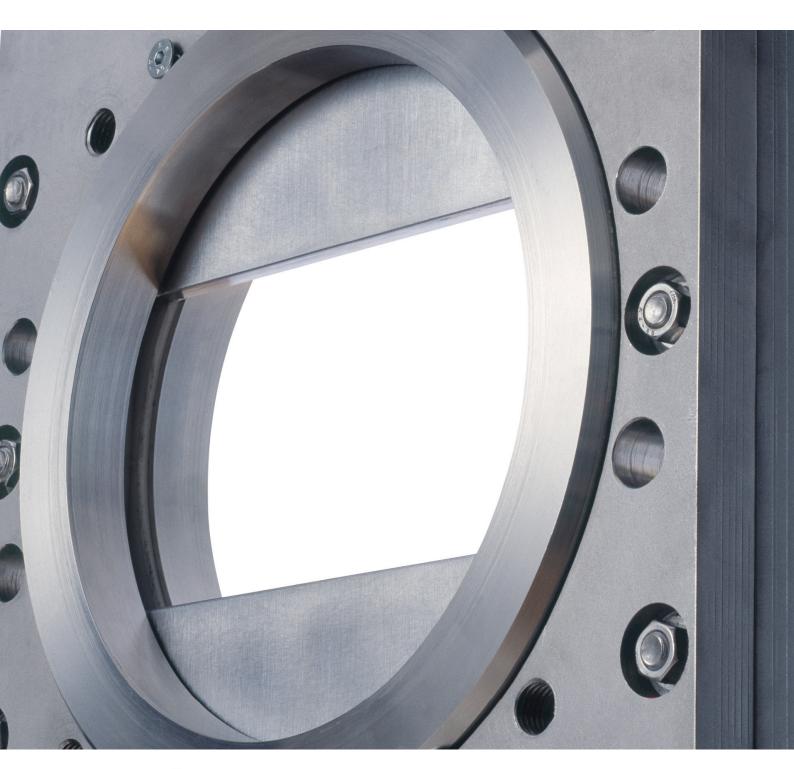
Knife gate valve D2G







Knife gate valve D2G

Stafsjö's knife gate valve D2G is a bi-directional tight valve with full bore. The valve is equipped with two hard chromed gates that works towards each other in the bore, which gives an extremely fast operation. This shut-off performance along with its flow characteristics makes it suitable for contaminated media or reject handling. The valve should be mounted only in a vertical pipe line.

D2G has a valve body in stainless steel with unique gliding supports located between the gate and valve body in order to minimize the friction. The gate is always supplied in hard chromed stainless steel for increased wear resistance and extended service life. The valve comes with the retainer ring system on both sides of the gate, which makes it independent of pressure direction and very easy to maintain. The gland boxes are equipped with Stafsjö's box packing TwinPack™, to secure that no media reaches surrounding environment.

The top work consists of aluminium beams and stainless steel tie rods, which gives good corrosion resistance and a stable operation. The D2G valve comes with two double-acting pneumatic cylinders and quick exhaust valves as standard. Several accessories such as limit switches are available in our standard collection.

The D2G valve is designed, manufactured, inspected and tested according to the European Pressure Equipment Directive (PED 97/23/EC) category I and II module A1. The valve is CE marked when it is applicable.





Reliable shut-off and bi-directional sealing

The retainer ring system on both sides of the gate makes it independent of flow direction. The double gate design assures a reliable shut-off of concentrated and static media.



Design to speed up the manouvering time

Two gates and two double-acting pneumatic cylinders with quick exhaust valves, which enables the air to be exhausted very quickly, makes the valve extremely fast to open and close.



Modular designed with a solid top works

A solid top top works assures gate alignment during operation and the unique gliding supports in the valve body lowers the operation force. A modular design makes it easy to customize and to maintain the valve.

Design data

Sizes	Flange drilling	Face-to-face dimension	Pressure tests	
DN 100 - DN 700	EN 1092 PN 10 JIS B 2238 10K ASME/ANSI B16.5 and B16.47 Class 150, series A	Stafsjö manufacturing standard	Pressure tests are performed with water at 20° C according to EN 12266-1:2012. Pressure for shell test: 1,5 times maximum allowable working pressure for open valve. Seat tightness test is not performed due to the two piece gate construction.	
Maximum working pressure body at 20°C		Maximum differential pressure at 20°C		
DN	bar		bar	
100 - 400	10	100 - 400	6	
450 - 700 6		450 - 700	4	

Basic equipment

A. Valve Body			
Material	Code	Туре	Maximum temperature °C
Stainless steel	(E)	EN 1.4408	400
B. Gates			
Material	Туре		Surface treatment
Stainless steel	EN 1.4404/AISI 316L/SS	S 2348	Hard chromed
C. Retainer rings			
Material	Туре		
Stainless steel	EN 1.4408		
D. Seats			
Material	Code	Maximum temperature °C	
PTFE with o-ring Nitril	(P)	100	
PTFE with o-ring Viton	(PV)	180	
E. Box packings			
Material	Code	Maximum temperature °C	
TwinPack™	(TY)	260	

Actuators

Double-act	Double-acting pneumatic cylinder						
DN valve	Size AC	Maximum Force (kN)	Each D2G is equipped with two double-acting pneumatic cylinders (AC) and these are equip-				
100 - 125	AC100	3,5	ped with quick exhaust valves as standard. The table on the left gives recommended cylin- sizes at normal operation with 5 bar air pressure. For other operating conditions, please				
150 - 200	AC160	9,0	contact Stafsjö or your local representative for advice.				
250 - 350	AC200	14,1	The actuators are described in detail in separate data sheets. For actuators classified				
400 - 600	AC250	22,1	according to ATEX, please contact Stafsjö or your local representative.				
700	AC320	36,2					

Options and accessories

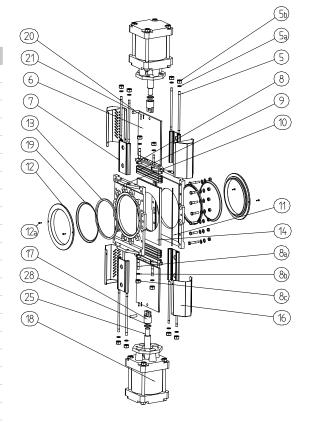
Knife gate valve			
Accessories	Code	Model	Design
Mechanical limit switch	(MLS)	Omron D4V	12-250 V AC/12-125 V DC, IP 65
Inductive limit switch	(ILS)	ifm electronic IG0006	2-wire, 20-250 V AC/DC, IP 67
		ifm electronic IG5401	3-wire, 10-36 V DC PNP, IP 67

Pneumatic cylinder				
Accessories	Code	Model	Design	
Quick exhaust valves	(QEV)	Delivered as standard	1/"4 and 1/2"	
Solenoid valve	(SV)	Metal Work series 70 for AC 100 - AC 160	G1/4", Mono stable 5/2, 24 V DC/110 V AC/220 V AC 50/60 Hz, IP 65	
		Metal Work series 70 for AC 200 - AC 320	G1/2, Mono stable 5/2, 24 V DC/110 V AC/220 V AC 50/60 Hz, IP 65	
Magnetic limit switch	(MagLS)	Elobau 102247 & 10224709 for AC 100 - AC 320	2-wire, 10-250 V AC/DC, IP 65	
		Elobau 102290PE & 102290PE09 for AC 100 - AC 320	3-wire, 10-30 V DC, IP 65	

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.

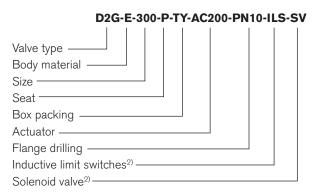
Part list

Pos	Detail	Material (Type)
5	Tie rod	Stainless steel (EN 1.4301/SS 2333)
5a	Washer	Stainless steel (A2), zinc coated
5b	Nut	Stainless steel (A2), zinc coated
6	Gate	See equipment B
7	Beam	Aluminium (EN AW-6063-T6)
8	Gland	Stainless steel (1.4408)
8a	Stud bolt	Stainless steel (A2), zinc coated
8b	Washer	Stainless steel (A2), zinc coated
8c	Nut	Stainless steel (A2), zinc coated
9 ¹⁾	Box packing	See equipment E
10	Valve body	See equipment A
11	Body gasket	PTFE
12	Retainer ring	See equipment C
12a	Locking screw	Stainless steel (A2)
13 ¹⁾	Seat	See equipment D
141)	Gliding support set	POM-C
16	Gate guard	Stainless steel (EN 1.4301/SS 2333)
17	Gate clevis	Stainless steel (EN 1.4305/SS 2346)
18	Cylinder	See data sheet
19	O-ring	See equipment D
20	Clevis pin	Stainless steel (EN 1.4305/SS 2346)
21	Split pin	Stainless steel (EN 1.4436/SS 2343)
25	Piston rod	Stainless steel (EN 1.4305/SS 2346)
28	Locking nut	Stainless steel (EN 1.4305/SS 2346)



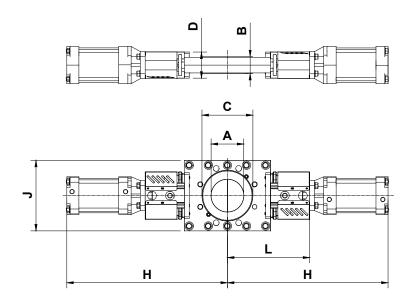
Specify the Stafsjö valve

Stafsjö's valves are modular designed and they can easily be customized with gates, seats and box packings according to media and requirements, as well for actuators and accessories. To the right is an example of how you can specify your Stafsjö valve. Further information is available on www.stafsjo.com.



¹⁾ Recommended spare parts

²⁾ All electronics must be specified in detail.



Main dimensions

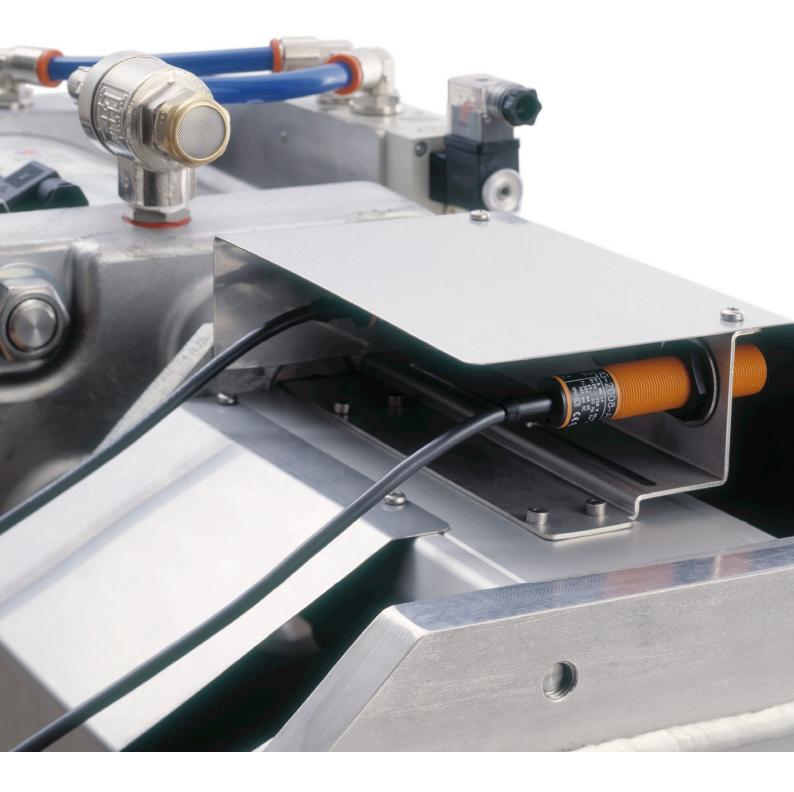
Dimensions	(mm)						
DN	А	В	С	D	Н	J	L
100	100	52	153	80	472	208	266
125	125	56	187	80	509	241	291
150	150	56	212	80	587	266	319
200	200	60	268	145	705	333	411
250	250	68	322	145	829	389	468
300	300	78	372	145	918	451	532
350	350	78	415	178	1025	505	609
400	400	89	481	178	1219	571	666
450	450	89	531	200	1302	623	724
500	500	114	586	260	1465	679	801
600	600	114	685	260	1577	790	924
700	700	128	800	320	1716	906	1023

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

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Further information is available on www.stafsjo.com



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