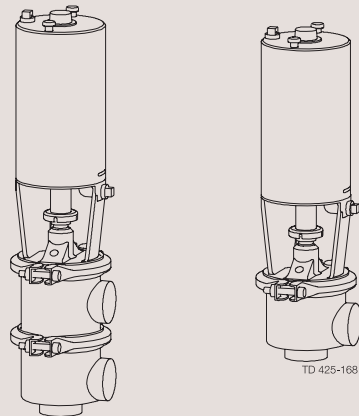




# Instruction Manual

## SRC Sanitary Remote-Controlled Valve



ESE02001-EN15    2011-03

Original manual



The information herein is correct at the time of issue but may be subject to change without prior notice

<b>1. Declaration of Conformity</b>	<b>4</b>
<b>2. Safety</b>	<b>5</b>
2.1. Important information	5
2.2. Warning signs	5
2.3. Safety precautions	6
<b>3. Installation</b>	<b>7</b>
3.1. Unpacking/Delivery/General installation	7
3.2. Recommended auxiliary equipment (DN125-150)	8
3.3. General installation	9
3.4. Welding	11
3.5. Fitting of oil damper, DN/OD25-101.6mm/DN25-100, optional extra	13
<b>4. Operation</b>	<b>16</b>
4.1. Operation	16
4.2. Fault finding	18
4.3. Recommended cleaning	19
<b>5. Maintenance</b>	<b>21</b>
5.1. General maintenance	21
5.2. Dismantling of valve	23
5.3. Assembly of valve	25
5.4. Dismantling of actuator	27
5.5. Assembly of actuator	28
<b>6. Technical data</b>	<b>29</b>
6.1. Technical data	29
<b>7. Drawings</b>	<b>30</b>
7.1. Drawings	30
<b>8. SRC Stop Valve - 25 mm/DN25</b>	<b>33</b>
<b>9. SRC Stop Valve - 38-101.6 mm/DN40-100</b>	<b>35</b>
<b>10. SRC Stop Valve - DN125-150</b>	<b>37</b>
<b>11. SRC Change-over Valve - 25 mm/DN25</b>	<b>39</b>
<b>12. SRC Change-over Valve - 38-101.6 mm/DN40-100</b>	<b>41</b>
<b>13. SRC Change-over Valve - DN125-150</b>	<b>44</b>
<b>14. SRC Tool for Valve - SRC/ARC/SRC-LS</b>	<b>46</b>
<b>15. SRC Damper for Valve</b>	<b>48</b>

# 1 Declaration of Conformity

The designating company

Alfa Laval

Company Name

Albuen 31, DK-6000 Kolding, Denmark

Address

+45 79 32 22 00

Phone No.

hereby declare that

Sanitary Remote-Controlled Valve

Denomination

SRC

Type

Year

is in conformity with the following directives:

- Machinery Directive 2006/42/EC

Pressure Equipment Directive 97/23/EC category 1 and subjected to assessment procedure, Module A.

Manager, Product Centres,  
Compact Heat Exchangers & Fluid Handling

Title

Bjarne Søndergaard

Name

Alfa Laval Kolding  
Company

Signature



Designation



*Unsafe practices and other important information are emphasized in this manual.  
Warnings are emphasized by means of special signs.*

---

### 2.1 Important information

---

**Always read the manual before using the valve!**

#### **WARNING**

Indicates that special procedures must be followed to avoid serious personal injury.

#### **CAUTION**

Indicates that special procedures must be followed to avoid damage to the valve.

#### **NOTE**

Indicates important information to simplify or clarify procedures.

---

### 2.2 Warning signs

---

General warning:



Caustic agents:



## 2 Safety

---

All warnings in the manual are summarized on this page.

Pay special attention to the instructions below so that severe personal injury and/or damage to the valve are avoided.

---

### 2.3 Safety precautions

---

#### Installation:

**Always** observe the technical data (See chapter )

**Always** release compressed air after use.



#### Operation:

**Always** observe the technical data (See chapter )

**Never** touch the valve or the pipelines when processing hot liquids or when sterilizing



**Always** handle lye and acid with great care



#### Maintenance:

- **Always** observe the technical data (See chapter )

- **Always** release compressed air after use

- The valve must **Never** be hot when servicing it

- The valve/actuator and the pipelines must never be pressurised when servicing the valve/ actuator

- **Never** stick your fingers through the valve ports if the valve is supplied with compressed air.



#### Transportation:

**Always** secure that compressed air is released

**Always** secure that all connections is disconnected before attempt to remove the valve from the installation

**Always** drain liquid out of valves before transportation

**Always** used predesigned lifting points if defined

**Always** secure sufficient fixing of the valve during transportation - if special designed packaging material is available it must be used

---

The instruction manual is part of the delivery.  
 Study the instructions carefully.  
 The valve is supplied as separate parts as standard (for welding).  
 The valve is assembled before delivery, if it is supplied with fittings.

## 3.1 Unpacking/Delivery/General installation

### Unpacking/delivery

#### Step 1

##### CAUTION

Alfa Laval cannot be held responsible for incorrect unpacking.

##### Check the delivery:

1. Complete valve, stop valve or change-over valve (see step 2 and 3)
2. Delivery note
3. Instruction Manual

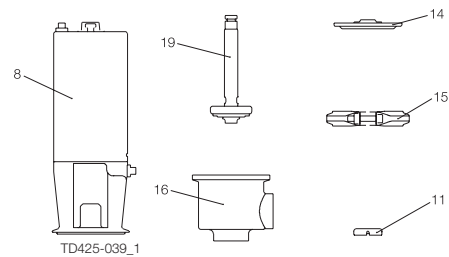
Please note that the design of size DN125-150 differs from that of sizes DN/OD25-101.6 mm/DN25-100. The differences can be seen in chapter 6.

The drawings in this manual show sizes DN/OD25-101.6 mm/DN25-100.

#### Step 2

##### Stop valve:

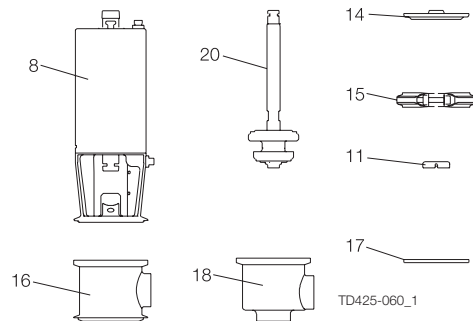
1. Complete actuator with bonnet (8)
2. Clip assembly (11)
3. Lip seal (14)
4. Clamp (15)
5. Valve plug (19)
6. Valve body (16)



#### Step 3

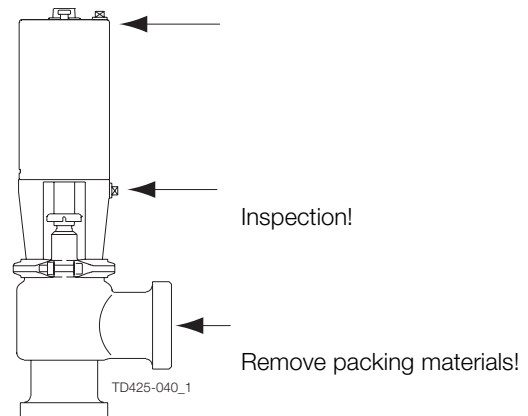
##### Change-over valve:

1. Complete actuator with bonnet (8)
2. Clip assembly (11)
3. Lip seal (14)
4. Two clamps (15)
5. Valve plug (20)
6. Two valve bodies (16, 18)
7. Valve body seal ring (17)



#### Step 4

- Remove possible packing materials from the valve/valve parts
- Inspect the valve/valve parts for visible transport damages
- Avoid damaging the valve/valve parts



### 3 Installation

The valve sizes DN125-150 are very heavy.

Therefore Alfa Laval recommends manufacturing and usage of auxiliary equipment. A proposal is given below.

Please note that the auxiliary equipment cannot be supplied by Alfa Laval.

The items refer to the parts list and service kits section.

#### 3.2 Recommended auxiliary equipment (DN125-150)

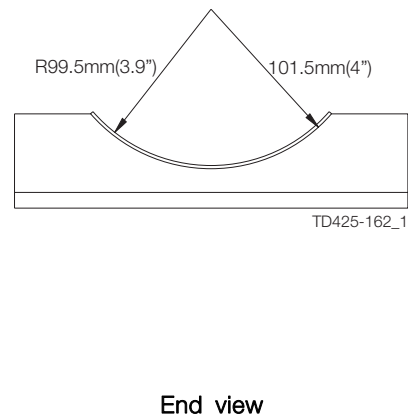
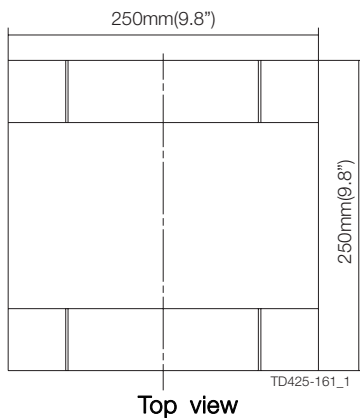
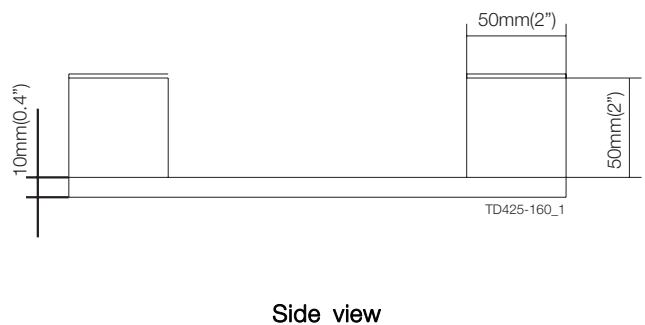
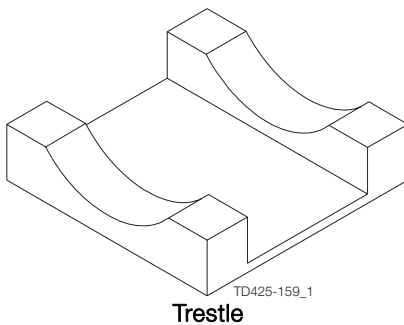
##### Step 1

##### For lifting the valve

Screw an eye bolt (6 mm) (1/4") into top pin (23). Using a small hook crane or similar, lift the valve by the eye bolt.

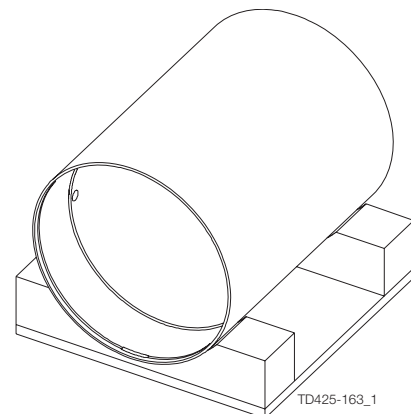
##### Trestle:

- The purpose of the trestle is to support the valve during dismantling and reassembly.
- The trestle is made of a base plate, two support plates, two rubber linings and four bolts.
- The rubber linings are attached to the support plates so that the valve/actuator will rest on these.
- To prevent the valve from turning during dismantling and assembly the trestle must be made with the correct measurements (see below). All measurements are in mm.



##### Step 2

1. Place the valve in the trestle.
2. Make sure that the actuator rests on the rubber linings on the trestle support plates.
3. Dismantle/assemble the valve.





Study the instructions carefully and pay special attention to the warnings!  
 The valve has welding ends as standard but can also be supplied with fittings.  
 NO = Normally open. NC = Normally closed. A/A = Air/air activated.

### 3.3 General installation

#### Step 1



**Always** read the technical data thoroughly.  
 See chapter 5



**Always** release compressed air after use.

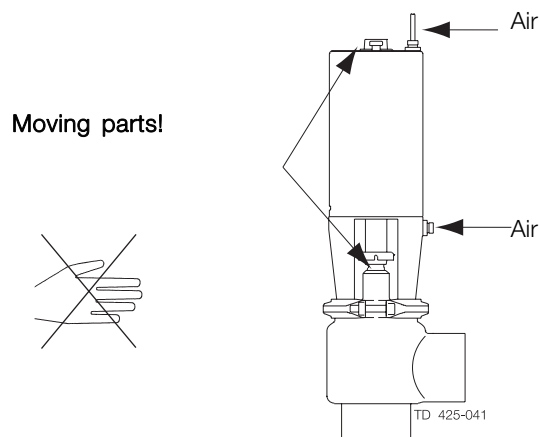
#### CAUTION

Alfa Laval cannot be held responsible for incorrect installation.

#### Step 2



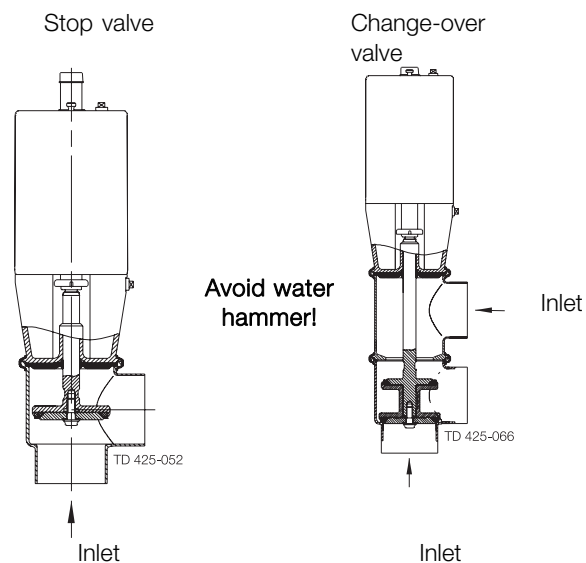
**Never** touch the clip assembly or the actuator piston rod if the actuator is supplied with compressed air (see the warning label).



#### Step 3

It is recommended to install the valve so that:

- The actuator is not turned downwards as the valve will then not be drained.
- The flow is against the closing direction to avoid water hammer.



### 3 Installation

Study the instructions carefully and pay special attention to the warnings!

The valve has welding ends as standard but can also be supplied with fittings.

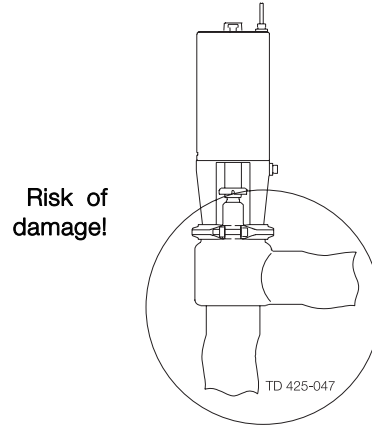
NO = Normally open. NC = Normally closed. A/A = Air/air activated.

#### Step 4

Avoid stressing the valve.

**Pay special attention to:**

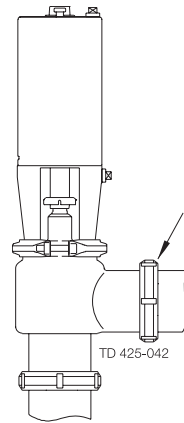
- Vibrations
- Thermal expansion of the tubes
- Excessive welding
- Overloading of the pipelines



#### Step 5

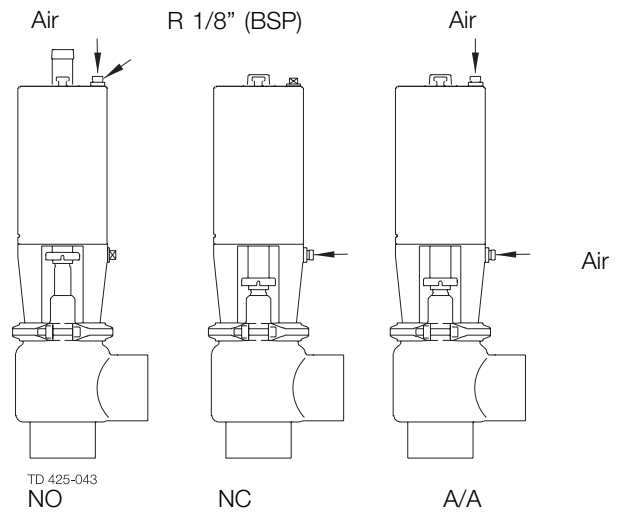
Fittings:

Ensure that the connections are tight.



#### Step 6

Air connection:



Study the instructions carefully.

The valve is supplied as separate parts to facilitate the welding.

The items refer to the parts list and service kits section. Check the valve for smooth operation after welding.

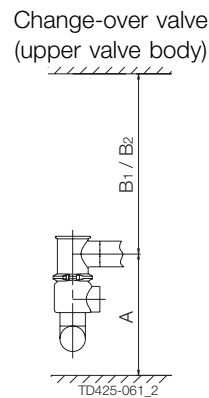
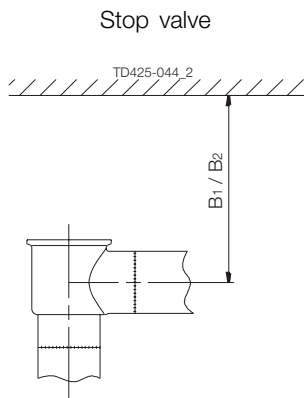
NO = Normally open. NC = Normally closed. A/A = Air/air activated.

#### 3.4 Welding

##### Step 1

**Always** weld the valve so that the valve body seal ring can be replaced (change-over valve). Maintain the minimum clearances (A and B) so that the lower valve body and plug (change-over valve) and the actuator with the internal parts can be removed.

Valve size	A (mm) (inch)	B <sub>1</sub> (mm) (inch)	B <sub>2</sub> (mm) (inch)
DN25/25 mm	200 (7.9)	537 (21.1)	647 (25.5)
DN40/38 mm	230 (9.1)	550 (21.7)	730 (28.7)
DN50/51 mm	290 (11.4)	550 (21.7)	730 (28.7)
DN65/63.5 mm	350 (13.8)	550 (21.7)	730 (28.7)
DN80/76.1 mm	390 (15.4)	600 (23.6)	780 (30.7)
DN100/101.6 mm	490 (19.3)	650 (25.6)	830 (32.7)
DN125	580 (22.8)	730 (28.7)	920 (36.2)
DN150	640 (25.1)	730 (28.7)	920 (36.2)

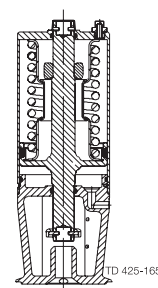
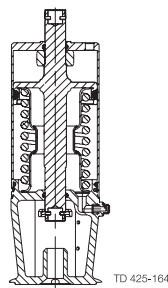


##### Step 2

##### SRC 25 mm stop valve

The 25 mm actuator is only for use on the SRC 25 mm stop valve.

**Warning:** When changing from NC to NO please note that the actuator is spring-loaded. For safety, place a "Springloaded" warning label (ordered from Technical Support at Alfa Laval) on the valve.



### 3 Installation

---

Study the instructions carefully.

The valve is supplied as separate parts to facilitate the welding.

The items refer to the parts list and service kits section. Check the valve for smooth operation after welding.

NO = Normally open. NC = Normally closed. A/A = Air/air activated.

---

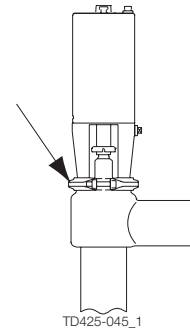
#### Step 3

##### Stop valve:

Assemble the valve in accordance with steps 1-5 in section 4.3.

**Pay special attention to the warnings!**

Fit seal ring (17) correctly!



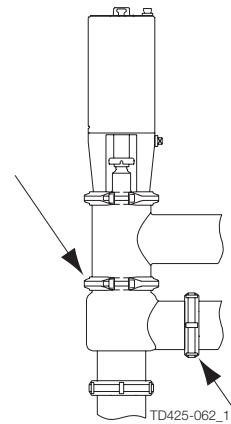
#### Step 4

##### Change-over valve:

Assemble the valve in accordance with the steps 1-6 in section 4.3.

**Pay special attention to the warnings!**

Fit seal ring (17) correctly!



Remember seal rings!

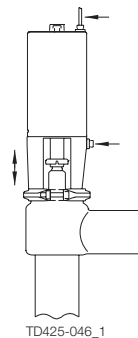
#### Step 5

##### Pre-use check:

1. Supply compressed air to the actuator.
2. Open and close the valve several times to ensure that it operates smoothly.

**Pay special attention to the warnings!**

Open/close!



Air  
(NO/AA)

Air  
(NC/AA)

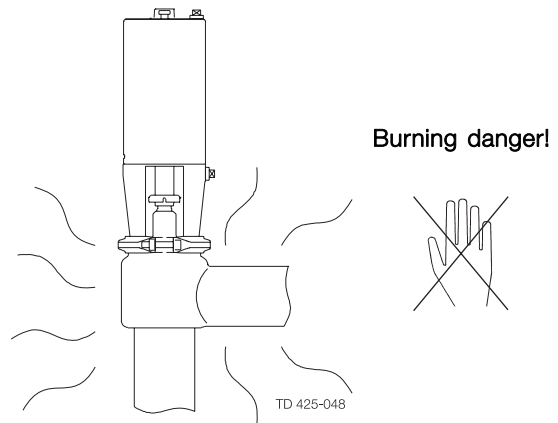
The valve can be fitted with an oil damper if water hammer occurs when the valve closes in the flow direction.  
 The items refer to the parts list and service kits section.  
 Study the instructions carefully and pay special attention to the warnings!  
 NC = normally closed. A/A = air/air activated.

#### 3.5 Fitting of oil damper, DN/OD25-101.6mm/DN25-100, optional extra

##### Step 1



**Never** touch the valve or the pipelines when processing hot liquids or when sterilizing.



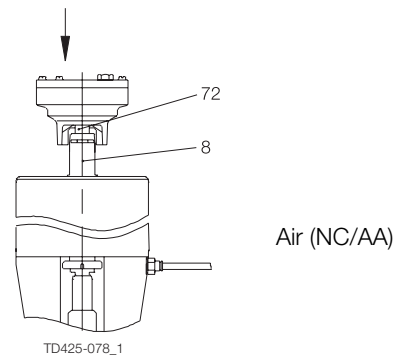
##### Step 2

1. Supply compressed air to the actuator.

**Pay special attention to the warnings!**

2. Fit the damper so that damper piston rod (72) enters actuator piston rod (6).

**Ensure that no other equipment is fitted on the actuator top!**

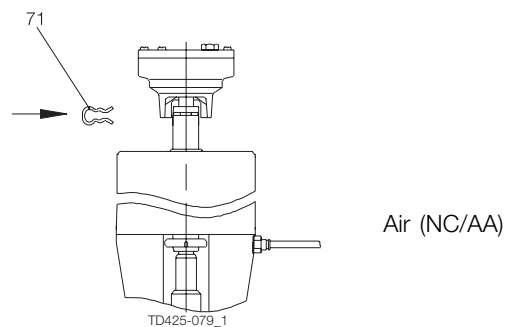


##### Step 3

1. Connect the two piston rods by means of clip (71).

2. Release compressed air to the actuator.

**Pay special attention to the warnings!**

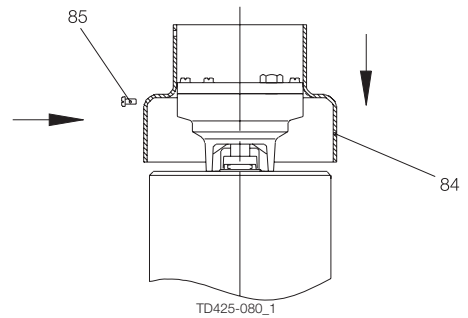


### 3 Installation

The valve can be fitted with an oil damper if water hammer occurs when the valve closes in the flow direction.  
The items refer to the parts list and service kits section.  
Study the instructions carefully and pay special attention to the warnings!  
NC = normally closed. A/A = air/air activated.

#### Step 4

1. Fit protective hood (84) and tighten screw (85).
2. The valve is now ready for operation.

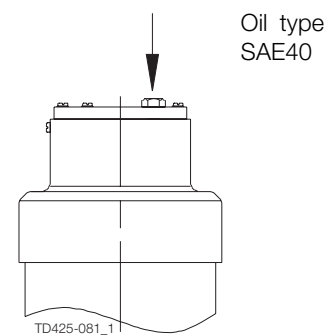


#### Step 5

Fill further oil through the plug hole if large air bubbles occur under the plexiglas cover.

#### NOTE!

There should be a small air bubble which equalizes changes in the pressure because of temperature changes.



#### Step 6

Removal/dismantling:

Remove the damper by following the instructions in reverse order.

#### Pre-use check:

1. Supply compressed air to the actuator.
2. Open and close the valve several times to ensure that it operates smoothly.

**Pay special attention to the warnings!**

*The valve can be fitted with an oil damper if water hammer occurs when the valve closes in the flow direction.*

*The items refer to the parts list and service kits section.*

*Study the instructions carefully and pay special attention to the warnings!*

*NC = normally closed. A/A = air/air activated.*

---

Recycling information.

- Unpacking

- Packing material consists of wood, plastics, cardboard boxes and in some cases metal straps.
- Wood and cardboard boxes can be reused, recycled or used for energy recovery.
- Plastics should be recycled or burnt at a licensed waste incineration plant.
- Metal straps should be sent for material recycling.

- Maintenance

- During maintenance oil and wear parts in the machine are replaced.
- All metal parts should be sent for material recycling.
- Worn out or defective electronic parts should be sent to a licensed handler for material recycling.
- Oil and all non metal wear parts must be taken care of in agreement with local regulations.

- Scrapping

- At end of use, the equipment shall be recycled according to relevant, local regulations. Beside the equipment itself, any hazardous residues from the process liquid must be considered and dealt with in a proper manner. When in doubt, or in the absence of local regulations, please contact the local Alfa Laval sales company.
-

## 4 Operation

Study the instructions carefully and pay special attention to the warnings!

Ensure that the valve operates smoothly. The items refer to the parts list and service kits section.

NO = Normally open. NC = Normally closed. A/A = Air/air activated.

### 4.1 Operation

#### Step 1

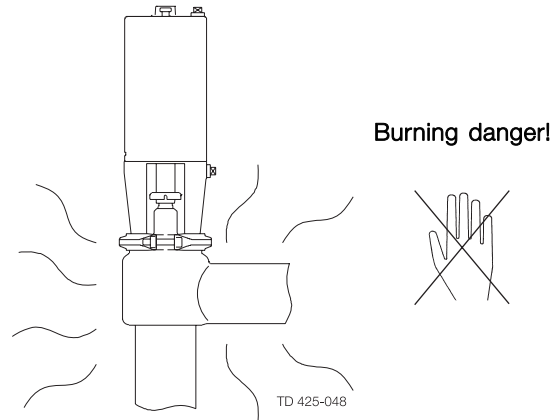
- Always read the technical data thoroughly (see chapter 5)
- Always release compressed air after use.

#### CAUTION!

Alfa Laval cannot be held responsible for incorrect operation.

#### Step 2

**Never** touch the valve or the pipelines when processing hot liquids or when sterilizing.

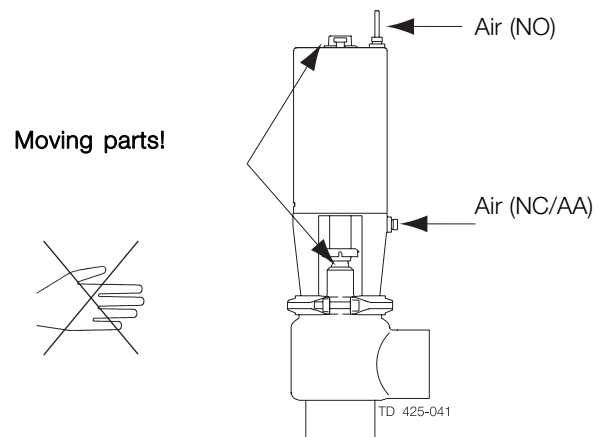


**Never** touch the valve or the pipelines when processing hot liquids or when sterilizing.

#### Step 3

Never touch the clip assembly or the actuator piston rod if the actuator is supplied with compressed air.

Never touch the clip assembly or the actuator piston rod if the actuator is supplied with compressed air.





Study the instructions carefully and pay special attention to the warnings!

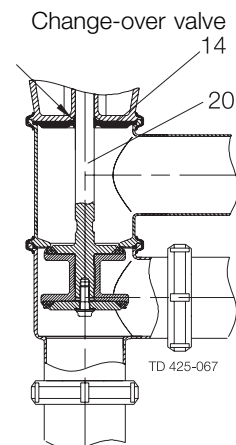
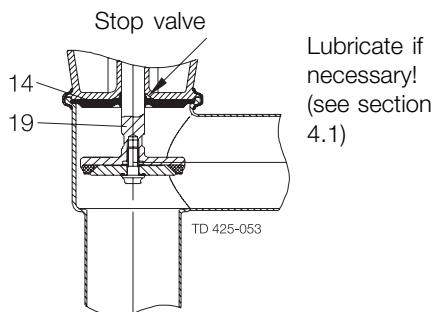
Ensure that the valve operates smoothly. The items refer to the parts list and service kits section.

NO = Normally open. NC = Normally closed. A/A = Air/air activated.

### Step 4

#### Lubrication of valve:

1. Ensure smooth movement between lip seal (14) and plug stem (19, 20).
2. Lubricate with silicone oil/grease if necessary.



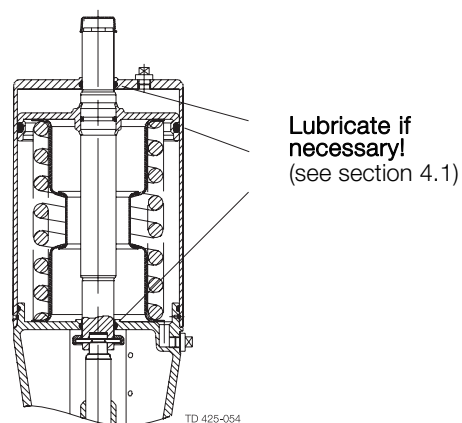
#### Lubrication of valve:

1. Ensure smooth movement between lip seal (14) and plug stem (19, 20).
2. Lubricate with silicone oil/grease if necessary.

### Step 5

#### Lubrication of actuator

1. Ensure smooth movement of the actuator (the actuator is lubricated before delivery).
2. Lubricate with oil/grease if necessary.



## 4 Operation

Pay attention to possible faults.

Study the instructions carefully.

The items refer to the parts list and service kits section

### 4.2 Fault finding

Problem	Cause/result	Repair
The valve plug jerks	The lealings seize	Lubricate: <ul style="list-style-type: none"> <li>- O-rings (2)</li> <li>- O-ring (5) and the inside of cylinder (3)</li> <li>- Lip seal (14)</li> </ul>
Product leakage at stem and/or clamp	- Worn/product affected lip seal (14) and/or seal ring (17)	- Replace the seal - Replace with a seal of a different rubber grade
Product leakage (closed valve)	- Worn/product affected - Loose plug parts (vibrations) - Product deposits on the seat and/or plug	- Replace the seal ring - Replace with a seal of a different rubber grade - Tighten the loose parts - Frequent cleaning
Product leakage (too high pressure or too small actuator)	- Worn actuator O-rings - Too small actuator or actuator spring	- Replace the O-rings - Replace with a larger actuator (for valve sizes DN/OD38-63.5 mm/ DN40-65) - Fit a stronger spring (for valve sizes DN/OD38-63.5 mm/DN40-65) - Use auxiliary air on the spring side (NOT-element)
Water hammer	The flow direction is the same as the closing direction	- The flow direction should be against the closing direction - Fit a damper on the valve (optional extra) - Use auxiliary air on the spring side (NOT-element)
The valve does not open/close	- Faulty clip assembly (11) - The pressure on the plug plug is too high	- Replace the clip assembly - Reduce the pressure plug is too high - Fit stronger spring/larger actuator (for valve sizes DN/OD38-63.5 mm/ DN40-65)

The valve is designed for cleaning in place (CIP). CIP = Cleaning In Place.  
 Study the instructions carefully and pay special attention to the warnings!  
 NaOH = Caustic Soda.  
 HNO<sub>3</sub> = Nitric acid.

### 4.3 Recommended cleaning

#### Step 1



**Always** handle lye and acid with great care.

**Caustic danger!**



**Always** use  
rubber gloves!



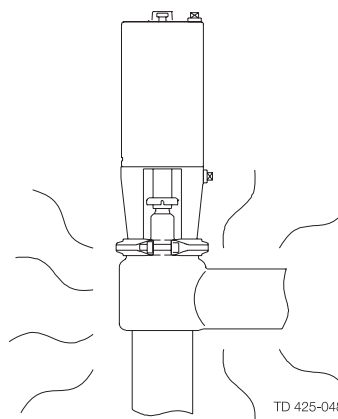
**Always** use  
protective goggles!

#### Step 2



**Never** touch the valve or the pipelines when sterilizing.

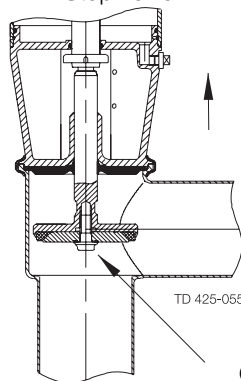
**Burning danger!**



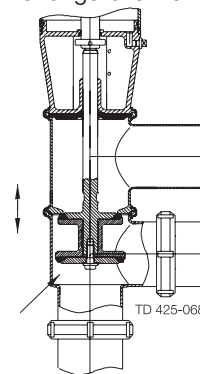
#### Step 3

Clean the plug and the seats correctly.  
**Pay special attention to the warnings!**  
**Lift and lower valve plug momentarily!**

Stop valve



Change-over valve



Open!

## 4 Operation

---

The valve is designed for cleaning in place (CIP). CIP = Cleaning In Place.  
Study the instructions carefully and pay special attention to the warnings!  
NaOH = Caustic Soda.  
HNO<sub>3</sub> = Nitric acid.

---

### Step 4

#### Examples of cleaning agents:

Use clean water, free from chlorides.

1. 1% by weight NaOH at 70° (158° F).

$$\begin{array}{|c|} \hline 1 \text{ kg (2.2 lb)} \\ \hline \text{NaOH} \\ \hline \end{array} + \begin{array}{|c|} \hline 100 \text{ l water} \\ \hline (26.4 \text{ gal}) \\ \hline \end{array} = \text{Cleaning agent.}$$

$$\begin{array}{|c|} \hline 2.2 \text{ l (0.6 gal)} \\ \hline 33\% \text{ NaOH} \\ \hline \end{array} + \begin{array}{|c|} \hline 100 \text{ l water} \\ \hline (26.4 \text{ gal}) \\ \hline \end{array} = \text{Cleaning agent.}$$

2. 0.5% by weight HNO<sub>3</sub> at 70° C

$$\begin{array}{|c|} \hline 0.7 \text{ l (0.2 gal)} \\ \hline 53\% \text{ HNO}_3 \\ \hline \end{array} + \begin{array}{|c|} \hline 100 \text{ l (26.4} \\ \hline \text{gal)} \\ \hline \text{water} \\ \hline \end{array} = \text{Cleaning agent.}$$

---

### Step 5

1. Avoid excessive concentration of the cleaning agent.
  2. Adjust the cleaning flow to the process.
  3. **Always** rinse well with clean water after the cleaning.
- 

### Step 6

#### NOTE

The cleaning agents must be stored/disposed of in accordance with current regulations/directives.

---

Maintain the valve regularly.  
 Study the instructions carefully and pay special attention to the warnings!  
 Always keep spare rubber seals and lip seals in stock.

## 5.1 General maintenance

### Step 1



**Always** read the technical data thoroughly.  
 See chapter



**Always** release compressed air after use.

### Step 2



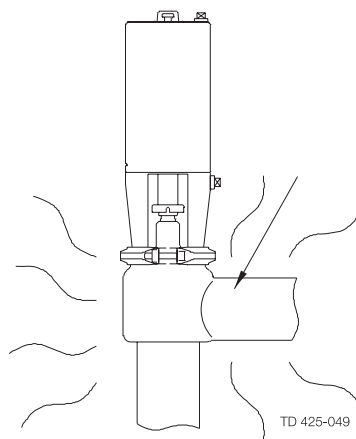
**Never** service the valve when it is hot.



**Never** service the valve with valve and pipelines under pressure.

### NOTE

All scrap must be stored/discharged in accordance with current rules/directives.



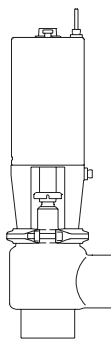
Atmo-  
spheric  
pressure  
required!



### Step 3



**Never** stick your fingers through the valve ports if the actuator is supplied with compressed air.



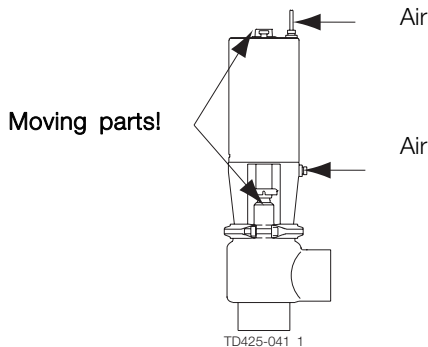
Air



### Step 4

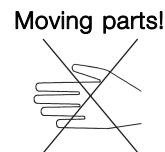


**Never** touch the moving parts if the actuator is supplied with compressed air.



Air

Air



## 5 Maintenance

Maintain the valve regularly.

Study the instructions carefully and pay special attention to the warnings!

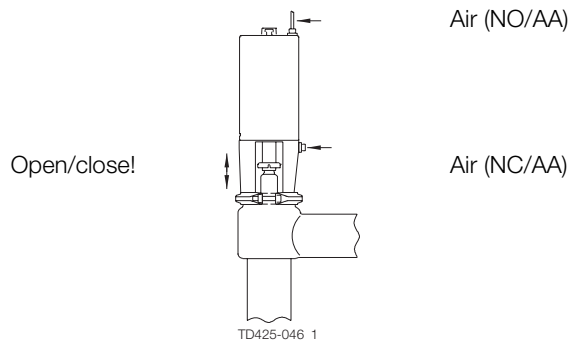
Always keep spare rubber seals and lip seals in stock.

	Product rubber seals	Valve lip seal	Actuator rubber seals
Preventive maintenance	Replace after <b>12 months depending on working conditions</b>	Replace when replacing the rubber seals	Replace after <b>5 years</b>
Maintenance after leakage (leakage normally starts slowly)	Replace at the <b>end of the day</b>	Replace when replacing the rubber seals	Replace when <b>possible</b>
Planned maintenance	<ul style="list-style-type: none"> <li>- Regular inspection for leakage and smooth operation</li> <li>- Keep a record of the actuator</li> <li>- Use the statistics for planning of inspections</li> </ul> <b>Replace after leakage</b>		<ul style="list-style-type: none"> <li>- Regular inspection for leakage and smooth operation</li> <li>- Keep a record of the actuator</li> <li>- Use the statistics for planning of inspections</li> </ul> <b>Replace after leakage</b>
Lubrication (USDA H1 approved oil/grease)	<b>Before fitting</b> Silicone oil or silicone grease	Before fitting Silicone oil or silicone grease	<b>Before fitting</b> Oil or grease

### Pre-use check:

1. Supply compressed air to the actuator.
2. Open and close the valve several times to ensure that it operates smoothly.

**Pay special attention to the warnings!**



### Ordering spare parts

Recommended spare  
Service kits (see chapter 6).

Study the instructions carefully.  
 The items refer to the parts list and service kits section.  
 Handle scrap correctly.  
 NC = Normally closed. NO = Normally open. A/A = Air/air activated.

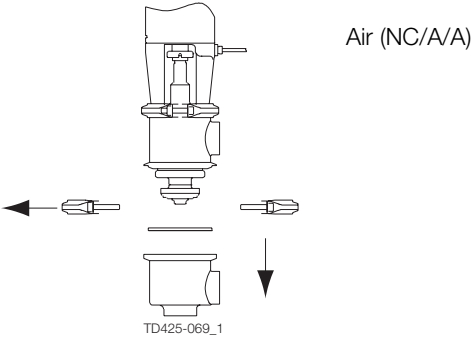
5.2 Dismantling of valve

Step 1

**Change-over valve:**

1. Supply compressed air to the actuator (only NC)
2. Loosen and remove lower clamp (15)
3. Release compressed air (18)
4. Pull out seal ring (17)
5. Release compressed air

Pay special attention to the warnings!

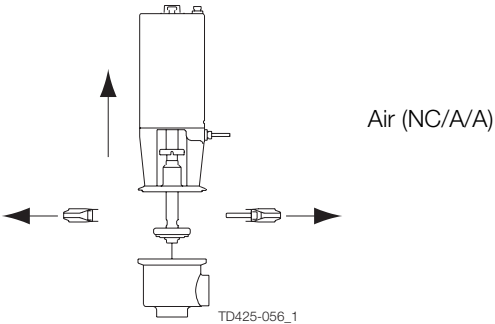


Step 2

**Stop valve:**

1. Supply compressed air to the actuator (only NC)
2. Loosen and remove clamp (15)
3. Lift out the actuator
4. Release compressed air

Pay special attention to the warnings!

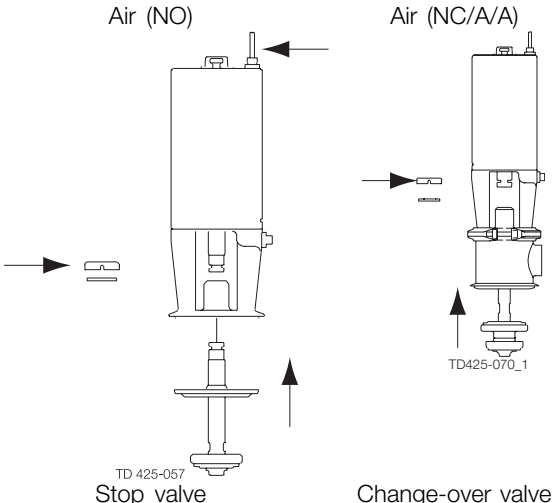


Step 3

**Stop valve:**

1. Supply compressed air to the actuator (only NC)
2. Remove clip assembly (11) by using plugs  
 (For sizes Dn125-150: Unscrew valve plug(19,20))
3. Remove valve plug (19,20)
4. Release compressed air

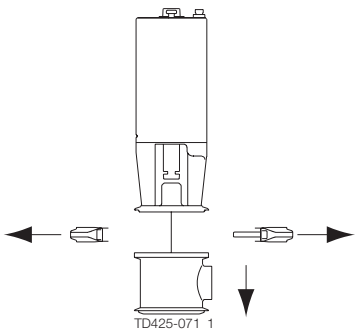
Pay special attention to the warnings!



Step 4

**Change-over valve:**

1. Remove upper clamp (15)
2. Remove upper valve body (16)



## 5 Maintenance

---

Study the instructions carefully.

The items refer to the parts list and service kits section.

Handle scrap correctly.

NC = Normally closed. NO = Normally open. A/A = Air/air activated.

---

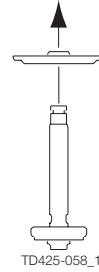
### Step 5

#### Stop valve:

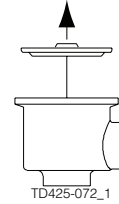
Remove lip seal (14)

(For sizes DN125-150: Remove lip seal (14) and guide ring (27)).

Stop valve



Change-over valve



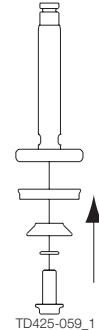
### Step 6

#### Stop valve:

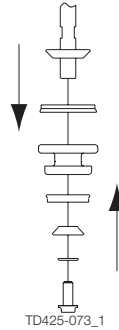
1. Remove screw (19h, 20h)

2. Dismantle the complete valve plug

Stop valve



Change-over valve



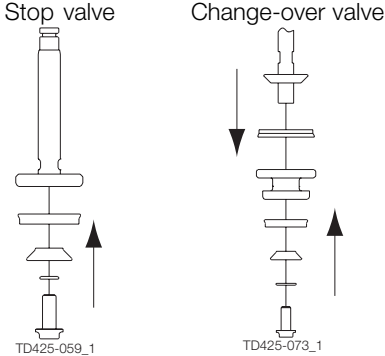


Study the instructions carefully.  
The items refer to the parts list and service kits section.  
Lubricate the rubber seals and the lip seal before fitting them.  
Lip seal (14) can be replaced by a special stem seal (sizes DN/OD25-101.6 mm/DN40-100)

5.3 Assembly of valve

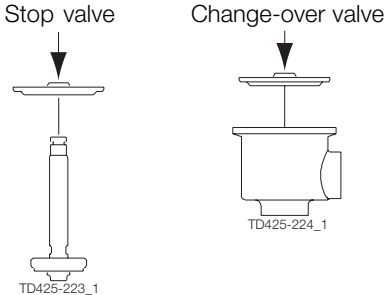
Step 1

- 1. Assemble the complete valve plug
- 2. Fix screw (19h, 20h) by using loctite or something similar



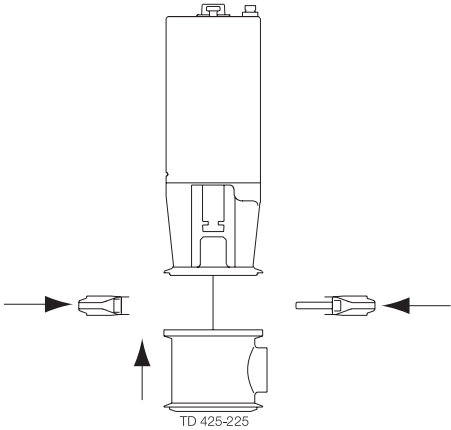
Step 2

- Fit lip seal (14)
- (For sizes DN125-150: Fit guide ring (27) and lip seal (14))



Step 3

- Change-over valve:**
- 1. Assemble upper valve body (16) and the actuator
  - 2. Fit and tighten upper clamp (15)



## 5 Maintenance

Study the instructions carefully.

The items refer to the parts list and service kits section.

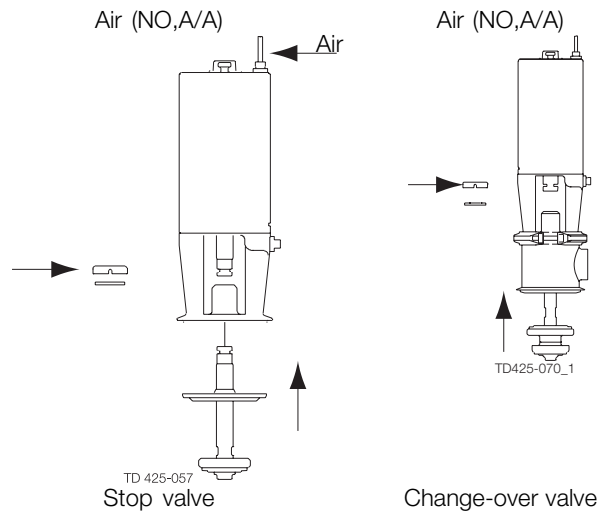
Lubricate the rubber seals and the lip seal before fitting them.

Lip seal (14) can be replaced by a special stem seal (sizes DN/OD25-101.6 mm/DN40-100)

### Step 4

1. Fit the plastic ring of clip assembly (11) on the actuator piston rod
2. Supply compressed air to the actuator (Only NO)
3. Fit valve plug (19, 20)
4. Fit and assemble clip assembly (11) by using pliers. (For sizes DN125-150: Screw together valve plug (20) and piston (6). Fix thread by using Loctite or something similar)
5. Release compressed air.

**Pay special attention to the warnings!**

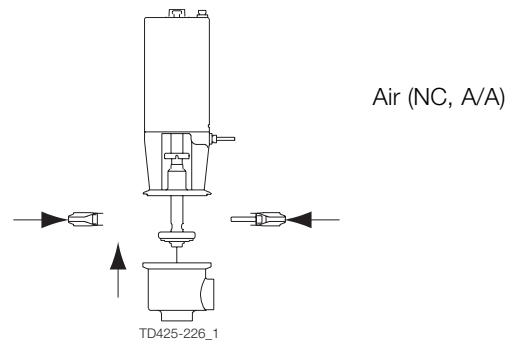


### Step 5

#### Stop valve

1. Supply compressed air to the actuator (only NC)
2. Fit the actuator
3. Fit and tighten clamp (15)
4. Release compressed air.

**Pay special attention to the warnings!**



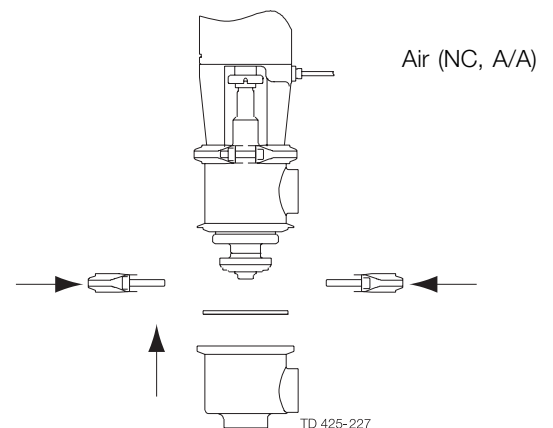
### Step 6

#### Change-over valve:

1. Fit seal ring (17) correctly in lower valve body (18)
2. Supply compressed air to the actuator (only NC)
3. Assemble lower and upper valve bodies (16, 18)
4. Fit and tighten lower clamp (15)
5. Release compressed air

**Pay special attention to the warnings!**

Turn the diagonal surface of seal ring (17) upwards!



Study the instructions carefully.

The items refer to the parts list and service kits section.

Handle scrap correctly. NO = Normally open. NC = Normally closed. A/A = Air/air activated.

Service tool: See Spare Parts.

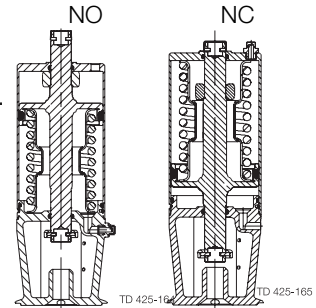
### 5.4 Dismantling of actuator

#### Step 1

##### SRC 25 mm stop valve

The 25 mm actuator is **only** for use on the SRC 25 mm stop valve.

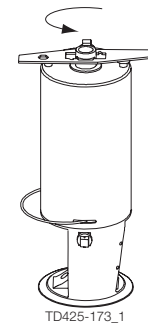
**Warning:** When changing from NC to NO please note that the actuator is spring-loaded. For safety, place a "Springloaded" warning label (ordered from Technical Support at Alfa Laval) on the valve.



#### Step 2

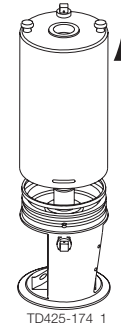
1. Rotate cylinder (3)
2. Remove lock wire (4)

Rotate with the service tool!



#### Step 3

1. Remove cylinder (3)
2. Remove O-rings (2, 7) from bonnet (8) and cylinder (3)  
(For sizes DN125-150 also remove O-ring (24) and guide rings (21, 25))

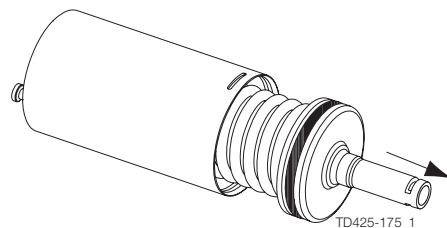


#### Step 4

1. Remove piston (6) and spring assembly (10)
2. Remove O-ring (5) from the piston. (For sizes DN125-150 also remove guide ring (22) and top pin (23))

#### NOTE!

The A/A actuator has no spring assembly.



## 5 Maintenance

Study the instructions carefully.

The items refer to the parts list and service kits section. Lubricate the rubber seals before fitting them.

A larger actuator is available for valve sizes DN/OD38-63.5 mm. The spring assembly can be replaced by a stronger one.  
A/A = Air/air activated.

### 5.5 Assembly of actuator

#### Step 1

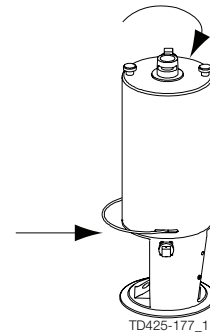
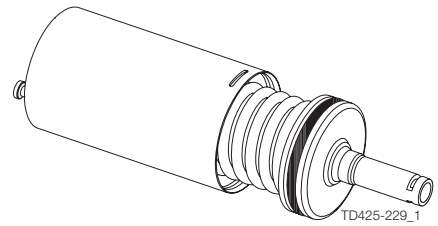
1. Remove piston (6) and spring assembly (10)
2. Remove O-ring (5) from the piston. (For sizes DN125-150 also remove guide ring (22) and top pin (23))

#### NOTE!

The A/A actuator has no spring assembly.

#### Step 2

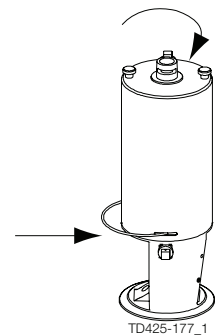
1. Fit O-rings (2, 7) in bonnet (8) and cylinder (3). (For sizes DN125-150 also fit O-ring (24) and guide rings (21, 25))
2. Fit the cylinder



#### Step 3

1. Fit lock wire (4) through the slot in cylinder (3) into the hole in bonnet (8)
2. Rotate the cylinder 360° (see step 4)

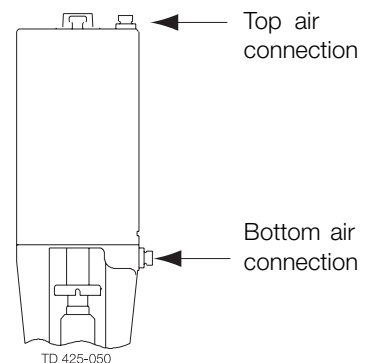
Rotate by hand or with the service tool!



#### Step 4

#### NOTE!

It is recommended to rotate cylinder (3) further 180° in relation to bonnet (8) so that the top and bottom air connections are fixed on the same side.



*It is important to observe the technical data during installation, operation and maintenance.  
Inform the personnel about the technical data.  
NO = Normally open. NC = Normally closed.*

### 6.1 Technical data

Data - valve/actuator		
Max. product pressure	.....	1000 kPa (10 bar) (145 psi)
Min. product pressure	.....	Full vacuum
Temperature range	standard lip seal .....	-10°C to + 100°C (14° F to 212°F) (EPDM)
Air pressure, actuator -	special lip seal .....	-10°C to + 140°C (14° F to 284°F) (EPDM)
Sizes 25-101.6 mm / DN25-100	.....	500 to 700 kPa (5 to 7 bar) (72.5 to 101.5 psi)
Sizes DN125-150	.....	600 to 800 kPa (6 to 8 bar) (87 to 116 psi)
Materials - valve/actuator		
Product wetted steel parts	.....	Acid-resistant steel AISI 316L
Finish	.....	Semi bright
Other steel parts	.....	Stainless steel AISI 304
Plug stem	.....	AISI 316L with hard chrome plated stem surface
- Sizes 25-101.6 mm/DN25-100	.....	AISI 316L
- Sizes DN125-150	.....	EPDM (standard)
Product wetted seals	.....	Nitrile (NBR)
Other seals	.....	Nitrile (NBR) and Fluorinated rubber (FPM),
Alternative product wetted seals	.....	PTFE/FEP

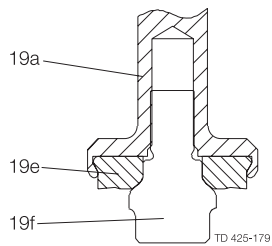
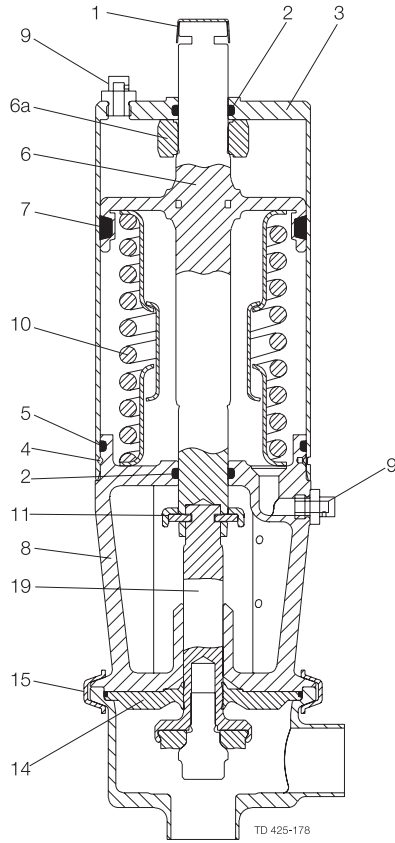
#### Noise

One meter away from - and 1.6 meter above the exhaust the noise level of a valve actuator will be approximately 77db(A) without noise damper and approximately 72 db(A) with damper - Measured at 7 bars air-pressure.

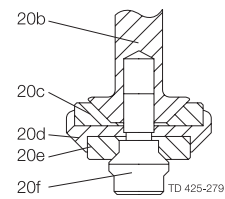
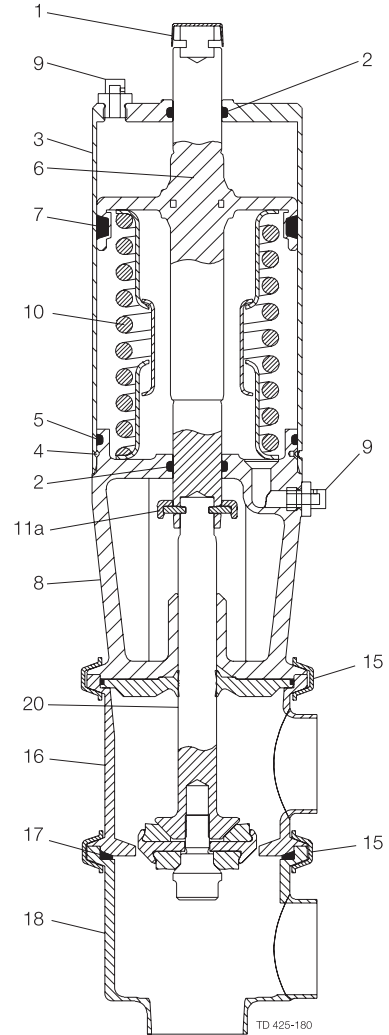
## 7 Drawings

*It is important to observe the technical data during installation, operation and maintenance.  
Inform the personnel about the technical data.  
NO = Normally open. NC = Normally closed.*

### 7.1 Drawings

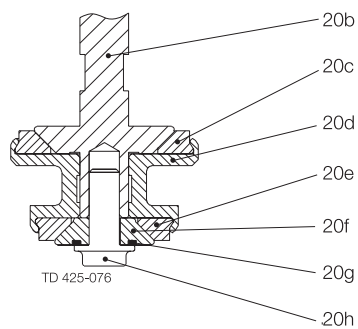
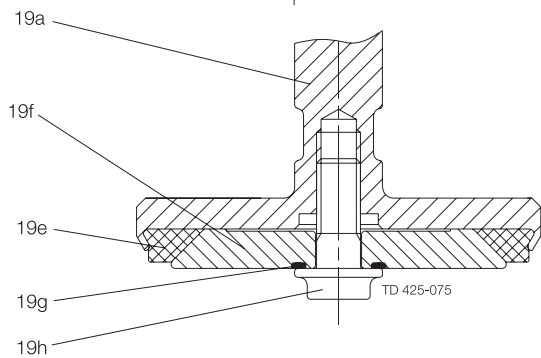
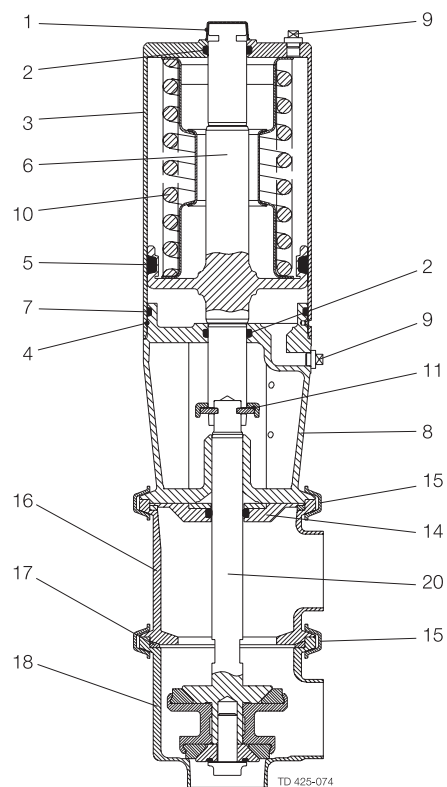
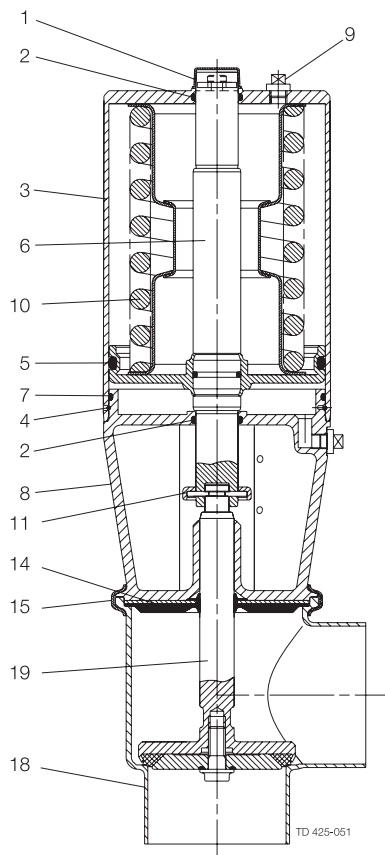


DN/OD25 mm/DN25 Stop Valve,  
see section 6.2



DN/OD25 mm/DN25 Change-Over Valve,  
see section 6.3

*It is important to observe the technical data during installation, operation and maintenance.  
Inform the personnel about the technical data.  
NO = Normally open. NC = Normally closed.*

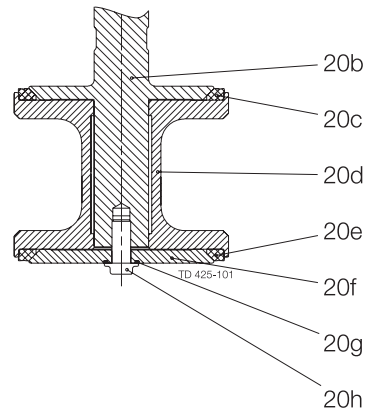
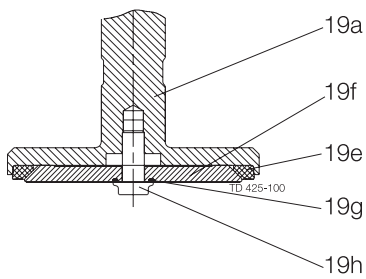
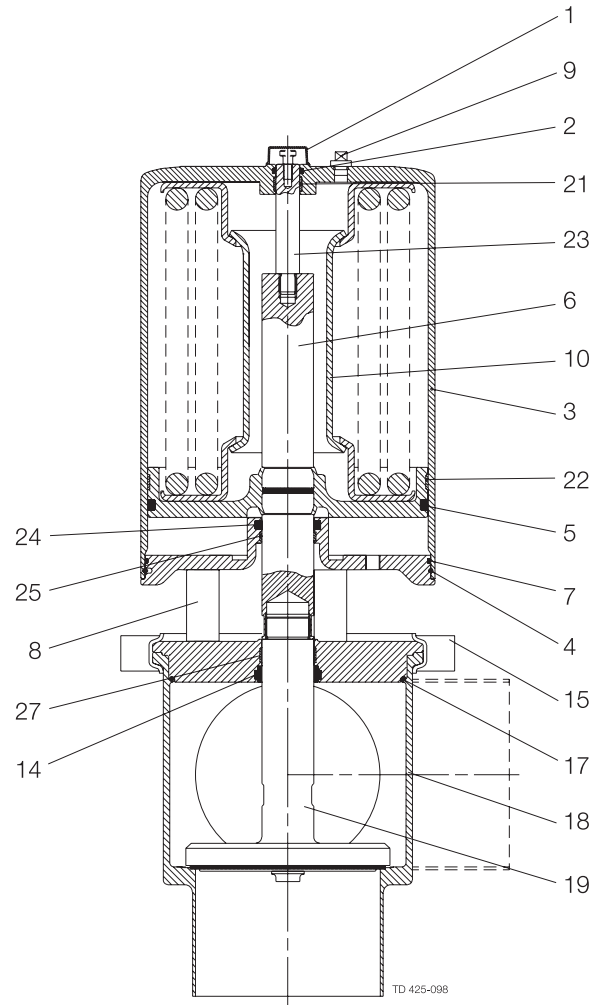
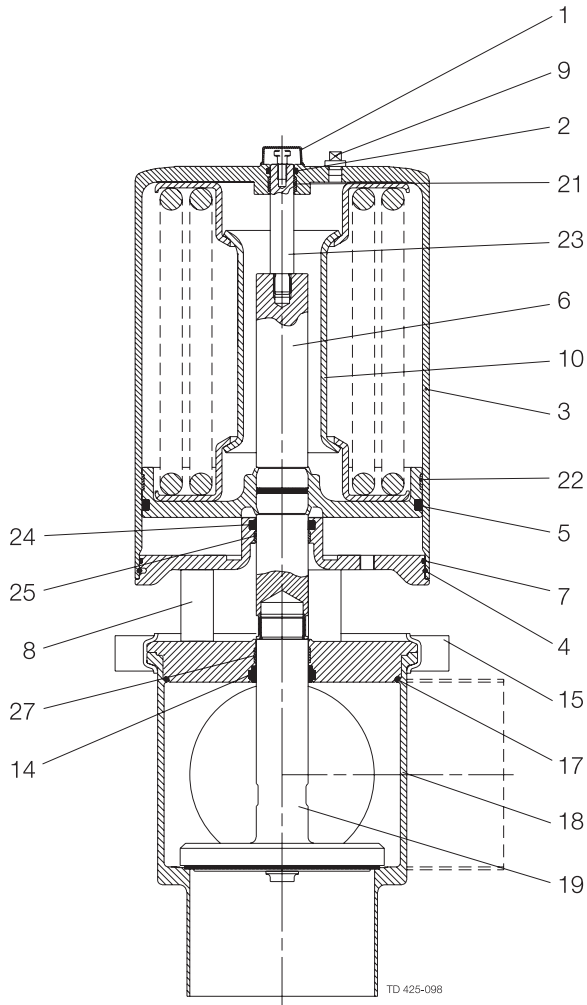


DN/OD38-101.6 mm/DN40-100 Stop Valve,  
see section 6.4

DN/OD38-101.6 mm/DN40-100 Change-over Valve,  
see section 6.5

## 7 Drawings

It is important to observe the technical data during installation, operation and maintenance.  
 Inform the personnel about the technical data.  
 NO = Normally open. NC = Normally closed.



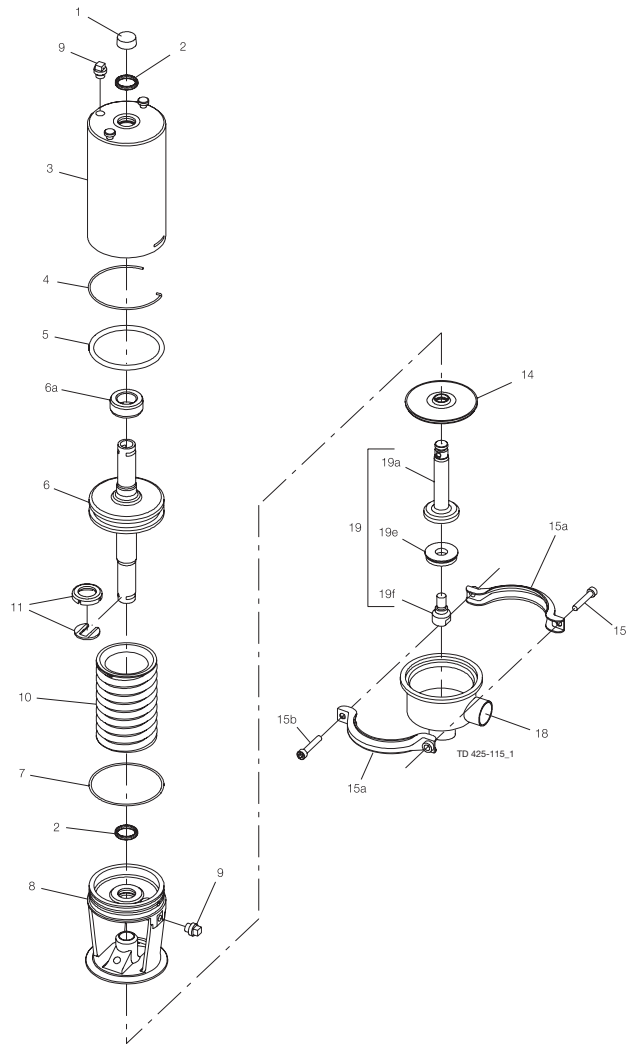
DN125-150 Stop Valve,  
 see section 6.6

DN125-150 Change-over Valve,  
 see section 6.7

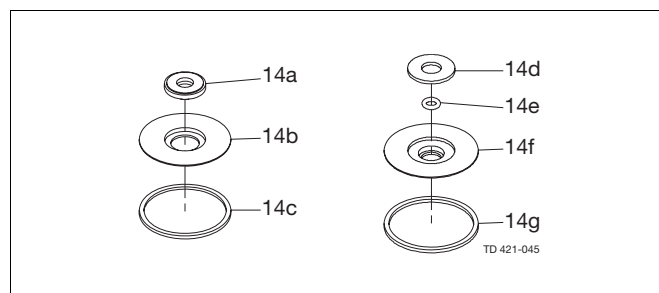


## 8 SRC Stop Valve - 25 mm/DN25

It is important to observe the technical data during installation, operation and maintenance.  
 Inform the personnel about the technical data.  
 NO = Normally open. NC = Normally closed.



Alternative Stem seal



Special lip seal

Parts for FEP lip seal

## 8 SRC Stop Valve - 25 mm/DN25

*It is important to observe the technical data during installation, operation and maintenance.  
Inform the personnel about the technical data.  
NO = Normally open. NC = Normally closed.*

### Parts list

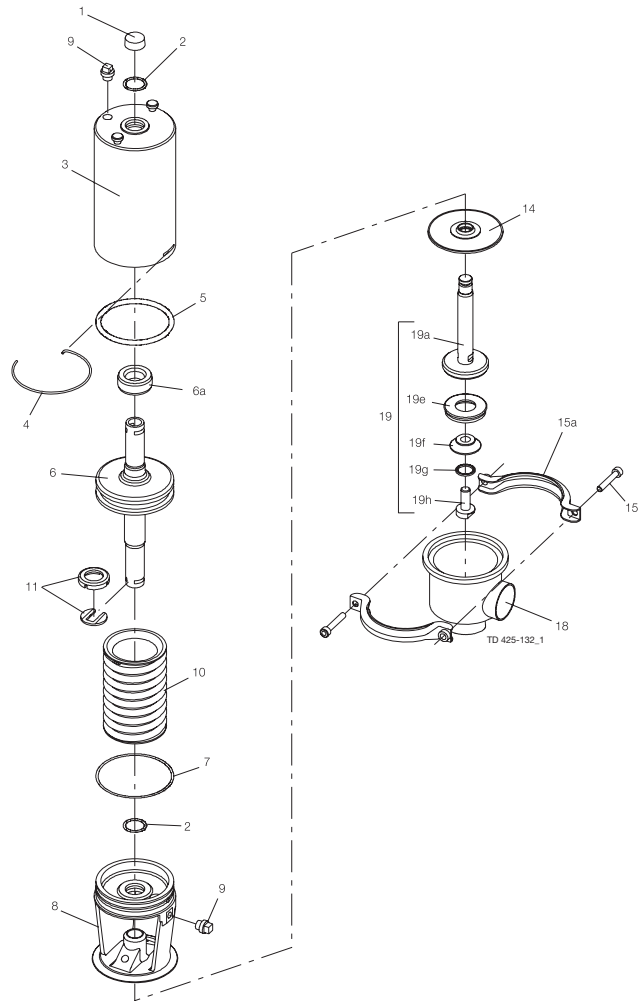
Pos.	Qty	Denomination
1	1	Actuator
		Cap
2 □	2	O-ring
3	1	Cylinder
4 □	1	Lock Wire
5 □	1	O-ring
6	1	Piston
6a	1	Stop ring
7 □	1	O-ring
8	1	Bonnet
9*	2	Plug
10*	1	Spring assembly (black)
11 □	1	Clip, complete
14 ♦	1	Lip seal
14a ○	1	Lip seal
14b	1	Plate
14c ○	1	Seal ring
14d	1	Washer
14e ○	1	O-ring FEP/Silicone
14f	1	Holder
14g ○	1	Seal ring, PTFE
15a+b	1	Clamps and screws
18	1	Valve body
19	1	Plug
19a	1	Stem
	1	Stem
19e ♦○	1	Plug seal
19f	1	Screw
	1	Screw

### Service kits

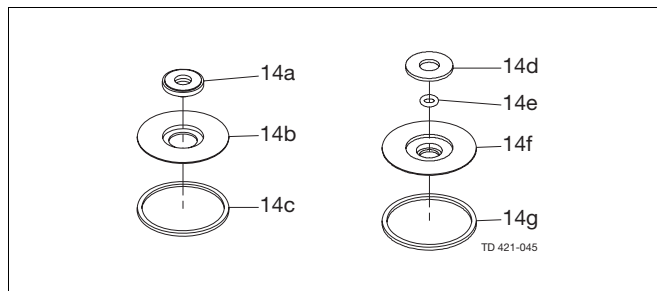
Denomination	DN25 25 mm
<b>Service kit for Actuator</b>	
□ Service kit .....	9611-92-0008
<b>Service kit for Product wetted parts, standard</b>	
♦ Service kit EPDM .....	9611-92-0535
♦ Service kit NBR .....	9611-92-0536
♦ Service kit FPM .....	9611-92-0537
<b>Service kit for Special lip seal</b>	
○ Service kit EPDM .....	9611-92-0538
○ Service kit NBR .....	9611-92-0539
○ Service kit FPM .....	9611-92-0540
○ Service kit FEP .....	9611-92-0541

## 9 SRC Stop Valve - 38-101.6 mm/DN40-100

It is important to observe the technical data during installation, operation and maintenance.  
 Inform the personnel about the technical data.  
 NO = Normally open. NC = Normally closed.



Alternative Stem seal



Special lip seal

Parts for FEP lip seal

## 9 SRC Stop Valve - 38-101.6 mm/DN40-100

*It is important to observe the technical data during installation, operation and maintenance.  
Inform the personnel about the technical data.  
NO = Normally open. NC = Normally closed.*

### Parts list

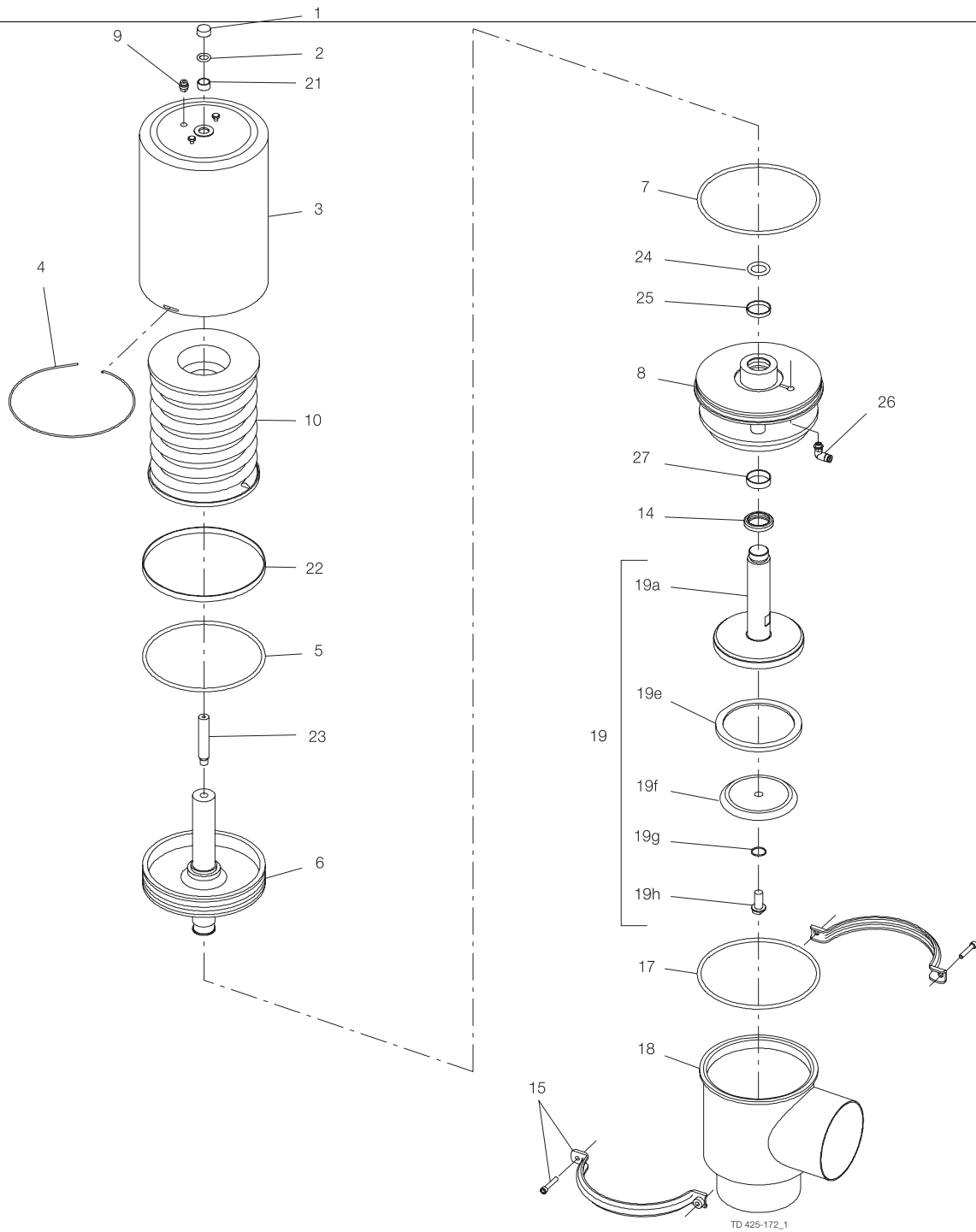
Pos.	Qty	Denomination
	1	Actuator
	1	Spring assembly with extra strong spring (white)
	1	Clip
1	1	Actuator
	1	Cap
2 □	2	O-ring
3	1	Cylinder
4 □	1	Lock Wire
5 □	1	O-ring
6	1	Piston
6a	1	Stop ring (only for actuator-3)
7 □	1	O-ring
8	1	Bonnet
9*	2	Plug
10*	1	Spring assembly standard (black)
11 □	1	Clip, complete
14 ♦	1	Lip seal
	1	Lip seal kit
14a ○	1	Lip seal
14b	1	Plate
14c ○	1	Seal ring
14d	1	Washer
14e ○	1	O-ring FEP/Silicone
14f	1	Holder
14g ○	1	Seal ring, PTFE
15a+b	1	Clamps & screws
15a	2	Clamp half
15b	2	Screw
18	1	Valve body
	1	Valve body
19	1	Plug
19a	1	Stem
	1	Stem
19e ♦○	1	Plug seal
19f	1	Washer
	1	Washer
19g ♦○	1	O-ring
19h	1	Screw
	1	Screw

### Service kits

Denomination	DN 40 38 mm	DN 50 51 mm	DN 65 63.5 mm	76 mm	DN 80	DN 100 101.6 mm
<b>Service kit for Actuator</b>						
□ Service kit .....	9611-92-0008	9611-92-0008	9611-92-0008	9611-92-0009	9611-92-0009	9611-92-0009
<b>Service kit for Product wetted parts, standard</b>						
♦ Service kit EPDM .....	9611-92-0010	9611-92-0013	9611-92-0016	9611-92-0019	9611-92-0105	9611-92-0022
♦ Service kit NBR .....	9611-92-0011	9611-92-0014	9611-92-0017	9611-92-0020	9611-92-0106	9611-92-0023
♦ Service kit FPM .....	9611-92-0012	9611-92-0015	9611-92-0018	9611-92-0021	9611-92-0107	9611-92-0024
<b>Service kit for Special lip seal</b>						
○ Service kit EPDM .....	9611-92-0447	9611-92-0451	9611-92-0455	9611-92-0459	9611-92-0463	9611-92-0467
○ Service kit NBR .....	9611-92-0448	9611-92-0452	9611-92-0456	9611-92-0460	9611-92-0464	9611-92-0468
○ Service kit FPM .....	9611-92-0449	9611-92-0453	9611-92-0457	9611-92-0461	9611-92-0465	9611-92-0469
○ Service kit FEP .....	9611-92-0450	9611-92-0454	9611-92-0458	9611-92-0462	9611-92-0466	9611-92-0470

# 10 SRC Stop Valve - DN125-150

It is important to observe the technical data during installation, operation and maintenance.  
Inform the personnel about the technical data.  
NO = Normally open. NC = Normally closed.



## 10 SRC Stop Valve - DN125-150

*It is important to observe the technical data during installation, operation and maintenance.  
Inform the personnel about the technical data.  
NO = Normally open. NC = Normally closed.*

### Parts list

Pos.	Qty	Denomination
		Actuator, complete
1	1	Cap
2	□	O-ring
3	1	Cylinder
4	□	Lock wire
5	□	O-ring
6	1	Piston
7	□	O-ring
8	1	Bonnet
9	1	Plug
10	1	Spring packet
14	◆	Lip seal
15	1	Clamp complete
17	◆	Seal ring
18	1	Valve body
19	1	Plug
19a	1	Stem
	1	Stem
19e	◆	Plug seal
19f	1	Washer
	1	Washer
19g	◆	O-ring
19h	1	Screw
	1	Screw
21	□	Guide ring
22	□	Guide ring
23	1	Top pin
24	□	O-ring
25	□	Guide ring
26	1	Air fitting
27	□	Guide ring

### Service kits

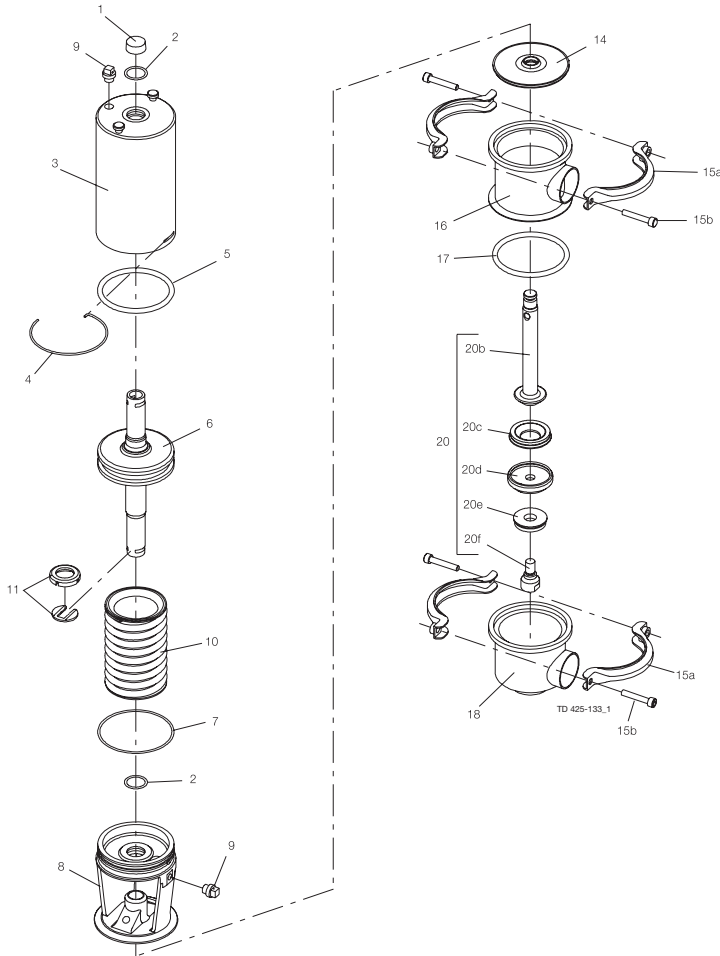
Denomination	NC	NO
<b>Service kit for Actuator</b>		
□ Service kit EPDM .....	9611-92-0296	9611-92-0296

### Service kits

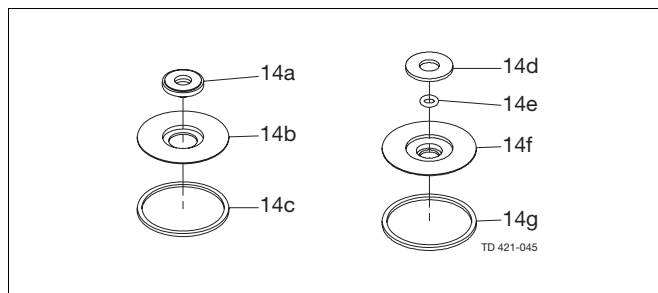
Denomination	DN 125	DN 150
<b>Service kit for Product wetted parts, standard</b>		
◆ Service kit EPDM .....	9611-92-0355	9611-92-0355
◆ Service kit NBR .....	9611-92-0356	9611-92-0356
◆ Service kit FPM .....	9611-92-0357	9611-92-0357

# 11 SRC Change-over Valve - 25 mm/DN25

It is important to observe the technical data during installation, operation and maintenance.  
 Inform the personnel about the technical data.  
 NO = Normally open. NC = Normally closed.



Alternative Stem seal



Special lip seal

Parts for FEP lip seal

## 11 SRC Change-over Valve - 25 mm/DN25

*It is important to observe the technical data during installation, operation and maintenance.  
Inform the personnel about the technical data.  
NO = Normally open. NC = Normally closed.*

### Parts list

Pos.	Qty	Denomination
1	1	Actuator
2	2	Cap
2	2	O-ring
3	1	Cylinder
4	1	Lock Wire
5	1	O-ring
6	1	Piston
7	1	O-ring
8	1	Bonnet
9*	2	Plug
10*	1	Spring assembly, standard (black)
11	1	Clip, complete
14	1	Lip seal
	1	Lip seal kit
14a	1	Lip seal
14b	1	Plate
14c	1	Seal ring
14d	1	Washer
14e	1	O-ring FEP/Silicone
14f	1	Holder
14g	1	Seal ring, PTFE
15a+b	2	Clamps and screws (Period 9209-)
16	1	Valve body
	1	Valve body
17	1	Seal ring
18	1	Valve body
	1	Valve body
20	1	Plug
20b	1	Stem
20c	1	Plug seal
20d	1	Middle piece
20e	1	Plug seal
20f	1	Screw

### Service kits

Denomination	DN 25 25 mm
<b>Service kit for Actuator</b>	
□ Service kit .....	9611-92-0008
<b>Service kit for Product wetted parts, standard</b>	
♦ Service kit EPDM .....	9611-92-0542
♦ Service kit NBR .....	9611-92-0543
♦ Service kit FPM .....	9611-92-0544
<b>Service kit for Special lip seal</b>	
○ Service kit EPDM .....	9611-92-0545
○ Service kit NBR .....	9611-92-0546
○ Service kit FPM .....	9611-92-0547
○ Service kit FEP .....	9611-92-0548

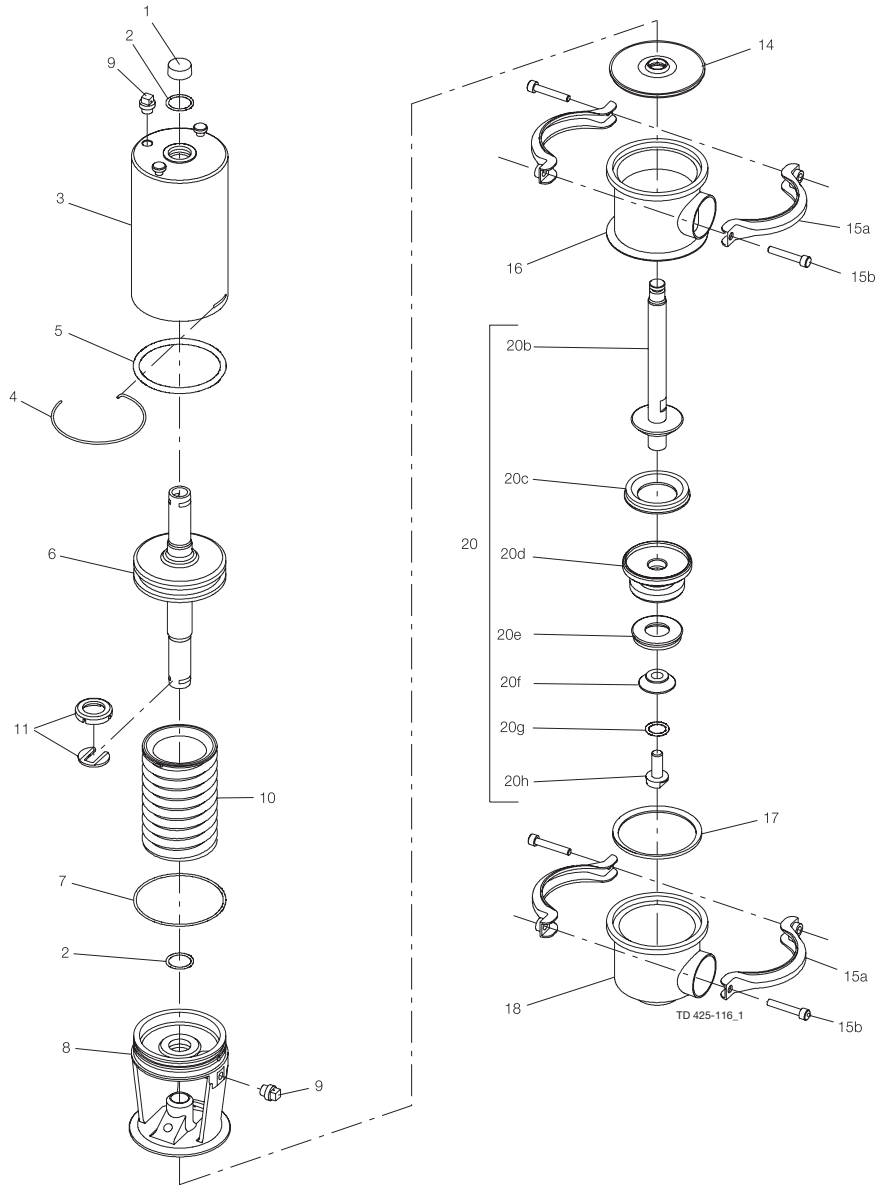
Parts marked with □♦○ are included in the service kits.

Recommended spare parts: Service kits.

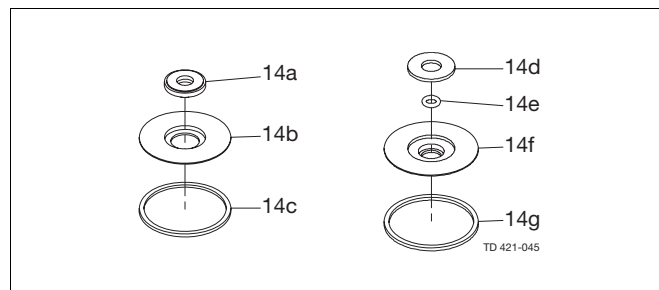


## 12 SRC Change-over Valve - 38-101.6 mm/DN40-100

It is important to observe the technical data during installation, operation and maintenance.  
 Inform the personnel about the technical data.  
 NO = Normally open. NC = Normally closed.



Alternative Stem seal



Special lip seal

Parts for FEP lip seal

## 12 SRC Change-over Valve - 38-101.6 mm/DN40-100

*It is important to observe the technical data during installation, operation and maintenance.  
Inform the personnel about the technical data.  
NO = Normally open. NC = Normally closed.*

### Parts list

Pos.	Qty	Denomination
	1	Actuator
	1	Spring assembly with extra strong spring (white)
	1	Clip, (period 68.02 - 84.07)
1	1	Actuator
2	2	Cap
3	1	O-ring
4	1	Cylinder
5	1	Lock Wire
6	1	O-ring
7	1	Piston
8	1	O-ring
9*	1	Bonnet
10*	2	Plug
11	1	Spring assembly, standard (black)
14	1	Clip, complete (period 84.08-)
14a	1	Lip seal
14b	1	Lip seal kit
14c	1	Lip seal
14d	1	Plate
14e	1	Seal ring
14f	1	Washer
14g	1	O-ring FEP/Silicone
15a+b	1	Holder
15a	2	Clamps & screws (Period 9209-)
15b	4	Clamp half (Period -9209)
16	4	Screw (Period -9209)
17	1	Valve body
18	1	Seal ring
20	1	Valve body
20a	1	Plug
20b	1	Stem
20c	1	Stem
20d	1	Plug seal
20e	1	Middle piece
20f	1	Middle piece
20g	1	Plug seal
20h	1	Washer
	1	Washer
	1	O-ring
	1	Screw
	1	Screw

### Service kits


Denomination	DN 40 38 mm	DN 50 51 mm	DN 65 63.5 mm	76 mm	DN 80	DN 100 101.6 mm
<b>Service kit for Actuator</b>						
□ Service kit .....	9611-92-0008	9611-92-0008	9611-92-0008	9611-92-0009	9611-92-0009	9611-92-0009
<b>Service kit for Product wetted part, standard</b>						
♦ Service kit EPDM .....	9611-92-0025	9611-92-0028	9611-92-0031	9611-92-0034	9611-92-0108	9611-92-0037
♦ Service kit NBR .....	9611-92-0026	9611-92-0029	9611-92-0032	9611-92-0035	9611-92-0109	9611-92-0038
♦ Service kit FPM .....	9611-92-0027	9611-92-0030	9611-92-0033	9611-92-0036	9611-92-0110	9611-92-0039
<b>Service kit for Special lip seal</b>						
○ Service kit EPDM .....	9611-92-0471	9611-92-0475	9611-92-0479	9611-92-0483	9611-92-0487	9611-92-0491
○ Service kit NBR .....	9611-92-0472	9611-92-0476	9611-92-0480	9611-92-0484	9611-92-0488	9611-92-0492
○ Service kit FPM .....	9611-92-0473	9611-92-0477	9611-92-0481	9611-92-0485	9611-92-0489	9611-92-0493
○ Service kit FEP .....	9611-92-0474	9611-92-0478	9611-92-0482	9611-92-0486	9611-92-0490	9611-92-0494

## 12 SRC Change-over Valve - 38-101.6 mm/DN40-100

---

*It is important to observe the technical data during installation, operation and maintenance.  
Inform the personnel about the technical data.  
NO = Normally open. NC = Normally closed.*

---

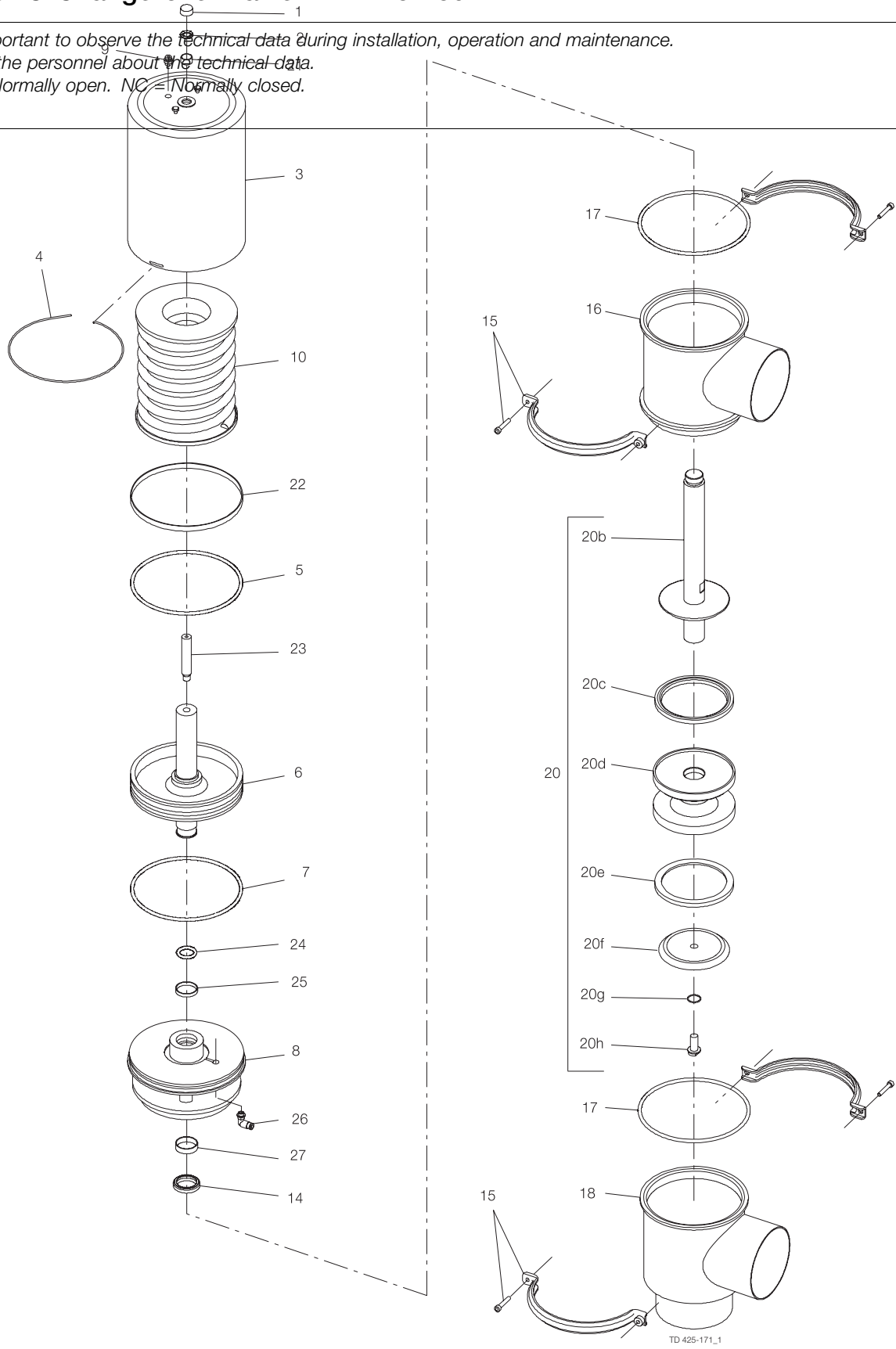
Parts marked with  are included in the service kits.

Recommended spare parts: Service kits.

900-092/1

# 13 SRC Change-over Valve - DN125-150

It is important to observe the technical data during installation, operation and maintenance.  
 Inform the personnel about the technical data.  
 NO = Normally open. NC = Normally closed.



TD 425-171\_1

## 13 SRC Change-over Valve - DN125-150

*It is important to observe the technical data during installation, operation and maintenance.  
Inform the personnel about the technical data.  
NO = Normally open. NC = Normally closed.*

### Parts list

Pos.	Qty	Denomination
1	1	Actuator, complete
2	1	Cap
2	1	O-ring
3	1	Cylinder
4	1	Lock wire
5	1	O-ring
6	1	Piston
7	1	O-ring
8	1	Bonnet
9	1	Plug
10	1	Spring packet
14	1	Lip seal
15	2	Clamp complete
16	1	Valve body
17	2	Seal ring
18	1	Valve body
20	1	Plug
20b	1	Stem
20c	1	Plug seal
20d	1	Middle piece
20e	1	Plug seal
20f	1	Washer
20g	1	O-ring
20h	1	Screw
21	1	Guide ring
22	1	Guide ring
23	1	Top pin
24	1	O-ring
25	1	Guide ring
26	1	Air fitting
27	1	Guide ring

### Service kits

Denomination	NC	NO
<b>Service kit for Actuator</b>		
□ Service kit EPDM .....	9611-92-0296	9611-92-0296

### Service kits

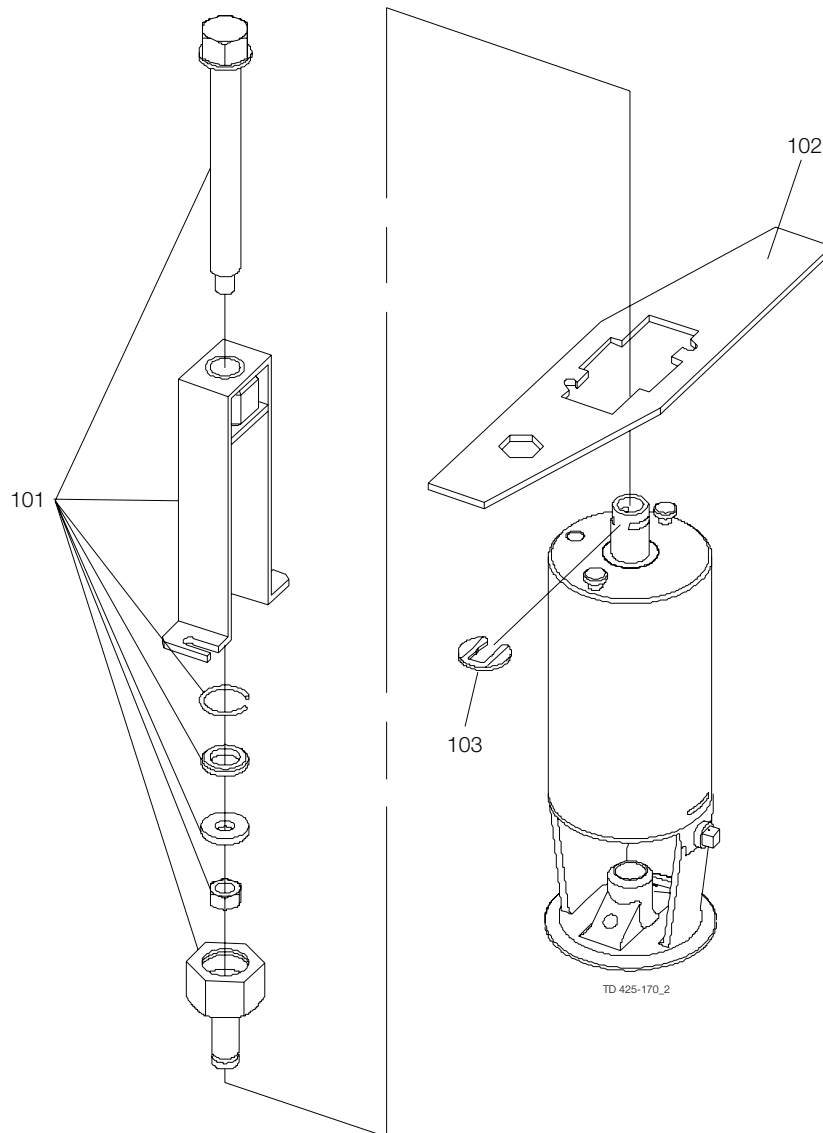
Denomination	DN 125	DN 150
<b>Service kit for Product wetted parts</b>		
◆ Service kit EPDM .....	9611-92-0358	9611-92-0358
◆ Service kit NBR .....	9611-92-0359	9611-92-0359
◆ Service kit FPM .....	9611-92-0360	9611-92-0360

Parts marked with □◆○ are included in the service kits.

Recommended spare parts: Service kits.

## 14 SRC Tool for Valve - SRC/ARC/SRC-LS

*It is important to observe the technical data during installation, operation and maintenance.  
Inform the personnel about the technical data.  
NO = Normally open. NC = Normally closed.*



TD 425-170\_2

## 14 SRC Tool for Valve - SRC/ARC/SRC-LS

---

*It is important to observe the technical data during installation, operation and maintenance.  
Inform the personnel about the technical data.  
NO = Normally open. NC = Normally closed.*

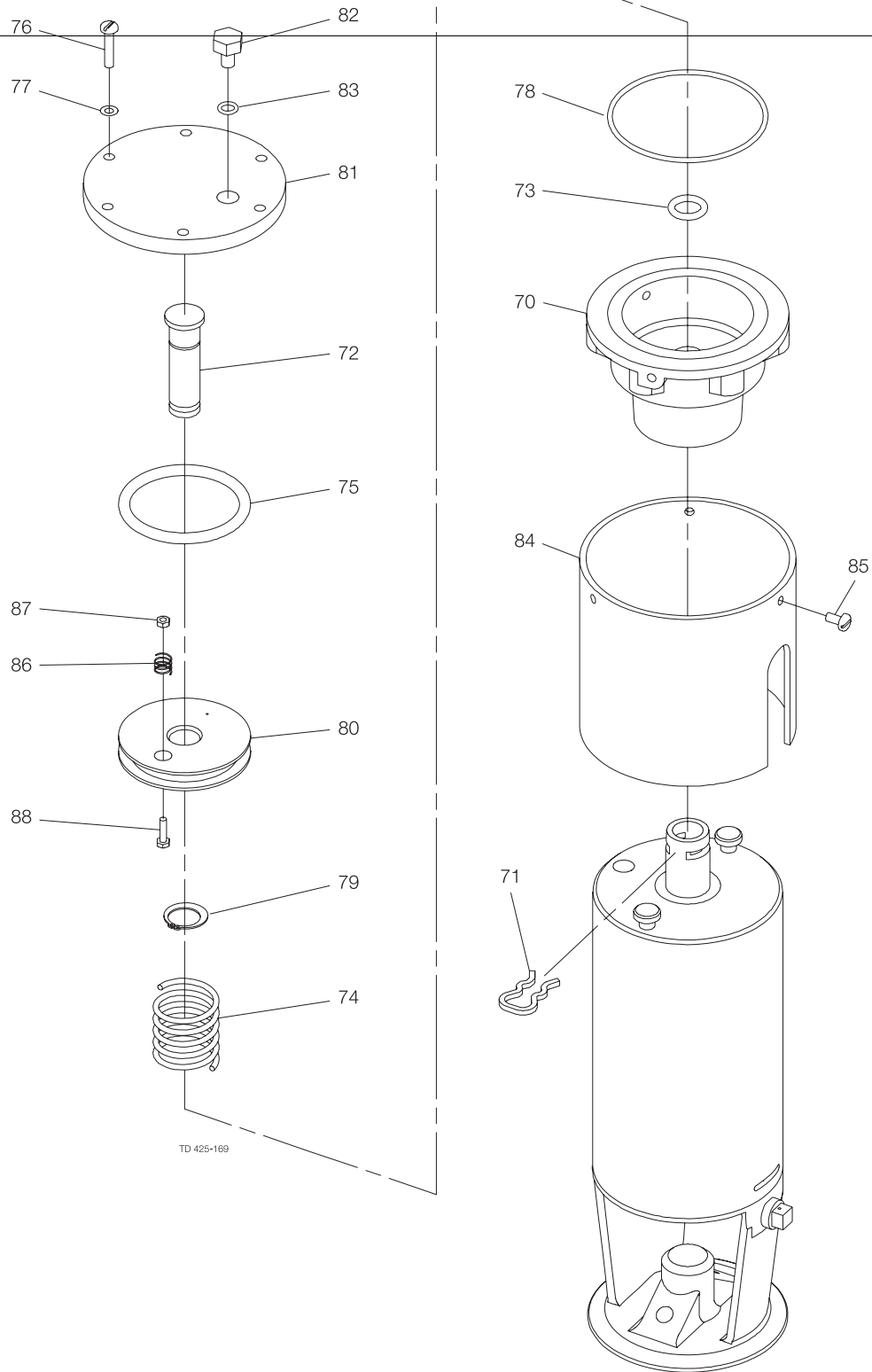
---

### Parts list

Pos.	Qty	Denomination
101	1	Lifting tool complete, SRC
102	1	Turning tool
103	1	Clip

# 15 SRC Damper for Valve

It is important to observe the technical data during installation, operation and maintenance.  
Inform the personnel about the technical data.  
NO = Normally open. NC = Normally closed.





## 15 SRC Damper for Valve

---

*It is important to observe the technical data during installation, operation and maintenance.  
Inform the personnel about the technical data.  
NO = Normally open. NC = Normally closed.*

---

### Parts list

Pos.	Qty	Denomination
70	1	Housing
71	1	Clip
72	1	Piston rod
73	1	O-ring, NBR
74	1	Spring
75	1	O-ring, NBR
76	6	Screw
77	6	Washer
78	1	O-ring, NBR
79	1	Lock ring
80	1	Piston
81	1	Cover
82	1	Plug
83	1	O-ring
84	1	Protective hood
85	3	Screw
86	1	Spring
87	1	Nut
88	1	Screw

**How to contact Alfa Laval**

Contact details for all countries are continually updated on our website.

Please visit [www.alfalaval.com](http://www.alfalaval.com) to access the information direct.

© Alfa Laval Corporate AB

This document and its contents is owned by Alfa Laval Corporate AB and protected by laws governing intellectual property and thereto related rights. It is the responsibility of the user of this document to comply with all applicable intellectual property laws. Without limiting any rights related to this document, no part of this document may be copied, reproduced or transmitted in any form or by any means (electronic, mechanical, photocopying, recording, or otherwise), or for any purpose, without the expressed permission of Alfa Laval Corporate AB. Alfa Laval Corporate AB will enforce its rights related to this document to the fullest extent of the law, including the seeking of criminal prosecution.