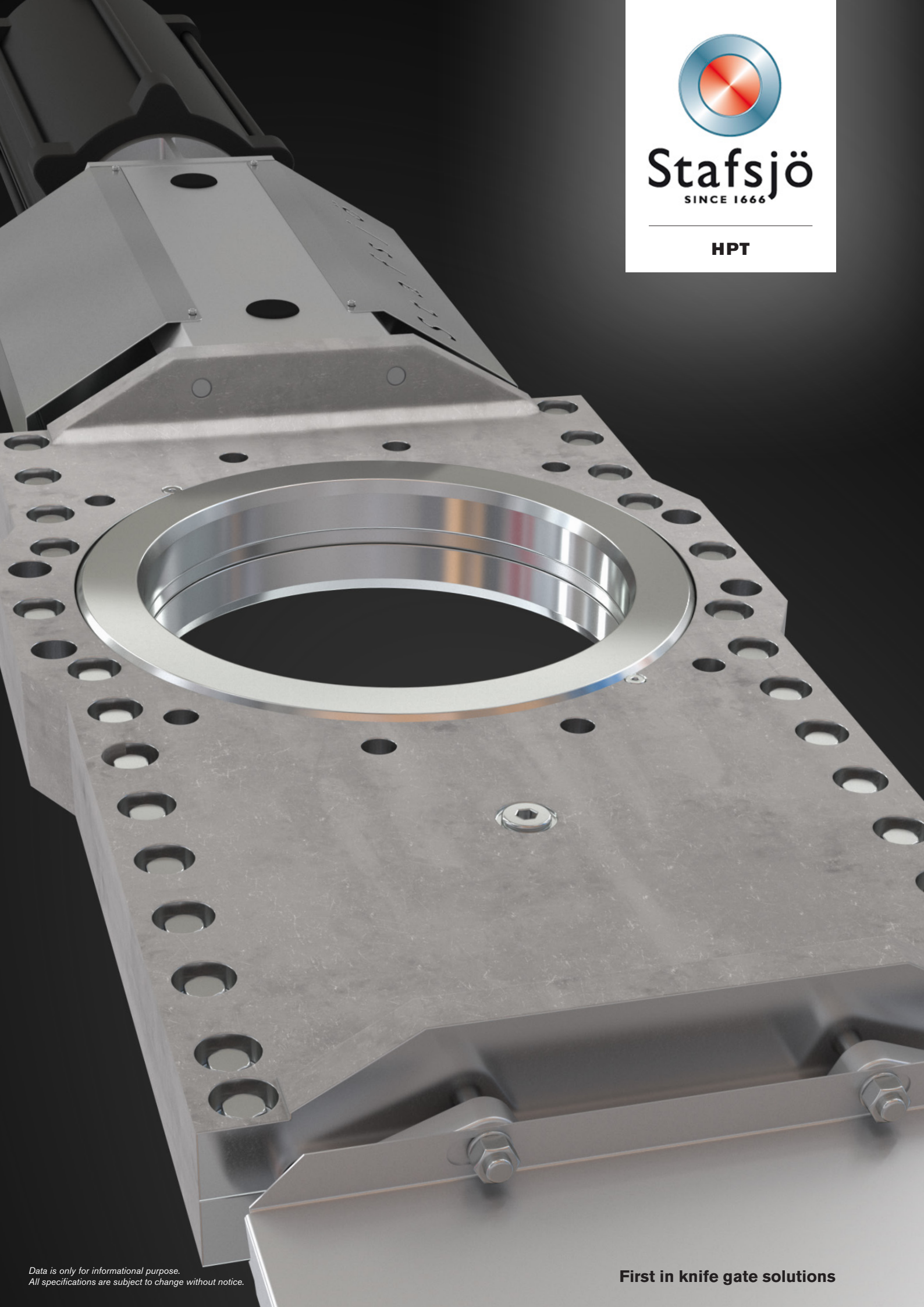


**Stafsjö**  
SINCE 1666

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**HPT**



*Data is only for informational purpose.  
All specifications are subject to change without notice.*

**First in knife gate solutions**

## Knife gate valve HPT

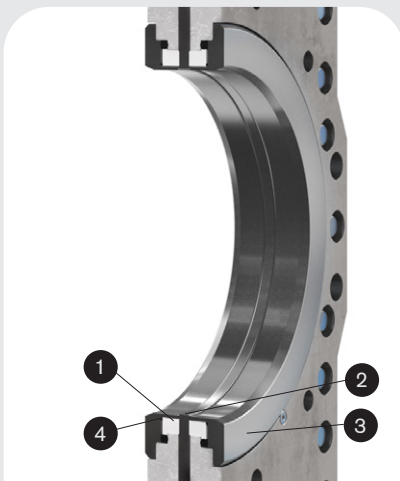
Stafsjö's HPT is a through-going knife gate valve with superior flow characteristics, offering reliable bi-directional zero leakage shut-off up to 10 bar/150 psi. All wetted parts are supplied in Titanium and PTFE making it suitable for the most corrosive chemicals.

The HPT knife gate valve is modular designed and it can easily be customized with automation accessories to different process conditions. The through-going gate gate assure reliable isolation and shut-off on highly concentrated media and static media columns.

The HPT valve is one out of five valves in Stafsjö's product range with through-going gates. The HG valve represent the standard. HL is a slim line version of HG while HP is high pressure version. HX is an extreme high pressure version, available in Titanium on request.

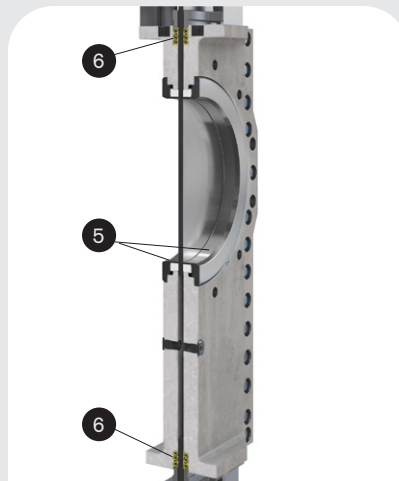


## Product features



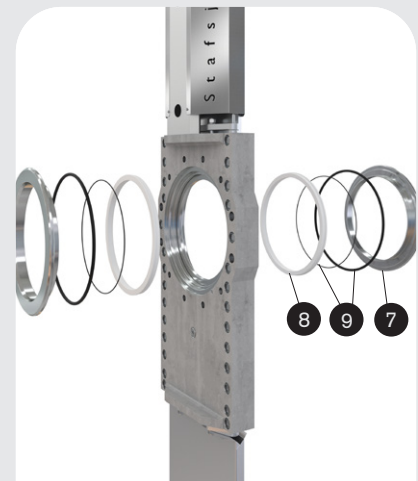
### Full bore with outstanding flow characteristics

In opened position the HPT provide an unobstructed flow path where no media can collect. The PTFE seats (1) are protected by the gate (2) and retainer rings (3) and the internal back-up o-rings (4) keep the seats constantly pressurized against the gate.



### Reliable through-going and bi-directional zero leakage shut-off

The gate is guided throughout the entire stroke and operates smoothly through difficult and highly concentrated media. The retainer ring system (5) on both side of the gate provide a tight seal independent of pressure direction. The gland box sealing system with three layers of Stafsjö's Twin-Pack (6) ensures that no media reaches surrounding environment.



### The retainer ring system lowers life cycle cost

The retainer rings (7) hold the seats (8) and the back-up o-rings (9) in exact correct position as the gate strokes. They are mechanically locked and can easily be removed for seat change, thus reducing downtime for the maintenance.

## Pressure class

Max working pressure at 20 °C		Max differential pressure at 20 °C	
DN	bar	DN	bar
100 - 700	10	100 - 700	10

## HPT configuration

### Standard

Sizes: DN 100 - DN 700

Valve body: Titanium ASTM B265 Grade 2

Gate: Titanium ASTM B265 Grade 2

Retainer rings: Titanium ASTM B265 Grade 2

Seats: PTFE with o-ring FPM/FKM

Box packing: TwinPack or WhitePack

**Top works:** Stainless steel pillars on  $\leq$  DN 450 and stainless steel beams on larger sizes including stainless steel gate guards on automated valves

**Actuators:** Pneumatic cylinder, electric motor or hand wheel

**Flange drillings:** EN 1092 PN 10, ASME/ANSI B16.5 and B16.47 Class 150 series A or JIS B 2238 10K

See accessory data sheet for accessory options.

### Design standards

#### Face-to-face dimensions

Stafsjö manufacturing standard.

#### Design, manufacturing, inspection and test

According to pressure equipment directive 2014/68/EU category I and II module A2. The valves are CE marked when it is applicable.

Stafsjö's valves are subject for pressure tests before delivery in opened and closed position with water at 20 °C according to EN 12266-1:2003 rate A. No visually detectable leakage is allowed for duration of the test.

On request 2.2 test report and 3.1 inspection certificate according to EN 10204.

#### ATEX designs

On request directive 2014/34/EU Group II category:

3 G/D (zone 2 or 22), 2 G/D (zone 1 or 21) or 1 D (Zone 20)

### Seat service temperatures

PTFE with o-ring FKM: -15 °C - +180 °C

### Box packing service temperatures

TwinPack: -60 °C - +260 °C

WhitePack: -60 °C - +260 °C

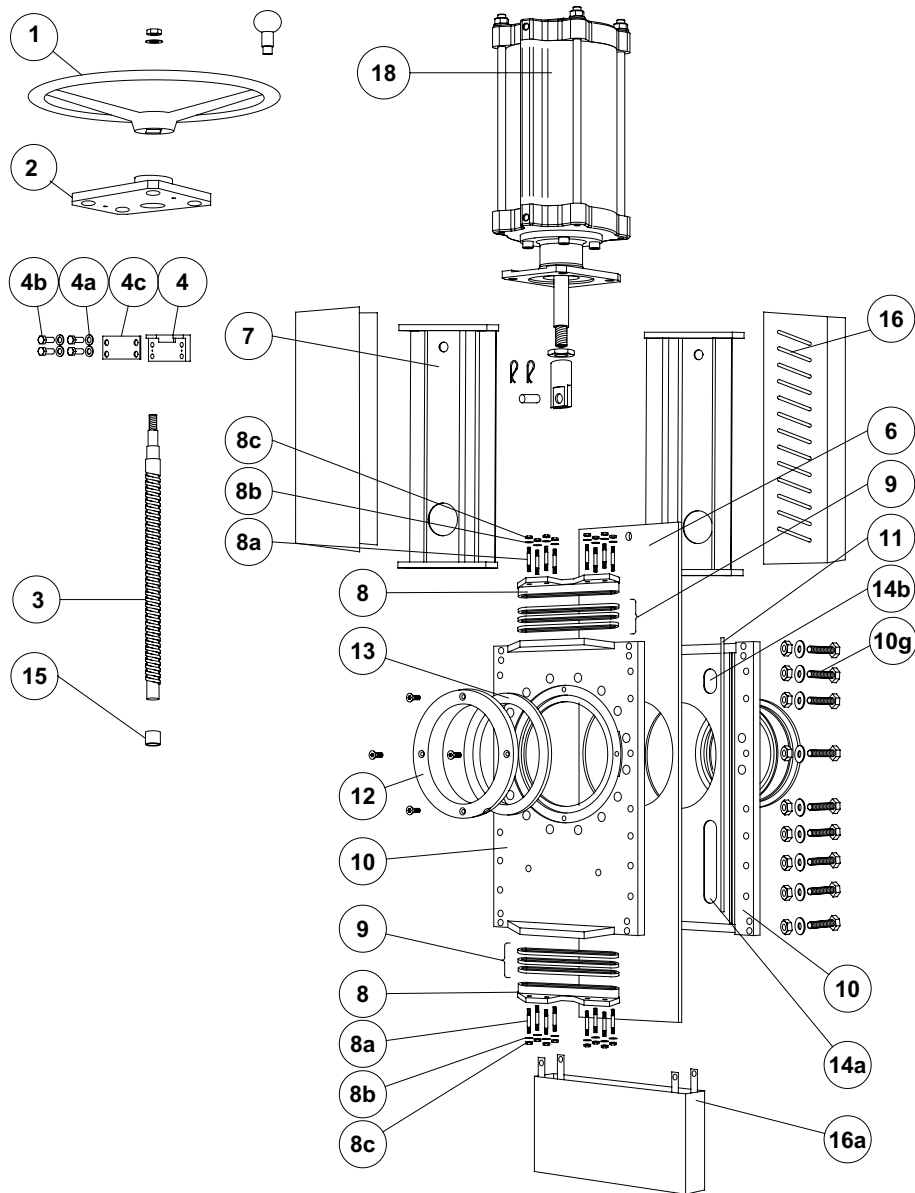
*Stafsjö's TwinPack offers high mechanical strength, excellent chemical resistance and a tight seal to atmosphere. The TwinPack braid is made up by an elastic silicon rubber core surrounded by diagonally interlocked graphite filled PTFE with aramid fiber reinforced corners. The TwinPack braids resist pH 2-13 and temperatures -60 °C up to 260 °C.*

*Media type, pressure and operating intervals may also affect the seat and box packing material in different ways. Contact Stafsjö for advice.*

## A high strength top works



The top works on HPT ensure stability throughout the full stroke. It include stainless steel pillars (1) or beams and stainless steel gate guards (2) on automated valves. The pneumatic cylinder is always supplied fully epoxy coated.

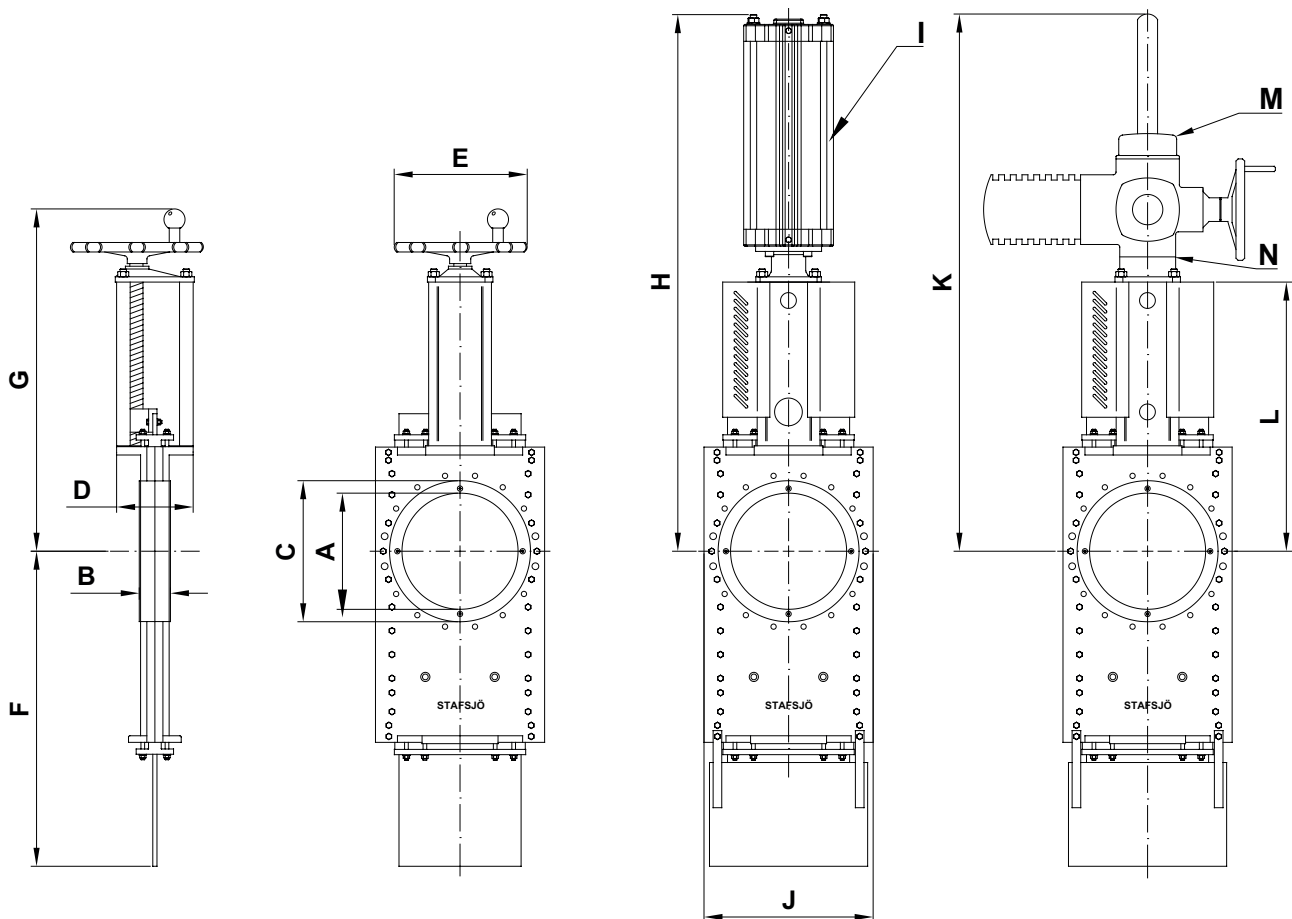


## Part list

Pos.	Detail	Material
1	Hand wheel	Stainless steel EN 1.4308 ≥ Ø 400 Coated cast iron EN-JL1030, GG20
2	Yoke	Stainless steel EN 1.4436
3	Stem	Stainless steel EN 1.4436
4	Stem nut	Brass
4a	Stem nut holder	Stainless steel EN 1.4301
4b	Screw	Stainless steel A4
4c	Washer	Stainless steel A4
4d	Nut	Stainless steel A4
7	DN 80-DN 450: Pillars ≥ DN 500: Beams	Stainless steel EN 1.4436 Stainless steel EN 1.4404
8	Gland	Titanium ASTM B265 Grade 2
8a	Stud bolt	Titanium ASTM B265 Grade 5

Pos.	Detail	Material
8b	Washer	Titanium ASTM B265 Grade 5
8c	Nut	Titanium ASTM B265 Grade 5
9 <sup>1)</sup>	Box packings	TwinPack or WhitePack
10	Valve body	Titanium ASTM B265 Grade 2
10g	Valve body boltings	Stainless steel A4
11	Body gasket	PTFE or FKM/FPM
12	Retainer rings	Titanium ASTM B265 Grade 2
13 <sup>1)</sup>	Seats	PTFE with o-ring FPM/FKM
14a	Guiding pads	DN ≥ 250 PTFE
14b	Top guiding pads	DN ≥ 250 PTFE
15	Bearing bushing	PTFE
16	Gate guards	Stainless steel EN 1.4301
18	Pneumatic cylinder	Epoxy coated. See data sheet for details

<sup>1)</sup> Recommended spare parts



## Main dimensions (mm)

DN	A	B	C	D	E	F	G	H	I <sup>1)</sup>	J	K	L	M <sup>2)</sup>	N <sup>3)</sup>	kg <sup>4)</sup>
100	103	51	153	72	200	385	445	688	SC100	215	809	315	SA 07.2	F10/A	17
150	153	60	205	84	250	460	530	825	SC160	260	945	400	SA 07.6	F10/A	34
200	202	60	270	150	315	600	659	1000	SC160	330	1070	520	SA 10.2	F10/A	75
250	250	69	320	150	315	725	739	1109	SC160	402	1200	600	SA 10.2	F10/A	100
300	302	78	375	180	400	865	893	1332	SC200	460	1420	720	SA 10.2	F10/A	170
350	332	78	425	173	400	930	948	1417	SC200	510	1505	775	SA 10.2	F10/A	200
400	380	89	480	210	520	1075	1033	1625	SC250	600	1650	873	SA 10.2	F10/A	290
500	470	114	580	320	635	1412	1299	1990	SC250	690	2020	1138	SA 14.2	F14/A	670
600	540	122	679	350	635	1553	1336	2102	SC320	800	2135	1175	SA 14.2	F14/A	820
700	665	128	800	320	635	1930	1556	2458	SC320	920	2505	1395	SA 14.6	F14/A	1300

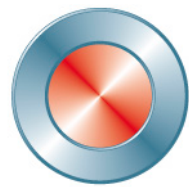
1) Recommended sizing of double-acting pneumatic cylinder type SC at normal operation with 5 bar air pressure. For other operating conditions, contact Stafsjö or your local representative for advice.

2) Recommended sizing of Auma SA electric motors at normal operation. For other operating conditions, contact Stafsjö or your local representative for advice.

3) Valve and Auma SA interface. The electric motors are mounted as standard according to ISO 5210 connection A (rising stem).

4) Weight in kg for valve with hand wheel (HW)

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



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[www.stafsjo.com](http://www.stafsjo.com)

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**Stafsjö Valves AB**  
SE-618 95 Stavsjö, Sweden

+46 11 39 31 00 | [info@stafsjo.se](mailto:info@stafsjo.se)  
[www.stafsjo.com](http://www.stafsjo.com)