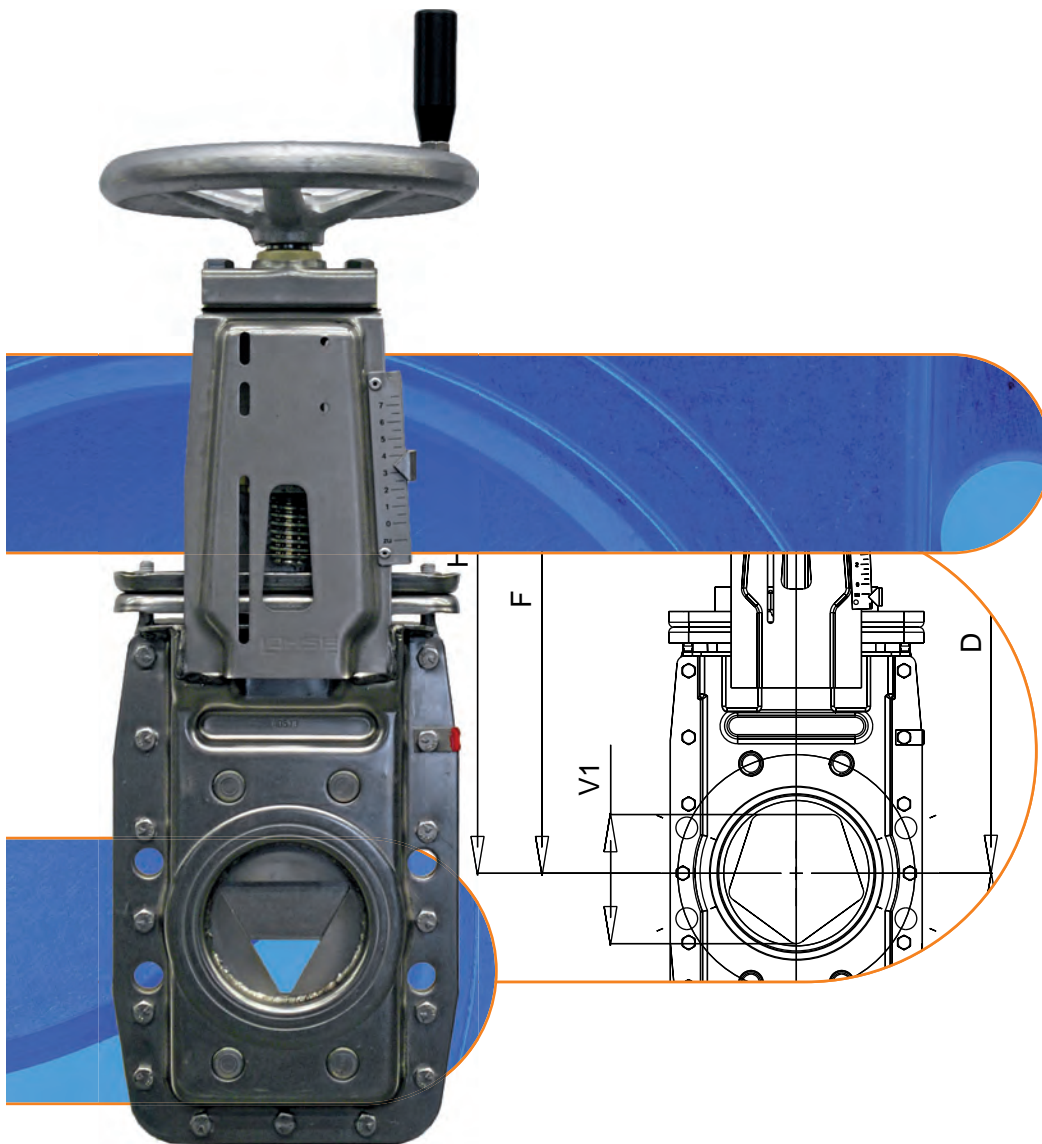


Valves of stainless steel · COMPACT-Program

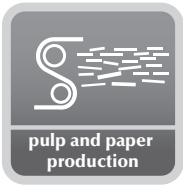
Regulating Valves

CBS 50 – 600 mm



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phone +49 7321 755-42
sales@lohse-gmbh.de
www.lohse-gmbh.de

Applications



Paper industry and chemical industry

LOHSE COMPACT-gate valves have proved their value and reliability in all branches of paper and chemical industries. The valves type CBS are regulating valves. The type is suitable for regulation of stock and aggressive media.



Sewage treatment

When LOHSE COMPACT-gate valves of acid resistant stainless steel are installed in waste water treatment plants, the need to use expensive isolation appliances to guard against contact-corrosion is removed.



Food industry

LOHSE COMPACT-gate valves are widely used as regulating valves for viscous and glutinous media as for instance in salt works, sugar mills, wine making industry, breweries etc.

In special designs, the non-metallic components of the LOHSE valves can be equipped with FDA-approved components. The respective suitability must be checked for each application.



Special models

For special applications, we can supply special valves constructed of various materials for differing temperatures, pressures and sealing properties to suit the particular application.

Construction

Housings entirely of stainless steel

- pressed steel design
- completely corrosion and acid resistant
- light
- easy to maintain
- the handwheel support also serves as a mounting for any switchgear or control apparatus

Slide guides of special plastic

- abrasion resistant
- excellent anti-friction properties
- temperature resistant
- acid resistant
- easily replaceable

Valve plate of stainless steel

- through its special design in combination with triangle and pentagon orifice is a constant regulation possible
- built in strength to resist water pressure vibration

Design of orifice triangle or pentagon

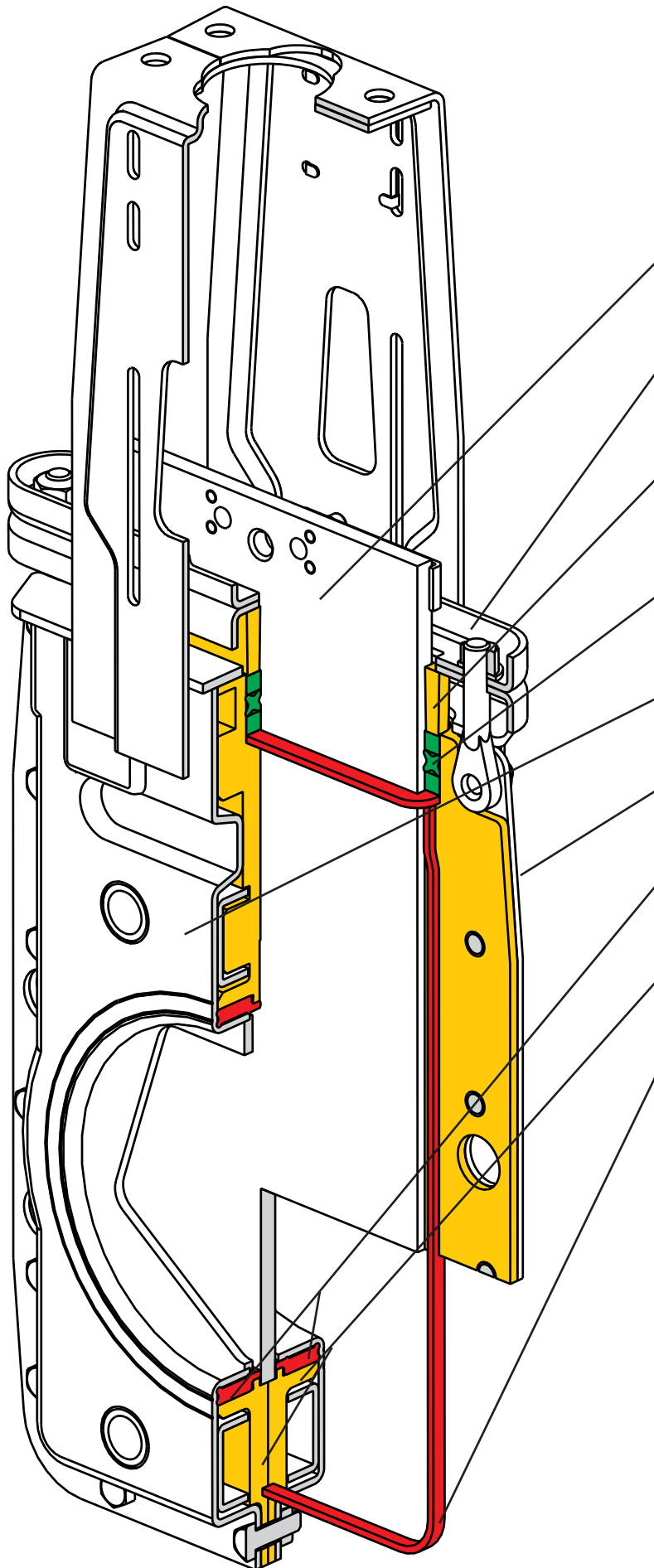
- triangle for precisely regulation
- pentagon for regulation with high flow

Actuating elements in well-proved LOHSE modular system

- interchangeable on all valves of our make
- also interchangeable on the incorporated existing valve
- reduced stock holding

Watertight

- Leak test according to DIN EN 12266-02:2012-04 Table A5, test medium liquid, leakage rate A



Valve plate
entirely of corrosion and acid resistant stainless steel

Stuffing box gland
entirely of corrosion and acid resistant stainless steel

Press gland
ultra-high molecular weight low pressure polyethylene

Packing assembly
aramide fibre with PTFE impregnation and sealing of EPDM or VITON

Housing plate – BS –
entirely of corrosion and acid resistant stainless steel

Housing plate – NL –
entirely of corrosion and acid resistant stainless steel

Sealing gasket
EPDM or VITON

Slide cup – CBS –
glasfibre reinforced unsaturated polyester resin

Special gasket
EPDM or VITON

Materials

- housing

DN 50 – 250	1.4404
DN 300 – 600	1.4541
DN 700 – 1000	1.4571
- flanging ring

DN 300 – 1000	1.4571
---------------	--------
- valve plate

	1.4571
--	--------
- slide cups

DN 50 – 250	GFRP
DN 300 – 600	PP
- sealing

	EPDM, VITON or NBR
--	--------------------
- slide parts

DN 700 – 1000	CuSn6 / CuAL10Ni
---------------	------------------
- stuffing box gland

DN 50 – 150	1.4301
DN 200 – 450	1.4541
DN 500 – 600	1.4301
DN 700 – 1000	1.4571
- packing assembly

packing	aramid fibre with impregnation of PTFE
p-ring	EPDM, VITON or NBR
- press gland

DN 50 -150	PE-HMW
------------	--------
- bracket

	1.4301
--	--------
- screws / nuts

	A2
--	----
- max. operating pressure

DN 50 – 250	10 bar
DN 300 – 500	6 bar
DN 600	4 bar
DN 700 – 1800	3 bar
- max. operating temperature with sealing of

NBR	105° C
EPDM	120° C
VITON	200° C

Operating elements – the LOHSE modular system

All LOHSE COMPACT-valves comprise the following **main groups**:

- valve body type: CBS
- operating elements type Hns, H, P, PV, E, GK

All elements are interchangeable for any given size. Thereby the connections of brackets as well as the coupling of actuator and valve plate will be removed and fixed again after the exchange. No removal of incorporated valve body (notice safety rules – pipes must be pressureless).

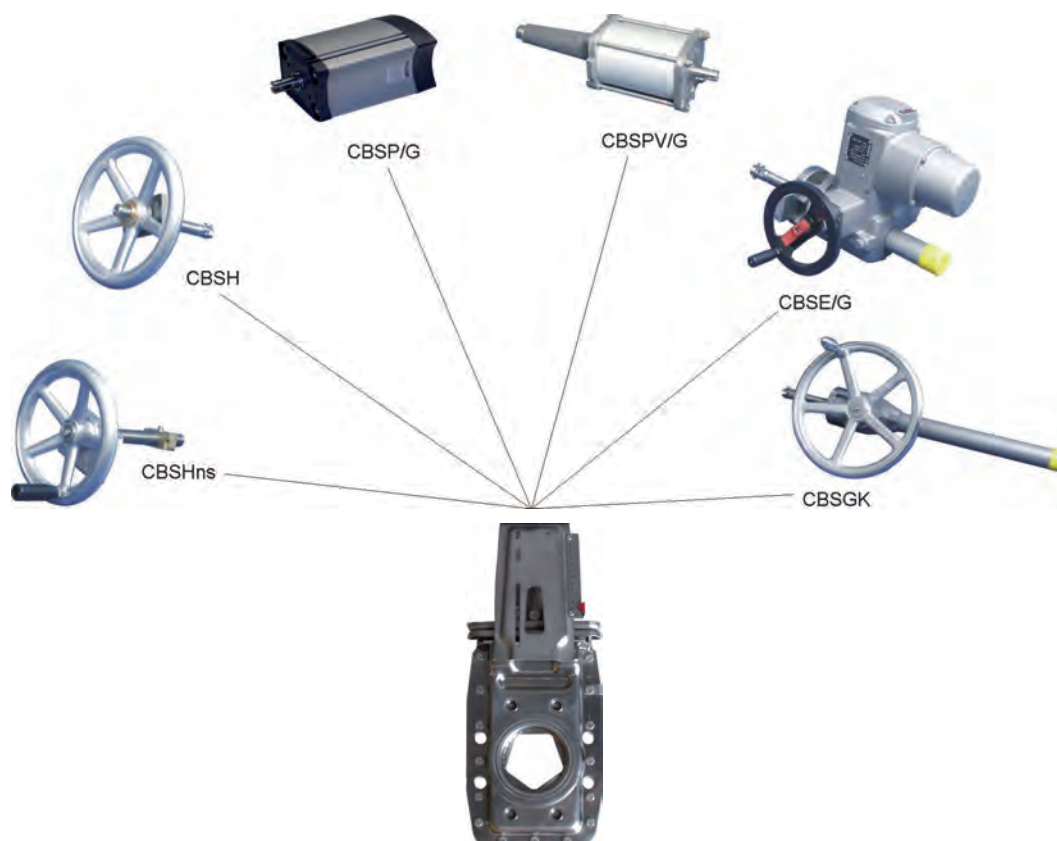
This facility is called the **LOHSE modular system** which offers the following advantages:

- simplified and less expensive holding of spare parts.
- in case of damage, actuating elements can be replaced inexpensively.
- if any valve drives have to be altered, replacement is easy and quick

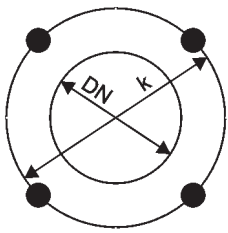
Protection guards (G)

According to machinery directive 2006/42/EG guards are compulsory to shield all moving parts on automated gate valves.

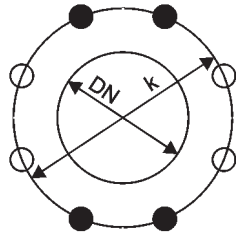
Protection guard of stainless steel.



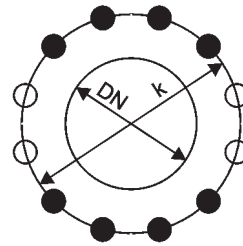
Flange bores for LOHSE COMPACT-valves according to DIN EN 1092-1, PN 10



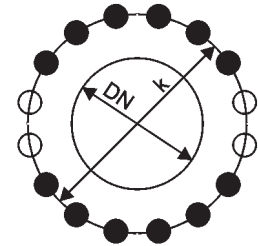
DN 50-65



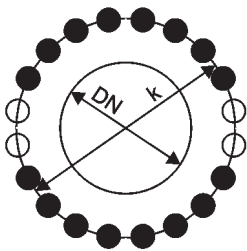
DN 80-200



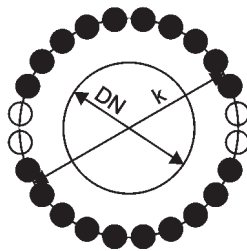
DN 250-300



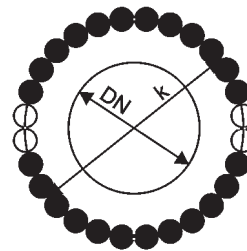
DN 350-400



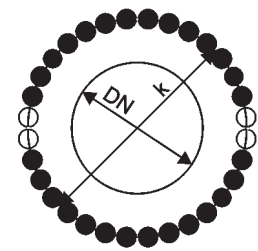
DN 450-600



DN 700-800

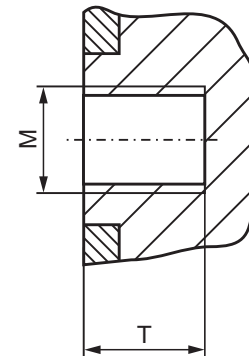


DN 900-1000



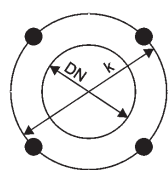
DN 1100-1200

DN [mm]	K [mm]	Z	M	T [mm]	Z1	Z2
50	125	4	M16	12	4	-
65	145	4	M16	12	4	-
80	160	8	M16	12	4	4
100	180	8	M16	12	4	4
125	210	8	M16	12	4	4
150	240	8	M20	16	4	4
200	295	8	M20	16	4	4
250	350	12	M20	20	8	4
300	400	12	M20	20	8	4
350	460	16	M20	20	12	4
400	515	16	M24	23	12	4
450	565	20	M24	30	16	4
500	620	20	M24	30	16	4
600	725	20	M27	35	16	4
700	840	24	M27	40	20	4
800	950	24	M30	45	20	4
900	1050	28	M30	45	24	4
1000	1160	28	M33	45	24	4
1100	1270	32	M33	50	28	4
1200	1380	32	M36	55	28	4

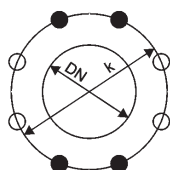


Z = total number of holes
 Z1 = number of joint-holes
 Z2 = number of through-going bores
 T = usable depth of thread

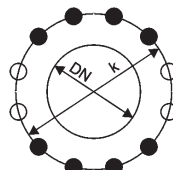
Flange bores for LOHSE COMPACT-valves
according to ANSI B 16.5 Class 150 (≥ DN 700: ANSI B 16.47 Class 150)



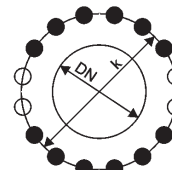
DN 50-80



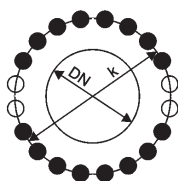
DN 100-200



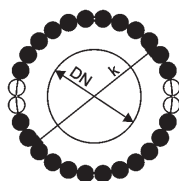
DN 250-350



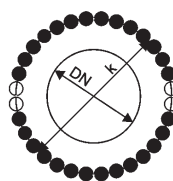
DN 400-450



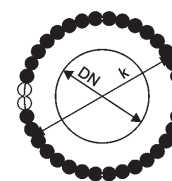
DN 500-600



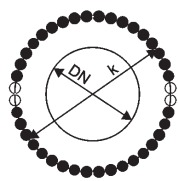
DN 700-800



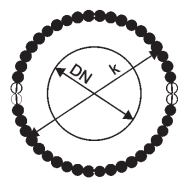
DN 900



DN 1000

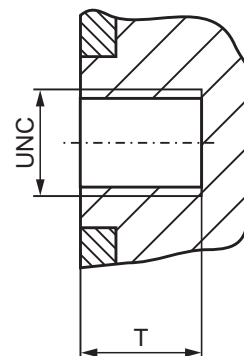


DN 1100



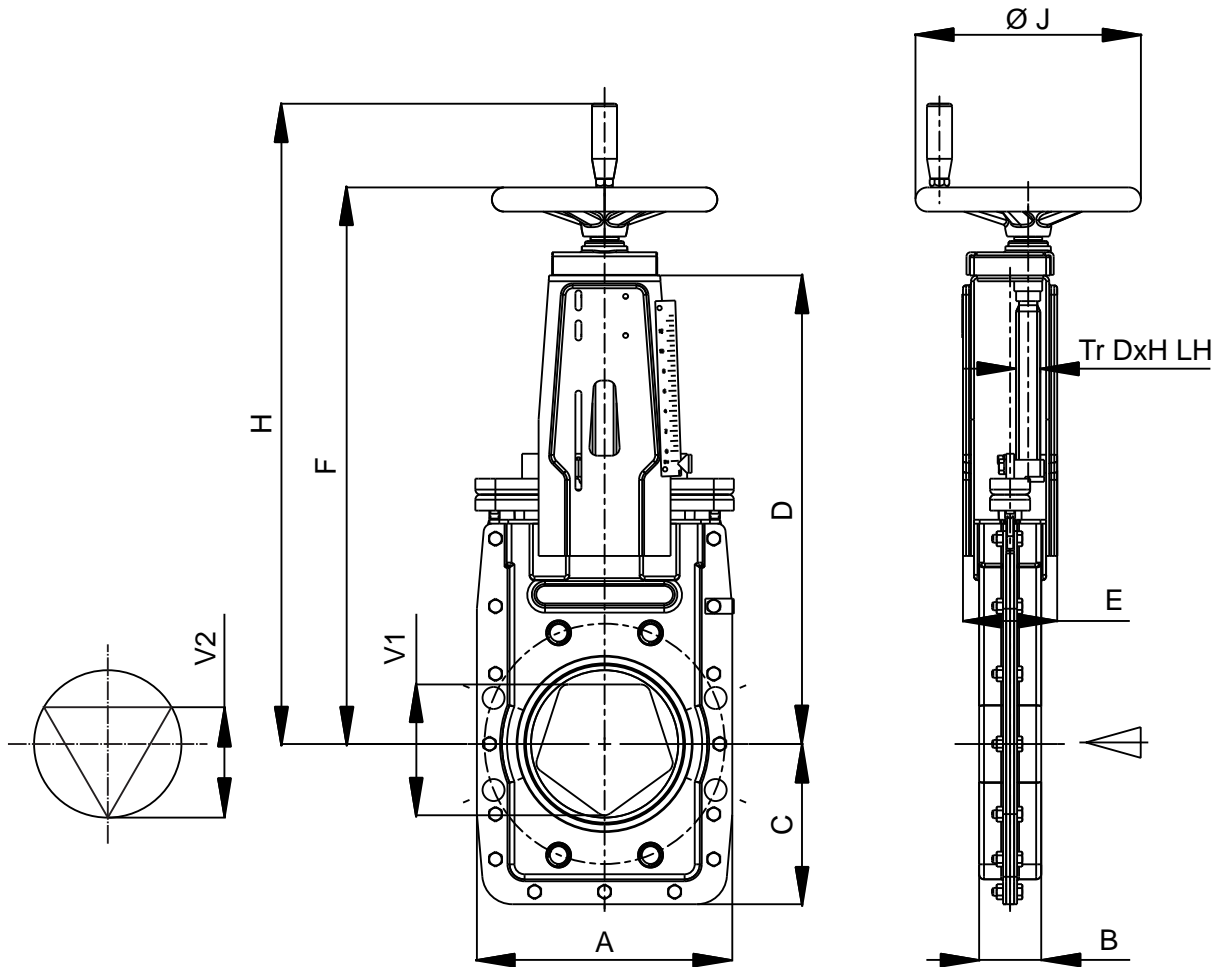
DN 1200

DN [mm]	DN [inch]	K [mm]	K [inch]	Z	UNC	T [mm]	T [inch]	Z1	Z2
50	2	120.6	4 3/4	4	5/8"-11	12	0.472	4	-
65	2.5	139.7	5 1/2	4	5/8"-11	12	0.472	4	-
80	3	152.4	6	4	5/8"-11	12	0.472	4	-
100	4	190.5	7 1/2	8	5/8"-11	12	0.472	4	4
125	5	215.9	8 1/2	8	3/4"-10	12	0.472	4	4
150	6	241.3	9 1/2	8	3/4"-10	16	0.630	4	4
200	8	298.5	11 3/4	8	3/4"-10	16	0.630	4	4
250	10	362	14 1/4	12	7/8"-9	20	0.787	8	4
300	12	431.8	17	12	7/8"-9	20	0.787	8	4
350	14	476.3	18 3/4	12	1"-8	20	0.787	8	4
400	16	539.8	21 1/4	16	1"-8	23	0.910	12	4
450	18	577.9	22 3/4	16	1 1/8"-7	30	1.181	12	4
500	20	635	25	20	1 1/8"-7	30	1.181	16	4
600	24	749.3	29 1/2	20	1 1/4"-7	35	1.378	16	4
700	28	863	34	28	1 1/4"-7	40	1.575	24	4
800	32	978	38 1/2	28	1 1/2"-6	45	1.772	24	4
900	36	1086	42 3/4	32	1 1/2"-6	45	1.772	28	4
1000	40	1200	47 1/4	36	1 1/2"-6	45	1.775	32	4
1100	44	1314	51 3/4	40	1 1/2"-6	50	1.969	36	4
1200	48	1422	56	44	1 1/2"-6	55	2.165	40	4



Z = total number of holes
 Z1 = number of joint-holes
 Z2 = number of through-going bores
 T = usable depth of thread

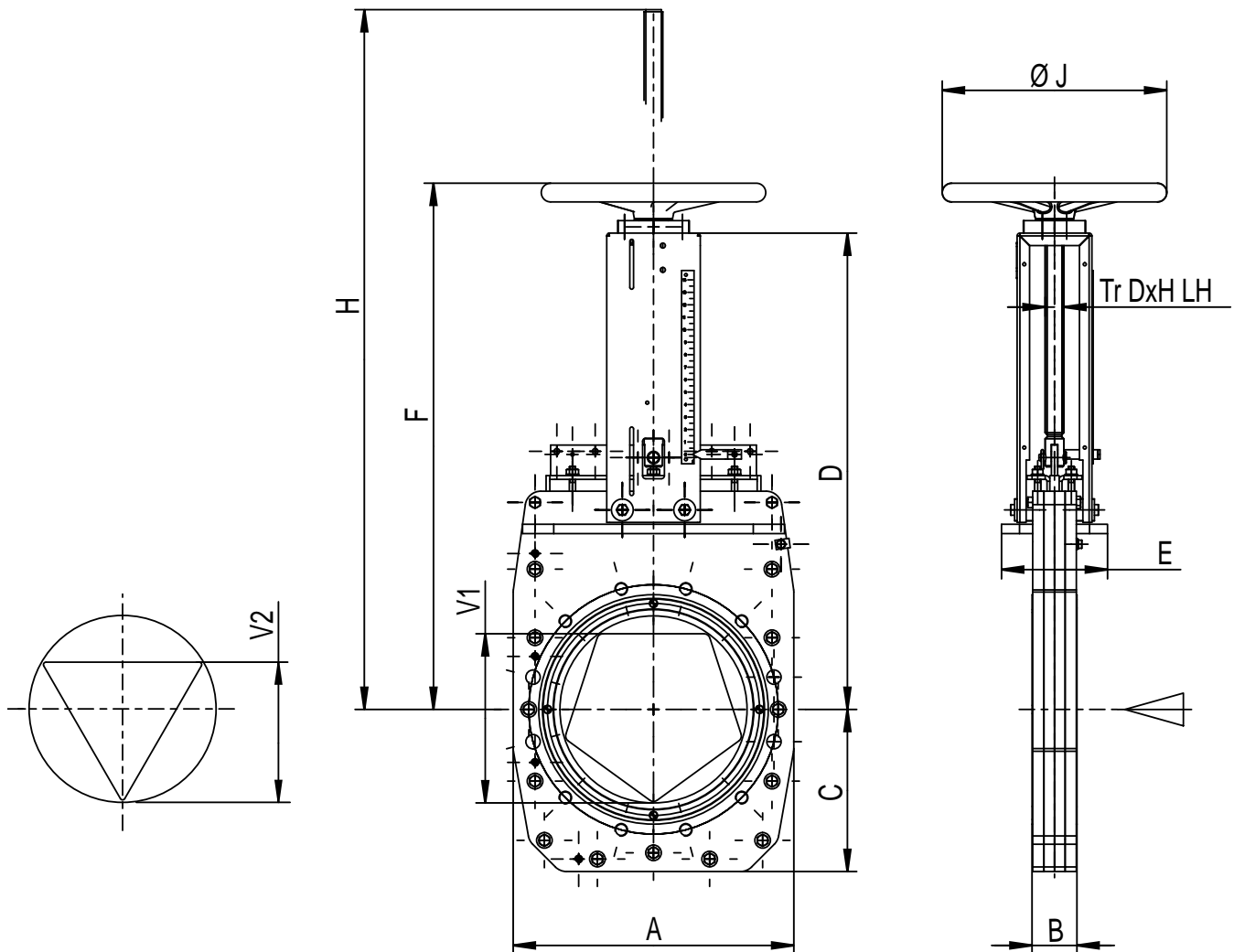
COMPACT-regulating valve with orifice
handwheel drive with non-rising stem



DN	PS [bar]	A	B	C	D	E	F	H	Ø J	Tr D x H LH	V1	V2	weight ~[kg]
50	10	185	42	100	313	78	394	478	180	20 x 4	45	38	9
65	10	185	42	100	313	78	394	478	180	20 x 4	59	49	9
80	10	175	52	125	313	78	395	478	180	20 x 4	72	49	9
*)100	10	210	52	135	368	94	456	539	225	24 x 5	88	73	13
*)125	10	230	52	145	413	94	500	584	225	24 x 5	110	92	16
*)150	10	255	62	160	468	94	556	639	225	24 x 5	133	110	19
200	10	328	60	189	557	143	656	739	280	30 x 6	181	150	38
250	10	400	68	230	668	166	767	850	280	30 x 6	226	188	53
300	6	450	72	260	764	170	869	-	360	30 x 6	271	225	68
350	6	510	72	290	907	190	998	-	360	30 x 6	317	263	131
400	6	575	90	326	1059	190	1163	-	362	30 x 6	362	300	160

*) Opening DN - 3mm, full opening on request.
Dimensions in mm, flange dimensions to DIN EN 1092-1, PN 10 or ANSI B 16.5 Class 150 (≥ DN 700: ANSI B 16.47 Class 150).
Further sizes on request.

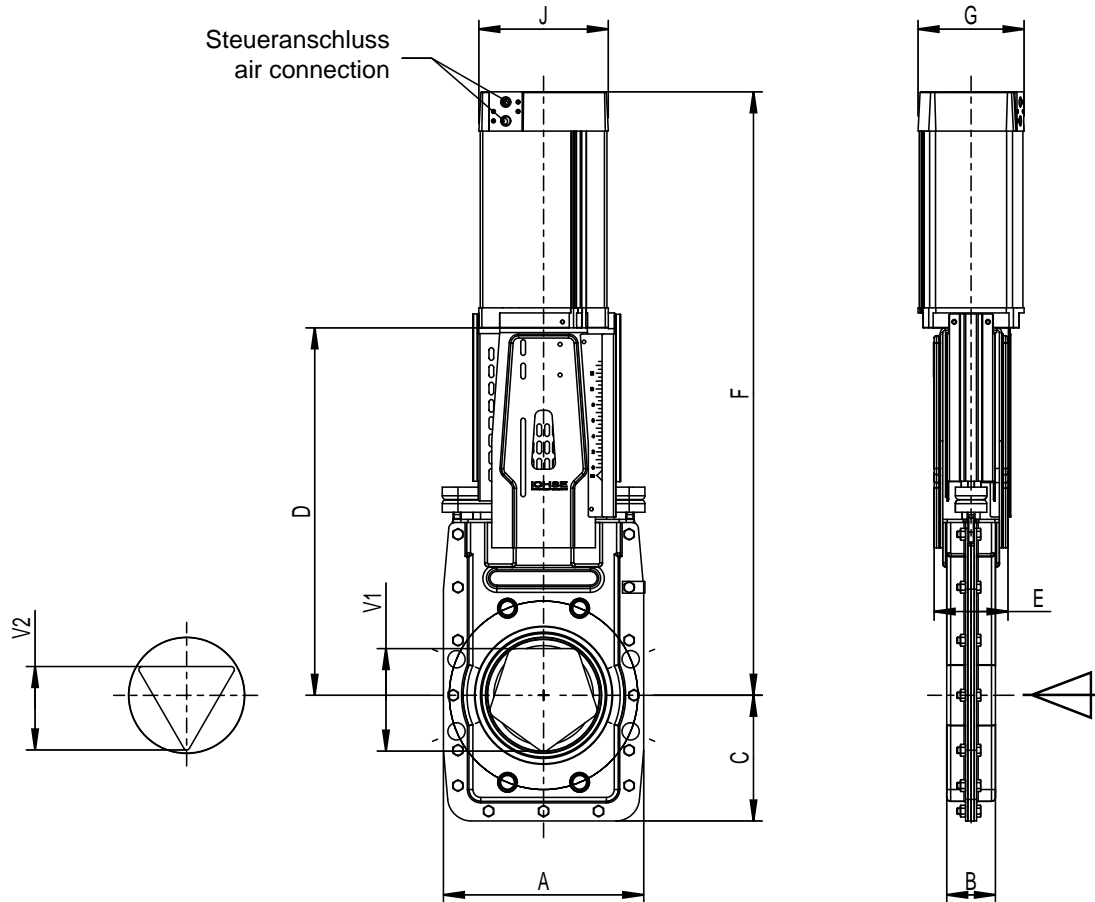
COMPACT-regulating valve with orifice
handwheel drive with rising stem



DN	PS [bar]	A	B	C	D	E	F	H	Ø J	Tr D x H LH	V1	V2	weight ~[kg]
350	6	510	71	290	907	190	1003	1355	500	36 x 6	317	263	102
400	6	575	90	326	1059	190	1155	1555	500	36 x 6	362	300	175
450	6	630	110	310	1200	208	1296	1760	500	36 x 6	404	334	
500	6	700	110	375	1265	308	1361	1975	500	36 x 6	452	375	280
600	4	810	130	440	1495	368	1591	2205	640	44 x 7	543	450	495

Dimensions in mm, flange dimensions to DIN EN 1092-1, PN 10 or ANSI B 16.5 Class 150 (≥ DN 700: ANSI B 16.47 Class 150).
Further sizes on request.

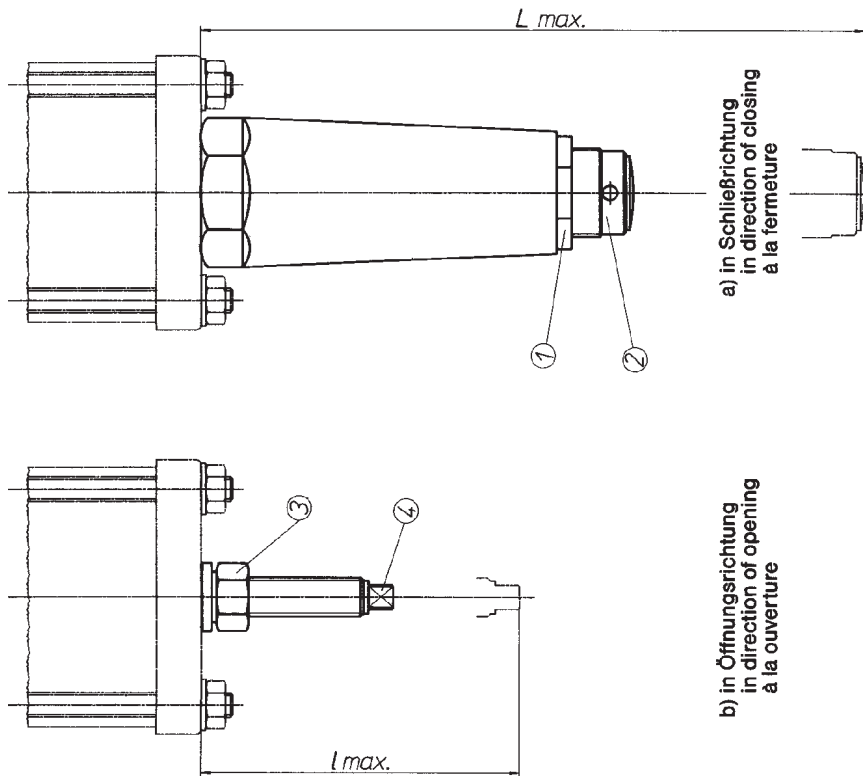
COMPACT-regulating valve with orifice
pneumatic-cylinder and protection guard



DN	PS [bar]	A	B	C	D	E	F	G	J	cyl Ø	air connection	control pressure [bar]	V1	V2	weight ~[kg]
50	10	185	42	100	313	78	495	118	139	100	G 1/4"	6	45	38	11.3
65	10	185	42	100	313	78	510	118	139	100	G 1/4"	6	59	49	11.4
80	10	175	52	123	313	78	523	118	139	100	G 1/4"	6	72	60	11.5
*)100	10	210	52	135	368	94	596	118	139	100	G 1/4"	6	88	73	17.9
*)125	10	255	52	145	413	94	691	145	165	125	G 1/4"	6	110	92	21.1
*)150	10	255	62	160	468	94	768	145	165	125	G 1/4"	6	133	110	29.3
200	10	328	60	190	557	143	917	178	204	160	G 1/4"	6	181	150	49.5
250	10	400	68	230	668	166	1069	178	204	160	G 1/4"	6	226	188	65.5
300	6	450	72	260	764	170	1224	178	204	160	G 1/4"	6	271	225	78
350	6	510	72	290	907	190	1452	215	244	200	G 1/2"	6	317	263	141
400	6	575	90	326	1059	190	1650	215	244	200	G 1/2"	6	362	300	227
500	6	700	110	375	1265	228	1985	242	283	230	G 1/2"	6	450	375	

*) Opening DN - 3mm, full opening on request.
Dimensions in mm, flange dimensions to DIN EN 1092-1, PN 10 or ANSI B 16.5 Class 150 (≥ DN 700: ANSI B 16.47 Class 150);
air connection acc. VDI/VE 3845 (NAMUR). Further sizes on request.

COMPACT-regulating valve with orifice
pneumatic-cylinder, variable stroke limiter and protection device



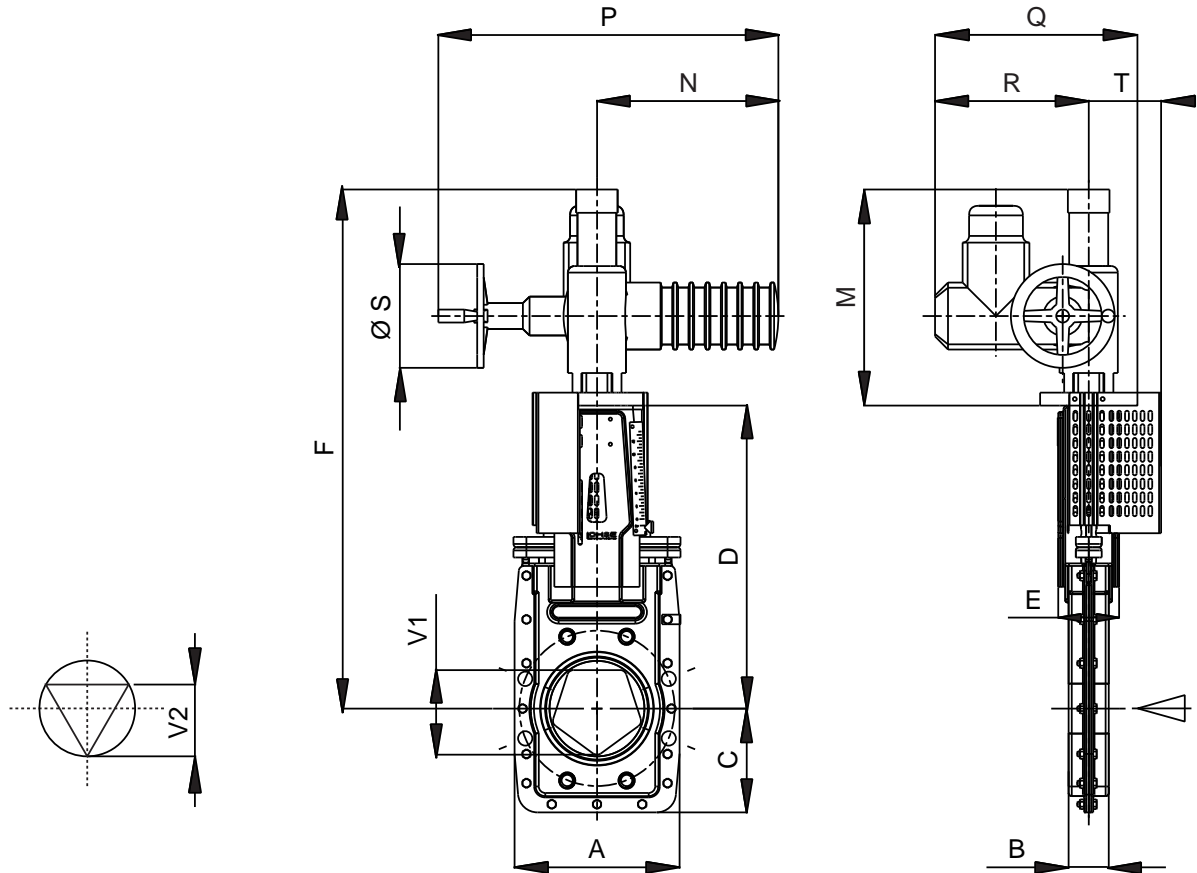
Variable stroke limiter

- In direction of closing: loosen the nut (1), adjust the adjustable pipe (2), tighten the nut (1).
- In direction of opening: loosen the nut (3), adjust the adjustable screw (4) tighten the nut.

DN	cyl.Ø	in direction of opening		in direction of closing	
		L max ~	L max ~	L max ~	L max ~
50	125	140		283	
65	125	140		283	
80	125	140		283	
100	145	190		439	
125	145	190		439	
150	175	225		439	
200	200	225		554	

Further sizes on request.

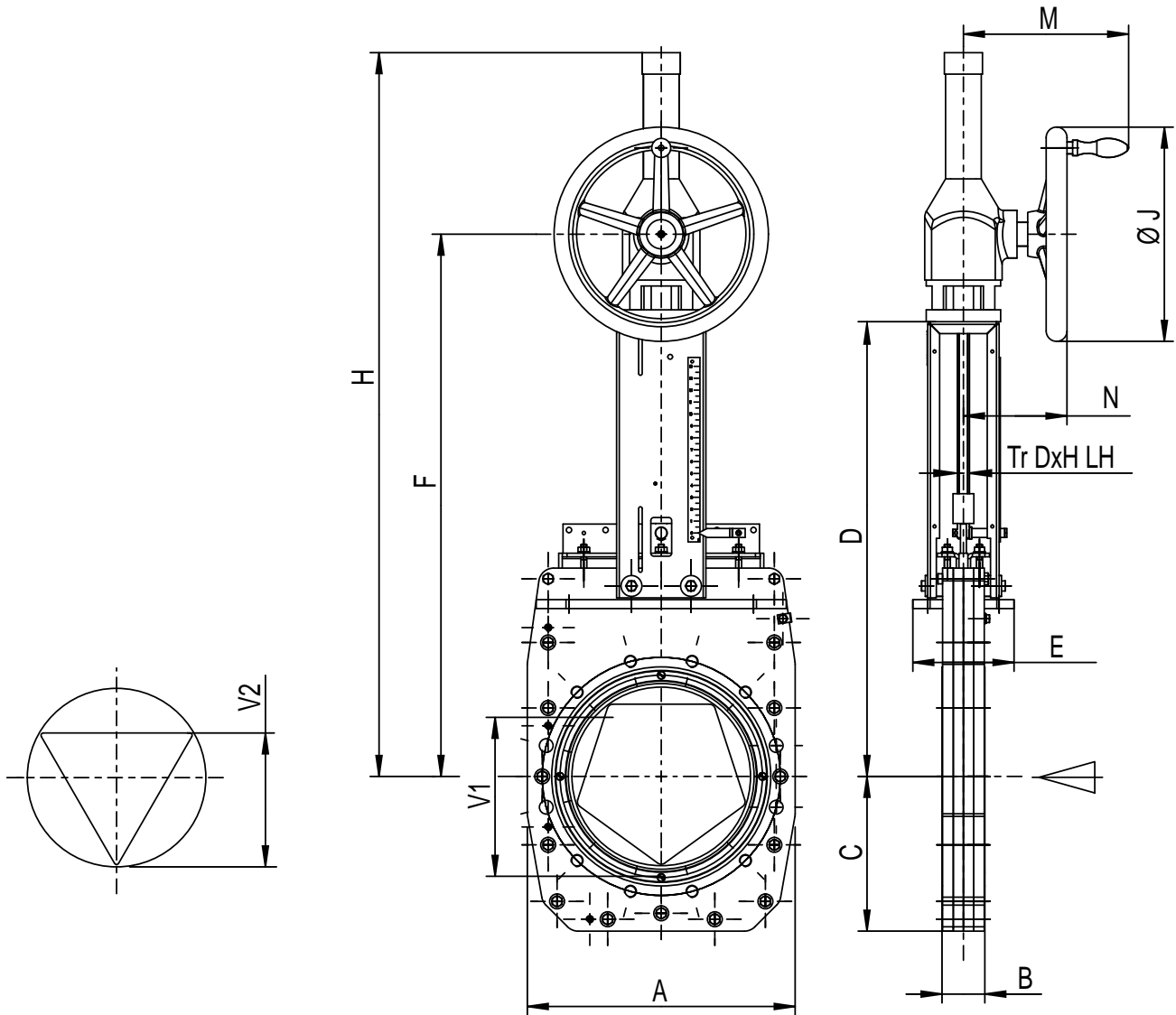
COMPACT-regulating valve with orifice
electric-drive and protection guard



DN	PS [bar]	A	B	C	D	E	F	M	N	P	Q	R	ØS	T	V1	V2	stem Tr DxH	closing time [s]		weight ~[kg]
																		pen-tagon	trian-gel	
50	10	185	42	100	313	78	646	333	280	515	349	237	160	112	45	38	20 x 4	66.8	55.9	31
65	10	185	42	100	313	78	646	333	280	515	349	237	160	112	59	49	20 x 4	84.5	70.9	31
80	10	175	52	125	313	78	646	333	280	515	349	237	160	112	72	60	20 x 4	103.6	85.9	31
*)100	10	210	52	135	368	94	701	333	280	515	349	237	160	112	88	73	24 x 5	102.5	85.0	35
*)125	10	230	52	145	413	94	746	333	280	515	349	237	160	112	110	92	24 x 5	126.5	105.8	37
*)150	10	255	62	160	468	94	801	333	280	515	349	237	160	112	133	110	24 x 5	151.6	127.6	41
200	10	328	60	190	557	143	902	345	355	536	373	247	200	126	181	150	30 x 6	167.3	113.1	65
250	10	400	68	230	668	166	1013	345	355	536	373	247	200	126	226	188	30 x 6	208.2	173.6	80
300	6	450	72	260	764	170	1202	438	355	536	373	247	200	126	271	225	30 x 6	249.1	207.3	95
350	6	510	72	290	907	190	1350	443	355	536	389	247	200	142	317	263	36 x 6	200.0	166.3	130
400	6	575	90	326	1059	190	1602	543	355	536	393	247	200	146	362	300	36 x 6	228.2	189.4	195
500	6	700	110	375	1265	228	1873	608	380	695	373	285	315	146	452	375	36 x 6	289.9	236.3	383

*) Opening DN - 3mm, full opening on request.
Dimensions in mm, flange dimensions to DIN EN 1092-1, PN 10 or ANSI B 16.5 Class 150 (≥ DN 700: ANSI B 16.47 Class 150).
Further sizes on request.

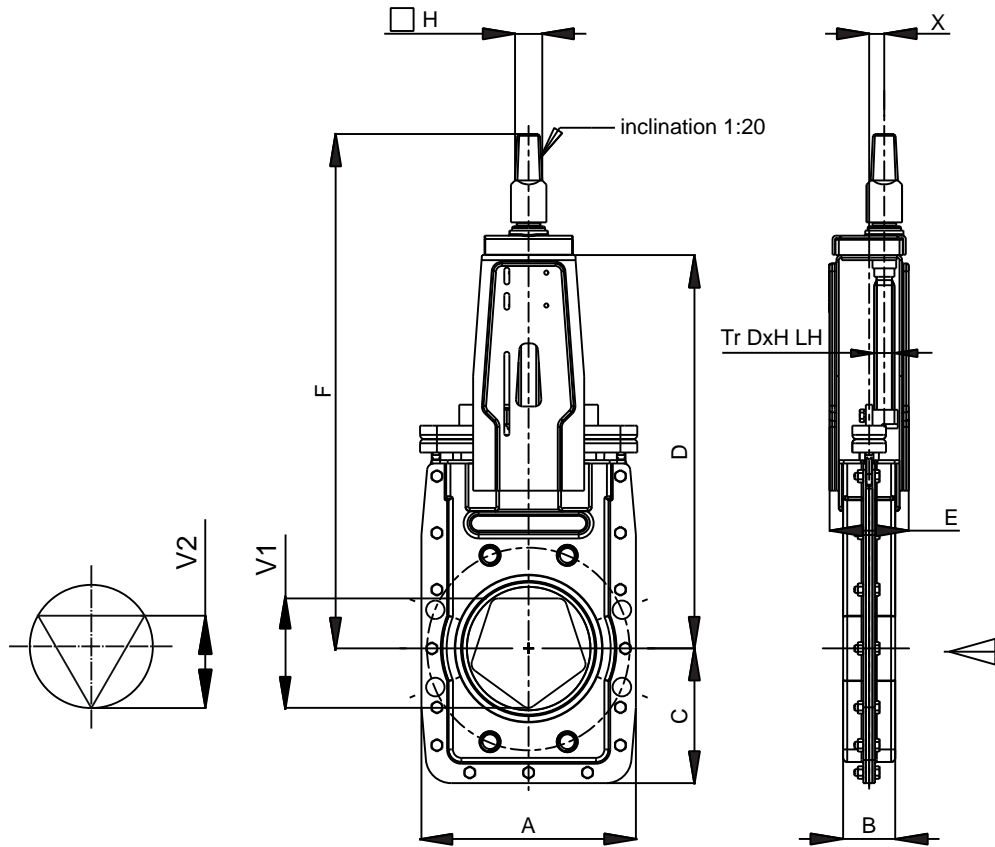
COMPACT-regulating valve with orifice
bevel gear box and handwheel



DN	PS [bar]	A	B	C	D	E	F	H	ØJ	N	M	V1	V2	Tr D x H LH	weight ~[kg]
150	8	255	62	160	468	94	615	765	360	174	278	133	110	24 x 5	
200	8	328	60	190	557	143	704	909	360	174	278	181	150	30 x 6	52
250	8	400	68	230	668	166	815	1070	360	174	278	226	188	30 x 6	70
300	6	450	72	260	764	170	911	1216	360	174	278	271	225	30 x 6	84
350	6	520	72	290	907	190	1059	1414	400	185	295	317	263	36 x 6	115
400	6	578	90	326	1059	190	1211	1611	400	185	295	362	300	36 x 6	155
500	6	700	110	375	1268	222	1455	1947	400	222	339	445	371	36 x 6	
600	4	810	130	450	1495	222	1685	2250	400	222	340	540	446	44 x 7	

Dimensions in mm, flange dimensions to DIN EN 1092-1, PN 10 or ANSI B 16.5 Class 150 (≥ DN 700: ANSI B 16.47 Class 150).
Further sizes on request.

COMPACT-regulating valve with orifice square head



DN	PS [bar]	A	B	C	D	E	F	H	X	V1	V2	Tr D x H LH	weight ~[kg]
50	10	185	42	100	313	78	455	32	15	45	38	20 x 4	9
65	10	185	42	100	313	78	455	32	15	59	49	20 x 4	10
80	10	175	52	125	313	78	456	32	15	72	60	20 x 4	10
*)100	10	210	52	135	368	94	512	32	18	88	73	24 x 5	12
*)125	10	230	54	145	413	94	557	32	18	110	92	24 x 5	15
*)150	10	255	62	160	468	94	612	32	18	133	110	24 x 5	18
200	10	328	60	190	557	143	707	32	22	181	150	30 x 6	38
250	10	400	68	230	668	166	818	32	22	226	188	30 x 6	51
300	6	450	72	260	764	170	914	32	22	271	225	30 x 6	67
350	6	510	72	290	907	190	1043	32	26	317	263	36 x 6	96
400	6	575	90	326	1059	190	1195	32	26	362	300	36 x 6	136
450	6	630	110	315	1200	208	1336	32	28,5	404	334	36 x 6	261
500	6	700	110	350	1265	228	1416	32	35	452	375	36 x 6	311
600	4	810	130	405	1495	268	1646	32	35	543	450	44 x 7	468

*) Opening DN - 3mm, full opening on request.
 Dimensions in mm, flange dimensions to DIN EN 1092-1, PN 10 or ANSI B 16.5 Class 150 (≥ DN 700: ANSI B 16.47 Class 150).
 Further sizes on request.

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