

## 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<sup>2</sup>

DN-350 x DN-350 to DN-600 x DN-600: 2 kg/cm<sup>2</sup>

Note: for higher pressure, please ask factory

- **Coating:**

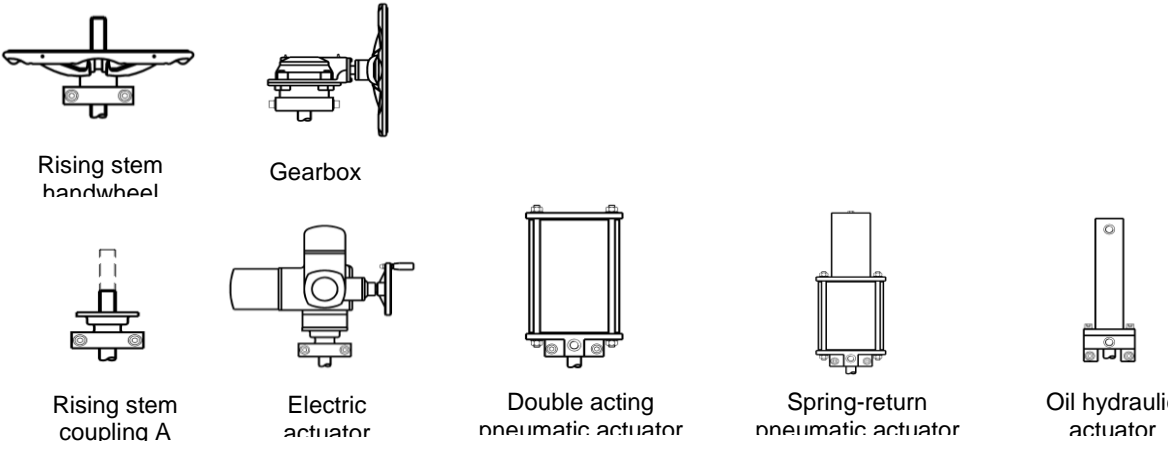
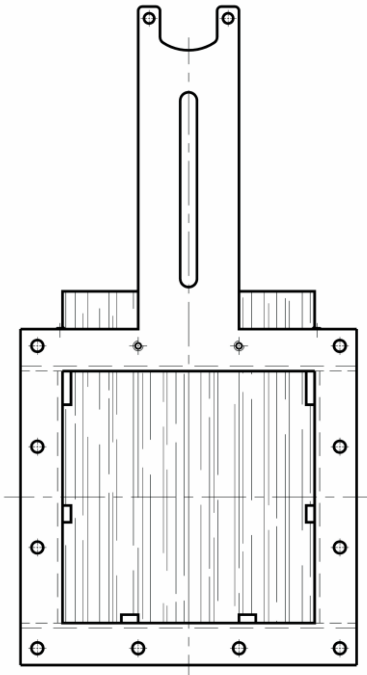
RAL 5017, 150 microns epoxy coated

- **Directives:**

Pressure equipment directive 97/23/CE

DIR 2006/42/CE (MACHINES)

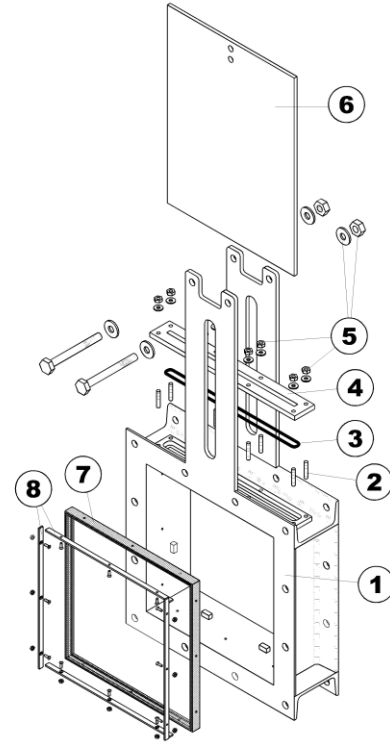
ASSEMBLY CONFIGURATION

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">OPERATION</p>	 <p>Rising stem handwheel</p> <p>Gearbox</p> <p>Rising stem couplina A</p> <p>Electric actuator</p> <p>Double acting pneumatic actuator</p> <p>Spring-return pneumatic actuator</p> <p>Oil hydraulic actuator</p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">BODY AND PLATES</p>	
<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>- Deflector cone (Ni-hard)</li> <li>- Solenoid valve</li> <li>- Etc.</li> </ul>

MATERIAL SPECIFICATION & PART LIST

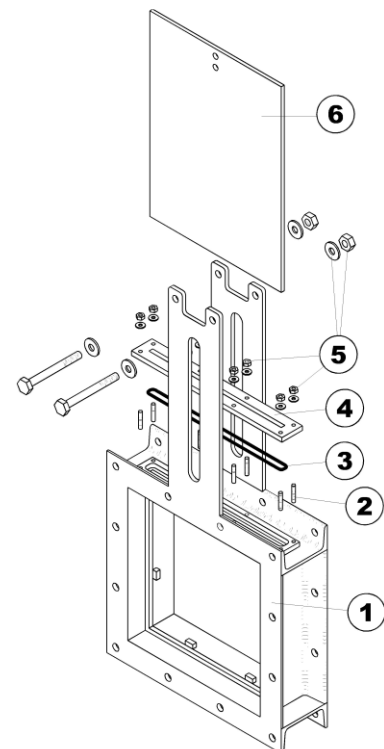
No.	DESCRIPTION	MATERIAL
1	Body	Carbon steel (Standard) AISI 316, AISI 310, DUPLEX2205 (optional)
2	Stud bolts	A4
3	Packing material	PTFE+NBR (standard) PTFE+EPDM, GRAPHITE, ARAMIDE (optional)
4	Packing gland	Carbon steel (standard) AISI 316, AISI 310, DUPLEX2205 (optional)
5	Screws and nuts	A4
6	Gate	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**



## APPLICATION AND TEMPERATURE RANGE

SEAT MATERIALS			
Material	Min. temperature (°C)	Max. temperature (°C)	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 (°C)	Max. temperature (°C)	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.*

DIMENSIONAL DRAWINGS

Figure 3. KGV SCW series rising stem & handwheel

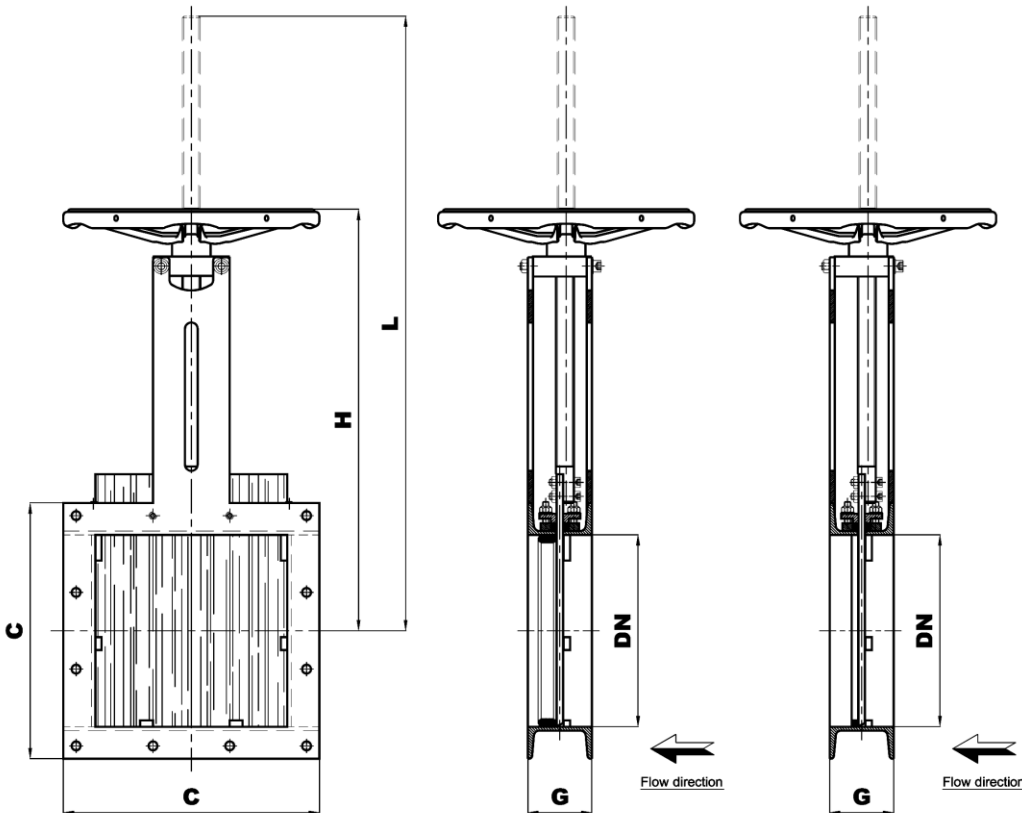
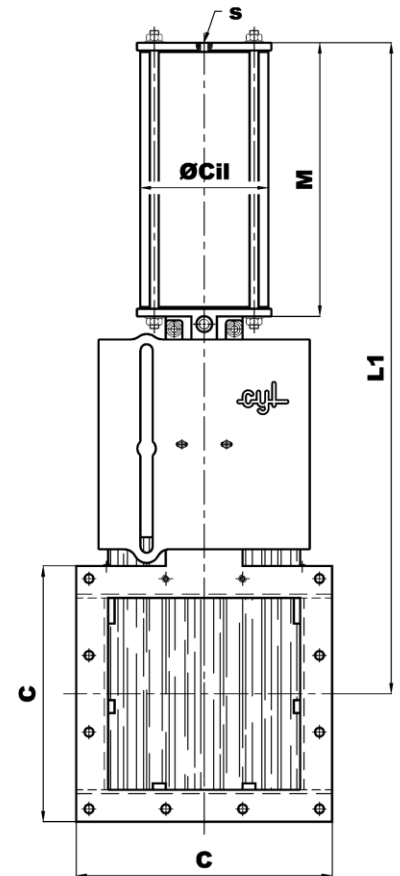


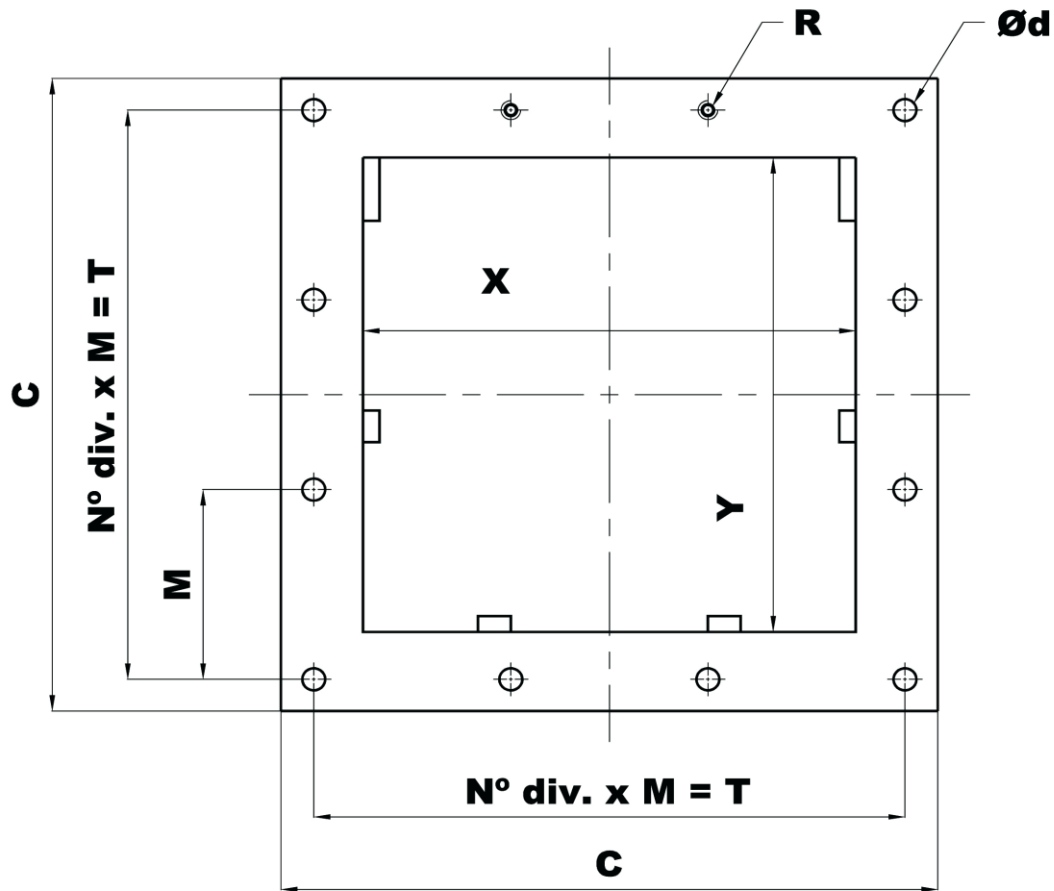
Figure 4. KGV SCW series with double acting pneumatic actuator



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	1/2"G
250 x 250	80	340	808	557	300	874	375	190	1/2"G
300 x 300	100	400	961	659	400	1018	428	190	1/2"G
350 x 350	100	450	1081	729	400	1159	499	250	1/2"G
400 x 400	100	500	1227	825	400	1304	549	250	1/2"G
450 x 450	100	550	1368	860	500	1426	591	250	1/2"G
500 x 500	100	600	1493	985	500	1551	641	250	1/2"G
600 x 600	100	700	1743	1135	500	1783	741	250	1/2"G

Note: for bigger sizes, please ask factory.

FLANGE DRILLING



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

- Threaded holes
- Through holes

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				