

## 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

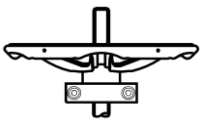
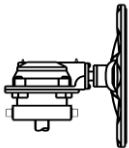
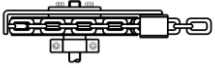
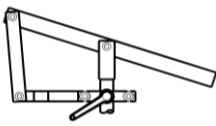
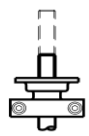
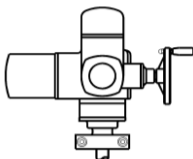
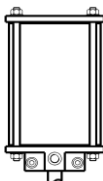
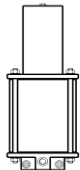

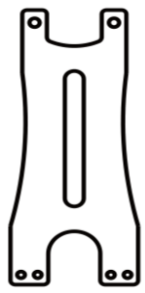
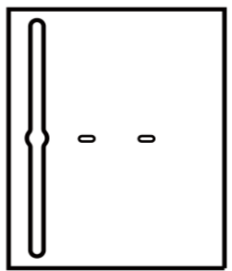
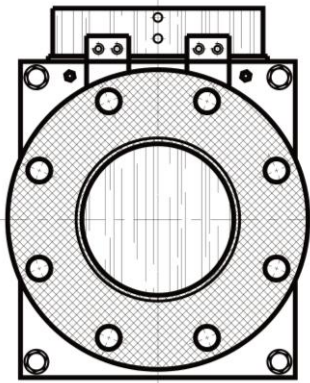
#### APPLICATION FIELDS

- 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<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)

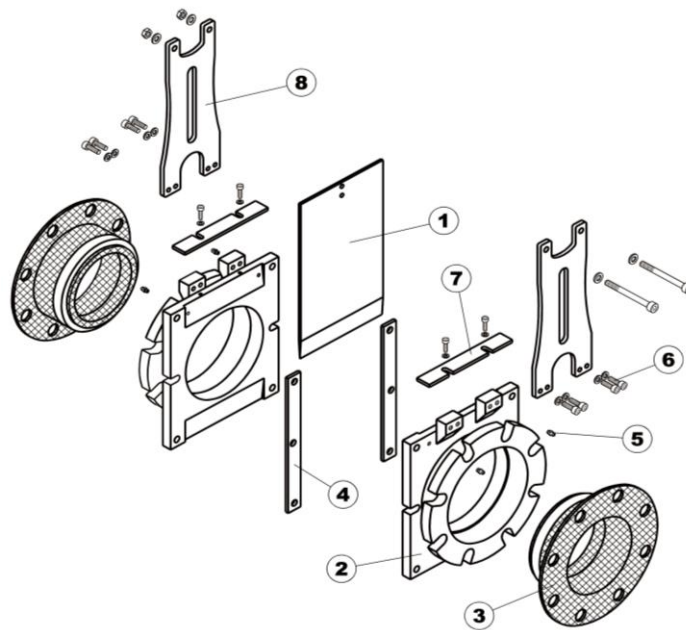
ASSEMBLY CONFIGURATION

<p><b>OPERATION</b></p>	 <p>Rising stem handwheel</p>  <p>Gearbox</p>  <p>Chain Wheel</p>  <p>Quick closing lever</p>  <p>Rising stem coupling A</p>  <p>Electric actuator</p>  <p>Double acting pneumatic actuator</p>  <p>Spring-return pneumatic actuator</p>  <p>Oil hydraulic actuator</p>
<p><b>PLATES</b></p>	 <p>Plates</p>  <p>Hand protections for automated valves</p>
<p><b>BODY</b></p>	 <p>Fully lugged-between flanges</p>
<p><b>ACCESSORIES</b></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>- Etc.</li> </ul>

**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 (°C)	Max. temperature (°C)	APPLICATIONS
NATURAL RUBBER	-10	+70	Tear and abrasion resistant

\*More details and other sealing materials under request.

## DIMENSIONAL DRAWINGS

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

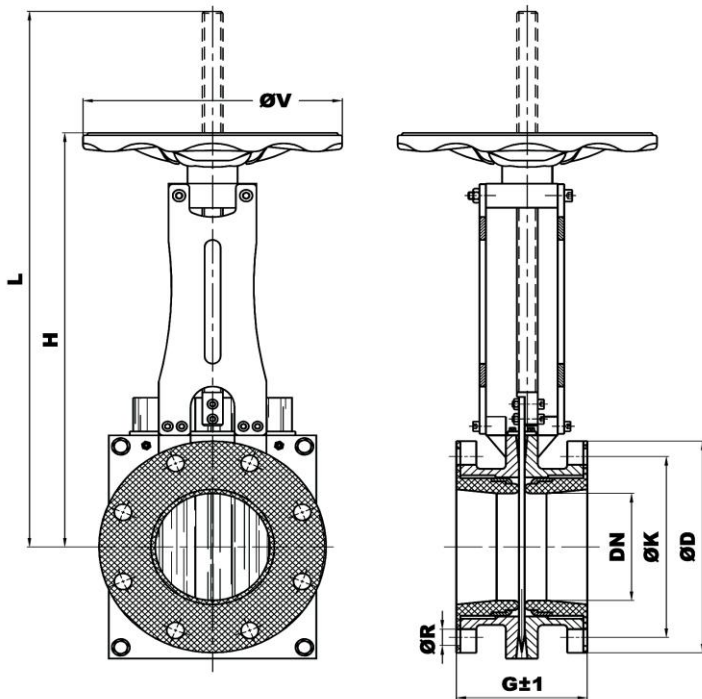


Figure 3. KGV SL series fully lugged rising stem with handwheel & gearbox

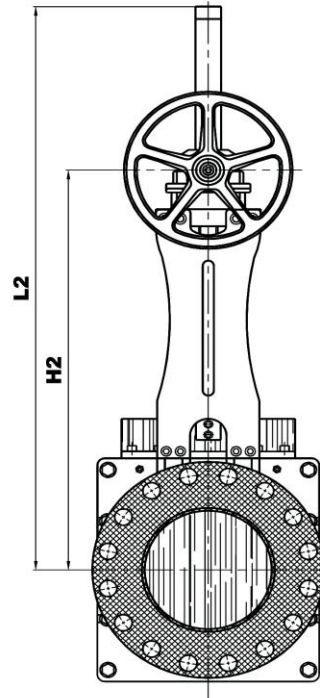
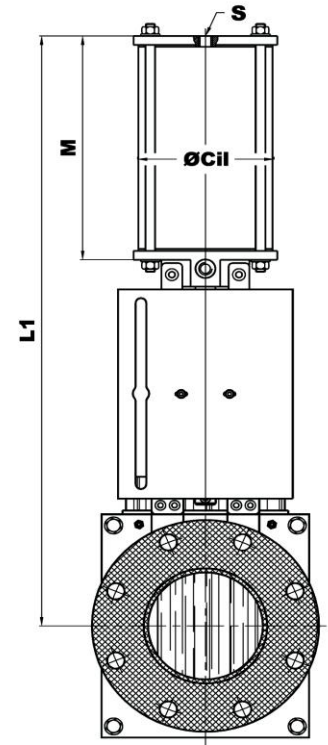


Figure 4. KGV SL series fully lugged with d/a pneumatic actuator

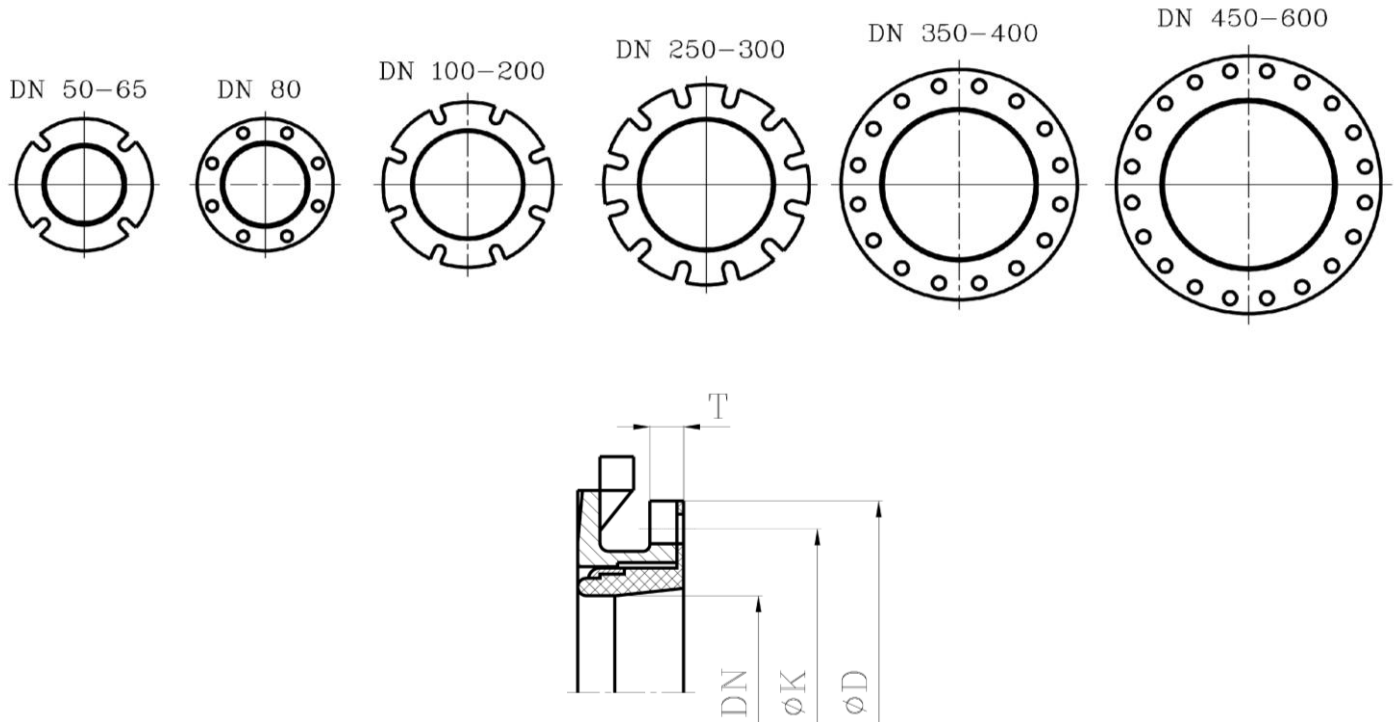


DN	G±1	H	L	ØV	L2	H2	L1	M	Ø Cil	S	Spindle thread
50	129	308	391	225	-	-	433	177	100	1/4 " G	Tr20x4i
65	131	337	440	225	-	-	482	197	100	1/4 " G	Tr20x4i
80	144	362	490	225	-	-	529	219	100	1/4 " G	Tr20x4i
100	146	395	571	225	-	-	588	245	125	3/8 " G	Tr20x4i
125	158	487	688	300	-	-	719	290	160	3/8 " G	Tr24x5i
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".

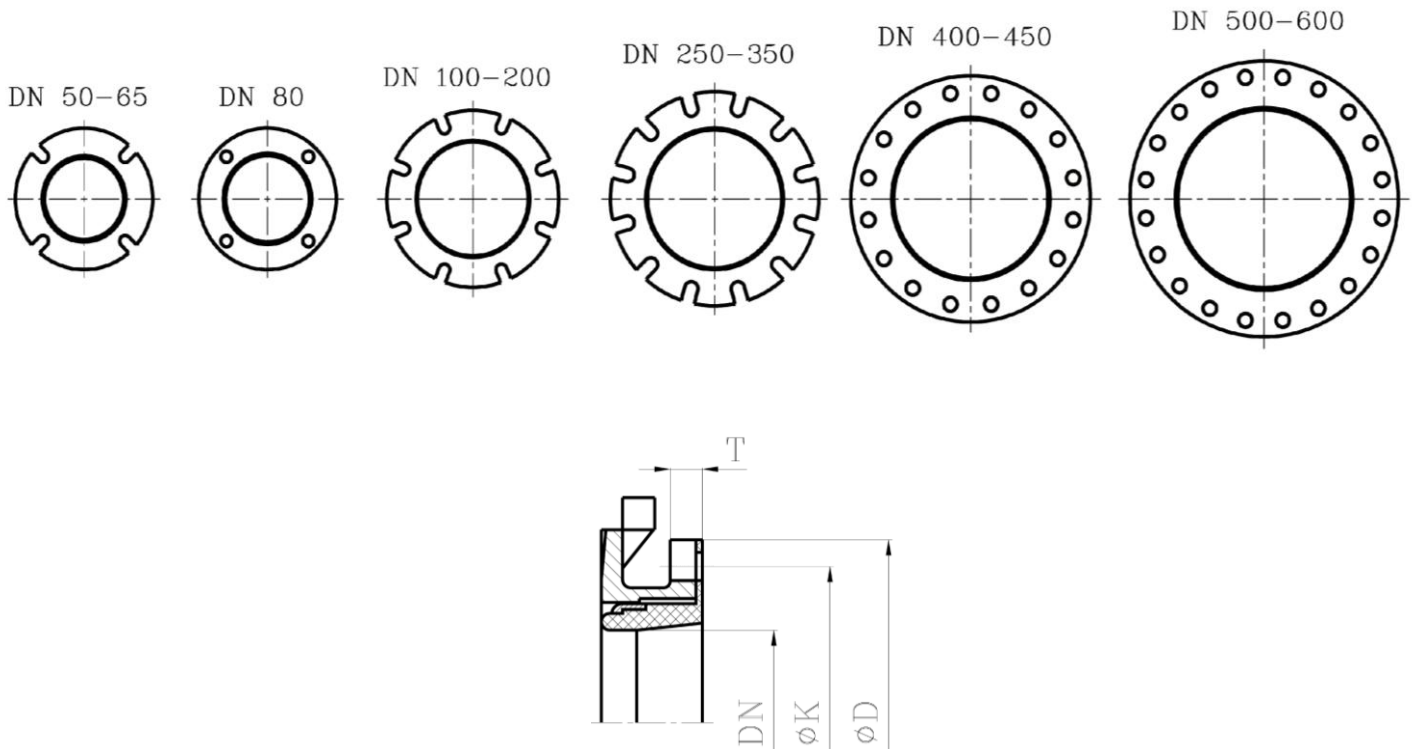
## FLANGE DRILLINGS

**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: N° of through holes

**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: N° of through holes

## 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					