

Knife gate valve

The Stafsjö TV knife gate valve is used as an isolation valve for a transmitter or sensor on a tank for which a short face-to-face length is required. Due to the unique flange drilling and actuator, the TV can be mounted directly on the tank and the transmitter can be dismantled without draining the tank. The ratchet wrench allows for quick operation of the valve, in spite of the wall mounting.

The TV is designed of a one piece valve body in stainless steel and a stainless steel gate. The unique Stafsjö box packing TwinPack™ gives high operation reliability.

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



Knife gate valve

Design data

Maximum working pressure body at 20°C

DN	bar
80	16

Maximum differential pressure at 20°C

DN	bar
80	3,5

Basic equipment

A. Valve body

		Material	Maximum temp. °C
Stainless steel	E	W1.4408	300

B. Gate

	Body	Material
Stainless steel	E	SS2347

C. Retainer ring

	Body	Material	Seat
Stainless steel	E	SS2343	E/N/V/P/PV

D. Seat

		Maximum temp. °C	Not recommended
EPDM	E	120	Oil, grease
Nitrile	N	100	
Viton	V	180	
PTFE with o-ring nitrile	P	100	
PTFE with o-ring viton	PV	180	

E. Box packing

		pH	Maximum temp. °C
TwinPack™	TY	1-13	260
PTFE	TF	0-14	280

F. Flange drilling

EN 1092 PN 10 / Stafsjö standard TV – see p. 4
ANSI B16.5 Class 150 / Stafsjö standard TV – see p. 4
ANSI B16.5 Class 150 / ANSI B16.5 Class 150 – see p. 4

G. Face-to-face dimensions

Stafsjö standard – see table p. 4
TAPPI TIS 405-8, MSS SP-81

Actuator

Manual

Ratchet wrench	RW
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Accessories

Limit switches

Mechanical	Ersce E100	
Inductive	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

Flange / Adapter flange

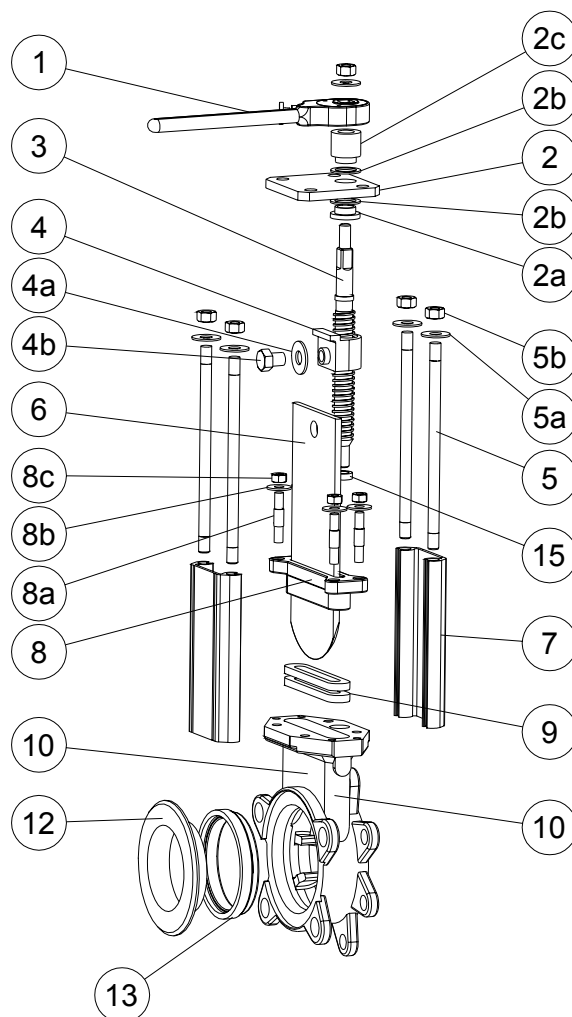
Flange	Stafsjö standard TV
Adapter flange	Stafsjö standard TV / EN 1092 PN 10
Adapter flange	Stafsjö standard TV / ANSI B16.5 Class 150

Purge port

The TV knife gate valve can be equipped with purge ports on order.

For advice regarding accessories, please contact Stafsjö or your local representative.

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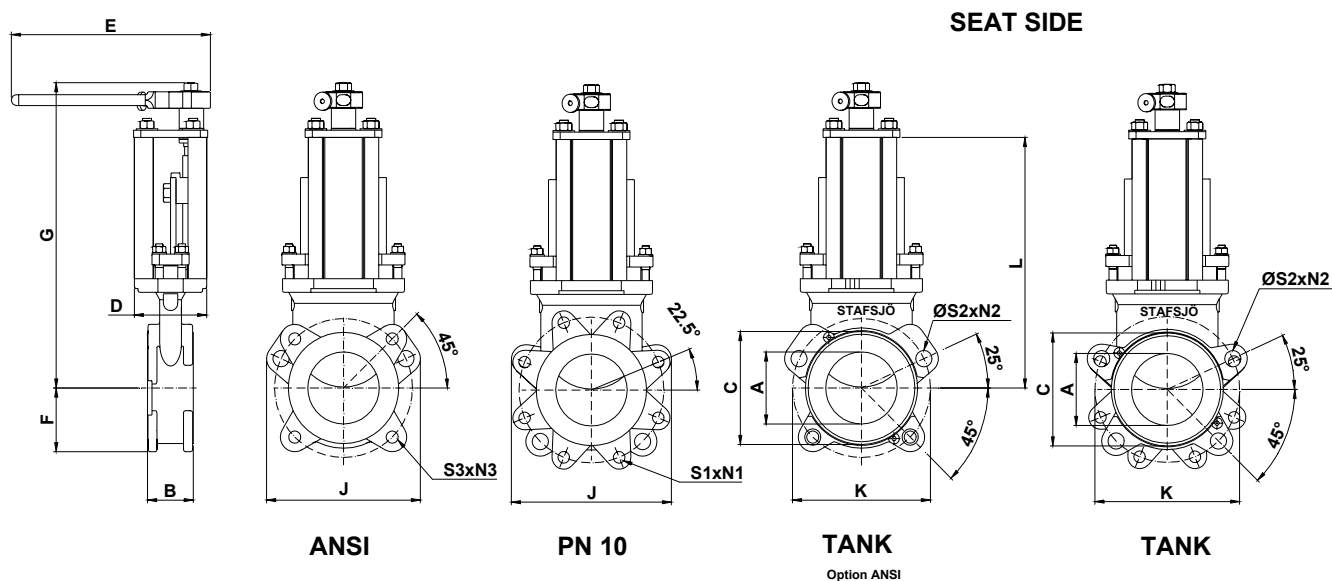


Pos	Part	Material
1	Ratchet wrench	Stainless steel SS2343
2	Yoke	Stainless steel SS2333-02
2a	Bearing	Brass SS5170-00
2b	Bearing washer	POM
2c	Bearing	Brass SS5170-00
3	Stem	Stainless steel SS2320-02
4	Stem nut	Brass SS5170-00
4a	Washer	A2
4b	Screw	A2
5	Tie rod	Stainless steel SS 2333-02
5a	Washer	A2
5b	Nut	A2

Pos	Part	Material
6	Gate	See equipment B
7	Beam	Aluminium EN AW-6063-T6
8	Gland	Stainless steel SS2343-12
8a	Stud bolt	A2 + zinc
8b	Washer	A2
8c	Nut	A2 + zinc
9	Box packing*	See equipment E
10	Valve body	See equipment A
12	Retainer ring	See equipment C
13	Seat*	See equipment D
15	Bushing	Oil-bronze

* Recommended spare parts

Knife gate valve



Dimensions (mm)

	A	B	C	D	E	F	G	J	K	L	PN 10		TANK		ANSI	
											S1	N1	φS2	N2	S3	N3
PN 10	79	51	124	80	220	88	335	177	160	275	M16	8	18	4	-	-
ANSI Class 150	79	51	124	80	220	70	335	170	152,4	275	-	-	18	4	5/8-11 UNC	4

Weight, valve incl. ratchet wrench (RW)

DN	80
kg	8

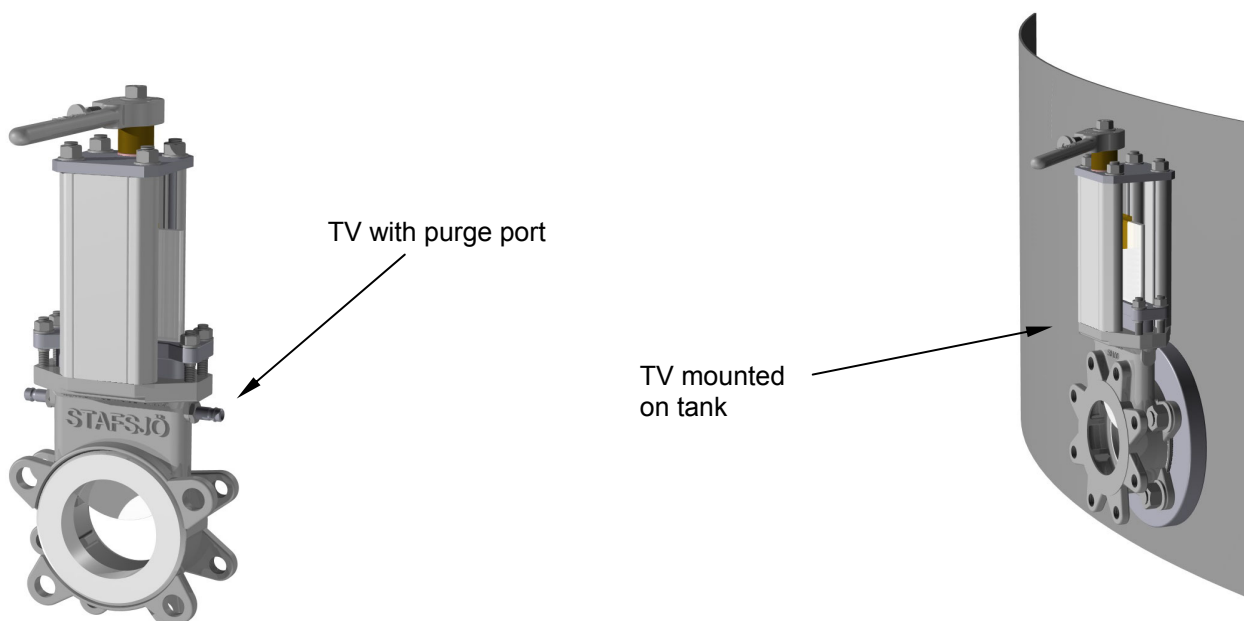
Pressure tests

Pressure tests are performed with water at 20°C according to ISO 5208 meaning:
1,5 x maximum working pressure for open valve – shell test
1,1 x maximum differential pressure for closed valve – obturator tightness test

Leakage rate

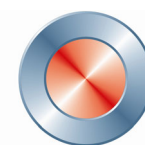
Rate A according to ISO 5208 – no visible leakage for the duration of the test
TAPPI TIS 405-8, MSS SP-81

Knife gate valve



Materials – corresponding foreign materials

Stafsjö standard	Type of material	Sweden	Germany		USA			England	Japan
		SS	W. Nr.	DIN	ASTM	AISI	UNS	BS	JIS
A2	Stainless	SS2333	W1.4301	X5CrNi18 M 10		304	S30400	304S15	SUS 304
AISI 304	Stainless	AISI 304	W1.4301	X5CrNi18 M 10		304	S30400	304S15	SUS 304
EN AW-6063-T6	Aluminium	EN AW-6063-T6		AlMgSi 0,5	AA 6063				
GG25	Cast iron	SS0125-00	0.6025	GG 25	A 48 No 40 B			Grade 260	FC 250
GGG50	Nodular iron	SS0727	0.7050	GGG 50				Grade 500/7	FCD 500
SS0120-00	Cast iron	SS0120-00	0.6020	GG 20	A 48 No 30 B			Grade 220	FC 200
SS1312	Carbon steel	SS1312		RSt 37-2	A 36			40 B	
SS2303-03	Stainless	SS2303-03	W1.4021	X20Cr13		420	S42010	420S37	SUS 420J1
SS2320-02	Stainless	SS2320-02	W1.4016	X6Cr17		430	S43000	430S17	SUS 430
SS2333-02	Stainless	SS2333-02	W1.4301	X5CrNi18 M 10		304	S30400	304S15	SUS 304
SS2343-12	Stainless	SS2343-12	W1.4408	G-X6CrNiMo 18 10	A 743-91 CF-8M			316 C 16	SCS 14
SS2343-28	Stainless	SS2343-28	W1.4436	X3CrNiMo17 13 3	A 240, Type 316			Gr 316 S 33	
SS2346-02	Stainless	SS2346-02	W1.4305	X10CrNiS 18-9		303		303S31	SUS303
SS2347-02	Stainless	SS2347-02	W1.4401	X5CrNiMo17 12 2		316	S31600	316S31	SUS 316
SS2383-02	Stainless	SS2383-02	W1.4104	X12CrNiOS17		430 F	S43020		430 F
SS5170-00	Brass	SS5170-00		CuZn39Pb3	C 36000			CZ 121	
SS2377-02	Stainless	SS2377-02	W1.4462	X2CrNiMoN22 5 3			S31803	318S13	
W1.4408	Stainless	W1.4408	W1.4408	G-X6CrNiMo 18 10	A 743-91 CF-8M			316 C 16	SCS 14



Stafsjö
SINCE 1666

All specifications are subject to change without notice.

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