BI-DIRECTIONAL KNIFE GATE VALVE XD SERIES

KGV XD SERIES SEMI LUGGED WITH RISING STEM AND HANDWHEEL

KGV XD SERIES SEMI LUGGED WITH RUBBER LINED PASSAGE AND HANDWHEEL RS

KGV XD SERIES FULLY LUGGED WITH BONNET & HADNWHEEL NRS

The XD series knife gate is a Bi-directional resilient seated valve with frontal upper sealing designed to handle waste water, mud, vaccum pump systems and general liquid mediums. The design of the body and seat ensures a bubble-tight shutoff in both directions of the flow.

GENERAL FEATURES

- 100 % water tight in both senses
- U-seat with a steel stiff core vulcanized, fixed between the two bodies by screws.
- Without stuffing box
- Frontal elastomeric upper sealing
- Two split body arrangements: semi lugged (wafer) and optionally, fully lug-between flanges and fully lug-end valve without counter flange.
- Short face-to-face dimension
- Smooth and unobstructed full flow passage, no cavity or void in body, means no clogging
- Easy drive replacement
- Self cleaning design; little maintenance required
- Proximity and limit switch mounting points

APPLICATION FIELDS

- Wastewater treatment
- Fish handling
- Cruises and ships
- Biomass
- Tunnel boring
- Plastic recycling plants
- Food and beverage
- Etc.

TECHNICAL DATA

- ***Size range:***
  DN-50 (2") to DN-1800 (72")

- **Working pressure:**
  DN 50 to DN 200: 10 kg/cm^2
  DN 250 to DN 300: 7 kg/cm^2
  DN 350 to DN 400: 6 kg/cm^2
  DN 450 to DN 600: 4 kg/cm^2
  DN 700: 3 kg/cm^2
  DN 800: 2 kg/cm^2
  DN 900: 1,5 kg/cm^2
  DN1000 to DN1800: 1 kg/cm^2

- **Flange ratings:**
  PN10, PN16 and ANSI B16.5 (class 150)
  Note: other flange drillings under request

- **Face to face dimension:**
  According to K1 DIN3202 up to DN-350

- **Coating:**
  RAL 5017, 150 microns epoxy coated

- **Directives:**
  Pressure equipment directive 97/23/CE
  DIR 2006/42/CE (MACHINES)
  DIR 94/9/CE (ATEX)
  Approved certificate for potable water (ACS-Atestation De Conformite Sanitaire)

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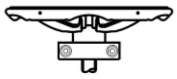
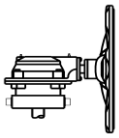
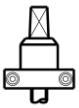
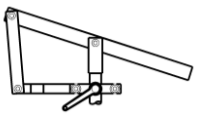
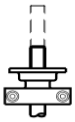
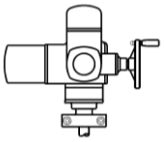
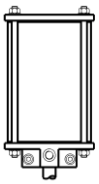
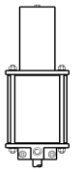
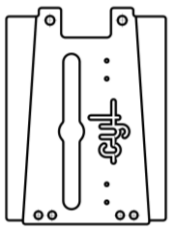
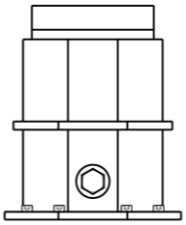
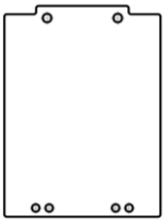
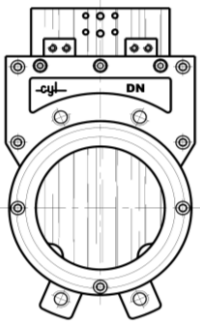
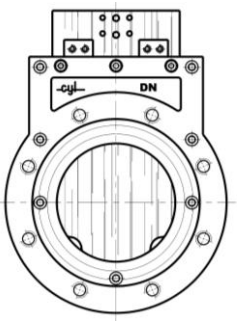
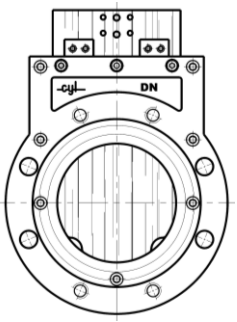
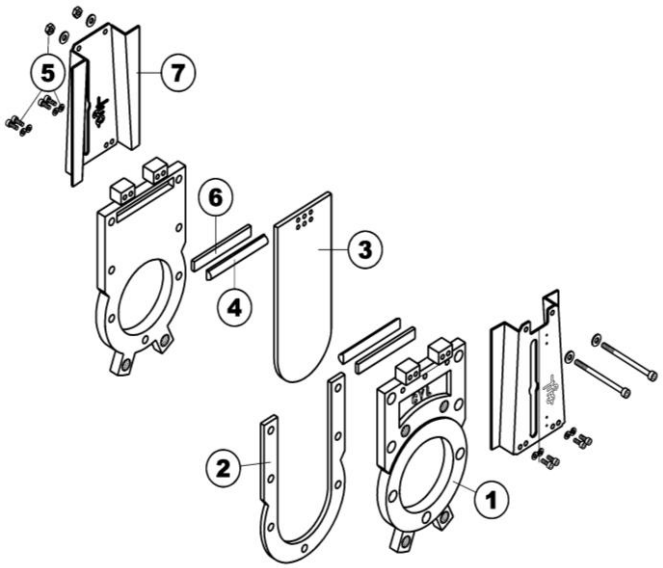
ASSEMBLY CONFIGURATION

	STANDARD	OPTIONAL
OPERATION	 Rising stem handwheel  Non rising stem handwheel  Gearbox  Key Cap  Chain Wheel  Quick closing lever  Rising stem coupling A  Non rising stem coupling B-3  Electric actuator  Double acting pneumatic actuator  Spring-return pneumatic actuator  Oil hydraulic actuator	
PLATES	 Plates	 Tight closed bonnet  Earth bonnet
BODY	 Semi lugged (wafer)	 Fully lugged - end valve (All holes threaded)  Fully lugged - between flanges (partly tapped and partly through holes)
ACCESORIES	- Revolving handle - Locking device - Overriding actuator - Limit stroke - Mechanical limit switches - Proximity limit switches - Mechanical position indicator - V-port (Aisi 316) - Deflector cone (Ni-hard) - Chest scraper (Bronze / PPS plastic) - Solenoid valve - Extension, extended guided plates - Etc	

MATERIAL SPECIFICATION & PART LIST

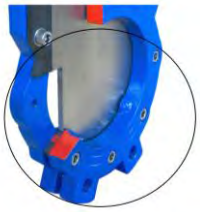
No.	DESCRIPTION	MATERIAL
1	Body	Cast iron - GJL250 (standard) Ductile iron - GJS400, CF8M, DUPLEX 2205, SMO 254 (optional)
2	Seat	NBR (standard) PTFE, VITON, EPDM, SILICONE (optional)
3	Gate	SS 316 (standard) SS 316L, SS 316TI, DUPLEX 2205, SMO 254 (optional)
4	Packing material	NBR (standard) PTFE, VITON, EPDM, SILICONE (optional)
5	Screws and nuts	A-4
6	Push rods	SS 316
7	Plates	1.0580 (standard) SS 316 (optional)
-	Stem	SS 316
-	Bearing	1.0401 (standard) SS 316 (optional)
-	Handwheel	1.0037
-	Pneumatic act.	Aluminium

Figure 1. Exploded view of KGV XD series semi lugged



SEAT TYPE

The seat consists of one piece vulcanized u-shaped rubber seat (optionally PTFE) with steel stiff core inside, fixed between the two half bodies by screws, providing a bubble-tight shut off on both directions and, avoiding at the same time any build-up of fluids inside the body that would prevent the valve from closing.



APPLICATION AND TEMPERATURE RANGE

SEAT AND PACKING MATERIALS			
Material	**Min. temperature (ºC)**	**Max. temperature (ºC)**	**APPLICATIONS**
NBR	-30	+80	Hydrocarbons and biogas waste
EPDM	-30	+90	Clean and chlorided water
EPDM-POTABLE	-30	+90	Approved certificate for potable water
VITON	-40	+180	Organic acids, hydrocarbons and heat resistant
PTFE	-10	+200	Heat, acids, chemical and corrosion resistant
POLIURETHANE	-10	+80	Abrasive mediums/mineral handling
WHITE NBR	-10	+60	Food industry
RED SILICONE	-20	+180	Food industry (FDA conformity)

*More details and other sealing materials under request.

DIMMENSIONAL DRAWINGS

Figure 2. KGV XD series semi lugged rising stem & handwheel

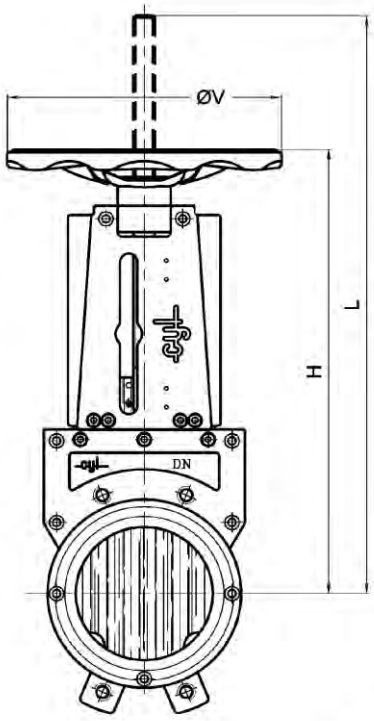


Figure 3. KGV XD series semi lugged rising stem with handwheel & gearbox*

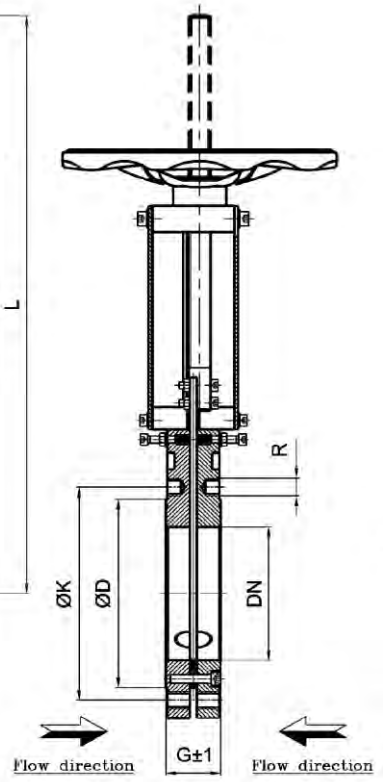
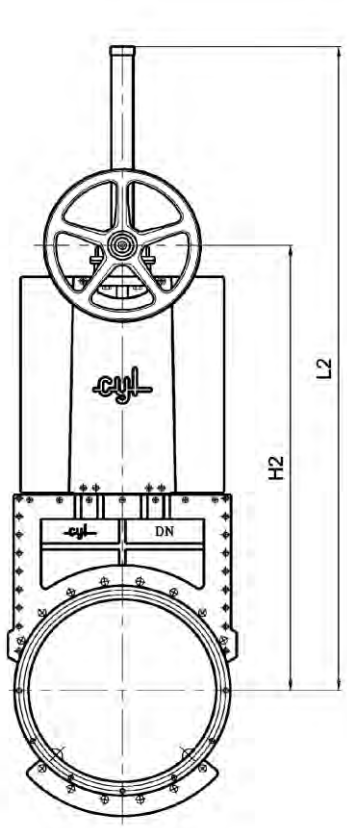
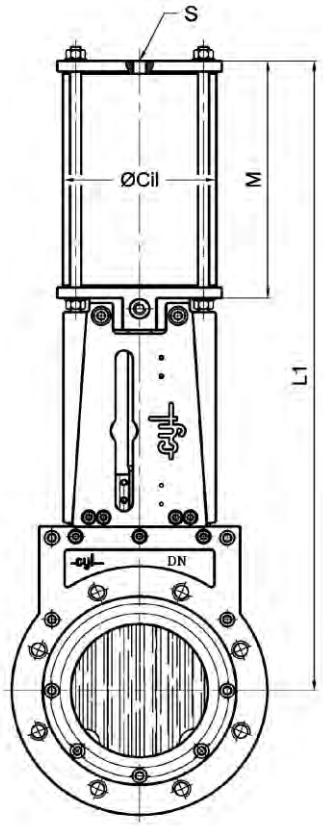


Figure 4. KGV XD series fully lugged with d/a pneumatic actuator



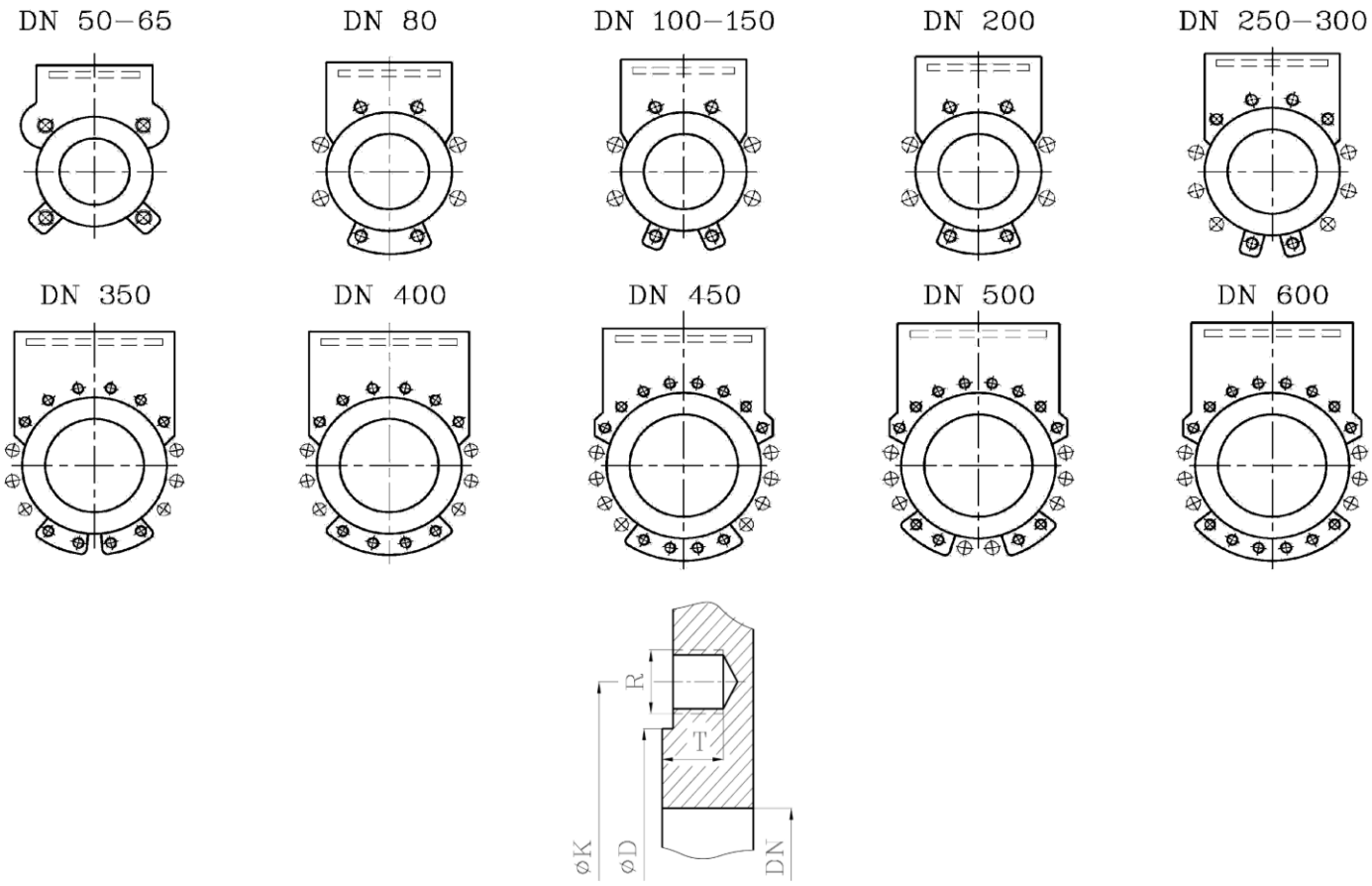


DN	G±1	L	H	ØV	L2	H2	L1	M	Ø Cil	S	Min. Torque (Nm)	Max. Torque (Nm)	Spindle thread
50	43	335	267	175	-	-	374	147	80	1/4 " G	8	16	Tr18x4i
65	46	376	293	175	-	-	413	160	80	1/4 " G	10	17	Tr18x4i
80	46	419	334	225	-	-	461	177	100	1/4 " G	12	19	Tr20x4i
100	52	476	371	225	-	-	518	197	100	1/4 " G	15	22	Tr20x4i
125	56	541	411	225	-	-	593	232	125	3/8 " G	17	24	Tr20x4i
150	56	651	500	300	-	-	709	267	160	3/8 " G	25	50	Tr24x5i
200	60	803	602	300	-	-	871	327	190	1/2 " G	27	53	Tr24x5i
250	68	954	703	300	-	-	1020	375	190	1/2 " G	50	69	Tr24x5i
300	78	1137	835	400	-	-	1194	428	190	1/2 " G	63	84	Tr28x5i
350	78	1273	921	400	1370	980	1351	499	250	1/2 " G	78	102	Tr28x5i
400	90	1433	1031	400	1530	1090	1511	549	250	1/2 " G	90	110	Tr28x5i
450	90	1604	1161	500	1667	1164	1664	590	300	1/2 " G	215	259	Tr40x7i
500	95	1779	1271	500	1829	1276	1838	656	300	1/2 " G	223	320	Tr40x7i
600	105	2066	1458	500	2116	1463	2125	757	300	1/2 " G	249	388	Tr40x7i

* Valves above DN-700 need to be operated with gearbox and handwheel.
* Data sheet for ØK & ØD stated in "flange drillings chapter".

FLANGE DRILLINGS

FLANGE DRILLING - PN10



Bolting Arrangements PN-10 Knife Gate Valve

DN	K	D	N (1)	N (2)	N (3)	T	R
50	125	100	4	-	4	9	M-16
65	145	120	4	-	4	9	M-16
80	160	135	4	4	8	13	M-16
100	180	158	4	4	8	13	M-16
125	210	188	4	4	8	13	M-16
150	240	212	4	4	8	12	M-20
200	295	268	4	4	8	12	M-20
250	350	320	6	6	12	16	M-20
300	400	370	6	6	12	16	M-20
350	460	430	10	6	16	20	M-20
400	515	482	10	6	16	24	M-24
450	565	532	12	8	20	24	M-24
500	620	585	12	8	20	25	M-24
600	725	685	14	6	20	29	M-27

N (1)- Nº of tapped holes N (2)- Nº of through holes N (3)- Nº of flange holes

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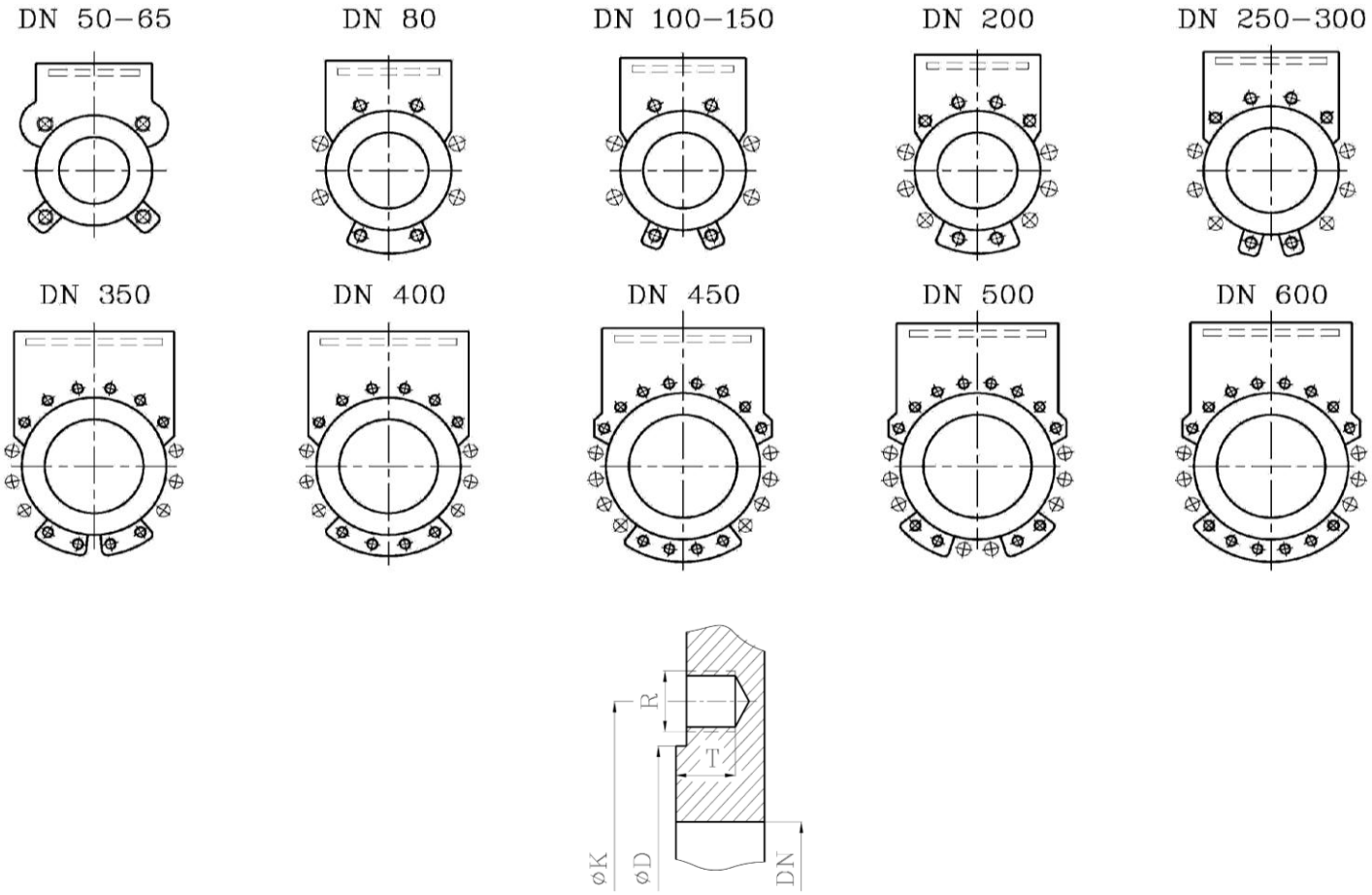
FLANGE DRILLING - PN16



Bolting Arrangements PN-16 Knife Gate Valve

DN	K	D	N (1)	N (2)	N (3)	T	R
50	125	100	4	-	4	9	M-16
65	145	120	4	-	4	9	M-16
80	160	135	4	4	8	13	M-16
100	180	158	4	4	8	13	M-16
125	210	188	4	4	8	13	M-16
150	240	212	4	4	8	12	M-20
200	295	268	6	6	12	12	M-20
250	355	320	6	6	12	16	M-24
300	410	370	6	6	12	16	M-24
350	470	430	10	6	16	20	M-24
400	525	482	10	6	16	24	M-27
450	585	532	12	8	20	24	M-27
500	650	585	12	8	20	25	M-30
600	770	685	14	6	20	29	M-33

N (1)- Nº of tapped holes N (2)- Nº of through holes N (3)- Nº of flange holes

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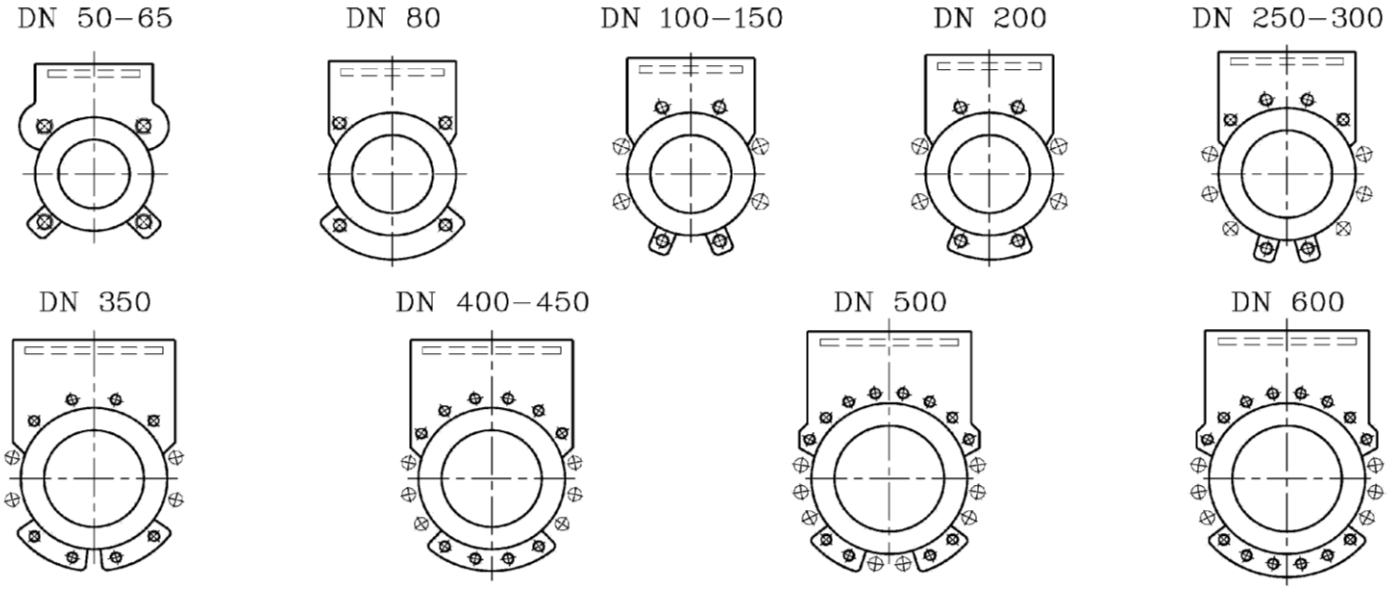
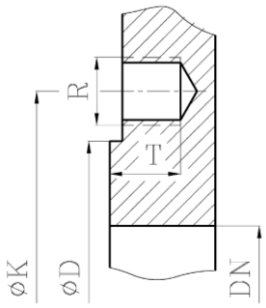
FLANGE DRILLING - ASA 150





Bolting Arrangements ASA 150 Knife Gate Valve

DN	K	D	N (1)	N (2)	N (3)	T	R
50	120,60	100	4	-	4	9	5/8 “
65	139,70	120	4	-	4	9	5/8 “
80	152,40	135	4	-	4	13	5/8 “
100	190,50	158	4	4	8	13	5/8 “
125	215,90	188	4	4	8	13	3/4 “
150	241,30	212	4	4	8	12	3/4 “
200	298,40	268	4	4	8	12	3/4 “
250	361,90	320	6	6	12	16	7/8 “
300	431,80	370	6	6	12	16	7/8 “
350	476,20	430	8	4	12	20	1 ”
400	539,70	482	10	6	16	24	1 “
450	577,80	532	10	6	16	24	1 1/8 “
500	635,00	585	12	8	20	25	1 1/8 “
600	749,30	685	14	6	20	29	1 1/4 “

N (1)- Nº of tapped holes N (2)- Nº of through holes N (3)- Nº of flange holes

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ORDERING GUIDE

SERIES	OPERATIONS	BODY MATERIAL	DN	SEAT MATERIAL	BODY TYPE	FLANGE DRILLING
Example: XD	V	11		NI	W	PN-10
	V → Handwheel r.s	11 → Cast iron		NI → NBR	L → Fully Lugged (END VALVE)	PN-10
	VR → Handwheel r.s + Bevel Gearbox	12 → Ductile iron		EP → EPDM	LW → Fully Lugged (BETWEEN FLANGES)	PN-16
	F → Handwheel n.r.s.	14 → Stainless steel		VI → VITON	W → Semi lugged (WAFER)	ASA 150
	FR → Handwheel n.r.s. + Bevel Gearbox	17 → Fully stainless steel		TE → PTFE		AS-2129 Table C/D
	C → Key cap n.r.s	18 → Carbon steel		PU → POLIURETHANE		AS-2129 Table E
	CR → Key cap + Spur Gearbox			SI → SILICONE		
	B → Iso top flange r.s.			NIB → WHITE NBR		
	BR → Iso top flange r.s. + Bevel Gearbox					
	FB → Iso top flange n.r.s.					
	FBR → Iso top flange n.r.s. + Bevel Gearbox					
	M → Electric actuator r.s.					
	MR → Electric actuator r.s. + Bevel Gearbox					

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XD series

SERIES	OPERATIONS	BODY MATERIAL	DN	SEAT MATERIAL	BODY TYPE	FLANGE DRILLING
	FM → Electric actuator n.r.s	11 → Cast iron		NI → NBR	L → Fully Lugged (END VALVE)	PN-10
	FMR → Electric actuator n.r.s + Bevel Gearbox	12 → Ductile iron		EP → EPDM	LW → Fully Lugged (BETWEEN FLANGES)	PN-16
	P → Quick closing lever	14 → Stainless steel		VI → VITON	W → Semi lugged (WAFER)	ASA 150
	N → D/A pneumatic actuator	17 → Fully stainless steel		TE → PTFE		AS-2129 Table C/D
	SE → S/A pneumatic actuator	18 → Carbon steel		PU → POLIURETHANE		AS-2129 Table E
	H → Oil hydraulic actuator			SI → SILICONE		
	VCH → Chain wheel r.s.			NIB → WHITE NBR		
	VCHR → Chain wheel r.s. + Bevel Gearbox					
	FCH → Chain wheel n.r.s.					
	FCHR → Chain wheel n.r.s. + Bevel Gearbox					

BI-DIRECTIONAL KNIFE GATE VALVES XD-PRE SERIES

KGV XD-PRE SERIES FULLY LUGGED WITH RISING STEM & HANDWHEEL

KGV XD-PRE SERIES FULLY LUGGED WITH D/A PNEUMATIC ACTUATOR

KGV XD-PRE SERIES FULLY LUGGED WITH LEVER

The XD-PRE series knife gate is a Bi-directional resilient seated valve designed to handle semi-solid and arid mediums, sludge and general industrial applications. Equipped with adjustable stuffing box mounted on top of the body valve, allows upper sealing replacement without valve disassembling from the pipeline.

GENERAL FEATURES

- 100 % water tight in both senses
- U-seat with a steel stiff core vulcanized, fixed between the two bodies by screws
- Adjustable external stuffing box, allowing upper sealing replacement without valve disassembling from the pipeline
- Two split body arrangements: fully lug-between flanges and fully lug-end valve without counter flange.
- Short face-to-face dimension
- Smooth and unobstructed full flow passage, no cavity or void in body, means no clogging
- Easy drive replacement
- Self cleaning design; little maintenance required

APPLICATION FIELDS

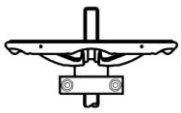
- Wastewater treatment
- Pulp and paper
- Bulk handling
- Mining
- Biomass
- Food and beverage
- Tunnel boring
- Oil rigs
- Chemical process
- Etc.

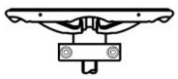
TECHNICAL DATA

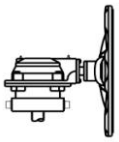
- ***Size range:***
  DN-50 (2") to DN-1000 (40")
- **Working pressure:**
  DN 50 to DN 300: 10 kg/cm^2
  DN 350 to DN400: 6 kg/cm^2
  DN 450 to DN 600: 4 kg/cm^2
  DN 700 to DN 900: 3 kg/cm^2
  DN 1000: 2 kg/cm^2
- **Flange ratings:**
  PN10, PN16 and ANSI B16.5 (class 150)
  Note: other flange drillings under request
- **Face to face dimension:**
  According to K1 DIN3202 up to DN-350
- **Coating:**
  RAL 5017, 150 microns epoxy coated
- **Directives:**
  Pressure equipment directive 97/23/CE
  DIR 2006/42/CE (MACHINES)
  DIR 94/9/CE (ATEX)
  Approved certificate for potable water (ACS-Atestation De Conformite Sanitaire)

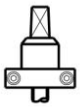
ASSEMBLY CONFIGURATION

OPERATION

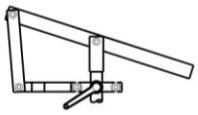

Rising stem handwheel

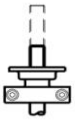

Non rising stem handwheel


Gearbox

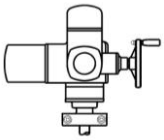

Key Cap

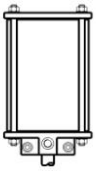

Chain Wheel

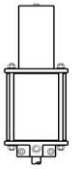

Quick closing


Rising stem coupling A


Non rising stem coupling B-3

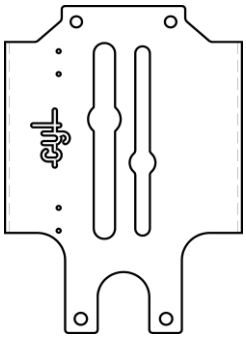

Electric actuator


Double acting pneumatic actuator

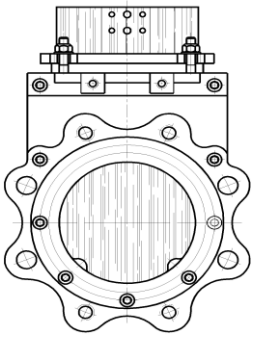

Spring-return pneumatic actuator

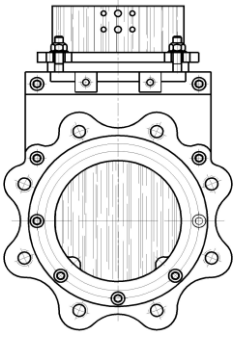

Oil hydraulic actuator

PLATES


Plates

BODY


Fully lugged - between flanges (partly tapped and partly through


Fully lugged - end valve (All holes

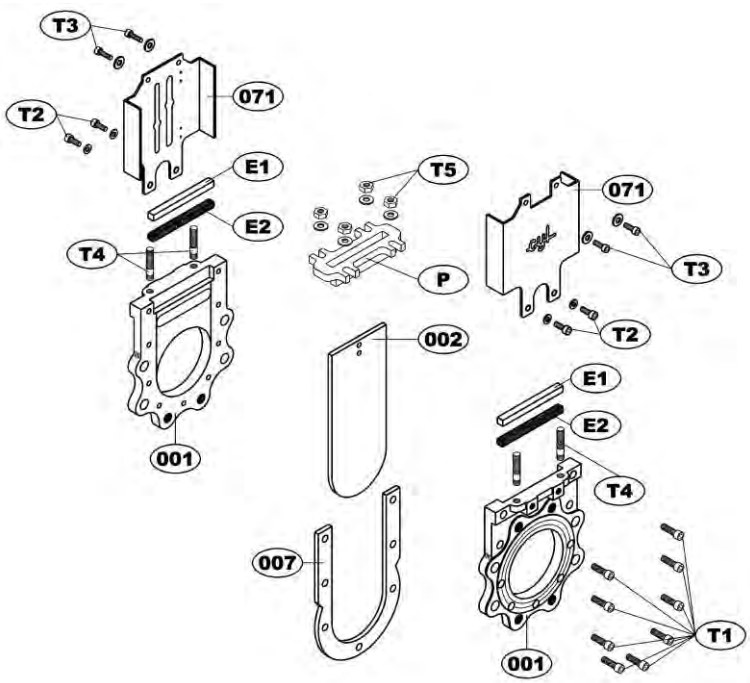
ACCESORIES

- Revolving handle
- Locking device
- Overriding actuator
- Limit stroke
- Mechanical limit switches
- Proximity limit switches
- Mechanical position indicator
- V-port (Aisi 316)
- Deflector cone (Ni-hard)
- Chest scraper (Bronze / PPS plastic)
- Solenoid valve
- Extension, extended guided plates
- Etc.

MATERIAL SPECIFICATION & PART LIST

No.	DESCRIPTION	MATERIAL
001	Body	Cast iron - GJL250 (standard) Ductile iron - GJS400 (optional)
007	Seat	NBR (standard) EPDM, PTFE, VITON, POLIURETHANE (optional)
002	Gate	SS 316 (standard) SS 316L , SS 316TI, DUPLEX 2205, SMO 254 (optional)
E	Packing material	PTFE+NBR, (standard) PTFE+EPDM, PURE PTFE, ARAMIDE, GRAPHITE (optional)
P	Packing gland	Ductile iron - GJS400
T	Screws and nuts	A4
071	Plates	1.0580 (standard) SS 316 (optional)
-	Stem	SS 316
-	Bearing	1.0401 (standard) SS 316 (optional)
-	Handwheel	1.0037
-	Pneumatic act.	Aluminium

Figure 1. Exploded view of KGV XD-PRE series fully lugged



SEAT TYPE

The seat consists of one piece vulcanized u-shaped rubber seat (optionally PTFE) with steel stiff core inside, fixed between the two half bodies by screws, providing a bubble-tight shut off on both directions and avoiding at the same time, any build-up of fluids inside the body that would prevent the valve from closing.

APPLICATION AND TEMPERATURE RANGE

SEAT MATERIALS			
Material	**Min. temperature (ºC)**	**Max. temperature (ºC)**	**APPLICATIONS**
NBR	-30	+80	Hydrocarbons and biogas waste
EPDM	-30	+90	Clean and chlorided water
EPDM - POTABLE	-30	+90	Approved certificate for potable water
VITON	-40	+180	Organic acids, hydrocarbons and heat resistant
PTFE	-10	+200	Heat, friction, acids, chemical and corrosion resistant
POLIURETHANE	-10	+80	Abrasive mediums/mineral handling
WHITE NBR	-10	+60	Food industry
RED SILICONE	-20	+180	Food industry (FDA conformity)

** More details and other sealing materials under request.*

PACKING MATERIALS			
Material	**Min. temperature (ºC)**	**Max. temperature (ºC)**	**APPLICATIONS**
PTFE+NBR	-30	+100	Hydrocarbons and biogas waste
PURE PTFE	-10	+200	Heat, acids, chemical and corrosion resistant
ARAMIDE	-40	+250	Bulk handling
GRAPHITE	-40	+300	Hydrocarbons, heat resistant and solids

**More details and other sealing materials under request.*

DIMMENSIONAL DRAWINGS

Figure 2. KGV XD-PRE series fully lugged rising stem & handwheel

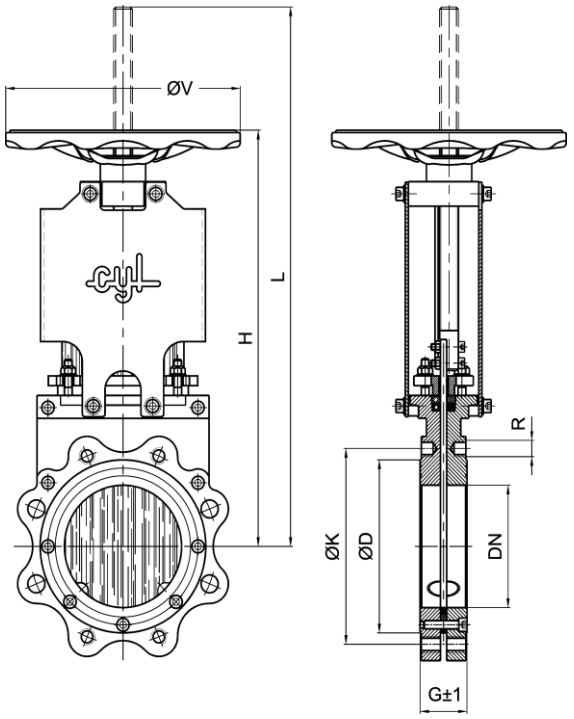


Figure 3. KGV XD-PRE series fully lugged with d/a pneumatic actuator

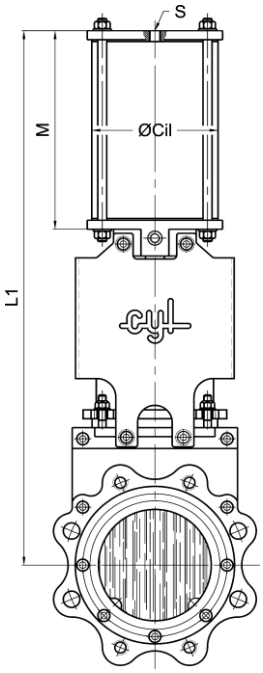
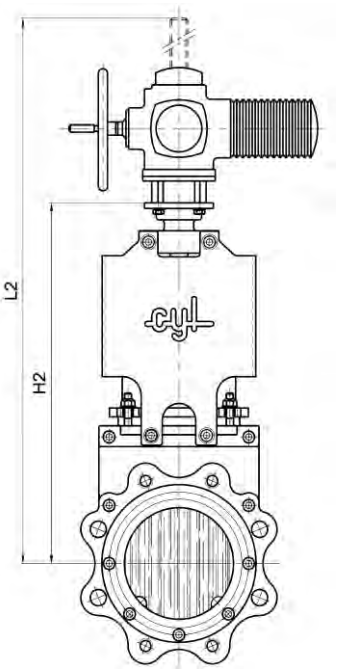


Figure 4. KGV XD-PRE series fully lugged with electric actuator r.s.

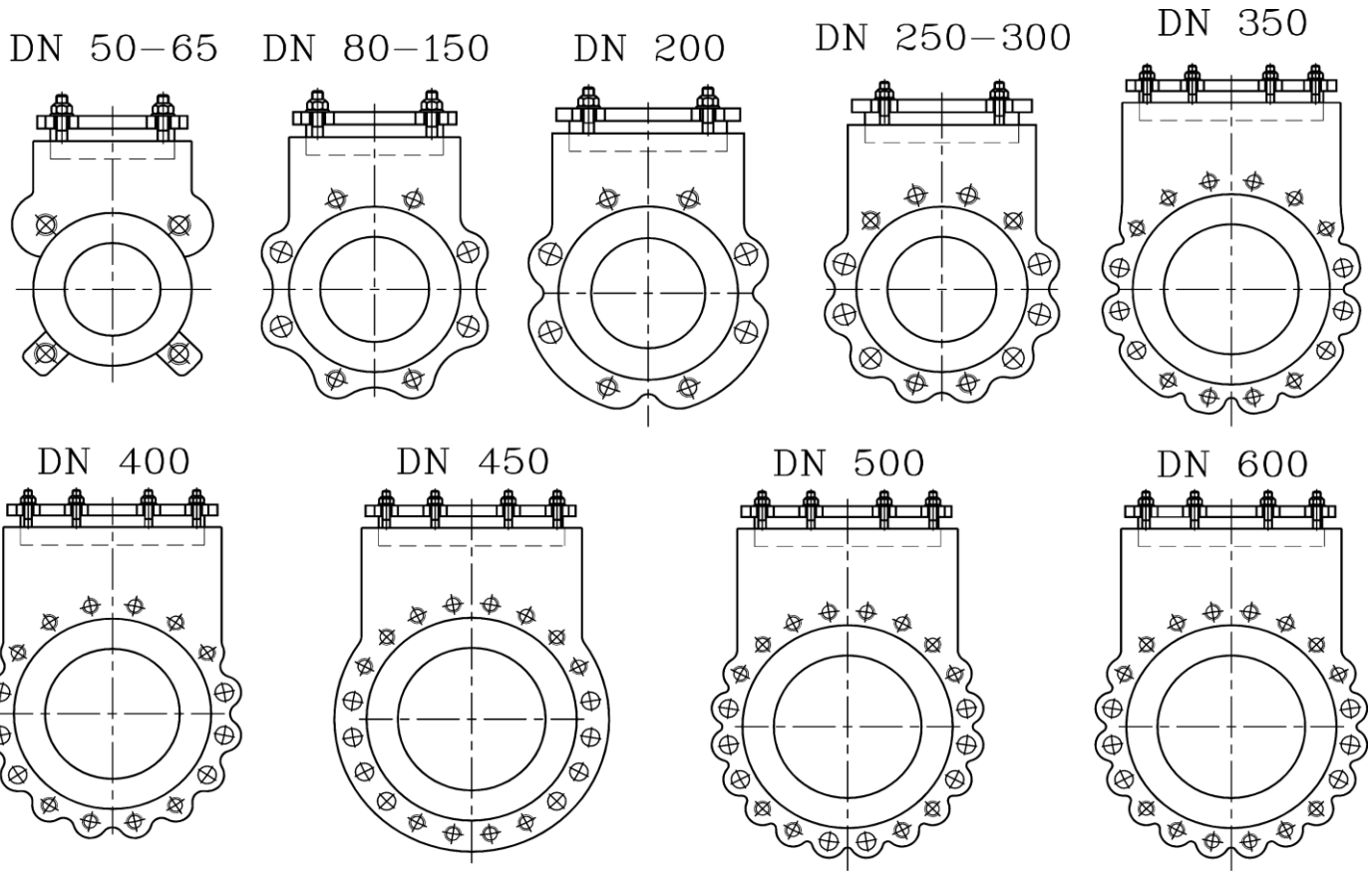


DN	G±1	L	H	ØV	L1	L2	H2	M	Ø Cil	S	Min. Torque (Nm)	Max. Torque (Nm)	Spindle thread
50	43	359	292	175	398	407	300	147	80	1/4 " G	8	16	Tr18x4i
65	46	399	317	175	436	444	325	160	80	1/4 " G	10	17	Tr18x4i
80	46	444	361	225	486	499	357	177	100	1/4 " G	12	19	Tr20x4i
100	52	499	396	225	541	582	392	197	100	1/4 " G	15	22	Tr20x4i
125	56	560	432	225	612	618	428	232	125	3/8 " G	17	24	Tr20x4i
150	56	674	523	300	732	732	510	267	160	3/8 " G	25	50	Tr24x5i
200	60	824	623	300	892	882	610	327	190	1/2 " G	27	53	Tr24x5i
250	68	980	729	300	1046	1044	716	375	190	1/2 " G	50	69	Tr24x5i
300	78	1160	858	400	1217	1219	834	428	190	1/2 " G	63	84	Tr28x5i
350	78	1303	951	400	1381	1362	927	499	250	1/2 " G	78	102	Tr28x5i
400	90	1433	1050	400	1530	1501	1026	549	250	1/2 " G	90	110	Tr28x5i
450	90	1677	1234	500	1737	1685	1135	590	300	1/2 " G	215	259	Tr40x7i
500	95	1819	1311	500	1878	1829	1214	656	300	1/2 " G	223	320	Tr40x7i
600	105	2106	1498	500	2166	2116	1401	757	300	1/2 " G	249	388	Tr40x7i

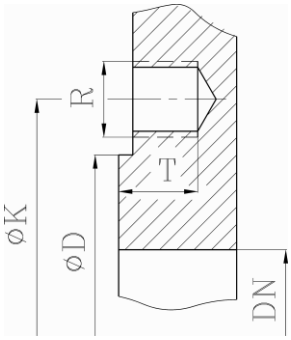
* Data sheet for ØK & ØD stated in "flange drillings chapter".

FLANGE DRILLINGS

FLANGE DRILLING - PN10



Bolting Arrangements PN-10 Knife Gate Valve



DN	K	D	N (1)	N (2)	N (3)	T	R
50	125	100	4	-	4	9	M-16
65	145	120	4	-	4	9	M-16
80	160	135	4	4	8	13	M-16
100	180	158	4	4	8	13	M-16
125	210	188	4	4	8	13	M-16
150	240	212	4	4	8	12	M-20
200	295	268	4	4	8	12	M-20
250	350	320	6	6	12	16	M-20
300	400	370	6	6	12	16	M-20
350	460	430	10	6	16	20	M-20
400	515	482	10	6	16	24	M-24
450	565	532	12	8	20	24	M-24
500	620	585	12	8	20	25	M-24
600	725	685	14	6	20	29	M-27

N (1)- Nº of tapped holes N (2)- Nº of through holes N (3)- Nº of flange holes

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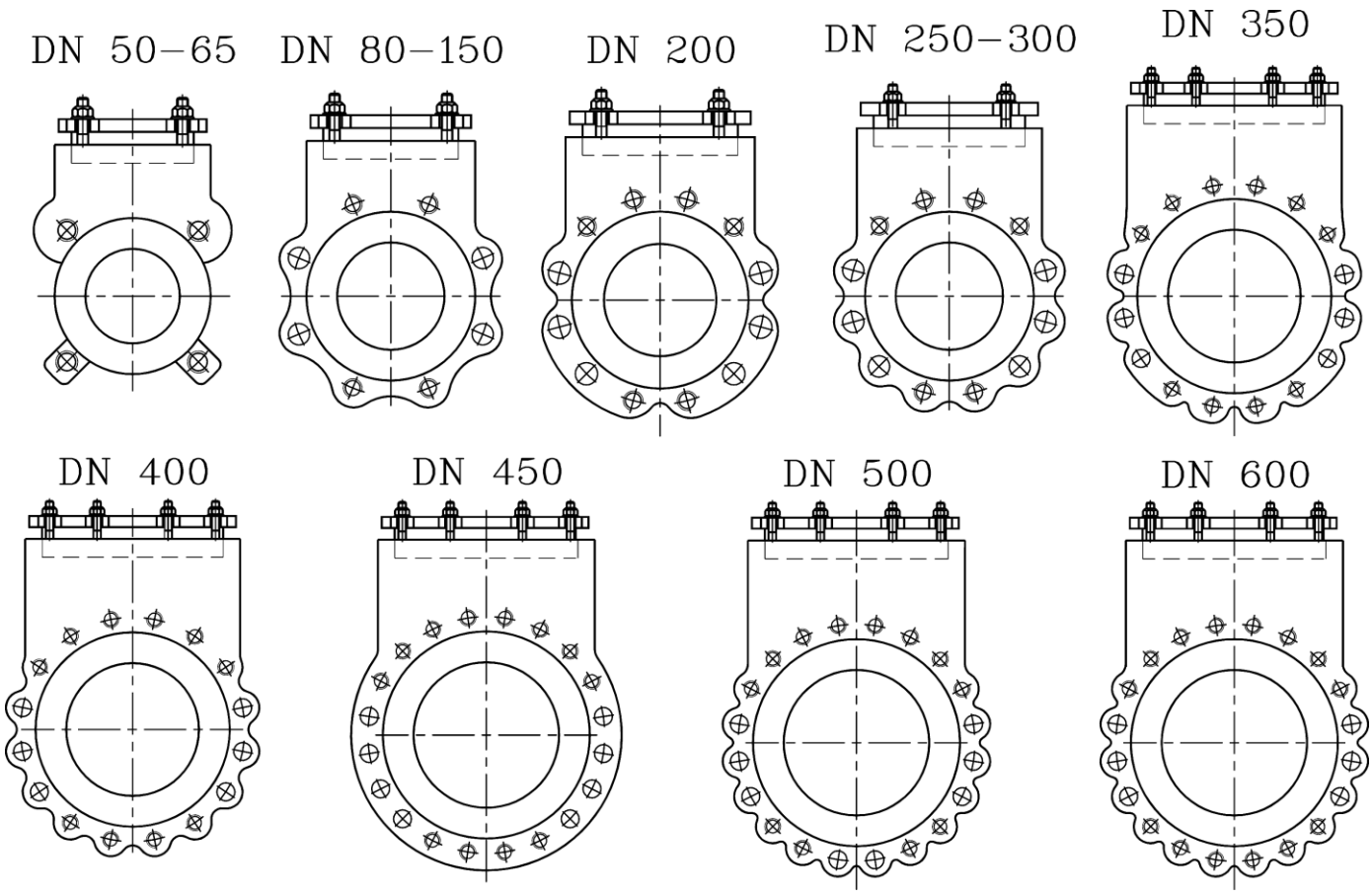
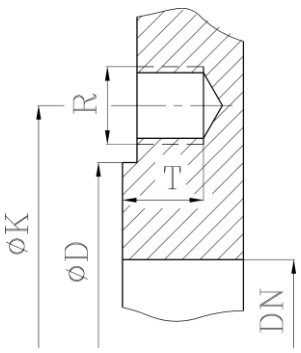
FLANGE DRILLING - PN16



Bolting Arrangements PN-16 Knife Gate Valve



DN	K	D	N (1)	N (2)	N (3)	T	R
50	125	100	4	-	4	9	M-16
65	145	120	4	-	4	9	M-16
80	160	135	4	4	8	13	M-16
100	180	158	4	4	8	13	M-16
125	210	188	4	4	8	13	M-16
150	240	212	4	4	8	12	M-20
200	295	268	6	6	12	12	M-20
250	355	320	6	6	12	16	M-24
300	410	370	6	6	12	16	M-24
350	470	430	10	6	16	20	M-24
400	525	482	10	6	16	24	M-27
450	585	532	12	8	20	24	M-27
500	650	585	12	8	20	25	M-30
600	770	685	14	6	20	29	M-33

N (1)- Nº of tapped holes N (2)- Nº of through holes N (3)- Nº of flange holes

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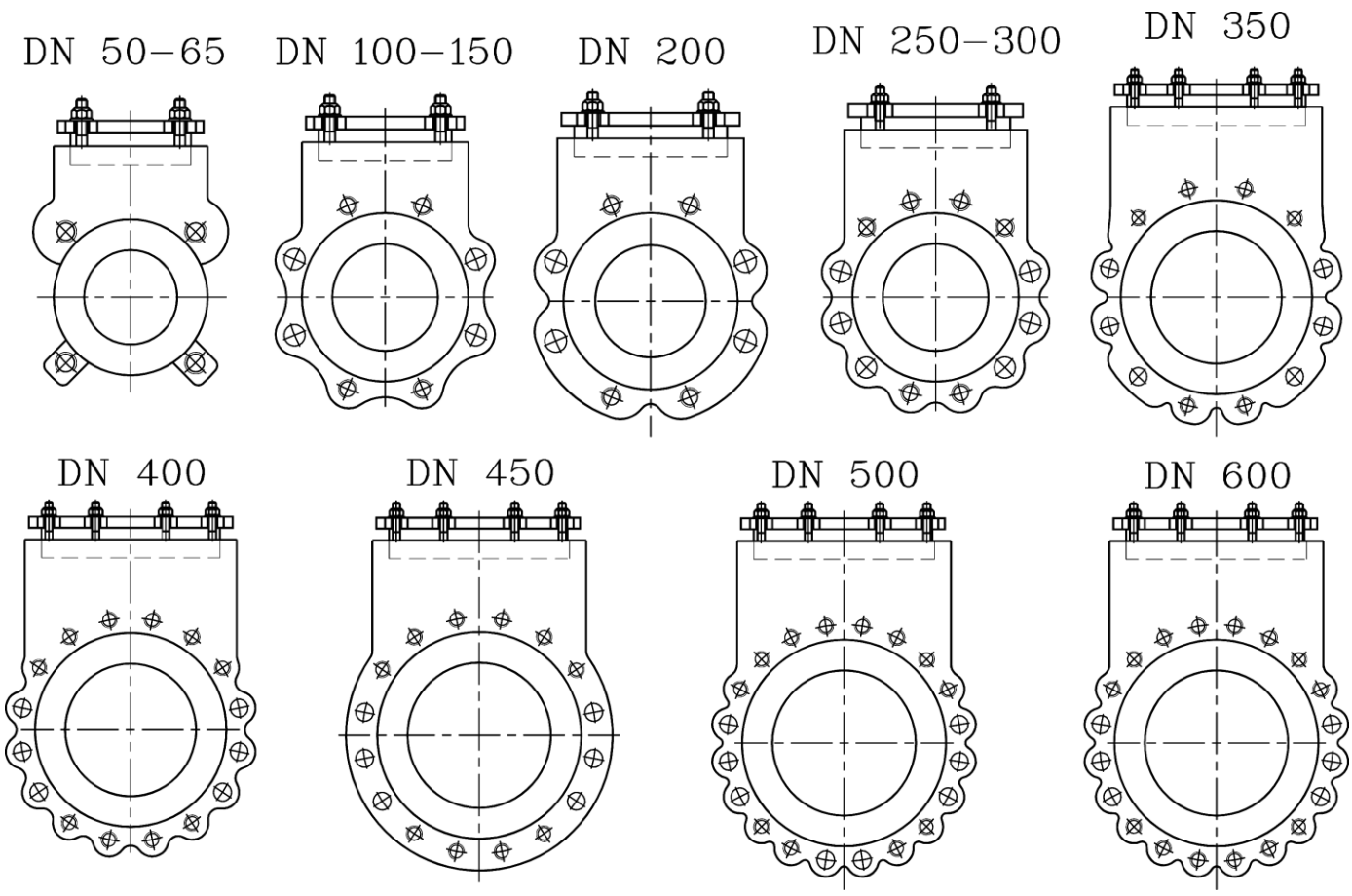
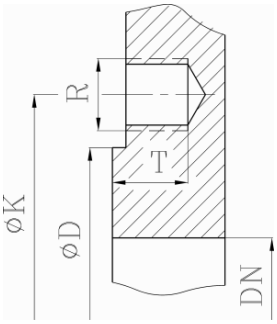
FLANGE DRILLING - ASA 150



Bolting Arrangements ASA-150 Knife Gate Valve



DN	K	D	N (1)	N (2)	N (3)	T	R
50	120,60	100	4	-	4	9	5/8 “
65	139,70	120	4	-	4	9	5/8 “
80	152,40	135	4	-	4	13	5/8 “
100	190,50	158	4	4	8	13	5/8 “
125	215,90	188	4	4	8	13	3/4 “
150	241,30	212	4	4	8	12	3/4 “
200	298,40	268	4	4	8	12	3/4 “
250	361,90	320	6	6	12	16	7/8 “
300	431,80	370	6	6	12	16	7/8 “
350	476,20	430	8	4	12	20	1 ”
400	539,70	482	10	6	16	24	1 “
450	577,80	532	10	6	16	24	1 1/8 “
500	635,00	585	12	8	20	25	1 1/8 “
600	749,30	685	14	6	20	29	1 1/4 “

N (1)- Nº of tapped holes N (2)- Nº of through holes N (3)- Nº of flange holes

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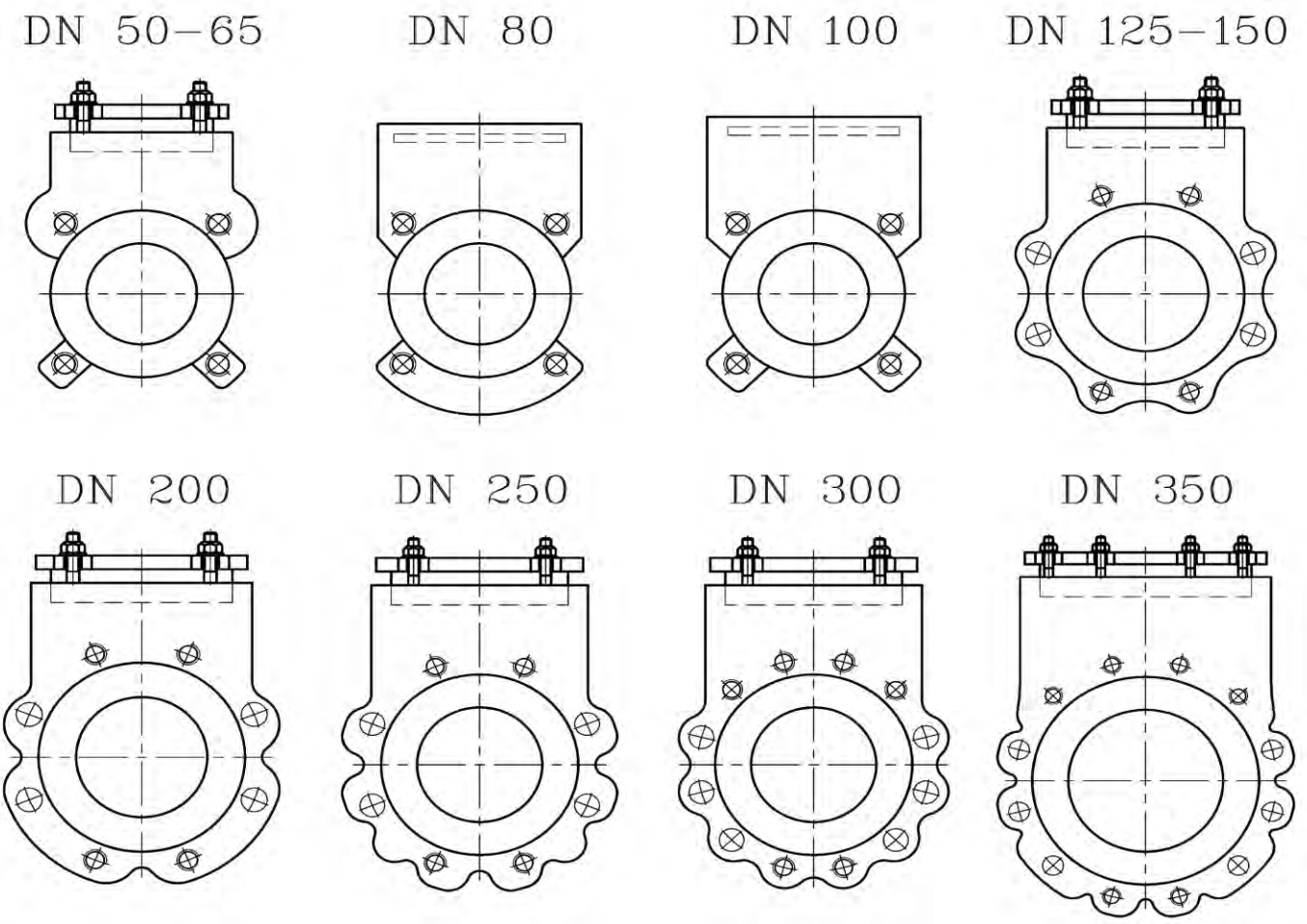
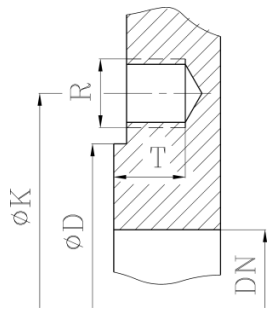
FLANGE DRILLING – AS 2129 TABLE C/D



Bolting Arrangements AS 2129 TABLE C/D Knife Gate Valve



DN	K	D	N (1)	N (2)	N (3)	T	R
50	114	100	4	-	4	9	M-16
65	127	120	4	-	4	9	M-16
80	146	135	4	-	4	13	M-16
100	178	158	4	-	4	13	M-16
125	210	188	4	4	8	13	M-16
150	235	212	4	4	8	12	M-16
200	292	268	4	4	8	12	M-16
250	356	320	4	4	8	16	M-20
300	406	370	6	6	12	19	M-20
350	470	430	6	6	12	19	M-24

N (1)- Nº of tapped holes N (2)- Nº of through holes N (3)- Nº of flange holes

Please be aware that v*alves DN80 and DN100 can only be drilled at AS 2129 Table C/D on the standard XD series without independent packing gland.*

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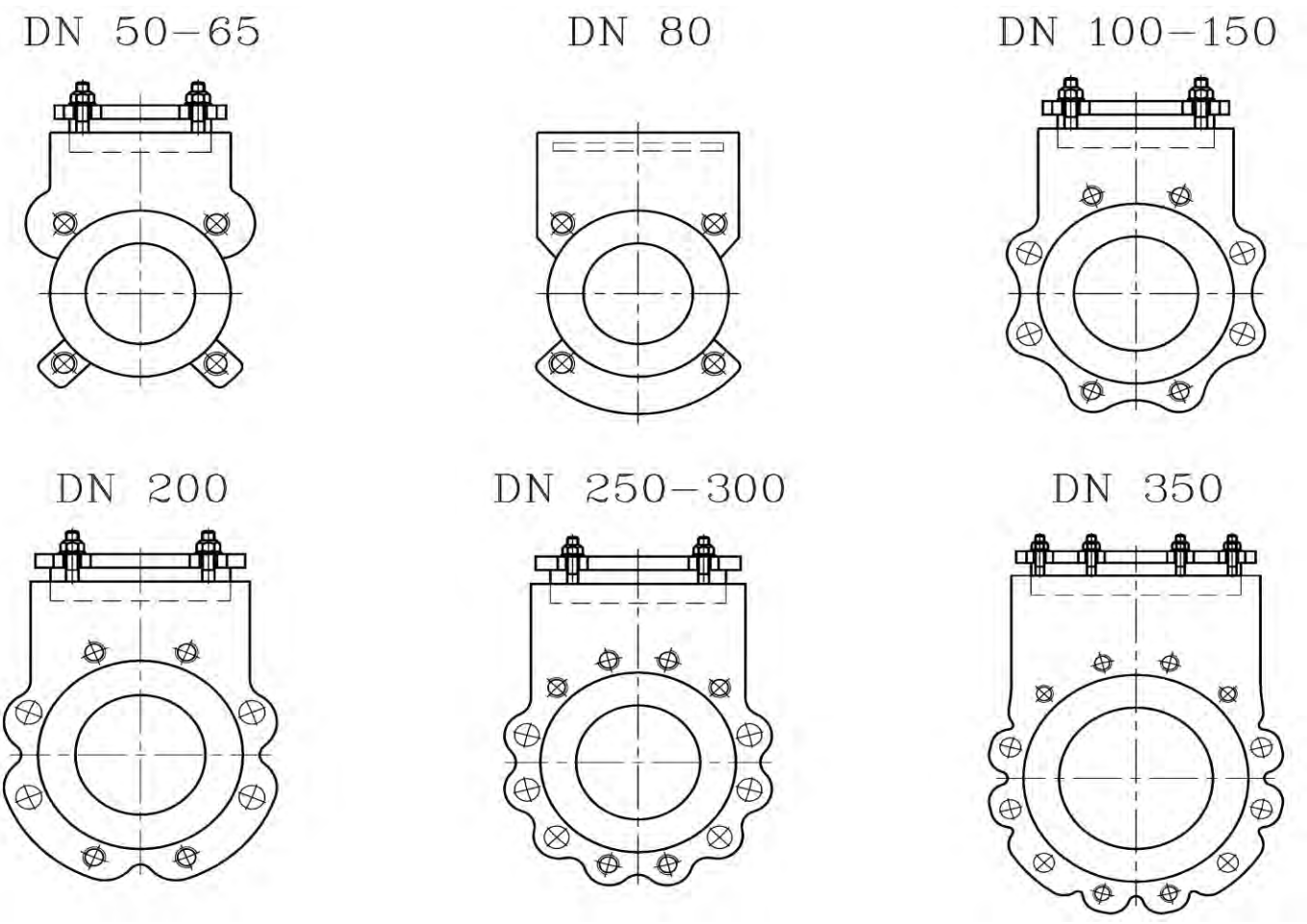
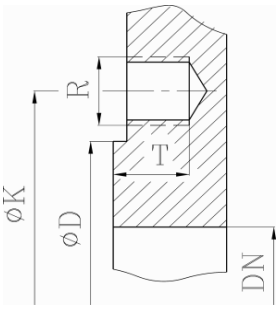
FLANGE DRILLING – AS 2129 TABLE E



Bolting Arrangements AS 2129 TABLE E Knife Gate Valve



DN	K	D	N (1)	N (2)	N (3)	T	R
50	114	100	4	-	4	9	M-16
65	127	120	4	-	4	9	M-16
80	146	135	4	-	4	13	M-16
100	178	158	4	4	8	13	M-16
125	210	188	4	4	8	13	M-16
150	235	212	4	4	8	12	M-20
200	292	268	4	4	8	12	M-20
250	356	320	6	6	12	16	M-20
300	406	370	6	6	12	19	M-24
350	470	430	6	6	12	19	M-24

N (1)- Nº of tapped holes N (2)- Nº of through holes N (3)- Nº of flange holes

Please be aware that valves DN80 can only be drilled at AS 2129 Table E on the standard XD series without independent packing gland.

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ORDERING GUIDE

SERIES	OPERATIONS	BODY MATERIAL	DN	SEAT MATERIAL	BODY TYPE	FLANGE DRILLING
Example: XD-PRE	V	11		NI	W	PN-10
	V → Handwheel r.s	11 → Cast iron		NI → NBR	L → Fully Lugged (END VALVE)	PN-10
	VR → Handwheel r.s + Bevel Gearbox	12 → Ductile iron		EP → EPDM	LW → Fully Lugged (BETWEEN FLANGES)	PN-16
	F → Handwheel n.r.s.			VI → VITON		ASA 150
	FR → Handwheel n.r.s. + Bevel Gearbox			TE → PTFE		AS-2129 Table C/D
	C → Key cap n.r.s			PU → POLIURETHANE		AS-2129 Table E
	CR → Key cap + Spur Gearbox			SI → SILICONE		
	B → Iso top flange r.s.			NIB → WHITE NBR		
	BR → Iso top flange r.s. + Bevel Gearbox					
	FB → Iso top flange n.r.s.					
	FBR → Iso top flange n.r.s. + Bevel Gearbox					
	M → Electric actuator r.s.					
	MR → Electric actuator r.s. + Bevel Gearbox					

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SERIES	OPERATIONS	MATERIAL	DN	SEAT	BODY TYPE	FLANGE
	FM → Electric actuator n.r.s	11 → Cast iron		NI → NBR	L → Fully Lugged (END VALVE)	PN-10
	FMR → Electric actuator n.r.s + Bevel Gearbox	12 → Ductile iron		EP → EPDM	LW → Fully Lugged (BETWEEN FLANGES)	PN-16
	P → Quick closing lever			VI → VITON		ASA 150
	N → D/A pneumatic actuator			TE → PTFE		AS-2129 Table C/D
	SE → S/A pneumatic actuator			PU → POLIURETHANE		AS-2129 Table E
	H → Oil hydraulic actuator			SI → SILICONE		
	VCH → Chain wheel r.s.			NIB → WHITE NBR		
	VCHR → Chain wheel r.s. + Bevel Gearbox					
	FCH → Chain wheel n.r.s.					
	FCHR → Chain wheel n.r.s. + Bevel Gearbox					

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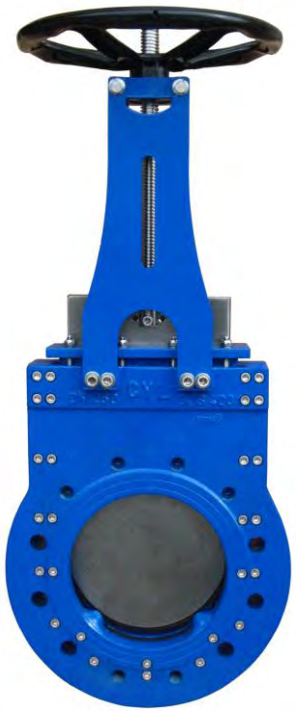
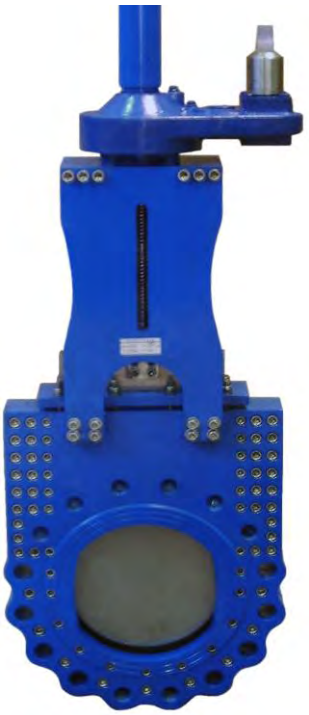
BI-DIRECTIONAL KNIFE GATE VALVE XD-HP SERIES



KGV XD-HP SERIES WITH HANDWHEEL RS

KGV XD-HP SERIES WITH HYDRAULIC ACTUATOR



KGV XD-HP SERIES WITH SPUR GEARBOX

The XD-HP series knife gate is a bi-directional high performance valve specially designed to withstand high pressures (PN10, PN16, PN25, PN40, PN64, PN100, PN160, PN250). Resilient seated valve suitable to handle semi-solids, raw sewage, mud, dehydrated sludge and general industrial applications.

GENERAL FEATURES

- 100% tight in both directions
- Two split body arrangements
- U-seat with a steel stiff core vulcanized, fixed between the two bodies by screws.
- Adjustable external stuffing box, allowing upper sealing replacement without valve disassembling from the pipeline
- Short face-to-face dimension
- Smooth and unobstructed full flow passage, no cavity or void in body, means no clogging
- Easy drive replacement
- Self cleaning design; little maintenance required
- Proximity and limit switch mounting points

APPLICATION FIELDS

- Wastewater treatment
- Dehydrated sludge
- Power plants
- Mining
- Oil rigs
- Tunnel boring
- Etc

TECHNICAL DATA

- ***Size range:***
  DN-50 (2”) to DN-1800 (72”)

- **Working pressure:**
  DN 350 to DN 600: 10 kg/cm^2
  DN 50 to DN600: 16 kg/cm^2
  DN 50 to DN600: 25 kg/cm^2
  DN 50 to DN600: 40 kg/cm^2
  (For higher pressure, please ask factory)

- **Flange ratings:**
  PN10, PN16, PN25, PN40, PN64, PN100, PN160, PN250 and ANSI B16.5
  (Other flange drillings under request)

- **Coating:**
  RAL 5017, 150 microns epoxy coated

- **Directives:**
  Pressure equipment directive 97/23/CE
  DIR 2006/42/CE (MACHINES)
  DIR 94/9/CE (ATEX)
  Approved certificate for potable water

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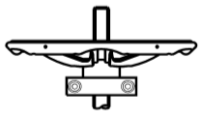
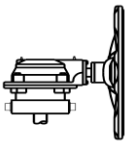
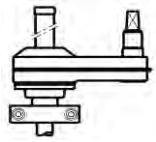
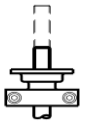
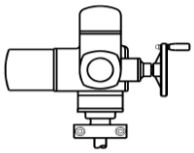
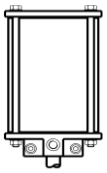
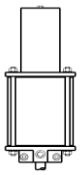
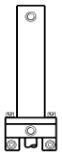
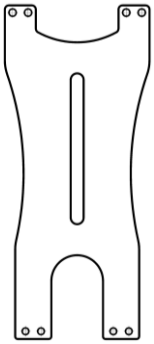
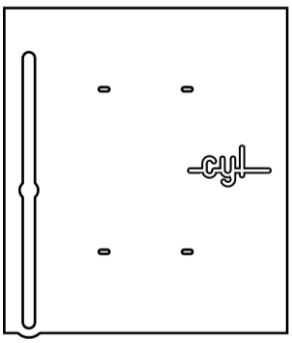
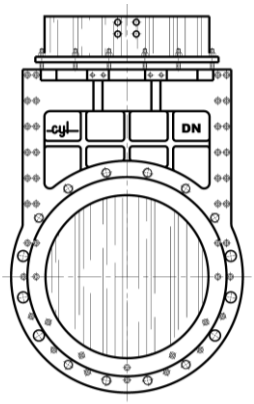
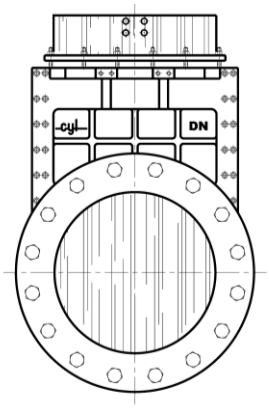
Fax: +34 943 332874 Email: cyl@cyl.es Web: www.cyl.es

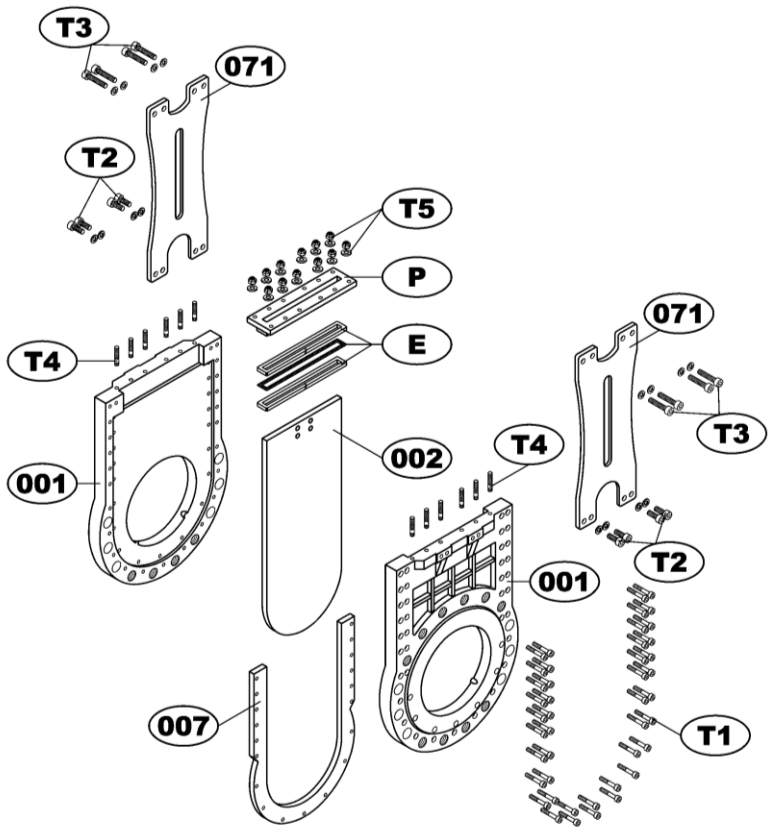
ASSEMBLY CONFIGURATION

	STANDARD	OPTIONAL
OPERATION	 Rising stem handwheel  Gearbox  Spur gearbox  Chain Wheel  Rising stem coupling A  Electric actuator  Double acting pneumatic actuator  Spring-return pneumatic actuator  Oil hydraulic actuator	
PLATES	 Plates	 Hand protections for automated valves
BODY	 Fully lugged – between flanges (Partly tapped and partly through holes)	 Fully lugged valve suitable for end of line with a counter flange
ACCESORIES	- Locking device - Overriding actuator - Mechanical limit switches - Proximity limit switches - Mechanical position indicator - V-port (Aisi 316) - Deflector cone (Ni-hard) - Chest scraper (Bronze / PPS plastic) - Solenoid valve - Extended guided plates	

MATERIAL SPECIFICATION & PART LIST

No.	DESCRIPTION	MATERIAL
001	Body	Ductile Iron (Standard) Carbon steel, CF8M-AISI 316, DUPLEX 2205, SMO254 (optional)
002	Gate	SS 316 (standard) SS 316L , SS 316TI, DUPLEX 2205, SMO 254, (optional)
007	Seat	NBR (standard) EPDM, VITON, NATURAL RUBBER
E	Packing material	PTFE+NBR, (standard) PTFE+EPDM, PURE PTFE, ARAMIDE, GRAPHITE (optional
P	Packing gland	Ductile iron (standard) Carbon steel, CF8M-AISI 316, DUPLEX 2205, SMO254 (optional)
T	Screws and nuts	A4
071	Plates	1.0580 (standard) SS 316 (optional)
-	Stem	SS 316
-	Bearing	1.0401 (standard) SS 316 (optional)
-	Handwheel	1.0037
-	Pneumatic act.	Aluminium (standard) Steel epoxy (optional)
-	Hand-protections	1.0580 (standard) SS 316 (optional)

Figure 1. Exploded view of KGV XD-HP series fully lugged



APPLICATION AND TEMPERATURE RANGE

SEAT MATERIALS			
Material	**Min. temperature (ºC)**	**Max. temperature (ºC)**	**APPLICATIONS**
NBR	-30	+80	Hydrocarbons and biogas waste
EPDM	-30	+90	Clean and chlorided water
VITON	-40	+180	Organic acids, hydrocarbons and heat resistant
NATURAL RUBBER	-10	+70	Tear and abrasion resistant
POLIURETHANE	-10	+80	Abrasive mediums/mineral handling

**More details and other sealing materials under request.*

PACKING MATERIALS			
Material	**Min. temperature (ºC)**	**Max. temperature (ºC)**	**APPLICATIONS**
COTTON-PTFE	-30	+100	Hydrocarbons
ARAMIDE	-40	+250	Bulk handling
GRAPHITE	-40	+300	Hydrocarbons, heat resistant and solids

**More details and other sealing materials under request.*

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DIMMENSIONAL DRAWINGS

10 BARS WORKING PRESSURE / 15 BARS TEST PRESSURE

Figure 3. KGV XD-HP series rising stem & handwheel

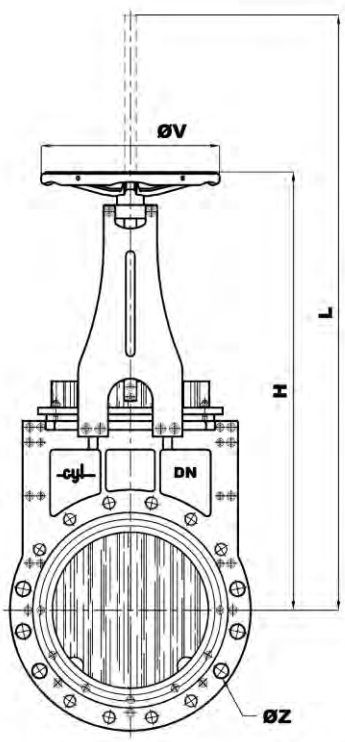


Figure 4. KGV XD-HP series rising stem with handwheel & gearbox

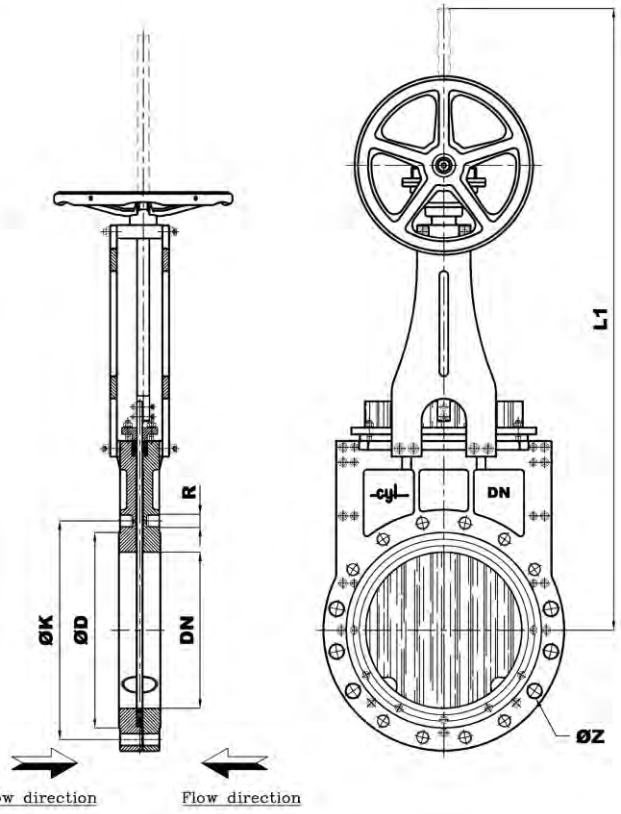
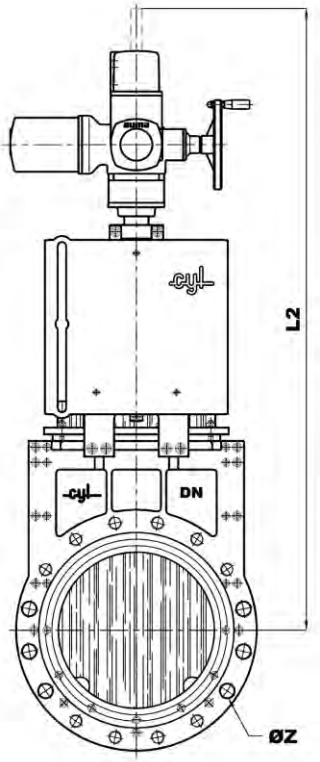


Figure 5. KGV XD-HP series rising stem with electric actuator



DN	H	L	ØV	Ø D	Ø K	R	L1	L2	Ø Z
350	982	1334	400	430	460	M-20	1393	1393	23
400	1178	1581	500	482	515	M-24	1608	1608	27
450	-	-	-	532	565	M-24	1761	1761	27
500	-	-	-	585	620	M-24	1890	1890	27
600	-	-	-	685	725	M-27	2272	2272	30

Note: flange drilling and working pressure PN10. For other flange ratings, please ask factory.

16 BARS WORKING PRESSURE / 24 BARS TEST PRESSURE

Figure 6. KGV XD-HP series rising stem & handwheel

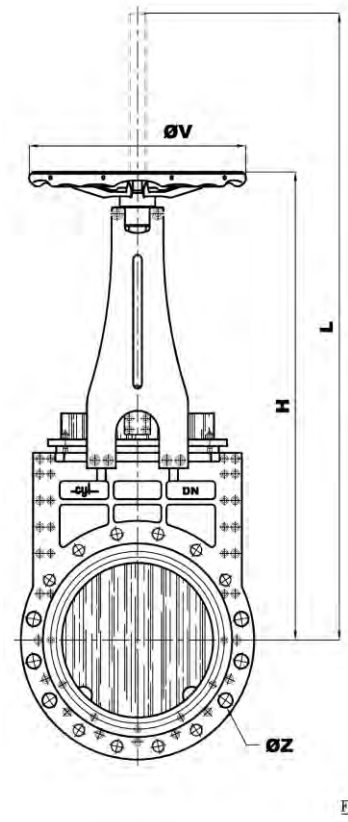


Figure 7. KGV XD-HP series rising stem with handwheel & gearbox

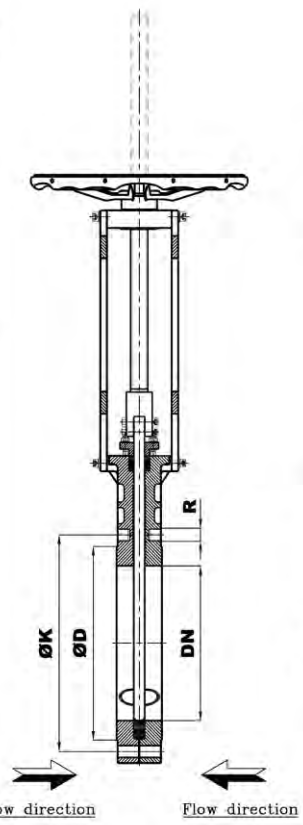
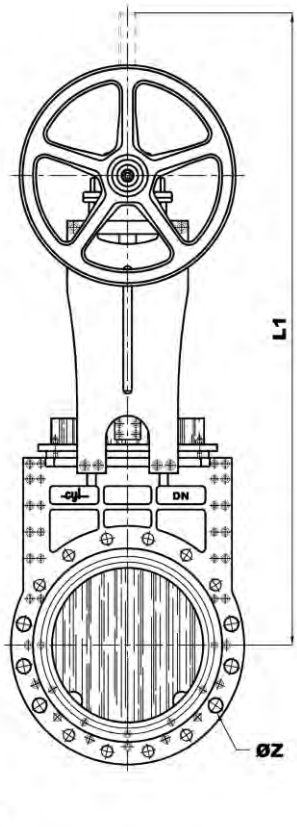
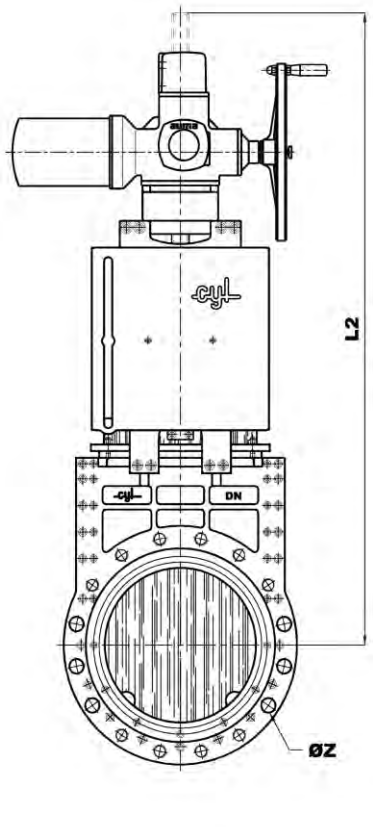


Figure 8. KGV XD-HP series rising stem with electric actuator





DN	H	L	ØV	Ø D	Ø K	R	L1	L2	Ø Z
100	422	524	225	158	180	M-16	-	757	18
125	457	584	225	185	210	M-16	-	792	18
150	567	718	300	212	240	M-20	-	894	23
200	666	868	400	268	295	M-20	-	982	23
250	818	1096	400	320	355	M-24	1139	1139	27
300	948	1238	500	378	410	M-24	1260	1260	27
350	1059	1418	500	430	470	M-24	1430	1430	27
400	1178	1581	500	490	525	M-27	1608	1608	30
450	-	-	-	550	585	M-27	1761	1761	30
500	-	-	-	585	650	M-30	1820	1820	33
600	-	-	-	685	770	M-33	2272	2272	36

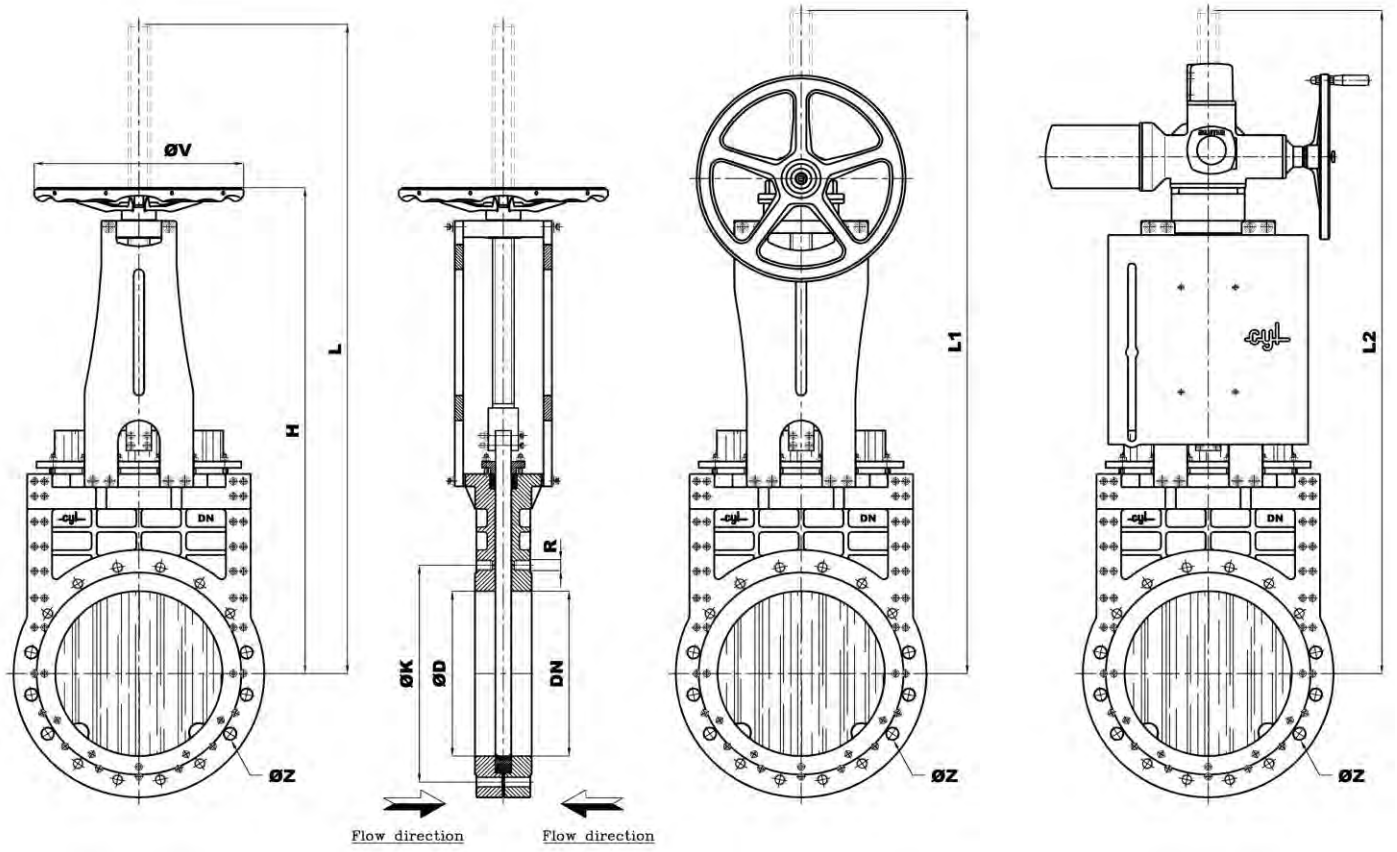
Note: flange drilling and working pressure PN16. For other flange ratings, please ask factory.

25 BARS WORKING PRESSURE / 38 BARS TEST PRESSURE

Figure 9. KGV XD-HP series rising stem & handwheel

Figure 10. KGV XD-HP series rising stem with handwheel & gearbox

Figure 11. KGV XD-HP series rising stem with electric actuator



DN	H	L	ØV	Ø D	Ø K	R	L1	L2	Ø Z
50	320	375	225	102	125	M-16	-	658	-
65	350	412	225	122	145	M-16	-	688	18
80	367	456	225	138	160	M-16	-	702	18
100	437	540	300	158	190	M-20	-	764	23
125	476	602	300	188	220	M-24	-	803	27
150	577	739	400	212	250	M-24	788	894	27
200	666	878	400	268	310	M-24	927	982	27
250	839	1090	500	320	370	M-27	1100	1131	30
300	948	1238	500	378	430	M-27	1260	1260	30
350	1059	1418	500	438	490	M-30	1430	1430	33
400	1178	1581	500	505	550	M-33	1608	1608	36

Note: flange drilling and working pressure PN25. For other flange ratings, please ask factory.

ORDERING GUIDE

SERIES	OPERATIONS	BODY MATERIAL	DN	SEAT MATERIAL	BODY TYPE
XD-HP	V	12		NI	W
	V → Handwheel r.s	12 → Ductile iron		NI → NBR	LW → Fully Lugged (BETWEEN FLANGES)
	VR → Handwheel r.s + Bevel Gearbox	18 → Carbon steel		EP → EPDM	
	B → Iso top flange r.s.	14 → Stainless steel		VI → VITON	
	BR → Iso top flange r.s. + Bevel Gearbox	17 → Fully stainless steel		PU → POLIURETHANE	
	M → Electric actuator r.s.			NR → NATURAL RUBBER	
	MR → Electric actuator r.s. + Bevel Gearbox				
	N → D/A pneumatic actuator				
	SE → S/A pneumatic actuator				
	H → Oil hydraulic actuator				
	VCH → Chain wheel r.s.				
	VCHR → Chain wheel r.s. + Bevel Gearbox				
	CR → Square cap and spur gearbox				

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UNI-DIRECTIONAL KNIFE GATE VALVE MU SERIES

KGV MU SERIES WAFER WITH ELASTOMERIC SLEEVE & HANDWHEEL RS

KGV MU SERIES WAFER WITH PROFILE SEAT & HANDWHEEL NRS

KGV MU SERIES FULLY LUGGED WITH PROFILE SEAT & HANDWHEEL RS

The MU series knife gate is a uni-directional wafer valve, soft or metal-metal seated, designed for handling pulp, arid and powder mediums, mainly used in industrial bulk and silo outlet applications. Sleeve (DN50-DN300) and packing material can be replaced without valve disassembly from the pipeline.

GENERAL FEATURES

- Monoblock one-piece body: semi lugged (wafer) and optionally, fully lug-between flanges and fully lug-end
- Adjustable stuffing box, allowing packing material replacement without valve disassembly from the line
- Two sealing systems:
  - **DN50-DN300:** sleeve (tight version) or metallic ring (metal-metal valve). Same valve can be used for both options. Sleeve can be replaced by only holding the valve on one bolt and rotating 90º.
    Warning: sleeve seated valves designed only for flanges DN2632.
  - **DN350-DN600:** profile o-ring (tight version). Metal-metal seated valve without elastomeric parts on the passage. Profile o-ring cannot be replaced without valve disassembly from the pipeline.
- Short face-to-face dimension
- Easy drive replacement
- Proximity and limit switch mounting points

APPLICATION FIELDS

- Pulp and paper
- Bulk handling
- Mining
- Chemical process
- Slaughterhouse
- Food and beverage
- High temperature industrial applications
- Silo outlets
- Etc

TECHNICAL DATA

- ***Size range:***
  DN-50 (2") to DN-600 (24")

- **Working pressure:**
  DN 50 to DN 200: 10 kg/cm^2
  DN 250 to DN 300: 7 kg/cm^2
  DN 350 to DN 400: 6 kg/cm^2
  DN 450 to DN 600: 4 kg/cm^2

- **Flange ratings:**
  PN10, PN16 and ANSI B16.5 (class 150)
  Note: other flange drillings under request

- **Face to face dimension:**
  According to K1 DIN3202 up to DN-300
  From DN-350 to DN-600 CYL standard

- **Coating:**
  RAL 5017, 150 microns epoxy coated

- **Directives:**
  Pressure equipment directive 97/23/CE
  DIR 2006/42/CE (MACHINES)

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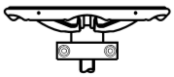
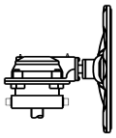
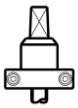
ASSEMBLY CONFIGURATION

OPERATION

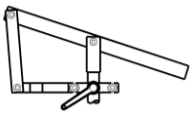

Rising stem **handwheel**

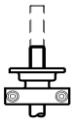

Non rising stem handwheel


Gearbox

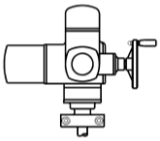

Key Cap

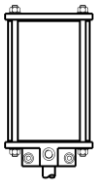

Chain Wheel

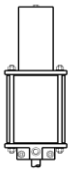

Quick closing


Rising stem coupling A


Non rising stem coupling B-3

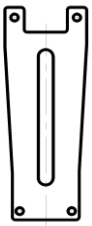

Electric actuator

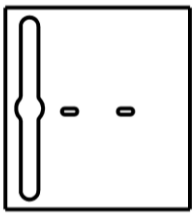

Double acting pneumatic actuator

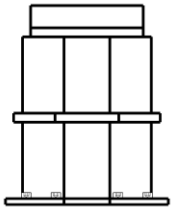

Spring-return pneumatic


Oil hydraulic actuator

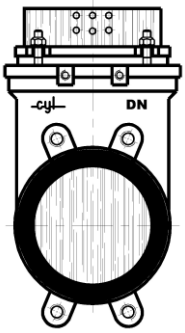
PLATES


Plates


Hand protections for automated valves


Tight closed bonnet rising stem

BODY



Semi lugged (wafer) DN50-DN300


Semi lugged (wafer) DN350-DN600

ACCESORIES

- Revolving handle
- Locking device
- Overriding actuator
- Limit stroke
- Flush holes
- Mechanical limit switches
- Proximity limit switches
- Mechanical position indicator
- V-port (Aisi 316)
- Deflector cone (Ni-hard)
- Chest scraper (Bronze / PPS plastic)
- Solenoid valve
- Extension, headstock rising stem / non rising stem
- Enlarged plates
- Rubber horse
- Etc.

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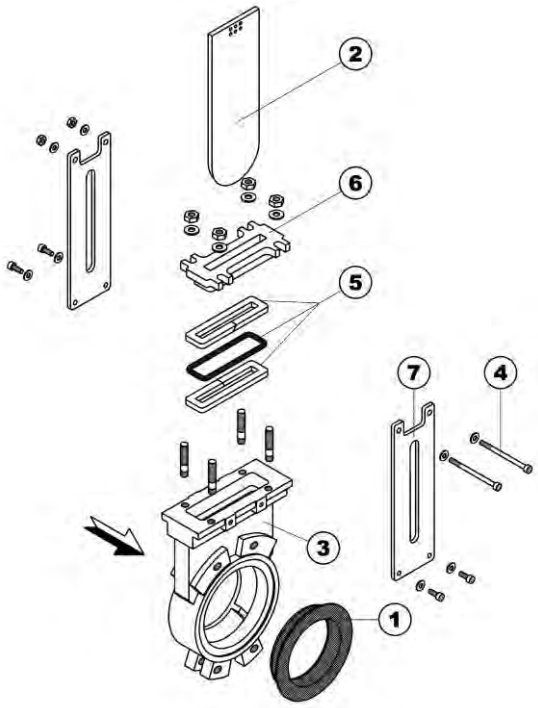
MATERIAL SPECIFICATION & PART LIST

MU-SERIES FROM DN50 TO DN300

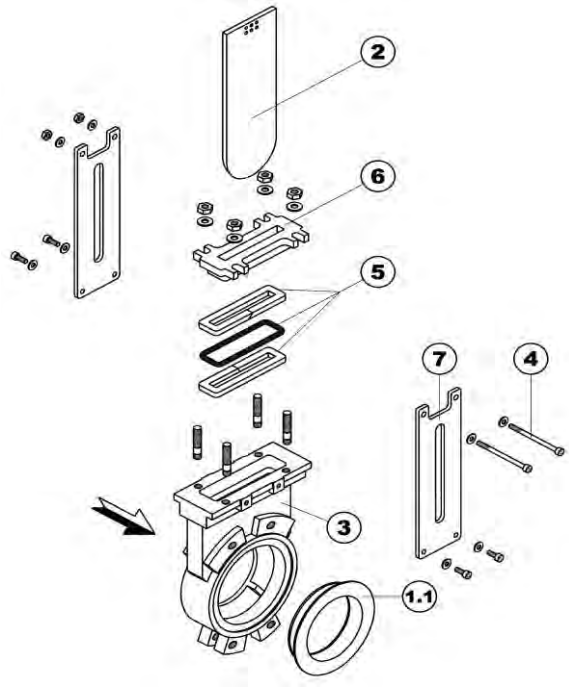
No.	DESCRIPTION	MATERIAL
1	Sleeve	NBR (standard) EPDM, PTFE, VITON, POLIURETHANE (optional)
2	Gate	SS 316 (standard) SS316L, SS316TI, DUPLEX 2205, SMO254(optional)
3	Body	Cast iron - GJL250 (standard) GJS400, CF8M, DUPLEX 2205,SMO254 (optional)
4	Screws & nuts	A-4
5	Packing material	PTFE+NBR (standard) PTFE+EPDM, ARAMIDE, GRAPHITE (optional)
6	Packing gland	Ductile iron - GJS400 (standard) CF8M, DUPLEX 2205, SMO 254 (optional)
7	Plates	1.0580 (standard) SS 316 (optional)
-	Stem	SS 316
-	Bearing	1.0401 (standard) SS 316 (optional)
-	Handwheel	1.0037
-	Pneumatic act.	Aluminium
-	Hand-protections	1.0580 (standard) SS 316 (optional)

Figure 1. Exploded view of KGV MU series semi lugged with **sleeve (tight seat)**



No.	DESCRIPTION	MATERIAL
1.1	Metallic ring	1.041 (standard) SS 316 (optional)
2	Gate	SS 316 (standard) SS316L,SS316TI, DUPLEX2205, SMO254(optional)
3	Body	Cast iron - GJL250 (standard) GJS400, CF8M, DUPLEX 2205, SMO 254 (optional)
4	Screws & nuts	A-4
5	Packing material	PTFE+NBR (standard) PTFE+VITON, ARAMIDE, GRAPHITE (optional)
6	Packing gland	Ductile iron - GJS400 (standard) CF8M, DUPLEX 2205, SMO 254 (optional)
7	Plates	1.0580 (standard) SS 316 (optional)
-	Stem	SS 316
-	Bearing	1.0401 (standard) SS 316 (optional)
-	Handwheel	1.0037
-	Pneumatic act.	Aluminium
-	Hand-protections	1.0580 (standard) SS 316 (optional)

Figure 2. Exploded view of KGV MU-SERIES semi lugged with **metallic ring (metal-metal seat)**



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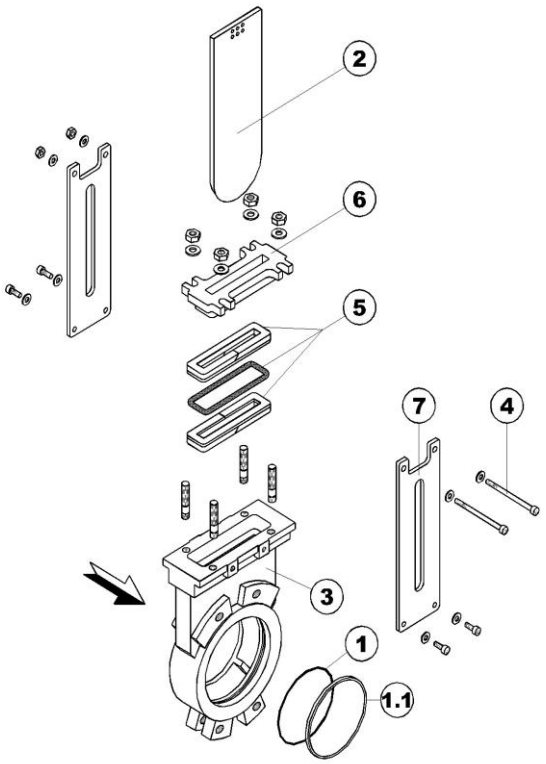
MU-SERIES FROM DN350 TO DN600

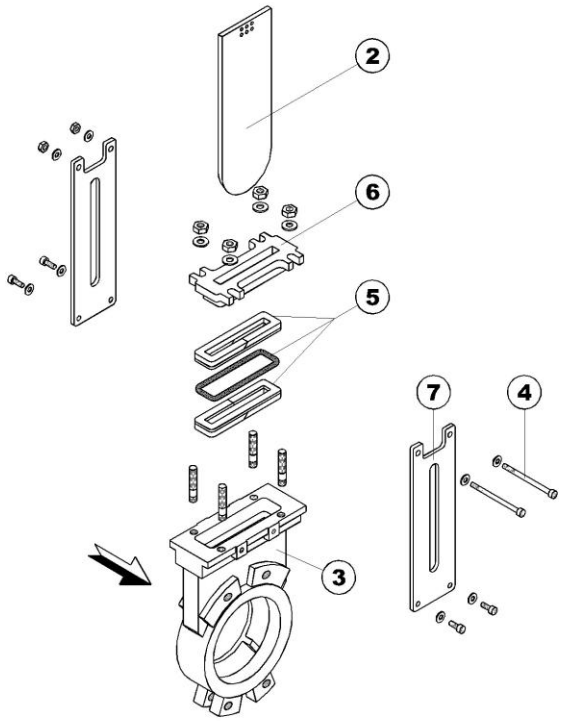
No.	DESCRIPTION	MATERIAL
1	Profile o-ring	NBR (standard) EPDM, PTFE, VITON, POLIURETHANE (optional)
1.1	Fastening ring	SS 316
2	Gate	SS 316 (standard) SS316L,SS316TI,DUPLEX2205,SMO254(optional)
3	Body	Cast iron - GJL250 (standard) GJS400, CF8M, DUPLEX2205, SMO254 (optional)
4	Screws & nuts	A-4
5	Packing material	PTFE+NBR (standard) PTFE+EPDM, ARAMIDE, GRAPHITE (optional)
6	Packing gland	Ductile iron - GJS400 (standard) CF8M, DUPLEX 2205, SMO 254 (optional)
7	Plates	1.0580 (standard) SS 316 (optional)
-	Stem	SS 316
-	Bearing	1.0401 (standard) SS 316 (optional)
-	Handwheel	1.0037
-	Pneumatic act.	Aluminium
-	Hand-protections	1.0580 (standard) SS 316 (optional)

Figure 3. Exploded view of KGV MU series semi lugged with **profile o-ring (tight seat)**



No.	DESCRIPTION	MATERIAL
2	Gate	SS 316 (standard) SS316L,SS316TI,DUPLEX2205,SMO254(optional)
3	Body	Cast iron - GJL250 (standard) GJS400, CF8M, DUPLEX2205, SMO254 (optional)
4	Screws & nuts	A-4
5	Packing material	PTFE+NBR (standard) PTFE+EPDM, ARAMIDE, GRAPHITE (optional)
6	Packing gland	Ductile iron - GJS400 (standard) CF8M, DUPLEX 2205, SMO 254 (optional)
7	Plates	1.0580 (standard) SS 316 (optional)
-	Stem	SS 316
-	Bearing	1.0401 (standard) SS 316 (optional)
-	Handwheel	1.0037
-	Pneumatic act.	Aluminium
-	Hand-protections	1.0580 (standard) SS 316 (optional)
-	Metal-Metal seat	Cast iron/Ductile iron (standard) AISI 316 (optional)

Figure 4. Exploded view of KGV MU series semi lugged with **metal-metal seat**



APPLICATION AND TEMPERATURE RANGE

SEAT MATERIALS			
Material	**Min. temperature (ºC)**	**Max. temperature (ºC)**	**APPLICATIONS**
NBR	-30	+80	Hydrocarbons and biogas waste
EPDM	-30	+90	Clean and chlorided water
VITON	-40	+180	Organic acids, hydrocarbons and heat resistant
PTFE	-10	+200	Heat, friction, acids, chemical and corrosion resistant
POLIURETHANE	-10	+80	Abrasive mediums/mineral handling
WHITE SILICONE	-20	+180	Food industry (FDA conformity)
METAL-METAL	-30	+400	Solids, abrasive/high temperature mediums

**More details and other sealing materials under request.*

PACKING MATERIALS			
Material	**Min. temperature (ºC)**	**Max. temperature (ºC)**	**APPLICATIONS**
COTTON-PTFE	-30	+100	Hydrocarbons
PURE PTFE	-10	+200	Heat, friction, acids, chemical and corrosion resistant
ARAMIDE	-40	+250	Bulk handling
GRAPHITE	-40	+300	Hydrocarbons, heat resistant and solids
SPECIAL PACKING FOR HIGH TEMPERATURE	-10	+1000	High temperature

**More details and other sealing materials under request.*

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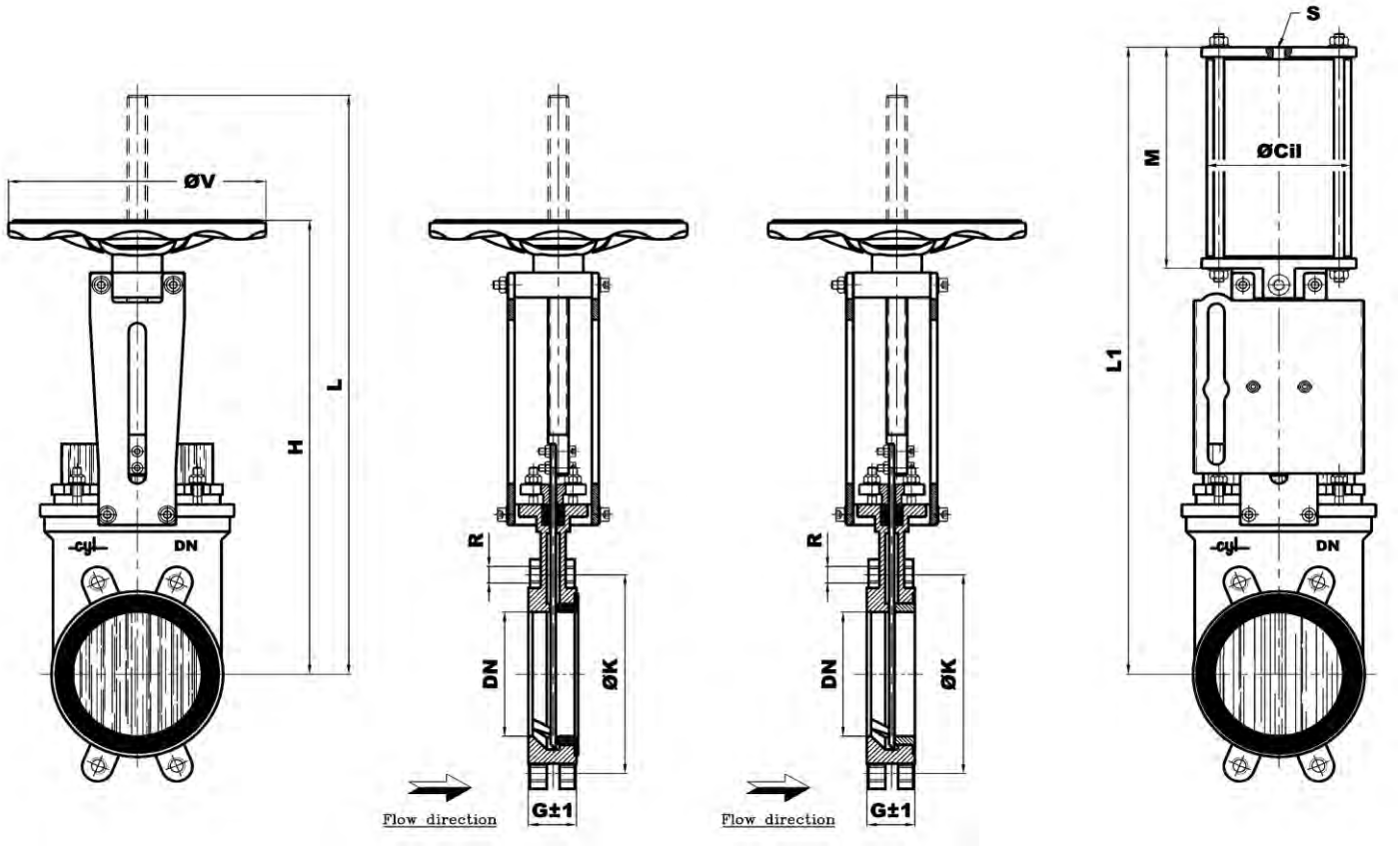
DIMMENSIONAL DRAWINGS

MU-SERIES FROM DN50 TO DN300

Figure 5. KGV MU series semi lugged rising stem & handwheel

Figure 6. KGV MU series semi lugged with d/a pneumatic actuator



Tight elastomeric-seat ***Steel ring-seat Metal/metal seat***

DN	G±1	H	L	ØV	L1	M	S	Ø Cil	Min. Torque (Nm)	Max. Torque (Nm)	Spindle thread
50	43	306	366	175	406	147	1/4 " G	80	8	16	Tr18x4i
65	43	336	411	175	448	160	1/4 " G	80	10	17	Tr18x4i
80	46	366	448	225	490	177	1/4 " G	100	12	19	Tr20x4i
100	52	393	495	225	537	197	1/4 " G	100	15	22	Tr20x4i
125	56	446	573	225	625	232	3/8 " G	125	17	24	Tr20x4i
150	56	548	699	300	757	267	3/8 " G	160	25	50	Tr24x5i
200	60	659	860	300	928	327	1/2 " G	190	27	53	Tr24x5i
250	68	733	984	300	1050	375	1/2 " G	190	50	69	Tr24x5i
300	78	870	1172	400	1229	428	1/2 " G	190	63	84	Tr28x5i

* Data sheet for ØK & ØD stated in "flange drillings chapter".

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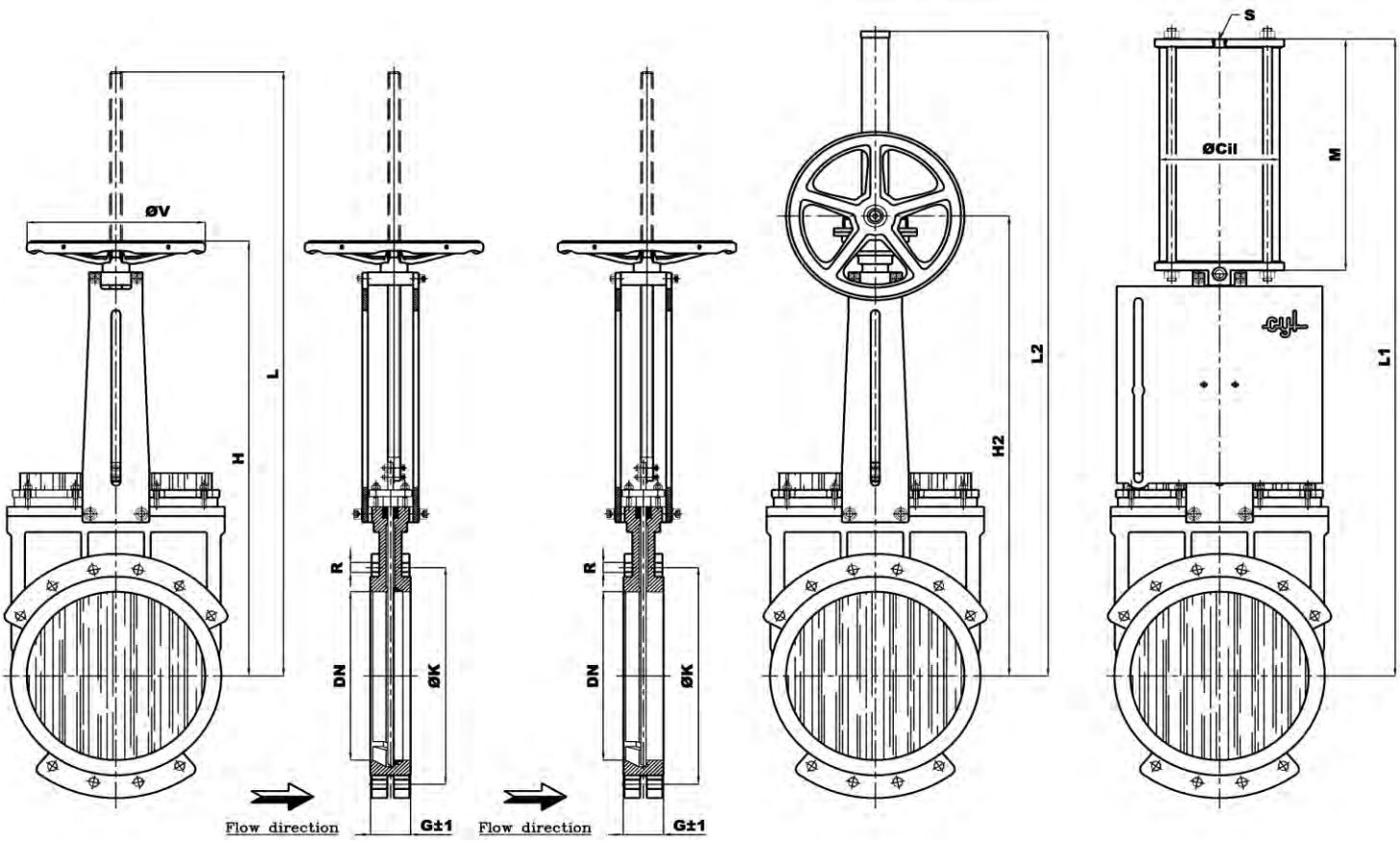
MU-SERIES FROM DN350 TO DN600

Figure 7. KGV MU series semi lugged rising stem & handwheel

Figure 8. KGV MU series semi lugged rising stem with handwheel & gearbox

Figure 9. KGV MU series semi lugged with d/a pneumatic actuator



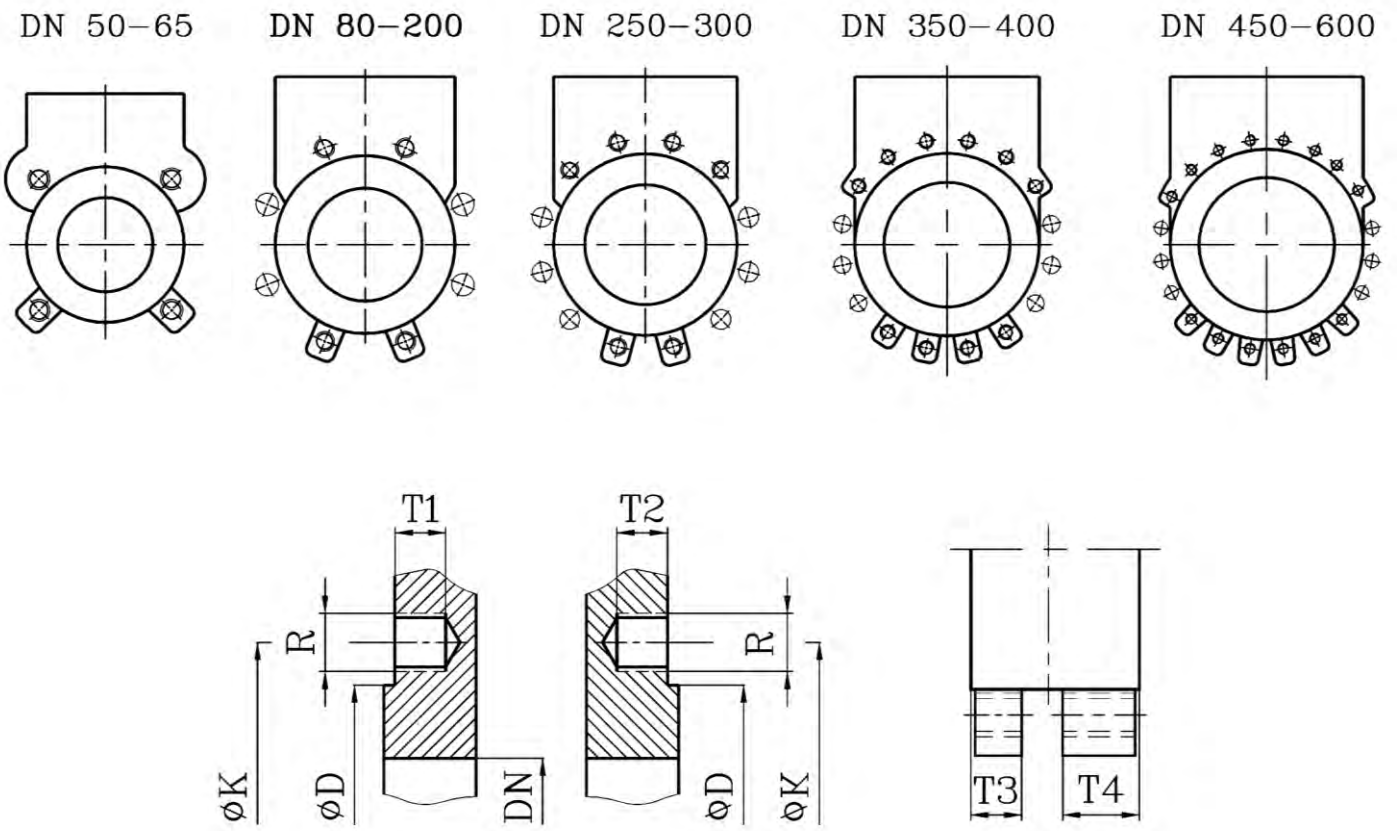
Tight profile o-ring ***Metal-metal seat***

DN	G±1	H	L	ØV	L2	H2	L1	M	Ø Cil	S	Min. Torque (Nm)	Max. Torque (Nm)	Spindle thread
350	96	915	1267	400	1364	975	1345	499	250	1/2 " G	78	102	Tr28x5i
400	100	1033	1435	400	1532	1093	1513	549	250	1/2 " G	90	110	Tr28x5i
450	106	1131	1579	500	1649	1146	1653	601	300	1/2 " G	215	259	Tr40x7i
500	110	1235	1743	500	1793	1240	1802	656	300	1/2 " G	223	320	Tr40x7i
600	110	1437	2045	500	2098	1445	2108	757	300	1/2 " G	249	388	Tr40x7i

** Data sheet for ØK & ØD stated in "flange drillings chapter".*

FLANGE DRILLINGS

FLANGE DRILLING - PN10



Bolting Arrangements PN-10 Knife Gate Valve

DN	K	D	N (1)	N (2)	N (3)	T1	T2	T3	T4	R
50	125	95	4	-	4	9	10	37		M-16
65	145	105	4	-	4	10	10	38		M-16
80	160	135	4	4	8	7	9	16	19	M-16
100	180	158	4	4	8	7	11	17	23	M-16
125	210	188	4	4	8	7	17	15	27	M-16
150	240	212	4	4	8	11	12	20	22	M-20
200	295	268	4	4	8	13	15	21	24	M-20
250	350	320	6	6	12	13	16	28	29	M-20
300	400	370	6	6	12	16	23	29	38	M-20
350	460	410	10	6	16	21	21	24	24	M-20
400	515	465	10	6	16	21	21	26	26	M-24
450	565	520	14	6	20	22	22	26	26	M-24
500	620	566	14	6	20	22	22	28	28	M-24
600	725	672	14	6	20	22	22	28	28	M-27

N (1)- Nº of tapped holes N (2)- Nº of through holes N (3)- Nº of flange holes

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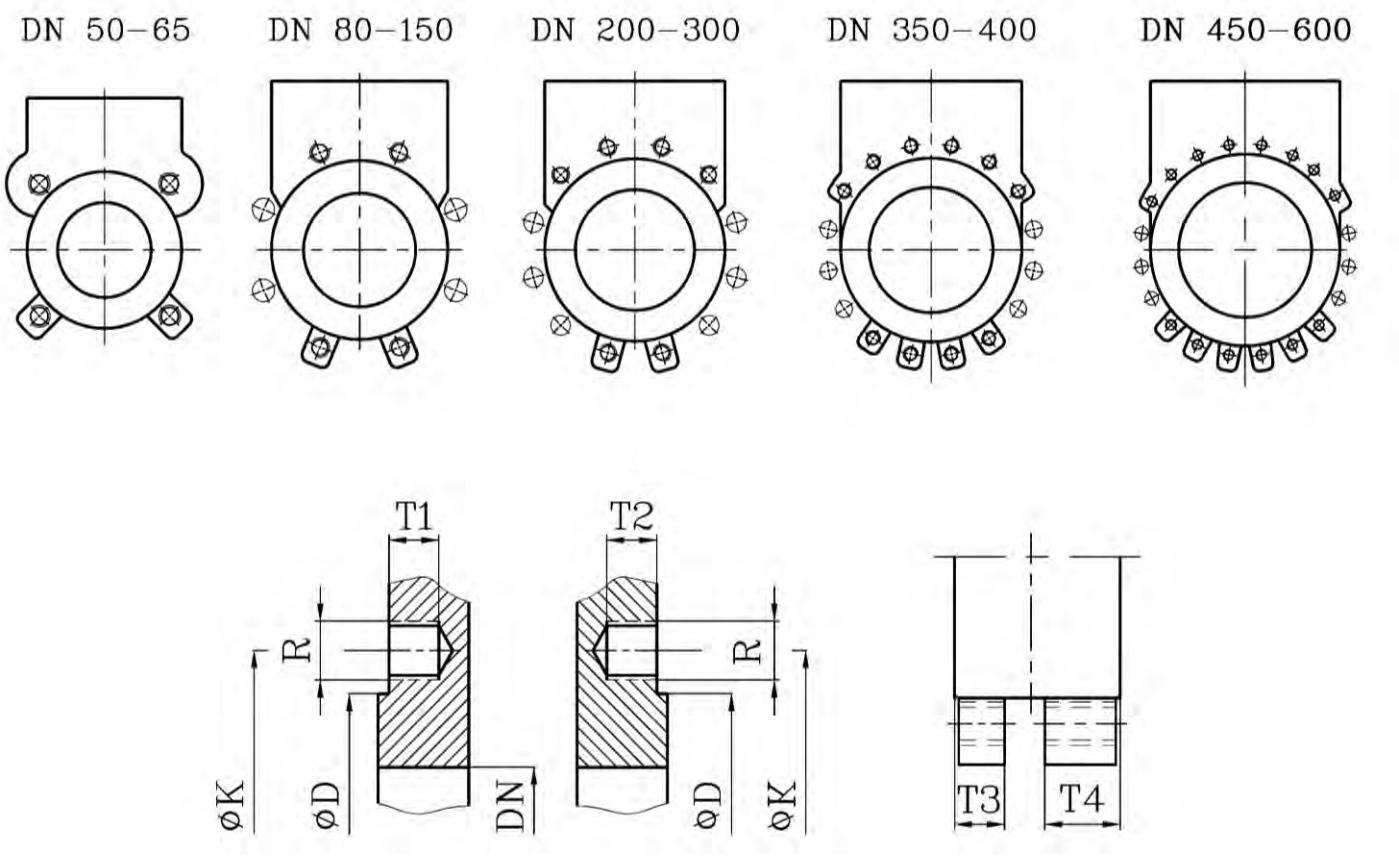
FLANGE DRILLING - PN16



Bolting Arrangements PN-16 Knife Gate Valve

DN	K	D	N (1)	N (2)	N (3)	T1	T2	T3	T4	R
50	125	95	4	-	4	9	10	37		M-16
65	145	105	4	-	4	10	10	38		M-16
80	160	135	4	4	8	7	9	16	19	M-16
100	180	158	4	4	8	7	11	17	23	M-16
125	210	188	4	4	8	7	17	15	27	M-16
150	240	212	4	4	8	11	12	20	22	M-20
200	295	268	6	6	12	13	15	21	24	M-20
250	355	320	6	6	12	13	16	28	29	M-24
300	410	370	6	6	12	16	23	29	38	M-24
350	470	410	10	6	16	21	21	24	24	M-24
400	525	465	10	6	16	21	21	26	26	M-27
450	585	520	14	6	20	22	22	26	26	M-27
500	650	566	14	6	20	22	22	28	28	M-30
600	770	672	14	6	20	22	22	28	28	M-33

N (1)- Nº of tapped holes N (2)- Nº of through holes N (3)- Nº of flange holes

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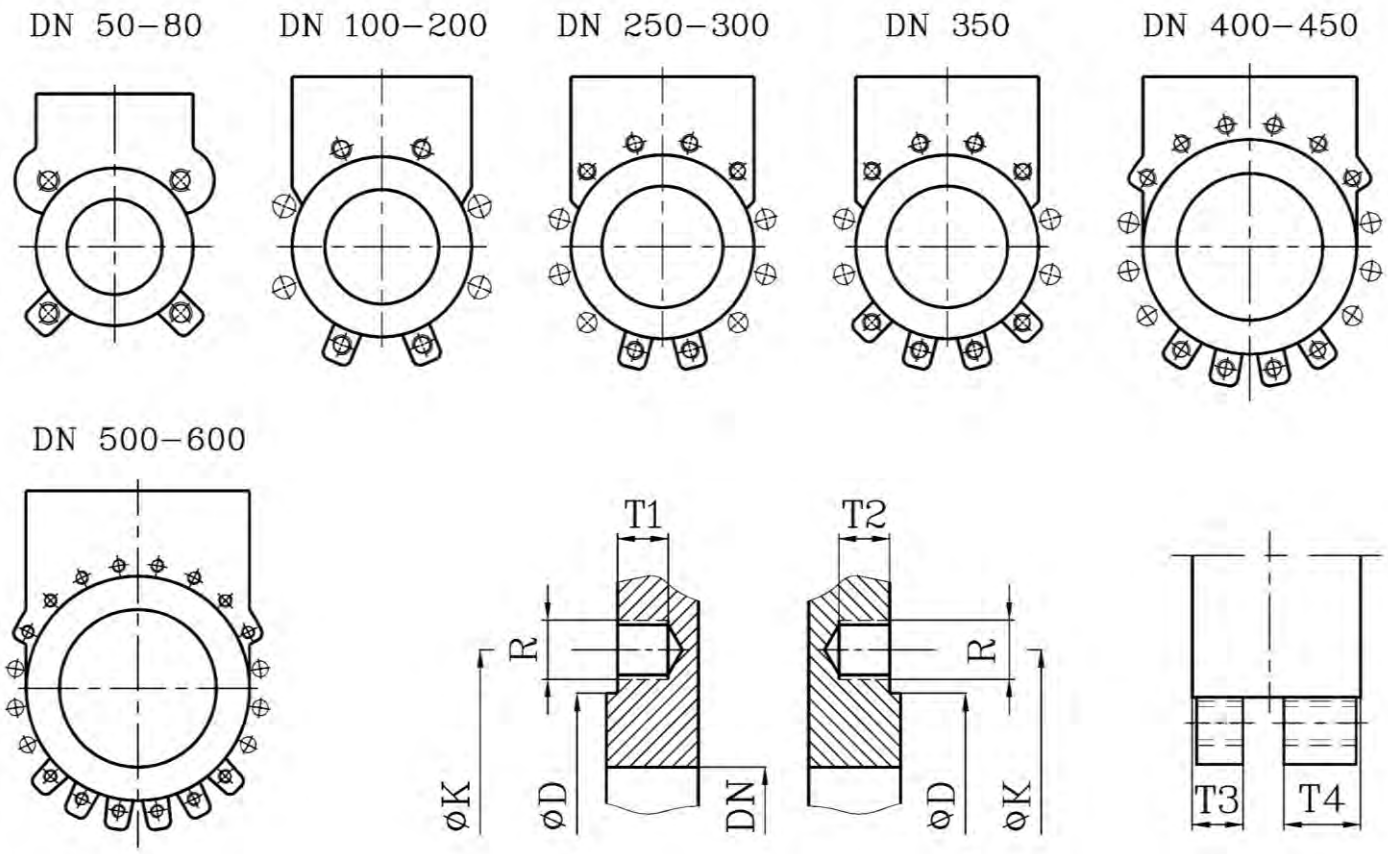
FLANGE DRILLING - ASA 150



Bolting Arrangements ASA-150 Knife Gate Valve

DN	K	D	N (1)	N (2)	N (3)	T1	T2	T3	T4	R
50	120,6	95	4	-	4	9	10	37		5/8 “
65	139,7	105	4	-	4	10	10	38		5/8 “
80	152,4	135	4	4	8	7	9	16	19	5/8 “
100	190,5	158	4	4	8	7	11	17	23	5/8 “
125	215,9	188	4	4	8	7	17	15	27	3/4 “
150	241,3	212	4	4	8	11	12	20	22	3/4 “
200	298,4	268	4	4	8	13	15	21	24	3/4 “
250	361,9	320	6	6	12	13	16	28	29	7/8 “
300	431,8	370	6	6	12	16	23	29	38	7/8 “
350	476,2	410	8	4	12	21	21	24	24	1 “
400	539,7	465	10	6	16	21	21	26	26	1 “
450	577,8	520	10	6	16	22	22	26	26	1 1/8 “
500	635	566	14	6	20	22	22	28	28	1 1/8 “
600	749,3	672	14	6	20	22	22	28	28	1 1/8 “

N (1)- Nº of tapped holes N (2)- Nº of through holes N (3)- Nº of flange holes

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ORDERING GUIDE

SERIES	OPERATIONS	BODY MATERIAL	DN	SEAT MATERIAL	BODY TYPE	FLANGE DRILLING
Example: MU-SERIES	V	11		NI	W	PN-10
	V → Handwheel r.s	11 → Cast iron		NI → NBR	W → Semi lugged (WAFER)	PN-10
	VR → Handwheel r.s + Bevel Gearbox	12 → Ductile iron		EP → EPDM		PN-16
	F → Handwheel n.r.s.	14 → Stainless steel		VI → VITON		ASA 150
	FR → Handwheel n.r.s. + Bevel Gearbox	17 → Fully stainless steel		TE → PTFE		
	C → Key cap n.r.s	18 → Carbon steel		PU → POLIURETHANE		
	CR → Key cap + Spur Gearbox			MET → METAL-METAL		
	B → Iso top flange r.s.					
	BR → Iso top flange r.s. + Bevel Gearbox					
	FB → Iso top flange n.r.s.					
	FBR → Iso top flange n.r.s. + Bevel Gearbox					
	M → Electric actuator r.s.					
	MR → Electric actuator r.s. + Bevel Gearbox					

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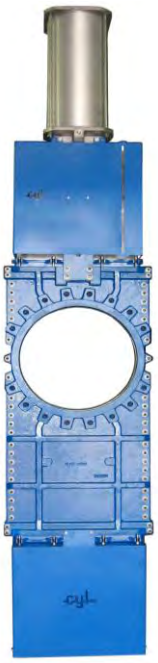
MU series

SERIES	OPERATIONS	MATERIAL	DN	SEAT	BODY TYPE	FLANGE
	FM → Electric actuator n.r.s	11 → Cast iron		NI → NBR	W → Semi lugged (WAFER)	PN-10
	FMR → Electric actuator n.r.s + Bevel Gearbox	12 → Ductile iron		EP → EPDM		PN-16
	P → Quick closing lever	14 → Stainless steel		VI → VITON		ASA-150
	N → D/A pneumatic actuator	17 → Fully stainless steel		TE → PTFE		
	SE → S/A pneumatic actuator	18 → Carbon steel		PU → POLIURETHANE		
	H → Oil hydraulic actuator			MET → METAL-METAL		
	VCH → Chain wheel r.s.					
	VCHR → Chain wheel r.s. + Bevel Gearbox					
	FCH → Chain wheel n.r.s.					
	FCHR → Chain wheel n.r.s. + Bevel Gearbox					

PT series

BI-DIRECTIONAL KNIGE GATE VALVE PT SERIES

KGV PT SERIES SEMI WAFER WITH
ELASTOMERIC SLEEVES HANDWHEEL RS



KGV PT SERIES SEMI WAFER WITH PROFILE
O-RINGS D/A PNEUMATIC ACTUATOR

The PT series knife gate is a bi-directional through going wafer valve, soft or metal-metal seated, designed to handle media with high consistency, mainly used on industrial bulk and paper applications. Sleeves (DN50-DN300) and packing materials can be replaced without valve disassembly from the pipeline.

GENERAL FEATURES

- Two-pieces casted body, wafer-design
- Through going gate
- Adjustable two stuffing boxes, allowing packing materials replacement without valve disassembly.
- Two sealing systems:
  - **DN50-DN300:** two sleeves (tight version) or two metallic rings (metal-metal valve). Same valve can be used for both options. Sleeves can be replaced without valve disassembly from the line.
  - **DN350-DN600:** two profile o-rings (tight version). Metal-metal seated valve without elastomeric parts on the passage. Profile o-rings cannot be replaced without valve disassembly from the pipeline.
- Short face-to-face dimension
- Easy drive replacement
- Proximity and limit switch mounting points

APPLICATION FIELDS

- Pulp and paper
- Mining
- Bulk handling
- Food and beverage
- Chemical process
- Etc

TECHNICAL DATA

- ***Size range:***
  DN-50 (2") to DN-600 (24")

- **Working pressure:**
  DN 50 to DN 200: 10 kg/cm^2
  DN 250 to DN 300: 7 kg/cm^2
  DN 350 to DN 400: 6 kg/cm^2
  DN 450 to DN 600: 4 kg/cm^2

  Flange ratings:
  PN10, PN16 and ANSI B16.5 (class 150)
  Note: other flange drillings under request

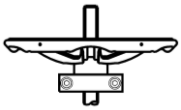
- **Face to face dimension:**
  According to K1 DIN3202 up to DN-300
  From DN-350 to DN-600 CYL standard

- **Coating:**
  RAL 5017, 150 microns epoxy coated

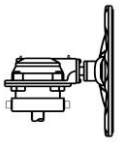
- **Directives:**
  Pressure equipment directive 97/23/CE
  DIR 2006/42/CE (MACHINES)

ASSEMBLY CONFIGURATION

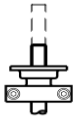
OPERATION



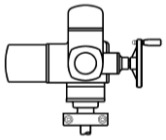
Rising stem handwheel



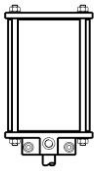
Gearbox



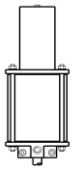
Rising stem coupling A



Electric actuator



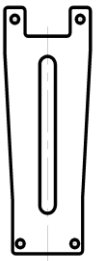
Double acting pneumatic actuator



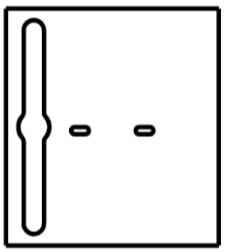
Spring-return pneumatic actuator

Oil hydraulic actuator

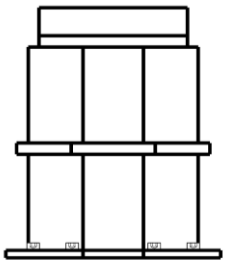
PLATES



Plates

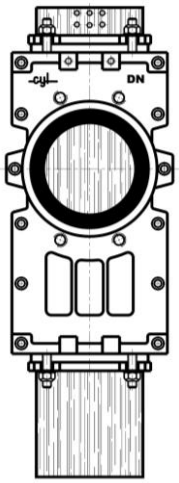


Hand protections for automated valves

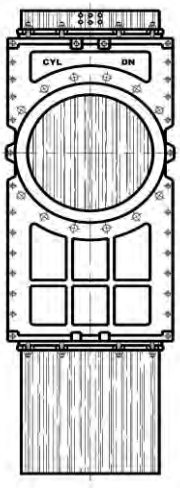


Tight closed bonnet

BODY



Semi lugged (wafer)
DN50-DN300



Semi lugged (wafer)
DN350-DN600

ACCESORIES

- Locking device
- Overriding actuator
- Limit stroke
- Mechanical limit switches
- Proximity limit switches
- Mechanical position indicator
- V-port (Aisi 316)
- Deflector cone (Ni-hard)
- Chest scraper (Bronze / PPS-plastic)
- Solenoid valve
- Flush holes
- Etc.

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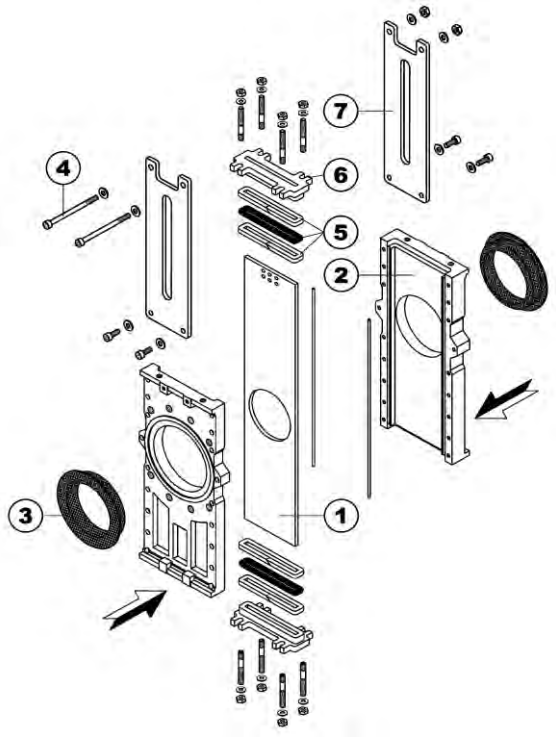
MATERIAL SPECIFICATION & PART LIST

PT-SERIES FROM DN50 TO DN300

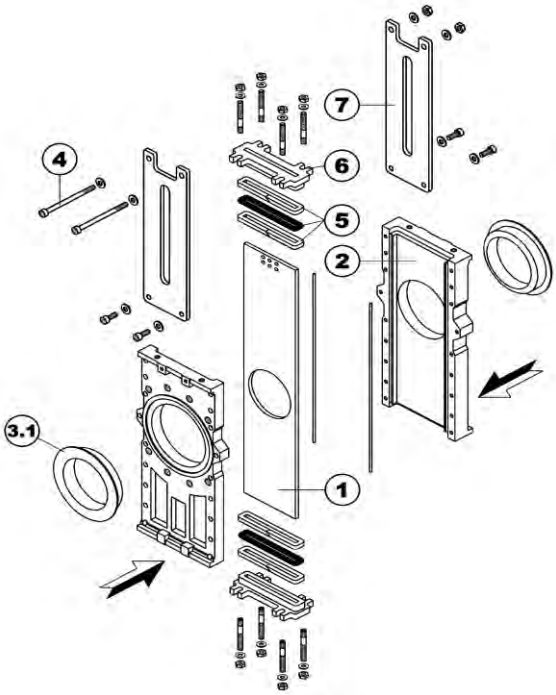
No.	DESCRIPTION	MATERIAL
1	Gate	SS 316 (standard) SS316L,SS316TI, DUPLEX2205,SMO254 optional)
2	Body	Cast iron - GJL250 (standard) GJS400, CF8M, DUPLEX2205, SMO254 (optional)
3	Sleeves	NBR (standard) EPDM, PTFE, VITON, POLIURETHANE (optional)
4	Screws & nuts	A-4
5	Packing materials	PTFE+NBR (standard) PTFE+EPDM, ARAMIDE, GRAPHITE (optional)
6	Packing glands	Ductile iron - GJS400 (standard) CF8M, DUPLEX 2205, SMO 254 (optional)
7	Plates	1.0580 (standard) SS 316 (optional)
-	Stem	SS 316
-	Bearing	1.0401 (standard) SS 316 (optional)
-	Handwheel	1.0037
-	Pneumatic act.	Aluminium
-	Hand-protections	1.0580 (standard) SS 316 (optional)

Figure 1. Exploded view of KGV PT series semi lugged with **sleeves (tight version)**



No.	DESCRIPTION	MATERIAL
1	Gate	SS 316 (standard) SS316L,SS316TI, DUPLEX2205,SMO254 optional)
2	Body	Cast iron - GJL250 (standard) GJS400, CF8M, DUPLEX2205, SMO254 (optional)
3.1	Metallic rings	1.041 (standard) SS 316 (optional)
4	Screws & nuts	A-4
5	Packing materials	PTFE+NBR (standard) PTFE+EPDM, ARAMIDE, GRAPHITE (optional)
6	Packing glands	Ductile iron - GJS400 (standard) CF8M, DUPLEX 2205, SMO 254 (optional)
7	Plates	1.0580 (standard) SS 316 (optional)
-	Stem	SS 316
-	Bearing	1.0401 (standard) SS 316 (optional)
-	Handwheel	1.0037
-	Pneumatic act.	Aluminium
-	Hand-protections	1.0580 (standard) SS 316 (optional)

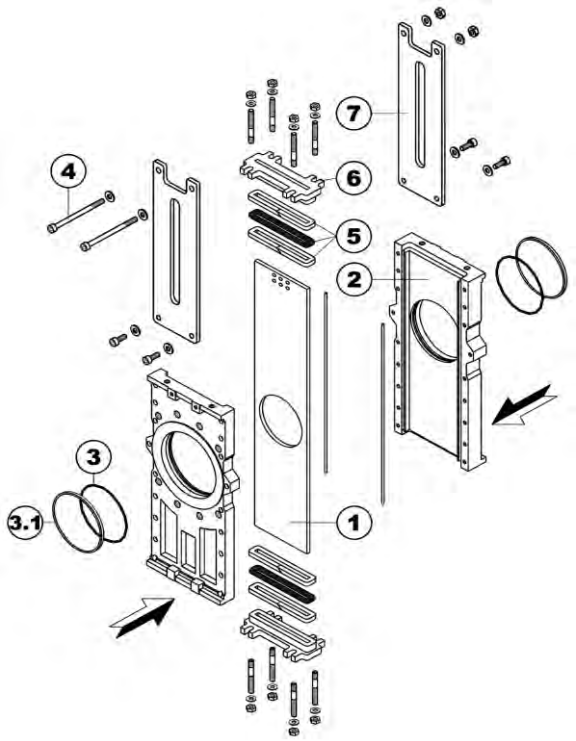
Figure 2. Exploded view of KGV PT series semi lugged with **metallic rings (metal-metal seat)**



PT-SERIES FROM DN350 TO DN600

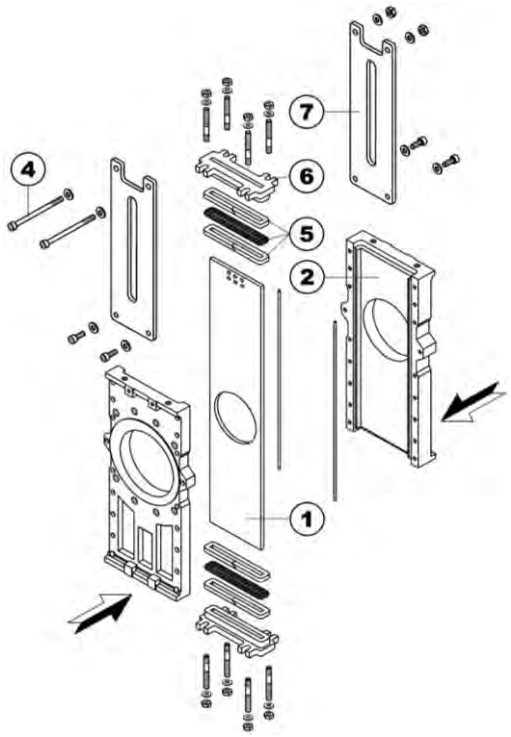
No.	DESCRIPTION	MATERIAL
1	Gate	SS 316 (standard) SS316L,SS316TI, DUPLEX2205,SMO254 optional)
2	Body	Cast iron - GJL250 (standard) GJS400, CF8M, DUPLEX2205, SMO254 (optional)
3	Profile o-rings	NBR (standard) EPDM, PTFE, VITON, POLIURETHANE (optional)
3.1	Fastening ring	SS 316
4	Screws & nuts	A-4
5	Packing materials	PTFE+NBR (standard) PTFE+EPDM, ARAMIDE, GRAPHITE (optional)
6	Packing glands	Ductile iron - GJS400 (standard) CF8M, DUPLEX 2205, SMO254 (optional)
7	Plates	1.0580 (standard) SS 316 (optional)
-	Stem	SS 316
-	Bearing	1.0401 (standard) SS 316 (optional)
-	Handwheel	1.0037
-	Pneumatic act.	Aluminium
-	Hand-protections	1.0580 (standard) SS 316 (optional)

Figure 3. Exploded view of KGV PT series semi lugged with **profile o-rings (tight version)**



No.	DESCRIPTION	MATERIAL
1	Gate	SS 316 (standard) SS316L,SS316TI, DUPLEX2205,SMO254 optional)
2	Body	Cast iron - GJL250 (standard) GJS400, CF8M, DUPLEX2205, SMO254 (optional)
4	Screws & nuts	A-4
5	Packing materials	PTFE+NBR (standard) PTFE+EPDM, ARAMIDE, GRAPHITE (optional)
6	Packing glands	GJS400 (standard) CF8M, DUPLEX 2205, SMO254 (optional)
7	Plates	1.0580 (standard) SS 316 (optional)
-	Stem	SS 316
-	Bearing	1.0401 (standard) SS 316 (optional)
-	Handwheel	1.0037
-	Pneumatic act.	Aluminium
-	Hand-protections	1.0580 (standard) SS 316 (optional)
-	Metal-Metal seats	Cast iron/Ductile iron (standard) AISI 316 (optional)

Figure 4. Exploded view of KGV PT series semi lugged with **metal-metal seat (without elastomeric parts of the passage)**



APPLICATION AND TEMPERATURE RANGE

SEAT MATERIALS			
Material	**Min. temperature (ºC)**	**Max. temperature (ºC)**	**APPLICATIONS**
NBR	-30	+80	Hydrocarbons and biogas waste
EPDM	-30	+90	Clean and chlorided water
VITON	-40	+180	Organic acids, hydrocarbons and heat resistant
PTFE	-10	+200	Heat, friction, acids, chemical and corrosion resistant
POLIURETHANE	-10	+80	Abrasive mediums/mineral handling
WHITE SILICONE	-20	+180	Food industry (FDA conformity)
METAL-METAL	-30	+400	Solids, abrasive/high temperature mediums

**More details and other sealing materials under request.*

PACKING MATERIALS			
Material	**Min. temperature (ºC)**	**Max. temperature (ºC)**	**APPLICATIONS**
COTTON-PTFE	-30	+100	Hydrocarbons
PURE PTFE	-10	+200	Heat, friction, acids, chemical and corrosion resistant
ARAMIDE	-40	+250	Bulk handling
GRAPHITE	-40	+300	Hydrocarbons, heat resistant and solids
SPECIAL PACKING FOR HIGH TEMPERATURE	-10	+1000	High temperature

**More details and other sealing materials under request.*

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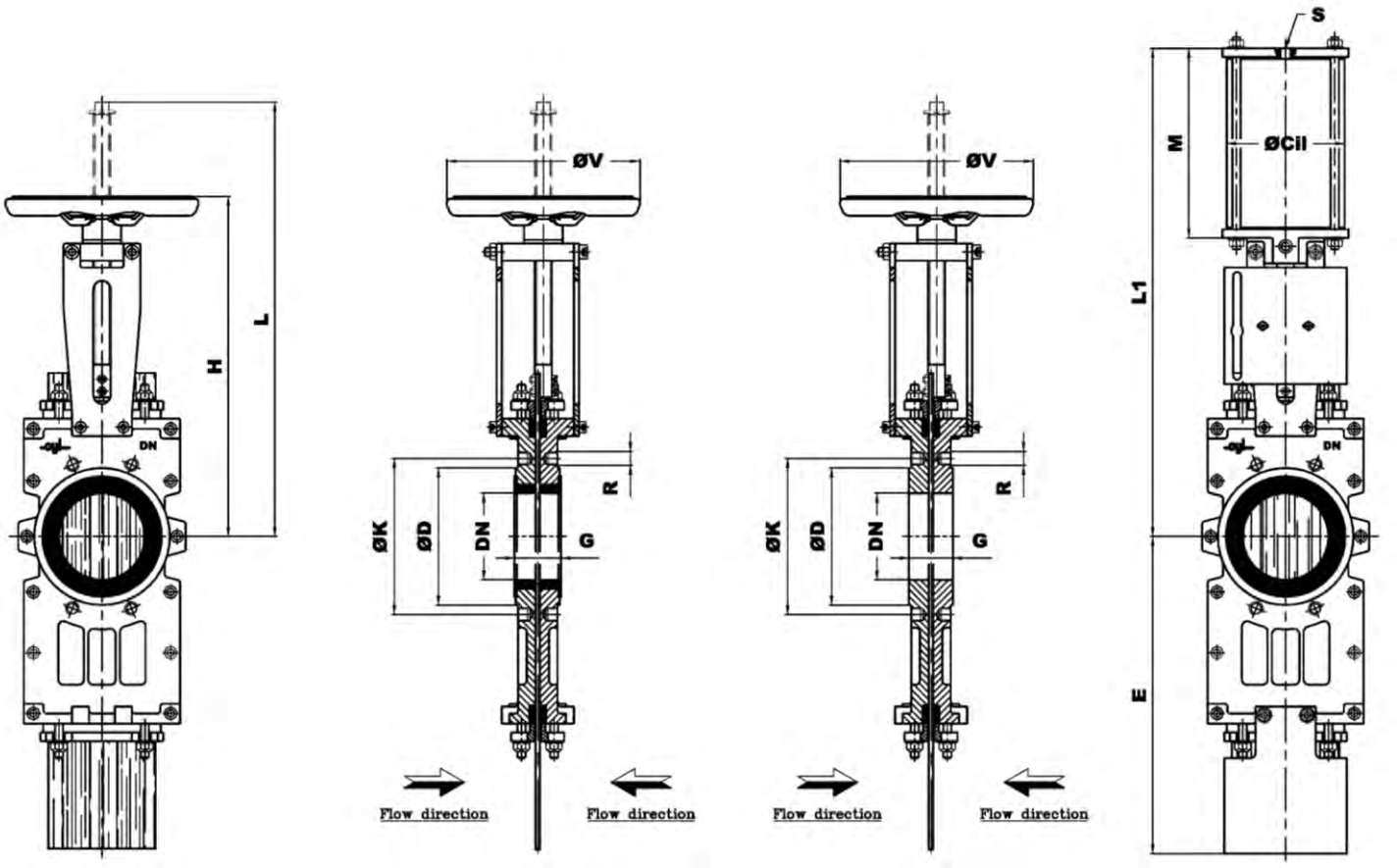
DIMMENSIONAL DRAWINGS

PT-SERIES FROM DN50 TO DN300

Figure 5. KGV PT series semi lugged rising stem & handwheel

Figure 6. KGV PT series semi lugged with d/a pneumatic actuator



Tight elastomeric-seat

Steel ring-seat
Metal/metal seat

DN	G±1	H	L	ØV	L1	M	E	S	Ø Cil	Min. Torque (Nm)	Max. Torque (Nm)	Spindle thread
80	49	366	451	225	488	177	301	1/4 "	100	12	19	Tr20x4i
100	52	390	495	225	537	197	366	1/4 "	100	15	22	Tr20x4i
150	57	522	674	300	731	267	543	3/8 "	160	25	50	Tr24x5i
200	60	627	828	300	896	327	657	1/2 "	190	27	53	Tr24x5i
250	66	737	988	300	1054	375	792	1/2 "	190	50	69	Tr24x5i
300	74	866	1168	400	1214	417	875	1/2 "	190	63	84	Tr28x5i

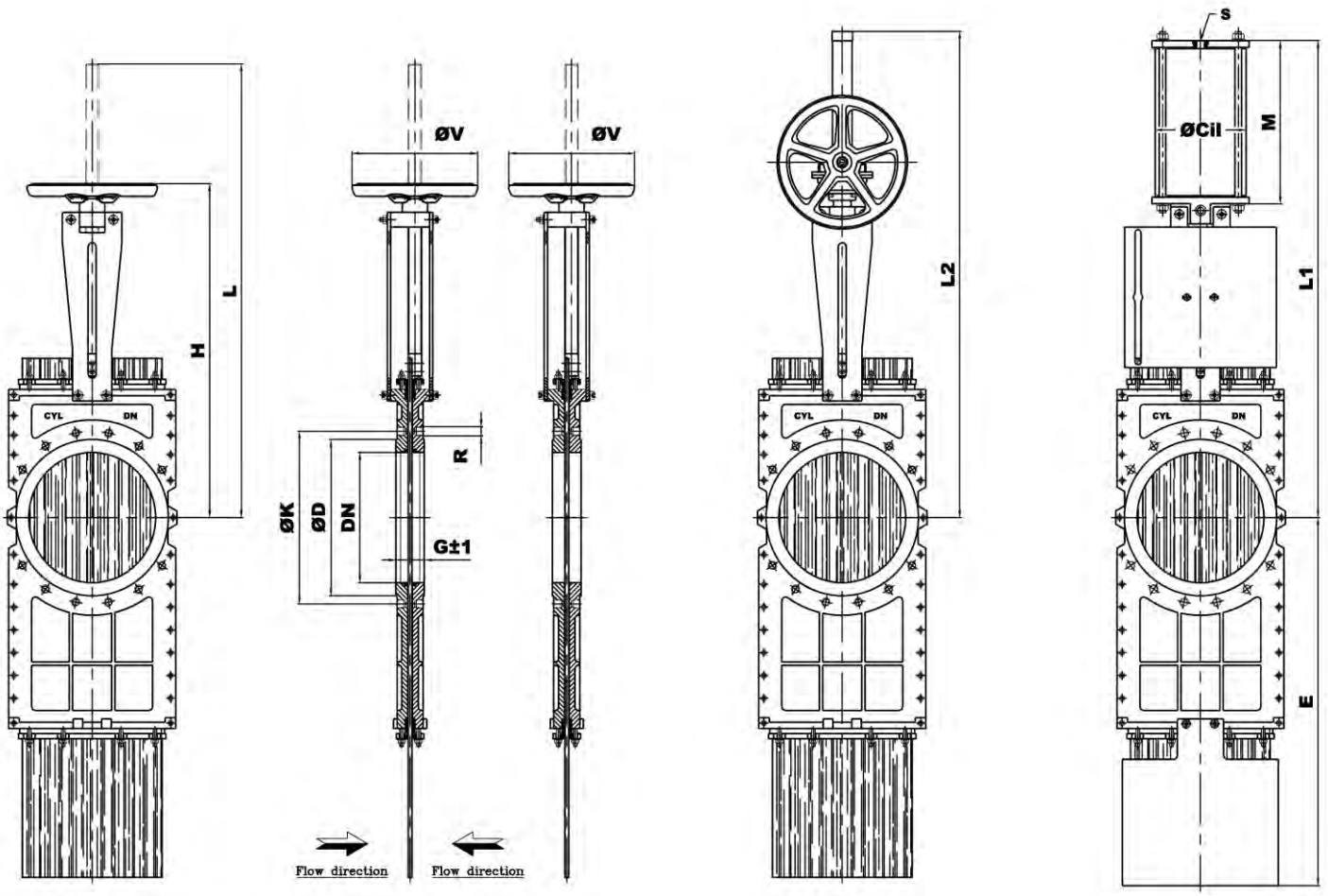
* Data sheet for ØK & ØD stated in "flange drillings chapter".

PT-SERIES FROM DN350 TO DN600

Figure 7. KGV PT series semi lugged rising stem & handwheel

Figure 8. KGV PT series semi lugged rising stem with handwheel & gearbox

Figure 9. KGV PT series semi lugged with d/a pneumatic actuator



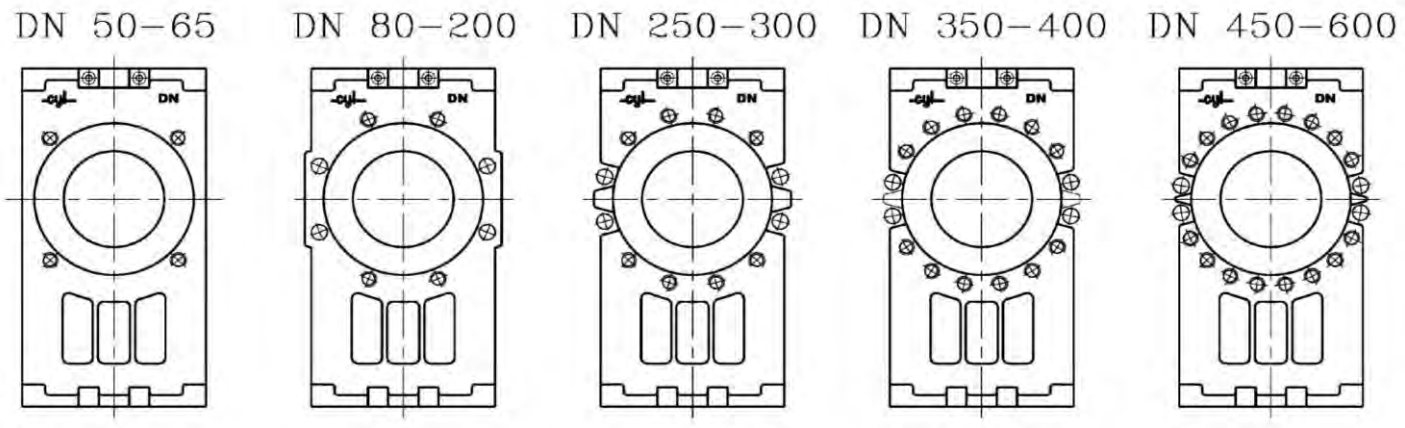
Tight profile o-ring **Metal-metal seat**

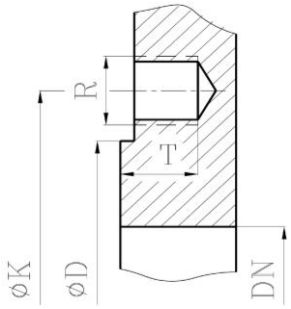
DN	G±1	H	L	ØV	L2	L1	E	M	ØCil	S	Min. Torque (Nm)	Max. Torque (Nm)	Spindle thread
350	96	902	1254	400	1351	1332	1043	499	250	½"G	78	102	Tr28x5i
400	100	981	1383	400	1530	1461	1192	549	250	½"G	90	110	Tr28x5i
450	106	1114	1572	500	1644	1653	1330	606	300	½"G	215	259	Tr40x7i
500	110	1214	1722	500	1772	1781	1460	656	300	½"G	223	320	Tr40x7i
600	110	1394	2002	500	2052	2061	1709	756	300	½"G	249	388	Tr40x7i

** Data sheet for ØK & ØD stated in "flange drillings chapter".*

FLANGE DRILLINGS

FLANGE DRILLING - PN10





Bolting Arrangements PN-10 Knife Gate Valve

DN	K	D	N (1)	N (2)	N (3)	T	R
50	125	100	4	-	4	9	M-16
65	145	120	4	-	4	9	M-16
80	160	135	4	4	8	13	M-16
100	180	158	4	4	8	13	M-16
125	210	188	4	4	8	10	M-16
150	240	212	4	4	8	12	M-20
200	295	268	4	4	8	12	M-20
250	350	320	8	4	12	14	M-20
300	400	370	8	4	12	14	M-20
350	460	430	12	4	16	20	M-20
400	515	482	12	4	16	24	M-24
450	565	532	16	4	20	24	M-24
500	620	585	16	4	20	25	M-24
600	725	685	16	4	20	29	M-27

N (1)- Nº of tapped holes N (2)- Nº of through holes N (3)- Nº of flange holes

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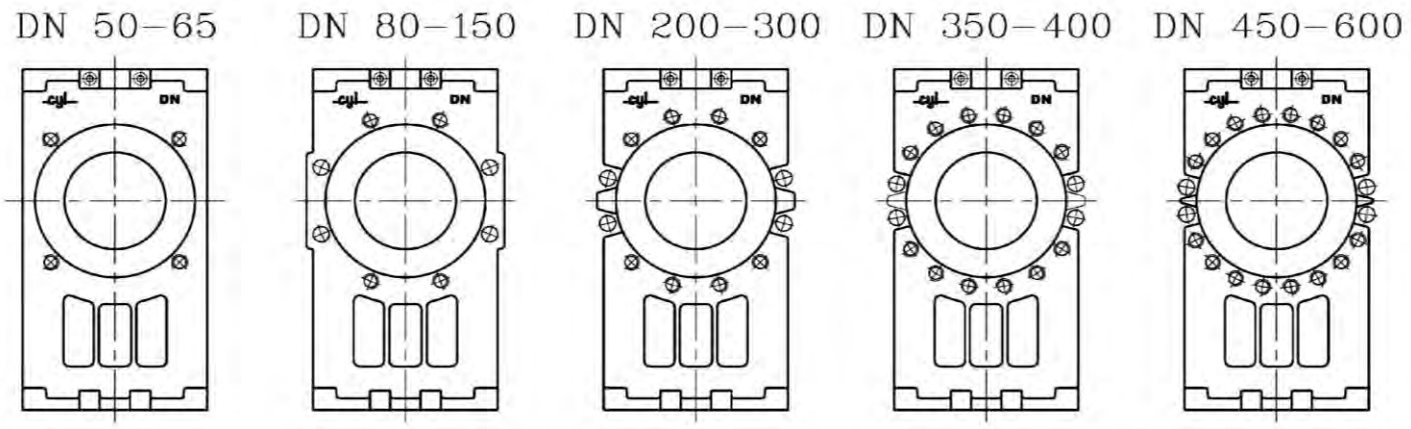
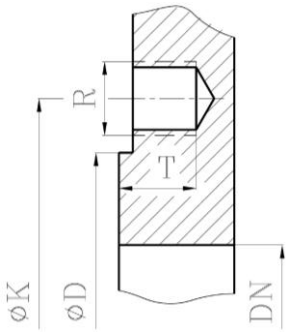
FLANGE DRILLING - PN16





Bolting Arrangements PN-16 Knife Gate Valve

DN	K	D	N (1)	N (2)	N (3)	T	R
50	125	100	4	-	4	9	M-16
65	145	120	4	-	4	9	M-16
80	160	135	4	4	8	13	M-16
100	180	158	4	4	8	13	M-16
125	210	188	4	4	8	10	M-16
150	240	212	4	4	8	12	M-20
200	295	268	8	4	12	12	M-20
250	355	320	8	4	12	14	M-24
300	410	370	8	4	12	14	M-24
350	470	430	12	4	16	20	M-24
400	525	482	12	4	16	24	M-27
450	585	532	16	4	20	24	M-27
500	650	585	16	4	20	25	M-30
600	770	685	16	4	20	29	M-33

N (1)- Nº of tapped holes N (2)- Nº of through holes N (3)- Nº of flange holes

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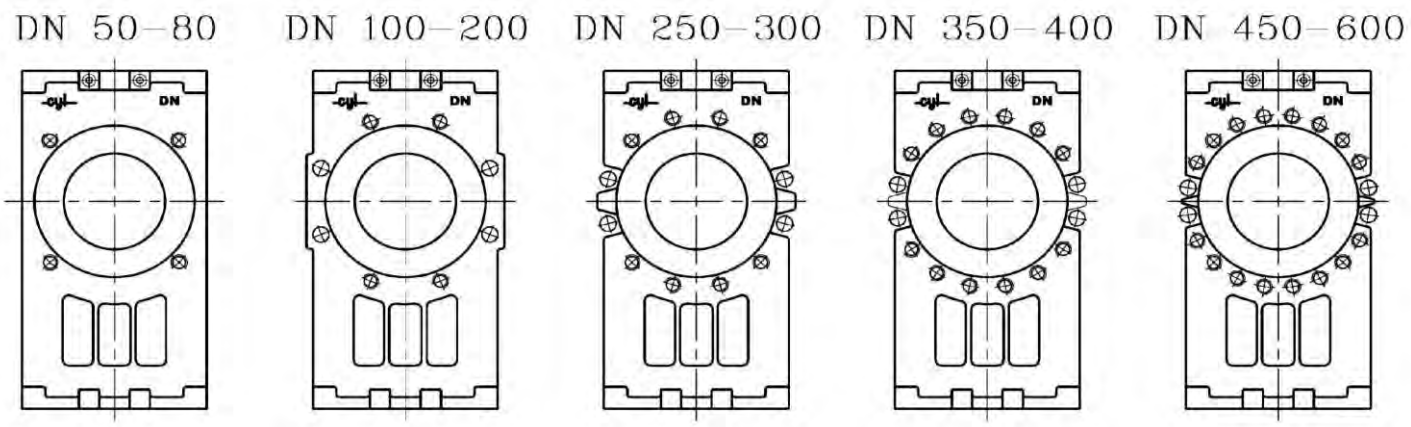
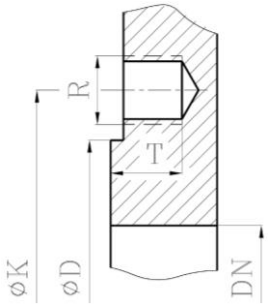
FLANGE DRILLING - ASA 150





Bolting Arrangements ASA 150 Knife Gate Valve

DN	K	D	N (1)	N (2)	N (3)	T	R
50	120,60	100	4	-	4	9	5/8 “
65	137,70	120	4	-	4	9	5/8 “
80	152,40	135	4	-	4	13	5/8 “
100	190,50	158	4	4	8	13	5/8 “
125	215,90	188	4	4	8	10	3/4 “
150	241,30	212	4	4	8	12	3/4 “
200	298,40	268	4	4	8	12	3/4 “
250	361,90	320	8	4	12	14	7/8 “
300	431,80	370	8	4	12	14	7/8 “
350	476,20	430	8	4	12	20	1 “
400	539,70	482	12	4	16	24	1 “
450	577,80	532	12	4	16	24	1 1/8 “
500	635,00	585	16	4	20	25	1 1/8 “
600	749,30	685	16	4	20	29	1 1/4 “

N (1)- N° of tapped holes N (2)- N° of through holes N (3)- N° of flange holes

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ORDERING GUIDE

SERIES	OPERATIONS	BODY MATERIAL	DN	SEAT MATERIAL	BODY TYPE	FLANGE DRILLING
PT SERIES	V	11		NI	W	PN-10
	V → Handwheel r.s	11 → Cast iron		NI → NBR	W → Semi lugged (WAFER)	PN-10
	VR → Handwheel r.s + Bevel Gearbox	12 → Ductile iron		EP → EPDM		PN-16
	B → Iso top flange r.s.	14 → Stainless steel		VI → VITON		ASA 150
	BR → Iso top flange r.s. + Bevel Gearbox	17 → Fully stainless steel		TE → PTFE		
	M → Electric actuator r.s.	18 → Carbon steel		PU → POLIURETHANE		
	MR → Electric actuator r.s. + Bevel Gearbox			MET → METAL-METAL		
	N → D/A pneumatic actuator					
	SE → S/A pneumatic actuator					
	H → Oil hydraulic actuator					

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BI-DIRECTIONAL KNIFE GATE VALVE SL SERIES

KGV SL SERIES FULLY LUGGED WITH RISING STEM AND HANDWHEEL

KGV SL SERIES FULLY LUGGED WITH HANDWHEEL RS AND GEARBOX

KGV SL SERIES FULLY LUGGED WITH D/A PNEUMATIC ACTUATOR

The SL series is a long face-to-face knife gate slurry valve designed to handle abrasive slurries from mineral extraction processes: iron ore, copper ore, gold ore, soda ash, phosphate, coal, gypsum, cement and limestone. Equipped with two heavy duty, field replaceable vulcanized rubber sleeves, ensures a bi-directional shutoff against heavy slurries.

GENERAL FEATURES

- Bi-directional shut off
- Long face-to-face
- Without external stuffing box
- Two split body arrangements, fully lugged-design
- Two abrasive resistant vulcanized rubber sleeves, replaceable without valve disassembly from the pipeline
- Only rubber parts are in contact with the flowing slurry
- Unobstructed passage reduces pressure drop and cavities, minimizing wear
- Easy drive replacement

APPLICATION FIELDS

- Mining and mineral extraction processes
- Mine dewatering
- Hydrocyclones
- Bulk handling
- General industry
- Etc

TECHNICAL DATA

- ***Size range:***
  DN-50 (2") to DN-600 (24")

- **Working pressure:**
  DN 50 to DN 300: 10 kg/cm^2
  DN 350 to DN 400: 6 kg/cm^2
  DN 450 to DN 600: 4 kg/cm^2

- **Flange ratings:**
  PN10, PN16 and ANSI B16.5 (class 150)
  Note: other flange drillings under request

- **Coating:**
  RAL 5017, 150 microns epoxy coated

- **Directives:**
  Pressure equipment directive 97/23/CE
  DIR 2006/42/CE (MACHINES)

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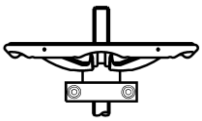
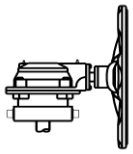
ASSEMBLY CONFIGURATION

OPERATION

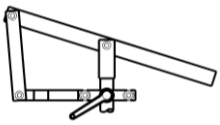


Rising stem handwheel

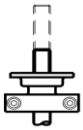


Gearbox

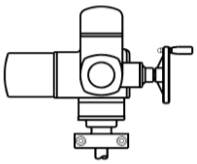
Chain Wheel



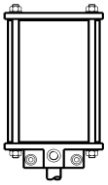
Quick closing lever



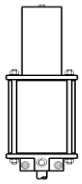
Rising stem coupling A



Electric actuator



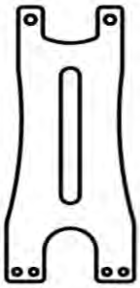
Double acting pneumatic actuator



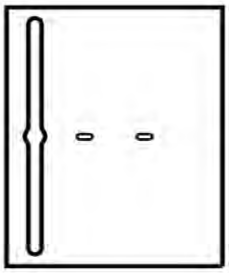
Spring-return pneumatic actuator

Oil hydraulic actuator

PLATES

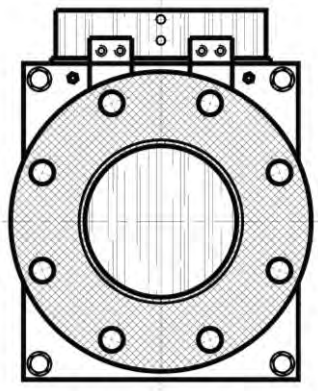


Plates



Hand protections for automated valves

BODY



Fully lugged-between flanges

ACCESORIES

- Locking device
- Overriding actuator
- Mechanical limit switches
- Proximity limit switches
- Mechanical position indicator
- Solenoid valve
- Etc.

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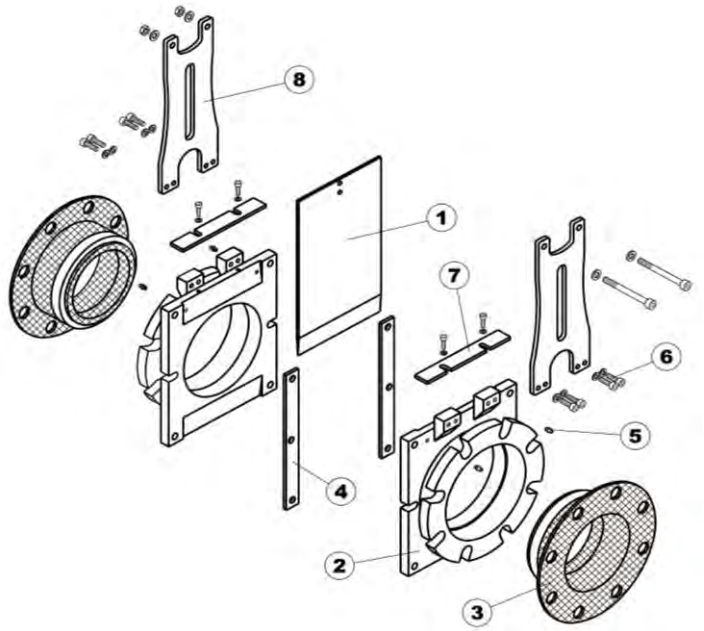
MATERIAL SPECIFICATION & PART LIST

No.	DESCRIPTION	MATERIAL
1	Gate	SS 316 (standard) SS 316L, SS 316TI , DUPLEX 2205, SMO 254 (optional)
2	Body	Cast iron – GJL250
3	Sleeves	NATURAL RUBBER
4	Guides	1.0580
5	Grease nipple	COMMERCIAL
6	Screws and nuts	A-4
7	Packing guides	PLASTIC
8	Plates	1.0580
-	Stem	SS 316
-	Bearing	1.0401 (standard) SS 316 (optional)
-	Handwheel	1.0037
-	Pneumatic act.	Aluminium
-	Hand-protection	1.0580

Figure 1. Exploded view of KGV SL series fully lugged



APPLICATION AND TEMPERATURE RANGE

SEAT MATERIALS			
Material	**Min. temperature (ºC)**	**Max. temperature (ºC)**	**APPLICATIONS**
NATURAL RUBBER	-10	+70	Tear and abrasion resistant

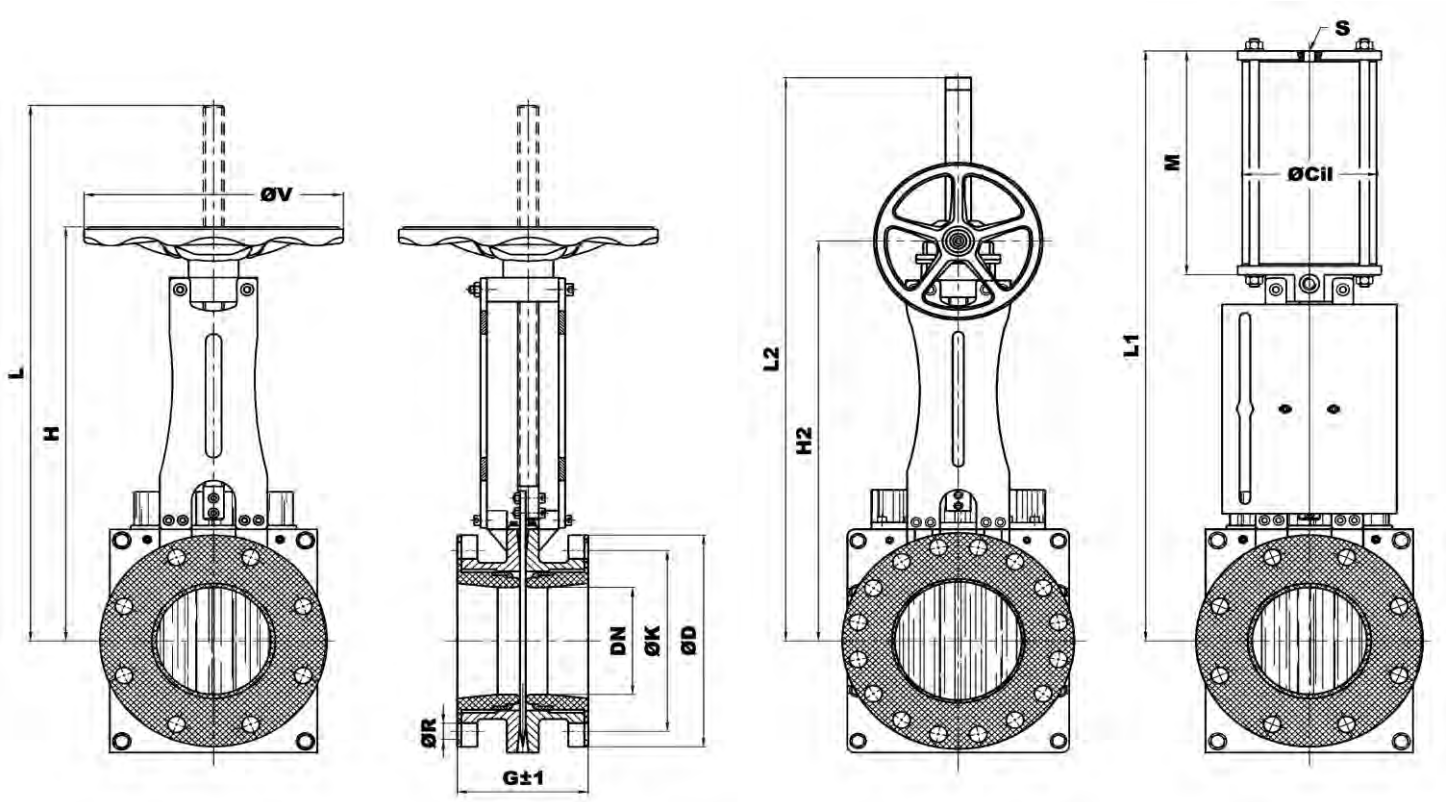
*More details and other sealing materials under request.

DIMMENSIONAL DRAWINGS

Figure 2. KGV SL series fully lugged rising stem & handwheel

Figure 3. KGV SL series fully lugged rising stem with handwheel & gearbox

Figure 4. KGV SL series fully lugged with d/a pneumatic actuator



DN	G±1	H	L	ØV	L2	H2	L1	M	Ø Cil	S	Spindle thread
50	129	308	391	225	-	-	433	177	100	1/4 " G	Tr20x4i
65	131	337	440	225	-	-	482	197	100	1/4 " G	Tr20x4i
80	144	362	490	225	-	-	529	219	100	1/4 " G	Tr20x4i
100	146	395	571	225	-	-	588	245	125	3/8 " G	Tr20x4i
125	158	487	688	300	-	-	719	290	160	3/8 " G	Tr24x5i
150	158	516	717	300	-	-	765	307	160	3/8 " G	Tr24x5i
200	169	625	927	400	-	-	931	375	190	1/2 " G	Tr28x5i
250	211	713	1065	400	-	-	1107	463	250	1/2 " G	Tr28x5i
300	234	-	-	400	1340	902	1309	536	250	1/2 " G	Tr28x5i
350	242	-	-	500	1449	946	1445	576	300	1/2 " G	Tr40x7i
400	257	-	-	500	1650	1957	1609	697	350	1/2 " G	Tr40x7i
450	260	-	-	500	1751	1148	1833	787	400	1/2 " G	Tr50x8i
500	263	-	-	500	1844	1191	1881	837	400	1/2 " G	Tr50x8i
600	285	-	-	500	2101	1348	2205	937	400	1/2 " G	Tr50x8i

* Valves above DN-250 need to be operated with gearbox and handwheel.
* Data sheet for ØK & ØD stated in "flange drillings chapter".

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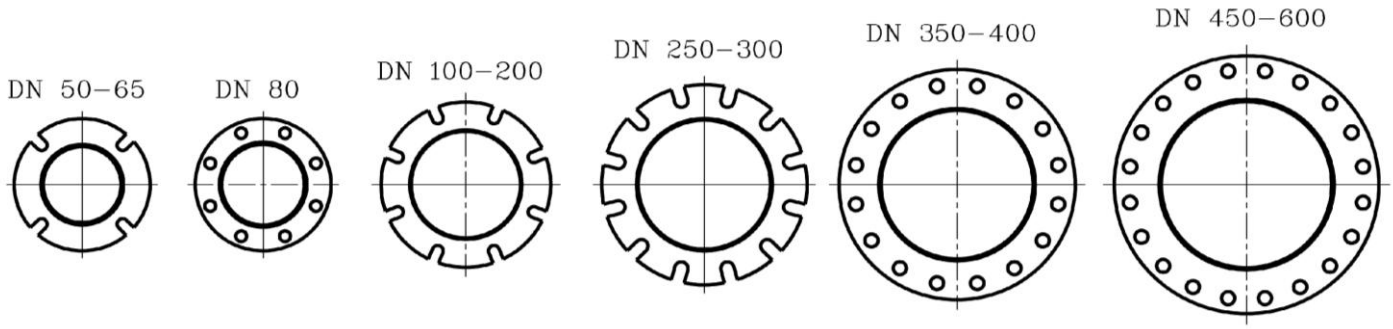
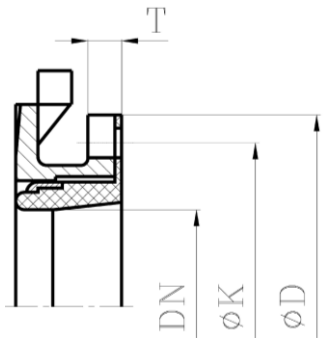
FLANGE DRILLINGS

FLANGE DRILLING - PN10





Bolting Arrangements PN-10 Knife Gate Valve

DN	K	D	N	T	R
50	125	160	4	16	M-16
65	145	180	4	19	M-16
80	160	190	8	22	M-16
100	180	220	8	22	M-16
125	210	250	8	27	M-16
150	240	280	8	27	M-20
200	295	336	8	27	M-20
250	350	395	12	27	M-20
300	400	480	12	40	M-20
350	460	530	16	40	M-20
400	515	605	16	47	M-24
450	565	640	20	50	M-24
500	620	698	20	50	M-24
600	725	820	20	50	M-27

N: Nº of through holes

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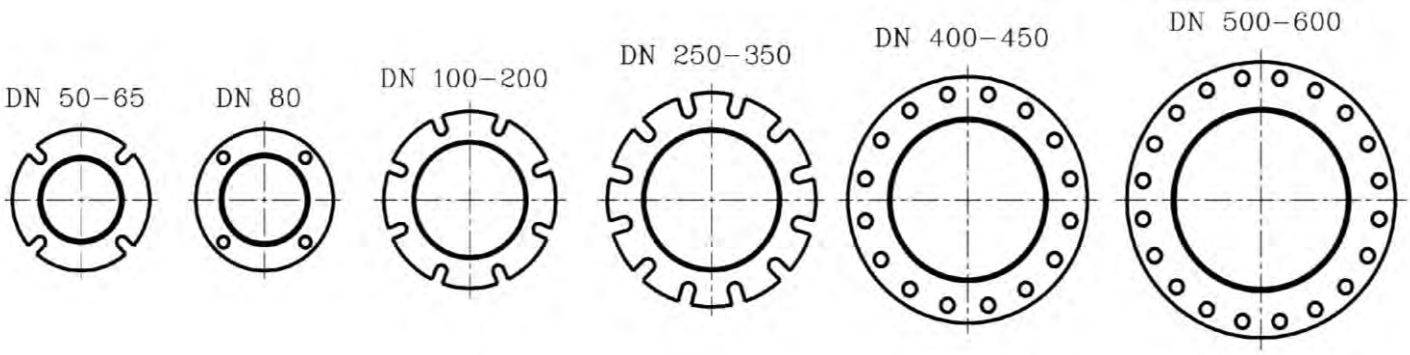
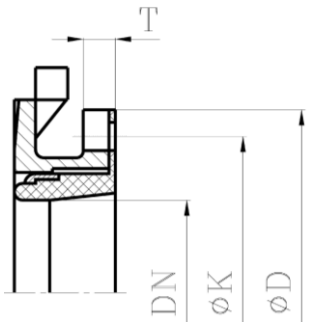
FLANGE DRILLING - ASA 150





Bolting Arrangements ASA 150 Knife Gate

DN	K	D	N	T	R
50	120,60	160	4	16	5/8 “
65	139,70	180	4	19	5/8 “
80	152,40	190	4	22	5/8 “
100	190,50	220	8	22	5/8 “
125	215,90	250	8	27	3/4 “
150	241,30	280	8	27	3/4 “
200	298,40	336	8	27	3/4 “
250	361,90	395	12	27	7/8 “
300	431,80	480	12	40	7/8 “
350	476,20	530	12	40	1 “
400	539,70	605	16	47	1 “
450	577,80	640	16	50	1 1/8 “
500	635,00	698	20	50	1 1/8 “
600	749,30	820	20	55	1 1/4 “

N: Nº of through holes

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ORDERING GUIDE

SERIES	OPERATIONS	MATERIAL	DN	SEAT	BODY TYPE	FLANGE
Example: SL SERIES	V	11		NR	LW	PN-10
	V → Handwheel r.s	11 → Cast iron		NR → NATURAL RUBBER	LW → Fully Lugged (BETWEEN FLANGES)	PN-10
	VR → Handwheel r.s + Bevel Gearbox					ASA 150
	B → Iso top flange r.s.					PN-16
	BR → Iso top flange r.s. + Bevel Gearbox					
	M → Electric actuator r.s.					
	MR → Electric actuator r.s. + Bevel Gearbox					
	P → Quick closing lever					
	N → D/A pneumatic actuator					
	SE → S/A pneumatic actuator					
	H → Oil hydraulic actuator					
	VCH → Chain wheel r.s.					
	VCHR → Chain wheel r.s. + Bevel Gearbox					

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BI-DIRECTIONAL KNIFE GATE VALVE SK SERIES

KGV SK SERIES SEMI LUGGED WITH RISING STEM AND HANDWHEEL

KGV XD SERIES SEMI LUGGED WITH HANDWHEEL RS AND GEARBOX

KGV SK SERIES SEMI LUGGED WITH D/A PNEUM ACTUATOR

The SK series is a bi-directional short face-to-face knife gate slurry valve designed to handle abrasive slurries from mineral extraction processes: iron ore, copper ore, gold ore, soda ash, phosphate, coal, gypsum, cement and limestone. Equipped with two field replaceable vulcanized rubber sleeves, ensures a bi-directional shutoff against heavy slurries.

GENERAL FEATURES

- Bi-directional shut off
- Short face-to-face
- Monoblock one-piece body, wafer-design
- Adjustable external stuffing box
- Two abrasive resistant vulcanized rubber sleeves, replaceable without valve disassembly from the pipeline
- Only rubber parts are in contact with the flowing slurry
- Unobstructed passage reduces pressure drop and cavities, minimizing wear
- Easy drive replacement
- Cleaning door with flush points
- Proximity and limit switch mounting points

APPLICATION FIELDS

- Mining and mineral extraction processes
- Mine dewatering
- Bulk handling
- Pulp and paper
- General industry
- Etc

TECHNICAL DATA

- ***Size range:***
  DN-50 (2”) to DN-600 (24”)
- **Working pressure:**
  DN 50 to DN 300: 10 kg/cm^2
  DN 350 to DN 400: 6 kg/cm^2
  DN 450 to DN 600: 4 kg/cm^2
- **Flange ratings:**
  PN10, PN16 and ANSI B16.5 (class 150)
  Note: other flange drillings under request
- **Coating:**
  RAL 5017, 150 microns epoxy coated
- **Directives:**
  Pressure equipment directive 97/23/CE
  DIR 2006/42/CE (MACHINES)

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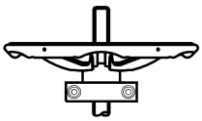
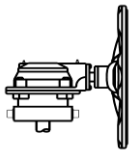
ASSEMBLY CONFIGURATION

OPERATION

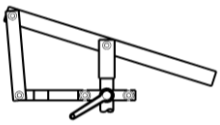


Rising stem handwheel

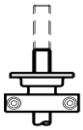


Gearbox

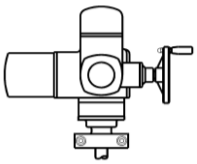
Chain Wheel



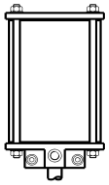
Quick closing lever



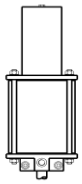
Rising stem coupling A



Electric actuator



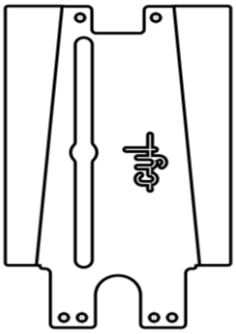
Double acting pneumatic actuator



Spring-return pneumatic actuator

Oil hydraulic actuator

PLATES



Plates

BODY

Semi lugged (wafer)

ACCESORIES

- Locking device
- Overriding actuator
- Mechanical limit switches
- Proximity limit switches
- Mechanical position indicator
- Solenoid valve
- Scraper (Bronze /PPS)
- Etc.

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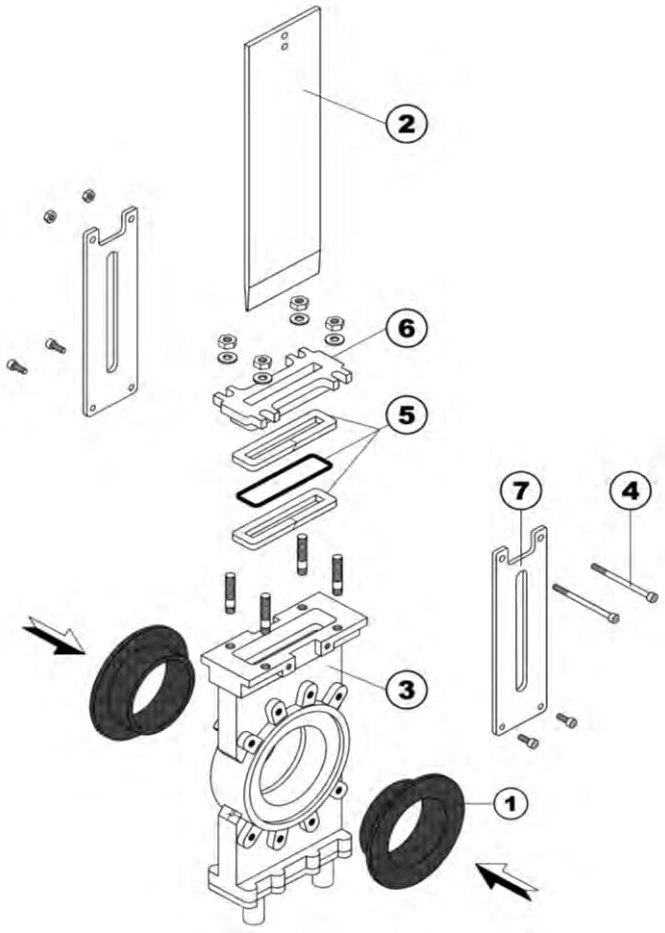
MATERIAL SPECIFICATION & PART LIST

No.	DESCRIPTION	MATERIAL
1	Sleeves	NATURAL RUBBER (standard) VITON (optional)
2	Gate	SS 316 (standard) SS 316L, SS 316TI , DUPLEX 2205, SMO 254 (optional)
3	Body	Ductile iron - GJS400 (standard)
4	Screw s and nuts	A-4
5	Packing material	ARAMIDE, GRAPHITE (standard)
6	Packing gland	Ductile iron - GJS400
7	Plates	1.0580
-	Stem	SS 316
-	Bearing	1.0401 (standard) SS 316 (optional)
-	Handwheel	1.0037
-	Pneumatic act.	Aluminium
-	Hand-protections	1.0580

Figure 1. Exploded view of KGV SK series semi lugged (wafer)



APPLICATION AND TEMPERATURE RANGE

SEAT MATERIALS			
Material	**Min. temperature (ºC)**	**Max. temperature (ºC)**	**APPLICATIONS**
NATURAL RUBBER	-10	+70	Tear and abrasion resistant
VITON	-40	+180	Organic acids, hydrocarbons and heat resistant

**More details and other dimensions and sealing materials under request.*

PACKING MATERIALS			
Material	**Min. temperature (ºC)**	**Max. temperature (ºC)**	**APPLICATIONS**
ARAMIDE	-40	+250	Bulk handling
GRAPHITE	-40	+300	Hydrocarbons, heat resistant and solids

**More details and other dimensions and sealing materials under request*

DIMMENSIONAL DRAWINGS

Figure 2. KGV SK series semi lugged rising stem & handwheel

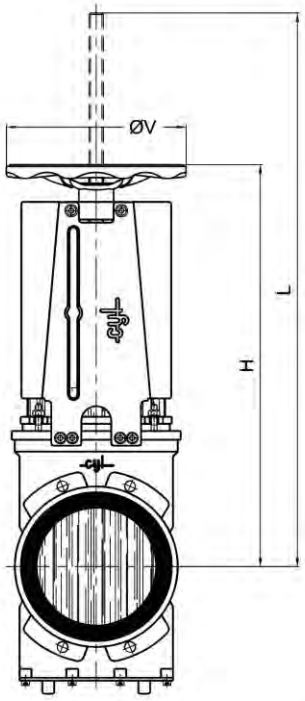


Figure 3. KGV SK series semi lugged rising stem with handwheel & gearbox

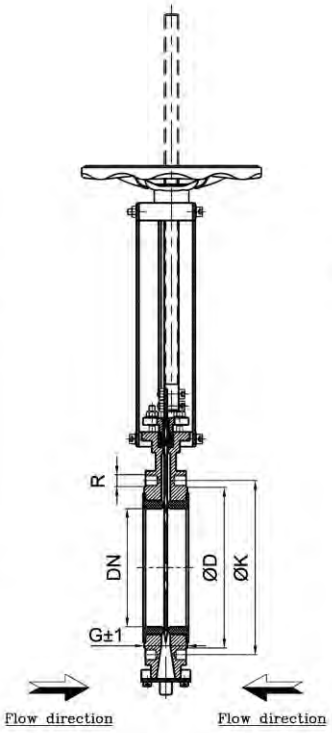
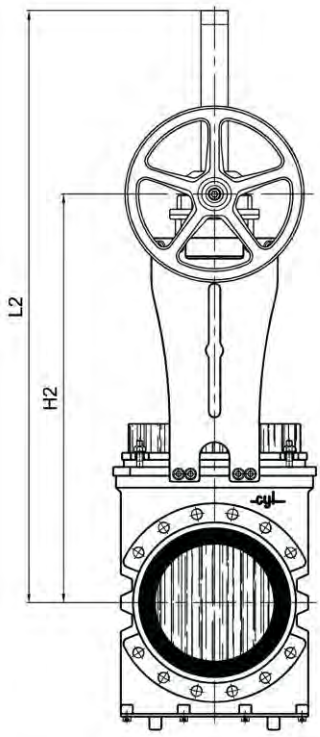
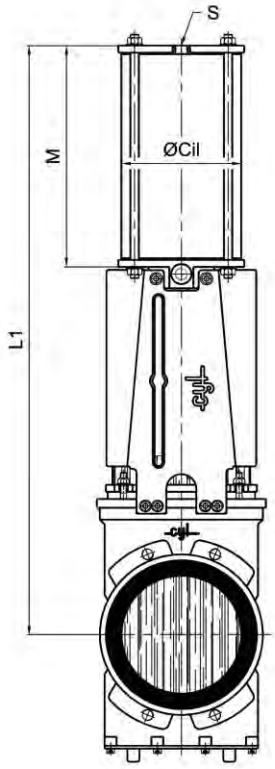


Figure 4. KGV SK series semi lugged with d/a pneumatic actuator





DN	G±1	H	L	L2	H2	Ø V	L1	M	Ø Cil	S	Spindle thread
50	52	352	435	-	-	225	476	177	100	1/4 ” G	Tr20x4i
65	52	359	489	-	-	225	484	177	100	1/4 ” G	Tr20x4i
80	52	436	518	-	-	225	576	219	125	3/8 ” G	Tr20x4i
100	52	427	605	-	-	225	616	239	125	3/8 ” G	Tr20x4i
125	58	510	661	-	-	300	719	267	160	3/8 ” G	Tr24x5i
150	64	588	789	-	-	300	857	327	190	1/2 ” G	Tr24x5i
200	72	681	932	-	-	300	998	375	190	1/2 ” G	Tr24x5i
250	76	786	1088	-	-	400	1173	456	250	1/2 ” G	Tr28x5i
300	82	862	1214	-	-	400	1292	499	250	1/2 ” G	Tr28x5i
350	82	-	-	1550	1078	400	1595	650	350	1/2 ” G	Tr40X7i
400	95	-	-	1650	1164	400	1720	700	350	1/2 ” G	Tr40X7i
450	95	-	-	1880	1305	500	1904	750	400	1/2 ” G	Tr50X8i
500	120	-	-	2165	1502	500	2020	778	400	1/2 ” G	Tr50X8i
600	120	-	-	2400	1710	500	2268	878	400	1/2 ” G	Tr50X8i

* Valves above DN-350 need to be operated with gearbox and handwheel.

* Data sheet for ØK & ØD stated in “flange drillings chapter”.

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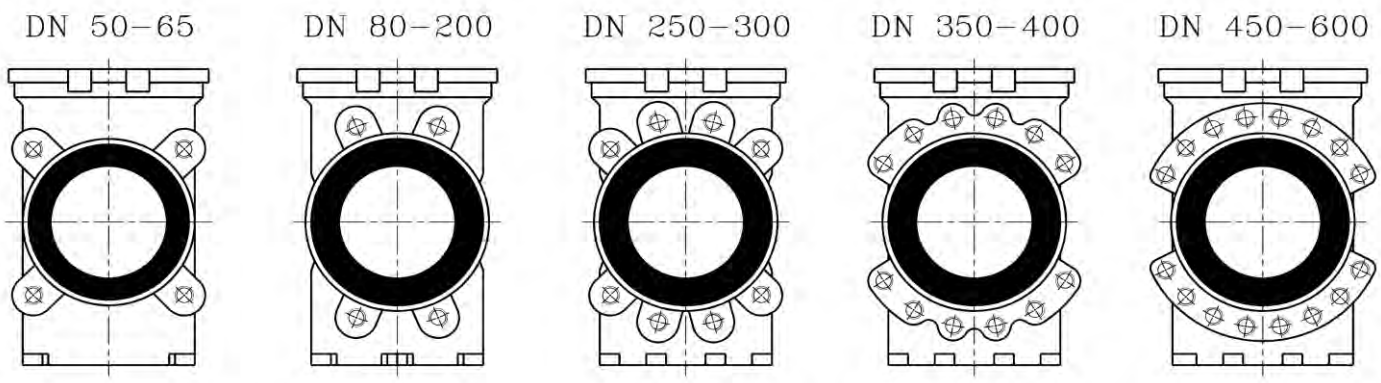
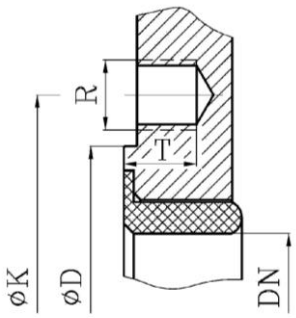
FLANGE DRILLINGS

FLANGE DRILLING - PN10





Bolting Arrangements PN-10 Knife Gate Valve

DN	K	D	N (1)	N (2)	N (3)	T	R
50	125	95	4	-	4	10	M-16
65	145	112	4	-	4	13	M-16
80	160	135	4	4	8	13	M-16
100	180	158	4	4	8	13	M-16
125	210	188	4	4	8	14	M-16
150	240	212	4	4	8	16	M-20
200	295	268	4	4	8	20	M-20
250	350	320	8	4	12	22	M-20
300	400	370	8	4	12	22	M-20
350	460	430	12	4	16	22	M-20
400	515	482	12	4	16	23	M-24
450	565	532	16	4	20	24	M-24
500	620	585	16	4	20	25	M-24
600	725	685	16	4	20	26	M-27

N (1)- Nº of tapped holes N (2)- Nº of through holes N (3)- Nº of flange holes

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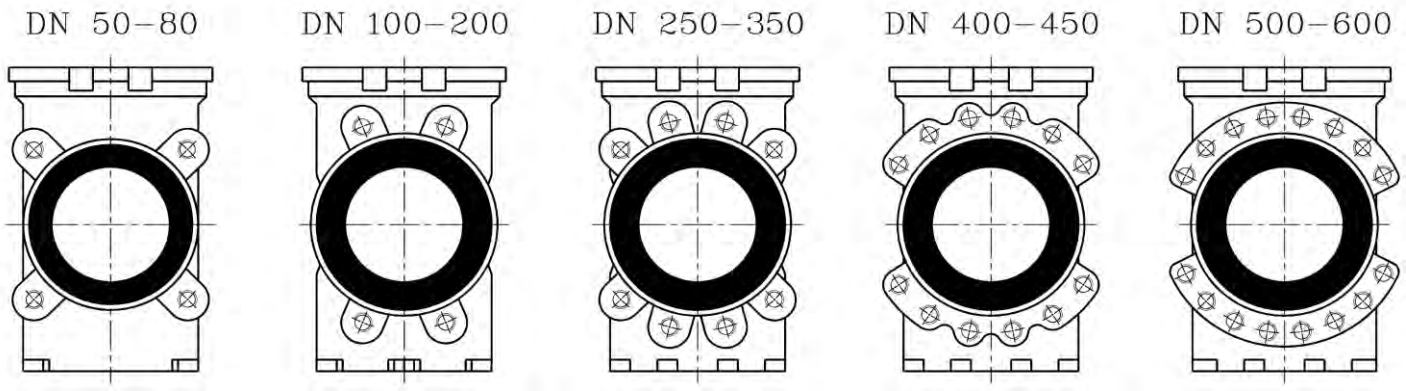
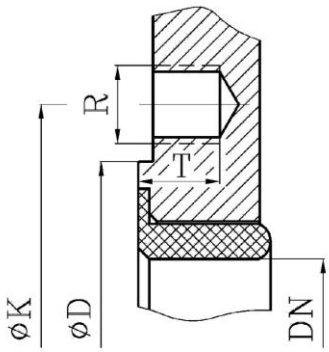
FLANGE DRILLING - ASA 150





Bolting Arrangements ASA-150 Knife Gate Valve

DN	K	D	N (1)	N (2)	N (3)	T	R
50	120,60	95	4	-	4	9	5/8 “
65	139,70	112	4	-	4	13	5/8 “
80	152,40	135	4	4	4	13	5/8 “
100	190,50	158	4	4	8	13	5/8 “
125	215,90	188	4	4	8	13	3/4 “
150	241,30	212	4	4	8	12	3/4 “
200	298,40	268	4	4	8	12	3/4 “
250	361,90	320	8	4	12	16	7/8 “
300	431,80	370	8	4	12	16	7/8 “
350	476,20	430	12	4	12	21	1”
400	539,70	482	12	4	16	22	1”
450	577,80	532	16	4	16	23	1 1/8”
500	635	585	16	4	20	24	1 1/8”
600	749,30	685	16	4	20	25	1 1/4”

N (1)- Nº of tapped holes N (2)- Nº of through holes N (3)- Nº of flange holes

ORDERING GUIDE

SERIES	OPERATIONS	BODY MATERIAL	DN	SEAT MATERIAL	BODY TYPE	FLANGE DRILLING
Example: SK SERIES	V	12		NR	W	PN-10
	V → Handwheel r.s	12 → Ductile iron		NR → NATURAL RUBBER	W → Semi Lugged (WAFER)	PN-10
	VR → Handwheel r.s + Bevel Gearbox			VI → VITON		PN-16
	B → Iso top flange r.s.					ASA-150
	BR → Iso top flange r.s. + Bevel Gearbox					
	M → Electric actuator r.s.					
	MR → Electric actuator r.s. + Bevel Gearbox					
	P → Quick closing lever					
	N → D/A pneumatic actuator					
	SE → S/A pneumatic actuator					
	H → Oil hydraulic actuator					
	VCH → Chain wheel r.s.					
	VCHR → Chain wheel r.s. + Bevel Gearbox					

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BI-DIRECTIONAL KNIFE GATE VALVE SCC SERIES

KGV SCC SERIES WITH D/A
PNEUMATIC ACTUATOR

KGV SCC SERIES WITH
HANDWHEEL AND RISING STEM

The SCC series knife gate is a bi-directional resilient seated square valve with frontal upper sealing designed to handle wastewater, mud, fish pump services and general liquid mediums. The design of the body and seat ensures a bubble-tight shutoff in both directions of the flow.

GENERAL FEATURES

- 100% tight in both directions
- Square shaped knife gate valve
- Two casted chambers design
- Elastomeric U-seat, fixed between the two bodies by screws
- Full bore design
- Short face to face dimension
- Fully sealed to the atmosphere and to the pipeline
- Easy drive replacement
- Proximity and limit switch mounting points

APPLICATION FIELDS

- Wastewater treatment
- Fish handling
- Cruises and ships
- Food and beverage
- Chemical and pharmaceutical
- Biomass
- Etc

TECHNICAL DATA

- ***Size range:***

  DN-200 x DN-200 to DN-600 x DN-600

  Note: larger diameters under request

- **Working pressure:**

  DN-200 x DN-200 to DN-300 x DN-300: 6 kg/cm^2
  DN-350 x DN-350 to DN-400 x DN-400: 5 kg/cm^2
  DN-450 x DN-450 to DN-600 x DN-600: 3 kg/cm^2

  Note: for higher pressure, please ask factory

- **Coating**

  RAL 5017, 150 microns epoxy coated

- **Directives:**

  Pressure equipment directive 97/23/CE
  DIR 2006/42/CE (MACHINES)

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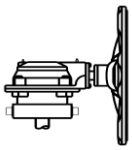
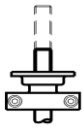
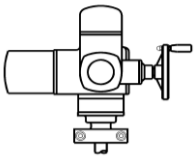
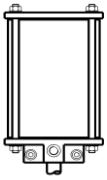
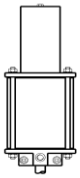
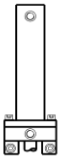
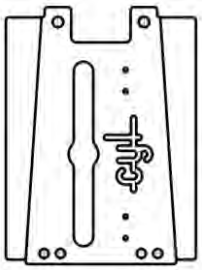
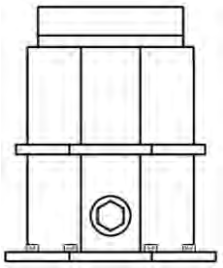
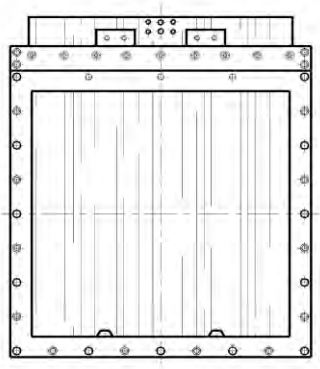
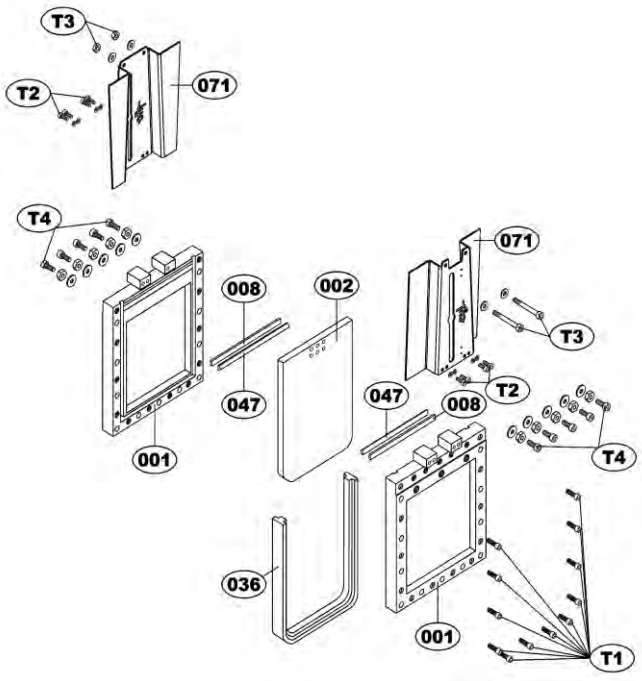
ASSEMBLY CONFIGURATION

	STANDARD	OPTIONAL
OPERATION	 Rising stem handwheel  Gearbox  Rising stem coupling A  Electric actuator  Double acting pneumatic actuator  Spring-return pneumatic actuator  Oil hydraulic actuator	
PLATES	 Plates	 Tight closed bonnet
BODY	 Semi lugged (wafer)	
ACCESORIES	- Locking device - Overriding actuator - Mechanical limit switches - Proximity limit switches - Mechanical position indicator - Chest scraper (bronze/PPS-plastic) - Deflector cone (Ni-hard) - Solenoid valve - Etc.	

MATERIAL SPECIFICATION & PART LIST

No.	DESCRIPTION	MATERIAL
001	Body	Cast iron (Standard) AISI 316 (optional)
002	Gate	AISI 316 (standard) AISI316TI, DUPLEX2205, SMO254 (optional)
036	Seat	NBR (standard) EPDM, VITON, PTFE, SILICONE(optional)
047	Packing material	NBR (standard) EPDM, VITON, PTFE, SILICONE (optional)
T	Screws and nuts	A4
008	Push rods	SS 316
071	Plates	1.0580 (standard) SS 316 (optional)
-	Stem	SS 316
-	Bearing	1.0401 (standard) SS 316 (optional)
-	Handwheel	1.0037
-	Pneumatic act.	Aluminium
-	Hand-protections	1.0580 (standard) SS 316 (optional)

Figure 1. Exploded view of KGV SCC series with **elastomeric U-seat**



APPLICATION AND TEMPERATURE RANGE

SEAT AND PACKING MATERIALS			
Material	**Min. temperature (ºC)**	**Max. temperature (ºC)**	**APPLICATIONS**
NBR	-30	+80	Hydrocarbons and biogas waste
EPDM	-30	+90	Clean and chlorided water
VITON	-40	+180	Organic acids, hydrocarbons and heat resistant
PTFE	-10	+200	Heat, friction, acids, chemical and corrosion resistant
POLIURETHANE	-10	+80	Abrasive mediums/mineral handling
WHITE SILICONE	-20	+180	Food industry (FDA conformity)

**More details and other sealing materials under request.*

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DIMMENSIONAL DRAWINGS

Figure 2. KGV SCC series rising stem & handwheel

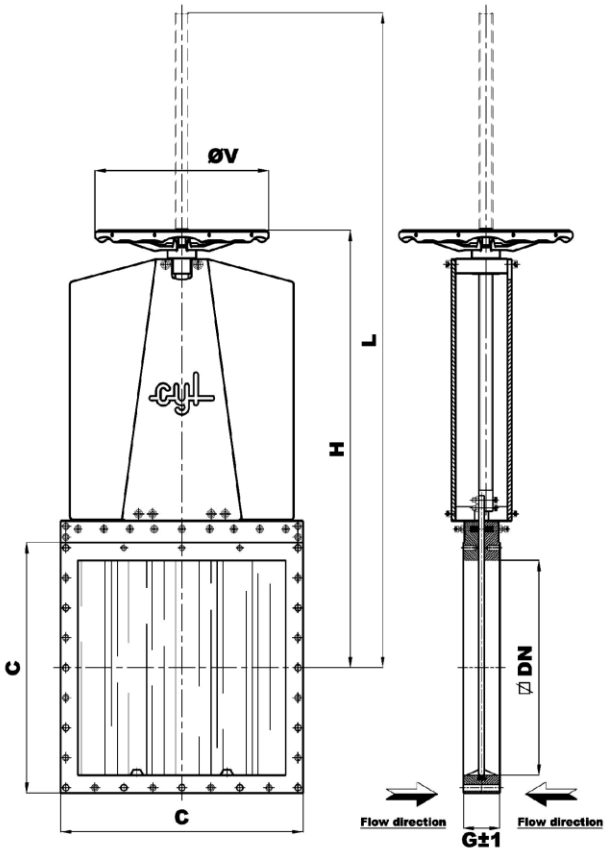


Figure 3. KGV SCC series with double acting pneumatic actuator

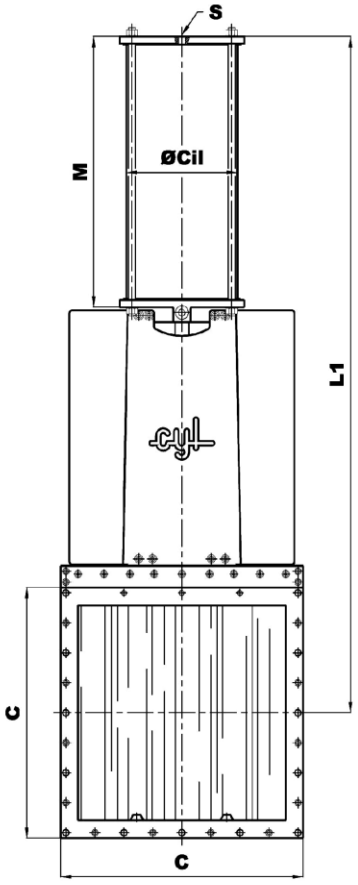
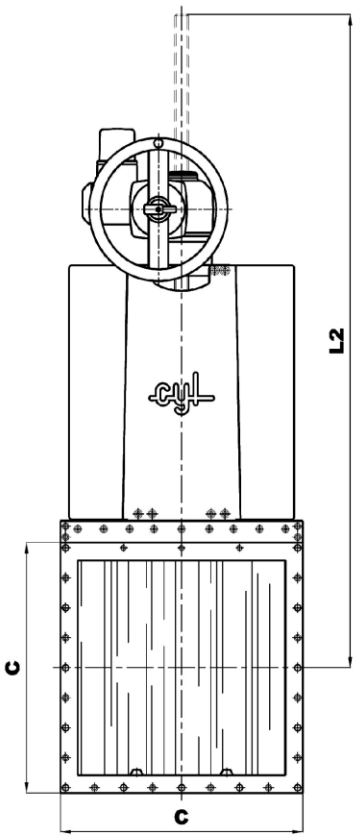


Figure 4. KGV SCC series rising stem & electric actuator



DN	G	L	H	Ø V	L1	M	Ø Cil	S	L2
200 x 200	60	783	582	300	851	327	190	½"G	841
250 x 250	70	909	658	300	975	375	190	½"G	973
300 x 300	80	1062	760	400	1119	428	190	½"G	1121
350 x 350	80	1185	833	400	1263	499	250	½"G	1244
400 x 400	90	1303	901	400	1381	549	250	½"G	1352
500 x 500	95	1622	1114	500	1681	656	300	½"G	1632
600 x 600	105	1830	1222	500	1889	756	300	½"G	1825

Note: for bigger sizes, please ask factory.

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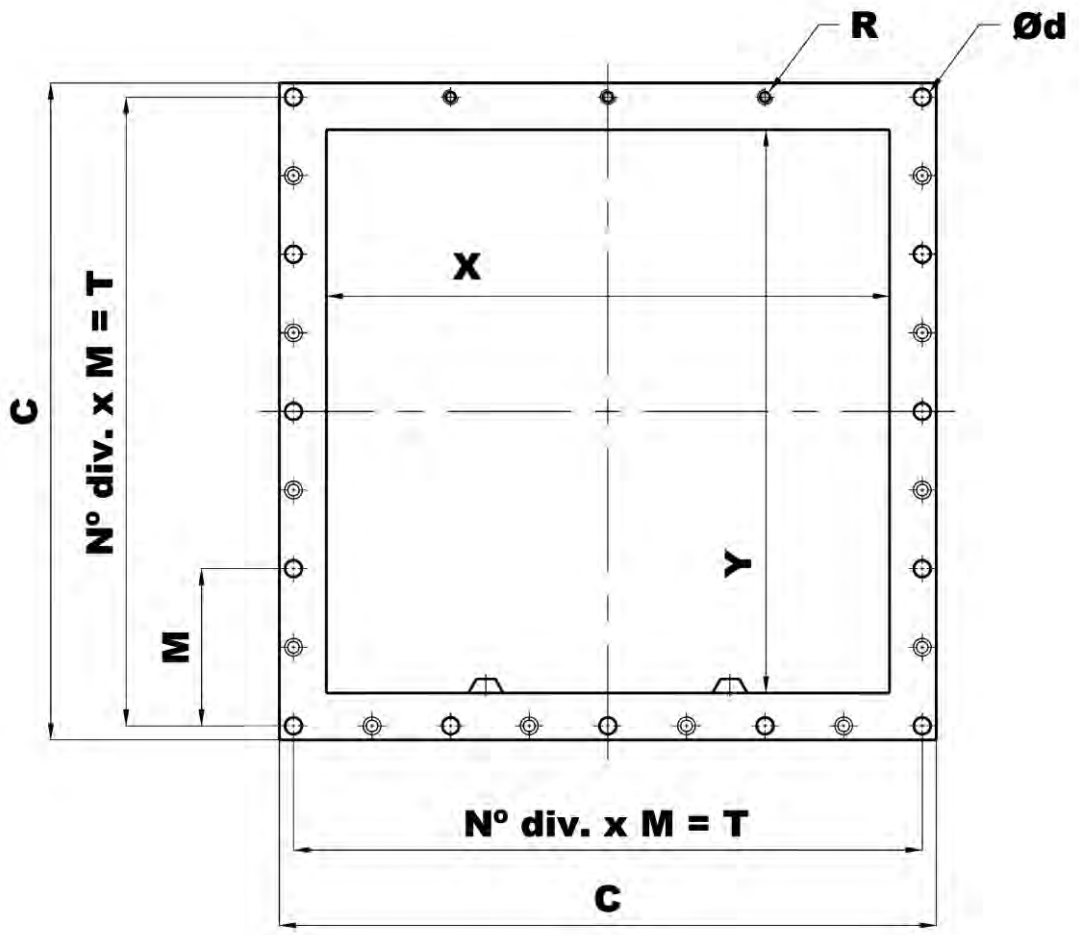
FLANGE DRILLINGS



X x Y	●	○	R	Ø d	C x C	Nº div. x M = T
200 x 200	2	10	M-12	**Ø 14**	280 x 280	3 x 85 = 255
250 x 250	2	10	M-12	**Ø 14**	340 x 340	3 x 103 =309
300 x 300	2	10	M-12	**Ø 14**	390 x 390	3 x 120 = 360
350 x 350	2	10	M-12	**Ø 14**	450 x 450	3 x 140 = 420
400 x 400	3	13	M-12	**Ø 14**	500 x 500	4 x 117,5 = 470
500 x 500	3	13	M-14	**Ø 16**	600 x 600	4 x 142,5 = 570
600 x 600	3	13	M-16	**Ø 18**	700 x 700	4 x 167,5 = 670

- ● ***Threaded holes***
- ○ ***Through holes***

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ORDERING GUIDE

SERIES	OPERATIONS	BODY MATERIAL	DN	SEAT MATERIAL	BODY TYPE
SCC SERIES	V	11		NI	W
	V → Handwheel r.s	11 → Cast iron		NI → NBR	W → Semi lugged (WAFER)
	VR → Handwheel r.s + Bevel Gearbox	14 → Stainless steel		EP → EPDM	
	B → Iso top flange r.s.	17 → Fully stainless steel		VI → VITON	
	BR → Iso top flange r.s. + Bevel Gearbox			TE → PTFE	
	M → Electric actuator r.s.			PU → POLIURETHANE	
	MR → Electric actuator r.s. + Bevel Gearbox				
	N → D/A pneumatic actuator				
	SE → S/A pneumatic actuator				
	H → Oil hydraulic actuator				

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UNI-DIRECTIONAL KNIFE GATE VALVE SCW SERIES

KGV SCW SERIES WITH D/A
PNEUMATIC ACTUATOR

KGV SCW SERIES WITH RISING
STEM AND HANDWHEEL

The SCW series knife gate is a uni-directional mecano-welded square valve, soft or metal-metal seated, equipped with adjustable stuffing box mounted on the body valve. Valve suitable to handle powders, granulates and highly solid loaded mediums at low pressure, mainly used in bulk handling and silo outlet applications.

GENERAL FEATURES

- One piece body fabricated design
- Square or rectangular shaped knife gate valve
- Passage frames fabricated from carbon steel or stainless steel
- Available with resilient seat or metal-metal seat
- The internal gate wedges and guides ensures a tighter shut off
- Very light weight
- Inlet deflectors can be used for abrasive mediums
- Easy drive replacement
- Proximity and limit switch mounting points

APPLICATION FIELDS

- Bulk handling
- Food and beverage
- Chemical process
- High temperature industrial applications
- Silo outlets
- Etc

TECHNICAL DATA

- ***Size range:***

  DN-150 x DN-150 to DN-600 x DN-600

  Note: larger diameters under request

- **Working pressure:**
  DN-150 x DN-150 to DN-300 x DN-300: 3 kg/cm^2
  DN-350 x DN-350 to DN-600 x DN-600: 2 kg/cm^2

  Note: for higher pressure, please ask factory

- **Coating:**
  RAL 5017, 150 microns epoxy coated

- **Directives:**
  Pressure equipment directive 97/23/CE
  DIR 2006/42/CE (MACHINES)

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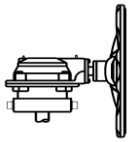
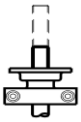
ASSEMBLY CONFIGURATION

OPERATION

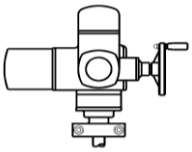
Rising stem handwheel



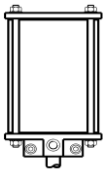
Gearbox



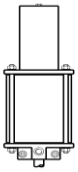
Rising stem coupling A



Electric actuator



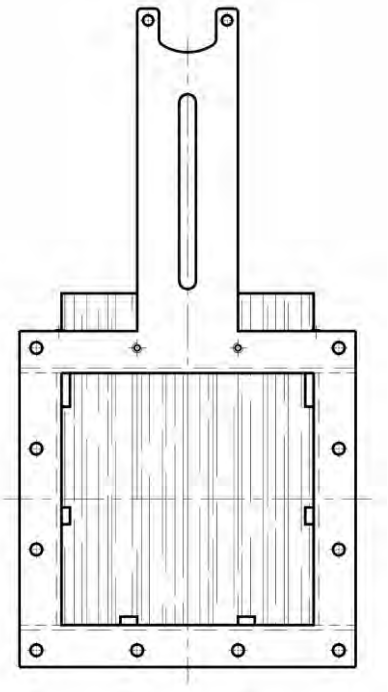
Double acting pneumatic actuator



Spring-return pneumatic actuator

Oil hydraulic actuator

BODY AND PLATES



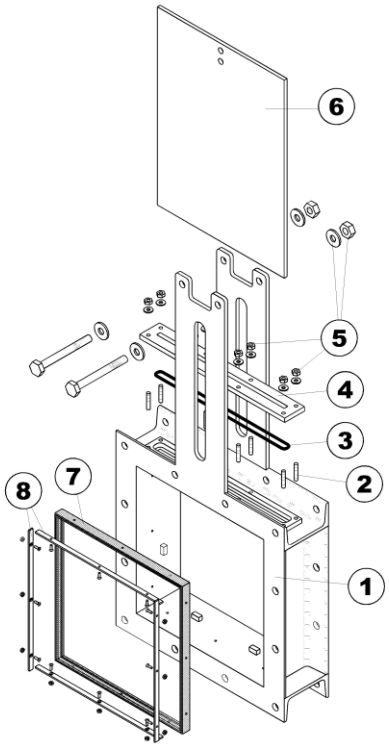
ACCESORIES

- Locking device
- Overriding actuator
- Mechanical limit switches
- Proximity limit switches
- Mechanical position indicator
- Deflector cone (Ni-hard)
- Solenoid valve
- Etc.

MATERIAL SPECIFICATION & PART LIST

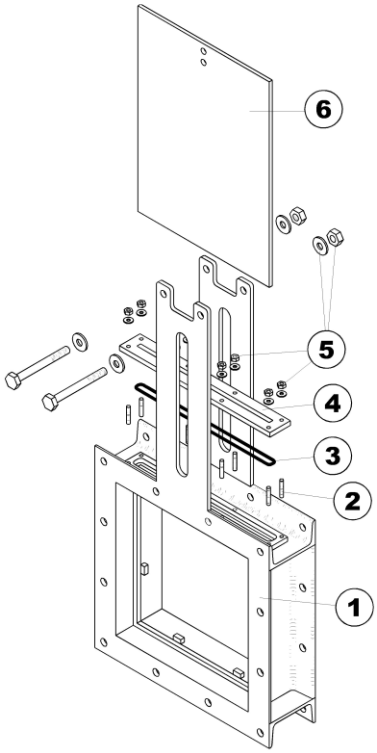
No.	DESCRIPTION	MATERIAL
1	Body	Carbon steel (Standard) AISI 316, AISI 310, DUPLEX2205 (optional)
2	Stud bolts	A4
3	Packing material	PTFE+NBR (standard) PTFE+EPDM,GRAPHITE,ARAMIDE(optional)
4	Packing gland	Carbon steel (standard) AISI 316, AISI 310, DUPLEX2205 (optional)
5	Screws and nuts	A4
6	Gate	AISI 316 (standard) AISI316TI, DUPLEX2205, SMO254 (optional)
7	Profile seat	NBR (standard) EPDM, VITON, PTFE, WHITE SILICONE
8	Seal retainer frame	Carbon steel (standard) AISI 316 (optional)
-	Stem	SS 316
-	Bearing	1.0401 (standard) SS 316 (optional)
-	Handwheel	1.0037
-	Pneumatic act.	Aluminium
-	Hand-protections	1.0580 (standard) SS 316 (optional)

Figure 1. Exploded view of KGV SCW series **with profile seat (tight version)**



No.	DESCRIPTION	MATERIAL
1	Body	Carbon steel (Standard) AISI 316, AISI 310, DUPLEX2205 (optional)
2	Stud bolts	A4
3	Packing material	PTFE+NBR (standard) PTFE+EPDM,GRAPHITE,ARAMIDE (optional)
4	Packing gland	Carbon steel (standard) AISI 316, AISI 310, DUPLEX2205 (optional)
5	Screws and nuts	A4
6	Gate	AISI 316 (standard) AISI316TI, DUPLEX2205,SMO254 (optional)
-	Stem	SS 316
-	Bearing	1.0401 (standard) SS 316 (optional)
-	Handwheel	1.0037
-	Pneumatic act.	Aluminium
-	Hand-protections	1.0580 (standard) SS 316 (optional)
-	Metal-metal seat	Carbon steel (standard) AISI 316 (optional)

Figure 2. Exploded view of KGV SCW series with **metal-metal seat**



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APPLICATION AND TEMPERATURE RANGE

SEAT MATERIALS			
Material	**Min. temperature (ºC)**	**Max. temperature (ºC)**	**APPLICATIONS**
NBR	-30	+80	Hydrocarbons and biogas waste
EPDM	-30	+90	Clean and chlorided water
VITON	-40	+180	Organic acids, hydrocarbons and heat resistant
PTFE	-10	+200	Heat, friction, acids, chemical and corrosion resistant
POLIURETHANE	-10	+80	Abrasive mediums/mineral handling
WHITE SILICONE	-20	+180	Food industry (FDA conformity)
METAL-METAL	-30	+400	Solids, abrasive/high temperature mediums

**More details and other sealing materials under request.*

PACKING MATERIALS			
Material	**Min. temperature (ºC)**	**Max. temperature (ºC)**	**APPLICATIONS**
COTTON-PTFE	-30	+100	Hydrocarbons
PURE PTFE	-10	+200	Heat, friction, acids, chemical and corrosion resistant
ARAMIDE	-40	+250	Bulk handling
GRAPHITE	-40	+300	Hydrocarbons, heat resistant and solids
SPECIAL PACKING FOR HIGH TEMPERATURE	-10	+1000	High temperature

**More details and other sealing materials under request.*

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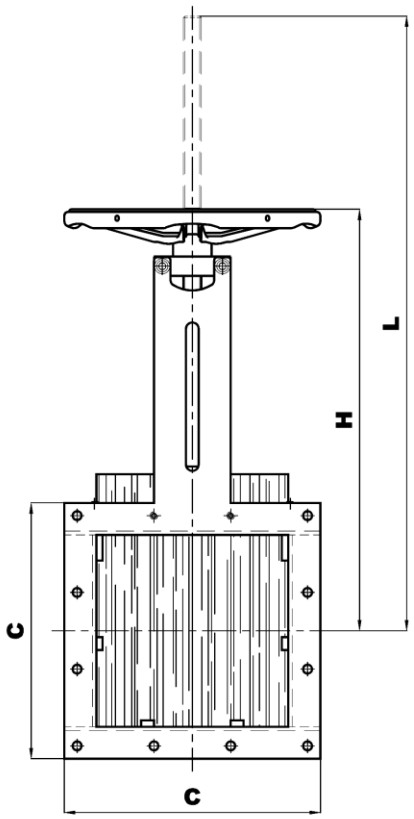
DIMMENSIONAL DRAWINGS

Figure 3. KGV SCW series rising stem & handwheel



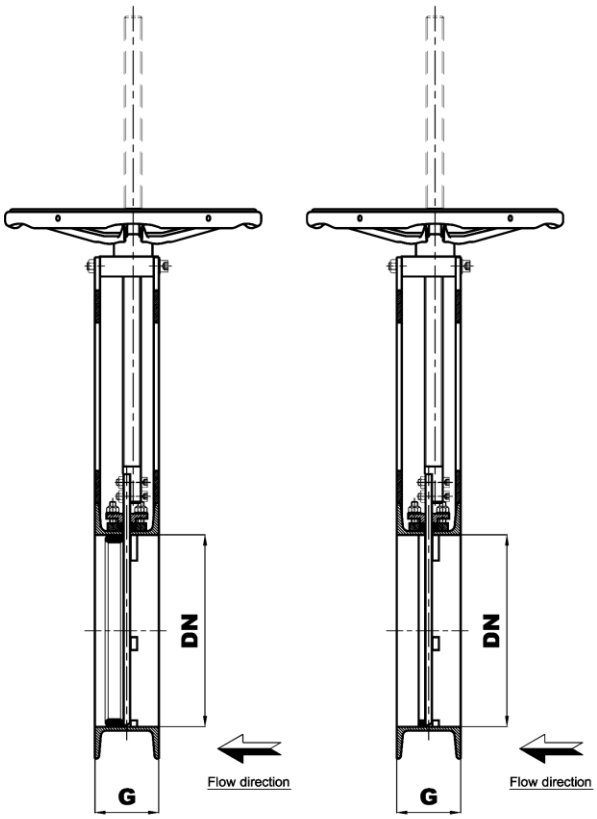
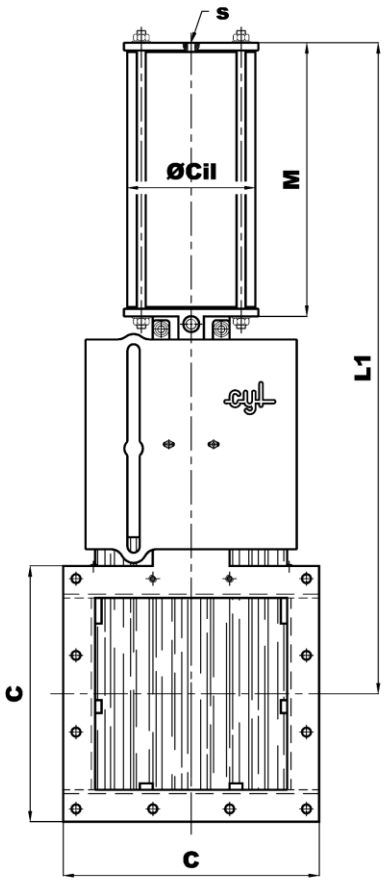


Figure 4. KGV SCW series with double acting pneumatic actuator



DN	G	C x C	L	H	Ø V	L1	M	Ø Cil	S
150 x 150	80	240	558	407	300	616	267	160	3/8"G
200 x 200	80	290	683	482	300	749	325	190	½"G
250 x 250	80	340	808	557	300	874	375	190	½"G
300 x 300	100	400	961	659	400	1018	428	190	½"G
350 x 350	100	450	1081	729	400	1159	499	250	½"G
400 x 400	100	500	1227	825	400	1304	549	250	½"G
450 x 450	100	550	1368	860	500	1426	591	250	½"G
500 x 500	100	600	1493	985	500	1551	641	250	½"G
600 x 600	100	700	1743	1135	500	1783	741	250	½"G

Note: for bigger sizes, please ask factory.

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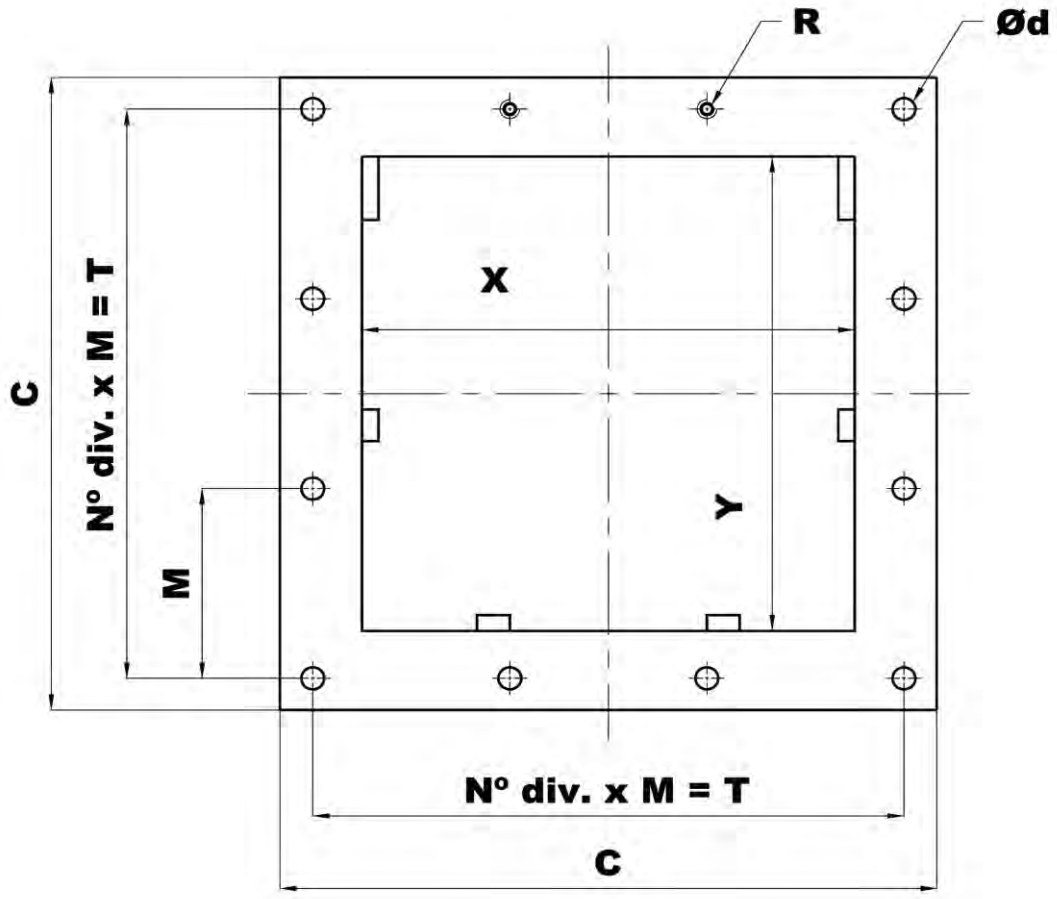
FLANGE DRILLING



X x Y	●	○	R	Ø d	C x C	Nº div. x M = T
150 x 150	1	7	M-12	**Ø 14**	240 x 240	2 x 105 = 210
200 x 200	2	10	M-12	**Ø 14**	290 x 290	3 x 85 = 255
250 x 250	2	10	M-12	**Ø 14**	340 x 340	3 x 103 =309
300 x 300	2	10	M-12	**Ø 14**	400 x 400	3 x 120 = 360
350 x 350	2	10	M-12	**Ø 14**	450 x 450	3 x 140 = 420
400 x 400	3	13	M-12	**Ø 14**	500 x 500	4 x 117,5 = 470
450 x 450	3	13	M-12	**Ø 14**	550 x 550	4 x 130 = 520
500 x 500	3	13	M-12	**Ø 14**	600 x 600	4 x 142,5 = 570
600 x 600	3	13	M-16	**Ø 14**	700 x 700	4 x 167,5 = 670

- ● ***Threaded holes***
- ○ ***Through holes***

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ORDERING GUIDE

SERIES	OPERATIONS	BODY MATERIAL	DNxDN	SEAT MATERIAL	BODY TYPE
SCW-SERIES	V	18		NI	W
	V → Handwheel r.s	18 → Carbon steel		NI → NBR	W → Semi lugged (WAFER)
	VR → Handwheel r.s + Bevel Gearbox	17 → Fully stainless steel		EP → EPDM	
	B → Iso top flange r.s			VI → VITON	
	BR → Iso top flange r.s. + Bevel Gearbox			TE → PTFE	
	M → Electric actuator r.s.			PU → POLIURETHANE	
	MR → Electric actuator r.s. + Bevel Gearbox			MET → METAL-METAL	
	N → D/A pneumatic actuator				
	SE → S/A pneumatic actuator				
	H → Oil hydraulic actuator				

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