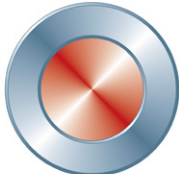
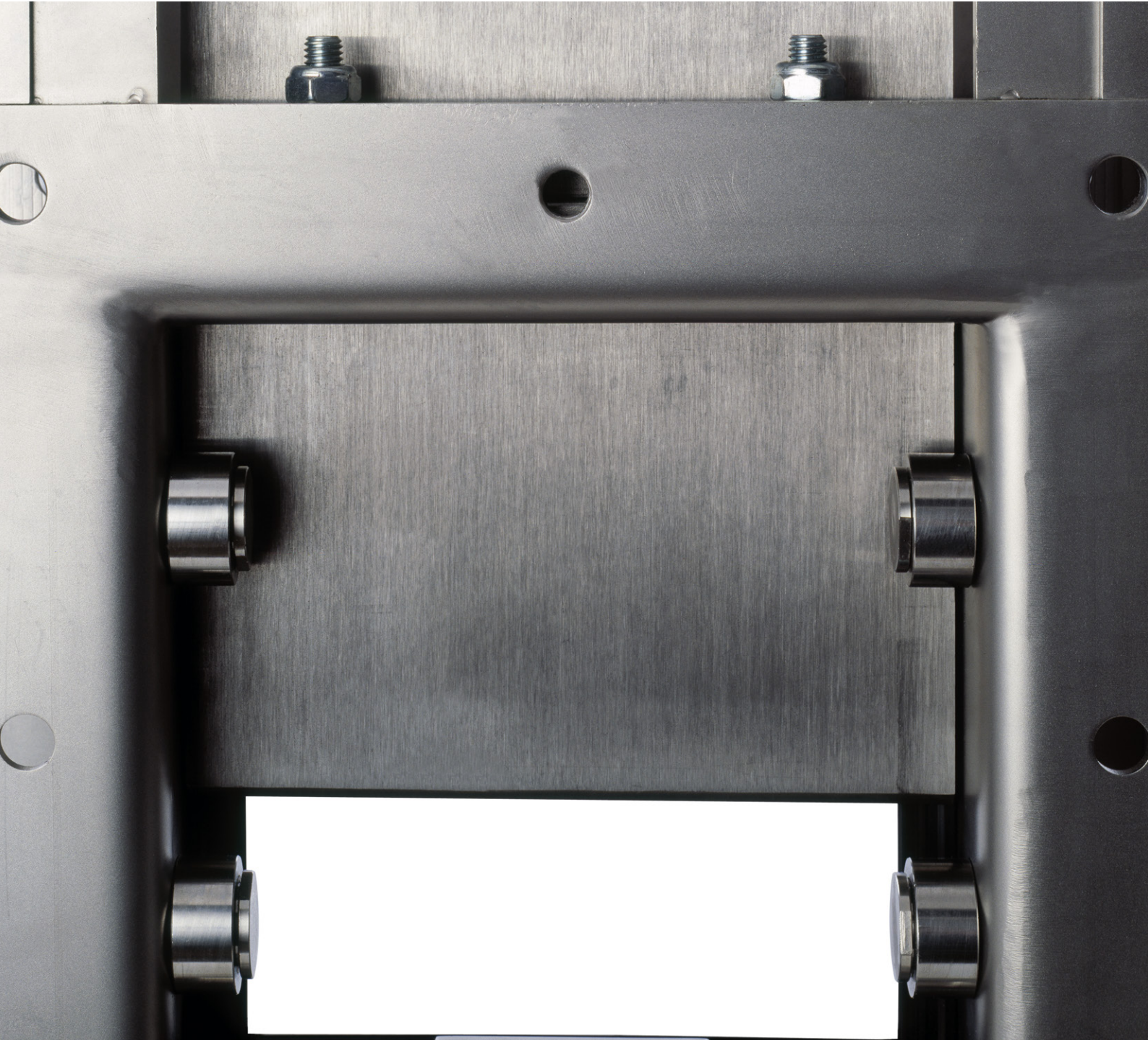


Knife gate valve RKS



Stafsjö
SINCE 1666

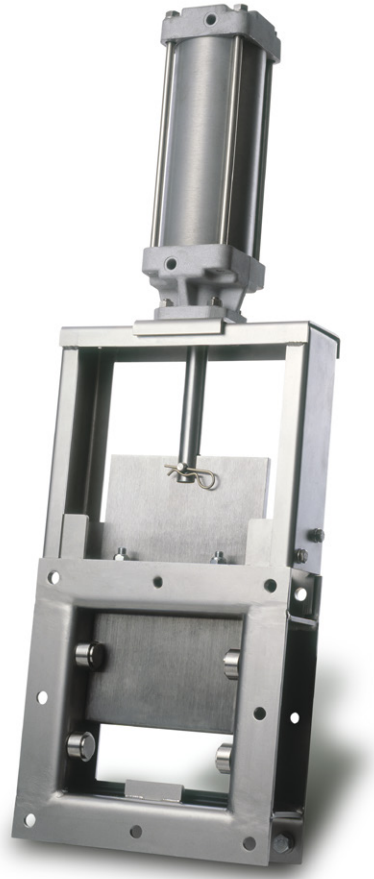
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Knife gate valve RKS

Stafsjö's knife gate valve RKS is an isolating valve designed for low pressure systems in water and waste water applications, but it can also be used in other applications handling sludge, pellets or similar.

The RKS valve is a robust welded construction in stainless steel, available sizes ranges from 200x200 mm up to 1000x1000 mm. It is equipped with a gate in stainless steel and a sealing profile in Nitrile or brass. The glandbox is supplied with Stafsjö's unique gland box packing, TwinPack™, to secure that no media reaches the surrounding environment. The valve is modular designed and it can easily be provided with different actuators and accessories.

RKS is designed and manufactured according to Swedish standards for pressure equipment and pipe systems: TKN 1987 and RN 1978.



Design data

Sizes	Flange drilling	Face-to-face dimension	Leakage rate	Pressure test
200x200 - 1000x1000	Stafsjö manufacturing standard	Stafsjö manufacturing standard	The RKS knife gate valve is drip tight with a soft sealing profile.	Pressure tests are not performed on the body. Seat tightness test is only performed with soft sealing profile.

Other sizes on request

Maximum working pressure body at 20°C		Maximum differential pressure in preferred direction at 20°C	
Sizes	bar	Sizes	bar
200x200 - 1000x1000	3	200x200 - 1000x1000	1

Valve sizes (mm)																			
A1▼ A2▶	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000		
200	x	x	x																
250	x	x	x	x															
300	x	x	x	x	x	x													
350		x	x	x	x	x	x												
400			x	x	x	x	x	x	x										
450			x	x	x	x	x	x	x	x	x	x							
500				x	x	x	x	x	x	x	x	x	x						
600					x	x	x	x	x	x	x	x	x	x	x	x			
700							x	x	x	x	x	x	x	x	x	x	x		
800								x	x	x	x	x	x	x	x	x	x	x	x
1000											x	x	x	x	x	x	x	x	x

A1: Width bore

A2: Hight bore

Basic equipment

A. Valve Body

Material	Code	Name
Stainless steel	(E)	EN 1.4404/AISI 316L/SS 2348

B. Gate

Material	Name
Stainless steel	EN 1.4301/AISI 304/SS 2333

C. Sealing profile

Material	Code	Maximum temperature °C
Brass	(M)	200
Nitrile	(N)	100

D. Box packing

Material	Code	Maximum temperature °C
TwinPack™	(TY)	260

Actuators

Manual		Automatic	
Hand wheel	(HWr)	Pneumatic cylinder	(AC)
Chain wheel	(CWr)	Elektric motor	(EM)

Hand wheel (HWr) with rising stem			Chain wheel (CWr) with rising stem		
Size valve	Size HWr	Stem thread	Size valve	Size CWr	
200 x 200 - 500 x 800	Ø 315	Tr 26 x 5	200 x 200 - 300 x 450	Ø 225	
600 x 400 - 600 x 900	Ø 400	Tr 32 x 6	350 x 250 - 500 x 800	Ø 320	
700 x 500 - 1000 x 1000	Ø 520	Tr 40 x 7	600 x 400 -	Larger on request	

Double-acting pneumatic cylinder (AC)																		
A1 ▼ A2 ▶	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	
200	100	100	100															
250	100	100	100	100														
300	100	100	100	160	160	160												
350		100	160	160	160	160	160											
400			160	160	160	160	160	160	160									
450			160	160	160	160	160	160	160	160	160	160						
500				160	160	160	160	160	160	160	160	200	200					
600					160	160	160	160	200	200	200	200	200	200	200			
700							160	200	200	200	200	200	200	200	250	250	250	
800								200	200	200	200	200	250	250	250	250	250	
1000												250	250	250	250	250	250	

The table above gives recommended cylinder sizes at normal operation with 5 bar air pressure. For other operating conditions, please contact Stafsjö or your local representative for advice.

Electric motor (AUMA multi-turn) (EM)																		
A1 ▼ A2 ▶	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	
200	07.2	07.2	07.2															
250	07.2	07.2	07.2	07.2														
300	07.2	07.2	07.2	07.6	07.6	07.6												
350		07.2	07.6	07.6	07.6	07.6	07.6											
400			07.6	07.6	07.6	07.6	07.6	07.6	07.6									
450			07.6	07.6	07.6	07.6	07.6	07.6	07.6	07.6	07.6	07.6						
500				07.6	07.6	07.6	07.6	07.6	07.6	07.6	07.6	07.6	07.6					
600					10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2			
700							10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	14.2	14.2	14.2	
800								10.2	10.2	10.2	10.2	10.2	14.2	14.2	14.2	14.2	14.2	
1000												14.2	14.2	14.2	14.2	14.2	14.2	

Electric motors are mounted according to standard ISO 5210. The table above gives recommended motor sizes at normal operation. For other operating conditions, please contact Stafsjö or your local representative for advice.

The actuators are described in separate data sheets. For advice and information on other actuators or on ATEX-classified ones, please contact Stafsjö or your local representative.

Options and accessories

Knife gate valve		
Accessories	Model	Design
Mechanical limit switch	Omron D4V	12-250 V AC/12-125 V DC, IP 65
Inductive limit switch	ifm electronic IG0006	2-wire, 20-250 V AC/DC, IP 67
	ifm electronic IG5401	3-wire, 10-36 V DC PNP, IP 67
Stem extension		Pipe length > 0 m

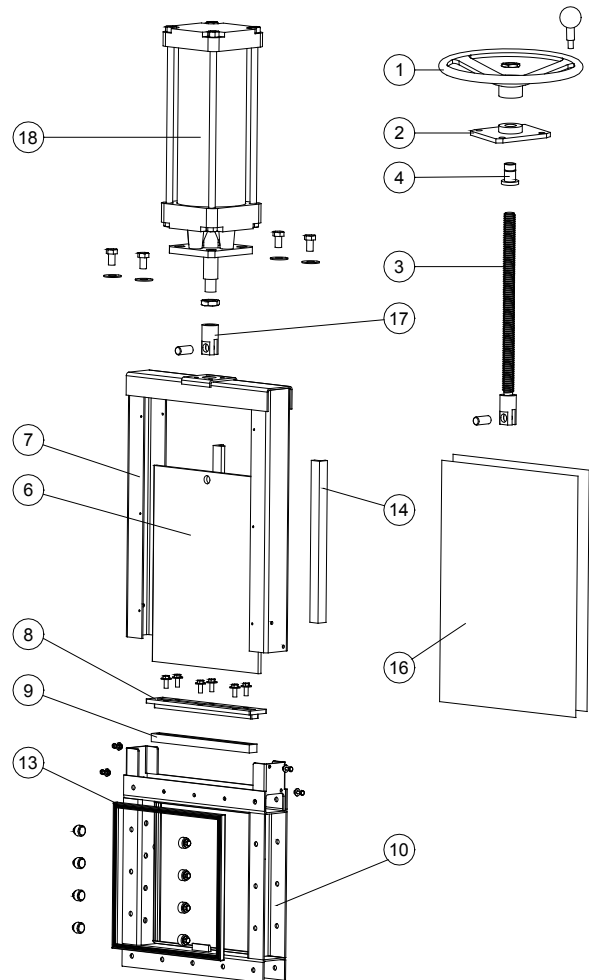
Pneumatic cylinder		
Accessories	Model	Design
Solenoid valve	Metal Work mono stable 5/2 series 70 for AC100 - AC160	G1/4", Mono stable 5/2, 24 V DC/110 V AC/220 V AC 50/60 Hz, IP 65
	Metal Work mono stable 5/2 series 70 for AC200 - AC320	G1/2", Mono stable 5/2, 24 V DC/110 V AC/220 V AC 50/60 Hz, IP 65
Magnetic limit switch	Elobau 102247 & 10224709	2-wire version, 10-250 V AC/DC
	Elobau 102290PE & 102290PE09	3-wire version, 10-30 V DC

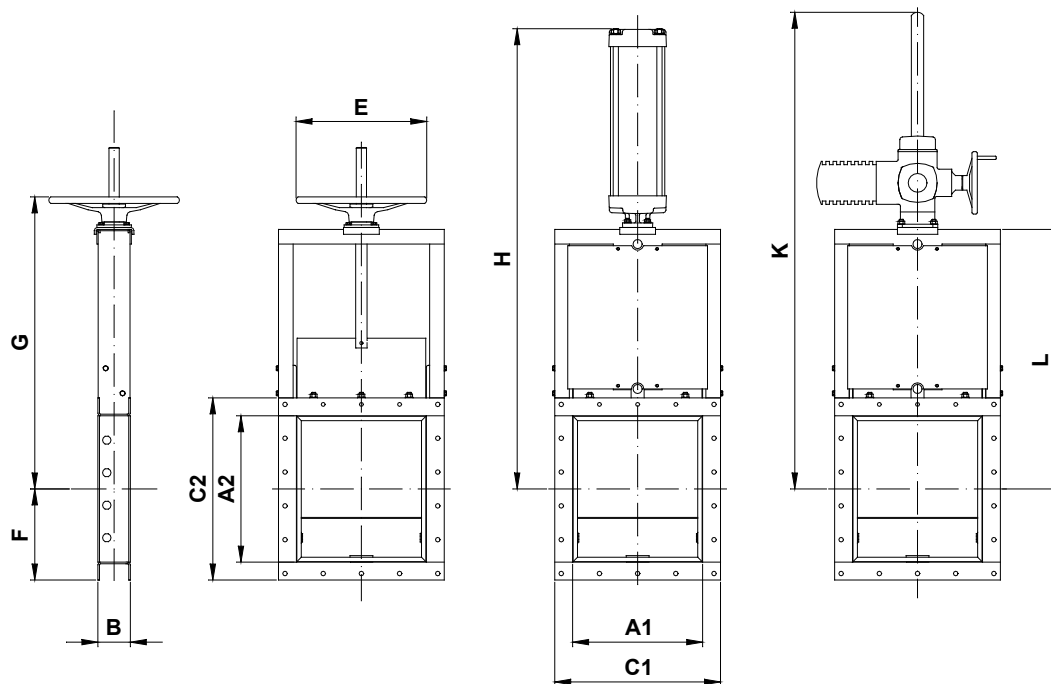
The accessories are described in separate data sheets. For advice and information on other accessories or on ATEX-classified ones, please contact Stafsjö or your local representative.

Part list

Pos	Detail	Material (Type)
1	Hand wheel	Epoxy coated cast iron Ø 200 - Ø 315 (EN-JL1040/GG25), ≥ Ø 400 (EN-JL1030/GG20)
2	Yoke	Epoxy coated steel (EN 1.0045/SS 2172)
3	Stem	Stainless steel (EN 1.4104 /SS 2383)
4	Stem nut	Brass (SS5716-15)
6	Gate	See equipment B
7	Top frame	Aluminium (EN AW-6063-T6)
8	Gland	Stainless steel (EN 1.4301/SS 2333)
9 ¹⁾	Box packning	See equipment D
10	Valve body	See equipment A
13 ¹⁾	Sealing profile	See equipment C
14	Guide strip	HD-polyethylene
16	Gate guard, not for HW	Stainless steel (EN 1.4301/SS 2333)
17	Gate clevis	Stainless steel (EN 1.4305/SS 2346)
18	Cylinder	See data sheet

¹⁾ Recommended spare parts





Main dimensions

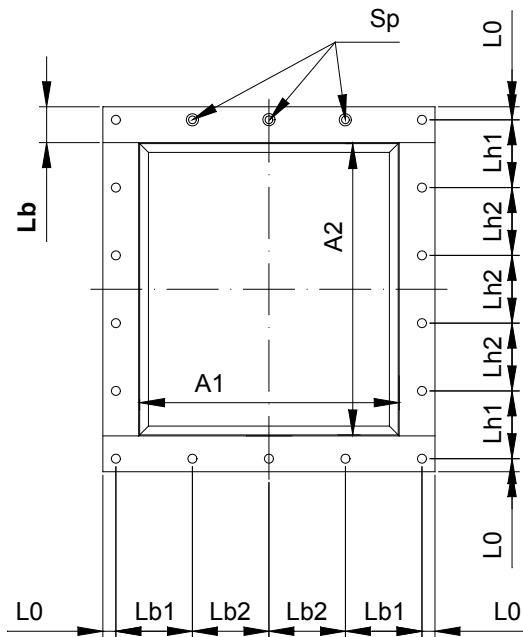
Dimensioner (mm)									
A1xA2 - A1xA2	B	C1	C2	E	F	G	H	K	L
200x200 - 300x450	90								
350x250 - 600x900	100								
700x500 - 1000x1000	140								
200x200 - 500x800		A1 + 110	A2 + 110						
600x400 - 600x900		A1 + 120	A2 + 120						
700x500 - 1000x1000		A1 + 130	A2 + 130						
200x200 - 1000x1000					C2 X 0,5				
200x200 - 500x800				315		F + A2 + 186			
600x400 - 600x900				400		F + A2 + 195			
700x500 - 1000x1000				520		F + A2 + 244			
200x200 - 500x800									F + A2 + 76
600x400 - 600x900									F + A2 + 71
700x500 - 1000x1000									F + A2 + 78
Equiped with AC 100							L + A2 + 164		
Equiped with AC 160							L + A2 + 203		
Equiped with AC 200							L + A2 + 249		
Equiped with AC 250							L + A2 + 356		
Equiped with AUMA 07.2								L + A2 + 100	
Equiped with AUMA 07.6								L + A2 + 100	
Equiped with AUMA 10.2 600x400 - 600x900								L + A2 + 111	
Equiped with AUMA 10.2 700x500 -								L + A2 + 143	
Equiped with AUMA 14.2								L + A2 + 143	

Main dimensions are only for information. Contact Stafsjö for certified drawings.

Flange drilling

See page 2 for available sizes and combinations.

- A1: **Width bore**
 - A2: **Hight bore**
 - L0: **20 mm**
 - Lb1/Lh1: **The distance between the corner hole and the adjacent hole.**
 - Lb2/Lh2: **The distance between the remaining holes, no matter number of holes.**
 - Sp: **Bolt size on the A1 top side**
 - Sdf: **Diameter of through going holes**
- No. of threaded holes = No. of holes per side minus 2 holes**



Lb = 55 mm					
A1	Lb1	Lb2	A2	Lh1	Lh2
200	135	135	200	135	135
250	107	106	250	107	106
300	124	122	300	124	122
350	105	105	350	105	105
400	117,5	117,5	400	117,5	117,5
450	104	104	450	104	104
500	114	114	500	114	114
			550	104	103
			600	113	111
			650	120	120
			700	110	110
			750	117,5	117
			800	111	108

Lb = 60 mm					
A1	Lb1	Lb2	A2	Lh1	Lh2
600	114	113	400	120	120
			450	106	106
			500	116	116
			550	105	105
			600	114	113
			650	122	121,5
			700	112,5	111
			750	120	118
			800	110	110
			850	117	116
			900	112	108

Holes			
A1 and A2	No. of holes per side	Sp	Sdf (mm)
200	3	M12	14
250	4	M12	14
300	4	M12	14
350	5	M12	14
400	5	M12	14
450	6	M12	14
500	6	M12	14
600	7	M12	14
700	8	M16	18
800	9	M16	18
1000	10	M16	18

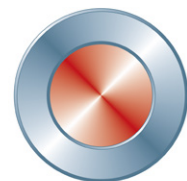
Lb = 65 mm					
A1	Lb1	Lb2	A2	Lh1	Lh2
700	112,5	113	500	118	118
800	112	111	550	108	106
1000	121,5	121	600	115	115
			650	124	123
			700	112,5	113
			750	120	120
			800	112	111
			850	117,5	117,5
			900	110	110
			950	117,5	115
			1000	121,5	121

Further information is available on www.stafsjo.com



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