energy sector

CONNECTION

- flanged, weld ends

OPERATION

- handwheel, electric actuator, gearbox, remote control

DESCRIPTION

- shut-off gate valve
- non-rotating rising stem
- non-rising handwheel
- flexible or plate wedge
- complies with the requirements of the directive 2014/68/EU, EN 1984
- testing is carried out according to EN 12266-1

BASIC DESIGN OPTIONS

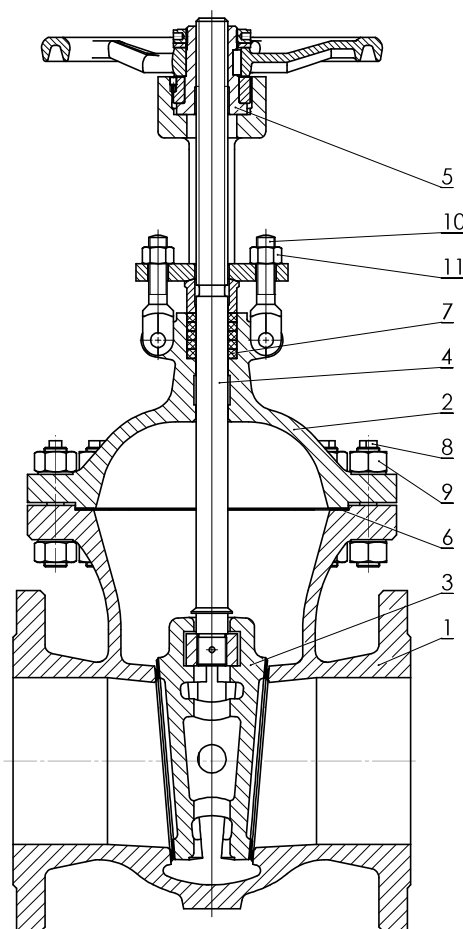
- position indicator
- limit switches
- TA-Luft (Type S38.2)
- protection cover for the stem
- drain plug
- hard facing of a back seat
- by-pass
- PTFE gland packing and the packing in a separation plane
- PTFE packing in the seat
- gland packing with leakage suction

PRESSURE-TEMPERATURE-RATINGS

Material	PN	Admissible operating pressure PS [bar] at operating temperature TS [°C]															
		-105	-60	-50	-30	-10	50	100	150	200	250	300	350	400	450	500	540
GP240GH (1.0619)	10	-	-	-	-	10	10	9,3	8,7	7,8	7,1	6,4	6,0	5,8	-	-	-
	16	-	-	-	-	16	16	14,9	13,9	12,4	11,4	10,3	9,6	9,2	-	-	-
	25	-	-	-	-	25	25	23,3	21,7	19,4	17,8	16,1	15,0	14,4	-	-	-
	40	-	-	-	-	40	40	37,3	35,0	30,2	28,4	25,8	24,0	23,1	-	-	-
	63	-	-	-	-	63	63	58,8	54,6	47,6	44,8	40,6	37,8	36,4	-	-	-
	100	-	-	-	-	100	100	93,3	86,7	75,6	71,1	64,4	60,0	57,8	-	-	-
G17CrMo5-5 (1.7357)	10	-	-	-	-	10	10	10	10	10	9,8	9,1	8,4	8,0	7,6	6,1	2,8
	16	-	-	-	-	16	16	16	16	16	15,6	14,6	13,5	12,8	12,1	9,7	4,5
	25	-	-	-	-	25	25	25	25	25	24,4	22,8	21,1	20,0	18,9	15,2	7,1
	40	-	-	-	-	40	40	40	40	40	39,1	36,4	33,8	32,0	30,2	24,4	11,4
	63	-	-	-	-	63	63	63	63	63	61,6	57,4	53,2	50,4	47,6	38,4	18,0
	100	-	-	-	-	100	100	100	100	100	97,8	91,1	84,4	80,0	75,6	60,9	28,6
GX5CrNi- Mo19-11-2 (1.4408)	10	-	-	10	10	10	10	7,8	7,0	6,4	6,0	5,6	-	-	-	-	-
	16	-	-	16	16	16	16	14,9	13,5	12,4	11,7	11,0	-	-	-	-	-
	25	-	-	25	25	25	25	23,3	21,1	19,4	18,3	17,2	-	-	-	-	-
	40	-	-	40	40	40	40	37,3	33,8	31,1	29,3	27,6	-	-	-	-	-
	63	-	-	63	63	63	63	58,8	53,2	49,0	46,2	43,4	-	-	-	-	-
	100	-	-	100	100	100	100	93,3	84,4	77,8	73,3	68,9	-	-	-	-	-
GX5Cr- NiNb19-11 (1.4552)	16	16	16	16	16	16	16	13,8	12,7	11,6	11,0	10,4	10,0	9,6	9,3	8,8	-
	25	25	25	25	25	25	25	21,5	19,8	18,1	17,2	16,3	15,6	15,0	14,5	13,8	-
	40	40	40	40	40	40	40	34,5	31,7	29,0	27,5	26,0	25,0	24,0	23,2	22,0	-
	63	63	63	63	63	63	63	54,3	50,0	45,7	43,3	41,0	39,4	37,8	36,5	34,7	-
	100	100	100	100	100	100	100	86,2	79,3	72,5	68,7	65,0	62,5	60,0	59,0	56,5	-
G20Mo5 (1.5419)	16	-	-	-	-	16	16	16	16	16	14,8	13,7	12,9	11,9	11,0	7,0	-
	25	-	-	-	-	25	25	25	25	24,0	22,0	20,0	19,2	18,6	17,2	11,0	-
	40	-	-	-	-	40	40	40	40	40	37,0	34,2	32,3	29,9	27,6	17,7	-
	63	-	-	-	-	63	63	63	61,0	59,0	55,0	51,0	48,0	46,0	43,5	27,9	-
	100	-	-	-	-	100	100	95,0	89,0	83,0	79,0	75,0	71,0	68,0	63,0	44,2	-
G21Mn5 (1.1138)	10	-	-	-	10	10	10	9,3	8,8	8,0	7,4	6,8	-	-	-	-	-
	16	-	-	-	16	16	16	14,8	14,0	12,8	11,8	10,8	-	-	-	-	-
	25	-	-	-	25	25	25	23,0	21,0	19,2	18,2	17,2	-	-	-	-	-
	40	-	-	-	40	40	40	37,0	35,0	32,0	29,5	27,0	-	-	-	-	-
	63	-	-	-	63	63	63	42,0	40,0	38,0	36,0	35,0	-	-	-	-	-
	100	-	-	-	100	100	100	66,0	63,0	60,2	58,0	56,0	-	-	-	-	-
42 2707.6, 42 2707.9	16	-	16	16	16	16	16	16	10,1	9,6	9,3	9,1	7,7	7,5	7,2	-	-
	25	-	25	25	25	25	25	25	15,8	15,0	14,5	14,2	12,1	11,7	11,3	-	-
	40	-	40	40	40	40	40	40	25,3	24,0	23,2	22,7	19,4	18,7	18,0	-	-
	63	-	63	63	63	63	63	63	39,9	37,8	36,5	35,7	30,5	29,4	28,4	-	-
	100	-	100	100	100	100	100	100	63,3	60,0	58,0	56,7	48,4	46,7	45,1	-	-

Special materials on request: 1.7363, 1.4308

USED MATERIALS



Pos.	Part	Material						
1	Body	GP240GH (1.0619)	G17CrMo5-5 (1.7357)	GX5CrNiMo19-11-2 (1.4408)	GX5CrNiNb19-11 (1.4552)	G20Mo5 (1.5419)	G21Mn5 (1.1138)	42 2707.6, .9
	Hard facing of body sealing surface	13Cr	Stellite 6	-	-	13Cr	13Cr	13Cr
2	Bonnet	GP240GH (1.0619)	G17CrMo5-5 (1.7357)	GX5CrNiMo19-11-2 (1.4408)	GX5CrNiNb19-11 (1.4552)	G20Mo5 (1.5419)	G21Mn5 (1.1138)	42 2707.6, .9
3	Wedge	GP240GH (1.0619)	G17CrMo5-5 (1.7357)	GX5CrNiMo19-11-2 (1.4408)	GX5CrNiNb19-11 (1.4552)	G20Mo5 (1.5419)	G21Mn5 (1.1138)	42 2707.6, .9
	Hard facing of wedge sealing surface	13Cr	Stellite 6	X10CrNiMn18-8-6	X10CrNiMn18-8-6	13Cr	13Cr	13Cr
4	Stem	X20Cr13 (1.4021)	X22CrMoV12-1+QT (1.4923+QT)	X6CrNiMoTi17-12-2 (1.4571)	X6CrNiMoTi17-12-2 (1.4571)	X22CrMoV12-1+QT (1.4923+QT)	X20Cr13 (1.4021)	X6CrNiMoTi17-12-2 (1.4571)
5	Stem nut	9S20K (1.0711) / 42 3046,01						
6	Gasket	Graphite sealing RGS-3 (PN 16-40) / Cammpofole sealing with expanded graphite (PN 63-100)						
7	Gland packing	Graphite						
8	Bolt	25CrMo4 (1.7218)	21CrMoV5-7 (1.7709)	A2-70	A2-70	21CrMoV5-7 (1.7709)	A2-70	A2-70
9	Nut	C35E+QT (1.1181+QT)	25CrMo4 (1.7218)	A2-70	A2-70	25CrMo4 (1.7218)	A2-70	A2-70
10	Bolt	25CrMo4 (1.7218)	25CrMo4 (1.7218)	A2-70	A2-70	25CrMo4 (1.7218)	A2-70	A2-70
11	Nut	C35E+QT (1.1181+QT)	C35E+QT (1.1181+QT)	A2-70	A2-70	C35E+QT (1.1181+QT)	A2-70	A2-70

VALVE DIMENSIONS

1. Flanged

Face-to-face dimensions: EN 558 – line 15, 26

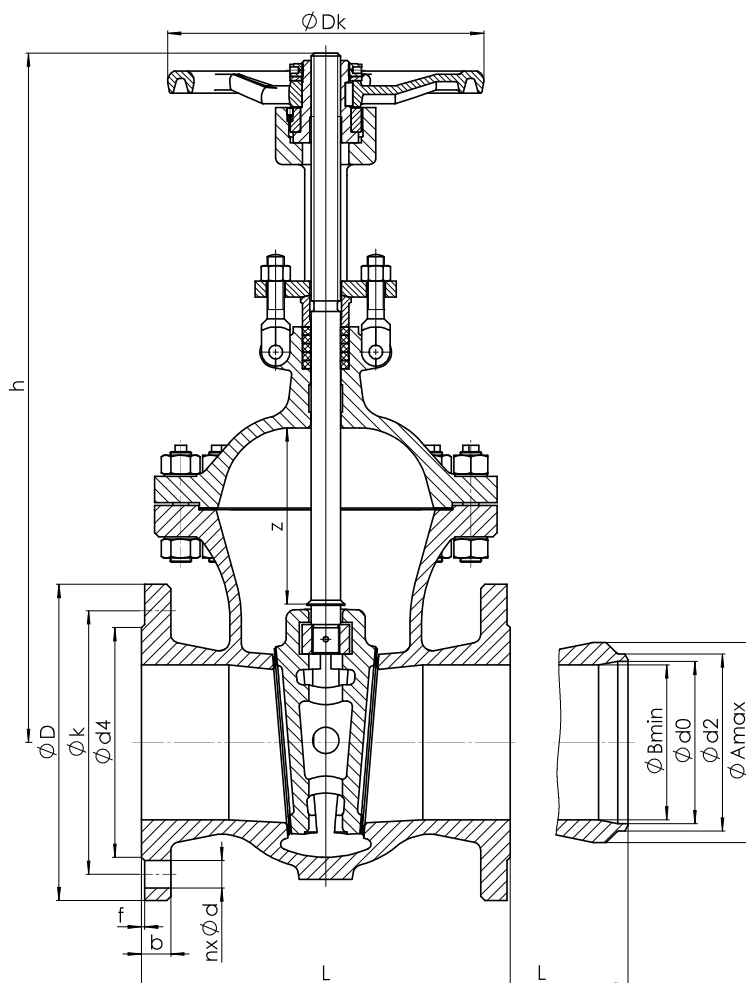
Flanged: EN 1092-1

2. Weld ends

Face-to-face dimensions: EN 12982 – line 15

Weld ends: DIN 3239 – part 1

Groove form: DIN 2559 – sheet 1 – form 22



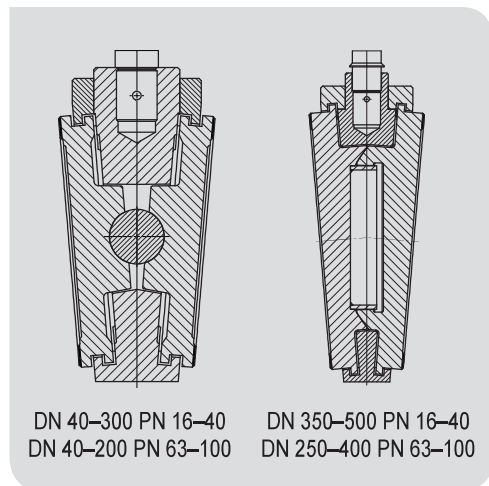
Nominal pressure	Nominal size	Face-to-face	Stroke	Handwheel	Electric actuator (connection according to ISO 5210)	Centre-to-top	Flanged							Weld ends					
PN	DN	L [mm]	z [mm]	Dk [mm]	-	h [mm]	n [mm]	d [mm]	k [mm]	D [mm]	b [mm]	d4 x f [mm]	m [kg]	d2 [mm]	d0 [mm]	Amax [mm]	Bmin [mm]	m [kg]	Pipe dimension [mm]
16	40	240	70	200	F10-A	360	4	18	110	150	18	88x3	26	49	43	68	37	24	48,3x2,6
	50	250	70	200	F10-A	365	4	18	125	165	18	102x3	26	61	54	80	49	24	60,3x3,2
	65	270	100	250	F10-A	470	8	18	145	185	18	122x3	39	77	69	89	65	36	76,1x3,6
	80	280	100	250	F10-A	470	8	18	160	200	20	138x3	41	90	81	115	80	37	88,9x4,0
	100	300	125	315	F10-A	525	8	18	180	220	20	158x3	53	115	104	130	100	46	114,3x5,0
	125	325	150	315	F10-A	640	8	18	210	250	22	188x3	82	141	130,5	161	122	73	139,7x4,5
	150	350	175	315	F10-A	655	8	22	240	285	22	212x3	102	170	156,5	192	147	91	168,3x5,6
	200	400	235	400	F10-A	825	12	22	295	340	24	268x3	168	222	204,5	246	197	151	219,1x7,1
	250	450	285	500	F14-B2	1035	12	26	355	405	26	320x3	260	276	256,5	298	250	236	273x8,0
	300	500	340	500	F14-B2	1185	12	26	410	460	28	378x4	370	325	308,5	352	300	339	323,9x8,0
	350	550	380	630	F14-A	1345	16	26	470	520	30	438x4	445	359	336,5	408	347	397	355,6x8,8
	400	600	430	630	F14-A	1505	16	30	525	580	32	490x4	740	411	383	460	395	677	406,4x11,0
	450	650	520	720	F16-B2	1870	20	30	585	640	46	550x4	1110	461	430,5	514	450	1045	457x12,5
	500	700	600	800	F25-B2	1780	20	33	650	715	48	610x4	1220	512	478	558	500	1133	508x14,2
	800	100	790	-	F25-B2	2460	24	39	950	1025	41	900x5	2115	*	*	856	790	1970	813x12,5

Nominal pressure	Nominal size	Face-to-face	Stroke	Handwheel	Electric actuator (connection according to ISO 5210)	Centre-to-top	Flanged							Weld ends					
PN	DN	L [mm]	z [mm]	Dk [mm]	-	h [mm]	n [mm]	d [mm]	k [mm]	D [mm]	b [mm]	d4 x f [mm]	m [kg]	d2 [mm]	d0 [mm]	Amax [mm]	Bmin [mm]	m [kg]	Pipe dimension [mm]
25	40	240	70	200	F10-A	360	4	18	110	150	18	88x3	26	49	43	68	37	24	48,3x2,6
	50	250	70	200	F10-A	365	4	18	125	165	20	102x3	26	61	54	80	49	24	60,3x3,2
	65	270	100	250	F10-A	470	8	18	145	185	22	122x3	39	77	69	89	65	36	76,1x3,6
	80	280	100	250	F10-A	470	8	18	160	200	24	138x3	41	90	81	115	80	37	88,9x4,0
	100	300	125	315	F10-A	525	8	22	190	235	24	162x3	55	115	104	130	100	49	114,3x5,0
	125	325	150	315	F10-A	635	8	26	220	270	26	188x3	82	141	130,5	161	122	73	139,7x4,5
	150	350	175	315	F14-A	655	8	26	250	300	28	218x3	102	170	156,5	192	147	91	168,3x5,6
	200	400	235	400	F14-B2	825	12	26	310	360	30	278x3	168	222	204,5	246	197	151	219,1x7,1
	250	450	285	500	F14-B2	1035	12	30	370	425	32	335x3	260	276	256,5	298	250	236	273x8,0
	300	500	340	500	F14-B2	1185	16	30	430	485	34	395x3	370	325	308,5	352	300	339	323,9x8,0
	350	550	380	630	F14-A	1345	16	33	490	555	38	450x4	445	359	336,5	408	347	397	355,6x8,8
	400	600	430	630	F16-B2	1500	16	36	550	620	40	505x4	740	411	383	460	395	677	406,4x11,0
	450	650	520	720	F16-B2	1870	20	36	600	670	46	555x4	1120	461	430,5	514	450	1045	457x12,5
	500	700	600	800	F25-B2	1780	20	36	660	730	48	615x4	1230	512	478	558	500	1133	508x14,2
40	40	240	58	200	F10-A	360	4	18	110	150	18	88x3	26	49	43	68	37	24	48,3x2,6
	50	250	60	200	F10-A	365	4	18	125	165	20	102x3	26	61	54	80	49	24	60,3x3,2
	65	290	92	250	F10-A	468	8	18	145	185	22	122x3	39	77	69	89	65	35	76,1x3,6
	80	310	92	250	F10-A	468	8	18	160	200	24	138x3	42	90	81	115	80	37	88,9x4,0
	100	350	115	315	F10-A	522	8	22	190	235	24	162x3	62	115	104	135	100	56	114,3x5,0
	125	400	115	315	F10-A	522	8	26	220	270	26	188x3	90	141	130,5	165	125	81	139,7x4,5
	150	450	165	315	F14-B2	656	8	26	250	300	28	218x3	126	170	156,5	192	147	115	168,3x5,6
	200	550	224	400	F14-B2	825	12	30	320	375	34	285x3	198	222	204,5	252	200	177	219,1x7,1
	250	650	279	500	F14-B2	1033	12	33	385	450	38	345x3	322	276	256,5	308	250	288	273x8,0
	300	750	340	500	F14-A	1223	16	33	450	515	42	410x4	550	325	308,5	364	300	503	323,9x8,0
	350	850	381	630	F16-B2	1378	16	36	510	580	46	465x4	850	359	336,5	420	350	781	355,6x8,8
	400	950	442	720	F25-B2	1507	16	39	585	660	50	535x4	1120	411	383	470	397	1022	406,4x11,0
63	40	240	58	200	F10-A	360	4	22	125	170	26	88x3	31	49	43	75	37	27	48,3x2,6
	50	250	60	200	F10-A	365	4	22	135	180	26	102x3	31	61	54	90	49	27	60,3x3,2
	65	290	92	250	F10-A	468	8	22	160	205	26	122x3	55	77	69	105	65	50	76,1x3,6
	80	310	92	250	F10-A	468	8	22	170	215	28	138x3	60	90	81	122	80	54	88,9x4,0
	100	350	115	315	F14-A	522	8	26	200	250	30	162x3	93	115	104	145	100	84	114,3x5,0
	125	400	115	315	F14-A	522	8	30	240	295	34	188x3	93	141	130,5	178	125	84	139,7x4,5
	150	450	176	500	F14-B2	720	8	33	280	345	36	218x3	188	170	156,5	204	147	167	168,3x5,6
	200	550	224	500	F14-A	898	12	36	345	415	42	285x3	326	222	204,5	264	200	288	219,1x7,1
	250	650	268	630	F16-A	1124	12	36	400	470	46	345x3	500	276	256,5	320	247	452	237x8,8
	300	750	324	720	F25-B2	1117	16	36	460	530	52	410x4	860	325	308,5	358	300	793	323,9x11,0
	350	850	381	720	F25-B2	1410	16	39	525	600	56	465x4	880	359	336,5	434	350	812	355,6x12,5
	400	950	446	720	F25-B2	1510	16	42	585	670	60	535x4	1180	411	377	490	400	1051	406,4x14,2
100	40	240	58	200	F10-A	360	4	22	125	170	26	88x3	35	49	43	75	37	31	48,3x2,6
	50	250	60	200	F10-A	365	4	26	145	195	28	102x3	40	61	54	90	49	34	60,3x3,2
	65	290	92	250	F10-A	468	8	26	170	220	30	122x3	56	77	69	105	65	50	76,1x3,6
	80	310	92	250	F10-A	468	8	26	180	230	32	138x3	62	90	81	122	80	54	88,9x4,0
	100	350	115	315	F14-A	522	8	30	210	265	36	162x3	90	115	104	145	100	84	114,3x5,0
	125	400	115	315	F14-A	522	8	33	250	315	40	188x3	110	139,7	119,7	178	125	89	139,7x6,3
	150	450	184	500	F14-B2	712	12	33	290	355	44	218x3	227	170	154	204	147	199	168,3x7,1
	200	550	228	630	F16-B2	937	12	36	360	430	52	285x3	460	222	199,5	264	200	410	219,1x10,0
	250	650	268	720	F25-A	1124	12	39	430	505	60	345x3	609	276	248,5	320	247	528	273x12,5
	300	750	324	720	F25-B1	1117	16	42	500	585	68	410x4	1032	325	295,5	358	300	914	323,9x14,2
	350	850	412	720	F30-A	1439	16	48	560	655	74	465x4	1320	359	324	460	350	1152	355,6x16,0

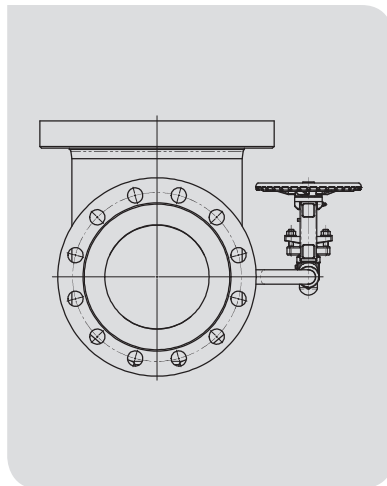
Dimensions for pressure PN 10 on request | DN 800 PN 16 – oval gate valve | * At customer's request

DESIGN VARIANTS

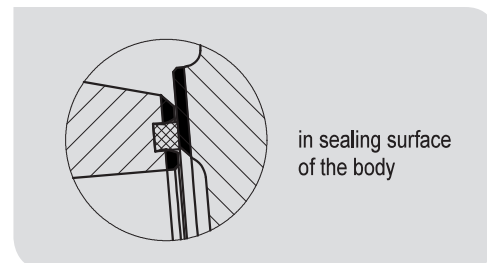
PLATE WEDGE



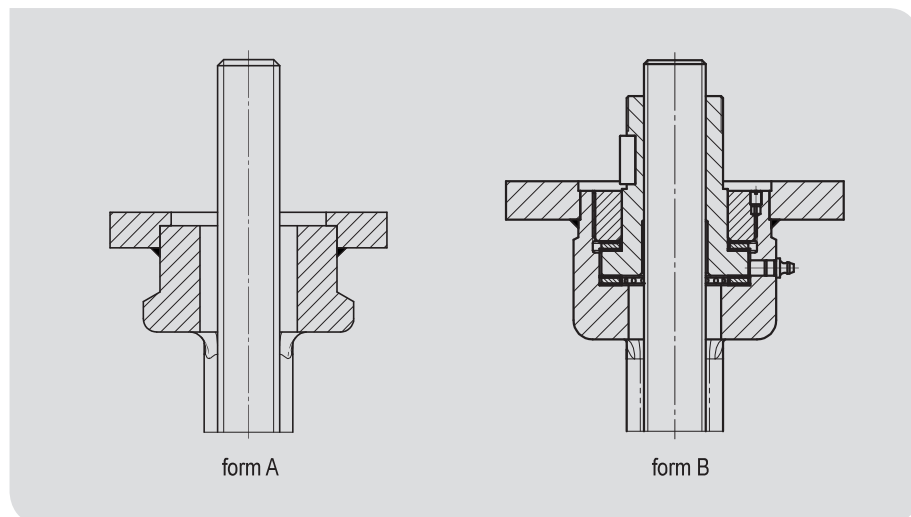
BY – PASS



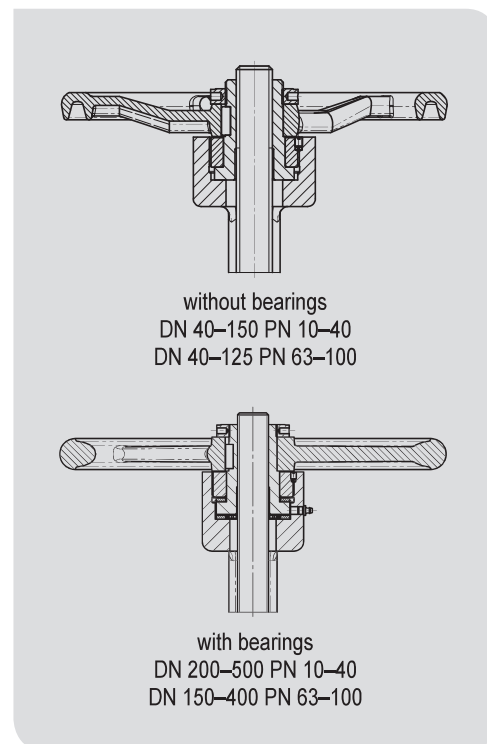
PTFE RING



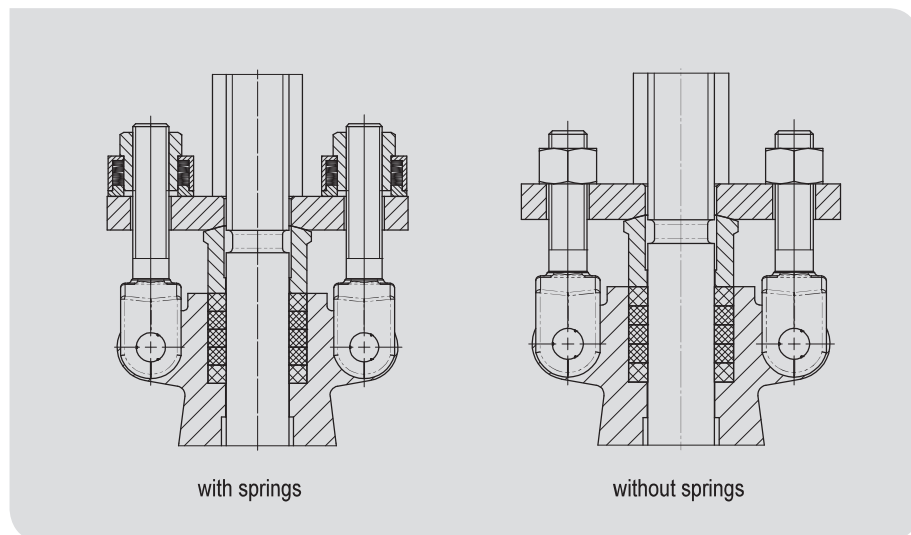
ADJUSTMENT FOR CONNECTION OF ELECTRIC ACTUATOR



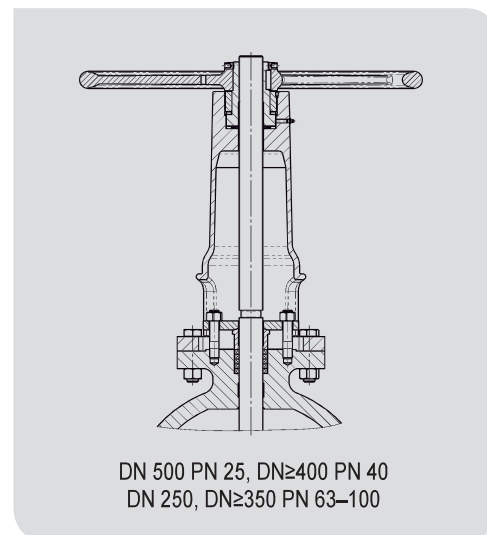
OPERATION BY HANDWHEEL



TA-LUFT

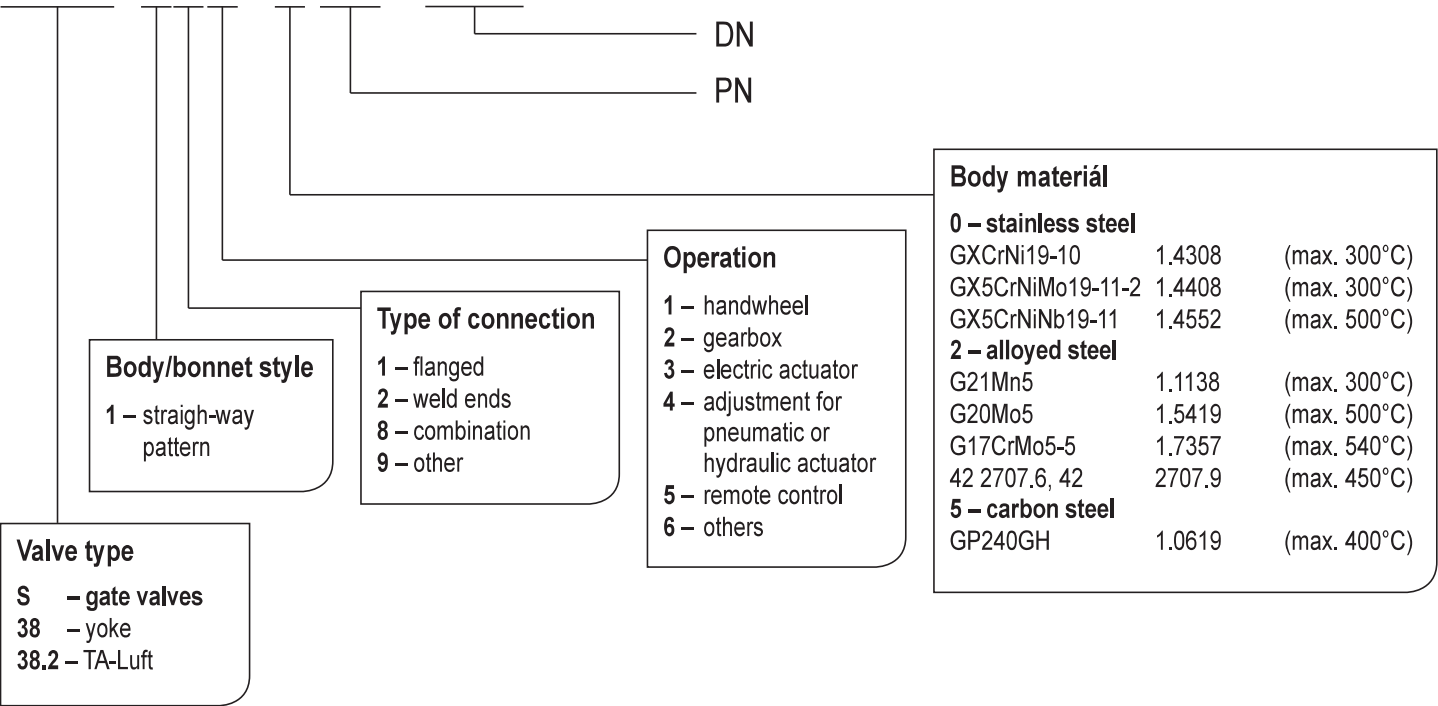


DESIGN OF YOKE



VALVE DESCRIPTION CODE

S38 111–016–150



VALVE INSTALLATION

The recommended position of the valve is with the stem and the control element perpendicular to the top or with the spindle tilted up to 90 degrees to the horizontal plane. Mounting with a hanging stem is not permitted.

Installation and use the valve following points have to be respected:

- operating conditions must comply with operating parameters of the valve
- proper function of the valve is affected by the presence of impurities in the pipeline and flowing medium, therefore it is necessary keep working environment a pipeline clean, for example with using filters
- medium used must comply with the corrosion resistance of the valve material
- use of mechanically damaged valves during the operation is prohibited

The service life of valves significantly extends regular maintenance and minor repairs carried out by trained personnel.