

## 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

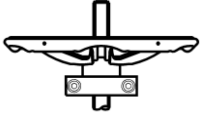
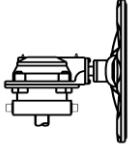
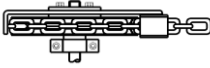
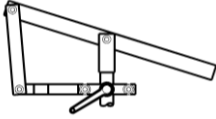
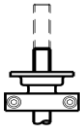
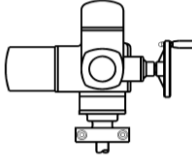
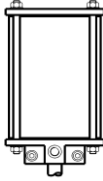
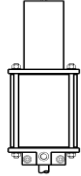

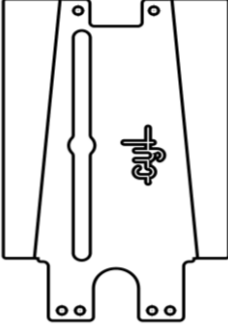

#### APPLICATION FIELDS

- 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<sup>2</sup>  
DN 350 to DN 400: 6 kg/cm<sup>2</sup>  
DN 450 to DN 600: 4 kg/cm<sup>2</sup>
- **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)

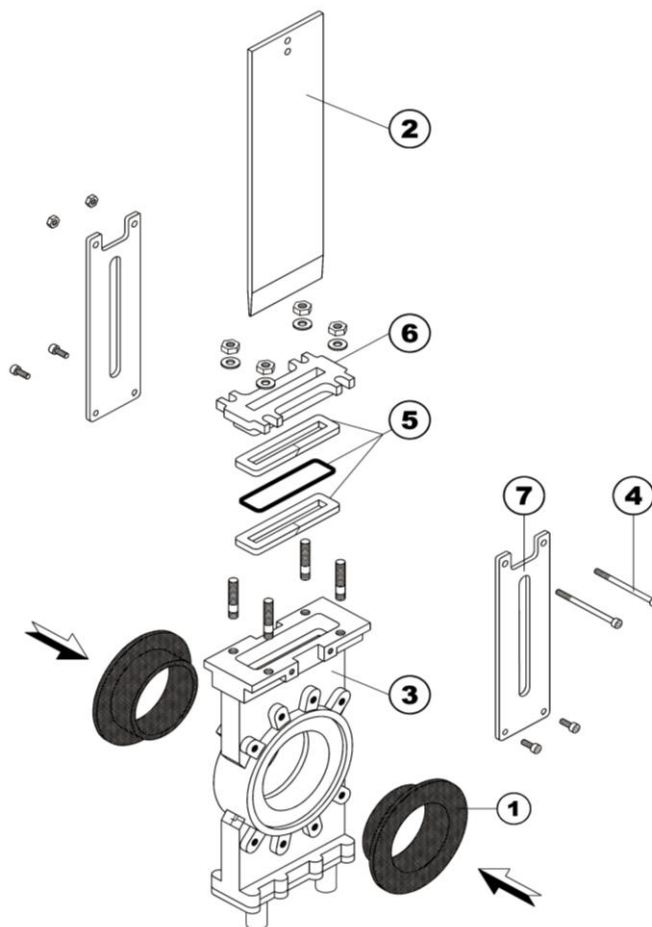
ASSEMBLY CONFIGURATION

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">OPERATION</p>	 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
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">PLATES</p>	 Plates								
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">BODY</p>	 Semi lugged (wafer)								
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">ACCESSORIES</p>	<ul style="list-style-type: none"> <li>- Locking device</li> <li>- Overriding actuator</li> <li>- Mechanical limit switches</li> <li>- Proximity limit switches</li> <li>- Mechanical position indicator</li> <li>- Solenoid valve</li> <li>- Scraper (Bronze /PPS)</li> <li>- Etc.</li> </ul>								

**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	Screws 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 (°C)	Max. temperature (°C)	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 (°C)	Max. temperature (°C)	APPLICATIONS
ARAMIDE	-40	+250	Bulk handling
GRAPHITE	-40	+300	Hydrocarbons, heat resistant and solids

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

## DIMENSIONAL DRAWINGS

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

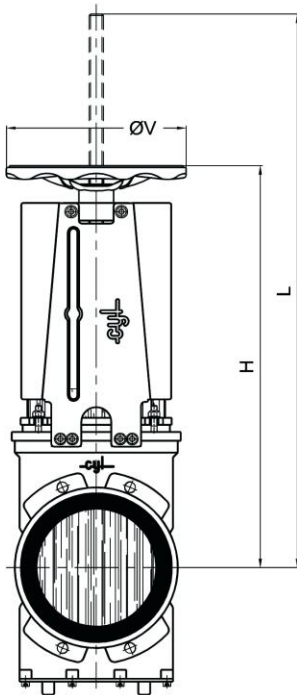


Figure 3. KGV SK series semi lugged rising stem with handwheel & gearbox

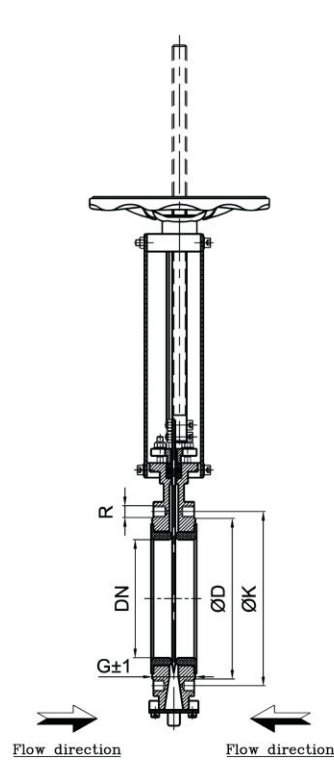
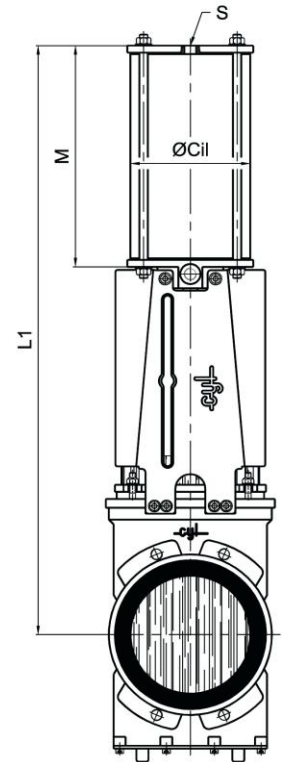


Figure 4. KGV SK series semi lugged with d/a pneumatic actuator

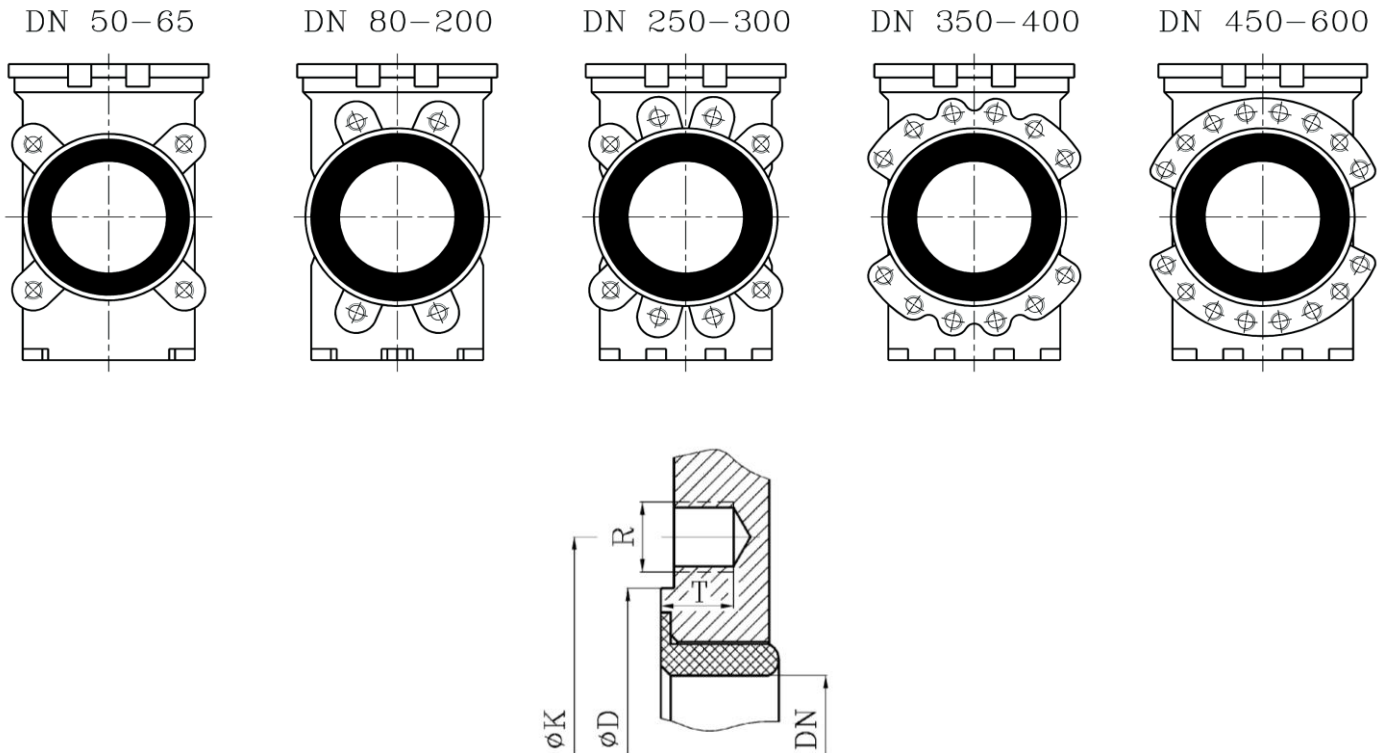


DN	G±1	H	L	L2	H2	Ø V	L1	M	Ø Cil	S	Spindle thread
50	52	352	435	-	-	225	476	177	100	1/4 " G	Tr20x4i
65	52	359	489	-	-	225	484	177	100	1/4 " G	Tr20x4i
80	52	436	518	-	-	225	576	219	125	3/8 " G	Tr20x4i
100	52	427	605	-	-	225	616	239	125	3/8 " G	Tr20x4i
125	58	510	661	-	-	300	719	267	160	3/8 " G	Tr24x5i
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".

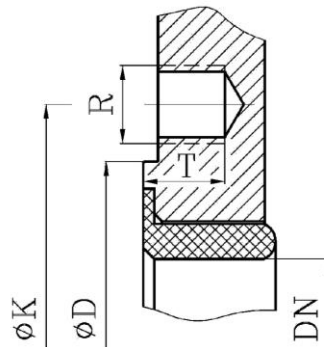
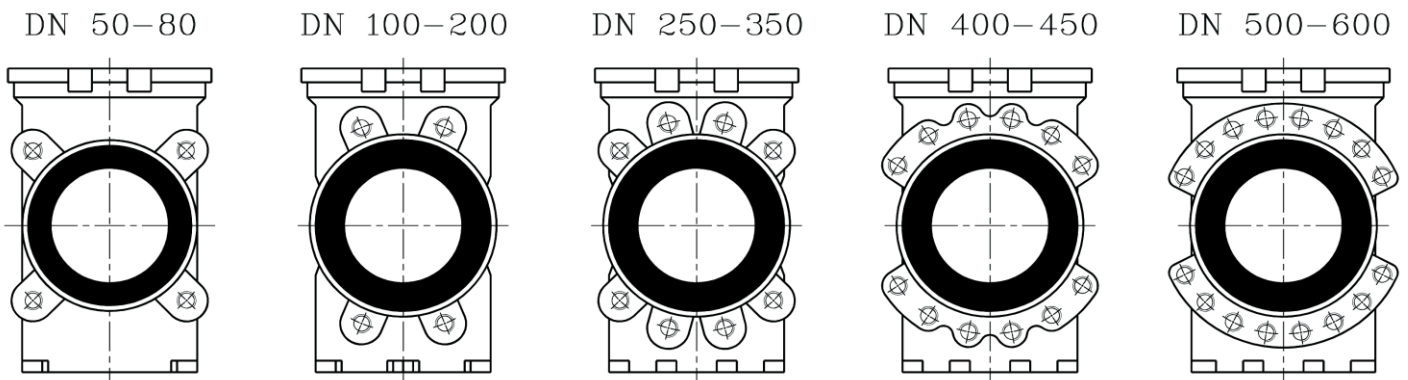
## FLANGE DRILLINGS

FLANGE DRILLING - PN10Bolting 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

**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)- N° of tapped holes    N (2)- N° of through holes    N (3)- N° 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					