

## D2G

EN 1092 PN 10 • ANSI B16.5 Class 150 • ANSI B16.47 Class 150 • JIS B 2238 10K

Stafsjö's knife gate valve D2G is a bi-directional valve with full bore. It's designed for special applications requiring extremely fast manoeuvring. The valve is suitable for contaminated media or reject handling and it should be mounted only in a vertical flow direction.

The valve is designed of a two piece valve body in stainless steel. It's equipped with two hard chromed gates working towards each other in the bore for fast opening/closure. Unique sliding faces are positioned between the gate and housing halves in order to minimise friction and prevent clogging of the valve. Removable retainer rings simplifies maintenance and changing of the seats. Stafsjö's unique box packing, TwinPack™, gives a tight sealing and assures high operation reliability.

D2G can be equipped with different accessories, such as solenoid valve and limit switches. The valve is equipped with a pneumatic cylinders as standard.

Stafsjö's knife gate valve D2G is designed, manufactured, inspected and tested according to the European directive Pressure Equipment Directive (PED 97/23/EC) category II module A1. The valve is therefore CE-marked.



## Design data

Sizes	Flange drilling	Face-to-face dimension	Pressure tests
DN 100 - DN 700	EN 1092 PN 10 JIS B 2238 10K ANSI B16.5 Class 150 ANSI B16.47 Class 150	Stafsjö manufacturing standard	Pressure tests are performed with water at 20° C according to EN 12266-1:2003. 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	DN	bar
100 - 400	10	100 - 400	6
450 - 700	6	450 - 700	4

## Basic equipment

A. Valve Body		
Material	Type	Maximum temperature °C
Stainless steel (E)	1.4408	300
B. Gates		
Material	Type	Surface treatment
Stainless steel	SS2347/316	Hard chrome
C. Retainer rings		
Material	Type	
Stainless steel	1.4408	
D. Seats		
Material	Maximum temperature °C	
PTFE with o-ring nitril (P)	100	
PTFE with o-ring viton (PV)	180	
E. Box packings		
Material	pH	Maximum temperature °C
TwinPack™ (TY)	2-13	260

## Actuators

Pneumatic cylinder		
DN valve	Size AC	Maximum Force (kN)
100 - 125	100	3,5
150 - 200	160	9.0
250 - 350	200	14.1
400 - 600	250	22.1
700	320	36,2

Each D2G knife gate valve is equipped with two pneumatic cylinders (AC) and these are equipped with quick exhaust valves for fast opening/closing action.

The table on the left 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.

The actuators are described in detail in separate data sheets. For actuators classified according to ATEX, please contact Stafsjö or your local representative.

## Accessories

Knife gate valve		
Accessories	Model	Design
<b>Mechanical limit switch</b>	Ersce E100-00-11	AC15 6A/230 V
<b>Inductive limit switch</b>	ifm electronic IG-2008-ABOA/IG0006	2-wire, 20-250 V AC/DC
	ifm electronic IG-3008-BPKG/IG5401	3-wire, 10-36 V DC PNP

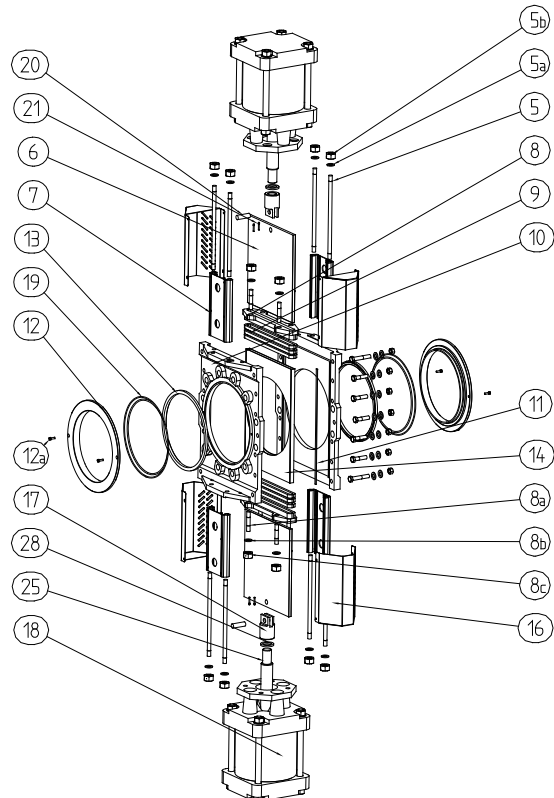
Pneumatic cylinder		
Accessories	Model	Design
<b>Quick exhaust valves</b>	Delivered as standard with the pneumatic cylinders	1/2" & 1/4"
<b>Solenoid valve</b>	Metal Work mono stable 5/2, series 70	1/4"
	Metal Work mono stable 5/2, series 70	1/2"
<b>Magnetic limit switch</b>	Elobau 102247 & 10224709	2-wire, 10-250 V AC/DC
	Elobau 102290PE & 102290PE09	3-wire, 10-30 V DC

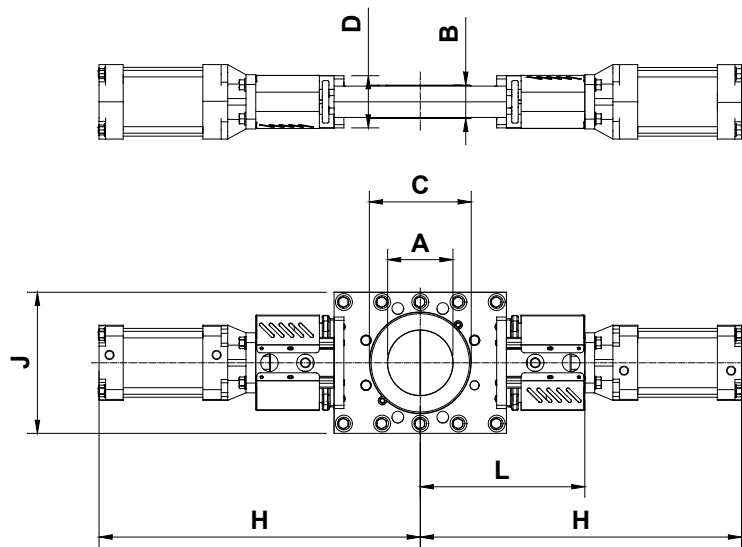
The accessories are described in detail in separate data sheets. For accessories classified according to ATEX, please contact Stafsjö or your local representative.

## Part list

Pos	Detail	Material (Type)
5	Tie rod	Stainless steel (SS2333-02)
5a	Washer	Stainless steel (A2) + zinc
5b	Nut	Stainless steel (A2) + zinc
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
8b	Washer	Stainless steel (A2) + zinc
8c	Nut	Stainless steel (A2) + zinc
9	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	Seat*	See equipment D
14	Gliding support set	POM-C
16	Gate guard	Stainless steel (SS2333-02)
17	Gate clevis	Stainless steel (SS2346-02)
18	Cylinder	See data sheet
19	O-ring	See equipment D
20	Clevis pin	Stainless steel (SS2346-02)
21	Split pin	Stainless steel (SS2343-02)
25	Piston rod	Stainless steel (SS2383-02)
28	Locking nut	Stainless steel (SS 2346-02)

\* Recommended spare parts





## Main dimensions

Dimensions (mm)								
DN	A	B	C	D	H	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	1404	679	801	
600	600	114	685	260	1577	790	924	
700	700	128	800	320	1716	906	1023	

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