

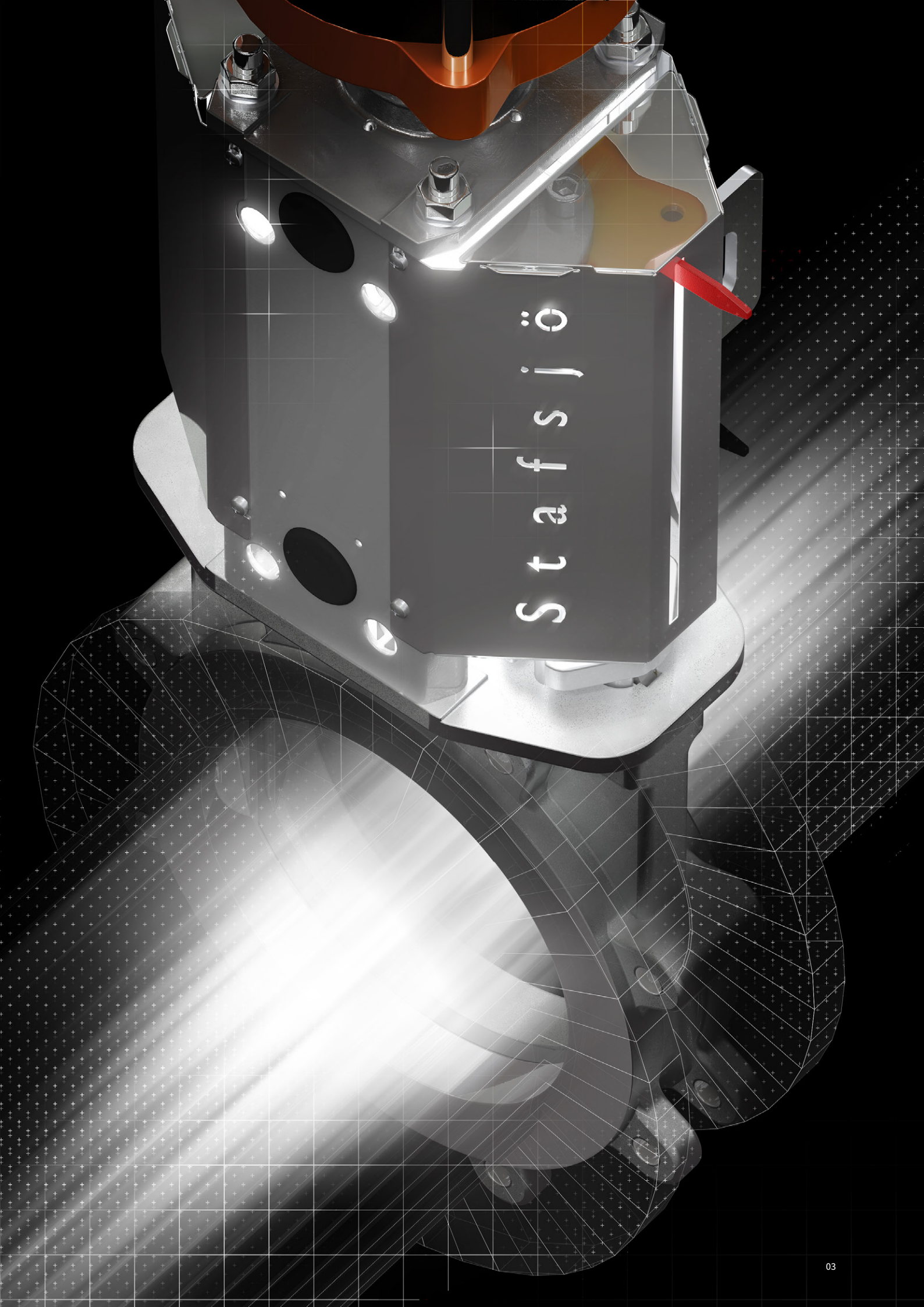
Stafsjö  
SINCE 1666

# Knife gate valve specification guide



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stafsjö

# About Stafsjö

Stafsjö develop and manufacture high performance knife gate valves for reliable and long-lasting operation in demanding industrial processes throughout the world.

Stafsjö's knife gate valve manufacturing started already in 1928. With strong focus on customer satisfaction and process excellence the products have evolved throughout the years and new products have been developed to meet and exceed new challenging process conditions. The company also offers aftersales support on all continents and automation solutions to meet customer standards across the world.

Stafsjö maintain development and manufacturing on the same location it all started in 1666, in Stavsjö Sweden. The owner Ebro Armaturen Gebr. Bröer GmbH is headquartered in Hagen, Germany.

# Who we are

## Expect commitment

We are committed in each and every supply, day by day, year after year. First class product quality can be expected. Our commitment do not end when the products exit our facility. We are just as committed to serve our customer after the products have been in service for years or even decades.

## Long-term partner

Long-term is a significant characteristic for Stafsjö. Our solutions are engineered and made to last. Nothing is left to chance. We also believe in close and open collaborations with customers, among colleagues, business partners and other stakeholders. We work hard to earn the trust.



## Make a difference

We have a strong devotion to meet and exceed our customers' expectations. Our customers depend on our products performance and reliability to enhance their productivity, efficiency and safety targets. The products we supply are developed and manufactured to perform and provide a reliable isolation or control when required.

## Our vision

“First in knife  
gate solutions”

Our vision describes our ambition to be the most efficient and productive knife gate supplier, the technology leader and the most preferred brand within selected industrial segments.



# Shut-off techniques for a wide range of applications

## Uni-directional

Knife gate valves: JTV, MV, RKO, RKS and TV

This knife gate valve range have been designed with uni-directional flow in mind even though some of them can deal with certain reverse flow as standard. Installation position and pressure direction are important factors to consider when choosing uni-directional knife gate valves. Independent if it is dry media or liquids, the uni-directional knife gate valves will provide high operation reliability and zero leakage isolation.



## Bi-directional

Knife gate valves: WB, WB11, WB14, WB14E and XV

This is the range to choose if you are searching for allround and compact knife gates valves for liquids. All provide a smooth flow path with minimal flow impact and bi-directional zero leakage isolation whenever needed. Some of them are also available in fully lugged versions for dead-end services.

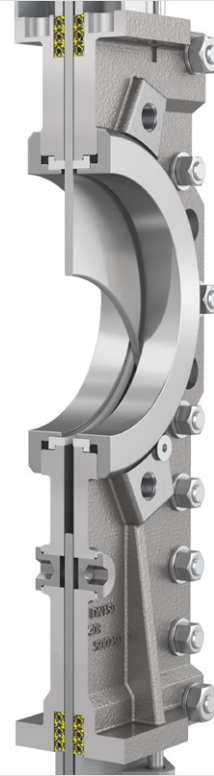


# Select technique suitable for your process

## Bi-directional, through-going

Knife gate valves: HL, HG, HP, HPT and HX

This range enable high operation reliability on highly concentrated media. The gate is able to cut through static media columns and provide zero leakage isolation independent of pressure direction. Several high alloy material options are available on request.



## Bi-directional, push through

Knife gate valves: SLF, SLH, SLV and SLX

In tough abrasive mineral processing applications, the most durable knife gate valves are the push through slurry valves. These form a rubber lined extension of the pipe line when they are in opened position. When cycling to closed position the two seats are displaced axially forming a seal with the gate until it forms a complete closure – 100 % tight in any pressure direction.





# Knife gate valves for a wide range of industrial applications

The knife gate solutions we manufacture provide reliable isolation or control duty in pulp and paper mills, in mineral concentrator plants and their tailing systems, in waste water treatment plants and in many more industrial systems. We have the solutions for both dry media and liquids, for slightly abrasive to extreme, from moderate corrosive conditions to the very extreme calling for high grade materials such as Titanium. We offer knife gate solutions up to 50 bar pressure class.

## Contact our valve experts!

We are never far away. Smooth logistic solutions, local stocks combined with local sales support in many countries ensure you availability and high service level independent where your business operate. Find your contact on [stafsjo.com/contact/](https://stafsjo.com/contact/).



# D2G

The D2G have two hard chromed gates working towards each other in the bore providing extremely fast operation. It is suitable for stock preparation and wood chip cleaners or as junk traps in recycled fibre lines.

|                                   |  |
|-----------------------------------|--|
| Size range                        | DN 150 - DN 600 (6" - 24")   |
| Shut-off technique                | Bi-directional   |
| Connection type                   | Wafer/Semi lugged  |
| Face-to-face                      | Stafsjö manufacturing standard   |
| Design standard                   | PED 2014/68/EU category I and II module A2**   |
| Test standard                     | EN 12266-1:2003 rate A   |
| ATEX availability                 | On request   |
| Valve body                        | Stainless steel EN 1.4408  |
| Valve gate/<br>Surface treatments | Hard chromed stainless steel EN 1.4404<br>Hard chromed duplex stainless steel EN 1.4462* |
| Valve seat                        | PTFE   |
| Valve packing                     | TwinPack<br>WhitePack*   |

\* Non-standard materials available as options

\*\*The D2G is subject for pressure test in opened position only with water at 20 °C according to EN 12266-1:2003 rate A.

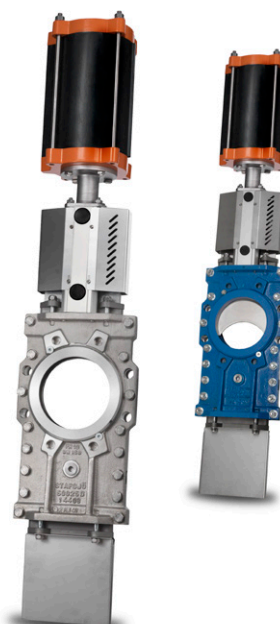
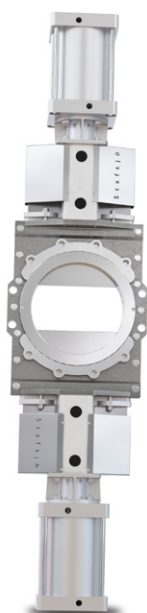
# HG

This is a through-going high performance knife gate valve with superior flow characteristics, offering reliable bi-directional zero leakage shut-off on highly concentrated media and static media columns.

|                                   |  |
|-----------------------------------|--|
| Size range                        | DN 50 - DN 1200 (2" - 48")   |
| Shut-off technique                | Bi-directional, through-going  |
| Connection type                   | Wafer/Semi lugged  |
| Face-to-face                      | Stafsjö manufacturing standard<br>Option in MSS-SP81   |
| Design standard                   | PED 2014/68/EU category I and II module A2**   |
| Test standard                     | EN 12266-1:2003 rate A   |
| ATEX availability                 | On request   |
| Valve body                        | Duplex stainless steel EN 1.4470*<br>Nodular iron EN 5.3105<br>Stainless steel EN 1.4408<br>254 SMO equivalent*                    |
| Valve gate/<br>Surface treatments | Stainless steel EN 1.4404<br>Duplex stainless steel EN 1.4462*<br>254 SMO or equivalent*<br>Hard chrome or extra polished surface* |
| Valve seat                        | Polyurethane<br>PTFE or PTFE FDA/EC 1935/2004<br>Stainless steel   |
| Valve packing                     | TwinPack<br>WhitePack*<br>FDA/EC 1935/2004 approved PTFE*<br>Graphite*   |

\* Non-standard materials available as options

\*\* Rate A is not applicable on metal seated valves.



# HL

The HL is a compact through-going knife gate valve with superior flow characteristics, offering reliable bi-directional zero leakage shut-off on highly concentrated media and static media columns.

|                                   |  |
|-----------------------------------|--|
| Size range                        | DN 400 - DN 800 (16" - 32")                |
| Shut-off technique                | Bi-directional, through-going              |
| Connection type                   | Wafer/Semi lugged                          |
| Face-to-face                      | Stafsjö manufacturing standard             |
| Design standard                   | PED 2014/68/EU category I and II module A2 |
| Test standard                     | EN 12266-1:2003 rate A                     |
| ATEX availability                 | On request                                 |
| Valve body                        | Stainless steel EN 1.4408                  |
| Valve gate/<br>Surface treatments | Stainless steel EN 1.4404                  |
|                                   | Duplex stainless steel EN 1.4462*          |
|                                   | Hard chrome or extra polished surface*     |
| Valve seat                        | PTFE                                       |
| Valve packing                     | TwinPack                                   |
|                                   | WhitePack*                                 |

\* Non-standard materials available as options



# HP

The HP is a high pressure through-going knife gate valve with superior flow characteristics, offering reliable bi-directional zero leakage shut-off on highly concentrated media and static media columns.

|                                   |  |
|-----------------------------------|--|
| Size range                        | DN 300 - DN 900 (12" - 36")                          |
| Shut-off technique                | Bi-directional, through-going                        |
| Connection type                   | Wafer/Semi lugged                                    |
| Face-to-face                      | Stafsjö manufacturing standard<br>Option in MSS-SP81 |
| Design standard                   | PED 2014/68/EU category I and II module A2           |
| Test standard                     | EN 12266-1:2003 rate A                               |
| ATEX availability                 | On request   |
| Valve body                        | Duplex stainless steel EN 1.4470*                    |
|                                   | Stainless steel EN 1.4408                            |
|                                   | 254 SMO equivalent*                                  |
| Valve gate/<br>Surface treatments | Duplex stainless steel EN 1.4462                     |
|                                   | 254 SMO or equivalent*                               |
|                                   | Hard chrome or extra polished surface*               |
| Valve seat                        | PTFE   |
|                                   | PTFE FDA/EC 1935/2004                                |
| Valve packing                     | TwinPack   |
|                                   | WhitePack*   |

\* Non-standard materials available as options



# HPT

The 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.

|                    |  |
|--------------------|--|
| Size range         | DN 150 - DN 700 (6" - 28")                 |
| Shut-off technique | Bi-directional, through-going              |
| Connection type    | Wafer/Semi lugged                          |
| Face-to-face       | Stafsjö manufacturing standard             |
| Design standard    | PED 2014/68/EU category I and II module A2 |
| Test standard      | EN 12266-1:2003 rate A                     |
| ATEX availability  | On request                                 |
| Valve body         | Titanium ASTM B265 Grade 2                 |
| Valve gate         | Titanium ASTM B265 Grade 2                 |
| Valve seat         | PTFE                                       |
| Valve packing      | TwinPack                                   |
|                    | WhitePack*                                 |

\* Non-standard materials available as options

# HX

The HX is an extreme through-going high pressure knife gate valve for really demanding applications. It features excellent flow characteristics and provide a tight seal independent of pressure direction.

|                                   |  |
|-----------------------------------|--|
| Size range                        | DN 150 - DN 900 (6" - 36")                 |
| Shut-off technique                | Bi-directional, through-going              |
| Connection type                   | Wafer/Semi lugged                          |
| Face-to-face                      | Stafsjö manufacturing standard             |
| Design standard                   | PED 2014/68/EU category I and II module A2 |
| Test standard                     | EN 12266-1:2003 rate A                     |
| ATEX availability                 | On request                                 |
| Valve body                        | Duplex stainless steel EN 1.4470*          |
|                                   | Stainless steel EN 1.4408                  |
|                                   | 254 SMO equivalent*                        |
|                                   | Titanium ASTM B265 Grade 2*                |
| Valve gate/<br>Surface treatments | Stainless steel EN 1.4404                  |
|                                   | Duplex stainless steel EN 1.4462           |
|                                   | Titanium ASTM B265 Grade 2*                |
|                                   | 254 SMO or equivalent*                     |
| Valve seat                        | Hard chrome or extra polished surface*     |
|                                   | PTFE                                       |
| Valve packing                     | TwinPack including PTFE scrapers           |
|                                   | WhitePack including PTFE scrapers*         |

\* Non-standard materials available as options





# Junk Trap JT

This is a complete solution for abrasive reject separation, primarily for HD cleaners in recycled fibre lines. The JT is specially developed to minimize turbulence, erosive wear and build-up of solids and reject material.

|                                   |  |
|-----------------------------------|--|
| Size range                        | RKO: DN 100 - DN 200 (4" - 8")<br>JTV: 250 x 250 (10" x 10")   |
| Shut-off technique                | Uni-directional  |
| Connection type                   | Fully lugged   |
| Face-to-face                      | Stafsjö manufacturing standard   |
| Design standard                   | PED 2014/68/EU category I and II module A2   |
| Test standard                     | EN 12266-1:2003 rate A<br>The reject tank is pressure tested with water 1,5 times max working pressure** |
| Tank, splash guard                | Stainless steel EN 1.4404**  |
| Valve body                        | Stainless steel EN 1.4408  |
| Valve gate/<br>Surface treatments | Hard chromed duplex stainless steel EN 1.4462  |
| Valve seat                        | Polyurethane   |
| Valve packing                     | TwinPack   |
|                                   | WhitePack*   |

\* Non-standard materials available as options

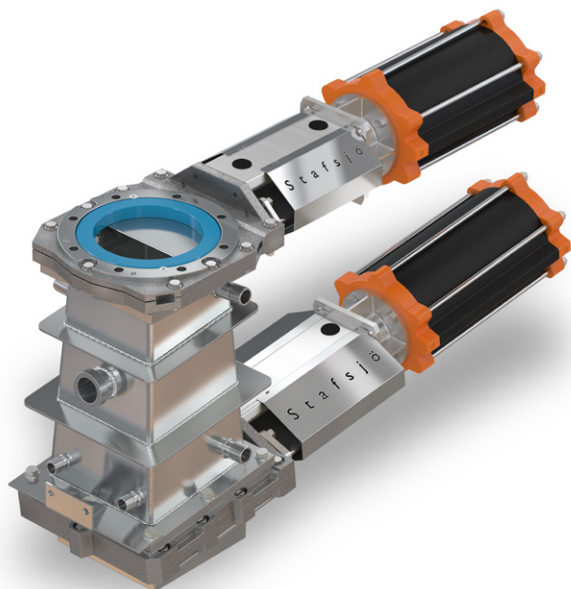
\*\* Applicable for tank only

# JTV

The JTV is a square knife gate valve 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.

|                                   |   |
|-----------------------------------|---|
| Size range                        | 250 x 250 (10" x 10")                         |
| Shut-off technique                | Uni-directional                               |
| Connection type                   | Fully lugged                                  |
| Face-to-face                      | Stafsjö manufacturing standard                |
| Design standard                   | PED 2014/68/EU category I and II module A2    |
| Test standard                     | EN 12266-1:2003 rate A                        |
| Face-to-face                      | Stafsjö manufacturing standard                |
| Valve body                        | Stainless steel EN 1.4408                     |
| Valve gate/<br>Surface treatments | Hard chromed duplex stainless steel EN 1.4462 |
| Valve seat                        | Polyurethane                                  |
| Valve packing                     | TwinPack                                      |
|                                   | WhitePack*                                    |

\* Non-standard materials available as options



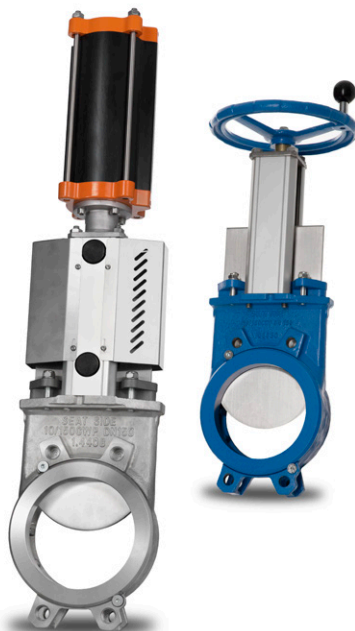
# MV

This is a standard high performance valve for on-off or control, for liquids or dry media. Extremely reliable shut-off performance have made it popular amongst users worldwide. The modular design and simple maintenance makes it also easy to achieve low cost of ownership.

|                                   |  |
|-----------------------------------|--|
| Size range                        | DN 50 - DN 1600 (2" - 64")                           |
| Shut-off technique                | Uni-directional                                      |
| Connection type                   | Wafer/Semi lugged                                    |
| Face-to-face                      | Stafsjö manufacturing standard<br>Option in MSS-SP81 |
| Design standard                   | PED 2014/68/EU category I and II module A2           |
| Test standard                     | EN 12266-1:2003 rate A**                             |
| ATEX availability                 | On request   |
| Valve body                        | Duplex stainless steel EN 1.4470*                    |
|                                   | Nodular iron EN 5.3105, EN-JS1050, GGG50             |
|                                   | Stainless steel EN 1.4408                            |
| Valve gate/<br>Surface treatments | 254 SMO equivalent*                                  |
|                                   | Stainless steel EN 1.4301 or EN 1.4404               |
|                                   | Duplex stainless steel EN 1.4462*                    |
| Valve seat                        | 254 SMO or equivalent*                               |
|                                   | Hard chrome or extra polished surface*               |
|                                   | EPDM, FPM/FKM, NBR or Polyurethane                   |
| Valve packing                     | PTFE or PTFE FDA/EC 1935/2004                        |
|                                   | Stainless steel                                      |
|                                   | TwinPack   |
| Valve packing                     | WhitePack*   |
|                                   | FDA/EC 1935/2004 approved PTFE*                      |
|                                   | Graphite*  |

\* Non-standard materials available as options

\*\* Rate A is not applicable on metal seated valves.



# RKO

This is a robust valve for high density cleaners containing large amount of abrasive and difficult solids. A straight bevel gate edge cut through and provide a tight seal against the seat while the larger square outlet enable full release of difficult media at drain sequence.

|                                   |   |
|-----------------------------------|---|
| Size range                        | DN 100 - DN 600 (4" - 24")                    |
| Shut-off technique                | Uni-directional                               |
| Connection type                   | Fully lugged                                  |
| Face-to-face                      | Stafsjö manufacturing standard                |
| Design standard                   | PED 2014/68/EU category I and II module A2    |
| Test standard                     | EN 12266-1:2003 rate A                        |
| ATEX availability                 | On request                                    |
| Valve body                        | Stainless steel EN 1.4408                     |
|                                   | Nodular iron EN 5.3105                        |
| Valve gate/<br>Surface treatments | Hard chromed duplex stainless steel EN 1.4462 |
| Valve seat                        | Polyurethane                                  |
|                                   | PTFE  |
| Valve packing                     | TwinPack                                      |
|                                   | WhitePack*                                    |

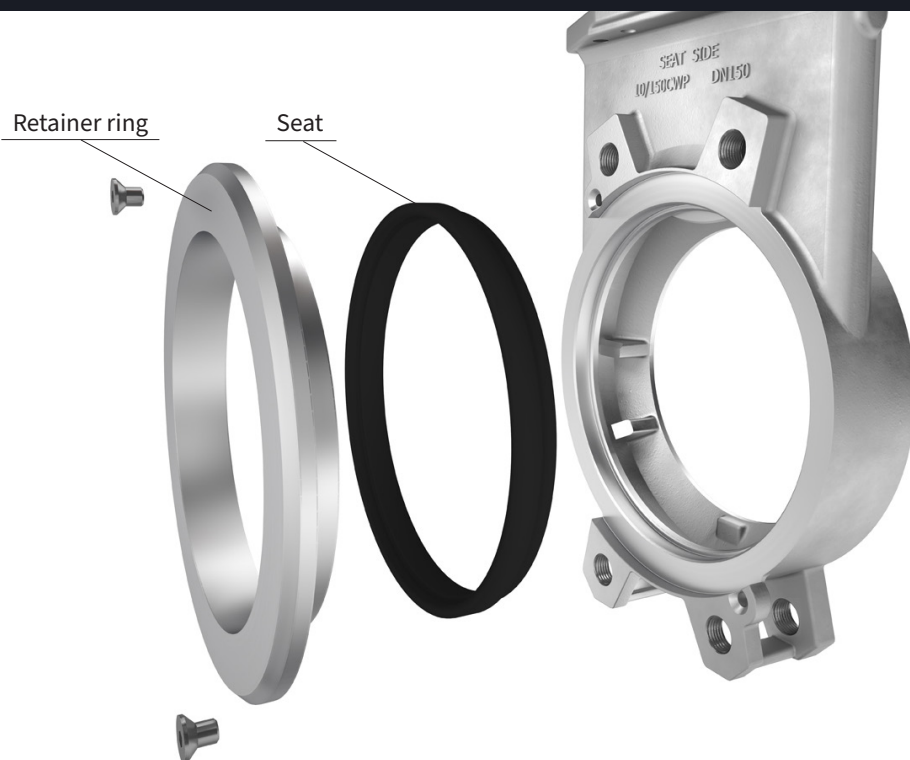
\* Non-standard materials available as options



# Quick and easy maintenance

Long-term is a well-known characteristic for Stafsjö and our products. We want the products to perform through decades. A quick and easy maintenance is essential to achieve this.

Stafsjö's retainer ring system offers flexibility in materials and an easy maintenance. It consists of a mechanically locked retainer ring and a seat kit. By simply removing the retainer ring you can easily switch out the seat to a new one and extend the service life repeatedly. Downtime is minimized as well as cost of ownership. The retainer ring system is available on our knife gate valves D2G, HG, HL, HP, HPT, HX, JTV, MV, RKO and XV.





# RKS

Stafsjö's RKS is a uni-directional square or rectangular stainless steel knife gate valve, often used in applications with media such as bulk and sludge.

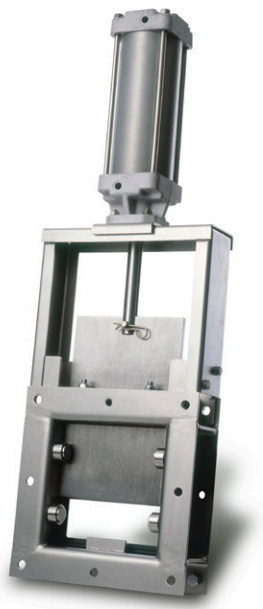
|                    |  |
|--------------------|--|
| Size range         | 200 x 200 - 1000 x 1000 (8" x 8" - 40" x 40")  |
| Shut-off technique | Uni-directional  |
| Connection type    | Wafer/Semi lugged  |
| Face-to-face       | Stafsjö manufacturing standard   |
| Design standard    | TKN 1987 and RN 1978   |
| Test standard      | Pressure tests are not performed on the body. Seat tightness test is only performed with NBR seat. |
| Valve body         | Stainless steel EN 1.4404  |
| Valve gate         | Stainless steel EN 1.4301<br>Stainless steel EN 1.4404*  |
| Valve seat         | Brass<br>NBR   |
| Valve packing      | TwinPack<br>WhitePack*   |

\* Non-standard materials available as options

# SLF

The wide body SLF is a push through slurry knife gate valve with superior flow characteristics, offering reliable and bi-directional shut-off performance in the most abrasive and demanding mineral processing applications.

|                    |  |
|--------------------|--|
| Size range         | DN 80 - DN 600 (3" - 24")  |
| Shut-off technique | Bi-directional, push through   |
| Connection type    | Flanged up to DN 400 (16")<br>Fully lugged DN 450 - DN 600 (18" - 24") |
| Face-to-face       | Stafsjö manufacturing standard   |
| Design standard    | PED 2014/68/EU category I and II module A2                             |
| Test standard      | EN 12266-1:2003 rate A   |
| Valve body         | Nodular iron EN 5.3105   |
| Valve gate         | Duplex stainless steel EN 1.4462                                       |
| Valve seat         | EPDM<br>Natural rubber   |
| Valve packing      | TwinPack including UHMW-PE scrapers                                    |



# SLH

This heavy duty push through slurry knife gate valve is designed to operate and provide bi-directional tight seal up to 20 bar in demanding mineral processing applications, typically slurry tailing systems.

|                                   |   |
|-----------------------------------|---|
| Size range                        | DN 80 - DN 450 (3" - 18")                               |
| Shut-off technique                | Bi-directional, push through                            |
| Connection type                   | Fully lugged  |
| Face-to-face                      | Stafsjö manufacturing standard                          |
| Design standard                   | PED 2014/68/EU category I and II module A2              |
| Test standard                     | EN 12266-1:2003 rate A                                  |
| Valve body                        | Nodular iron EN 5.3105                                  |
| Valve gate/<br>Surface treatments | Hard anti-stick coated duplex stainless steel EN 1.4470 |
| Valve seat                        | EPDM  |
|                                   | Natural rubber  |
| Valve packing                     | TwinPack including UHMW-PE scrapers                     |

# SLV

This is a compact push through slurry knife gate valve with superior flow characteristics, offering reliable and bi-directional shut-off performance in abrasive and demanding mineral processing applications.

|                    |  |
|--------------------|--|
| Size range         | DN 50 - DN 900 (2" - 36")                  |
| Shut-off technique | Bi-directional, push through               |
| Connection type    | Fully lugged                               |
| Face-to-face       | Stafsjö manufacturing standard             |
| Design standard    | PED 2014/68/EU category I and II module A2 |
| Test standard      | EN 12266-1:2003 rate A                     |
| Valve body         | Nodular iron EN 5.3105                     |
| Valve gate         | Duplex stainless steel EN 1.4462           |
| Valve seat         | EPDM                                       |
|                    | Natural rubber                             |
| Valve packing      | TwinPack including UHMW-PE scrapers        |



# SLX

This heavy duty push through slurry knife gate valve is designed to operate and provide bi-directional tight seal up to 50 bar in demanding mineral processing applications, typically slurry tailing systems.

|                                   |   |
|-----------------------------------|---|
| Size range                        | DN 80 - DN 450 (3" - 18")                     |
| Shut-off technique                | Bi-directional, push through                  |
| Connection type                   | Fully lugged                                  |
| Face-to-face                      | Stafsjö manufacturing standard                |
| Design standard                   | PED 2014/68/EU category I and II module A2    |
| Test standard                     | EN 12266-1:2003 rate A                        |
| Valve body                        | Nodular iron EN 5.3105                        |
| Valve gate/<br>Surface treatments | Hard anti-stick coated stainless steel 17-4ph |
| Valve seat                        | EPDM  |
|                                   | Natural rubber                                |
| Valve packing                     | TwinPack including UHMW-PE scrapers           |

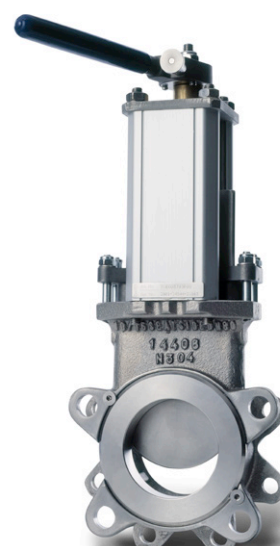


# TV

This is a transmitter isolation valve that can be used on both dry media and liquids. The compact design and unique flange pattern enable direct installation on the tank wall and downstream transmitter or any other equipment can be disengaged without draining the tank.

|                    |  |
|--------------------|--|
| Size range         | DN 80 (3")   |
| Shut-off technique | Uni-directional                                      |
| Connection type    | Fully lugged   |
| Face-to-face       | Stafsjö manufacturing standard<br>Option in MSS-SP81 |
| Design standard    | PED 2014/68/EU category I and II module A2           |
| Test standard      | EN 12266-1:2003 rate A                               |
| ATEX availability  | On request   |
| Valve body         | Stainless steel EN 1.4408                            |
| Valve gate         | Stainless steel EN 1.4404                            |
|                    | Duplex stainless steel EN 1.4462*                    |
| Valve seat         | EPDM   |
|                    | FPM/FKM  |
|                    | NBR  |
|                    | PTFE   |
|                    | PTFE FDA/EC 1935/2004                                |
| Valve packing      | TwinPack   |
|                    | WhitePack*   |
|                    | FDA/EC 1935/2004 approved PTFE*                      |
|                    | Graphite*  |

\* Non-standard materials available as options



# WB

This compact knife gate valve is suitable for fluids such as water, sludge and bio mass. It offers superior flow characteristics and bi-directional zero leakage shut-off.

|                    |  |
|--------------------|--|
| Size range         | DN 350 - DN 1600 (14" - 64")               |
| Shut-off technique | Bi-directional                             |
| Connection type    | Wafer/Semi lugged                          |
| Face-to-face       | Stafsjö manufacturing standard             |
| Design standard    | PED 2014/68/EU category I and II module A2 |
| Test standard      | EN 12266-1:2003 rate A                     |
| ATEX availability  | On request                                 |
| Valve body         | Nodular iron EN 5.3105                     |
| Valve gate         | Duplex stainless steel EN 1.4462*          |
|                    | Stainless steel EN 1.4301                  |
|                    | Stainless steel EN 1.4404*                 |
| Valve seat         | EPDM                                       |
|                    | NBR  |
| Valve packing      | TwinPack                                   |

\* Non-standard materials available as options

# WB11

The WB11 knife gate valve offers superior flow characteristics and bi-directional zero leakage shut-off. It is suitable for fluids such as water, sludge and bio mass. Integrated flange gaskets simplify installation works.

|                    |  |
|--------------------|--|
| Size range         | DN 50 - DN 300 (2" - 12")                  |
| Shut-off technique | Bi-directional                             |
| Connection type    | Wafer/Semi lugged                          |
| Face-to-face       | EN 558-1 series 20 and ISO 5752 series 20  |
| Design standard    | PED 2014/68/EU category I and II module A2 |
| Test standard      | EN 12266-1:2003 rate A                     |
| ATEX availability  | On request                                 |
| Valve body         | Nodular iron EN 5.3105, EN-JS1050, GGG50   |
| Valve gate         | Duplex stainless steel EN 1.4462*          |
|                    | Stainless steel EN 1.4301                  |
|                    | Stainless steel EN 1.4404*                 |
| Valve seat         | EPDM                                       |
|                    | FEPM                                       |
|                    | NBR  |
| Valve packing      | TwinPack                                   |

\* Non-standard materials available as options

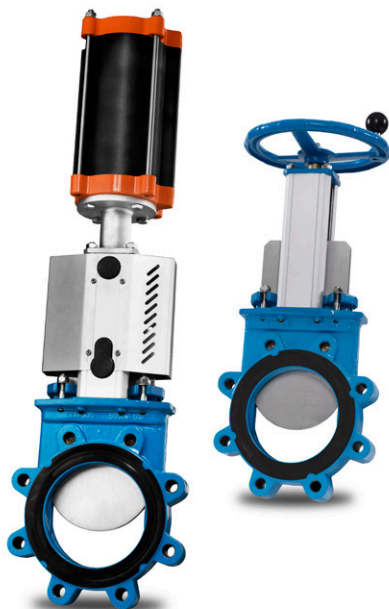


# WB14

The fully lugged WB14 knife gate valve offers superior flow characteristics and bi-directional zero leakage shut-off. It is suitable for fluids such as water, sludge and bio mass. Integrated flange gaskets simplify installation works.

|                    |   |
|--------------------|---|
| Size range         | DN 50 - DN 600 (2" - 24")                         |
| Shut-off technique | Bi-directional                                    |
| Connection type    | Fully lugged                                      |
| Face-to-face       | EN558-1 series 20 and ISO 5752 series 20 MSS-SP81 |
| Design standard    | PED 2014/68/EU category I and II module A2        |
| Test standard      | EN 12266-1:2003 rate A                            |
| ATEX availability  | On request  |
| Valve body         | Nodular iron EN 5.3105, EN-JS1050, GGG50          |
| Valve gate         | Duplex stainless steel EN 1.4462*                 |
|                    | Stainless steel EN 1.4301                         |
|                    | Stainless steel EN 1.4404*                        |
| Valve seat         | EPDM  |
|                    | FEPM  |
|                    | NBR   |
| Valve packing      | TwinPack  |

\* Non-standard materials available as options



# WB14E

This is a fully lugged high performance knife gate valve with superior flow characteristics, offering bi-directional zero leakage isolation. It is suitable for fluids such as pulp stock, chemicals, sludge, bio mass and water.

|                    |   |
|--------------------|---|
| Size range         | DN 50 - DN 750 (2" - 30")                             |
| Shut-off technique | Bi-directional  |
| Connection type    | Fully lugged  |
| Face-to-face       | MSS-SP81  |
| Design standard    | PED 2014/68/EU category I and II module A2            |
| Test standard      | EN 12266-1:2003 rate A                                |
| ATEX availability  | On request  |
| Valve body         | Duplex stainless steel EN 1.4470 $\geq$ DN 350 (14")* |
|                    | Stainless steel EN 1.4408                             |
|                    | 254 SMO equivalent $\geq$ DN 350 (14")*               |
| Valve gate         | Duplex stainless steel EN 1.4462*                     |
|                    | Stainless steel EN 1.4404                             |
|                    | 254 SMO or equivalent*                                |
| Valve seat         | EPDM  |
|                    | FEPM  |
|                    | NBR   |
| Valve packing      | TwinPack with PTFE scraper                            |

\* Non-standard materials available as options



# XV

This is a compact chemical resistant and bi-directional knife gate valve suitable for fluids such as pulp stock, biomass and sludge. The XV is supplied with either a fully or a semi lugged valve body.

|                    |  |
|--------------------|--|
| Size range         | DN 65 - DN 1000 (2.5" - 40")                         |
| Shut-off technique | Bi-directional                                       |
| Connection type    | Wafer/Semi lugged or fully lugged                    |
| Face-to-face       | Stafsjö manufacturing standard<br>Option in MSS-SP81 |
| Design standard    | PED 2014/68/EU category I and II module A2           |
| Test standard      | EN 12266-1:2003 rate A                               |
| ATEX availability  | On request   |
| Valve body         | Stainless steel EN 1.4408                            |
| Valve gate         | Stainless steel EN 1.4404                            |
|                    | Duplex stainless steel EN 1.4462*                    |
| Valve seat         | PTFE   |
|                    | PTFE FDA/EC 1935/2004*                               |
| Valve packing      | TwinPack   |
|                    | WhitePack*   |
|                    | FDA/EC 1935/2004 approved PTFE*                      |
| Connection type    | Wafer/Semi lugged                                    |
|                    | Fully lugged   |
|                    | Fully lugged for dead-end service*                   |

\* Non-standard configuration or materials available as options



# Pressure class (bar)

Below table provide "Max working pressure" / "Max differential pressure". All products pressure class is specified at 20 °C except for HX which is specified at 110 °C.

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. Rate A is not applicable on metal seated valves. On request Stafsjö can provide 2.2 test report and 3.1 inspection certificate according to EN 10204.

| DN   | D2G    | HG      | HL    | HP      | HPT     | HX      | JT    | JTV <sup>1)</sup> | MV                  | RKO      |
|------|--------|---------|-------|---------|---------|---------|-------|-------------------|---------------------|----------|
| 50   |        | 10 / 10 |       |         |         |         |       |                   | 16 / 16             |          |
| 65   |        |         |       |         |         |         |       |                   | 16 / 16             |          |
| 80   |        | 10 / 10 |       |         |         |         |       |                   | 16 / 16             |          |
| 100  | 10 / 6 | 10 / 10 |       |         | 10 / 10 |         | 6 / 6 |                   | 16 / 16             | 10 / 6,2 |
| 125  | 10 / 6 | 10 / 10 |       |         | 10 / 10 |         | 6 / 6 |                   | 16 / 16             | 10 / 6,2 |
| 150  | 10 / 6 | 10 / 10 |       |         | 10 / 10 | 20 / 20 | 6 / 6 |                   | 10 / 10             | 10 / 6,2 |
| 200  | 10 / 6 | 10 / 10 |       |         | 10 / 10 | 20 / 20 | 6 / 6 |                   | 10 / 10             | 10 / 6,2 |
| 250  | 10 / 6 | 10 / 10 |       |         | 10 / 10 | 20 / 20 | 6 / 6 | 6 / 6             | 10 / 10             | 10 / 6,2 |
| 300  | 10 / 6 | 6 / 6   |       | 10 / 10 | 10 / 10 | 20 / 20 |       |                   | 10 / 10             | 10 / 6,2 |
| 350  | 10 / 6 | 6 / 6   |       | 10 / 10 | 10 / 10 | 20 / 20 |       |                   | 6 / 6               | 10 / 6,2 |
| 400  | 10 / 6 | 6 / 6   | 6 / 6 | 10 / 10 | 10 / 10 | 20 / 20 |       |                   | 6 / 6               | 10 / 6,2 |
| 450  |        | 6 / 6   |       | 10 / 10 | 10 / 10 | 20 / 20 |       |                   | 6 / 6               | 10 / 6,2 |
| 500  | 6 / 4  | 6 / 6   | 4 / 4 | 10 / 10 | 10 / 10 | 20 / 20 |       |                   | 6 / 6               | 6 / 4    |
| 600  | 6 / 4  | 6 / 6   | 4 / 4 | 10 / 10 | 10 / 10 | 20 / 20 |       |                   | 6 / 6               | 6 / 4    |
| 700  |        | 6 / 6   | 4 / 4 | 10 / 10 | 10 / 10 | 20 / 20 |       |                   | 4 / 4               |          |
| 750  |        | 6 / 6   | 4 / 4 | 10 / 10 |         | 20 / 20 |       |                   | 4 / 4               |          |
| 800  |        | 6 / 6   | 4 / 4 | 10 / 10 |         | 20 / 20 |       |                   | 4 / 4 <sup>2)</sup> |          |
| 900  |        | 4 / 4   |       | 6 / 6   |         | 16 / 16 |       |                   | 4 / 4               |          |
| 1000 |        | 4 / 4   |       |         |         |         |       |                   | 4 / 4               |          |
| 1200 |        | 4 / 4   |       |         |         |         |       |                   | 4 / 2 or 4          |          |
| 1400 |        |         |       |         |         |         |       |                   | 4 / 2 or 4          |          |
| 1600 |        |         |       |         |         |         |       |                   | 4 / 2 or 4          |          |

1) The JTV features a square bore 250 x 250 mm.

2) MV DN 800 is also available in a 10 / 10 bar version. Offer on request.

| DN   | SLV     | SLF     | SLH     | SLX     | TV       | WB    | WB11    | WB14         | WB14E        | XV                    |
|------|---------|---------|---------|---------|----------|-------|---------|--------------|--------------|-----------------------|
| 50   | 10 / 10 |         |         |         |          |       | 10 / 10 | 10 / 10      | 10 / 10      |                       |
| 65   | 10 / 10 |         |         |         |          |       | 10 / 10 | 10 / 10      |              | 16 / 10               |
| 80   | 10 / 10 | 10 / 10 | 20 / 20 | 50 / 50 | 16 / 3,5 |       | 10 / 10 | 10 / 10      | 10 / 10      | 16 / 10 <sup>3)</sup> |
| 100  | 10 / 10 | 10 / 10 | 20 / 20 | 50 / 50 |          |       | 10 / 10 | 10 / 10      | 10 / 10      | 16 / 10 <sup>3)</sup> |
| 125  | 10 / 10 | 10 / 10 | 20 / 20 | 50 / 50 |          |       | 10 / 10 | 10 / 10      |              | 16 / 10 <sup>3)</sup> |
| 150  | 10 / 10 | 10 / 10 | 20 / 20 | 50 / 50 |          |       | 10 / 10 | 10 / 10      | 10 / 10      | 16 / 10 <sup>3)</sup> |
| 200  | 10 / 10 | 10 / 10 | 20 / 20 | 50 / 50 |          |       | 10 / 10 | 10 / 10      | 10 / 10      | 10 / 10 <sup>3)</sup> |
| 250  | 10 / 10 | 10 / 10 | 20 / 20 | 50 / 50 |          |       | 10 / 10 | 10 / 10      | 10 / 10      | 10 / 10               |
| 300  | 10 / 10 | 10 / 10 | 20 / 20 | 50 / 50 |          |       | 10 / 10 | 10 / 10      | 10 / 10      | 10 / 10               |
| 350  | 10 / 10 | 10 / 10 | 20 / 20 | 50 / 50 |          | 6 / 6 |         | 10 / 6 or 10 | 10 / 6 or 10 | 10 / 10               |
| 400  | 10 / 10 | 10 / 10 | 20 / 20 | 50 / 50 |          | 6 / 6 |         | 10 / 6 or 10 | 10 / 6 or 10 | 10 / 6                |
| 450  | 10 / 6  | 10 / 6  | 20 / 20 | 50 / 50 |          |       |         | 10 / 6 or 10 | 10 / 6 or 10 | 10 / 6                |
| 500  | 10 / 6  | 10 / 6  |         |         |          | 4 / 4 |         | 10 / 4 or 10 | 10 / 4 or 10 | 10 / 6                |
| 600  | 10 / 6  | 10 / 6  |         |         |          | 4 / 4 |         | 10 / 4 or 10 | 10 / 4 or 10 | 10 / 6                |
| 700  | 5 / 5   |         |         |         |          | 4 / 2 |         |              |              | 6 / 4                 |
| 750  | 5 / 5   |         |         |         |          | 4 / 2 |         |              | 6 / 4        | 6 / 4                 |
| 800  | 5 / 5   |         |         |         |          | 4 / 2 |         |              |              | 6 / 4                 |
| 900  | 5 / 5   |         |         |         |          | 4 / 2 |         |              |              | 6 / 4                 |
| 1000 |         |         |         |         |          | 4 / 1 |         |              |              | 4 / 4                 |
| 1200 |         |         |         |         |          | 4 / 1 |         |              |              |                       |
| 1400 |         |         |         |         |          | 2 / 1 |         |              |              |                       |
| 1600 |         |         |         |         |          | 2 / 1 |         |              |              |                       |

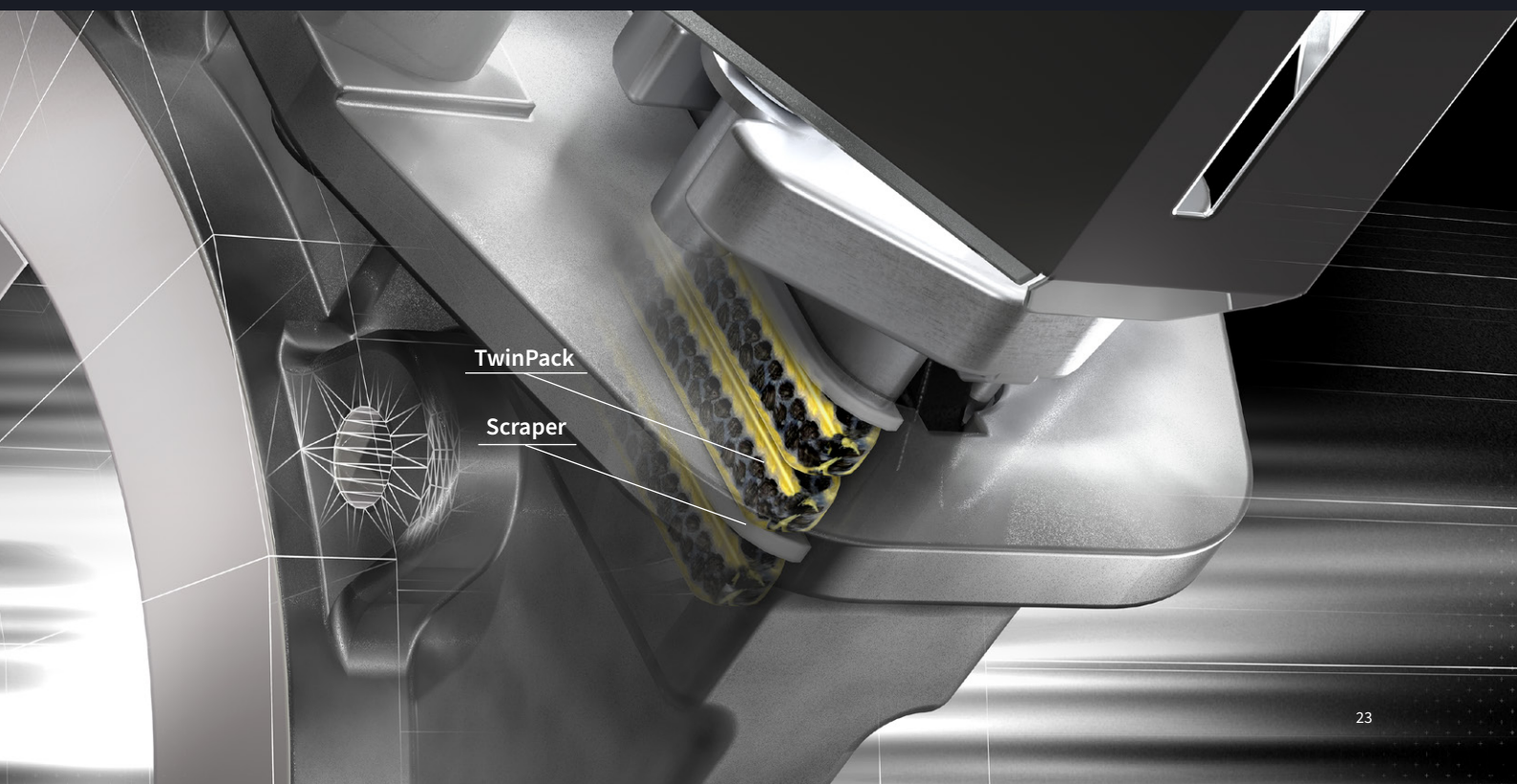
3) The XV is also available in a 12,5 bar version in DN 80 - DN 200 (3" - 8").



# A first-rate seal to atmosphere

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. The stuffing box can also be reinforced with scrapers to further support the seal and some knife gate valves are also available with double gland for the most demanding applications.

Our valve experts at Stafsjö and all around the world are ready to support if you have any questions on knife gate valve configurations suitable for your process. Find your contact on [stafsjo.com/contact/](https://stafsjo.com/contact/).



# Material and actuator service temperatures

The following material and actuator temperatures can be used as guidelines to define minimum and maximum temperatures for the knife gate valve. Please contact Stafsjö at [sales@stafsjö.se](mailto:sales@stafsjö.se) for advice.

| Valve body/retainer ring materials     | Service temperatures                | Standard field of use  |
|--|-------------------------------------|--|
| Duplex stainless steel EN 1.4470       | -50 °C - +250 °C / -58 °F - +482 °F |  |
| Hastelloy C276                         | -30 °C - +425 °C / -22 °F - +797 °F |  |
| Nodular iron EN-JS1050, GGG50          | -10 °C - +200 °C / 14 °F - +392 °F  | WB11 ≤ DN 300, WB14-L ≤ DN 300, MV-L ≤ DN 300                        |
| Nodular iron EN 5.3105                 | -10 °C - +350 °C / 14 °F - +662 °F  | HG-L, MV-L ≥ DN 350, SLF, SLH, SLV, SLX, WB ≥ DN 350, WB14 ≥ DN 350, |
| Super duplex stainless steel EN 1.4469 | -50 °C - +250 °C / -58 °F - +482 °F |  |
| Stainless steel EN 1.4408              | -50 °C - +400 °C / -58 °F - +752 °F | D2G, HG, HL, HP, HX, JTV, MV, RKO, TV, WB14E, XV                     |
| Titanium ASTM B265 Grade 2             | -40 °C - +300 °C / -40 °F - +572 °F | HPT  |
| 254 SMO stainless steel equivalent     | -40 °C - +399 °C / -40 °F - +750 °F |  |

| Gate materials  | Service temperatures                | Standard field of use                         |
|---|-------------------------------------|---|
| Duplex stainless steel EN 1.4462                        | -40 °C - +400 °C / -40 °F - +752 °F | JTV, HP, HX ≥ DN 400, SLF, SLH, SLV, RKO      |
| Hard anti-stick coated duplex stainless steel EN 1.4462 | -40 °C - +250 °C / -40 °F - +482 °F | SLH   |
| Super duplex stainless steel EN 1.4410                  | -40 °C - +400 °C / -40 °F - +752 °F |   |
| Stainless steel EN 1.4301                               | -40 °C - +400 °C / -40 °F - +752 °F | MV-L DN 50-DN 500, RKS, WB, WB11, WB14-L      |
| Stainless steel EN 1.4404                               | -40 °C - +400 °C / -40 °F - +752 °F | D2G, HG, HL, HX ≤ DN 350, MV-E, TV, WB14E, XV |
| Stainless steel 17-4 PH                                 | -18 °C - +300 °C / -0 °F - +572 °F  |   |
| Hard anti-stick coated stainless steel 17-4 PH          | -18 °C - +250 °C / -0 °F - +482 °F  | SLX   |
| Titanium ASTM B265 Grade 2                              | -40 °C - +300 °C / -40 °F - +572 °F | HPT   |
| 254 SMO stainless steel or equivalent                   | -40 °C - +399 °C / -40 °F - +750 °F |   |

| Valve body guiding pad materials | Service temperatures                  | Standard field of use  |
|----------------------------------|---------------------------------------|--|
| Brass                            | -125 °C - +200 °C / -193 °F - +392 °F |  |
| PEHD                             | -150 °C - +80 °C / -238 °F - +176 °F  | MV DN 400 - 800, XV ≥ DN 500                                 |
| POM-C                            | -40 °C - +100 °C / -40 °F - +212 °F   | D2G, JTV, MV DN ≥ 1200, RKO, WB ≥ DN 700, WB14E, XV ≥ DN 700 |
| PTFE                             | -80 °C - +260 °C / -112 °F - +500 °F  | HG ≥ DN 250, HL, HP, HX, HPT, MV DN 900 - DN 1600            |

| Valve body gasket materials | Service temperatures                 | Standard field of use  |
|-----------------------------|--------------------------------------|--|
| EPDM                        | -25 °C - +120 °C / -13 °F - +248 °F  | WB ≥ DN 700, WB14E ≥ DN 350  |
| FEPM                        | -10 °C - +180 °C / 14 °F - +356 °F   | WB14E ≥ DN 350   |
| FPM/FKM                     | -15 °C - +180 °C / 5 °F - +356 °F    | HL, HG ≥ DN 300, HP, HX ≥ DN 350, JTV, MHE DN 800, MV DN 900-DN 1600, RKO ≥ DN 300, SLV DN 700-DN 900, SLF ≥ DN 450, SLH ≥ DN 350, SLX ≥ DN 350, XV ≥ DN 700 |
| Graphite tape               | -50 °C - +550 °C / -58 °F - +1022 °F | HG DN 50-DN 150, RKO DN 100-DN 250   |
| NBR                         | -25 °C - +100 °C / -13 °F - +212 °F  | WB ≥ DN 700, WB14E ≥ DN 350  |
| PTFE                        | -80 °C - +260 °C / -112 °F - +500 °F | HG DN 200-DN 250, HPT, HX DN 150-DN 300, SLH ≤ DN 300, SLX ≤ DN 300  |

| Seat materials | Service temperatures                  | Standard field of use                             |
|----------------|---------------------------------------|---|
| Brass          | -125 °C - +200 °C / -193 °F - +392 °F | RKS   |
| EPDM           | -25 °C - +120 °C / -13 °F - +248 °F   | MV, TV, SLV, SLF, SLH, SLX, WB, WB11, WB14, WB14E |

| Seat materials                             | Service temperatures                | Standard field of use                              |
|--|-------------------------------------|--|
| FEPM                                       | -10 °C - + 180 °C / 14 °F - +356 °F | WB11/ WB14 DN 50, DN 80-DN 300, WB14E DN 50-DN 600 |
| FPM/FKM                                    | -15 °C - +180 °C / 5 °F - +356 °F   | MV   |
| Natural rubber                             | -25 °C - +80 °C / 5 °F - +176 °F    | SLF, SLH, SLV and SLX                              |
| NBR  | -25 °C - +100 °C / -13 °F - +212 °F | MV, RKS, WB, WB11, WB14, WB14E                     |
| Polyurethane                               | -25 °C - +90 °C / -13 °F - +194 °F  | HG, JTV, MV, RKO                                   |
| PTFE with o-ring NBR                       | -25 °C - +100 °C / -13 °F - +212 °F | D2G, HG, HL, HP, HPT, HX, MV, RKO, TV, XV          |
| PTFE with o-ring EPDM                      | -25 °C - +120 °C / -13 °F - +248 °F | D2G, HG, HL, HP, HPT, HX, MV, RKO, TV, XV          |
| PTFE with o-ring FPM/FKM                   | -15 °C - +180 °C / 5 °F - +356 °F   | D2G, HG, HL, HP, HPT, HX, MV, RKO, TV, XV          |
| Stainless steel with grafoil tape          | -40 °C - +400 °C / -40 °F - +752 °F | MV, HG   |
| Stainless steel EN 1.4408 with o-ring NBR  | -25 °C - +100 °C / -13 °F - +212 °F | MV, HG   |
| Stainless steel EN 1.4408 with o-ring EPDM | -25 °C - +120 °C / -13 °F - +248 °F | MV, HG   |
| Stainless steel EN 1.4408 with o-ring FKM  | -15 °C - +180 °C / 5 °F - +356 °F   | MV, HG   |

| Box packing materials      | Service temperatures                   | Standard field of use |
|----------------------------|--|-----------------------|
| Graphite (pH range: 2-13)  | -200 °C - +600 °C / -328 °F - +1112 °F |                       |
| PTFE (pH range: 0-14)      | -80 °C - +260 °C / -112 °F - +500 °F   |                       |
| TwinPack (pH range: 2-13)  | -60 °C - +260 °C / -76 °F - +500 °F    | All products          |
| WhitePack (pH range: 2-13) | -60 °C - +260 °C / -76 °F - +500 °F    |                       |

| Box packing scraper materials | Service temperatures                  | Standard field of use   |
|-------------------------------|---------------------------------------|---|
| Brass                         | -125 °C - +200 °C / -193 °F - +392 °F |   |
| PEHD                          | -30 °C - +80 °C / -22 °F - +176 °F    | MV DN 500-DN 800  |
| PTFE                          | -80 °C - +280 °C / -112 °F - +536 °F  | HX, WB14E   |
| UHMW-PE                       | -200 °C - +85 °C / -328 °F - +185 °F  | SLV, SLF, SLH, SLX, XV ≤ DN 600, WB 350-DN 600, WB11/WB14 DN 200-DN 300 |

| Actuators                              | Service temperatures                | Standard field of use         |
|--|-------------------------------------|-------------------------------|
| Auma SA actuators                      | -30 °C - +70 °C / -22 °F - +158 °F  | All products                  |
| Auma GK bevel gears                    | -25 °C - + 80 °C / -13 °F - +176 °F | All products                  |
| Ceson double-acting hydraulic cylinder | -20 °C - +80 °C / -4 °F - +176 °F   | All products                  |
| CFP double-acting pneumatic cylinders  | -20 °C - +70 °C / -4 °F - +158 °F   | D2G & RKS                     |
| CFP single-acting pneumatic cylinders  | -20 °C - +70 °C / -4 °F - +158 °F   |                               |
| Linak LA36 actuator unit               | -30°C - +65°C / -22 °F - +149 °F    | MV/WB11/WB14/WB14E ≤ DN 300   |
| Linak control unit                     | +5°C - +40°C / -41 °F - +104 °F     | MV/WB11/WB14/WB14E ≤ DN 300   |
| RDC double-acting pneumatic cylinders  | -34 °C to 120 °C / -30 °F to 250 °F |                               |
| RDC single-acting pneumatic cylinders  | -34 °C to 120 °C / -30 °F to 250 °F |                               |
| SC double-acting pneumatic cylinders   | -30 °C - +100 °C / -22 °F - +212 °F | All products except D2G & RKS |

# Automation equipment customized for your process

For decades we have provided knife gate solutions to process industries all around the world. We are used to adapt our valves and accessories to local demands and requirements. For us it is important, independent where the site is in the world, that the products we supply meet or exceed our customers' expectations. This includes automation equipment and accessories.

Contact our valve experts. We are ready to support your business operations.  
[stafsjo.com/contact/](https://stafsjo.com/contact/) →



# Describe your knife gate valve

Following descriptions can be used to briefly define material, actuator and accessories of desired Stafsjö knife gate valve. Please contact Stafsjö at sales@stafsjo.se for advise.

**MV-L-200-P-TY-HW-PN10**

Valve type —  
Body material —  
Size —  
Seat —  
Box packing —  
Actuator —  
Flange drilling —

## Standard configuration

Retainer ring and gate material together with accessories only has to be mentioned in the end of the description if it is different from standard.

**SLV-L-100-E-TY-HWR-ANSI-SP-LDR**

Valve type —  
Body material —  
Size —  
Seat —  
Box packing —  
Actuator —  
Flange drilling —  
Optional accessory —  
Optional accessory —

## Standard configuration with accessories

In this example the customer also wants to have stem protection and load distribution ring. This is mentioned in the end of the description.

**RKO-E-200-U-TY-SC200-PN10/PN10-SV-ILS**

Valve type —  
Body material —  
Size —  
Seat —  
Box packing —  
Actuator —  
Flange drilling —  
Optional accessory\* —  
Optional accessory\* —

## Standard configuration with optional flange pattern

In this example the customer wants to have PN10 flange pattern on both inlet side and outlet/discharge side. This is only possible on RKO DN 100 - DN 200. The accessories are mentioned in the end of the description.

\* SV: Solenoid valve Stafsjö standard 220/230 V AC

\* ILS: Inductive limit switches Stafsjö standard 20-250V AC/DC



| Knife gate valve options                            |  |
|---|--|
| D2G   |  |
| HL  |  |
| HG  |  |
| HP  |  |
| HPT   |  |
| HX  |  |
| JTV   |  |
| JT  |  |
| MV  |  |
| RKO   |  |
| RKS   |  |
| SLV   |  |
| SLF   |  |
| SLH   |  |
| SLX   |  |
| TV  |  |
| XV SL (semi lugged version)                         |  |
| XV FL (fully lugged version)                        |  |
| XV FLD (fully lugged version for dead-end services) |  |
| WB  |  |
| WB11  |  |
| WB12  |  |
| WB14  |  |
| WB14E   |  |

| Valve body material options |  |
|-----------------------------|--|
| D                           | Duplex stainless steel EN 1.4470               |
| E                           | Stainless steel EN 1.4408                      |
| L                           | Nodular iron EN 5.3105, EN-JS1050, GGG50       |
| SMO                         | Equivalent material to 254 SMO stainless steel |
| T                           | Titanium ASTM B265 Grade 2                     |

See product data sheet for each knife gate valve type for available material options.

| Seat material options |  |
|-----------------------|--|
| E                     | EPDM   |
| F                     | FEPM   |
| V                     | FPM/FKM/Viton                                      |
| NR                    | Natural rubber                                     |
| N                     | NBR  |
| M                     | Metal with o-ring NBR (Brass on the RKS valve)     |
| MV                    | Metal with o-ring FPM/FKM                          |
| MHT                   | Metal with grafoil tape                            |
| P                     | PTFE with o-ring NBR                               |
| PE                    | PTFE with o-ring EPDM                              |
| PV                    | PTFE with o-ring FPM/FKM                           |
| PFDA                  | FDA/EC 1935/2004 approved PTFE with o-ring NBR     |
| PEFDA                 | FDA/EC 1935/2004 approved PTFE with o-ring EPDM    |
| PVFDA                 | FDA/EC 1935/2004 approved PTFE with o-ring FPM/FKM |
| U                     | Polyurethane                                       |

See product data sheet for each knife gate valve type for available material options.

| Gland box packing options |                                 |
|---------------------------|---------------------------------|
| TG                        | Graphite                        |
| TF                        | PTFE                            |
| TF                        | PTFE                            |
| TFFDA                     | FDA/EC 1935/2004 approved PTFE  |
| TY                        | TwinPack                        |
| TYS                       | TwinPack with a UHMW-PE scraper |
| TYPS                      | TwinPack with PTFE scraper      |
| TYB                       | TwinPack with brass scraper     |
| WP                        | WhitePack                       |

See product data sheet for each knife gate valve type for available material options.

| Actuator options |   |
|------------------|---|
| BS               | Bare shaft, actuator excluded   |
| CW               | Chain wheel   |
| CFPXXX           | CFP (or RDC) double-acting pneumatic cylinder in size XXX   |
| CFPMOXXX         | CFP (or RDC) double-acting pneumatic cylinder in size XXX with manual override  |
| CFPCXXX          | CFP (or RDC) double-acting pneumatic cylinder in size XXX including pneumatic cushioning  |
| CFPSXXXO         | CFP (or RDC) single-acting pneumatic cylinder in size XXX with spring return to open the valve                                      |
| CFPSXXXC         | CFP (or RDC) single-acting pneumatic cylinder in size XXX with spring return to close the valve                                     |
| CFPSMOXXXO       | CFP (or RDC) single-acting pneumatic cylinder in size XXX with spring return to open the valve and manual override                  |
| CFPSXXXMOC       | CFP (or RDC) single-acting pneumatic cylinder in size XXX with spring return to close the valve and manual override                 |
| HL               | Hand lever  |
| HC               | Stafsjö standard double-acting hydraulic cylinder   |
| HW               | Hand wheel with non-rising stem   |
| HWALU            | Hand wheel in aluminum with non-rising stem   |
| HWSS             | Hand wheel in stainless steel with non-rising stem  |
| HWR              | Hand wheel with rising stem   |
| EM               | Electrical motor for open-close duty with rising stem. Brand, size, voltage and any extra module must always be specified.          |
| EMR              | Electrical motor for modulating duty with rising stem. Brand, size, voltage and any extra module must always be specified           |
| LI               | Electric motor from LINAK. Control unit must be specified.  |
| PrepEM           | The valve is prepared for assembly of electric motors according ISO 5210 FXX connection A (rising stem)                             |
| PrepEMB3         | The valve is prepared for assembly of electric motors according ISO 5210 FXX connection B3 (non-rising stem)                        |
| PrepBG           | The valve is prepared for assembly of bevel gear according ISO 5210 FXX connection A (rising stem).                                 |
| SCXXX            | SC double-acting pneumatic cylinder in size XXX (100, 125, 160, 200, 250, 320). Magnetic piston is standard up to Ø 200 barrel size |
| SCXXXM           | SC double-acting pneumatic cylinder with magnetic piston in size XXX (250, 320)   |

| Flange drilling options |  |
|-------------------------|--|
| ANSI                    | ANSI/ASME B16.5 Class 150 and/or B 16.47 Class 150, series A |
| ANSI300                 | ANSI/ASME B16.5 Class 300                                    |
| ASD                     | AS 2129 Table D  |
| ASE                     | AS 2129 Table E  |
| BS                      | BS 10 table D  |
| JIS                     | JIS B 2238 10K   |
| PN10                    | EN 1092 PN10   |
| PN16                    | EN 1092 PN16   |
| PN25                    | EN 1092 PN25   |
| PN50                    | EN 1092 PN50   |
| SS                      | Stafsjö Standard   |

See product data sheet for each knife gate valve type for available flange drilling options.

Flange drill pattern on the outlet/discharge side of RKO must also be specified if not standard square pattern.

Flange drill pattern on the inlet/seat/tank side of TV must also be specified if it is not Stafsjö standard.

On JTV knife gate valves, keep in mind to also mention if metric or UNC threads is needed.

| Retainer ring options  |  |         |   |
|--|--|---------|---|
| D  | Duplex stainless steel EN 1.4470   | PrepILS | Hand wheel operated valves is prepared with indicator pin and beams with holes. Brackets for switches excluded.                       |
| E  | Stainless steel EN 1.4408  | SBU     | Ebro SBU switch box   |
| L  | Nodular iron EN 5.3105, EN-JS1050, GGG50   | SBUIO   | Ebro SBU IO-Link switch box   |
| SMO  | Equivalent material to 254 SMO stainless steel   | SEL     | Stem extension long. Extra supports must be specified.  |
| T  | Titanium ASTM B265 Grade 2   | SES     | Stem extension short. Extra supports must be specified.   |
| See product data sheet for each knife gate valve type for available material options. Retainer ring material only has to be specified in end of the description if it is different from standard.              |  | SSPW    | Stainless steel pipe works (air tubes)  |
|  |  | SP      | Stem and piston rod protection/Bellow.  |
|  |  | SSP     | Stainless steel pillars   |
|  |  | SSTWLD  | Stainless steel top works including lockout   |
|  |  | SV      | Solenoid valve, Namur interface, Stafsjö standard. Make a note if should be supplied for 24 V DC, 110 V AC or 220/230 V AC.           |
|  |  | SVB     | Solenoid valve excluding namur interface, including bracket. Make a note if should be supplied for 24 V DC, 110 V AC or 220/230 V AC. |
|  |  | TAG     | Tag plate   |
|  |  | RFS     | MV reverse flow supports  |
|  |  | T-key   | Stem extension with a T-key   |
|  |  | Vp      | V-port in stainless steel   |
|  |  | 2.2     | 2.2 test report according to EN 10204   |
|  |  | 3.1     | 3.1 inspection certificate according to EN 10204  |
| Gate material and surface treatment options  |  |         |   |
| FAL  | Duplex stainless steel EN 1.4462, S32205   |         |   |
| EPS  | Extra polished surface (max Ra 0,8)  |         |   |
| HCR  | Hard chromed surface   |         |   |
| SF2  | Nedox SF2 coating  |         |   |
| SMO  | 254 SMO stainless steel or equivalent  |         |   |
| T  | Titanium ASTM B265 Grade 2   |         |   |
| 174ph  | Hardened 43 HRC 17-4 PH/ASME SA-693 Type630  |         |   |
| 1.4301   | Stainless steel EN 1.4301/AISI 304   |         |   |
| 1.4404   | Stainless steel EN 1.4404/AISI 316L  |         |   |
| See product data sheet for each knife gate valve type for available material options. Gate material and surface treatment only has to be specified in end of the description if it is different from standard. |  |         |   |
| Standard accessorie options  |  |         |   |
| ATEX   | Valves supplied according directive 2014/34/EU Group II. Category and zone also have to be specified.  |         |   |
| BC   | Bottom cover   |         |   |
| CoC  | Country of Origin Certificate legalized by Chamber of Commerce   |         |   |
| CUTR   | Technical passsport according CUTR 010/32  |         |   |
| CS4  | Painted valve parts fulfill in applicable areas corrosion protection against environment according EN ISO 12944, corrosivity category C4 medium                  |         |   |
| CS5  | Painted valve parts fulfill in applicable areas corrosion protection against environment according EN ISO 12944, corrosivity category C5 high.                   |         |   |
| DC   | Deflection cone  |         |   |
| DG   | Double gland   |         |   |
| FC   | Floor column to stem extensions  |         |   |
| FSAT   | Fail-safe solution with air accumulator tank   |         |   |
| FAPSAIR  | Fully automated purge systems with air purging   |         |   |
| FAPS   | Fully automated purge systems with water purging   |         |   |
| FRL  | Filter regulator Stafsjö standard including assembly bracket. Make a note if 1/4" or 1/2" should be supplied.  |         |   |
| FRLNPT   | Filter regulator Stafsjö standard including including assembly bracket and a NPT adapter for the air inlet port. Make a note if 1/4" or 1/2" should be supplied. |         |   |
| ILS  | Inductive limit switch Stafsjö standard. Make a note if it should be for 20 - 250 V AC/DC or 10 - 36 V DC.   |         |   |
| JB   | Junction box Stafsjö standard.   |         |   |
| LD   | Lockouts with locking device/pin   |         |   |
| LDR  | Load distribution rings assembled on the valve   |         |   |
| MagLS  | Magnetic limit switches Stafsjö standard.  |         |   |
| MLS  | Mechanical limit switch Stafsjö standard.  |         |   |
| MSSSP81  | Face-to-face dimensions according MSS-SP81.  |         |   |
| POS  | Positioner Stafsjö standard. Other brand and types must be specified.  |         |   |
| PPS  | Purge ports extra, standard positions.   |         |   |
| PPC  | Purge ports, customized postions. Position and quantity must be specified.   |         |   |
| PPCSPW   | Purge ports customized postions including stainless steel pipe works. Position and quantity must be specified.   |         |   |



