

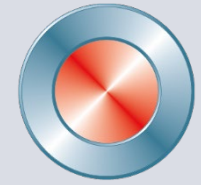
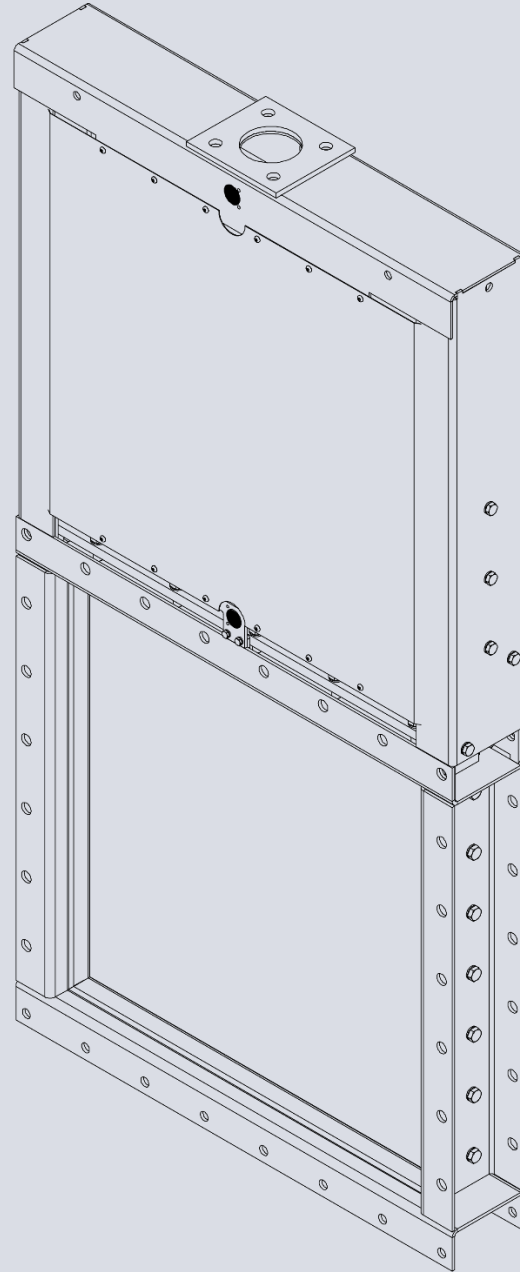
Maintenance instruction

Knife gate valve RKS with resilient sealing

Size range: 200 x 200 - 1000 x 1000

Knife gate valve RKS with metal brass sealing

Size range: 200 x 200 - 1000 x 1000



Stafsjö
SINCE 1666

1. Introduction

This maintenance instruction is a step-by-step instruction for maintenance of




A. RKS knife gate valve with resilient sealing.

Size range: 200 x 200 - 1000 x 1000.

B. RKS knife gate valve with metal brass sealing

Size range: 200 x 200 - 1000 x 1000.

In this instruction notes and warnings are marked with symbols:

 XXXXX	Danger / Warning Points out a dangerous situation which may cause personal injuries or death.
	Advice Has to be respected.
	Information Information useful to follow.



If these notes and warnings are not respected by the user, dangerous situations may occur and may invalidate the warranty.

2. Spare parts

Each Stafsjö knife gate valve is identified with a label containing the valve item number and its serial number. When corresponding with Stafsjö or our local sales partner, please have this available to make sure you order and receive correct spare parts.


Stafsjö recommends the customer to keep one set of “basic” spare part kit for each valve type and size on stock. Spare parts can be ordered from Stafsjö or our local sales partners.

3. Disassembling of valve parts

	<ul style="list-style-type: none">• Steps and procedures described in this section are based on a valve which is not installed in a pipe system.• Follow procedure described in installation and service instruction for the knife gate valve and its actuator.• Maintenance shall be performed by qualified personnel. Qualified are those persons who, due to experience, can judge the risk and execute the work correctly and who are able to detect and to eliminate possible risks.• Always consider the application of the valve and carefully prepare relevant personal safety equipment before starting any maintenance.
	<ul style="list-style-type: none">• Always have the knife gate valve's article and serial number available to ensure you order correct spare parts to your valve.

To simplify the disassembling of the knife gate valve, place the valve on a horizontal work bench.

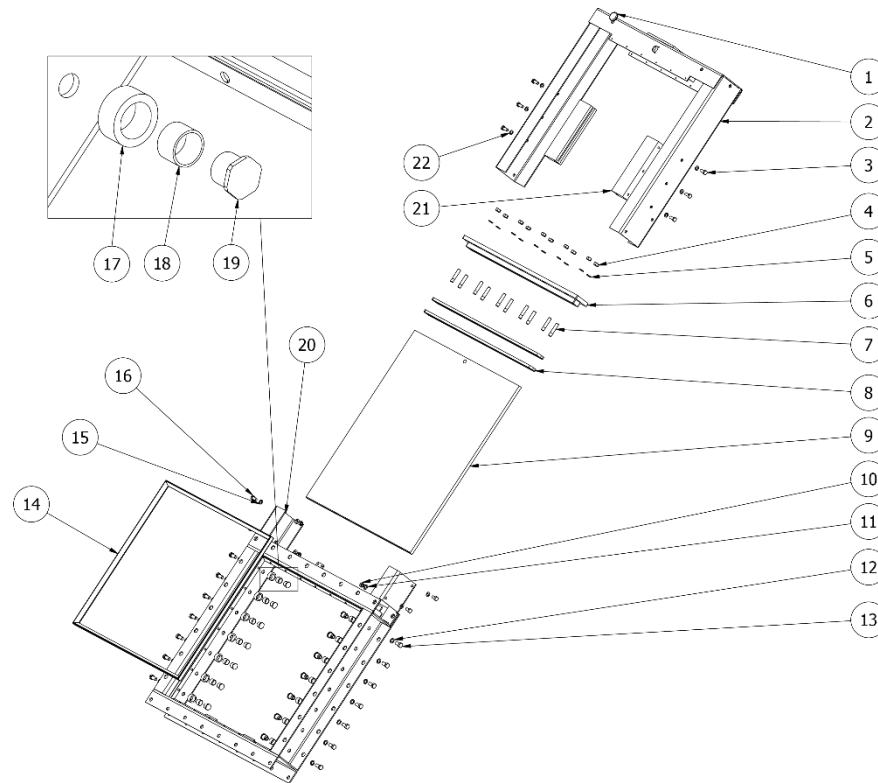
1. Disconnect the air/hydraulic/power supply. Follow procedure described in installation and service instruction for the knife gate valve and its actuator.
2. Disconnect the actuator and topworks.
3. Disconnect the gland.
4. Remove stuffing box braids and its scrapers (if any).
5. Remove the gate.
6. Inspect the gate for any damages. Dents and scratches will affect its ability to seal tight.
7. Remove the seat.
8. Remove the worn-out rollers.
9. Clean the inside of knife gate valve carefully, especially all sealing surfaces.

	<ul style="list-style-type: none">• Recycle worn out parts to extent possible.
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A. RKS knife gate valve with resilient sealing.

Size range: 200x200 - 1000 x 1000.

Pos	Part	Spares		
1	Plug			
2	Top frame			
3	Screw	■		
4	Nut	■		
5	Washer	■		
6	Gland			
7	Stud bolt	■		
8	Box packing braid	■		
9	Gate	■		
10	Nut	■		
11	Washer			
12	Washer	■		
13	Screw	■		
14	Seat	■		
15	Washer			
16	Screw			
17	Roller	■		
18	Roler bushing	■		
19	Roler support	■		
20	Valve body frame			
21	Gate guides	■		
22	Washer	■		



Spare part kits

● Complete

● Essential

● Basic

Each valve is marked with a label including the valve's article and serial number. With this info we can ensure you receive correct spare parts to your valve.

Request offer on spare parts at stafsjo.com/support/original-spare-parts/

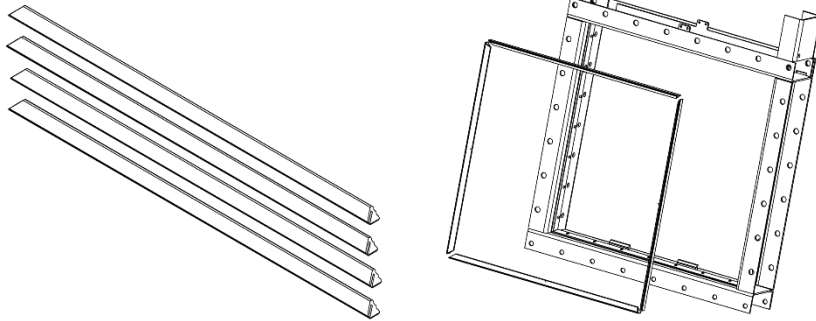
1) Gate guards are also recommended on remote operated valves.



- Always consider the application of the valve and carefully prepare relevant personal safety equipment before starting any valve assembly.
- Valve assembly shall be performed by qualified personal. Qualified are those persons who, due to experience, can judge the risk and execute the work correctly and who are able to detect and to eliminate possible risks.

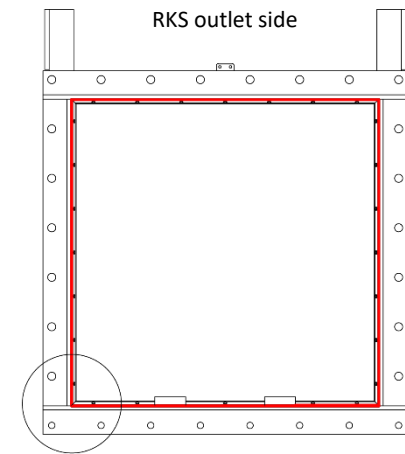
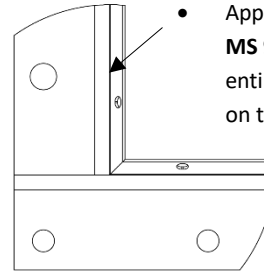
A1

- Ensure valve body frame is clean.
- Cut the seat, each end in a 45° angle. The length is your valve size + 5 mm.
- Test the four pieces on the housing.



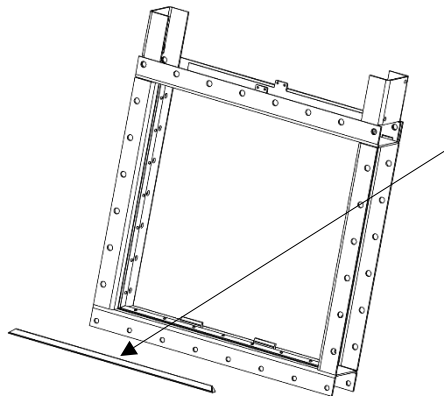
A2

- Apply a bead of **Teroson MS 9220** around the entire bottom of the fold on the sheet metal.



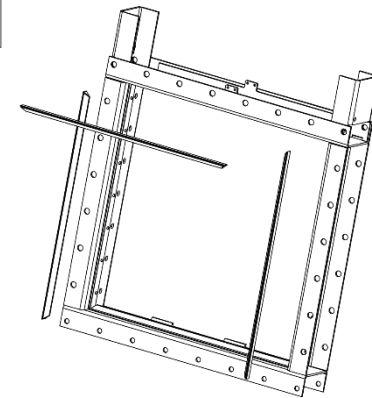
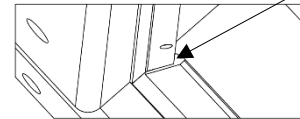
A3

- Insert the first sealing profile (seat).
- It is easiest to start in bottom part of the valve bore.

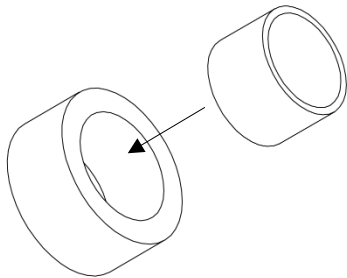


A4

- Apply a generous amount of Teroson to the corner before pressing the next piece into place.
- Continue until all pieces are in place.



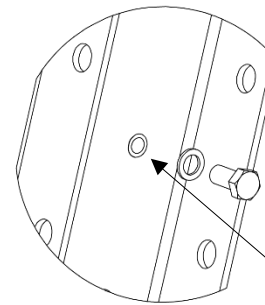
A5



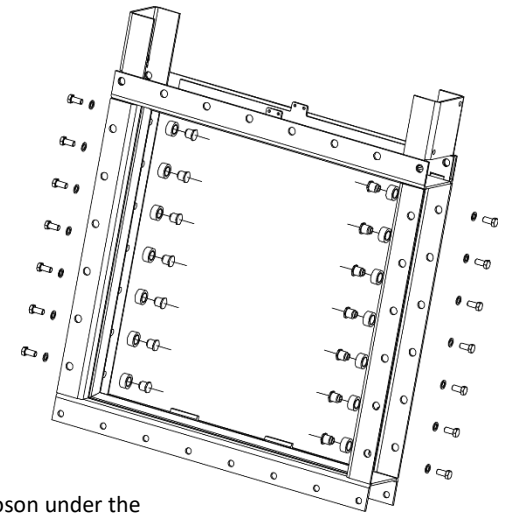
- Insert the roller bushings into the support rollers.

A6

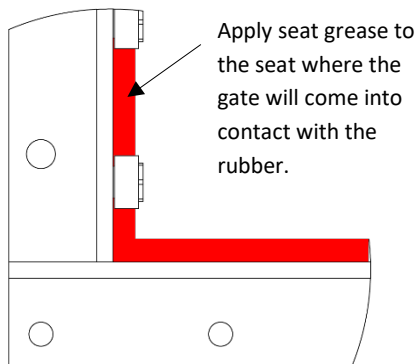
- Assemble the roller kits.
- Do not tighten fully. Leave loose in the most open position.



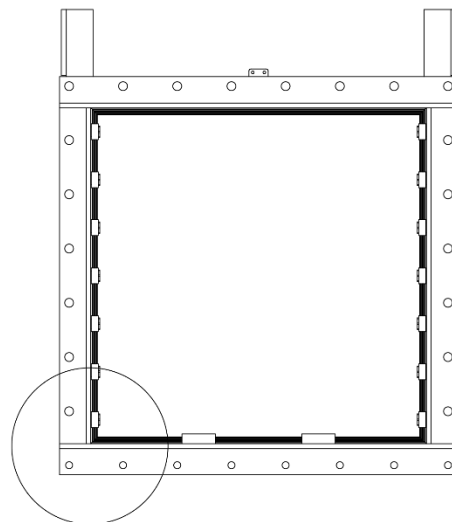
Apply Teroson under the washer against the housing.



A7

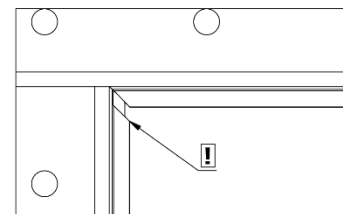


Apply seat grease to the seat where the gate will come into contact with the rubber.

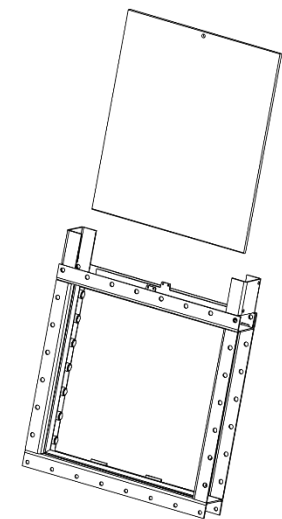


A8

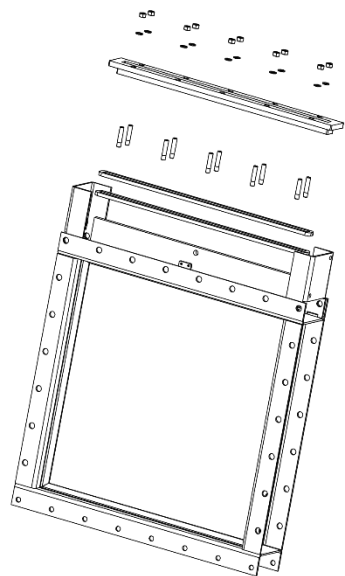
- Insert the gate into the valve body.
- Ensure the gate hit the bottom of the valve.



! Check that the seat joints do not slip apart.

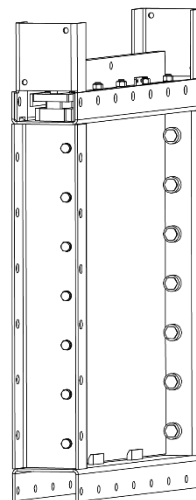


A9



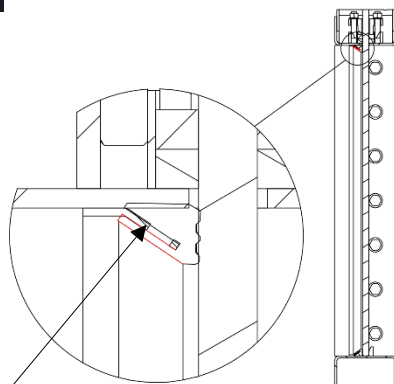
- Assemble box packing and the gland. See “Re-packing instruction”.

A10

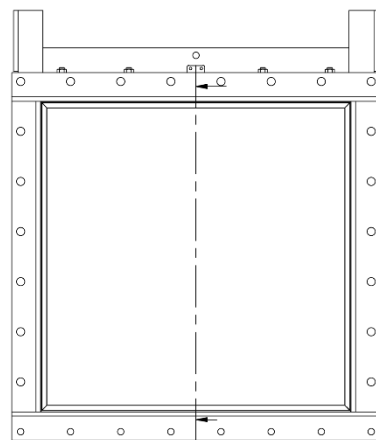


- Tighten all roller supports so that they are against the gate. Final tightening should be carried out at a later stage (see A15).

A11



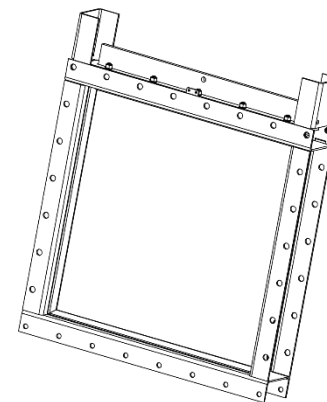
- Place a bead of Teroson under the seat flap at the front. Massage the seat towards the corners so that they meet properly.



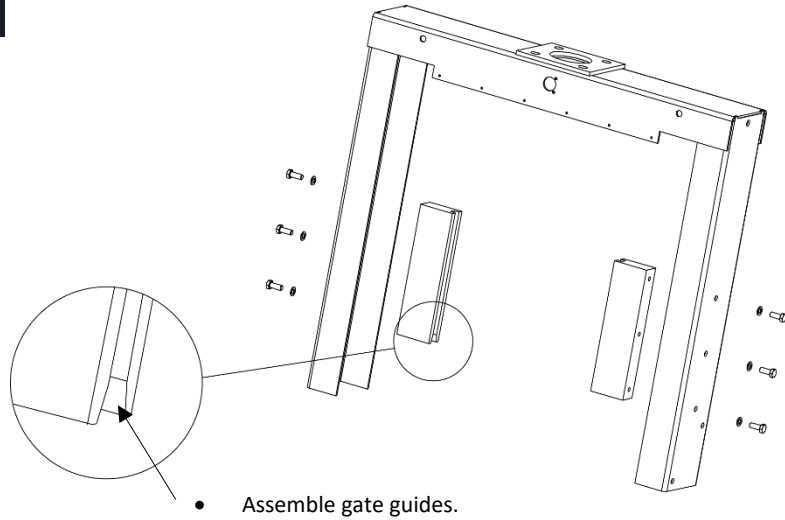
- Wipe away any excess.
- Leave to dry for at least 12 hours.

A12

Tighten gland nuts. See “Re-packing instruction”.

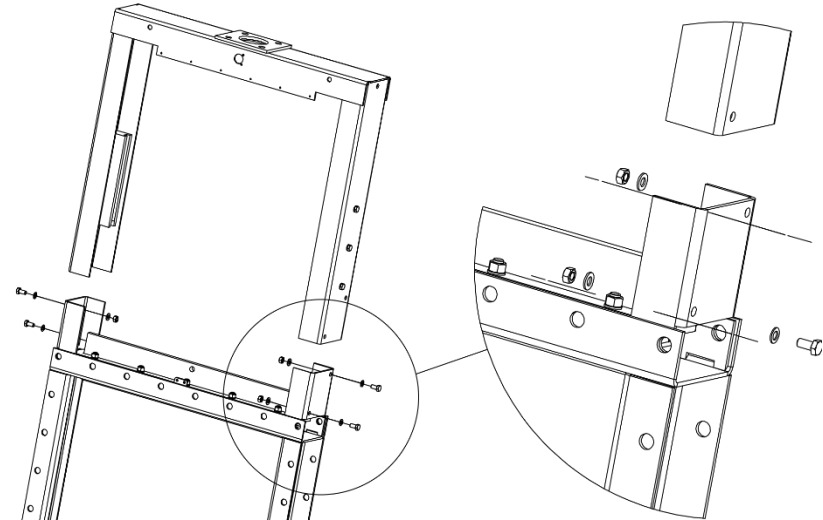


A13

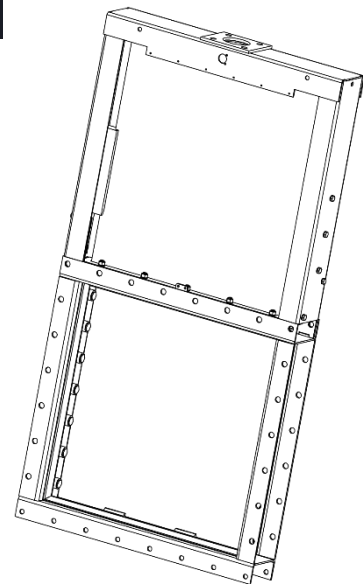


A14

- Assemble the top frame.
- Use thread paste and assemble the screws, nuts and washers manually.



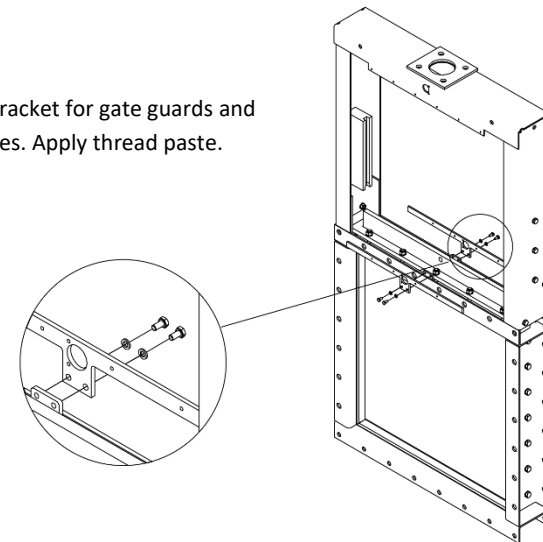
A15



- Open the valve with support from an actuator.
- Tighten top frame screws with 33Nm.
- Then close the valve and re-tighten each roller supports that come into contact with the gate with 60 Nm. Adjust roller supports if necessary.

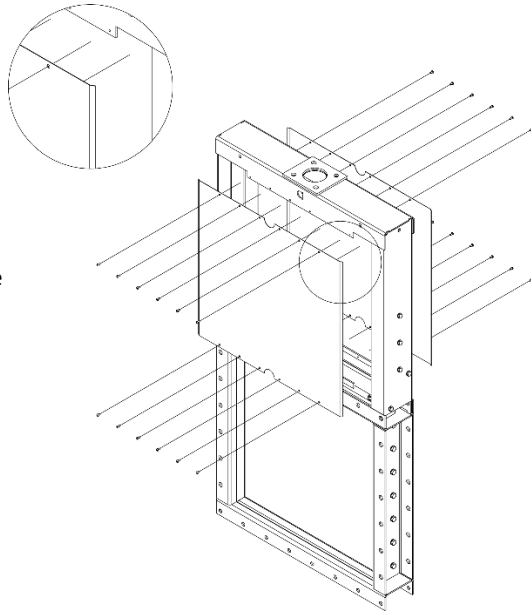
A16

- Assemble bracket for gate guards and limit switches. Apply thread paste.



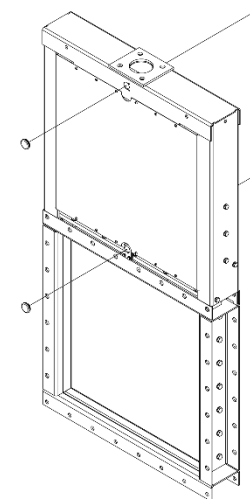
A17

- Assemble the gate guards if the valve is intended to be remote operated.



A18

- Assemble black plugs if no sensors are installed.

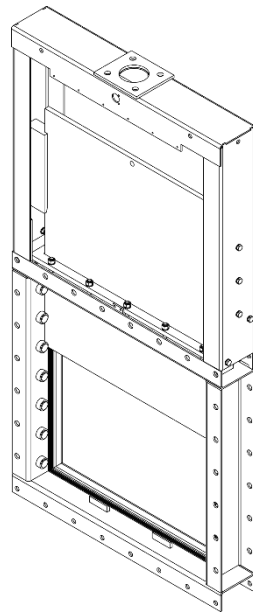


A16 **Final checks**

- Open/close the valve three times.
- Leave the valve in full closed position.

Check that:

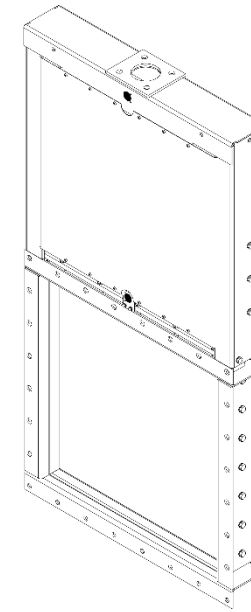
- The seal is not stretched so that gaps appear in the corners during operation.
- The gate opens and closes smoothly and complete.
- The gate roller supports are in contact with the gate.



A16

Well done!

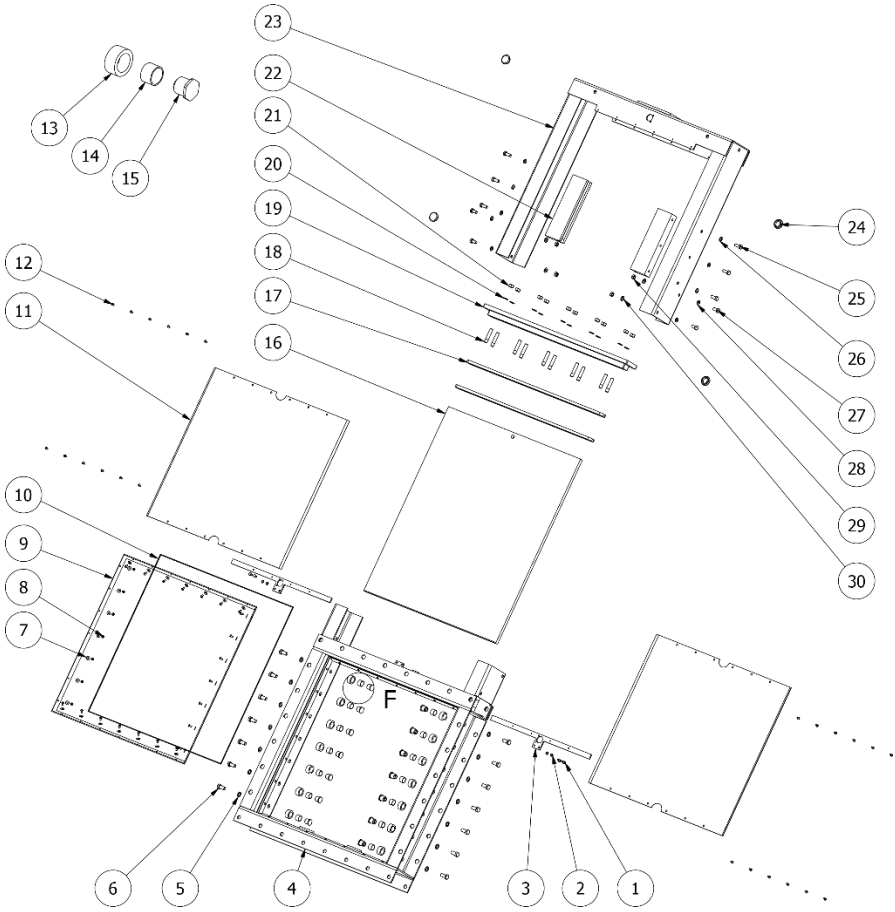
You are now ready to continue with assembly of actuator you intend to use on the valve and automation equipment. Observe and respect relevant instructions.



B. RKS knife gate valve with metal brass sealing.

Size range: 200x200 - 1000 x 1000.

Pos	Part	Spares		
1	Screw			
2	Washer			
3	Bracket for gate guards/sensor			
4	Valve body frame			
5	Washer			
6	Screw			
7	Washer			
8	Screw			
9	Metal seat			
10	Teflon o-ring			
11	Gate guard			
12	Screw			
13	Roler			
14	Roler bushing			
15	Roler support			
16	Gate			
17	Box packing braid			
18	Stud bolt			
19	Gland			
20	Washer			
21	Locking nut			
22	Gate guide			
23	Top frame			
24	Plug			
25	Screw			
26	Washer			
27	Screw			
28	Washer			
29	Nut			
30	Washer			



Spare part kits

- Complete
- Essential
- Basic

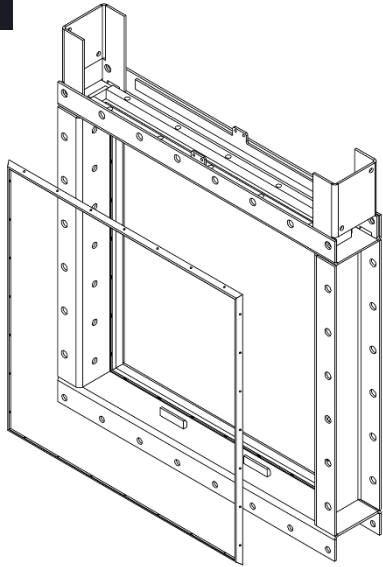
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Request offer on spare parts at stafsjo.com/support/original-spare-parts/



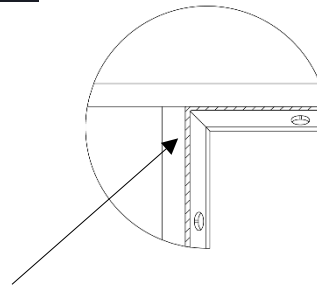
- Always consider the application of the valve and carefully prepare relevant personal safety equipment before starting any valve assembly.
- Valve assembly shall be performed by qualified personal. Qualified are those persons who, due to experience, can judge the risk and execute the work correctly and who are able to detect and to eliminate possible risks.

B1

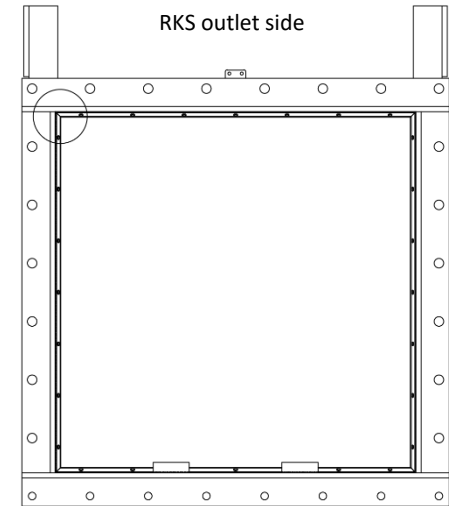


- Ensure valve body frame is clean.
- Install the seat. Ensure fit.

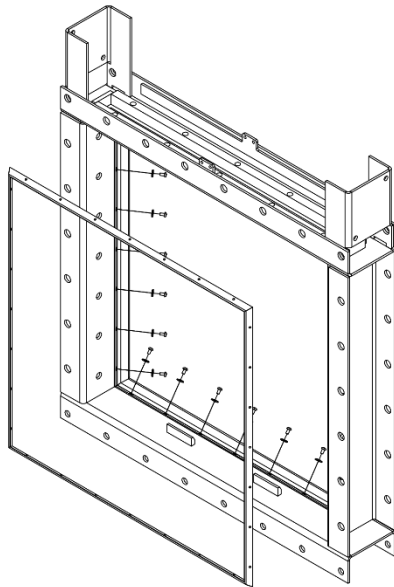
B2



- Measure and cut the sealing o-ring to fit the valve body frame.
- Make sure to press the o-ring into the corners to fill the area.
- The ends of the cord should be flush with each other.

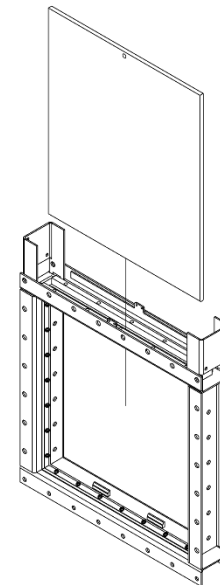


B3



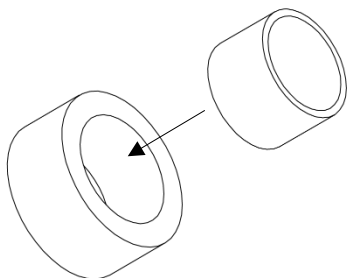
- Insert the metal seat into the valve and assemble it with screws and washers. Do not tighten the screws fully.

B4



- Insert the gate into the valve body.
- Ensure the gate hit the bottom of the valve.

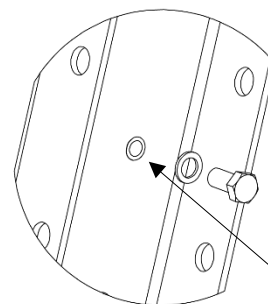
B5



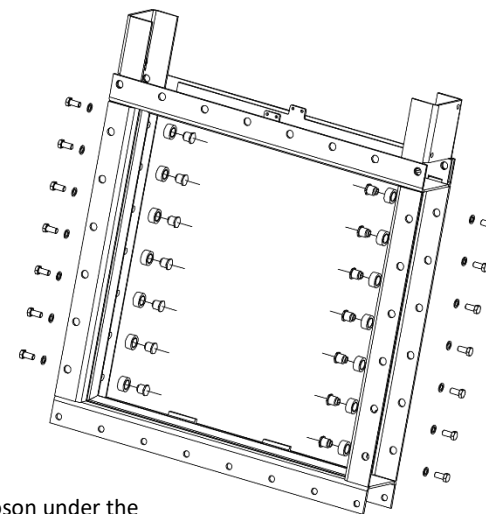
- Insert the roller bushings into the support rollers.

B6

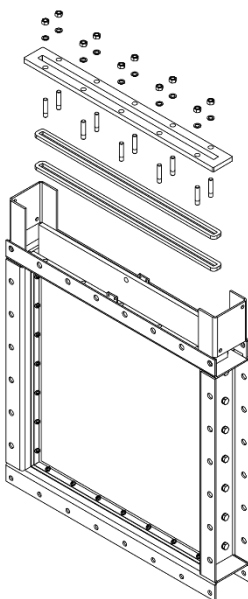
- Assemble the roller kits.
- Tighten all roller supports so that they are against the gate. Final tightening should be carried out at a later stage (see A15).



Apply Teroson under the washer against the housing.

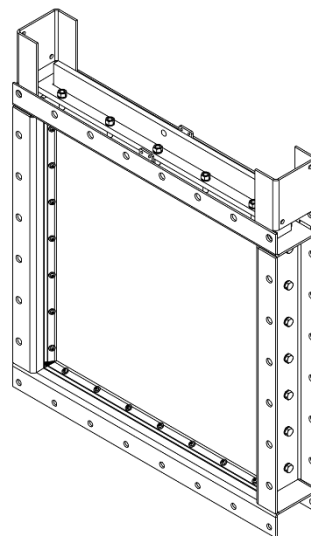


B7



- Assemble box packing and the gland. See **"Re-packing instruction"**.

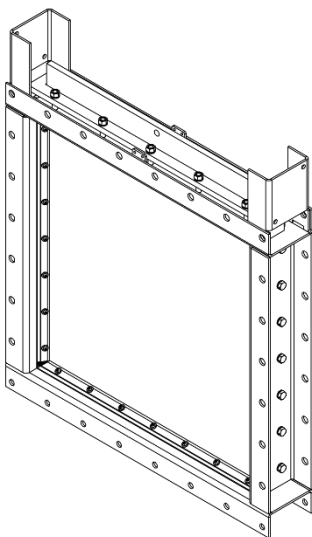
B8



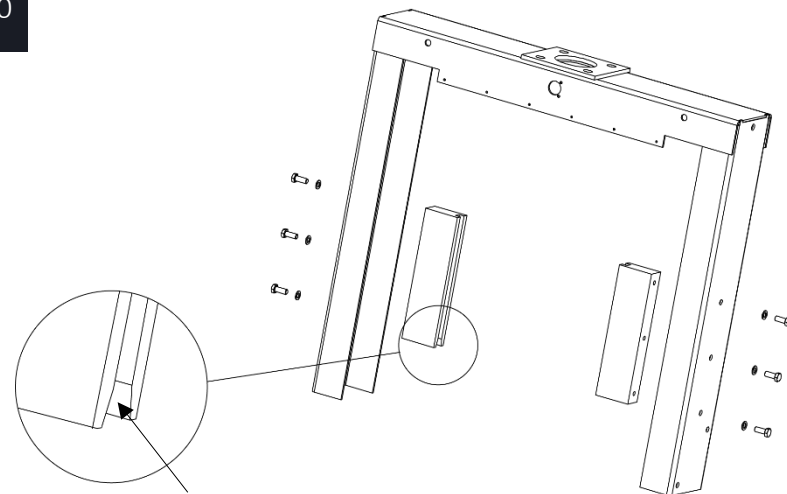
- Tighten the seat screws.
- Make sure that the support rollers are against the gate and tighten them with 60 Nm.
- Check for any gaps between the gate and the seat. The maximum gap at individual points must not exceed 0.6 mm.
- Adjust the support rollers/seat if necessary.

B9

Tighten gland nuts. See “Re-packing instruction”.



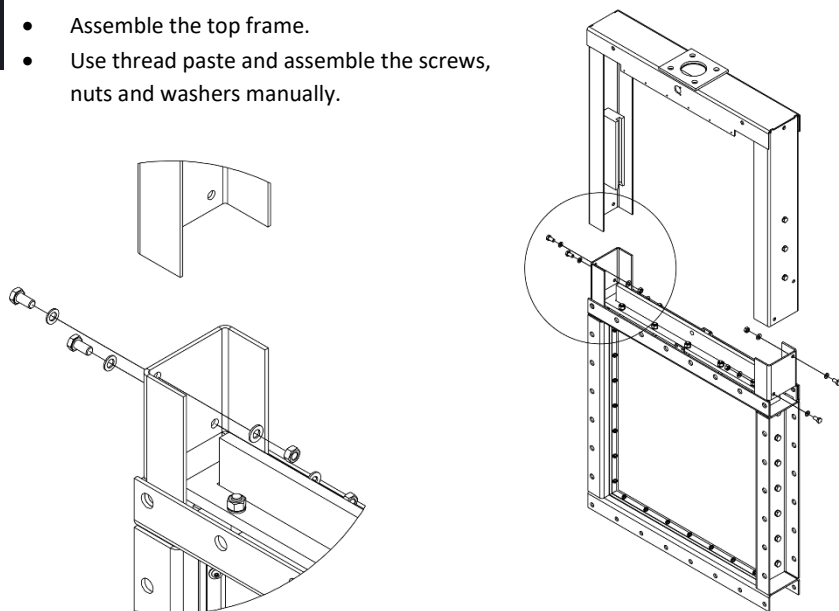
B10



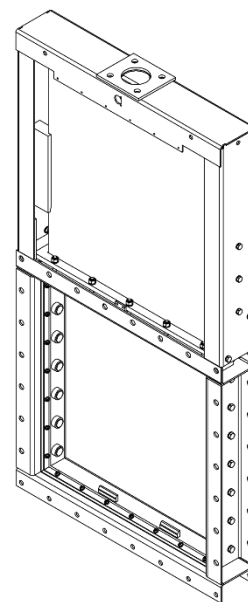
- Assemble gate guides. The bevel edge should face the gate.

B11

- Assemble the top frame.
- Use thread paste and assemble the screws, nuts and washers manually.



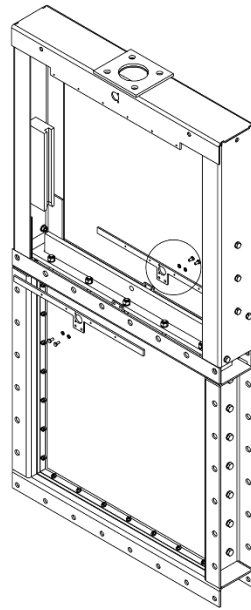
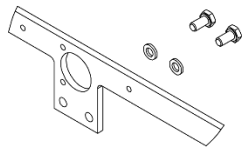
B12



- Open the valve with support from an actuator.
- Tighten top frame screws with 33Nm.
- Then close the valve and re-tighten each roller supports that come into contact with the gate with 60 Nm. Adjust roller supports if necessary.

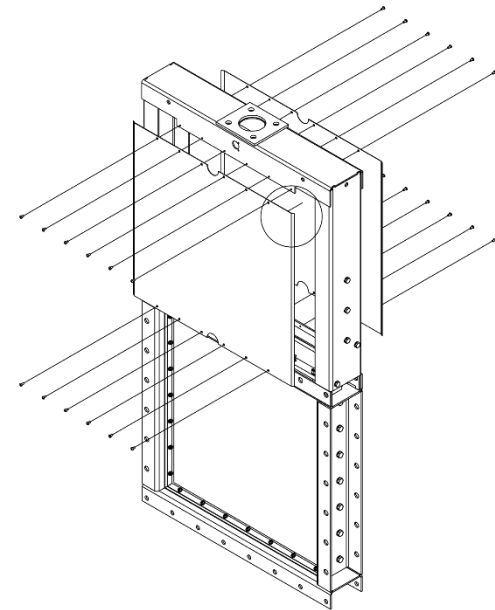
B13

- Assemble bracket for gate guards and limit switches if needed. Apply thread paste.



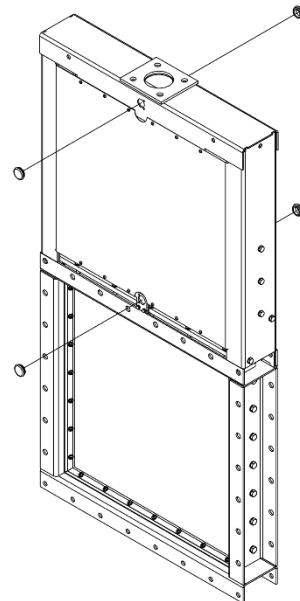
B14

- Assemble the gate guards if the valve is intended to be remote operated.



B15

- Assemble black plugs if no sensors are installed.



B16

Final checks

- Open/close the valve three times.
- Leave the valve in full closed position.

Check that:

- The gate opens and closes smoothly and complete.
- Check for any gaps between the gate and the seat. The maximum gap at individual points must not exceed 0.6 mm.
- The gate roller supports are in contact with the gate. Adjust the support rollers/seat if necessary.

