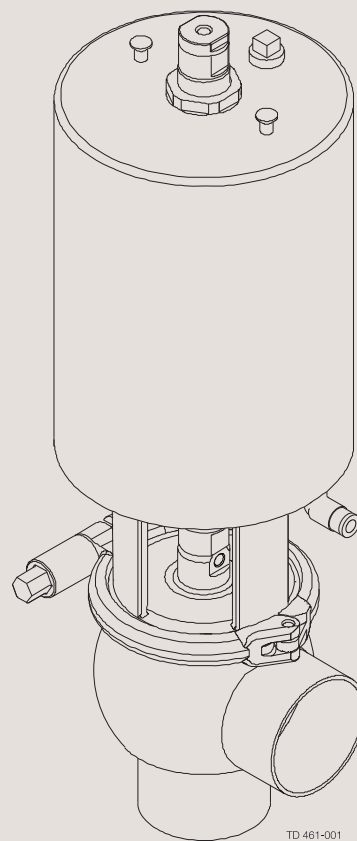
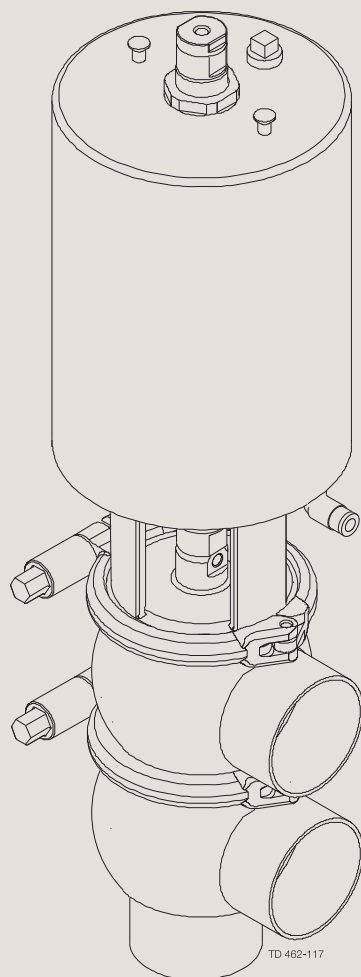




# Instruction Manual

## Unique Single Seat Valve - standard and reverse acting



ESE00202-EN12

2018-05

Original manual



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

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# 1 EC Declaration of Conformity

Revision of Declaration of Conformity: 2018-04-01

The Designated Company

Alfa Laval Kolding A/S

Company Name

Albuen 31, DK-6000 Kolding, Denmark

Address

+45 79 32 22 00

Phone No.

hereby declares that

Valve

Designation

Unique SSV PN10

Type

from serial number 1000000 to 70000000000

is in conformity with the following directive with amendments:

- Machinery Directive 2006/42/EC
- Pressure Equipment Directive 2014/68/EU category 1 and subjected to assessment procedure Module A. May only be used for fluids in Group 2

The person authorised to compile the technical file is the signer of this document

Global Product Quality Manager  
Pumps, Valves, Fittings and Tank Equipment

Title

Lars Kruse Andersen

Name

Kolding

Place

2018-04-01

Date



Signature



Unsafe practices and other important information are emphasised in this manual.  
Warnings are emphasised 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

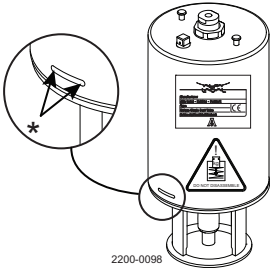
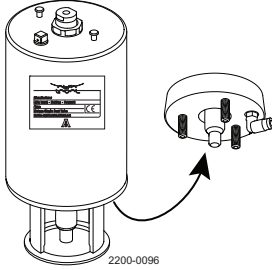

Indicates important information to simplify or clarify procedures.

#### Different actuator types for the SSV valve

In June 2016 the below change was implemented and the “removable yoke with bolts” version is thereby phased out and replaced by the “yoke without bolts” version.

#### NOTE

It is important to check for warnings marked on the actuator when servicing an actuator - see below table.

Actuator type	Non-maintainable actuator Spring under load and <b>CANNOT</b> be opened	Fully maintainable actuator Spring cage and can be opened	Fully maintainable actuator Spring cage and can be opened
	 <p>*) Lock wire opening is locked when warning is marked on actuator</p>		
Yoke type	Non-removable yoke	“Removable yoke with bolts”. If the yoke with bolts is damaged it has to be replaced by the “yoke without bolts”	“Yoke without bolts”
Service	Not possible to service internally (it is not possible to change piston o-rings)	Yes	Yes
Marked with warnings	Yes	No	No
Year of production	From 2006	From 2006 to June 2016	From June 2016

## 2 Safety

---

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

---

### 2.2 Warning signs

---

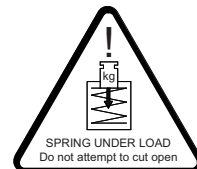
General warning



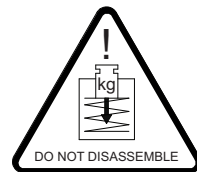
Caustic agents



Danger of injury: (an extra yellow label marked on the actuator from June 2016)  
Do **NOT** attempt to cut the actuator open due to spring under load.  
(The lock wire opening is locked).



Danger of injury (lasermarked on the actuator)  
Do **NOT** attempt to disassemble the actuator due to spring under load danger!  
(The lock wire opening is locked)



All warnings in this manual are summarised 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

#### Actuators

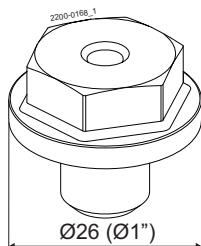
If support air is utilised:



- Shock in the actuator must **NEVER** occur
- Support air on high pressure actuator versions is **NOT** allowed

To prevent shock in the actuator and to prevent exceeding 10 bar product pressure, Alfa Laval recommends **NOT** to exceed 3 bar support air on the spring side in all the Unique SSV actuators.

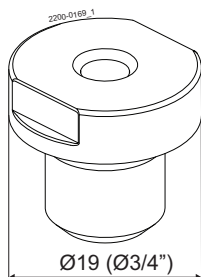
If support air is connected always use the 3 bar air relief fittings = 9611995903.  
Using the 3 bar air relief fitting also extends the service life of the actuator piston o-ring.



#### Pos. no. 5

For actuators with serial number from 1000000 - 5999999 and from 20000000000 - 59999999999 always use steel adapter (pos 5) = 9614065301

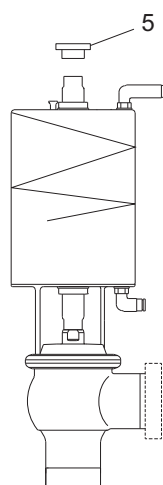
Tighten torque = 30 Nm



#### Pos. no. 5

For actuators with serial number from 6000000 to 7000000 and from 60000000000 to 70000000000 always use steel adapter (pos 5) = 9615374701

Tighten torque = 15 Nm



Alfa Laval recommends max. 3 bar support air  
Always use the "3 bar air relief fittings" on support air.  
Alfa Laval article number = 9611995903

TD 461-990\_2

## 2 Safety

---

All warnings in this manual are summarised on this page.

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

---

### Installation

**Always** read the technical data thoroughly (see section 6 Technical data)

**Always** release compressed air after use

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

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

**Never** dismantle the valve with valve and pipelines under pressure

**Never** dismantle the valve when it is hot



**Never** cut the actuator open, due to spring under load - if marked with this warning



Do **NOT** attempt to disassemble the actuator due to spring under load danger!



---

### Operation

**Never** dismantle the valve with valve and pipelines under pressure

**Never** dismantle the valve when it is hot

**Always** read the technical data thoroughly (see section 6 Technical data)

**Always** release compressed air after use

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

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

**Always** rinse well with clean water after cleaning



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



---

### Maintenance

**Always** read the technical data thoroughly (see section 6 Technical data)

**Always** release compressed air after use

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

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

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

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

**Always** use Alfa Laval genuine spare parts



**Never** cut the actuator open, due to spring under load danger - if marked with this warning



Do **NOT** attempt to disassemble the actuator due to spring under load danger!



---

### Transportation

**Always** ensure that compressed air is released

**Always** ensure that all connections are disconnected before attempting to remove the valve from the installation

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

**Always** use pre-designed lifting points if defined

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

---



This instruction manual is part of the delivery. Study the instructions carefully.  
 The items refer to the parts list and service kits section.  
 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

### Step 1

#### CAUTION

Alfa Laval cannot be held responsible for incorrect unpacking.

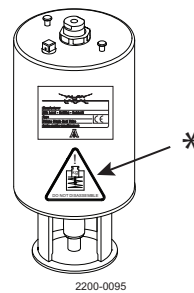
#### Check the delivery for:

1. Complete valve, shut-off valve (RA) or change-over valve (RA) (see steps 3a, 3b, 3c and 3d).
2. Delivery note.

### Step 2

Actuator version can be ordered either "fully maintainable" (no warning marked on actuator) or as "non-maintainable" (warning marked on actuator).

#### Non-maintainable actuator



#### Fully maintainable actuator



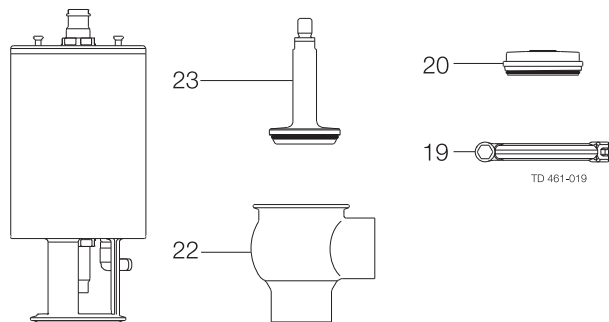
\* = lasermarked warning

### Step 3

#### 3a

##### Shut-off valve:

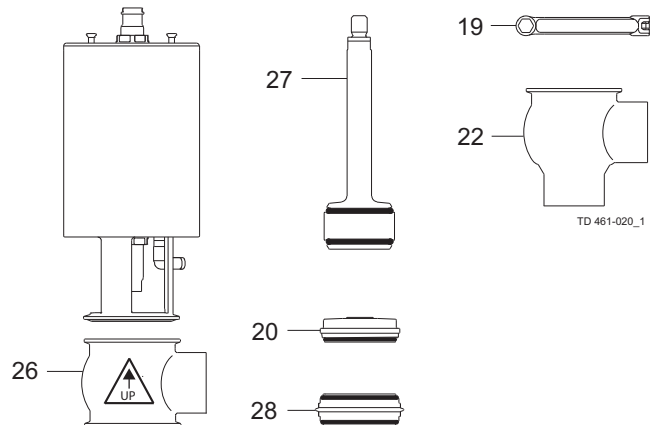
1. Complete actuator.
2. Bonnet (20).
3. Clamp (19).
4. Valve plug (23).
5. Valve body (22).



#### 3b

##### Change-over valve:

1. Complete actuator.
2. Bonnet (20).
3. 2 x clamps (19).
4. Valve plug (27).
5. Lower valve body (22).
6. Valve seat (28).
7. Upper valve body (26).



### 3 Installation

This instruction manual is part of the delivery. Study the instructions carefully.

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

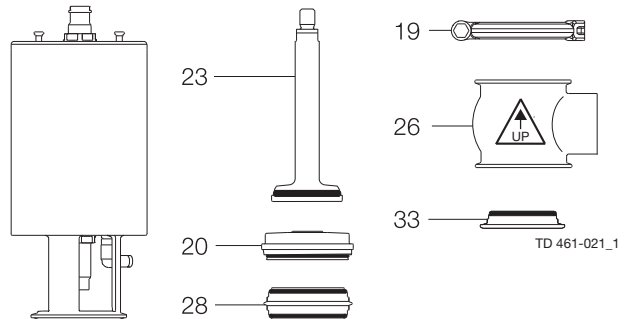
The valve is supplied as separate parts as standard (for welding).

The valve is assembled before delivery if it is supplied with fittings.

#### 3c

##### Shut-off valve - Reverse Acting:

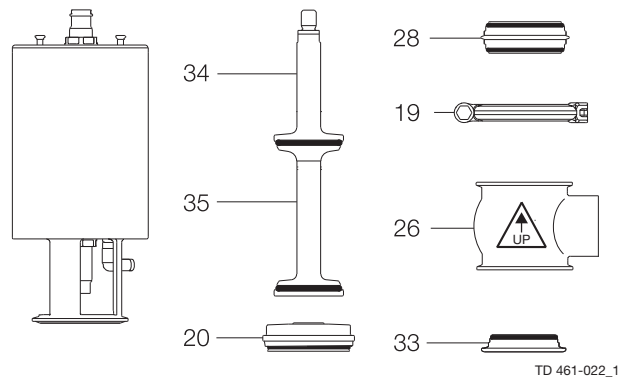
1. Complete actuator.
2. Bonnet (20).
3. 3 x clamps (19).
4. Valve plug (23).
5. 2 x upper valve bodies (26).
6. Valve seat (28).
7. Lower bonnet (33).



#### 3d

##### Change-over valve - Reverse Acting:

1. Complete actuator.
2. Bonnet (20).
3. 4 x clamps (19).
4. Upper valve plug (34).
5. Lower valve plug (35).
6. 3 x upper valve bodies (26).
7. 2 x valve seats (28).
8. Lower bonnet (33).



#### Step 4

Remove possible packing material from the valve / valve parts.

Inspect the valve / valve parts for visible transport damage.

Avoid damaging the valve / valve parts.

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.

#### 3.2 General installation

##### Step 1



- **CAUTION**
  - Alfa Laval cannot be held responsible for incorrect installation.
  - **Always** release compressed air after use.
  - **Always** read the technical data thoroughly.
- See section 6 Technical data.



Do **NOT** attempt to disassemble the actuator due to spring under load danger!



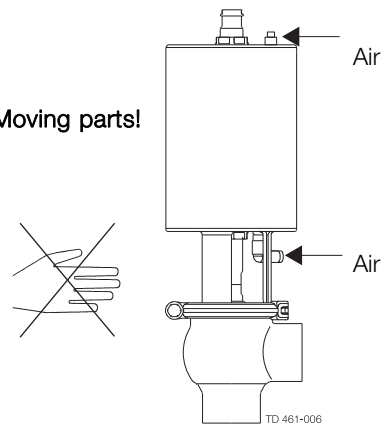
If marked with this warning, do **NOT** attempt to cut the actuator open, due to spring under load danger!

##### Step 2



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

Moving parts!

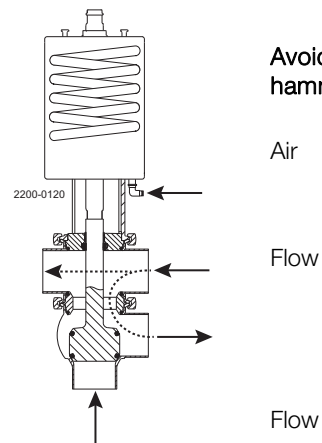


##### Step 3

To avoid water hammering, it is recommended to install the valve so that the flow is against the spring closing direction.

Shock in the actuator must **never** occur.

**Avoid water hammering!**

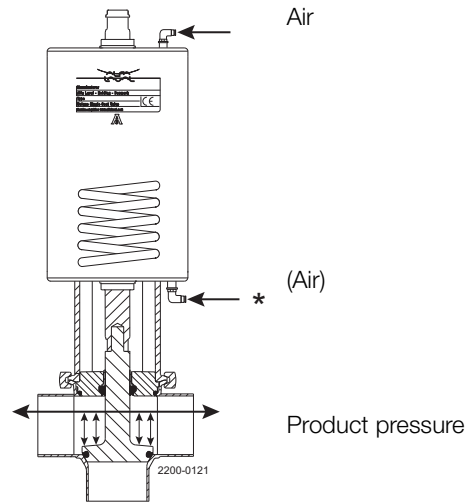


### 3 Installation

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.

#### Step 4

If support air is used:  
Pay special attention to shock in the actuator due to support air.  
Shock in the actuator must **never** occur.

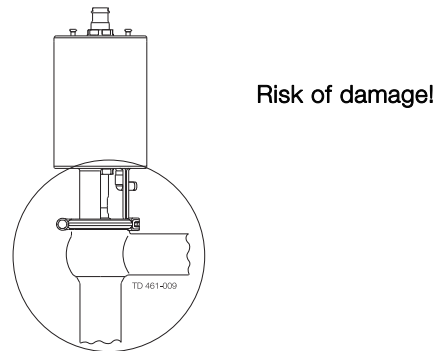


\*) Careful if using support air on spring side and a high product pressure above the plug, as this can result in a high "hammer effect" which can damage the actuator.  
Use Alfa Laval part no. 9611995903, which ensures max. 3 bar support air pressure.  
Alternatively remove the product pressure while activating the plug.

#### Step 5

Avoid stressing the valve.  
**Pay special attention to:**

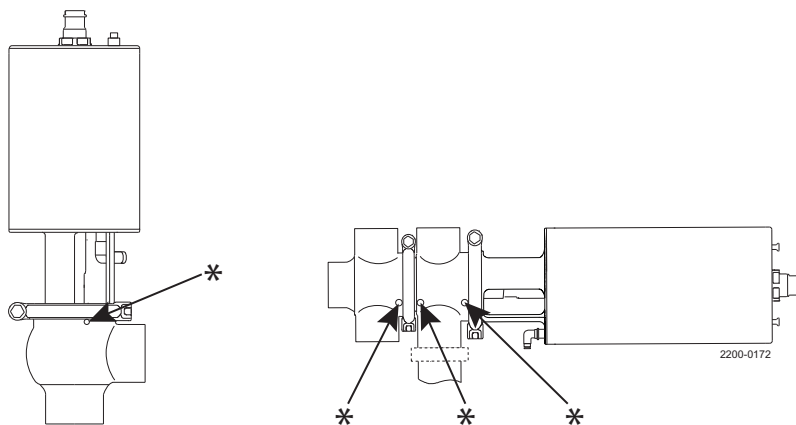
- Vibrations.
- Thermal expansion of the pipelines.
- Excessive welding.
- Overloading of the pipelines.



#### Step 6

Make sure that the leak detection hole in the valve body:

1. is visible, when mounting the valve vertically
2. always is downwards due to self-draining, when the valve is mounted horizontally.



\* = Leakage detection hole

Study the instructions carefully.  
 The valve is supplied as separate parts to facilitate welding.  
 The items refer to the parts list and service kits section.  
 Check the valve for smooth operation after welding.

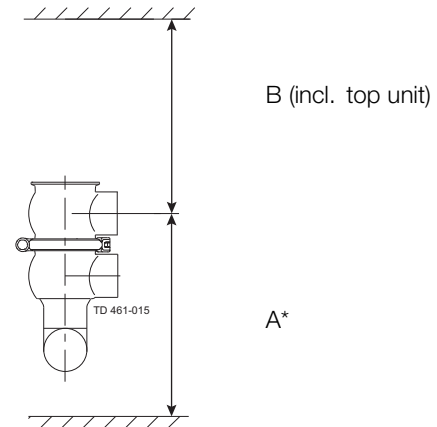
## 3.3 Welding

### Step 1

**Always** install valves with more than one valve body so that the seals between the valve bodies can be replaced. Do not weld more than one valve body into the system.

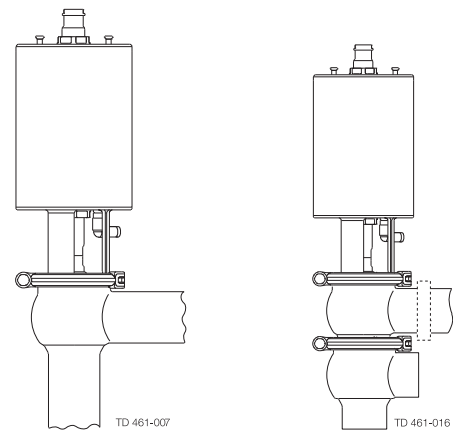
Valve size	A (mm)	B (mm)
DN25/25 mm	*	630
DN40/38 mm	*	700
DN50/51 mm	*	750
DN65/63.5 mm	*	740
DN80/76 mm	*	800
DN100/101.6 mm	*	790

\* Depending on body combination and piping solution.



### Step 2

Assemble the valve in accordance with the steps on page 26.  
**Pay special attention to the warnings!**

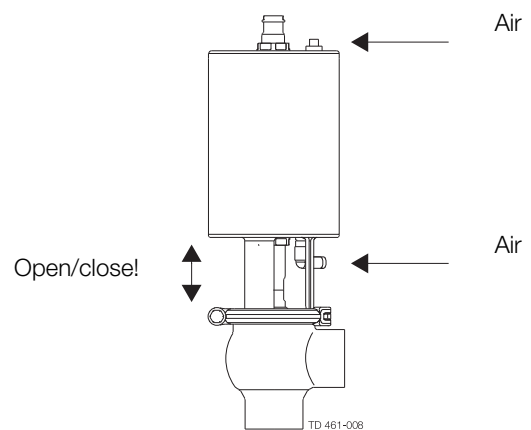


### Step 3

#### 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!**



## 3 Installation

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Study the instructions carefully.

The valve is supplied as separate parts to facilitate welding.

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

Check the valve for smooth operation after welding.

---

### 3.4 Recycling information

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#### • 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 wearing 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 wearing parts must be disposed of in accordance with local regulations

#### • Scrapping

- At end of use, the equipment must be recycled in accordance with the relevant local regulations. Besides 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 your local Alfa Laval sales company. If the actuator is marked with a danger warning, do not attempt to cut the actuator open.



Do **NOT** attempt to disassemble the actuator due to spring under load danger!



If marked with this warning, do **NOT** attempt to cut the actuator open, due to spring under load danger!

---

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.

### 4.1 Operation

#### Step 1



**- CAUTION**

- Alfa Laval cannot be held responsible for incorrect installation.
- **Always** release compressed air after use.
- **Always** read the technical data thoroughly.  
See section 6 Technical data.
- **Always** use Alfa Laval genuine spare parts.  
The warranty of Alfa Laval products is dependent on use of Alfa Laval genuine spare parts.



Do **NOT** attempt to disassemble the actuator due to spring under load danger!

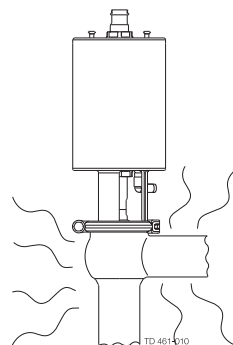


If marked with this warning, do **NOT** attempt to cut the actuator open, due to spring under load danger!

#### Step 2



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



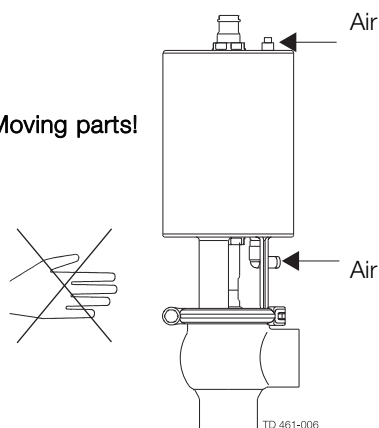
**Burn hazard!**

#### Step 3



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

**Moving parts!**



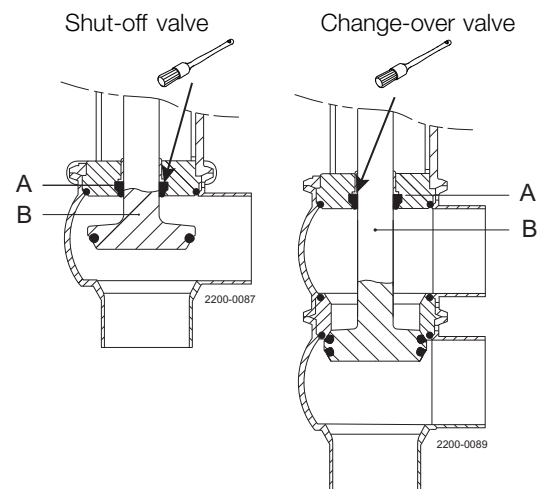
## 4 Operation

*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.*

### Step 4

#### Lubrication of valves:

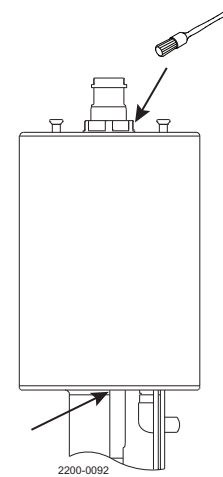
1. Ensure smooth movement between lip seal (A) and plug stem (B).
2. Lubricate the lip seal with Klüber Paraliq GTE 703 if necessary (see page 19).



### Step 5

#### Lubrication of actuator:

1. Ensure smooth movement of the actuator (the actuator is lubricated before delivery).
2. Lubricate all seals with Molykote Longterm 2 plus if necessary.





Pay attention to possible faults. Study the instructions carefully.  
The items refer to the parts list and service kits section.

## 4.2 Troubleshooting

### NOTE!

Study the maintenance instructions carefully before replacing worn parts - see page 19.

Problem	Cause/result	Repair
External product leakage	Worn or damaged lip seal and/or O-ring	<ul style="list-style-type: none"> <li>- Replace the seals</li> <li>- Replace with seals of a different rubber grade</li> </ul>
Internal product leakage	<ul style="list-style-type: none"> <li>- Worn or product affected plug seal</li> <li>- Product deposits on the seat and/or plug</li> <li>- Product pressure exceeds actuator specification</li> </ul> See section 2.3 Safety precautions	<ul style="list-style-type: none"> <li>- Replace the seal</li> <li>- Replace with a seal of a different rubber grade</li> <li>- Frequent cleaning</li> <li>- Replace with a high pressure actuator</li> <li>- Use auxiliary air on the spring side (do not exceed 3 bar). Alfa Laval article number = 9611995903.</li> <li>- See section 2.3 Safety precautions and section 3.2 General installation, Step 4</li> <li>- Reduce product pressure</li> </ul>
Water hammer	The flow direction is the same as the closing direction	<ul style="list-style-type: none"> <li>- The flow direction should be against the closing direction. See section 3.2 General installation, Step 3</li> <li>- Throttle air release of solenoid in top unit</li> </ul>
The valve does not open/close	Product pressure exceeds actuator specification	<ul style="list-style-type: none"> <li>- Replace with a high pressure actuator</li> <li>- Reduce product pressure</li> <li>- Use auxiliary air on the spring side. Always use the pressure relief fittings (3 bar) on support side.</li> </ul> Alfa Laval article number = 9611995903

If marked with a danger warning, do **NOT** attempt to cut the actuator open, due to spring under load.



Do **NOT** attempt to disassemble the actuator due to spring under load danger!



Do **NOT** attempt to cut the actuator open due to spring under load danger!

## 4 Operation

The valve is designed for cleaning in place (CIP).

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!

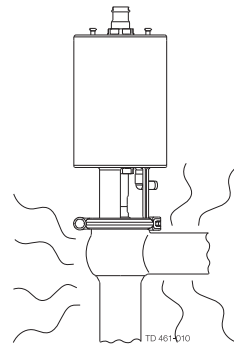


Always use protective goggles!

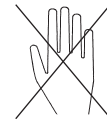
#### Step 2



Never touch the valve or the pipelines when sterilising.



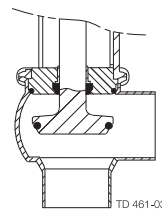
Burn hazard!



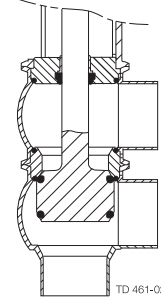
#### Step 3

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

Shut-off valve



Change-over valve

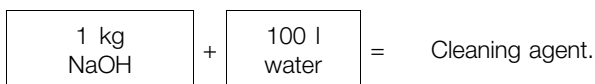


#### Step 4

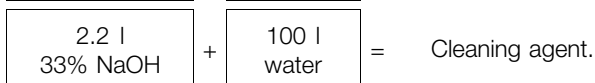
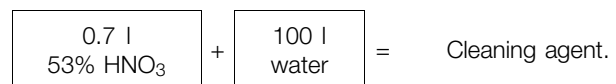
Examples of cleaning agents:

Use clean water, free from chlorides.

1. 1% by weight NaOH at 70° C



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



#### 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.

#### NOTE

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

Always rinse!



Clean water    Cleaning agents

Service the valve regularly.

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

Always use Alfa Laval genuine spare parts. Always keep spare rubber seals and lip seals in stock.

Check the valve for smooth operation after servicing.

## 5.1 General maintenance

### Step 1



**- CAUTION**

- Alfa Laval cannot be held responsible for incorrect installation.
- **Always** release compressed air after use.
- **Always** read the technical data thoroughly.  
See section 6 Technical data.
- **Always** use Alfa Laval genuine spare parts.  
The warranty of Alfa Laval products is dependent on use of Alfa Laval genuine spare parts.



Do **NOT** attempt to disassemble the actuator due to spring under load danger!



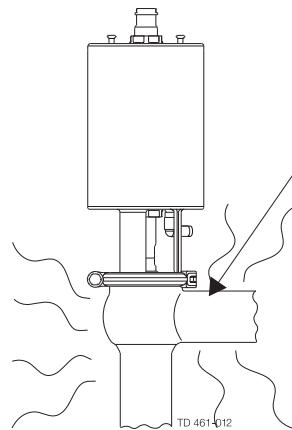
If marked with this warning, do **NOT** attempt to cut the actuator open, due to spring under load danger!

### Step 2

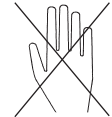


**Never** service the valve when it is hot.

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



**Burn hazard!**

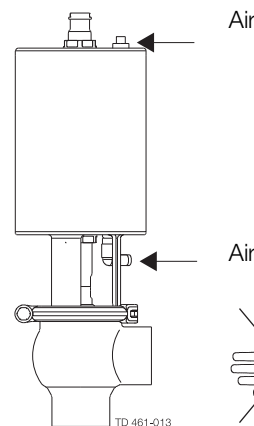


### Step 3



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

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



**Moving parts!**

**Cutting hazard!**



## 5 Maintenance

Service the valve regularly.

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

Always use Alfa Laval genuine spare parts. Always keep spare rubber seals and lip seals in stock.

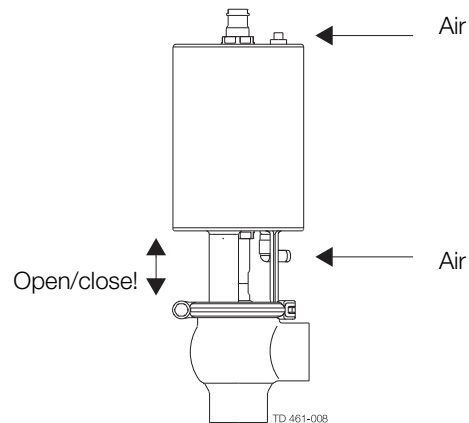
Check the valve for smooth operation after servicing.

Below are some guidelines for maintenance and lubrication intervals. Please note that the guidelines are for normal working conditions in one shift.

	Product wetted seals	Actuator bushings complete
Preventive maintenance	Replace after 12 months depending on working conditions	Replace after 5 years depending on working conditions
Maintenance after leakage (leakage normally starts slowly)	Replace at the end of the day	Replace when possible
Planned maintenance	<ul style="list-style-type: none"> <li>- Regular inspection for leakage and smooth operation</li> <li>- Keep a record of the valve</li> <li>- Use the statistics for inspection planning</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 inspection planning</li> </ul> <b>Replace after leakage</b>
Lubrication	<b>Before fitting</b> Klüber Paraliq GTE 703 or similar USDA H1 approved oil/grease	<b>Before fitting</b> Molykote Longterm 2 plus

### 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!**



### Recommended spare parts

Service kits (see section 7 Parts list and service kits)

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 the valve

If the actuator is marked with a danger warning, do **NOT** attempt to cut the actuator open.



Do **NOT** attempt to disassemble the actuator due to spring under load danger!



Do **NOT** attempt to cut the actuator open due to spring under load danger!

#### Step 1

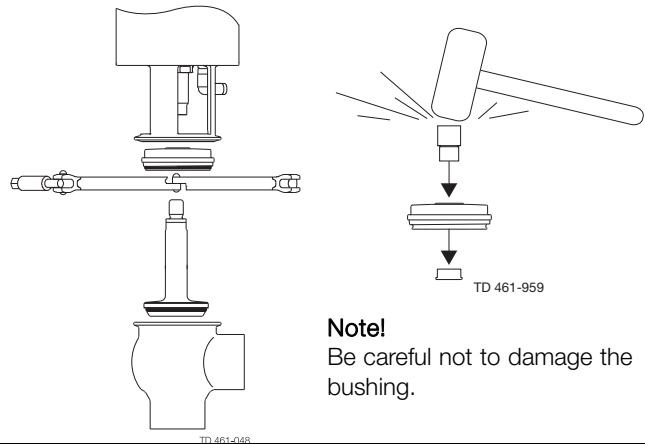
##### 1a Shut-off valve:

1. Supply compressed air to the actuator (only NC).
2. Loosen and remove clamp.
3. Release compressed air (only NC).
4. Lift away the actuator.
5. Unscrew and remove valve plug.
6. Remove O-ring, lip seal and bushing in bonnet.  
(Use bushing tool and rubber mallet.)

**Note!** Be careful not to damage the bushing.

**Pay special attention to the warnings!**

**Note!** For plug seal replacement please see section 5.3 Plug seal replacement.



**Note!**

Be careful not to damage the bushing.

##### 1b

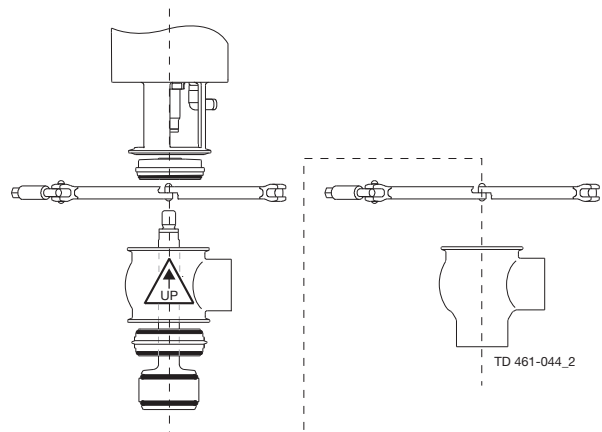
##### Change-over valve:

1. Supply compressed air to the actuator (only NC).
2. Loosen and remove lower clamp.
3. Release compressed air (only NC).
4. Lift away the actuator and upper valve body.
5. Supply compressed air to the actuator (only NO).
6. Unscrew and remove valve plug.
7. Release compressed air (only NO).
8. Remove seat and O-rings.
9. Loosen and remove upper clamp.
10. Remove upper valve body.
11. Remove O-ring, lip seal and bushing in bonnet.  
(Use bushing tool and rubber mallet.  
See drawing, step 1a.)

**Note!** Be careful not to damage the bushing.

**Pay special attention to the warnings!**

**Note!** For plug seal replacement please see section 5.3 Plug seal replacement.



## 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.

### 1c

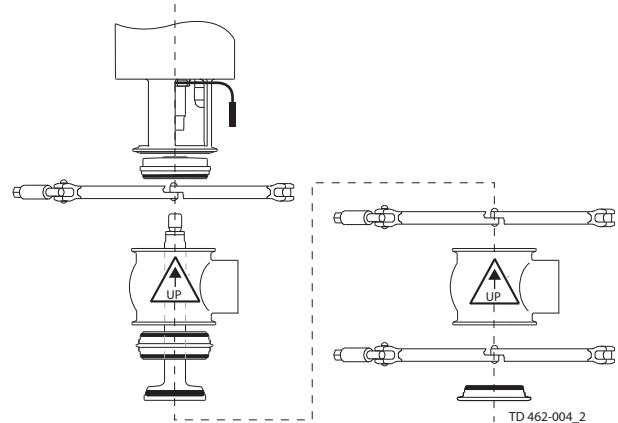
#### Shut-off valve - Reverse Acting:

1. Loosen and remove lower clamp.
2. Remove lower bonnet and O-ring from lower body.
3. Loosen and remove middle clamp.
4. Lift away the actuator and upper valve body.
5. Supply compressed air to the actuator (only NC).
6. Unscrew and remove valve plug.
7. Release compressed air (only NC).
8. Remove seat and O-rings.
9. Loosen and remove upper clamp.
10. Remove upper valve body.
11. Remove O-ring, lip seal and bushing in bonnet.  
(Use bushing tool and rubber mallet.  
See drawing, step 1a.)

**Note!** Be careful not to damage the bushing.

**Pay special attention to the warnings!**

**Note!** For plug seal replacement please see section 5.3 Plug seal replacement.



### 1d

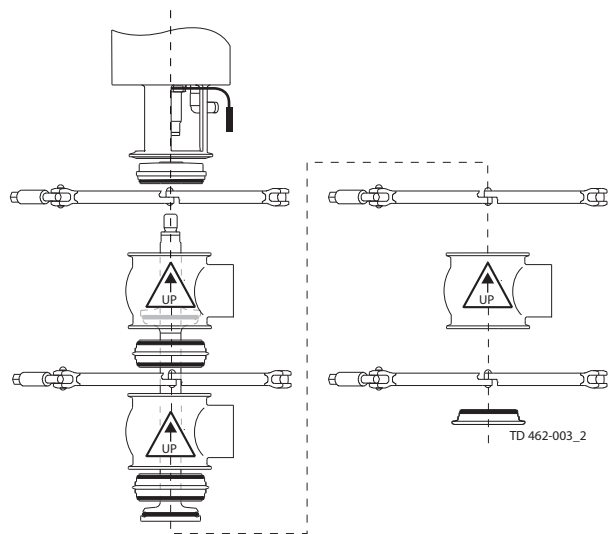
#### Change-over valve - Reverse Acting:

1. Loosen and remove lower clamp.
2. Remove lower bonnet and O-ring.
3. Loosen and remove clamp between lower and middle valve body.
4. Lift away the actuator and upper + middle valve body.
5. Supply compressed air to the actuator (only NC).
6. Unscrew and remove lower valve plug.
7. Release compressed air (only NC).
8. Remove lower seat and O-rings.
9. Supply compressed air to the actuator (only NO).
10. Loosen and remove clamp between middle and upper valve body.
11. Remove middle valve body and upper seat with O-rings.
12. Release compressed air (only NO).
13. Loosen and remove upper clamp.
14. Remove upper valve body.
15. Unscrew and remove upper valve plug.
16. Remove O-ring, lip seal and bushing in bonnet.  
(Use bushing tool and rubber mallet. See drawing, step 1a.)

**Note!** Be careful not to damage the bushing.

**Pay special attention to the warnings!**

**Note!** For plug seal replacement please see section 5.3 Plug seal replacement.



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.

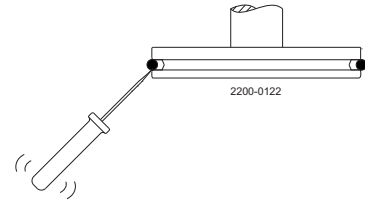
### 5.3 Plug seal replacement

#### Step 1

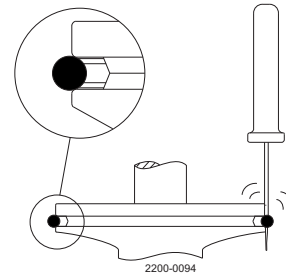
1. Remove old seal ring using a knife, screwdriver or similar.  
Be careful not to damage the plug surface.  
If using a screwdriver it must be placed underneath the plug groove (see drawing 1).
2. Grease the new seal ring with Paralique GTE 703, which is included in the service kit.  
Only use a very small amount of grease.
3. Fit the seal ring on the plug without pressing it into the groove.  
Be careful not to twist the seal ring.  
Use a screwdriver (two turns) to fit the seal ring properly and to ensure it is not twisted (see drawing 2).
4. The seal ring can now be mounted by hand or with the Alfa Laval plug tool.

Drawing 1

It is important to place the screwdriver underneath the plug.



Drawing 2



## 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.

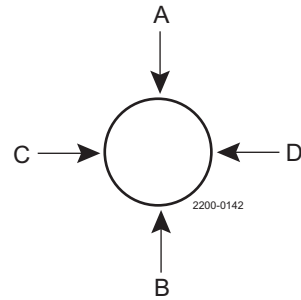
A/A = Air/air activated.

### Step 2

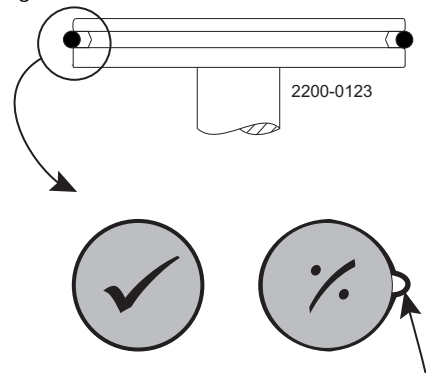
#### Mounting plug seal ring by hand

1. Check the seal ring is premounted as described in step 1.  
To ensure correct mounting, press with your thumb on the seal ring, which must be done approximately 10 times and always with opposite pressure points, from A to B, to C and D (see drawing 3).  
The rest of the seal ring can now be pressed into the groove so the whole seal ring is mounted. Check that there are NO "bulge" (see drawing 4).  
If there is a little bulge – then use the screwdriver to eliminate the bulge.  
Again press with the thumb on the seal ring and keep the pressure while rotating 360° (see drawing 3).
2. It is important to release compressed air behind the seal ring. This is done with a screwdriver and always underneath the plug as shown.  
It must be done at one or two different points on the circumference.  
Be careful not to make marks on the surface of the plug and seal ring (see drawing 5).

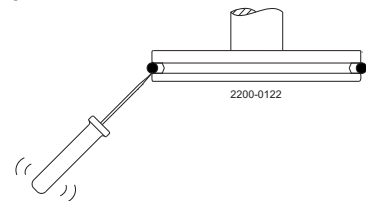
Drawing 3



Drawing 4



Drawing 5





Study the instructions carefully. The items refer to the parts list and service kits section. Handle scrap correctly.

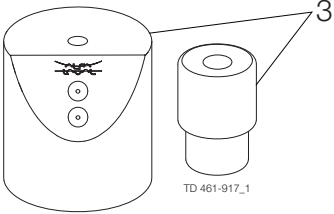
NC = Normally closed.

NO = Normally open.

A/A = Air/air activated.

### Step 3

#### Mounting plug seal ring with Alfa Laval plug seal tool

Mounting tool for elastomer plug seals	DN40 38 mm	DN50 - DN65 51 mm - 63.5 mm	DN80 - DN100 76.1 mm - 101.6 mm
	9613172901	9613172902	9613172903

Exhaust holes  
for screwdriver

ø20 hole  
for plug spindle

#### 1. Part B

“Part B” has a small and a large diameter as the tool can be used for two plug sizes – e.g. plug tool = 9613172902 can be used for DN50/ISO51 (small) and DN65/ISO63 (large).

“Part B” therefore has to be turned so it matches the plug size diameter.

#### 2. Part A

“Part A” has an upper and lower exhaust hole, as the tool can be used for two plug sizes – e.g. plug tool = 9613172902.

The upper exhaust hole is for the small plug size e.g. DN50/ISO51 (small) and the lower exhaust hole is for DN65/ISO63 (large).

When using a “change-over plug” the ø20 spindle must also be fitted in “part A” and “part B” (see drawing 2).

When using a “reverse acting plug” the ø20 spindle must only be fitted in “part A” (see drawing 2).

When using a “standard shut-off plug” the ø20 spindle is only fitted in “part B” (see drawing 1).

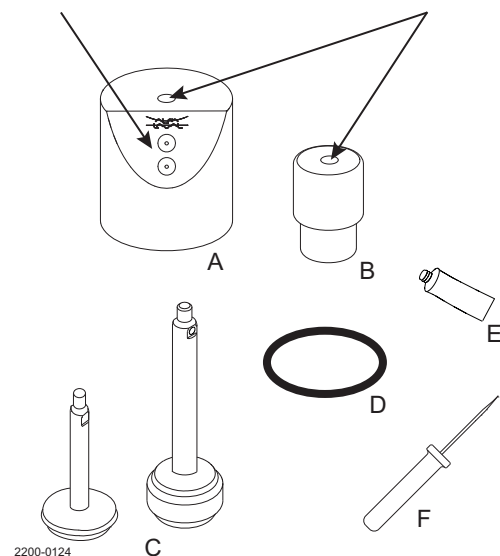
#### 3. Fit the plug spindle in “part B” or “part A”.

Place “part A” onto “part B” and then press “hard” down on top of “part A”.

Now fit the screwdriver into the exhaust hole and underneath the plug groove meanwhile keeping the pressure on “part A”. This should ensure correct removal of air behind the seal ring. Normally the sound “Psst” can be heard one time (see drawing 3).

A “drill press” can of course also be used to press down on “part A”.

#### 4. It is important to release compressed air behind the seal ring. This is done with a screwdriver and always underneath the plug as shown (see drawing 4).



- A. Part A
- B. Part B
- C. Plugs
- D. O-ring
- E. Grease Paralique GTE703 from service kit
- F. Screwdriver (no sharp corner)

## 5 Maintenance

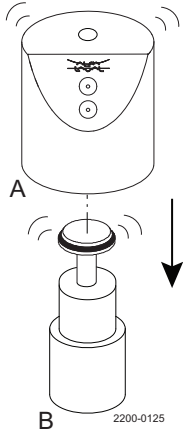
Study the instructions carefully. The items refer to the parts list and service kits section. Handle scrap correctly.

NC = Normally closed.

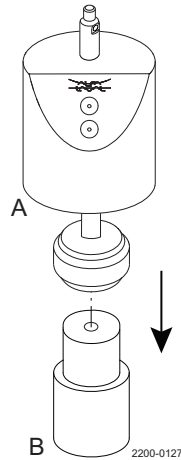
NO = Normally open.

A/A = Air/air activated.

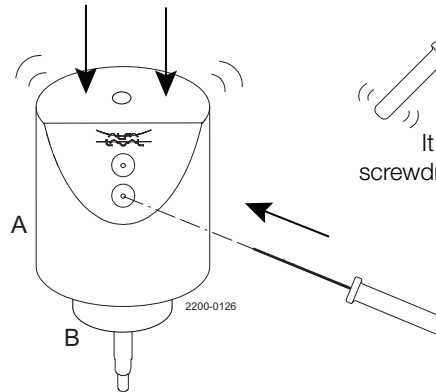
Drawing 1



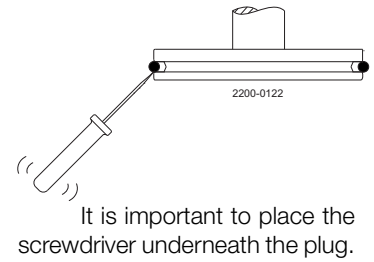
Drawing 2



Drawing 3



Drawing 4



### 5.4 Valve assembly

Reverse order of 5.2 Dismantling the valve.

Lubricate O-ring (21) and lip seal (25) with Klüber Paraliq GTE 703.

Remember to tighten spindle and plug (use two 17 mm spanners).

- Change-over plug tighten torque = **30 Nm**
- Shut-off plug tighten torque = **20 Nm**

If there are vibrations in the pipeline, Alfa Laval recommends to use Loctite no. 243.

The clamps' thread must be lubricated before tightening - max. torque for the clamps is 10-12 Nm.



Pay special attention to the warnings.

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.

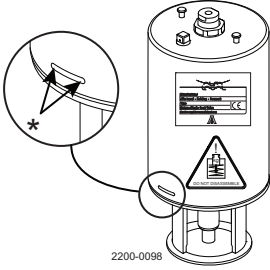
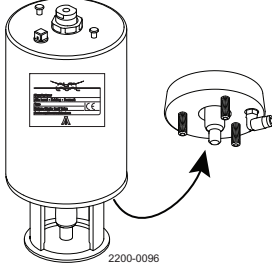

### 5.5 Actuator types

#### Different actuator types for the SSV valve

In June 2016 the below change was implemented and the “removable yoke with bolts” version is thereby phased out and replaced by the “yoke without bolts” version.

#### NOTE

It is important to check for warnings marked on the actuator when servicing an actuator - see below table.

<p><b>Actuator type</b></p>	<p><b>Non-maintainable actuator</b> Spring under load and <b>CANNOT</b> be opened</p>  <p>*) Lock wire opening is locked, when warning is marked on actuator</p>	<p><b>Fully maintainable actuator</b> Spring cage and can be opened</p> 	<p><b>Fully maintainable actuator</b> Spring cage and can be opened</p> 
<p><b>Yoke type</b></p>	<p>Non-removable yoke</p>	<p>“Removable yoke with bolts”. If the yoke with bolts is damaged it has to be replaced by the “yoke without bolts”</p>	<p>“Yoke without bolts”</p>
<p><b>Service</b></p>	<p>Not possible to service internally (it is not possible to change piston o-rings)</p>	<p>Yes</p>	<p>Yes</p>
<p><b>Marked with warnings</b></p>	<p>Yes</p>	<p>No</p>	<p>No</p>
<p><b>Year of production</b></p>	<p>From 2006</p>	<p>From 2006 to June 2016</p>	<p>From June 2016</p>

## 5 Maintenance

---

Study the instructions carefully.

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

A/A = Air/air activated.

Service tool: see spare parts.

---

### 5.6 Actuator types

---

If the actuator is marked with a danger warning, do **NOT** attempt to cut the actuator open.



Do **NOT** attempt to disassemble the actuator due to spring under load danger!



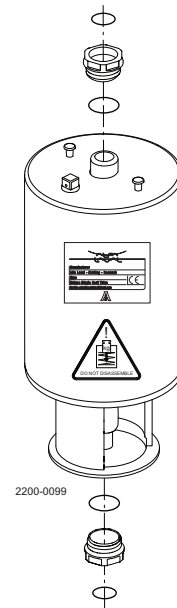
Do **NOT** attempt to cut the actuator open due to spring under load danger!

---

#### Step 1

##### Introduction

- The actuator service kit contains two bushings and four o-rings.
- Mount the thick O-ring inside and the thin O-ring outside the bushing.
- Always lubricate the spindle and o-rings thoroughly with "Molykote Longterm 2 Plus" before mounting the new bushings.

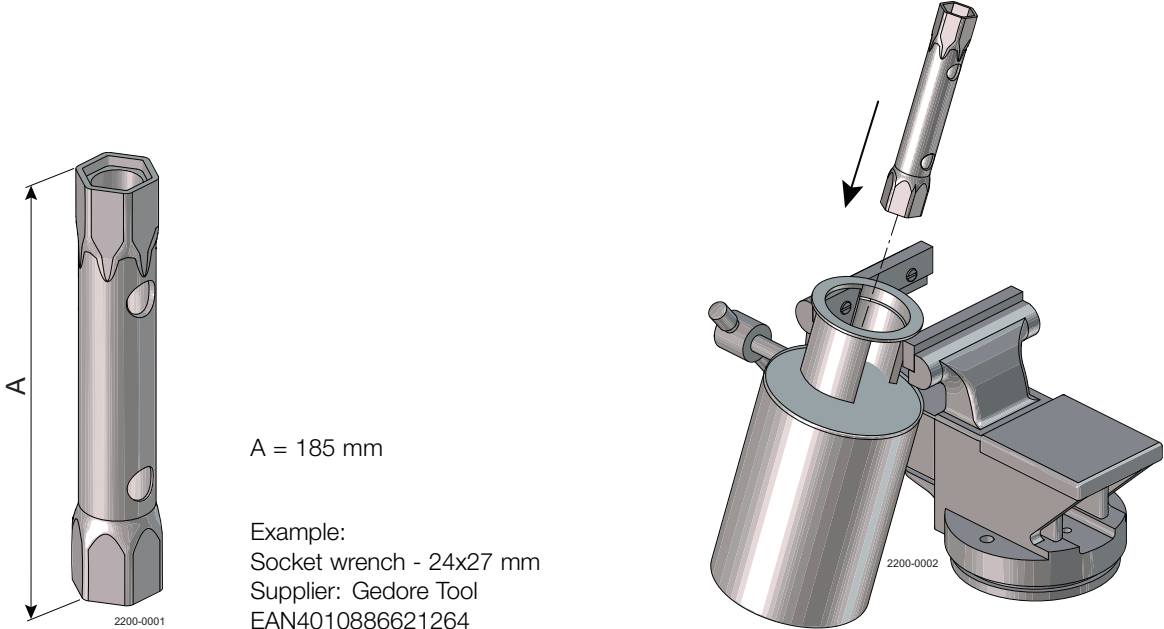


Study the instructions carefully.  
 The items refer to the parts list and service kits section. Handle scrap correctly.  
 A/A = Air/air activated.  
 Service tool: see spare parts.

**Step 2**

**Introduction - Standard socket wrench**

Use a 27 mm socket wrench to mount the bushings, as the space in the yoke is limited.  
 A socket wrench 24x27 (length = 185 mm) is a standard tool, which can be purchased from all tool shops.

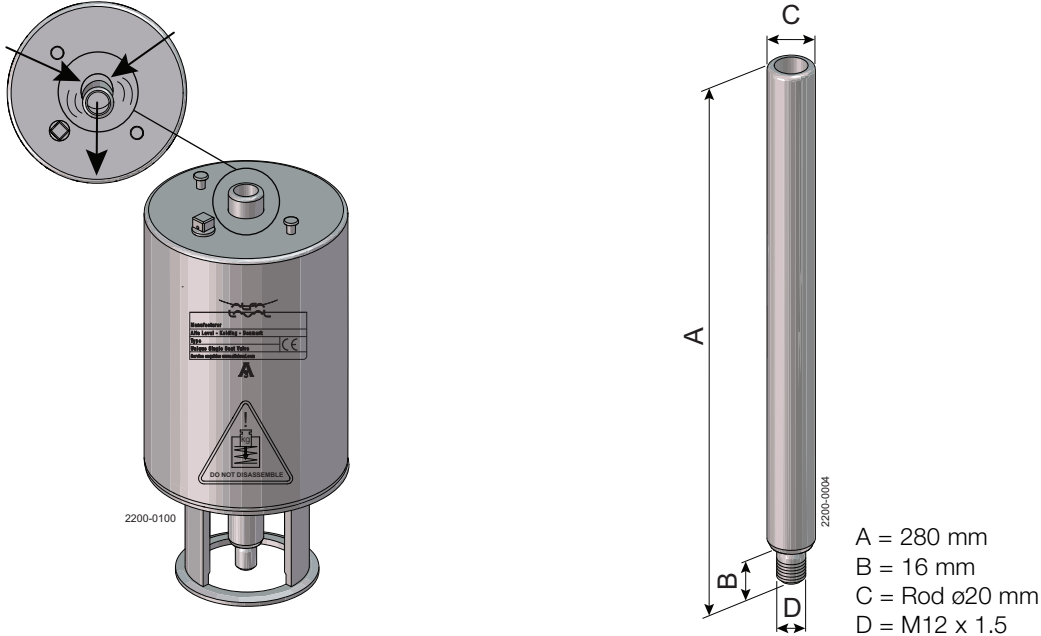


**Step 3**

**Introduction - Aligning spindle**

The actuator spindle can in some cases be forced off centre by the internal spring, see drawing below.  
 In these cases, the alignment spindle shown below, together with the socket wrench, is a great help and ensures a reliable mounting of the bushing. The spindle can either be purchased from Alfa Laval together with the socket wrench (9614198401) or it can be manufactured locally using the below dimensions.

Spindle forced off centre by spring inside actuator



## 5 Maintenance

Study the instructions carefully.

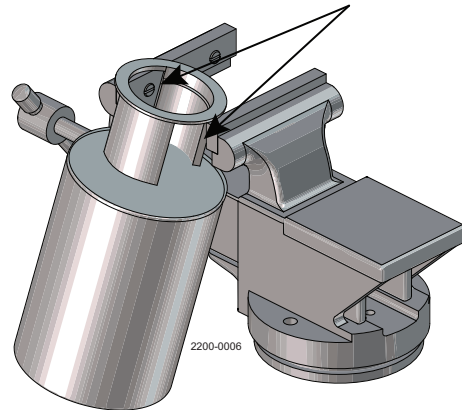
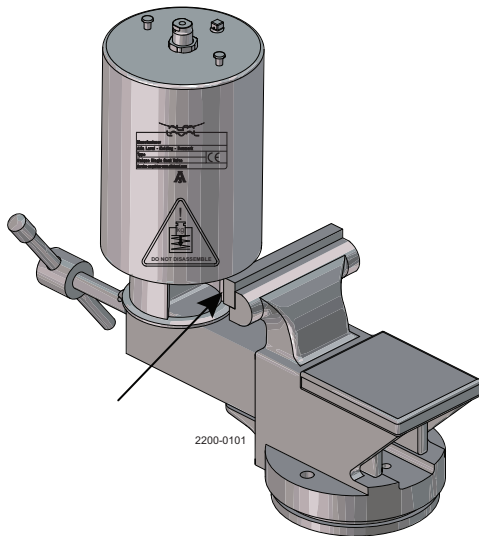
The items refer to the parts list and service kits section. Handle scrap correctly.

AVA = Air/air activated.

Service tool: see spare parts.

### Step 4

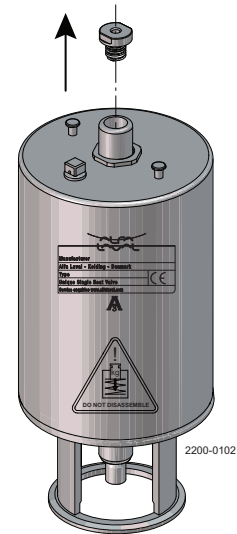
The actuator must be carefully fixed in a vice if it is dismantled from the valve. Be careful not to press the yoke flange oval when fixing the actuator in the vice. Only fix carefully on the “yoke leg” as shown below.



### Step 5

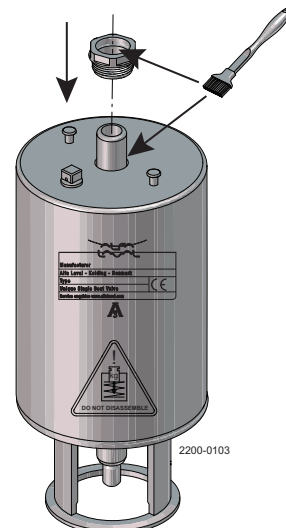
Remove adapter screw.

(After spindle alignment the adapter screw has to be remounted.)



### Step 6

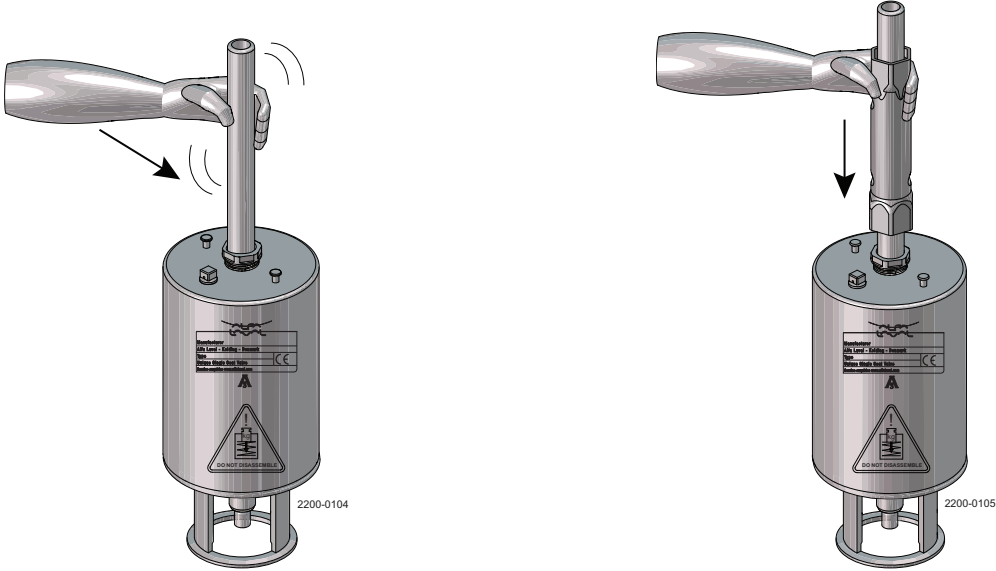
1. Lubricate thoroughly both the actuator spindle and o-rings.
2. Grease with “Molykote Longterm 2 plus”.
3. Fit the **bushing** on the spindle.



Study the instructions carefully.  
The items refer to the parts list and service kits section. Handle scrap correctly.  
A/A = Air/air activated.  
Service tool: see spare parts.

**Step 7**

Fit the aligning spindle to the actuator spindle, and then mount the socket wrench.

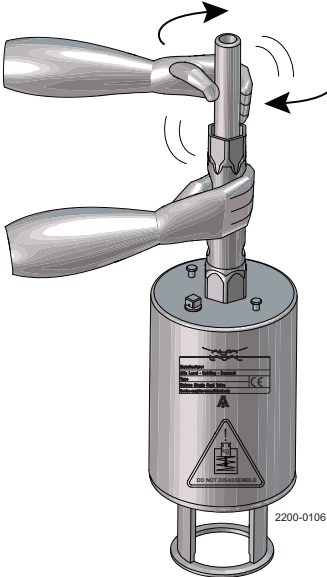


Aligning spindle

Socket wrench

**Step 8**

Now pull the aligning spindle to centre the actuator spindle. In this position rotate the **bushing** 180° backwards and then begin to fasten the bushing. Make sure that the thread catches evenly!  
The bushing must only be tightened with a torque of 10 Nm (7 lb-ft) which can be done by turning "hard" by hand.



## 5 Maintenance

---

Study the instructions carefully.

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

A/A = Air/air activated.

Service tool: see spare parts.

---

### 5.7 Dismantling of fully maintainable actuator (removable yoke with bolts/2006-June 2016)

---

If the actuator is marked with a danger warning, do **NOT** attempt to cut the actuator open.

See also section 5.5 Actuator types



Do **NOT** attempt to disassemble the actuator due to spring under load danger!



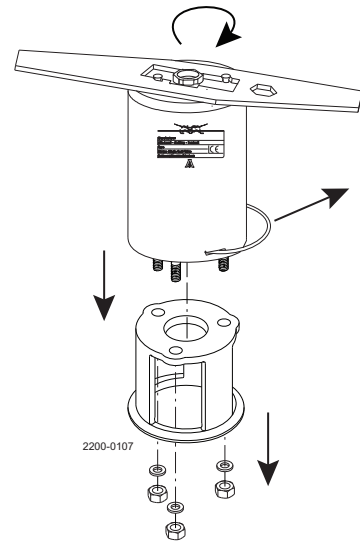
Do **NOT** attempt to cut the actuator open due to spring under load danger!

---

Before dismantling check that the actuator not is marked with a warning.

1. Rotate cylinder.
2. Remove lock wire and pull away cylinder.
3. Unscrew nuts and remove yoke.
4. Top and bottom bushings.
5. Remove piston with O-ring and spring assembly.
6. Remove O-rings and support disc.

Rotate cylinder with service tool.



**Note!** The A/A actuator has no spring assembly.

---



Study the instructions carefully.

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

A/A = Air/air activated.

Service tool: see spare parts.

### 5.8 Dismantling of fully maintainable actuator (yoke without bolts/June 2016 -> )

If the actuator is marked with a danger warning, do **NOT** attempt to cut the actuator open.

See also section 5.5 Actuator types



Do **NOT** attempt to disassemble the actuator due to spring under load danger!

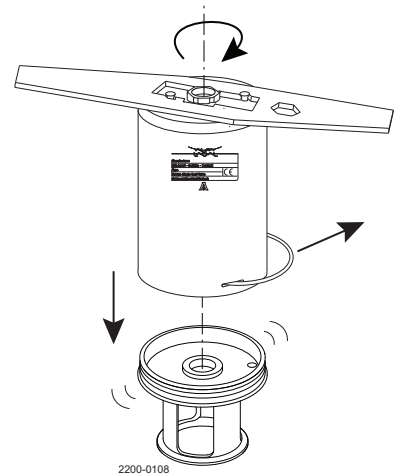


Do **NOT** attempt to cut the actuator open due to spring under load danger!

Before dismantling check that the actuator not is marked with a warning.

1. Rotate cylinder.
2. Remove lock wire and pull away cylinder.
3. Top and bottom bushings.
4. Remove piston with O-ring and spring assembly.

Rotate cylinder with service tool.



**Note!** The A/A actuator has no spring assembly.

### 5.9 Mounting of fully maintainable actuator

Depending on type of actuator choose step 1 or step 2.

#### Step 1

Reverse order of 5.7 Dismantling of fully maintainable actuator (removable yoke with bolts/2006-June 2016)

Tighten nuts to a torque of 17 Nm.

Lubricate O-rings (3, 7, 11) with Molykote Longterm 2 plus before fitting.

Tighten bushings with a torque = 10 Nm and be careful not to overtightened. See also 5.6 Actuator types

#### Step 2

Reverse order of 5.8 Dismantling of fully maintainable actuator (yoke without bolts/June 2016 -> )

Lubricate O-rings (3, 7, 11) with Molykote Longterm 2 plus before fitting.

Tighten bushings with a torque = 10 Nm and be careful not to overtightened. See also 5.6 Actuator types

## 5 Maintenance

---

Study the instructions carefully.

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

A/A = Air/air activated.

Service tool: see spare parts.

---

### 5.10 Changing pneumatic movement on fully maintainable actuator (NC/NO)

---

If the actuator is marked with a danger warning, do **NOT** attempt to cut the actuator open.

See also section 5.5 Actuator types.



Do **NOT** attempt to disassemble the actuator due to spring under load danger!



Do **NOT** attempt to cut the actuator open due to spring under load danger!

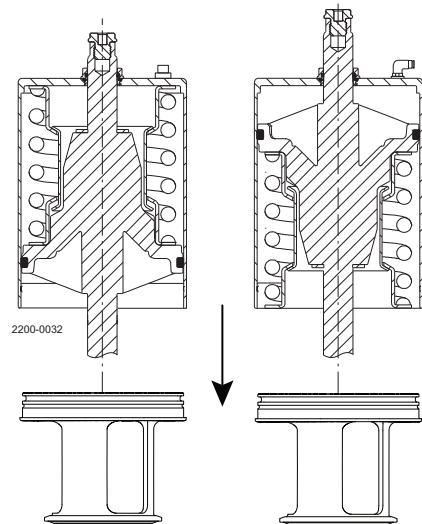
---

Before dismantling check that the actuator not is marked with a warning.

1. Rotate cylinder.
2. Remove lock wire and pull away cylinder.
3. Reverse piston and spring assembly.
4. Reverse adapter, air fitting and plug to opposite end.
5. Reassemble in reverse order (3 to 1).

#### NOTE

The A/A actuator has no spring assembly



Pneumatic movement upwards

Pneumatic movement downwards

---

*It is important to observe the technical data during installation, operation and maintenance.  
Inform all personnel about the technical data.*

### 6.1 Technical data

The valve is a pneumatic seat valve in a hygienic and modular design for a wide field of duties, e.g. as a shut-off valve with two (2) or three (3) ports or as a change-over valve with three (3) to five (5) ports. The valve is remote-controlled by means of compressed air. It has few and simple moveable parts which results in a very reliable valve and low maintenance cost.

Data - valve/actuator	
Max. product pressure	1000 kPa (10 bar).
Min. product pressure	Full vacuum (depending on product specifications).
Temperature range	-10° C to +140° C (standard EPDM seal).
Air pressure, actuator	500 to 700 kPa (5 to 7 bar).
Materials - valve/actuator	
Product wetted steel parts	1.4404 (316L) (internal Ra < 0.8 µm).
Other steel parts	1.4301 (304).
Plug seal	EPDM / PTFE (TR2).
Other product wetted seals	EPDM (standard).
Optional product wetted seals	HNBR and FPM.
Other seals	NBR.

#### Weight (kg)

Nominal size	Inch tubes DN/OD						DIN tubes DN					
	25	38	51	63.5	76.1	101.6	25	40	50	65	80	100
Shut-off valve	3.1	3.3	5.5	6.5	11.3	13.6	3.2	3.4	5.5	6.6	11.8	13.6
Change-over valve	3.9	4.2	7.1	8.5	14	18	4.1	4.5	7.2	8.8	14.9	17.9
Shut-off valve: high pressure	4.7	4.8	9.5	10.0	9.8	14.2	4.8	4.9	9.5	10.1	10.2	14.2
Change-over valve: high pressure	4.9	5.1	10.1	10.8	10.9	16.5	5.1	5.3	10.1	11.1	11.8	16.4

#### Noise

One metre away from and 1.6 metres 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 bar air-pressure.



The drawing shows the Unique Single Seat Valve.

The items refer to the parts lists in the following sections.

Always use Alfa Laval genuine spare parts. The warranty of Alfa Laval products is dependent on the use of Alfa Laval genuine spare parts.

### 7.1 Drawing

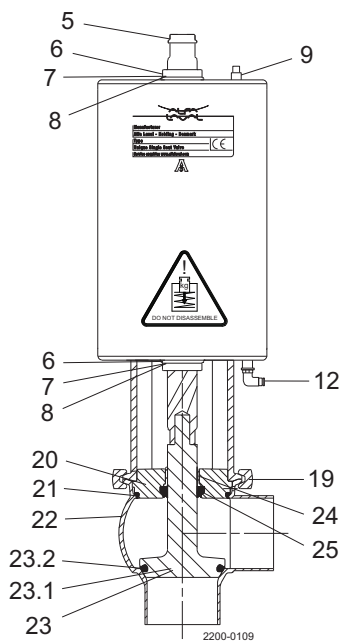
If the actuator is marked with a danger warning, do **NOT** attempt to cut the actuator open. See also section 5.5 Actuator types



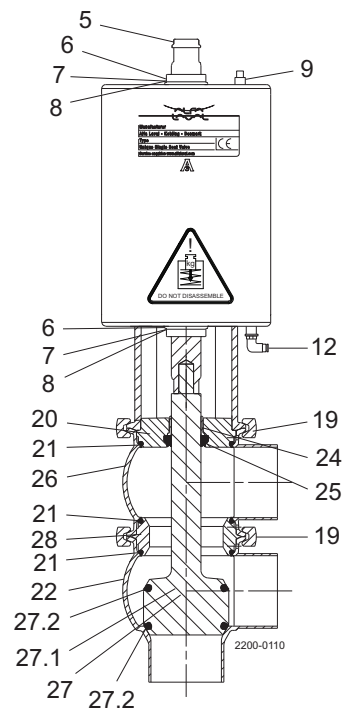
Do **NOT** attempt to disassemble the actuator due to spring under load danger!



Do **NOT** attempt to cut the actuator open due to spring under load danger!



Shut-off valve



Change-over valve

## 7 Parts list and service kits

The drawing shows the Unique Single Seat Valve - shut-off.

The items refer to the parts lists in the following sections.

Always use Alfa Laval genuine spare parts. The warranty of Alfa Laval products is dependent on the use of Alfa Laval genuine spare parts.

### 7.2 Unique Single Seat Valve - shut-off

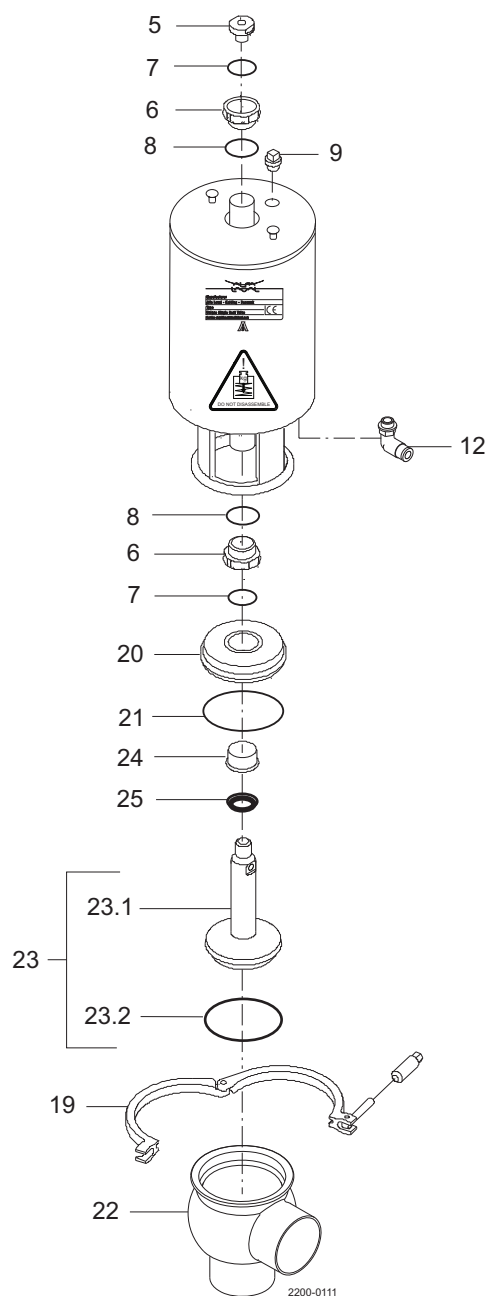
If the actuator is marked with a danger warning do **NOT** attempt to cut the actuator open.



Do **NOT** attempt to disassemble the actuator due to spring under load danger!



Do **NOT** attempt to cut the actuator open, due to spring under load danger!



## 7 Parts list and service kits

The drawing shows the Unique Single Seat Valve - shut-off.

The items refer to the parts lists in the following sections.

Always use Alfa Laval genuine spare parts. The warranty of Alfa Laval products is dependent on the use of Alfa Laval genuine spare parts.

### Parts list

Pos.	Qty	Denomination
5	1	Adapter
6 □	2	Bushing
7 □	2	O-ring
8 □	2	O-ring
9	1	Plug
12	1(2)	Air fitting
19	1	Clamp
20	1	Bonnet
21 ♦	1	O-ring
22	1	Valve body
23	1	Plug
23.1	1	Plug
23.2 ♦	1	Plug seal
24	1	Bushing
25 ♦	1	Lip seal

### Service kits

Denomination	DN 25 25 mm	DN 40 38 mm	DN 50 51 mm	DN 65 63.5 mm	DN 80 76.1 mm	DN 100 101.6 mm
--------------	----------------	----------------	----------------	------------------	------------------	--------------------

#### Service kits

□	Service kit, actuator .....	9611926500	9611926500	9611926500	9611926500	9611926500	9611926500
♦	Service kit, EPDM .....	9611926501	9611926502	9611926503	9611926504	9611926505	9611926506
♦	Service kit, HNBR .....	9611926507	9611926508	9611926509	9611926510	9611926511	9611926512
♦	Service kit, FPM .....	9611926513	9611926514	9611926515	9611926516	9611926517	9611926518

Parts marked with □ are included in the service kits (actuator)

Parts marked with ♦ are included in the service kits (product wetted parts)

Tool for bushing (pos. 24) - item no: 9613160901

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## 7 Parts list and service kits

The drawing shows the Unique Single Seat Valve - change-over.

The items refer to the parts lists in the following sections.

Always use Alfa Laval genuine spare parts. The warranty of Alfa Laval products is dependent on the use of Alfa Laval genuine spare parts.

### 7.3 Unique Single Seat Valve - change-over

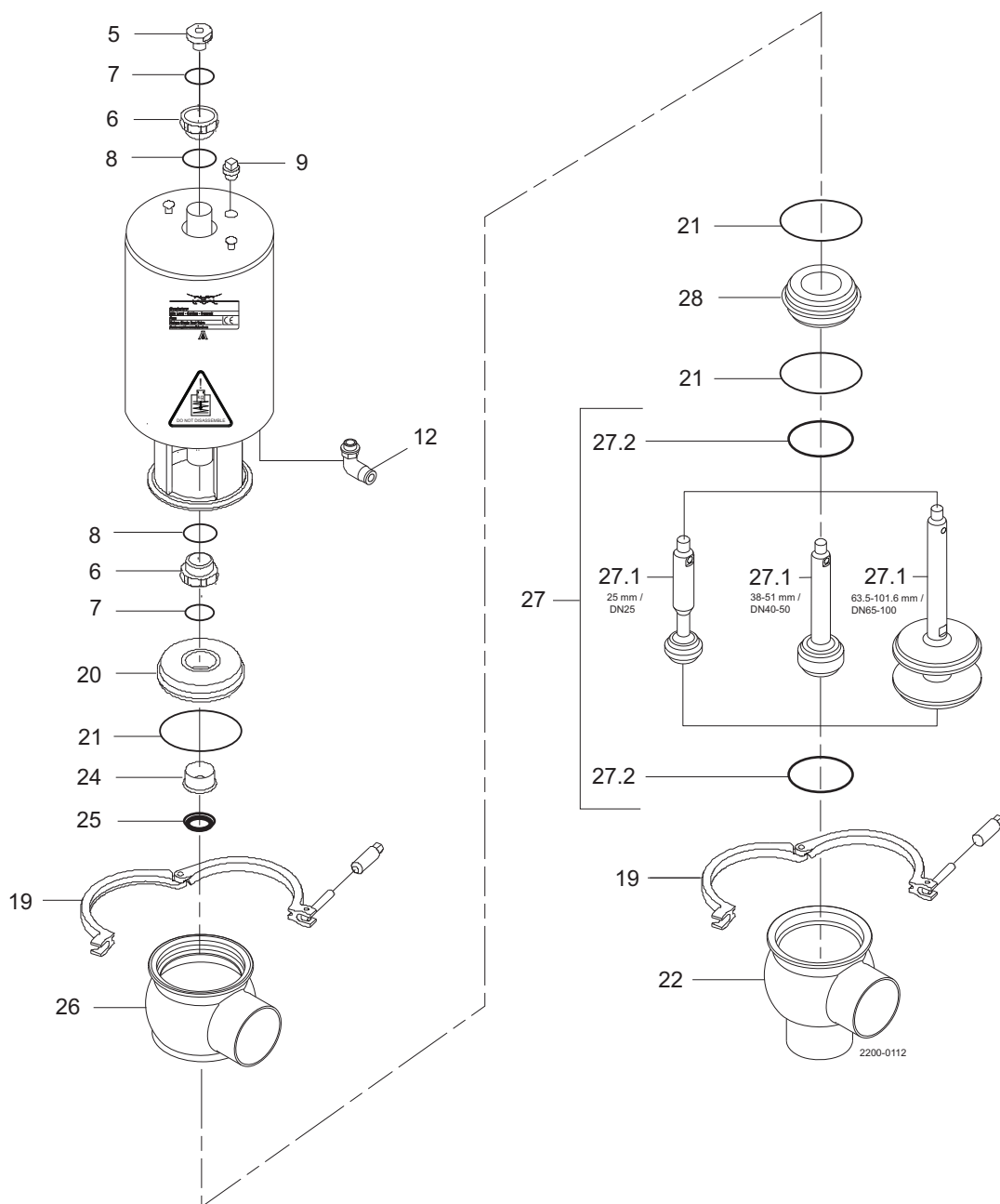
If the actuator is marked with a danger warning do **NOT** attempt to cut the actuator open.



Do **NOT** attempt to disassemble the actuator due to spring under load danger!



Do **NOT** attempt to cut the actuator open, due to spring under load danger!





## 7 Parts list and service kits

The drawing shows the Unique Single Seat Valve - change-over.

The items refer to the parts lists in the following sections.

Always use Alfa Laval genuine spare parts. The warranty of Alfa Laval products is dependent on the use of Alfa Laval genuine spare parts.

### Parts list

Pos.	Qty	Denomination
5	1	Adapter
6 □	2	Bushing
7 □	2	O-ring
8 □	2	O-ring
9	1	Plug
12	1(2)	Air fitting
19	2	Clamp
20	1	Bonnet
21 ♦	3	O-ring
22	1	Valve body
24	1	Bushing
25 ♦	1	Lip seal
26	1	Valve body
27	1	Plug
27.1	1	Plug
27.2 ♦	2	Plug seal
28	1	Seat

### Service kits

#### Service kits

□	Service kit, actuator .....	9611926500	9611926500	9611926500	9611926500	9611926500	9611926500
♦	Service kit, EPDM .....	9611926579	9611926580	9611926581	9611926582	9611926583	9611926584
♦	Service kit, HNBR .....	9611926585	9611926586	9611926587	9611926588	9611926589	9611926590
♦	Service kit, FPM .....	9611926591	9611926592	9611926593	9611926594	9611926595	9611926596

Parts marked with □ are included in the service kits (actuator)

Parts marked with ♦ are included in the service kits (product wetted parts)

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## 7 Parts list and service kits

Always use Alfa Laval genuine spare parts.

The warranty of Alfa Laval products is dependent on the use of Alfa Laval genuine spare parts.

### 7.4 Drawing

If the actuator is marked with a danger warning, do **NOT** attempt to cut the actuator open.

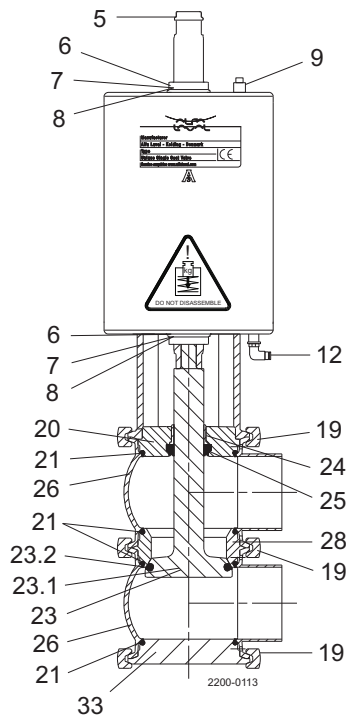
See also section 5.5 Actuator types



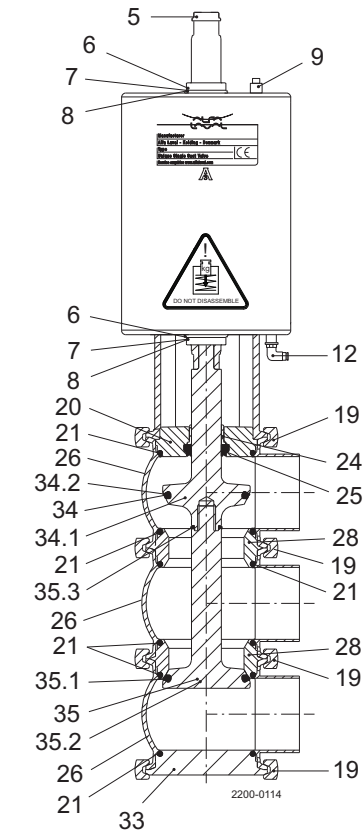
Do **NOT** attempt to disassemble the actuator due to spring under load danger!



Do **NOT** attempt to cut the actuator open due to spring under load danger!



Shut-off valve - Reverse Acting



Change-over valve - Reverse Acting

## 7 Parts list and service kits

The drawing shows the Unique Single Seat Valve - Reverse Acting, shut-off.

The items refer to the parts lists in the following sections.

Always use Alfa Laval genuine spare parts. The warranty of Alfa Laval products is dependent on the use of Alfa Laval genuine spare parts.

### 7.5 Unique Single Seat Valve Reverse Acting - shut-off

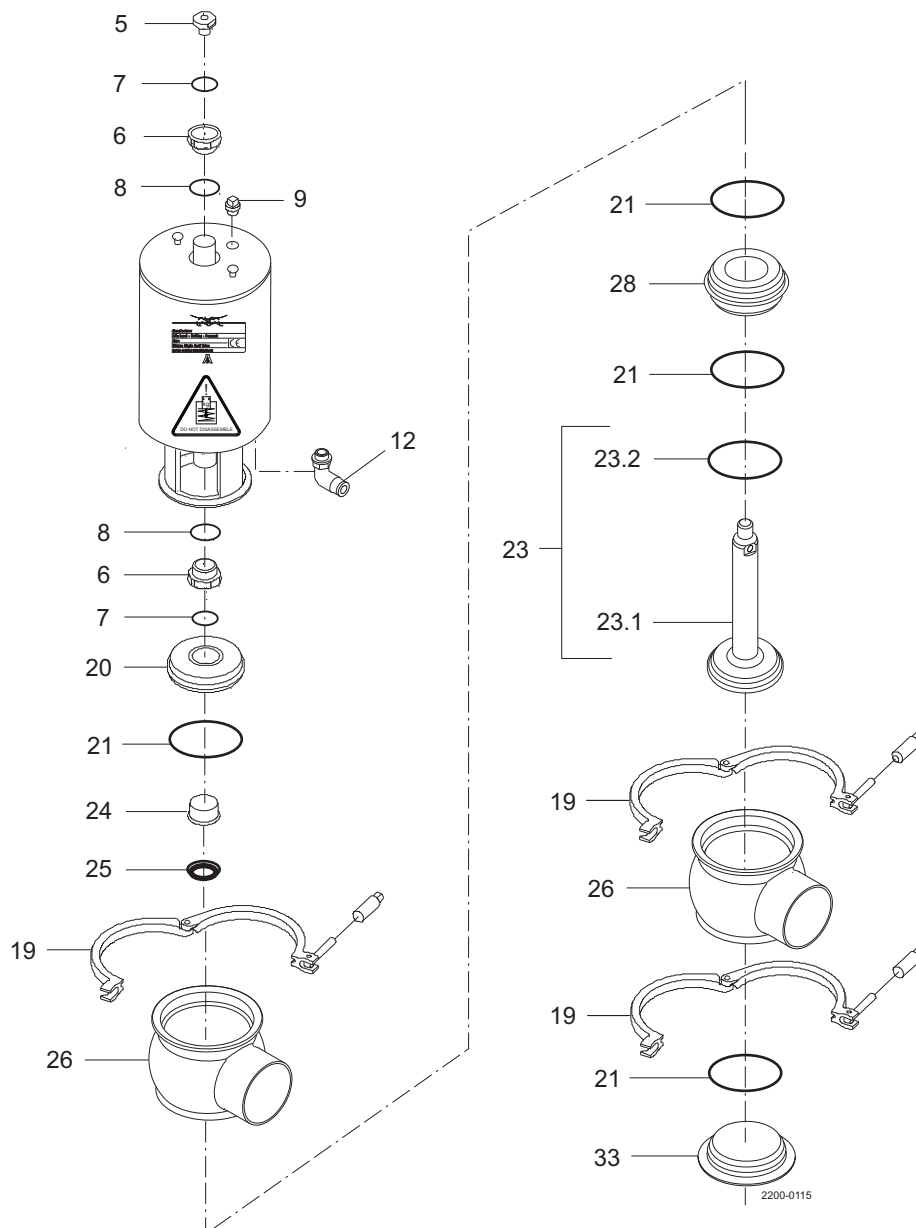
If the actuator is marked with a danger warning do **NOT** attempt to cut the actuator open.



Do **NOT** attempt to disassemble the actuator due to spring under load danger!



Do **NOT** attempt to cut the actuator open, due to spring under load danger!



## 7 Parts list and service kits

The drawing shows the Unique Single Seat Valve - Reverse Acting, shut-off.

The items refer to the parts lists in the following sections.

Always use Alfa Laval genuine spare parts. The warranty of Alfa Laval products is dependent on the use of Alfa Laval genuine spare parts.

### Parts list

Pos.	Qty	Denomination
5	1	Adapter
6 □	2	Bushing
7 □	2	O-ring
8 □	2	O-ring
9	1	Plug
12	1(2)	Air fitting
19	3	Clamp
20	1	Bonnet
21 ♦	4	O-ring
23	1	Plug
23.1	1	Plug
23.2 ♦	1	Plug seal
24	1	Bushing
25 ♦	1	Lip seal
26	2	Valve body
28	1	Seat
33	1	Lower bonnet

### Service kits

Denomination	DN 25 25 mm	DN 40 38 mm	DN 50 51 mm	DN 65 63.5 mm	DN 80 76.1 mm	DN 100 101.6 mm
--------------	----------------	----------------	----------------	------------------	------------------	--------------------

#### Service kits

□	Service kit, actuator .....	9611926500	9611926500	9611926500	9611926500	9611926500	9611926500
♦	Service kit, EPDM .....	9611926525	9611926526	9611926527	9611926528	9611926529	9611926530
♦	Service kit, HNBR .....	9611926531	9611926532	9611926533	9611926534	9611926535	9611926536
♦	Service kit, FPM .....	9611926537	9611926538	9611926539	9611926540	9611926541	9611926542

Parts marked with □♦ are included in the service kits. Recommended spare parts: service kits.

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## 7 Parts list and service kits

The drawing shows the Unique Single Seat Valve - Reverse Acting, change-over.

The items refer to the parts lists in the following sections.

Always use Alfa Laval genuine spare parts. The warranty of Alfa Laval products is dependent on the use of Alfa Laval genuine spare parts.

### 7.6 Unique Single Seat Valve Reverse Acting - change-over

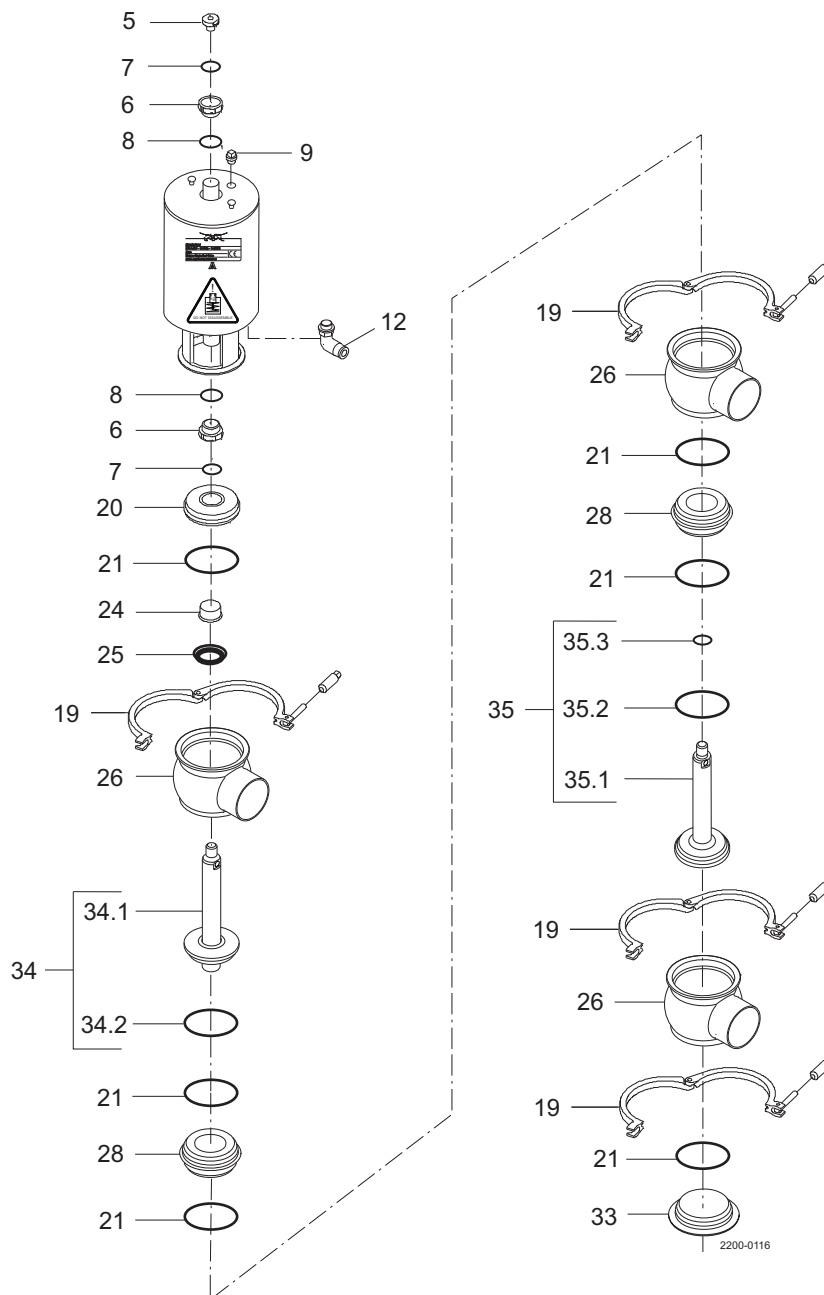
If the actuator is marked with a danger warning do **NOT** attempt to cut the actuator open.



Do **NOT** attempt to disassemble the actuator due to spring under load danger!



Do **NOT** attempt to cut the actuator open, due to spring under load danger!



2200-0116

## 7 Parts list and service kits

The drawing shows the Unique Single Seat Valve - Reverse Acting, change-over.

The items refer to the parts lists in the following sections.

Always use Alfa Laval genuine spare parts. The warranty of Alfa Laval products is dependent on the use of Alfa Laval genuine spare parts.

### Parts list

Pos.	Qty	Denomination
5	1	Adapter
6 □	2	Bushing
7 □	2	O-ring
8 □	2	O-ring
9	1	Plug
12	1(2)	Air fitting
19	4	Clamp
20	1	Bonnet
21 ♦	6	O-ring
24	1	Bushing
25 ♦	1	Lip seal
26	3	Valve body
28	2	Seat
33	1	Lower bonnet
34	1	Plug
34.1	1	Plug
34.2 ♦	1	Plug seal
35	1	Plug
35.1	1	Plug
35.2 ♦	1	Plug seal
35.3 ♦	1	O-ring

### Service kits

Denomination	DN 25 25 mm	DN 40 38 mm	DN 50 51 mm	DN 65 63.5 mm	DN 80 76.1 mm	DN 100 101.6 mm
<b>Service kits</b>						
□ Service kit, actuator .....	9611926500	9611926500	9611926500	9611926500	9611926500	9611926500
♦ Service kit, EPDM .....	9611926597	9611926598	9611926599	9611926600	9611926601	9611926602
♦ Service kit, HNBR .....	9611926603	9611926604	9611926605	9611926606	9611926607	9611926608
♦ Service kit, FPM .....	9611926609	9611926610	9611926611	9611926612	9611926613	9611926614

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

Recommended spare parts: Service kits.

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## 7 Parts list and service kits

Always use Alfa Laval genuine spare parts.

The warranty of Alfa Laval products is dependent on the use of Alfa Laval genuine spare parts.

### 7.7 Maintainable actuator

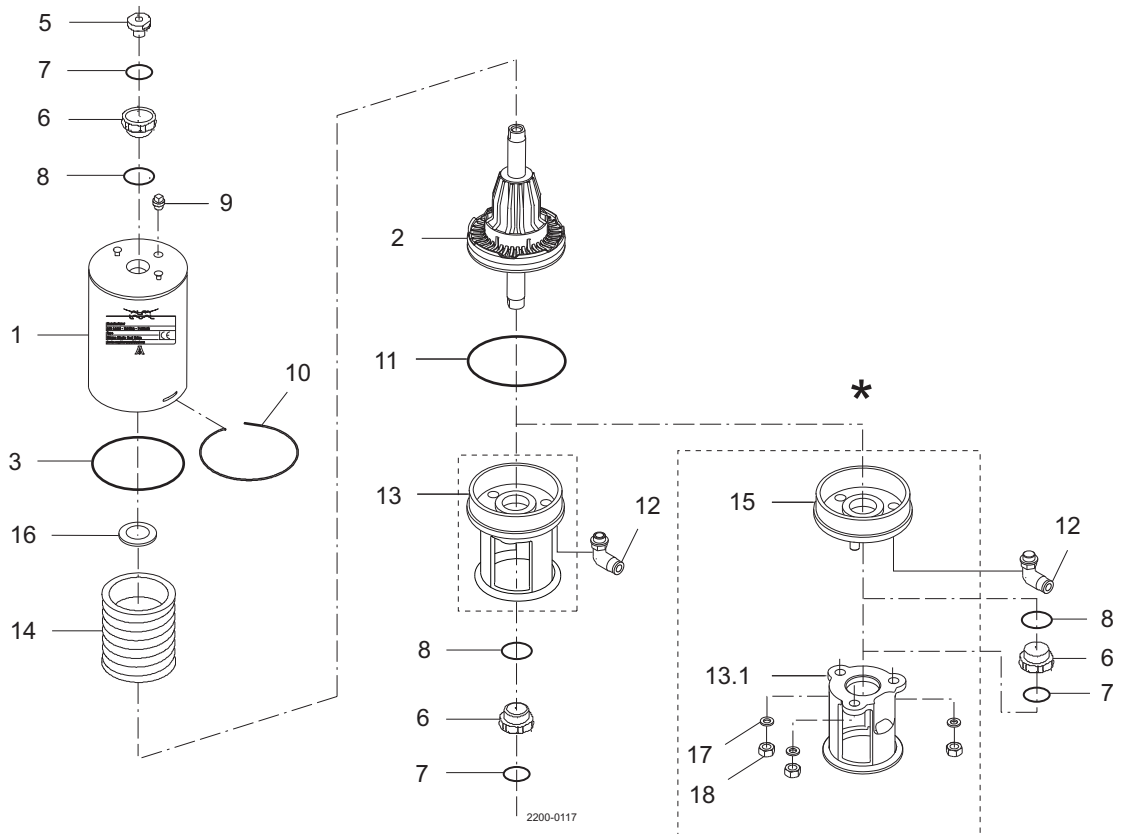
If the actuator is marked with a danger warning do **NOT** attempt to cut the actuator open.



Do **NOT** attempt to disassemble the actuator due to spring under load danger!



Do **NOT** attempt to cut the actuator open, due to spring under load danger!



\*) "Removable yoke with bolts" version, produced from 2006 to June 2016.  
Replaced by "yoke without bolts" (13)



## 7 Parts list and service kits

Always use Alfa Laval genuine spare parts.

The warranty of Alfa Laval products is dependent on the use of Alfa Laval genuine spare parts.

### Parts list

Pos.	Qty	Denomination
1	1	Cylinder
2	1	Piston
3	1	O-ring
5	1	Adapter
6	2	Bushing
7	2	O-ring
8	2	O-ring
9	1	Plug
10	1	Lock wire
11	1	O-ring
12	1(2)	Air fitting (only 2 for A/A)
13	1	Yoke without bolts
13.1	1	Yoke (-> 0616)
14	1	Spring assembly
15	1	Bottom (-> 0616)
16	1(2)	Support disc (only 2 for A/A)
17	3	Washer (-> 0616)
18	3	Nut (-> 0616)

### Service kits

Denomination	DN 25 25 mm	DN 40 38 mm	DN 50 51 mm	DN 65 63.5 mm	DN 80 76.1 mm	DN 100 101.6 mm
Service kits						
□ Service kit, NO , NC .....	9611926497	9611926497	9611926498	9611926498	9611926499	9611926499
♦ Service kit, A/A .....	9611926519	9611926519	9611926520	9611926520	9611926521	9611926521

**How to contact Alfa Laval**

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

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