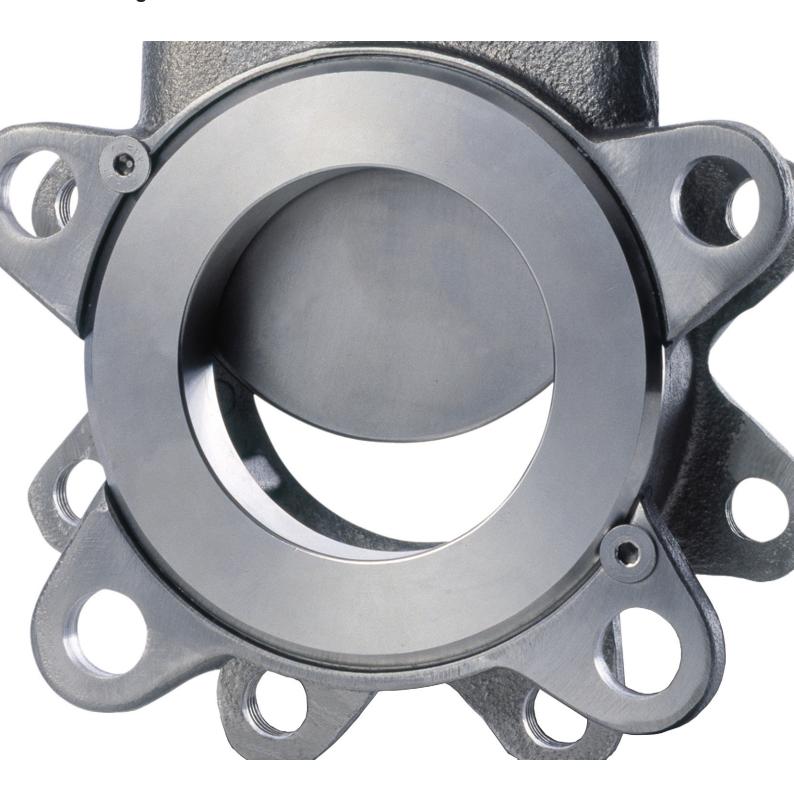
# **Knife gate valve TV**







#### Knife gate valve TV

Stafsjö's knife gate valve TV 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 dismounted without draining the tank. The ratchet wrench enables fast and easy operation of the valve in spite of the wall installation.

TV has a valve body, gate and retainer ring in stainless steel. The retainer ring system offers several seat materials and very cost-efficient maintenance. As standard the TV valve is equipped with Stafsjö's unique gland 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. As standard it comes with a ratchet wrench in stainless steel.

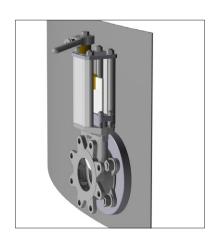
The TV valve is designed, manufactured, inspected and tested according to the European Pressure Equipment Directive (PED 97/23/EC) category I and II module A1. The valve is CE marked when it is applicable.





#### Proven and reliable shut-off

The design of the gate and the valve body, especially the bore, gives the valve its ability to securely and effectively shut-off almost any flow. Minimal friction makes the valve easy to operate.



# Unique flange drilling enables end-of-pipe installations

The TV valves is possible to be mounted directly on a tank without any counterflange and the ratchet wrench enables fast and easy operation of the valve.

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#### **Excellent adaptability**

TV can easily be customized. The retainer ring system offers flexibility and cost-efficient on-site maintenance.

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# Design data

Sizes	Flange drilling	Face-to-face dimension	ATEX design		
DN 80	EN 1092 PN 10- Stafsjö standard ASME/ANSI B16.5 Class 150- Stafsjö standard ASME/ANSI B16.5 Class 150- ASME/ANSI B16.5 Class 150	Stafsjö manufacturing standard MSS SP-81 TAPPI TIS 405-8	ATEX 94/ 9/EC II cat 3 G/D for zone 2 and 22 on request		
Leakage rate		Pressure tests			
EN 12266-1:2012 rate A: No visually detectable leakage is allowed for duration of the test.		Pressure tests are performed with water at 20° C according to EN 12266-1:20 Pressure shell test: 1,5 times maximum allowable working pressure for open valences are tightness test: 1,1 times maximum allowable differential pressure closed valve.			

Maximum working pressure body at 20°C		Maximum differential pr	essure at 20°C
DN bar		DN	bar
80	16	80	3,5

# **Basic equipment**

A. Valve Body				
Material	Code	Туре	Maximum temperature °C	
Stainless steel	(E)	EN 1.4408	400	

B. Gate	
Material	Туре
Stainless steel	EN 1.4404/AISI 316L/SS 2348

C. Retainer ring		
Material	Туре	
Stainless steel	EN 1.4408	

D. Seat		
Material	Code	Maximum temperature °C
EPDM	(E)	120
Nitrile	(N)	100
Viton	(V)	180
PTFE with o-ring Nitrile	(P)	100
PTFE with o-ring Viton	(PV)	180

E. Box Packing		
Material	Code	Maximum temperature °C
TwinPack™	(TY)	260
PTFE	(TF)	280

### **Actuators**

Manual		
Ratchet wrench <sup>2)</sup>	(RW)	

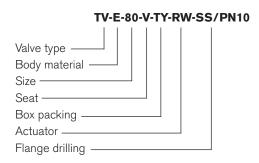
#### **Options and accessories**

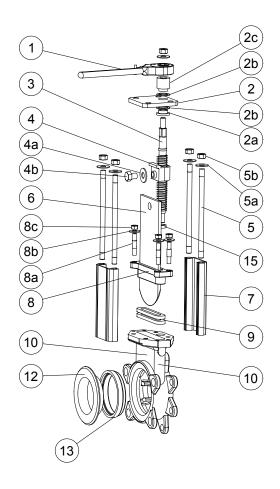
Knife gate valve			
Accessories	Code	Model	Design
Mechanical limit switch	(MLS)	Omron D4V	12-250 V AC/12-125 V DC, IP 65
Inductive limit switch	(ILS)	ifm electronic IG0006	2-wire, 20-250 V AC/DC, IP 67
		ifm electronic IG5401	3-wire, 10-36 V DC PNP, IP 67
Purge ports	(PP)	The TV knife gate valve can be equipped with purg	ge ports on order
Adapter flange	(AF)	From Stafsjö standard TV to EN 1092 PN 10	
		From Stafsjö standard TV to ANSI B16.5 Class 15	0

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.

### Specify the Stafsjö valve

Stafsjö's valves are modular designed and they can easily be customized with gate, seat and box packings and accessories according to media and requirements. Below are examples of how you can specify your Stafsjö valve. Further information is available on www.stafsjo.com.





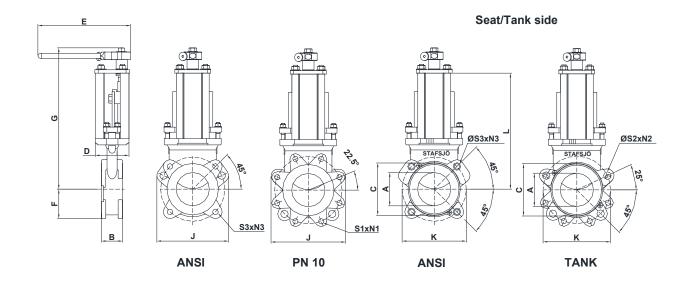
5

# Part list

Pos.	Part	Material (Name)
1	Ratchet wrench	Stainless steel (EN 1.4408/SS 2343)
2	Yoke	Stainless steel (EN 1.4301/SS 2333)
2a	Bearing	Brass (CuZn39Pb3/SS 5170)
2b	Bearing washer	POM
2c	Bearing	Brass (CuZn39Pb3/SS 5170)
3	Stem	Stainless steel (EN 1.4016/SS 2320)
4	Stem nut	Brass (CuZn39Pb3/SS 5170)
4a	Washer	Stainless steel A2
4b	Screw	Stainless steel A2
5	Tie rod	Stainless steel (EN 1.4301/SS 2333)
5a	Washer	Stainless steel (A2)
5b	Nut	Stainless steel (A2)

Pos.	Part	Material (Name)
6	Gate	See equipment B
7	Beam	Aluminium (EN AW-6063-T6)
8	Gland	Stainless steel (EN 1.4408/SS 2343)
8a	Stud bolt	Stainless steel (A2), zinc coated
8b	Washer	A2
8c	Nut	Stainless steel (A2), zinc coated
<b>9</b> ¹)	Box packing	See equipment E
10	Valve body	See equipment A
12	Retianer ring	See equipment C
13 <sup>1)</sup>	Seat	See equipment D
15	Bushing	Oil-bronze
1) Recor	nmended spare par	ts

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### **Main dimensions**

Dimensions (mm	)															
Flange drilling	Α	В	С	D	Ε	F	G	J	K	L	S1	N1	oS2	N2	S3	N3
PN 10	79	51	124	80	220	88	335	177	160	275	M16	8	18	4	-	-
ASME/ANSI B16.5 Class 150	79	51	124	80	220	70	335	170	152	275	-	-	18	4	5/8-11 UNC	4

#### Weight valve with ratchet wrench

DN	80
kg	8

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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