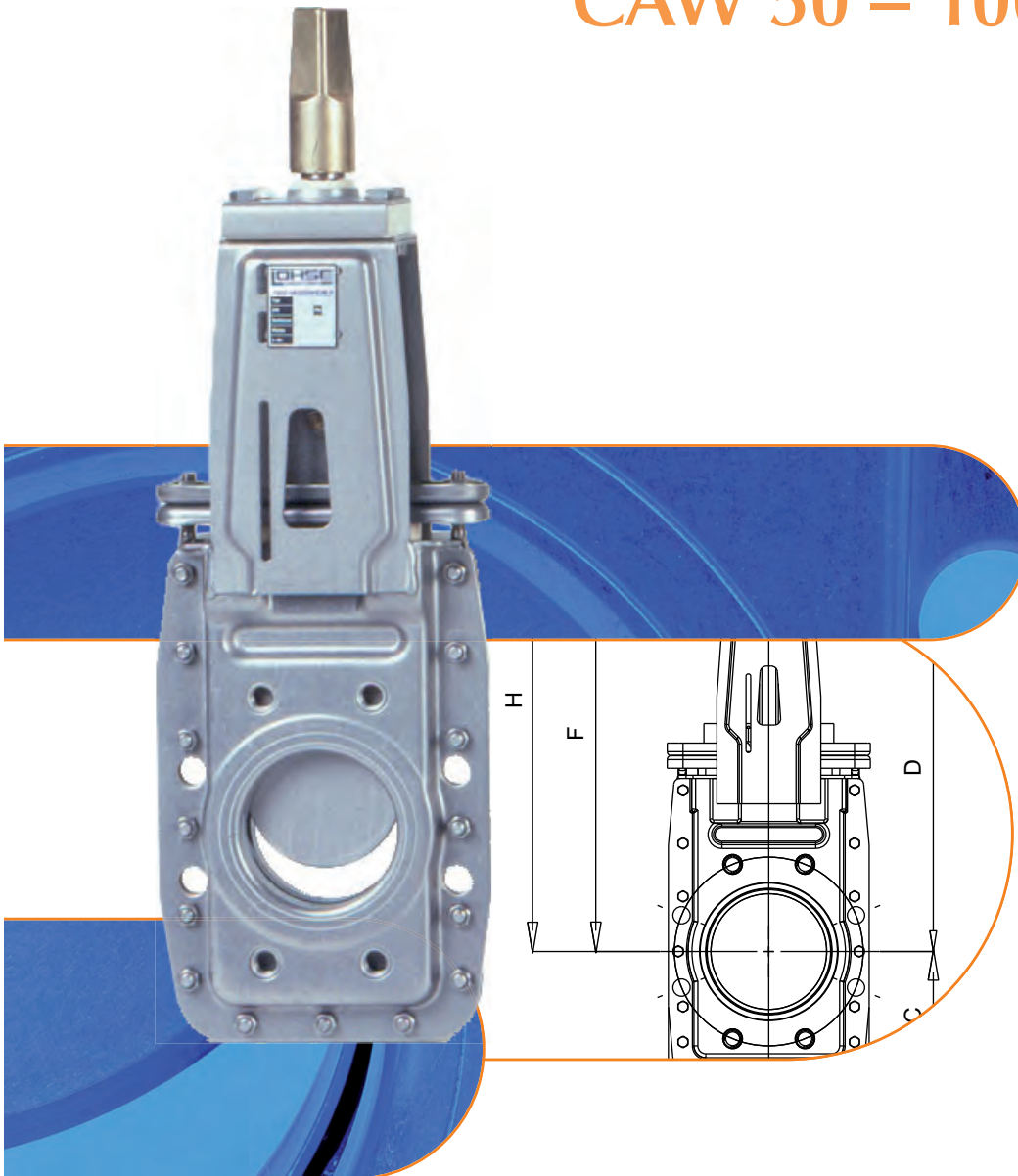


Valves of stainless steel · COMPACT-Program

# Shut-Off-Valves sewage execution

## CAW 50 – 1000 mm



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## Applications



### Municipal 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 shut-off 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.

## Construction

### Stainless steel housing

- of a rust and acid resistant material which prevents not only its own corrosion but also contact corrosion on stainless steel piping therefore saving expensive isolation materials
- two parts – easy to maintain
- made from pressed stainless steel plate which keeps its shape – light and easy to install
- the frame for the drive acts at the same as a fastening for the switch and control mechanisms

### Plastic slide lining

- this material has the highest slide properties but at the same time is abrasion resistant
- resistant to temperature extremes and acid
- easy to change

### Valve plate of stainless steel

- of a rust and acid resistant material

### Flow opening = the nominal width of the piping

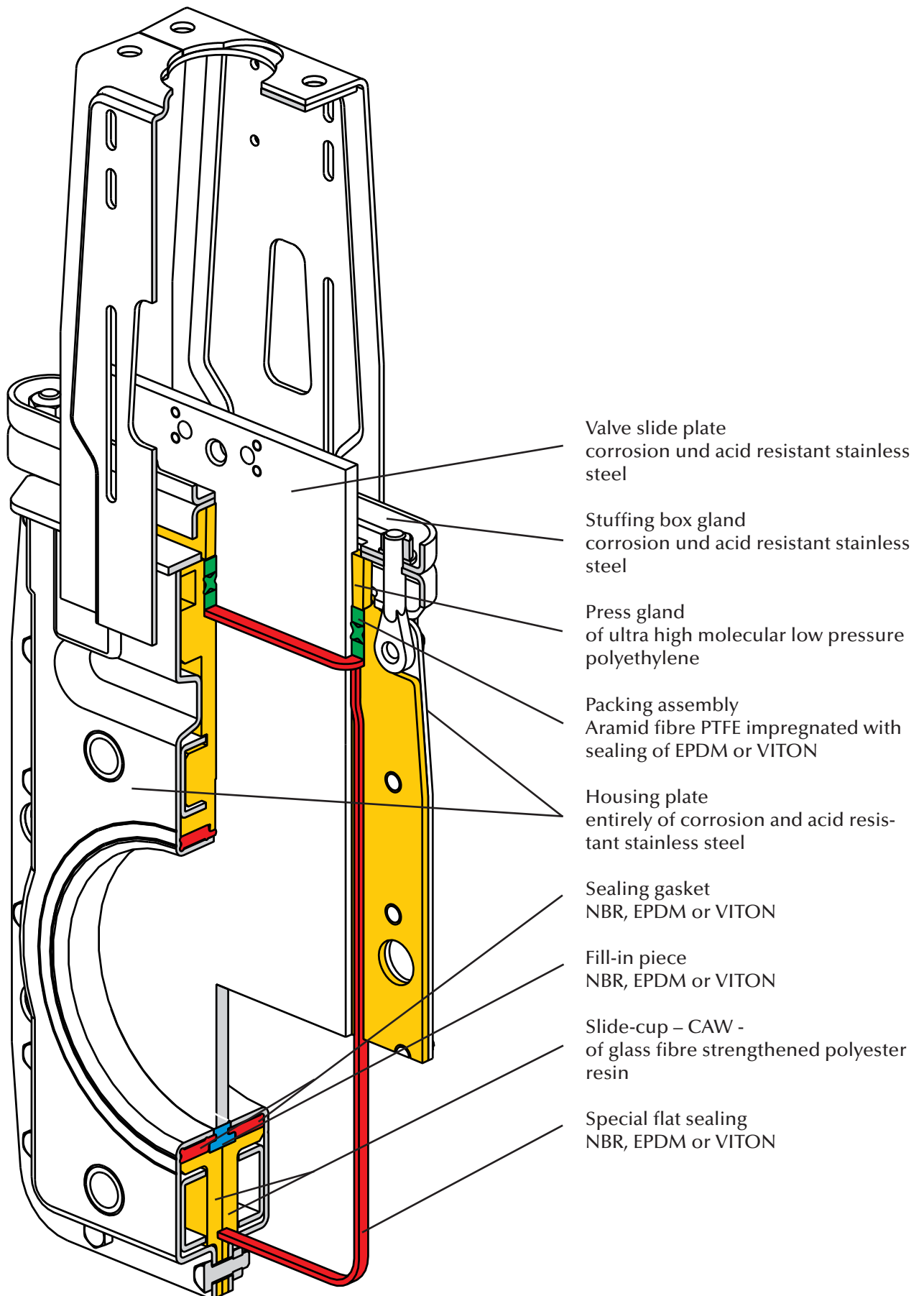
- no contraction caused by guide strips to the side
- by using an elastomer you guarantee a completely smooth flow

### Drives all part of the proven LOHSE modular system

- easy-to-use handwheel with a handle grip to quickly open or shut the valve by hand
- electro or pneumatic drives to enable activation from a distance
- drives are exchangeable in the case of all our valves even in an assembled condition
- drive accessories can be optimally attuned to one another

### Watertight

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



Valve slide plate  
corrosion und acid resistant stainless steel

Stuffing box gland  
corrosion und acid resistant stainless steel

Press gland  
of ultra high molecular low pressure polyethylene

Packing assembly  
Aramid fibre PTFE impregnated with sealing of EPDM or VITON

Housing plate  
entirely of corrosion and acid resistant stainless steel

Sealing gasket  
NBR, EPDM or VITON

Fill-in piece  
NBR, EPDM or VITON

Slide-cup – CAW -  
of glass fibre strengthened polyester resin

Special flat sealing  
NBR, EPDM or VITON

## Materials

- housing
  - DN 50 – 250 1.4404
  - DN 300 – 600 1.4307
  - DN 700 – 1000 1.4571
- flanging ring
  - DN 700 – 1000 1.4571
- valve plate 1.4571
- slide cups
  - DN 50 – 250 GRP
  - 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 – 80 8 bar
  - DN 100 – 200 6 bar
  - DN 250 – 300 4 bar
  - DN 350 – 600 2.5 bar
  - DN 700 – 1000 1.5 bar
- max. operating temperature
  - with sealing NBR 105° C
  - with sealing EPDM 120° C
  - with sealing VITON 200° C

## Operating elements – the LOHSE modular system

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

- valve body type: CAW
- operating elements type Hns, P, E, GK, K, X (accessories such as e.g. extensions on inquiry)

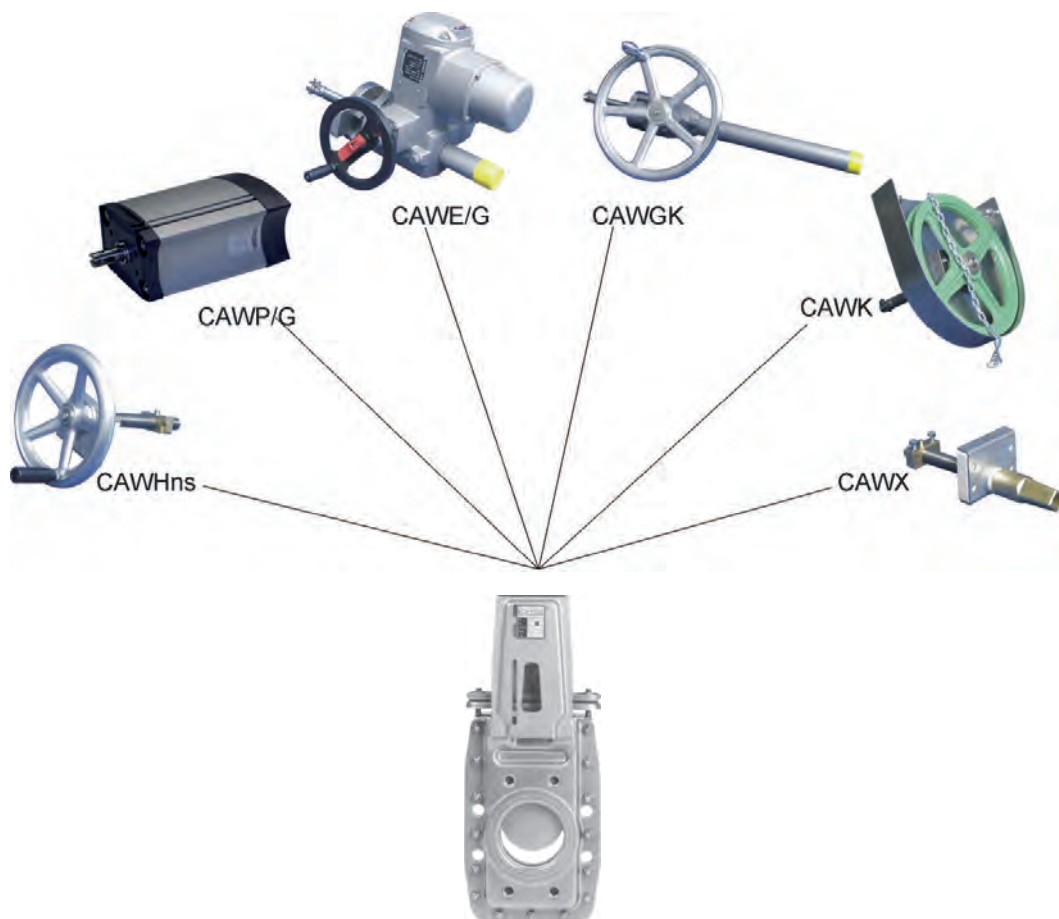
All elements are interchangeable for any given size. Thereby the connections of brackets as well as the coupling of actuator and valve plate will be removed and fixed again after the exchange. No removal of incorporated valve body (notice safety rules – pipes must be pressureless).

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

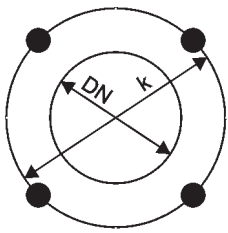
- simplified and less expensive holding of spare parts.
- in case of damage, actuating elements can be replaced inexpensively.
- if any valve drives have to be altered, replacement is easy and quick

### Protection guards (G)

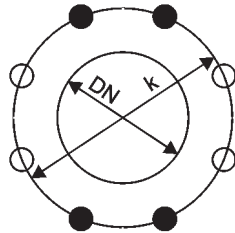
According to machinery directive 2006/42/EG guards are compulsory to shield all moving parts on automated gate valves.  
Protection guard of stainless steel.



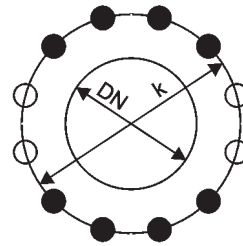
Flange bores for LOHSE COMPACT-valves according to DIN EN 1092-1, PN 10



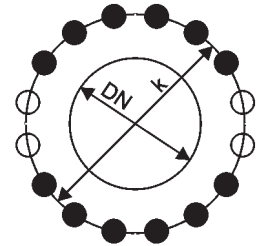
DN 50-65



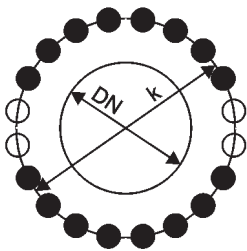
DN 80-200



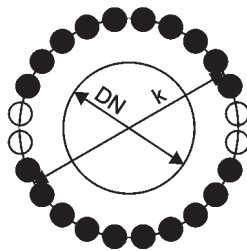
DN 250-300



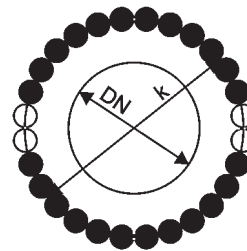
DN 350-400



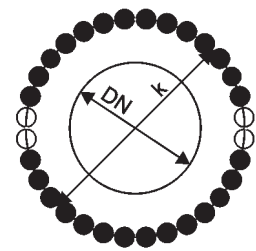
DN 450-600



DN 700-800

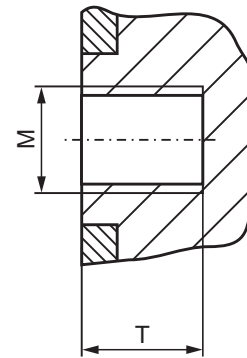


DN 900-1000



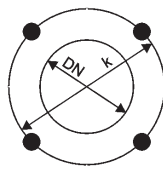
DN 1100-1200

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

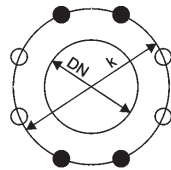


Z = total number of holes  
 Z1 = number of joint-holes  
 Z2 = number of through-going bores  
 T = usable depth of thread

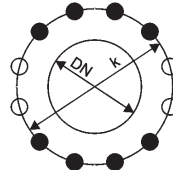
Flange bores for LOHSE COMPACT-valves  
according to ANSI B 16.5 Class 150 (≥ DN 700: ANSI B 16.47 Class 150)



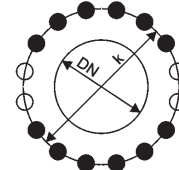
DN 50-80



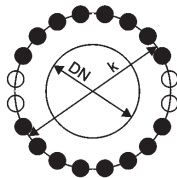
DN 100-200



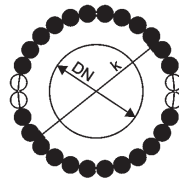
DN 250-350



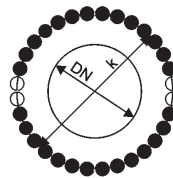
DN 400-450



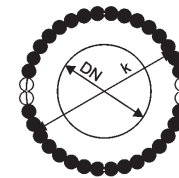
DN 500-600



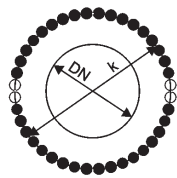
DN 700-800



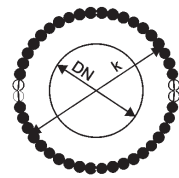
DN 900



DN 1000

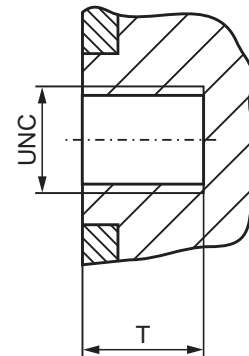


DN 1100



DN 1200

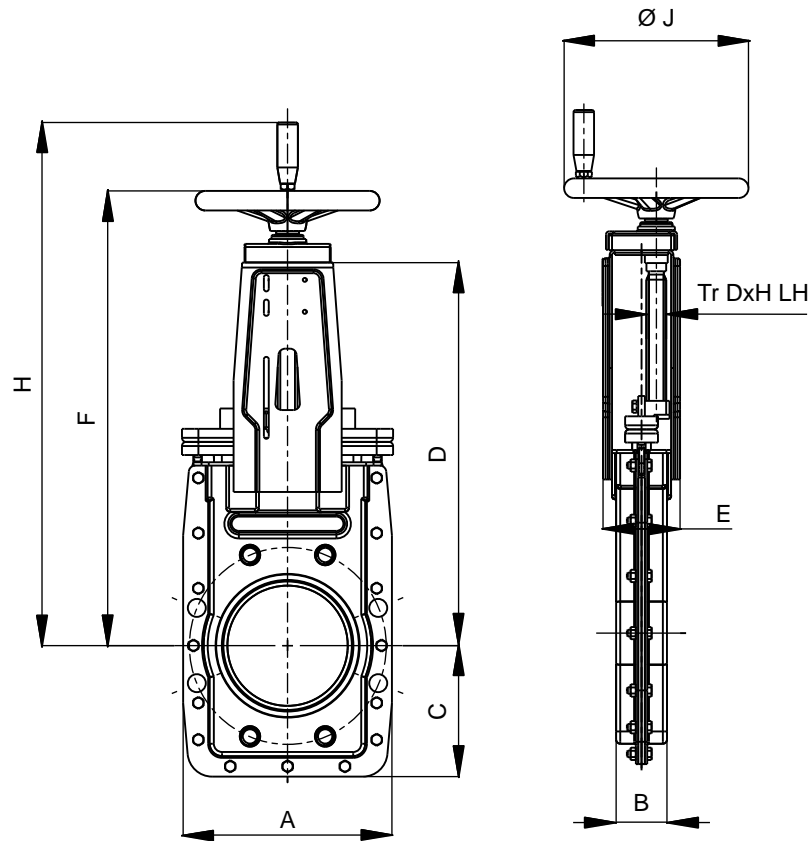
DN [mm]	DN [inch]	K [mm]	K [inch]	Z	UNC	T [mm]	T [inch]	Z1	Z2
50	2	120.6	4 3/4	4	5/8"-11	12	0.472	4	-
65	2.5	139.7	5 1/2	4	5/8"-11	12	0.472	4	-
80	3	152.4	6	4	5/8"-11	12	0.472	4	-
100	4	190.5	7 1/2	8	5/8"-11	12	0.472	4	4
125	5	215.9	8 1/2	8	3/4"-10	12	0.472	4	4
150	6	241.3	9 1/2	8	3/4"-10	16	0.630	4	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



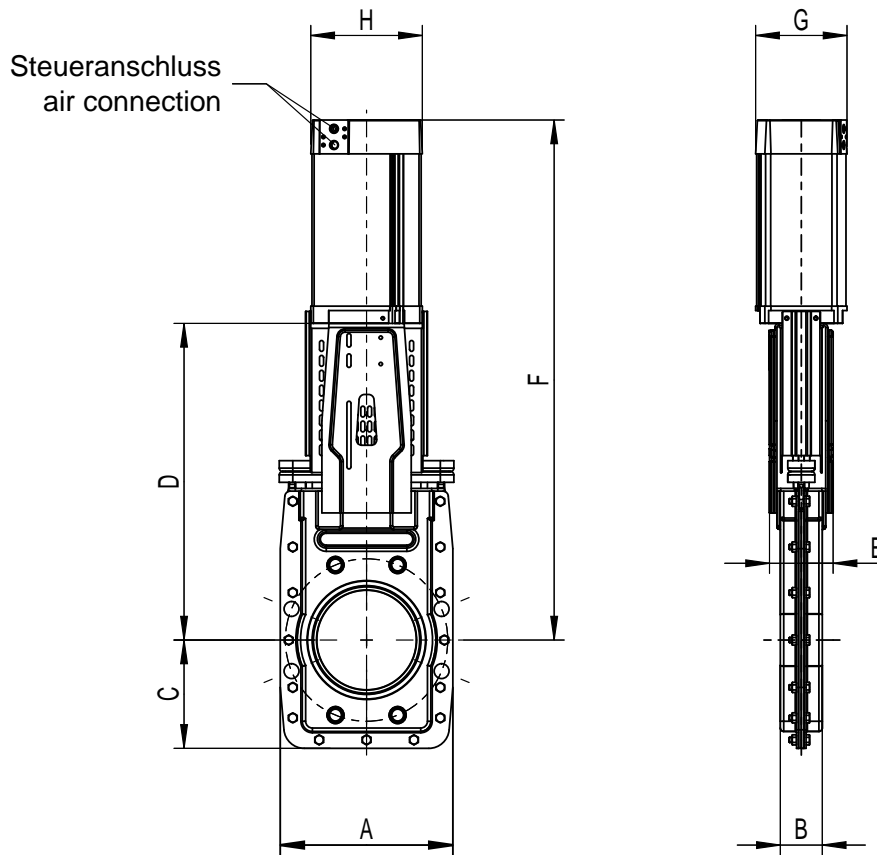
## COMPACT-valve sewage execution handwheel drive with non-rising stem



DN	PS [bar]	A	B	C	D	E	F	H	Ø J	Tr D x H LH	weight ~[kg]
50	8	185	42	100	313	78	394	478	180	20 x 4	9
65	8	185	42	100	313	78	394	478	180	20 x 4	9
80	8	175	52	125	313	78	395	478	180	20 x 4	9
*)100	6	210	52	135	368	94	456	539	225	24 x 5	13
*)125	6	230	52	145	413	94	500	584	225	24 x 5	15
*)150	6	255	62	160	468	94	556	639	225	24 x 5	19
200	6	328	60	189	557	143	656	739	280	30 x 6	38
250	4	400	68	230	668	166	767	850	280	30 x 6	49
300	4	450	72	260	764	170	869	–	360	30 x 6	77
350	2.5	510	72	290	907	190	998	–	360	30 x 6	129
400	2.5	575	90	326	1059	190	1163	–	500	30 x 6	182
450	2.5	630	92	315	1200	208	1304	–	500	30 x 6	249
500	2.5	700	92	350	1265	228	1384	–	500	36 x 6	263
600	2.5	810	112	405	1495	268	1614	–	500	36 x 6	461

\*) 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.

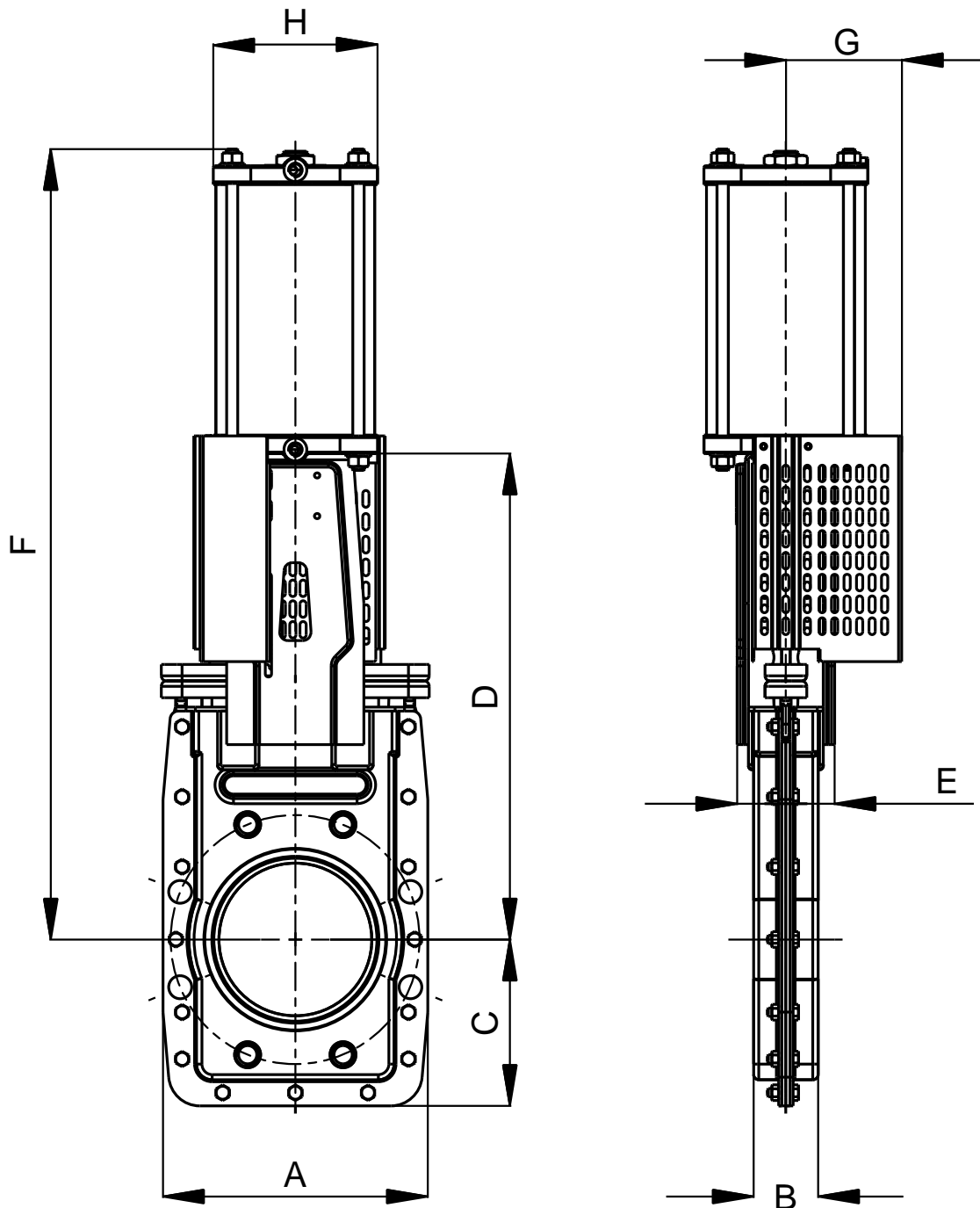
COMPACT-valve sewage execution  
pneumatic cylinder and protection guard



DN	PS [bar]	A	B	C	D	E	F	G	H	Zyl Ø	air connection	control pressure [bar]	weight ~[kg]
50	8	185	42	100	313	78	495	118	139	100	G 1/4"	6	11.2
65	8	185	42	100	313	78	510	118	139	100	G 1/4"	6	11.6
80	8	175	52	123	313	78	523	118	139	100	G 1/4"	6	11.6
*)100	6	210	52	135	368	94	596	118	139	100	G 1/4"	6	15.4
*)125	6	255	52	145	413	94	691	145	165	125	G 1/4"	6	20.4
*)150	6	255	62	160	468	94	768	145	165	125	G 1/4"	6	24.3
200	6	328	60	190	557	143	917	178	204	160	G 1/4"	6	48.5
250	4	400	68	230	668	166	1069	178	204	160	G 1/4"	6	65.5
300	4	450	72	260	764	170	1224	178	204	160	G 1/4"	6	78
350	2.5	510	72	290	907	190	1452	215	244	200	G 1/2"	6	156
400	2.5	575	90	326	1059	190	1650	215	244	200	G 1/2"	6	204
450	2.5	630	92	315	1200	190	1870	242	283	230	G 1/2"	6	310
500	2.5	700	92	350	1265	210	1985	242	283	230	G 1/2"	6	343

\*) 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/VDE 3845 (NAMUR). Further sizes on request.

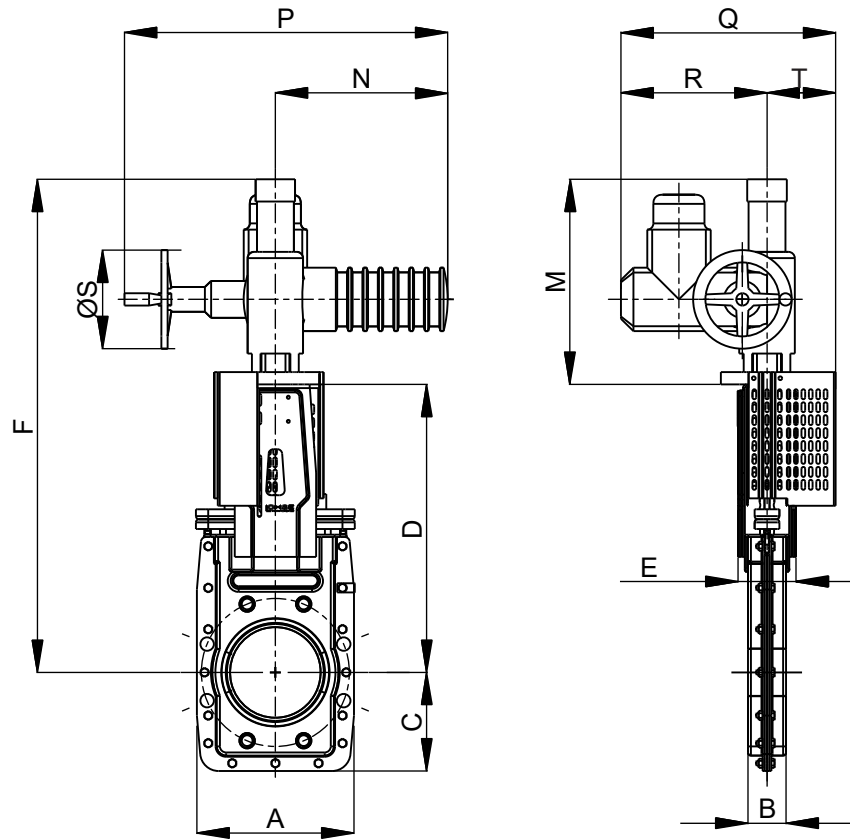
COMPACT-valve sewage execution  
pneumatic cylinder and protection guard



DN	PS [bar]	A	B	C	D	E	F	G	H	Zyl Ø	air connection	control pressure [bar]	weight ~[kg]
600	2.5	810	112	405	1495	268	2314	318	318	300	G 1/2"	6	517

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.

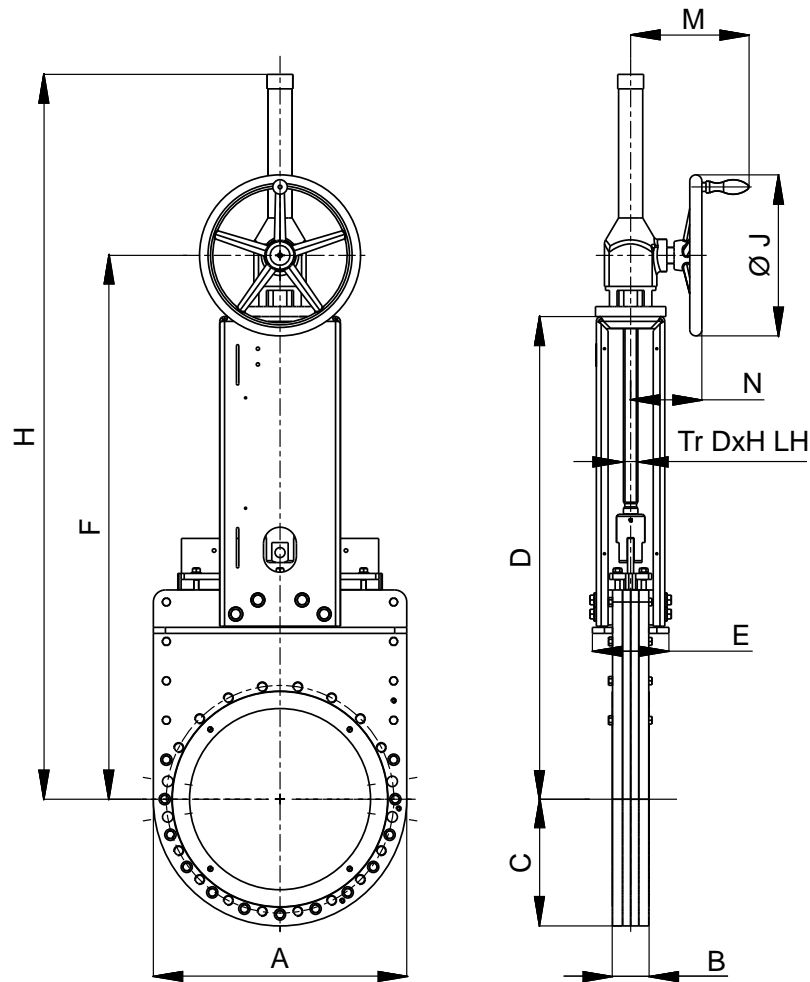
COMPACT-valve sewage execution  
electric drive and protection guard



DN	PS [bar]	A	B	C	D	E	F	M	N	P	Q	R	ØS	T	stem Tr DxH	closing time [s]	weight ~[kg]
50	8	185	42	100	313	78	646	333	280	515	349	237	160	112	20 x 4	18	32
65	8	185	42	100	313	78	646	333	280	515	349	237	160	112	20 x 4	23	32
80	8	175	52	125	313	78	646	333	280	515	349	237	160	112	20 x 4	28	32
*)100	6	210	52	135	368	94	701	333	280	515	349	237	160	112	24 x 5	27	37
*)125	6	230	52	145	413	94	746	333	280	515	349	237	160	112	24 x 5	34	38
*)150	6	255	62	160	468	94	801	333	280	515	349	237	160	112	24 x 5	41	42
200	6	328	60	190	557	143	902	345	355	536	373	247	200	126	30 x 6	45	58
250	4	400	68	230	668	166	1013	345	355	536	373	247	200	126	30 x 6	56	84
300	4	450	72	260	764	170	1202	438	355	536	373	247	200	126	30 x 6	67	96
350	2.5	510	72	290	907	190	1350	443	355	536	389	247	200	142	36 x 6	78	151
400	2.5	575	90	326	1059	190	1602	543	355	536	393	247	200	146	36 x 6	90	198
450	2.5	630	92	315	1200	208	1808	560	355	536	436	247	200	151	36 x 6	102	304
500	2.5	700	92	350	1265	228	1873	608	380	713	436	285	315	151	36 x 6	115	328
600	2.5	810	112	405	1495	268	2203	708	380	713	446	285	315	161	44 x 7	138	554

\*) 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.

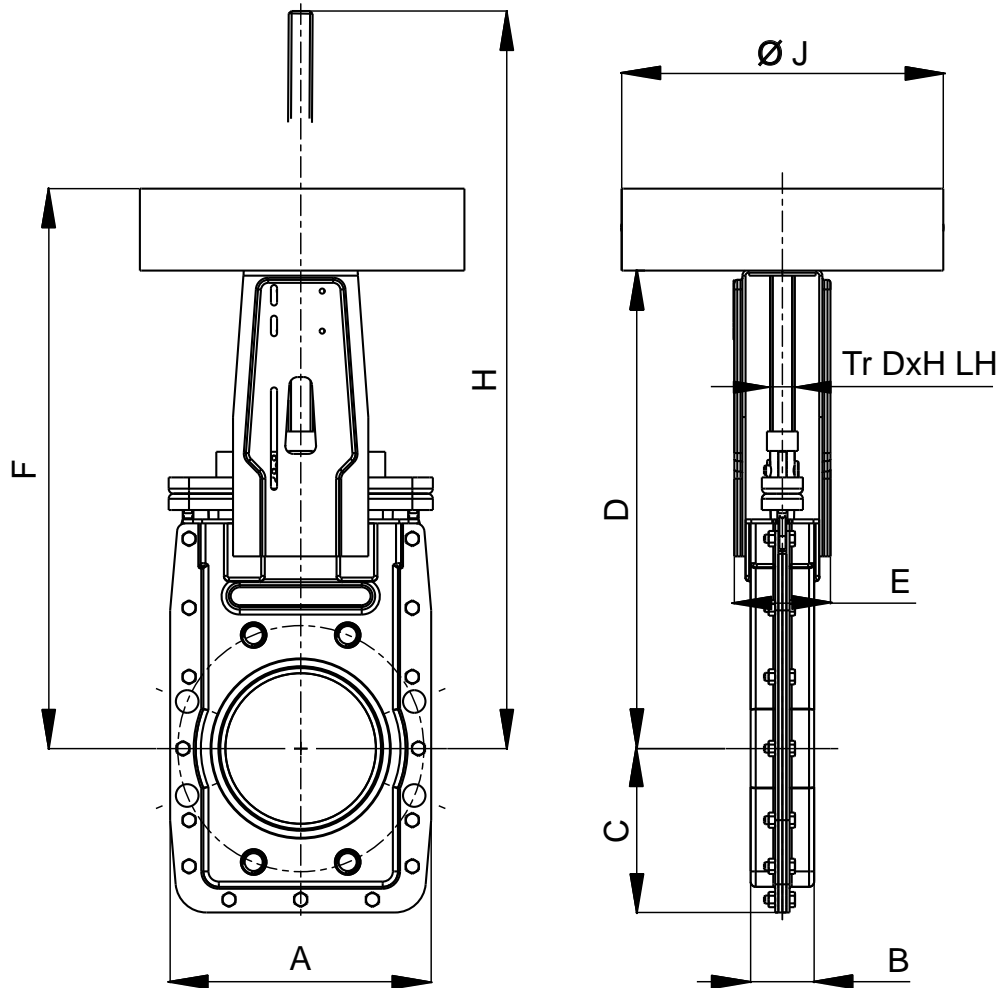
COMPACT-valve sewage execution  
bevel gear box handwheel



DN	PS [bar]	A	B	C	D	E	F	H	Ø J	M	N	Tr D x H LH	weight ~[kg]
200	6	328	60	190	557	143	704	909	360	278	174	30 x 6	55
250	4	400	68	230	668	166	815	1070	360	278	174	30 x 6	72
300	4	450	72	260	764	170	911	1216	360	278	174	30 x 6	83
350	2.5	520	72	290	907	190	1059	1414	400	295	185	36 x 6	145
400	2.5	578	90	326	1059	190	1211	1611	400	295	185	36 x 6	195
450	2.5	630	92	315	1200	208	1352	1802	400	295	185	36 x 6	273
500	2.5	700	92	350	1265	228	1455	1947	400	340	222	36 x 6	292
600	2.5	810	112	405	1495	268	1685	2250	500	340	222	44 x 7	493
700	1.5	960	150	480	1756	307	1946	2422	500	340	222	44 x 7	1075
800	1.5	1060	150	530	1976	307	2166	2927	500	340	222	44 x 7	1265
900	1.5	1170	160	585	2108	311	2307	3159	500	340	222	44 x 7	1473

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.

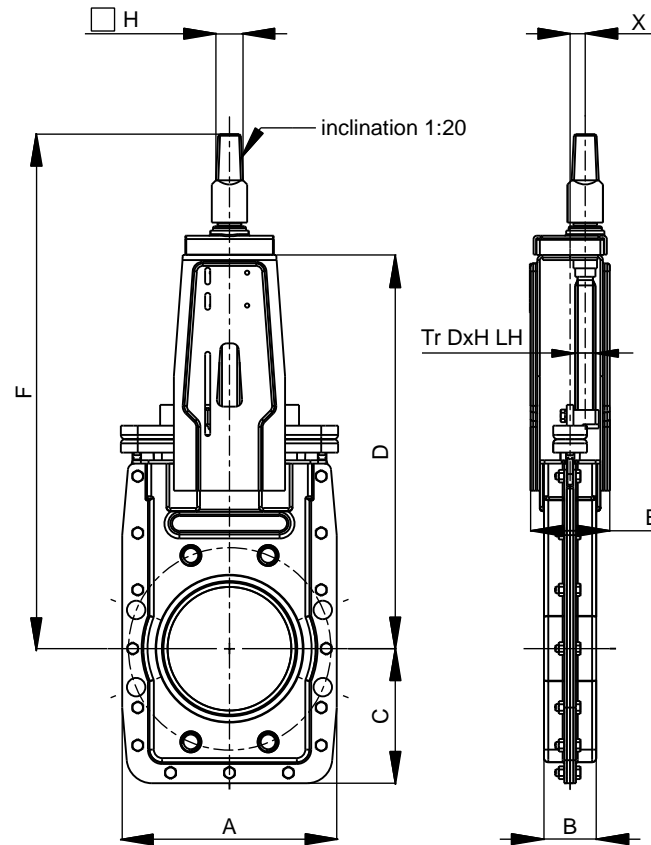
## COMPACT-valve sewage execution spocket drive



DN	PS [bar]	A	B	C	D	E	F	H	Ø J	Tr D x H LH	weight ~[kg]
50	8	185	42	100	313	78	394	397	274	20 x 4	14
65	8	185	42	100	313	78	394	412	274	20 x 4	14
80	8	175	52	125	313	78	394	437	274	20 x 4	14
*)100	6	210	52	135	368	94	447	520	314	24 x 5	18
*)125	6	230	52	145	413	94	492	595	314	24 x 5	21
*)150	6	255	62	160	468	94	547	665	314	24 x 5	25
200	6	328	60	190	557	143	636	821	394	30 x 6	50
250	4	400	68	230	668	166	747	981	394	30 x 6	66
300	4	450	72	260	764	170	843	1131	394	30 x 6	87
350	2.5	510	72	290	907	190	1000	1350	516	36 x 6	133
400	2.5	575	90	326	1059	190	1152	1550	516	36 x 6	202

\*) 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.

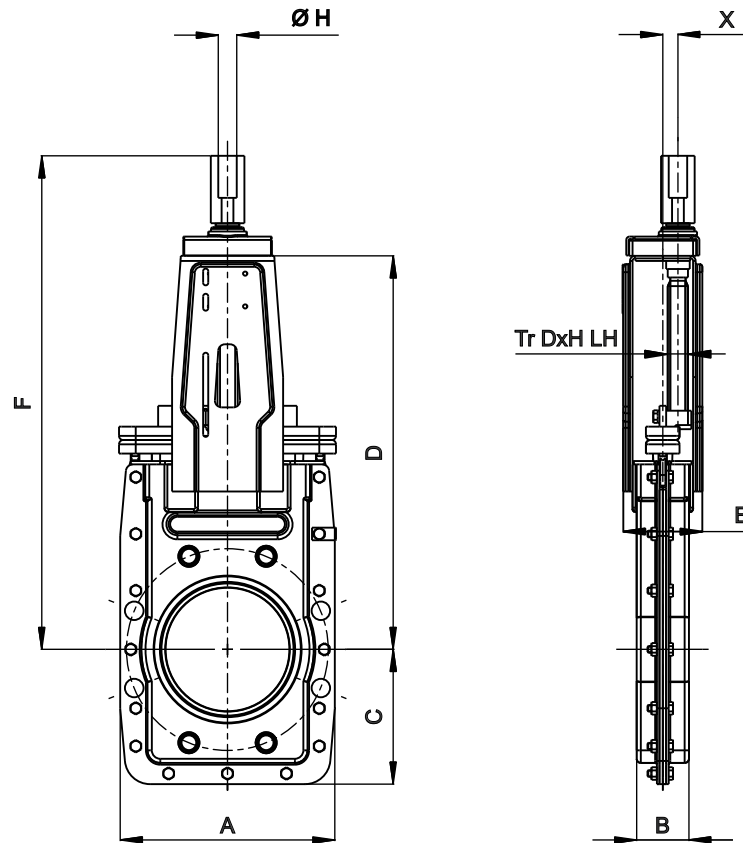
## COMPACT-valve sewage execution square head



DN	PS [bar]	A	B	C	D	E	F	H	X	Tr D x H LH	weight ~[kg]
50	8	185	42	100	313	78	455	32	15	20 x 4	9
65	8	185	42	100	313	78	455	32	15	20 x 4	10
80	8	175	52	125	313	78	456	32	15	20 x 4	10
*)100	6	210	52	135	368	94	512	32	18	24 x 5	13
*)125	6	230	52	145	413	94	557	32	18	24 x 5	15
*)150	6	255	62	160	468	94	612	32	18	24 x 5	18
200	6	328	60	190	557	143	707	32	22	30 x 6	38
250	4	400	68	230	668	166	818	32	22	30 x 6	51
300	4	450	72	260	764	170	914	32	22	30 x 6	67
350	2.5	510	72	290	907	190	1043	32	26	36 x 6	96
400	2.5	575	90	326	1059	190	1195	32	26	36 x 6	136
450	2.5	630	92	315	1200	208	1336	32	28.5	36 x 6	261
500	2.5	700	92	350	1265	228	1416	32	35	36 x 6	311
600	2.5	810	112	405	1495	268	1646	32	35	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.

## COMPACT-valve sewage execution round sleeve



DN	PS [bar]	A	B	C	D	E	F	H	X	Tr D x H LH	weight ~[kg]
50	8	185	42	100	313	78	430	20	15	20 x 4	9
65	8	185	42	100	313	78	430	20	15	20 x 4	10
80	8	175	52	125	313	78	431	20	15	20 x 4	10
*)100	6	210	52	135	368	94	487	22	18	24 x 5	13
*)125	6	230	52	145	413	94	531	22	18	24 x 5	15
*)150	6	255	62	160	468	94	587	22	18	24 x 5	18
200	6	328	60	190	557	143	692	25	22	30 x 6	38
250	4	400	68	230	668	166	803	25	22	30 x 6	51
300	4	450	72	260	764	170	899	30	22	30 x 6	67
350	2.5	510	72	290	907	193	1048	30	26	30 x 6	96
400	2.5	575	90	326	1059	190	1200	30	26	30 x 6	136
450	2.5	630	92	315	1200	208	1341	30	28.5	30 x 6	231
500	2.5	700	92	350	1265	228	1421	35	35	36 x 6	311
600	2.5	810	112	405	1495	268	1651	35	35	36 x 6	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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