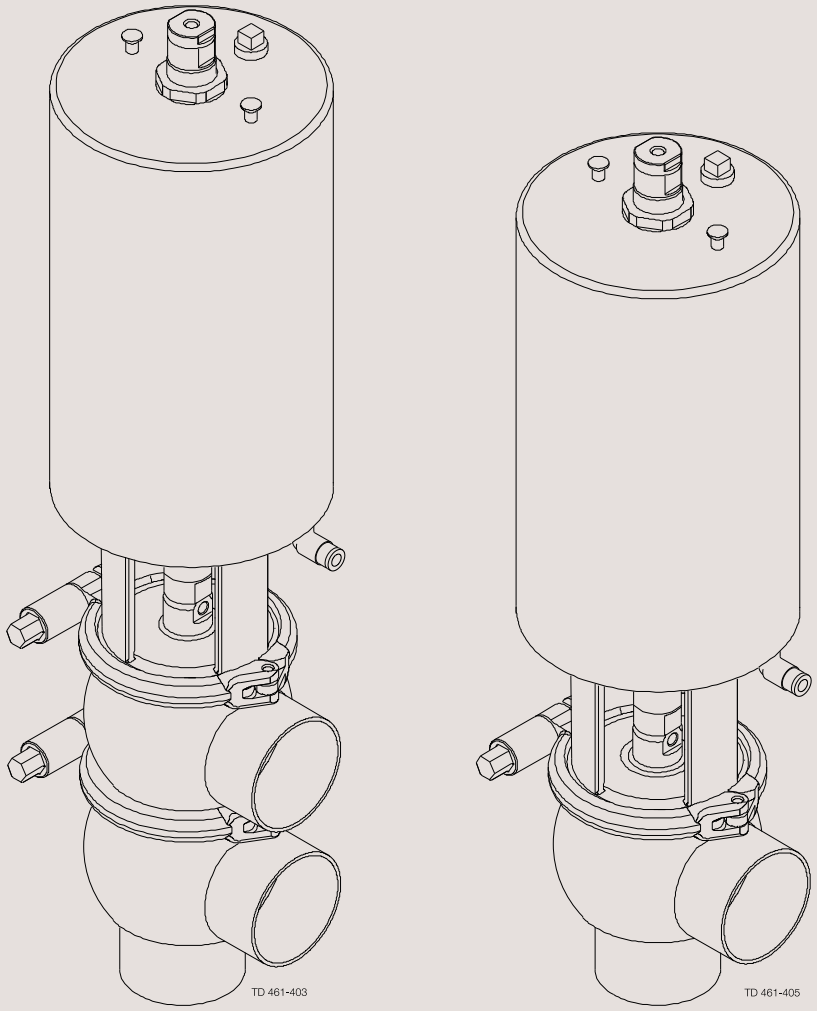
Instruction Manual

Unique Single Seat Valve - Long Stroke



ESE00222-EN8 2022-10

Original manual

Table of contents

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

1 Declarations of Conformity

EU Declaration of Conformity

The Designated Company

Alfa Laval Kolding A/S, Albuen 31, DK-6000 Kolding, Denmark, +45 79 32 22 00
Company name, address and phone number

Hereby declare that

Valve
Designation

Unique SSV LS PN10
Type

Serial number from 1000000 to 70000000000

is in conformity with the following directives with amendments:
- Machinery Directive 2006/42/EC
- Pressure Equipment Directive 2014/68/EU category 1 and subjected to assessment procedure Module A

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

Global Product Quality Manager	Lars Kruse Andersen
Title	Name
Kolding, Denmark	2022–10–01
Place	Date (YYYY-MM-DD)
	Signature

This Declaration of Conformity replaces Declaration of Conformity dated 2018-04-01

UK Declaration of Conformity

The Designated Company

Alfa Laval Kolding A/S, Albuen 31, DK-6000 Kolding, Denmark, +45 79 32 22 00
Company name, address and phone number

Hereby declare that

Valve
Designation

Unique SSV LS PN10
Type

Serial number from 1000000 to 70000000000

is in conformity with the following directives with amendments:
- The Supply of Machinery (Safety) Regulations 2008
- The Pressure Equipment (Safety) Regulations 2016 category 1 and subjected to assessment procedure Module A

Signed on behalf of: Alfa Laval Kolding A/S

Global Product Quality Manager		Lars Kruse Andersen
Title		Name
Kolding, Denmark	2022–10–01	
Place	Date (YYYY-MM-DD)	Signature

DoC Revison_01_102022

2 Safety

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.

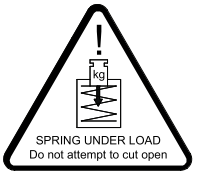
NOTE
Indicates important information to simplify or clarify procedures.

2.2 Warning signs

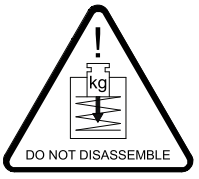
General warning

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

2.3 Safety precautions

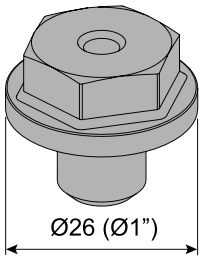
Actuators

If support air is utilised:

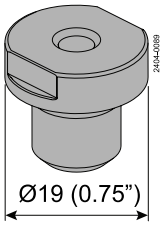
- Shock in the actuator must **NEVER** occur
- Support air on high pressure actuator versions is **NOT** allowed

To prevent shock in the actuator and to prevent exceeding 10 bar/145 PSI product pressure, Alfa Laval recommends **NOT** to exceed 3 bar/43.5 PSI support air on the spring side in all the Unique SSV actuators.

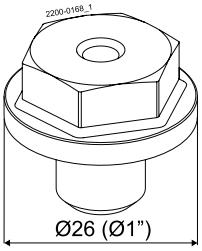
If support air is connected always use the 3 bar/43.5 PSI air relief fittings = 9611995903.
Using the air relief fitting also extends the service life of the actuator piston o-ring.



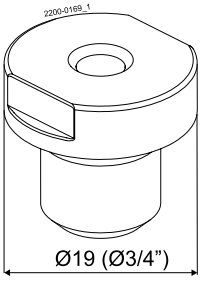
Pos. no. 5
For actuators, manufactured year 2005-2018, with serial number from 1000000 - 5999999 and from 20000000000 - 59999999999 always use steel adapter (pos 5) = 9614065301
Tighten torque = 30 Nm



Pos. no. 5
For actuators, manufactured year 2019 --> with serial number from 6000000 to 7000000 and from 60000000000 to 70000000000 always use steel adapter (pos 5) = 9615374701
Tighten torque = 15 Nm



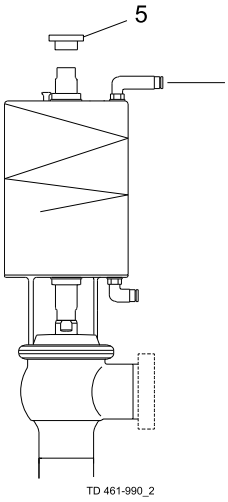
Pos. no. 5
For actuators, manufactured year 2005-2018, with serial number from 1000000 - 5999999 and from 20000000000 - 59999999999 always use steel adapter (pos 5) = 9614065301
Tighten torque = 30 Nm



Pos. no. 5
For actuators, manufactured year 2019 --> with serial number from 6000000 to 7000000 and from 60000000000 to 70000000000 always use steel adapter (pos 5) = 9615374701
Tighten torque = 15 Nm

2 Safety

All warnings in this manual are summarised on this page.
Pay special attention to this instructions below so that severe personal injury and/or damage to the valve are avoided.



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

All warnings in this manual are summarised on this page.
Pay special attention to this 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 predesigned lifting points if defined
Always ensure sufficient fixing of the valve during transportation - if specially designed packaging material is available, it must be used

3 Installation

The instruction manual is part of the delivery. Study the instructions carefully.
The items refer to 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.

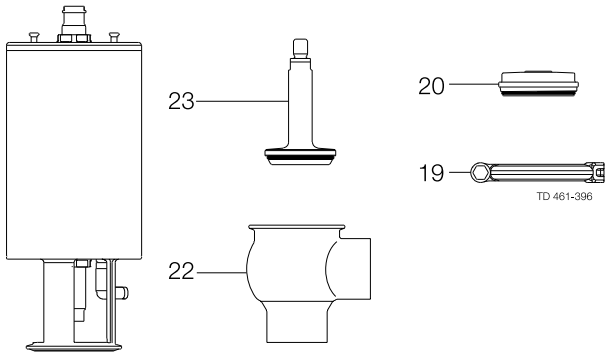
3.1 Unpacking/delivery

Step 1
CAUTION
Alfa Laval cannot be held responsible for incorrect unpacking.

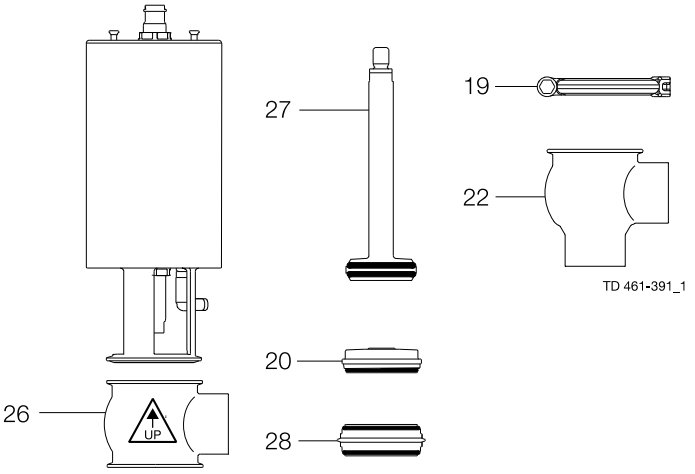
Check the delivery for:
1. Complete valve, shut-off valve or change-over valve (see steps 2a and 2b).
2. Delivery note.

Step 2

2a
Shut-off valve:
1. Complete actuator.
2. Bonnet (20).
3. Clamp (19).
4. Valve plug (23).
5. Valve body (22).



2b
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).



Step 3
Remove possible packing materials 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

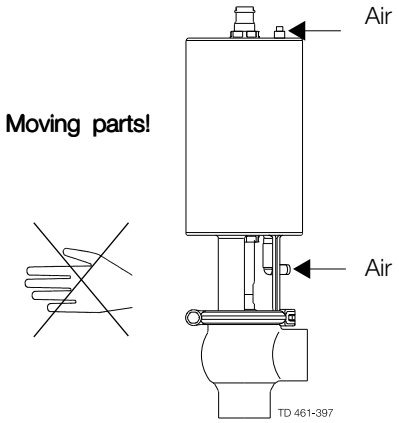
Always read the technical data carefully.
See chapter 6 Technical data.

Always release compressed air after use.

CAUTION
Alfa Laval cannot be held responsible for incorrect installation.

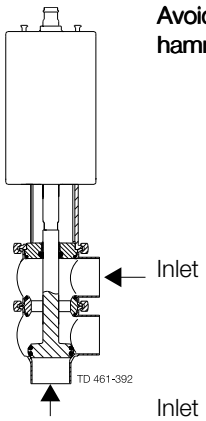
Step 2

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



Step 3
It is recommended to install the valve so that the flow is against the closing direction to avoid water hammering.

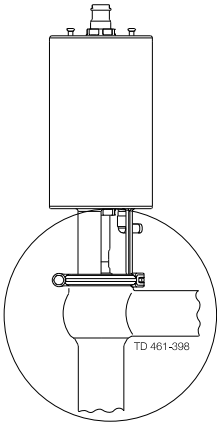
Shock in the actuator must **never** occur.



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.

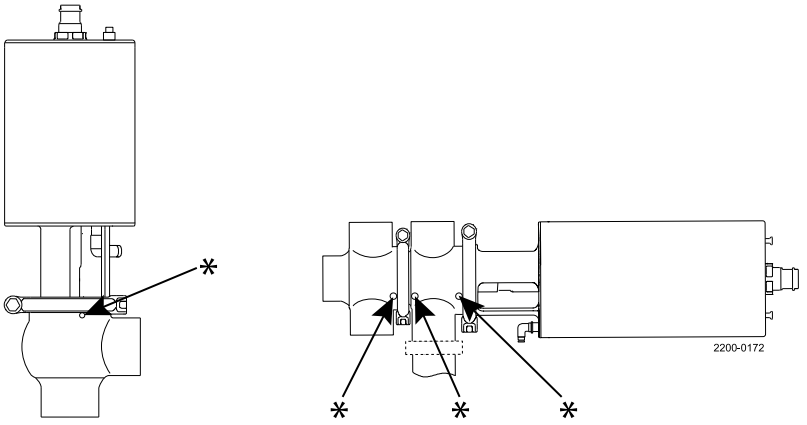
Step 4
Avoid stressing the valve.
Pay special attention to:
- Vibrations.
- Thermal expansion of the pipelines.
- Excessive welding.
- Overloading of the pipelines.



Risk of damage!

Step 5
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 the welding.
The items refer to the parts list and service kits section.
Check the valve for smooth operation after welding.

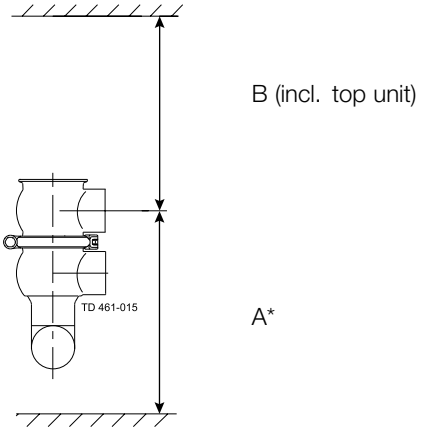
3.3 Welding

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. It is recommended to fit sufficient clamps/unions to be able to disassemble the valve for servicing.

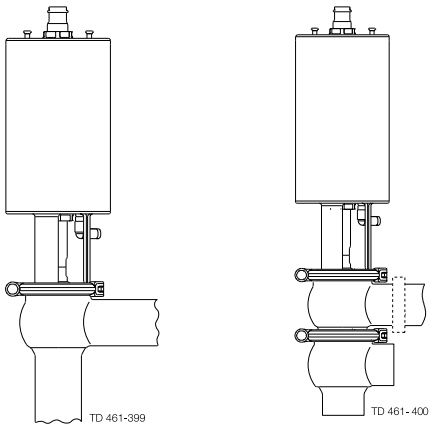
Valve size	A (mm)	B (mm)
DN25/25 mm	*	630
DN40/38 mm	*	700
DN50/51 mm	*	750
DN65/63.5 mm	*	740
DN80/76 mm	*	800
DN100/101.6 mm	*	790

* Depending on body combination and piping solution.



Step 2

Assemble the valve in accordance with the steps on page 25.
Pay special attention to the warnings!

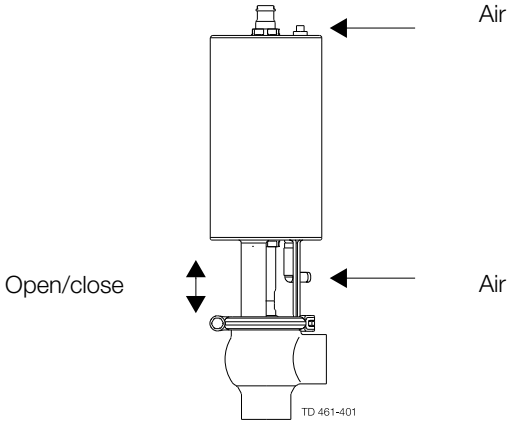


Step 3

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

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.

3.4 Recycling information

- **Unpacking**

- Packing material consists of wood, plastics, cardboard boxes and in some cases metal straps
- Wood and cardboard boxes can be re-used, 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 wear parts must be disposed off in agreement with local regulations

- **Scrapping**

- At end of use, the equipment must be recycled according to 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

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

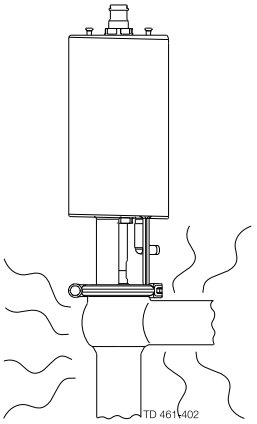
- **CAUTION**
  Alfa Laval cannot be held responsible for incorrect installation.
- **Always** release compressed air after use.
- **Always** read the technical data thoroughly.
  See section 6 Technical data.
- **Always** use Alfa Laval genuine spare parts.
  The warranty of Alfa Laval products is dependent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

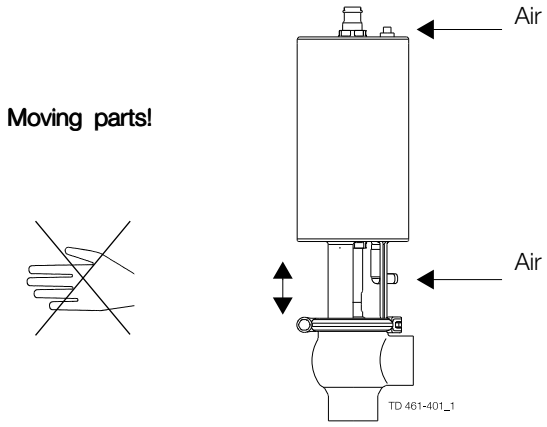
Step 2

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



Step 3

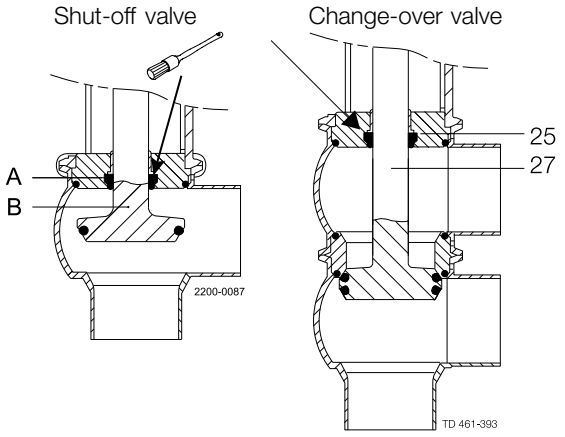
Never touch moving parts if the actuator is supplied with compressed air.



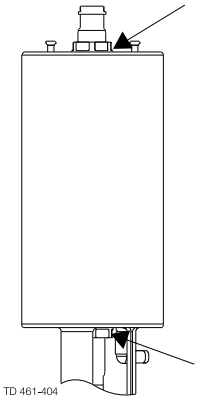
4 Operation

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 (25) and plug stem (23, 27).
2. Lubricate the lip seal with Klüber Paraliq GTE 703 if necessary (see page 20).



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 20!

Problem	Cause/result	Repair
External product leakage	Worn or product affected lip seal and/or O-ring	- Replace the seals - Replace with seals of a different rubber grade
Internal product leakage	- Worn or product affected plug seal	- Replace the seal - Replace with a seal of a different rubber grade
	- Product deposits on the seat and/or plug	- Frequent cleaning
	- Product pressure exceeds actuator specification	- Replace with a high pressure actuator - Use auxiliary air on the spring side (do not exceed 3 bar) - Reduce product pressure
Water hammer	The flow direction is the same as the closing direction	- The flow direction should be against the closing direction - Throttle air release of solenoid in top unit
The valve does not open/close	Product pressure exceeds actuator specification	- Replace with a high pressure actuator - Use auxiliary air on the spring side - Reduce product pressure

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.
Study the instructions carefully and pay special attention to the warnings!
NaOH = Caustic Soda.
HNO_3 = Nitric acid.

4.3 Recommended cleaning

Step 1

Always handle lye and acid with great care.

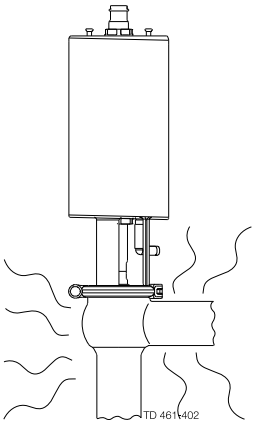
Caustic danger!

Always use rubber gloves!

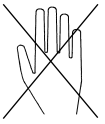
Always use protective goggles!

Step 2

Never touch the valve or the pipelines when sterilising.



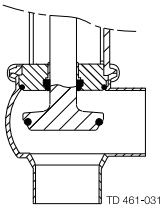
Burn hazard!



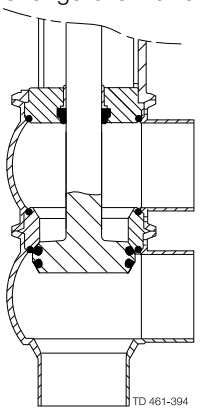
Step 3

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 clorides.

1. 1% by weight NaOH at 70° C

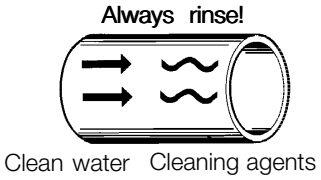
1 kg NaOH	+	100 l water	=	Cleaning agent.
2.2 l 33% NaOH	+	100 l water	=	Cleaning agent.

2. 0.5% by weight HNO_3 at 70° C

0.7 l 53% HNO_3	+	100 l water	=	Cleaning agent.

The valve is designed for cleaning in place.
Study the instructions carefully and pay special attention to the warnings!
NaOH = Caustic Soda.
HNO_3 = Nitric acid.

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 off in accordance with current regulations/directives.

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.

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.

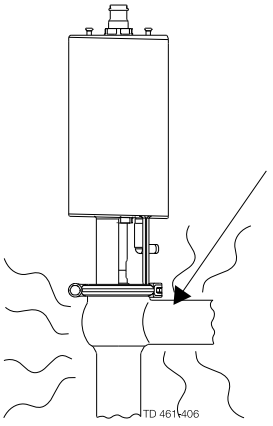
Do **NOT** attempt to disassemble the actuator due to spring under load danger!

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

Step 2

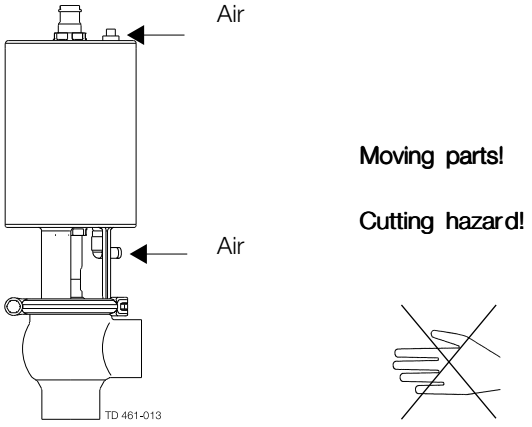
Never service the valve when it is hot.

Never service the valve with valve and pipelines under pressure.



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.



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.

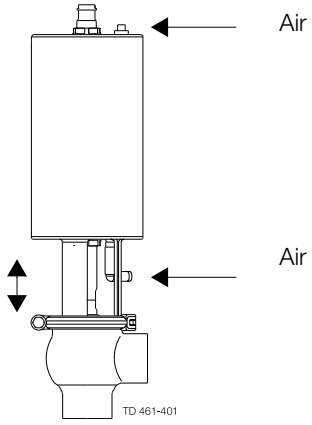
Below are some guidelines for maintenance and lubrication intervals. Please note that the guidelines are for normal working conditions in one shift.

	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	- Regular inspection for leakage and smooth operation - Keep a record of the actuator - Use the statistics for inspection planning **Replace after leakage**	- Regular inspection for leakage and smooth operation - Keep a record of the actuator - Use the statistics for inspection planning **Replace after leakage**
Lubrication	**Before fitting** Klüber Paraliq GTE 703 or similar USDA H1 approved oil/grease	**Before fitting** 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!

Open/close!



Recommended spare parts
Service kits (see page 27)

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.

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!

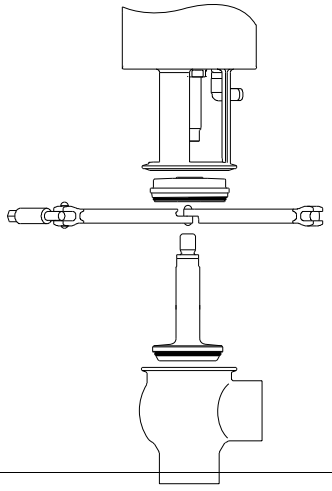
Step 1

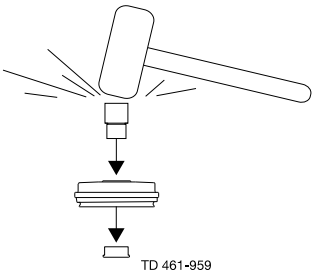
1a
Shut-off valve:
1. Supply compressed air to the actuator (only NC).
2. Loosen and remove clamp.
3. Release compressed air (only NC).
4. Lift away the actuator.
5. Unscrew and remove valve plug.
6. Remove O-ring, lip seal and bushing in bonnet. (Use bushing tool and rubber mallet).

Note! Be careful not to damage the bushing.

Pay special attention to the warnings!

Note! For plug seal replacement please see page 23.





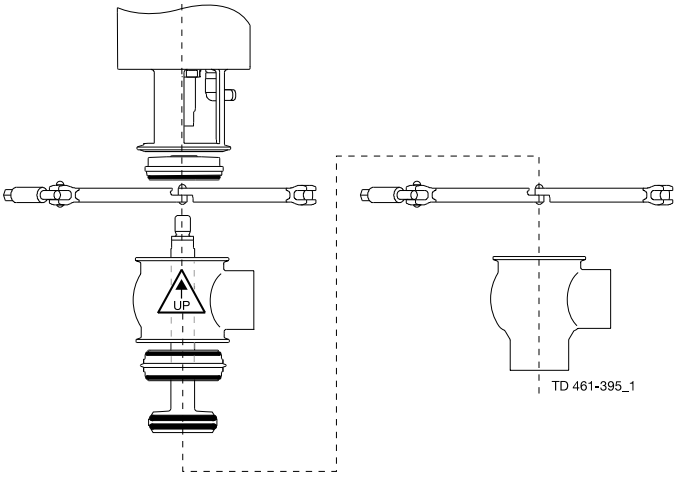
Note!
Be careful not to damage the bushing.

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!

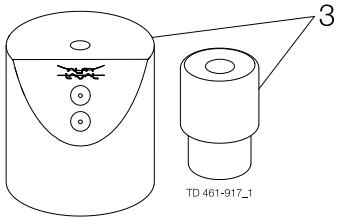
Note! For plug seal replacement please see page 23.



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

5.3 Plug seal replacement

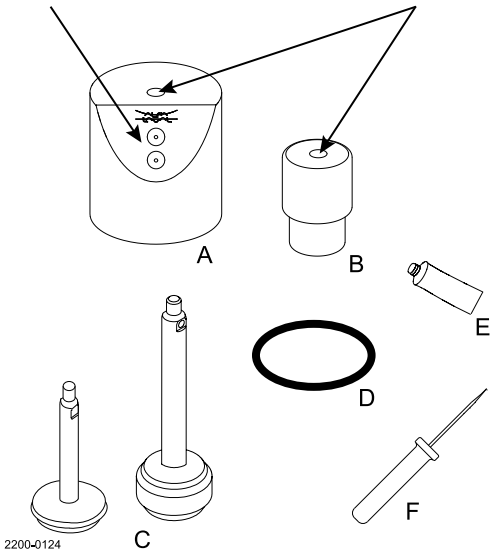
Step 1
Mounting plug seal ring with Alfa Laval plug seal tool

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

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).

Exhaust holes for screwdriver

ø20 hole for plug spindle

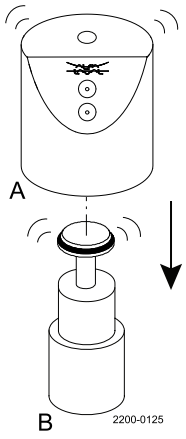


A. Part A
B. Part B
C. Plugs
D. O-ring
E. Grease Paralique GTE703 from service kit
F. Screwdriver (no sharp corner)

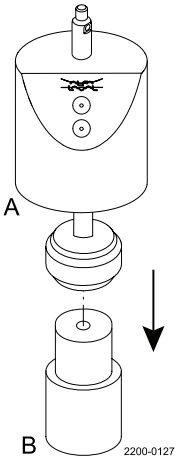
5 Maintenance

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

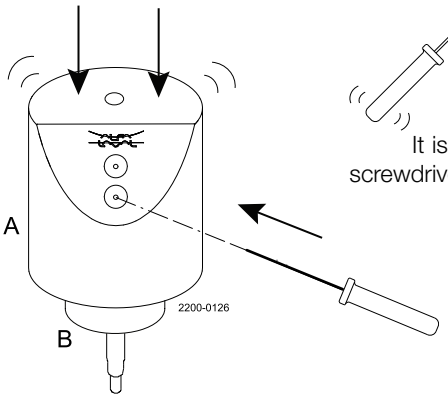
Drawing 1



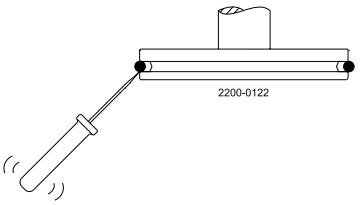
Drawing 2



Drawing 3



Drawing 4



It is important to place the screwdriver underneath the plug.

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

5.4 Valve assembly

Reverse order of 5.2 Dismantling the valve.
Lubricate O-ring (21) and lip seal (25) with Alfa Laval Lubricant.

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.

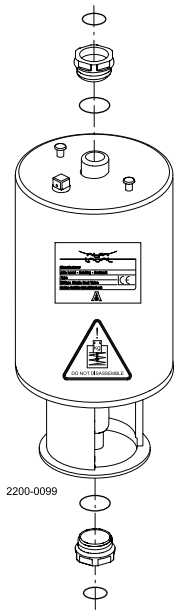
5.5 Actuator types

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!

1. Unscrew and remove top and bottom bushings with O-rings.
2. Lubricate O-rings with Molykote Longterm 2 plus before fitting.
3. Fit bushings and O-rings. Tighten bushing to a torque of 10Nm. Be careful not to overtighten.



6 Technical data

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 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.

Standard Design The valve comes in a one or two body configuration. With its module built structure it is designed for flexibility and easy customization through the electronic configurator.

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).
Optional plug seal	PTFE (TR2).
Product wetted seals	EPDM (standard).
Optional product wetted seals	HNBR and FPM.
Other seals	NBR.

Weight (kg)

Size	Inch tubes DN/OD					DIN tubes DN				
	38 mm	51 mm	63.5 mm	76.1 mm	101.6 mm	40	50	65	80	100
Shut-off valve	6.1	6.6	7.5	14.8	17.2	6.2	6.6	7.6	15.3	17.2
Change-over-valve	6.8	7.9	9.8	17.9	22.2	7	7.9	10.1	18.8	22.1

Noise

One metre 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 bar air-pressure.

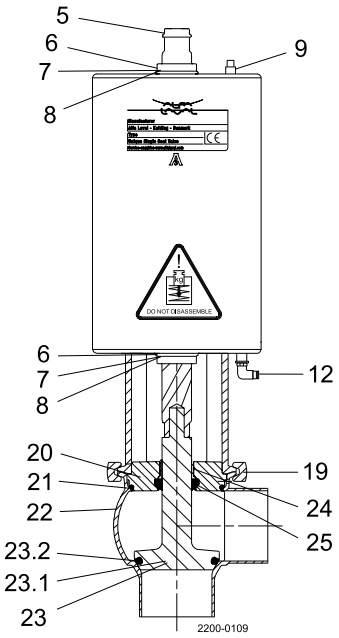
The drawing shows Unique Single Seat Valve - Long Stroke.
The items refer to the parts list in the following sections

7.1 Drawing

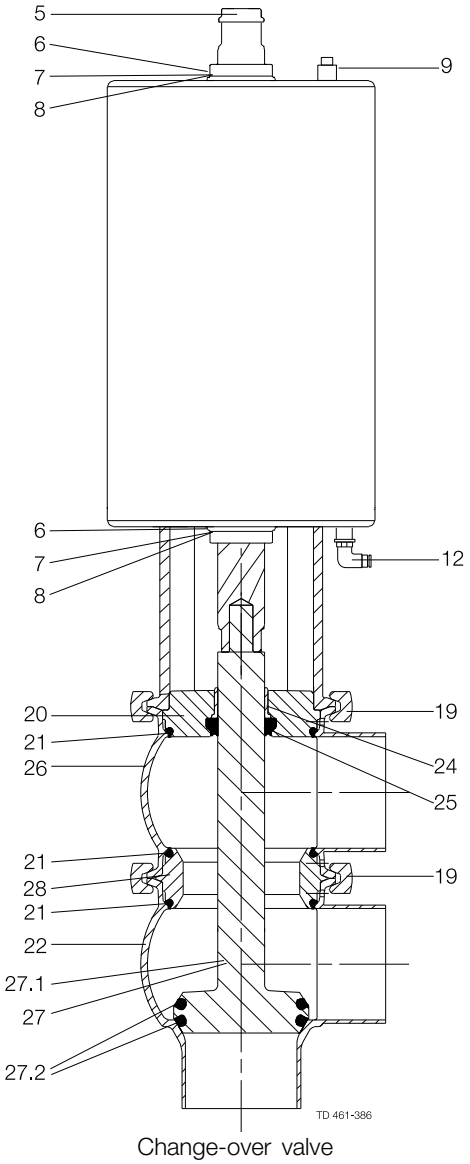
If the actuator is marked with a danger warning, do **NOT** attempt to cut the actuator open.
See also section

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

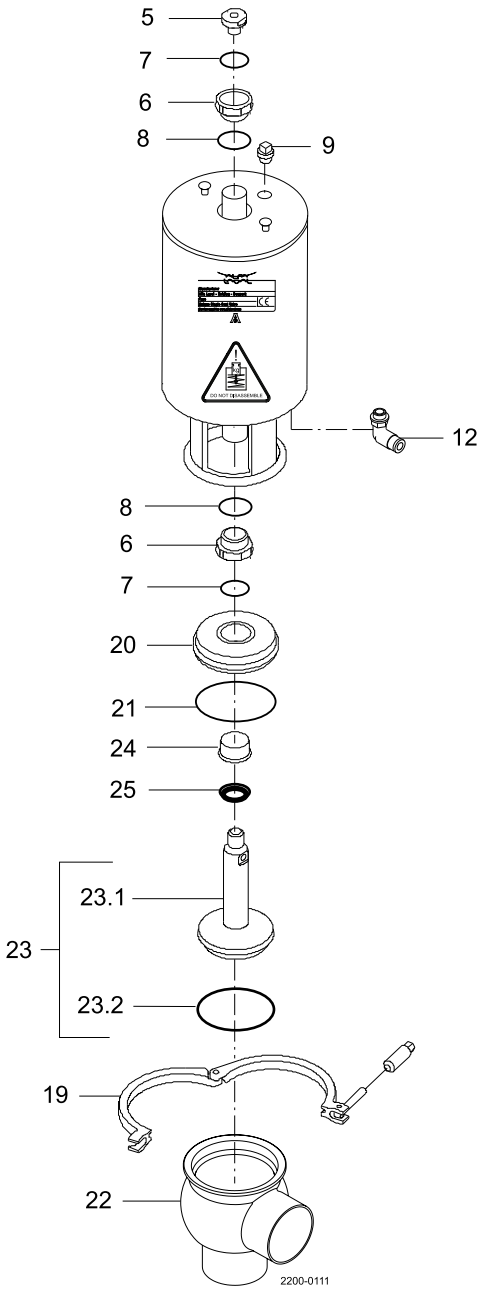
The drawing shows Unique Single Seat Valve - Long Stroke, Shut-off.
The items refer to the parts lists in the following sections.

7.2 Unique Single Seat Valve - Long stroke shut-off 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!



The drawing shows Unique Single Seat Valve - Long Stroke, Shut-off.
The items refer to the parts lists in the following sections.

Parts list

Pos.		Qty	Denomination
			Actuator
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, shut-off, ISO/DIN
23.2	◆	1	Plug seal
24		1	Bushing
25	◆	1	Lip seal

Service kits

Denomination	DN 40 38 mm	DN 50 51 mm	DN 65 63.5 mm	DN 80 76.1 mm	DN 100 101.6 mm
Service kit for actuator					
□ Service kit	9611926500	9611926500	9611926500	9611926500	9611926500
Service kit for product wetted parts, standard					
◆ Service kit, EPDM	9611926502	9611926503	9611926504	9611926505	9611926506
◆ Service kit, HNBR	9611926508	9611926509	9611926510	9611926511	9611926512
◆ Service kit, FPM	9611926514	9611926515	9611926516	9611926517	9611926518

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

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7 Parts list and service kits

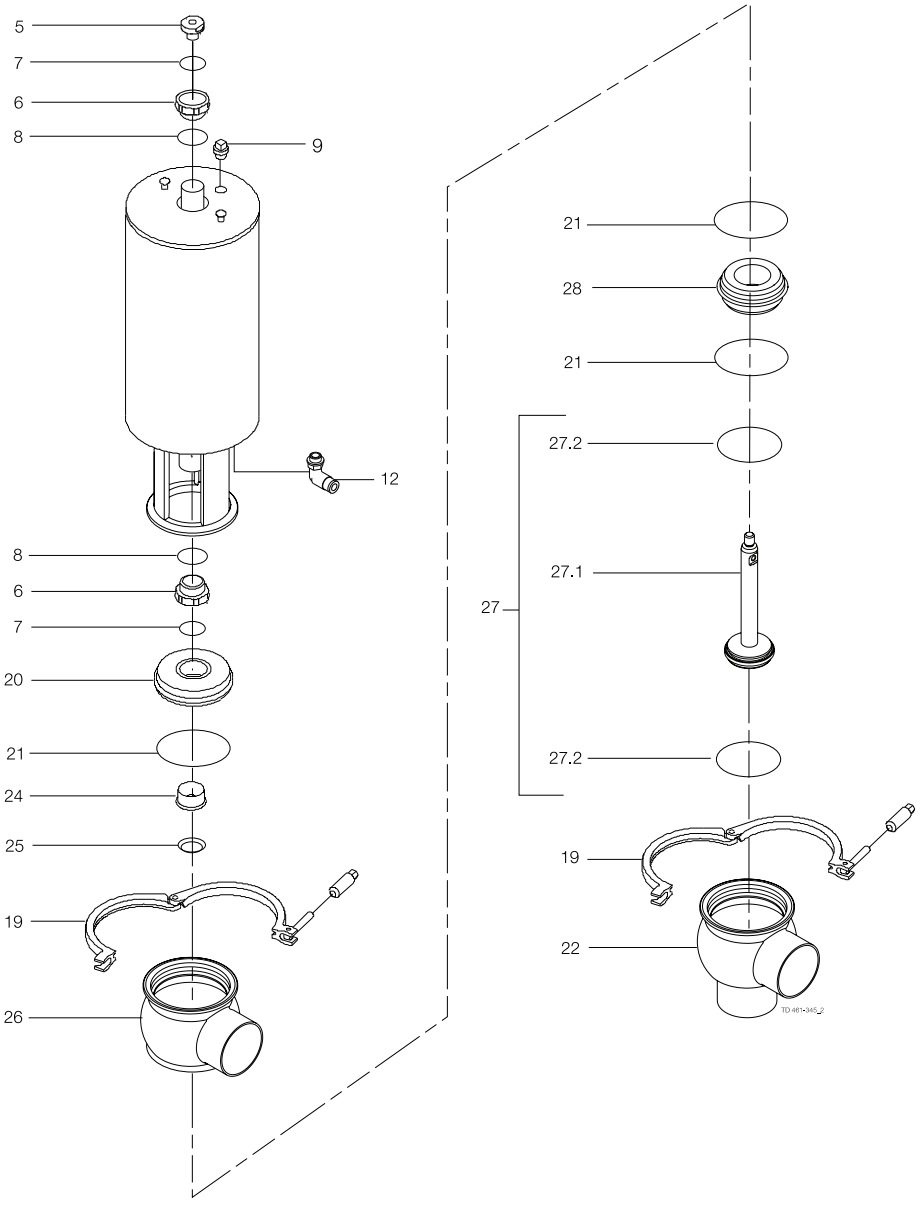
The drawing shows Unique Single Seat Valve - Long Stroke, Change-over.
The items refer to the parts lists in the following sections.

7.3 Unique Single Seat Valve - Long Stroke change-over 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!



The drawing shows Unique Single Seat Valve - Long Stroke, Change-over.
The items refer to the parts lists in the following sections.

Parts list

Pos.		Qty	Denomination
			Actuator
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, change-over, ISO/DIN
27.2	◆	2	Plug seal
28		1	Seat

Service kits

	Denomination	DN 40 38 mm	DN 50 51 mm	DN 65 63.5 mm	DN 80 76.1 mm	DN 100 101.6 mm
Service kit for actuator						
□	Service kit	9611926500	9611926500	9611926500	9611926500	9611926500
Service kit for product wetted parts, standard						
◆	Service kit, EPDM	9611926580	9611926581	9611926582	9611926583	9611926584
◆	Service kit, HNBR	9611926586	9611926587	9611926588	9611926589	9611926590
◆	Service kit, FPM	9611926592	9611926593	9611926594	9611926595	9611926596

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

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How to contact Alfa Laval
Contact details for all countries are
continually updated on our website.
Please visit www.alfalaval.com to access the information directly.