

Knife gate valve JTV

Stafsjö's knife gate valve JTV is the square optimal performer for junc traps and high density cleaners separating abrasive materials such as sand, stones, staples, glass and other type of reject from the process media.

The JTV knife gate valve is the standard discharge valve in Stafsjö's Junc Trap solution. It is modular designed and can be customized with automation accessories to different process conditions. As standard the JTV is supplied with a precision machined stainless steel valve body and a hard chromed duplex gate. The top works is solid to perform during long periods of time in horizontal high cycling applications.



Product features



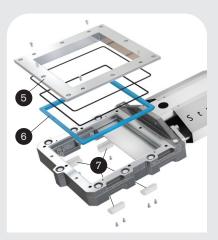
Performance shut-off on severe abrasive reject

The straight bevel edged gate (1) efficiently cut through rejects. The gate supports (2) assure gate guidance throughout the full stroke and support the gate in closed position to maintain a 100 % liquid tight shut-off.



A first rate external sealing

Stafsjö's TwinPack braids (3) perform the main external sealing operation in the system. The gland box is precision machined with tight tolerances to provide optimal room for the TwinPack braids while the gland (4) and position of stud bolts provide a uniform load.



Extend the service life with an easy maintenance

The JTV is often installed on severe abrasive applications. Quick and easy maintenance is important. The retainer ring system (5) allows an easy change of seat (6) and the gate supports (7) can also be switched over to new ones without dismantling the entire valve. This solution ensure low cost of ownership.

Pressure class

Max working pressure at 20 °C		Max differential pressure at 20 °C		
Size	bar	Size	bar	
250 x 250	6	250 x 250	6	

JTV configuration

Standard

Sizes: 250 x 250

Valve body: Stainless steel EN 1.4408

Gate: Hard chromed duplex stainless steel EN 1.4462

Retainer ring: Stainless steel EN 1.4408

Seats: Polyurethane Box packing: TwinPack

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 valve is CE marked when it is applicable.

Stafsjö's valves are subject for pressure tests before delivery in opened and closed position with water at $20\,^{\circ}$ 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

1 D (Zone 20)

On request directive 2014/34/EU Group II category: 3 G/D (zone 2 or 22) 2 G/D (zone 1 or 21)

Top works: Stainless steel tie rods encapsulated in aluminum beams

including stainless steel gate guards
Actuator: Double-acting pneumatic cylinder
Flange drillings: Stafsjö manufacturing standard

See the accessory data sheet for automation options.

Seat service temperature

Polyurethane: +90 °C

Guiding pads temperature

POM: +120 °C

Box packing service temperature

TwinPack: +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 (1) surrounded by diagonally interlocked graphite filled PTFE (2) with aramid fiber reinforced corners (3). 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.

The solution for high density cleaners

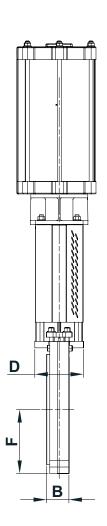


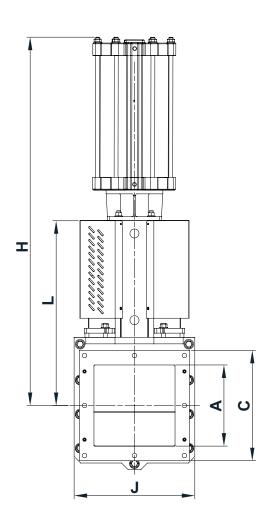


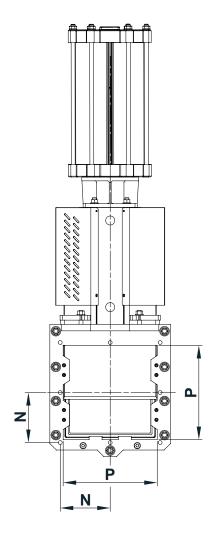


The Junk Trap (JT) is specially developed to minimize turbulence, erosive wear and build-up of solids and reject material. The JTV knife gate valve is installed in a slightly inclined position on the discharge side of reject tank to ensure a full release of media when opened and a tight shut-off when closed. Further information on the JT solution is available on www.stafsjo.com.

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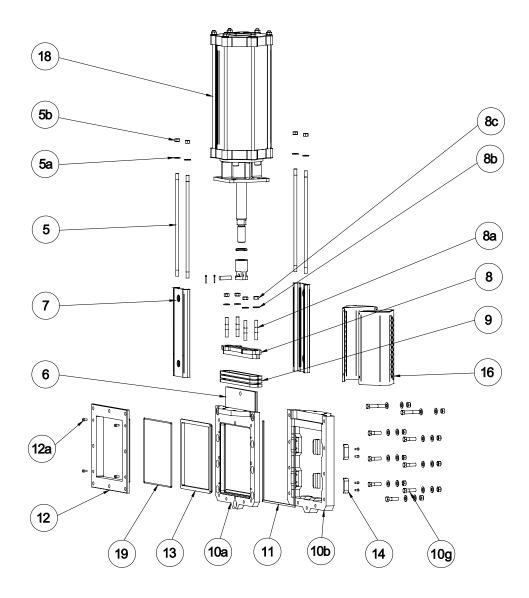
Main dimensions (mm)

Size	Α	В	С	D	F	Н	J	L	Р	kg ¹⁾
250 x 250	250	69	340	152	197	1135	372	570	290	80

Flange drilling (Stafsjö standard)

Size	N	Tapped holes	Bolt size	Bolt length
250 x 250	154	8	M12	18 ²⁾
250 x 250	154	8	1/2"-13 UNC	18 ²⁾

Weight in kg for valve including double-acting pneumatic cylinder.
 Add the values with the thickness of the pipe flanges, the washers and thickness of the gasket. Main dimensions are only for information. Contact Stafsjö for certified drawings.



Part list

Pos	Part	Material
5	Tie rod	Stainless steel EN 1.4301
5 a	Washer	Stainless steel A2
5 b	Nut	Stainless steel A2
6	Gate	See options on page 3
7	Beam	Anodized aluminium
8	Gland	Stainless steel EN 1.4408
8 a	Stud bolt	Stainless steel A2
8 b	Washer	Stainless steel A2
8 c	Nut	Stainless steel A2
Q1)	Box nacking	TwinPack

Pos	Part	Material
10 a/b	Valve body	Stainless steel EN 1.4408
11	Body gasket	PTFE
12	Retainer ring	Stainless steel EN 1.4408
12 a	Locking screw	Stainless steel A2
13 ¹⁾	Seat	Polyurethane
141)	Guiding pads	POM
16	Gate guards	Stainless steel EN 1.4301
18	Pneumatic cylinder	See separate data sheet
19 ¹⁾	O-ring	Nitrile

¹⁾ Recommended spare parts

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