

i-SSV

Single seat valves



Lit. Code

200007923-1-EN-GB

Instruction manual

Published by
Alfa Laval Kolding A/S
Albuen 31
DK-6000 Kolding, Denmark
+45 79 32 22 00

The original instructions are in English

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1 Declarations of Conformity

1.1 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

SRC 25mm on/off

Type

is in conformity with the following directives with amendments:

- Machinery Directive 2006/42/EC

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

Vice President BU Hygienic Fluid Handling

Head of Product Management

Title

Mikkel Nordkvist

Name

Kolding, Denmark

Place

2025-11-11

Date (YYYY-MM-DD)



Signature

DoC Revison_ 01_112025 / This Declaration of Conformity replaces Declaration of Conformity dated 2022-10-01



1.2 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

SRC 25mm on/off

Type

is in conformity with the following directives with amendments:

- The Supply of Machinery (Safety) Regulations 2008

Signed on behalf of: Alfa Laval Kolding A/S.

Vice President BU Hygienic Fluid Handling
Head of Product Management

Title

Mikkel Nordkvist

Name

Kolding, Denmark

Place

2025-11-11

Date (YYYY-MM-DD)

Mikkel Nordkvist

Signature

DoC Revison_ 02_112025



2 Safety

Read this first



This Instruction Manual is designed for operators and service engineers working with the supplied Alfa Laval product.

Operators must read and understand the **Safety, Installation and Operating** instructions of the supplied Alfa Laval product before carrying out any work or before you put the supplied Alfa Laval product into service!

Not following the instructions can result in serious accidents.

This documentation describes the authorized way to use the supplied Alfa Laval product. Alfa Laval will take no responsibility for injury or damage if the equipment is used in any other way.

This Instruction Manual is designed to provide the user with the information to perform tasks safely for all phases in the lifetime of the supplied Alfa Laval product.

The operator shall always read the chapter **Safety** first. Hereafter the operator can skip to the relevant section for the task to be carried out or for the information needed.

Always read the chapter **Technical Data** thoroughly.

This is the complete Instruction Manual for the supplied Alfa Laval product.

NOTE

The illustrations and specifications in this Instruction Manual were effective at the date of printing. However, as continuous improvements are our policy, we reserve the right to alter or modify the Instruction Manual without prior notice or any obligation.

The English version of the Instruction Manual is the original manual. Alfa Laval cannot be held responsible for incorrect translations. In case of doubt, the English version applies.

2.1 Safety Signs

Mandatory Action Signs

	General mandatory action sign.
	Refer to instruction manual.
	Use eye protection - safety glasses.
	Use protective hand wear - safety gloves.
	Wear protective equipment - safety helmet.
	Use ear protection in noisy environments - noise protector.
	Wear protective equipment - safety shoes.

Warning Signs

	General warning.
	Transportation with forklift truck or other industrial vehicles if heavy.
	Hot surface and burning danger.
	Cutting danger.
	Corrosive substance.
	Crushing of hands.

2.2 Safety Precautions

All warnings in the Instruction Manual are summarised on these pages. Pay special attention to the instructions below so that severe personal injury and/or damage to the supplied Alfa Laval product is avoided.

General

	To prevent unexpected start and contact with electrical live and moving parts. Always disconnect the power supply and air supply safely: • The power supply disconnecting device and air supply must be disconnected (in off position) and locked.
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Transportation and Lifting

 	Never lift or elevate in any way other than described in this manual. Always use the original packaging or similar during transportation. Always ensure that personnel must have experience with lifting operations. Always ensure that all connections are disconnected before attempting to remove the valve from the installation. Always ensure that no leakage of lubricants can occur. Always drain liquid out of the valves before transportation. Always ensure sufficient fixing of the valve during transportation - if specially designed packaging material is available, it must be used. Always ensure that compressed air is released.
 	Always use designated lifting points if defined. Ensure that the lifting equipment is suitable for the supplied Alfa Laval product. Always ensure that the unit is securely fixed during transportation. Always ensure the lifting point to be in line with center of gravity. Adjust lifting point if necessary. Always use suitable transport device ie. forklift or pallet lifter. Always use appropriate lifting equipment for heavy parts when relevant. Use lifting logs when available. Always keep an eye on the load and stay clear during the lifting operation.

Installation

	If the local safety regulations prescribe that the installation has to be inspected and approved by responsible authorities before the valve is put into service, consult with such authorities before installing the equipment and have the projected installation approved by them. Always release compressed air after use. Always assemble the valve completely before startup and make sure everything is in place and correctly tightened.
	Never touch the clip assembly or the actuator piston rod if the actuator is supplied with compressed air. Always ensure that the valve and pipelines are depressurized, emptied, and cooled down to ambient temperature before installation, inspection, assembly, or dismantling of the valve. Never touch the valve or the pipelines when processing hot liquids or when sterilising.

Operation

	Always read Technical Data thoroughly. Never operate the valve unless a correct installation has been verified. Never dismantle the valve during operation or when pressurized.
	Never touch the valve or pipelines when hot. Never touch the valve or the pipelines when processing hot liquids or when sterilising.
	Always rinse well with clean water after cleaning. Always handle lye and acid with great care. Always follow the instructions in the safety data sheets from the suppliers of cleaning agents, detergents, oils etc.
	Never touch moving parts of the valve during operation. Always release compressed air after use. Never touch the clip assembly or the actuator piston rod if the actuator is supplied with compressed air.

Maintenance

	In order to optimise the operation of the supplied Alfa Laval product and to minimize the down time due repair activities, the maintenance includes: • Inspection and maintenance of the supplied Alfa Laval product: strictly follow the technical documentation • Preventive maintenance: visual inspection of the supplied Alfa Laval product followed by necessary adjustments and planned periodic replacement of wear and tear parts • Repairs: unscheduled break down of a component, often causing the system to stop. Damaged components must be replaced • Stock of Alfa Laval genuine spare parts: Alfa Laval recommend keeping a stock of genuine spare parts facilitating preventive maintenance and reducing downtime in case of unplanned break downs
 	Always release compressed air after use. Always ensure that the valve and pipelines are depressurized, emptied, and cooled down to ambient temperature before dismantling the valve. Never stick your fingers through the valve ports if the actuator is supplied with compressed air. Never touch the clip assembly or the actuator piston rod if the actuator is supplied with compressed air. Never service the valve when it is hot.
	Never service the valve with valve and pipelines under pressure unless specifically prescribed.

Storage

	Alfa Laval recommend: • Store the supplied Alfa Laval product as supplied in original packaging • Port opening(s) should be protected against any ingress • Bare steel (not stainless) should be lightly oiled/greased • Store in a clean, dry place without direct sunlight or UV light • Temperature range -5 °C to +40 °C (23 °F - 104 °F) • Relative humidity less than 60% • No exposure to corrosive substances (including contained air)
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Noise

	Under certain operating conditions, the supplied Alfa Laval product and/or the systems in which they are installed can produce high sound pressure levels. Appropriate noise protection measures should be taken when necessary and in accordance with local legislation.
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Hazards



Burn Hazard

- Lubrication oil, machine parts and various machine surfaces can be hot and cause burns. Wear protective gloves



Corrosive Hazard

- Always handle cleaning liquids, lye and acid with great care and in accordance with separate instructions for those fluids
- When using chemical cleaning agents and lubricants, make sure you follow the general rules and suppliers recommendation regarding ventilation, personnel protection etc.



Cut Hazard

- Sharp edges, especially on threads, can cause cuts. Wear protective gloves



Crushing Hazard

- Avoid placing hands into valve orifice pinch points

Safety check



A visual inspection of any protective device (shield, guard, cover or other) on the supplied Alfa Laval product shall be carried out at least every 12 months. If the protective device is lost or damaged, especially when this leads to deterioration of safety performance, it shall be replaced. The fixing of the protective device should only be replaced with fixings of the same or an equivalent type.

Inspection acceptance criteria:

- It should not be possible to reach moving parts originally protected by a protective device
- The protective device must be securely mounted
- Ensure that screws for the protective device are securely tightened

Procedure in case of non-acceptance:

- Fix and/or replace the protective device

2.3 Warning Signs in Text

Pay attention to the safety instructions in this Instruction Manual.

Below are definitions of the four grades of warning signs used in the text where there is a risk for injury to personnel or damage to the supplied Alfa Laval product.



Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate damage to the supplied Alfa Laval product.



Indicates important information to simplify or clarify procedures.

2.4 Requirements of Personnel

Operators

The operators shall read and understand this Instruction Manual.

Maintenance personnel

The maintenance personnel shall read and understand this Instruction Manual. The maintenance personnel or technicians shall be skilled within the field required to carry out the maintenance work safely.

Trainees

Trainees can perform tasks under the supervision of an experienced employee.

People in general

The public shall not have access to the supplied Alfa Laval product.

In some cases, specially skilled personnel may need to be hired (i.e. electricians, welders). In some cases the personnel has to be certified according to local regulations with experience of similar types of work.

2.5 Recycling Information

Unpacking

Packing material may consist 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 (if used) and wear parts in the supplied Alfa Laval product should be replaced.

- Oil and all non-metal wear parts must be disposed of in accordance with local regulations
- Rubber and plastics should be burnt at a licensed waste incineration plant. If not available they should be disposed of in accordance with local regulations
- Bearings and other metal parts should be sent to a licensed handler for material recycling
- Seal rings and friction linings should be disposed of to a licensed land fill site. Check your local regulations
- All metal parts should be sent for material recycling
- Worn out or defected electronic parts should be sent to a licensed handler for material recycling

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.

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.

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3 Introduction

i-SSV single seat valves are pneumatic seat valves used to shut off or change product flow. They are ideal for uninterrupted production in a broad range of hygiene-critical applications.

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4 Installation

4.1 Unpacking/delivery

NOTE

The Instruction Manual is part of the delivery. Study the instructions thoroughly.

The items refer to [Parts Lists and Exploded Views](#) on page 47.

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

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

CAUTION

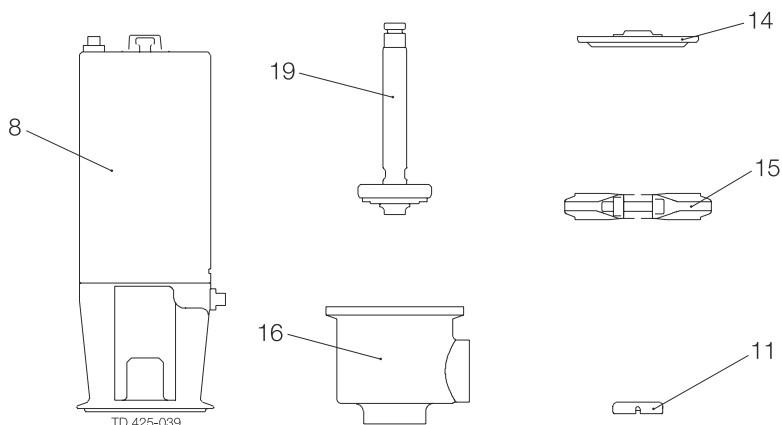
Alfa Laval cannot be held responsible for incorrect unpacking.

Check the delivery for:

1. Complete valve, shut-off valve or change-over valve (see below).

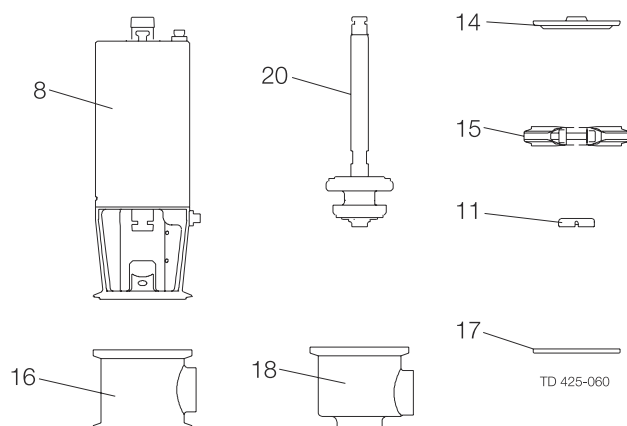
Shut-off valve:

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



Change-over valve:

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



1. Remove possible packing materials from the valve/valve parts.

- 2 Inspect the valve/valve parts for visible transport damage.

Avoid damaging the valve/valve parts.

4.2 General installation

NOTE

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

Always read *Technical Data* on page 43 thoroughly.

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

NO = Normally open.

NC = Normally closed.

A/A = Air/air activated.

CAUTION

Alfa Laval cannot be held responsible for incorrect installation.

WARNING

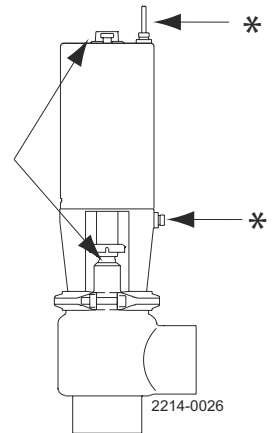
Always release compressed air after use.

WARNING Moving parts!

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

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

Moving parts!



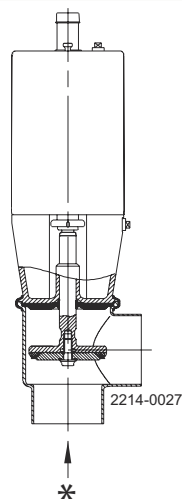
* = Air

It is recommended to install the valve so that:

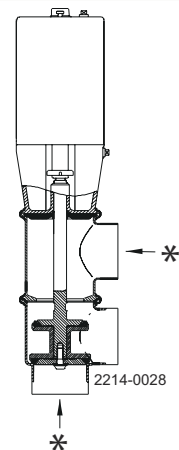
- the actuator is not turned downwards as the valve will then not be drained
- the flow is against the closing direction to avoid water hammering.

* = Inlet

Avoid water hammering



Shut-off valve



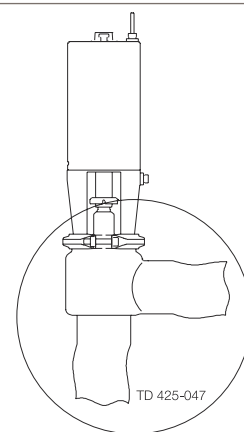
Change-over valve

Avoid stressing the valve.

Pay special attention to:

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

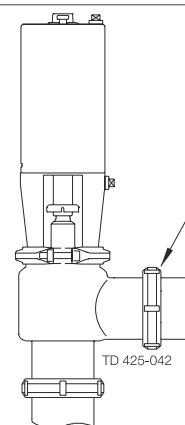
Risk of damage!

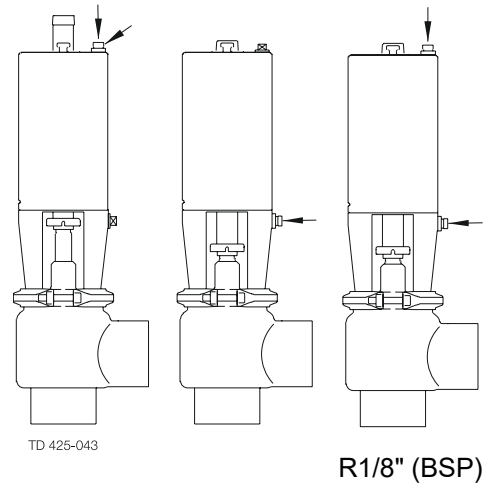


Fittings:

Ensure that the connections are tight.

Remember seal rings!!



Air connection:

4.2.1 Welding

! NOTE

Study the instructions carefully.

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

The items refer to [Parts Lists and Exploded Views](#) on page 47.

Check the valve for smooth operation after welding.

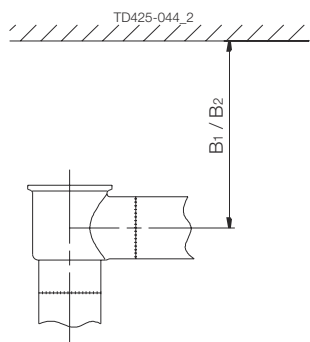
NO = Normally open.

NC = Normally closed.

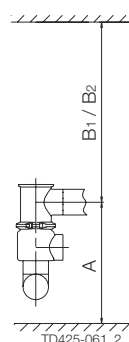
A/A = Air/air activated.

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

Valve size	A mm (inch)	B ₁ mm (inch)	B ₂ mm (inch)
DN25/25 mm	200 (7.9)	537 (21.1)	647 (25.5)
DN40/38 mm	230 (9.1)	550 (21.7)	730 (28.7)
DN50/51 mm	290 (11.4)	550 (21.7)	730 (28.7)
DN65/63.5 mm	350 (13.8)	550 (21.7)	730 (28.7)
DN80/76 mm	390 (15.4)	600 (23.6)	780 (30.7)
DN100/101.6 mm	490 (19.3)	650 (25.6)	830 (32.7)



Shut-off valve



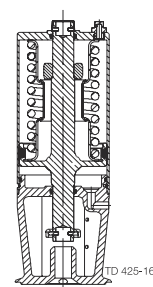
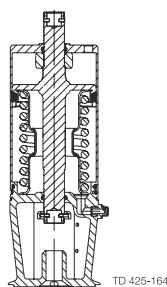
Change-over valve (Upper valve body)

i-SSV 25 mm shut-off valve

The 25 mm actuator is **only** for use on the i-SSV 25 mm shut-off valve.

WARNING

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



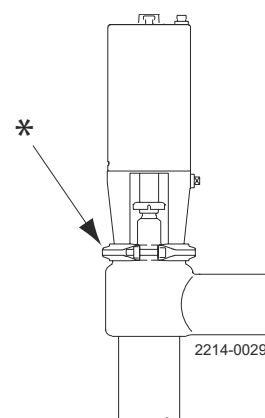
Shut-off valve

Assemble the valve in accordance with instructions on page [Valve assembly](#) on page 37.

NOTE

* Fit seal ring (17) correctly!

Pay special attention to the warnings!



Change-over valve

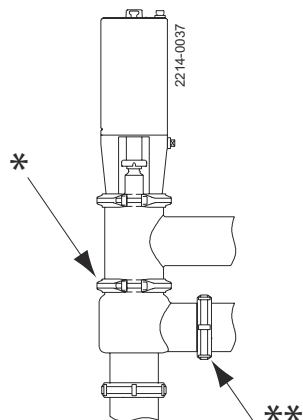
Assemble the valve in accordance with instructions in section [Valve assembly](#) on page 37.

NOTE

* Fit seal ring (17) correctly!

** Remember seal rings!

Pay special attention to the warnings!



Pre-use check

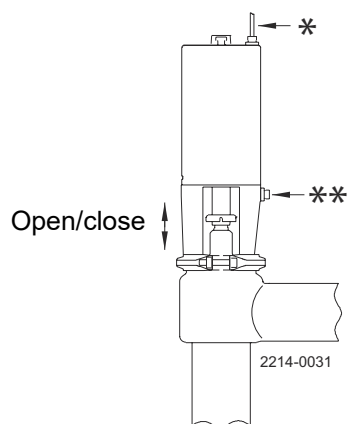
1. Supply compressed air to the actuator.
2. Open and close the valve several times to ensure that it operates smoothly.

NOTE

* Air (NO/AA)

** Air (NC/AA)

Pay special attention to the warnings!



5 Operation

5.1 General operation

NOTE

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

Ensure that the valve operates smoothly.

The items refer to [Parts Lists and Exploded Views](#) on page 47.

Always read [Technical Data](#) on page 43 thoroughly.

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

NO = Normally open.

NC = Normally closed.

A/A = Air/air activated.

CAUTION

Alfa Laval cannot be held responsible for incorrect operation.

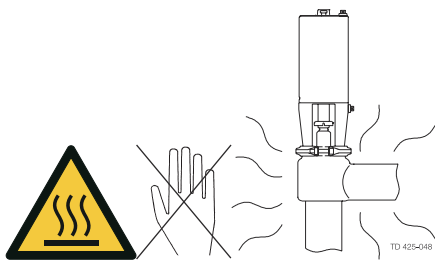
WARNING

Always release compressed air after use.

WARNING

Burn hazard!

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

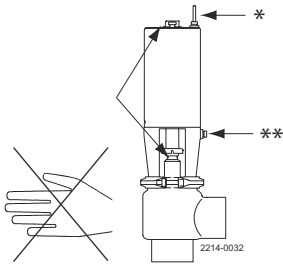


WARNING Moving parts!

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

* = Air (NO)

** = Air (NC/AA)

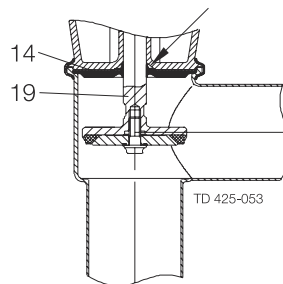


Lubrication of valve

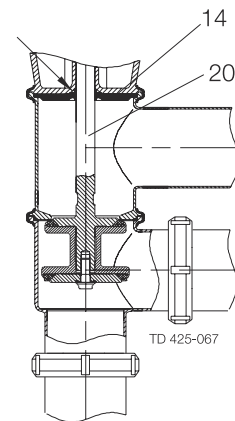
1. Ensure smooth movement between lip seal (14) and plug stem (19, 20).
2. Lubricate the lip seal with silicone oil/grease if necessary.

Lubricate if necessary! (see page [General maintenance](#) on page 33).

Shut-off valve



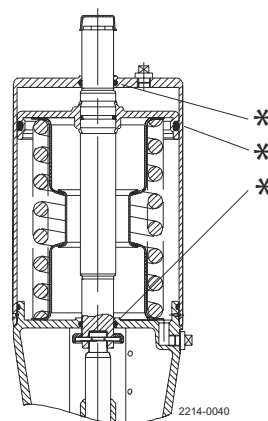
Change-over valve



Lubrication of actuator

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

*** Lubricate if necessary!** (see page [General maintenance](#) on page 33).



5.2 Troubleshooting

NOTE

Pay attention to possible faults.

Study the instructions thoroughly.

The items refer to [Parts Lists and Exploded Views](#) on page 47.

Study the maintenance instructions thoroughly before replacing worn parts - see [General maintenance](#) on page 33!

Problem	Cause/result	Repair
The valve plug jerks	The sealings seize	Lubricate: • O-rings (2) • O-ring (5) and the inside of cylinder (3) • Lip seal (14)
Product leakage at stem and/or clamp	Worn/product affected lip seal (14) and/or seal ring (17)	• Replace the seals • Replace with a seals of adifferent rubber grade
Product leakage (closed valve)	• Worn/product affected plug seal ring • Loose plug parts (vibrations) • Product deposits on the seat and/or plug	• Replace the seal ring • Replace with a seal of a different rubber grade • Tighten the loose parts • Frequent cleaning
Product leakage (too high pressure or too small actuator)	• Worn actuator O-rings • Too small actuator or actuator spring	• Replace the O-rings • Replace with a larger actuator (for valve sizes DN/OD38-63.5 mm/ DN40-65) • Use auxiliary air on the spring side (NOT-element)
Water hammer	The flow direction is the same as the closing direction	• The flow direction should be against the closing direction. • Use auxiliary air on the spring side (NOT-element)
The valve does not open/close	• Faulty clip assembly (11) • The pressure on the plug is too high	• Replace the clip assembly • Reduce the pressure

5.3 Recommended Cleaning

NOTE

The supplied product is designed for cleaning in place (CIP).

NaOH = Caustic soda.

HNO₃ = Nitric acid.

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

CAUTION

Never touch the supplied product or the pipelines when sterilizing.

Always handle lye and acid with great care.

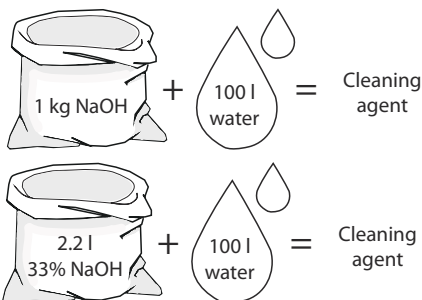


Examples of cleaning agents

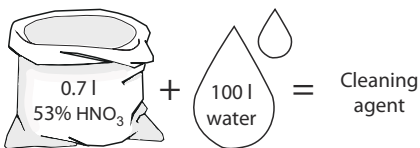
Use clean water free from chlorides

Metric System

1. 1% by weight NaOH at 70°C

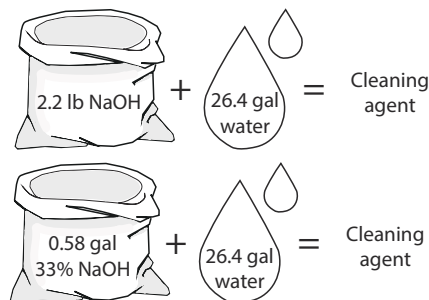


2. 0.5% by weight HNO₃ at 70°C

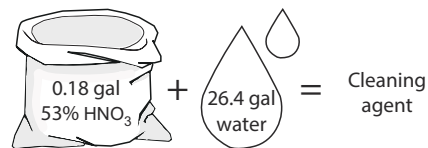


Imperial System

1. 1% by weight NaOH at 158°F



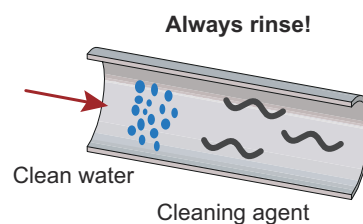
2. 0.5% by weight HNO₃ at 158°F



1. Avoid excessive concentration of the cleaning agent ⇒ **Dose gradually!**
2. Adjust the cleaning flow to the process
Milk sterilization/viscous liquids ⇒ Increase the cleaning flow!

CAUTION

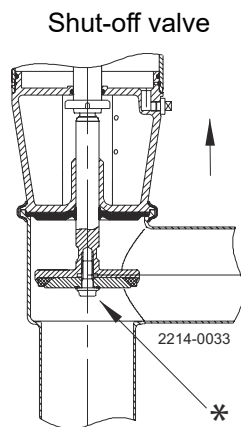
Always rinse well with clean water after the cleaning.



5.3.1 Cleaning of plug and seats

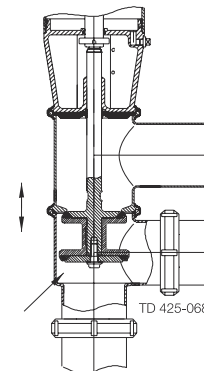
Clean the plug and the seats correctly.

Pay special attention to the warnings!



Open!

Change-over valve



Lift and lower momentarily (flip)!

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6 Maintenance

6.1 General maintenance

NOTE

Maintain the valve regularly.

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

Always keep spare rubber seals and lip seals in stock.

Always read *Technical Data* on page 43 thoroughly.

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

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

CAUTION

Alfa Laval cannot be held responsible for incorrect maintenance.

WARNING

Always release compressed air after use.

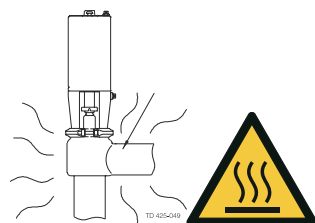
WARNING

Burn hazard!

Never service the valve when it is hot.

Never service the valve with valve and pipelines under pressure.

Atmospheric pressure required!



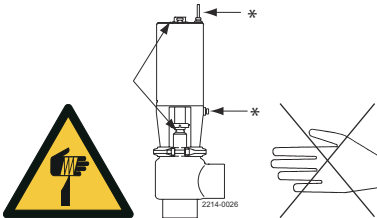
WARNING Cutting hazard!

Moving parts!

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

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

* = Air



Guidelines for maintenance and lubrication intervals

Next are some guidelines for maintenance and lubrication intervals.

Please note that the guidelines are for normal working conditions in one shift.

	Valve rubber seals	Valve lip seal	Actuator rubber seals
Preventive maintenance	Replace after 12 months	Replace when replacing the rubber seals	Replace after 5 years
Maintenance after leakage (leakage normally starts slowly)	Replace at the end of the day	Replace when replacing the rubber seals	Replace when possible
Planned maintenance	- Regular inspection for leakage and smooth operation - Keep a record of the valve - Use the statistics for planning of inspections Replace after leakage	Replace when replacing the rubber seals	- Regular inspection for leakage and smooth operation - Keep a record of the actuator - Use the statistics for planning of inspections Replace after leakage
Lubrication	Before fitting Alfa Laval Silicon based Food-grade Lubricant US-DA H1 approved grease	Before fitting Alfa Laval Silicon based Food-grade Lubricant US-DA H1 approved grease	Before fitting Oil or grease

Pre-use check

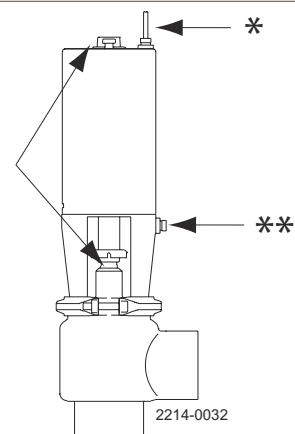
1. Supply compressed air to the actuator.
2. Open and close the valve several times to ensure that it operates smoothly.

* = Air (NO/AA)

** = Air (NC/AA)

Pay special attention to the warnings!

Open/close!



Recommended spare parts

See [Alfa Laval online Spare part catalogue](#).

6.2 Dismantling the valve

NOTE

Study the instructions carefully.

The items refer to [Parts Lists and Exploded Views](#) on page 47.

Handle scrap correctly.

NC = Normally closed.

NO = Normally open.

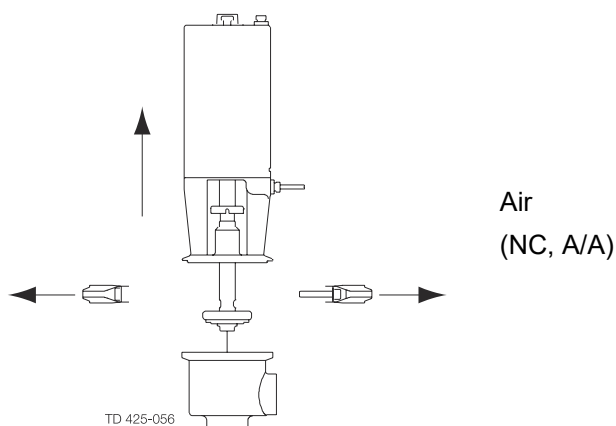
A/A = Air/air activated

Step 1

Shut-off valve

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

Pay special attention to the warnings!

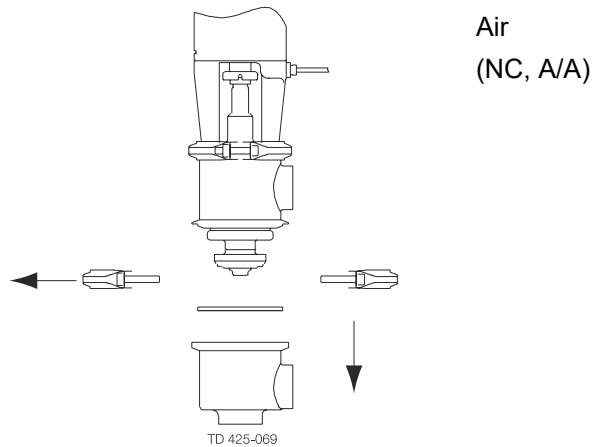


Step 2

Change-over valve

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

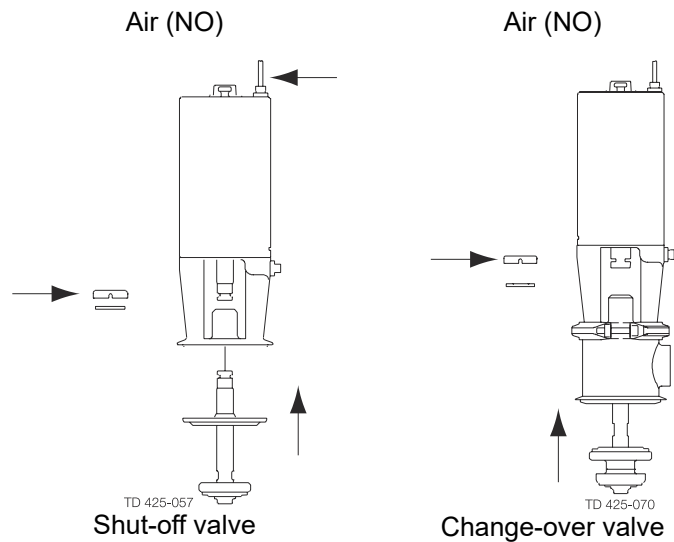
Pay special attention to the warnings!



Step 3

1. Supply compressed air to the actuator (only NO).
2. Remove clip assembly (11) by using plugs.
3. Remove valve plug (19, 20).
4. Release compressed air.

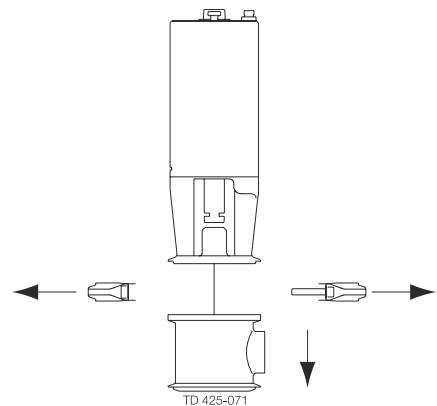
Pay special attention to the warnings!



Step 4

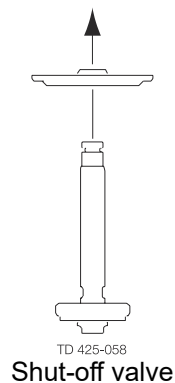
Change-over valve

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

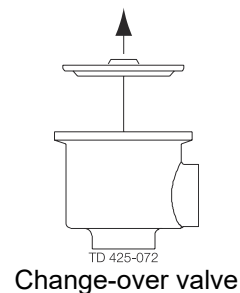


Step 5

Remove lip seal (14).



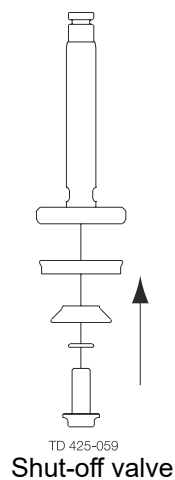
Shut-off valve



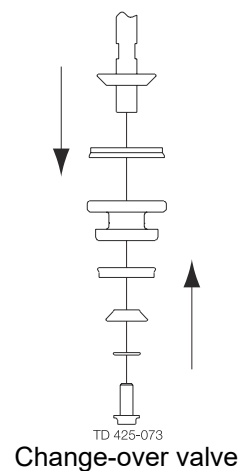
Change-over valve

Step 6

1. Remove screw (19h, 20h).
2. Dismantle the complete valve plug.



Shut-off valve



Change-over valve

6.3 Valve assembly

NOTE

Study the instructions carefully.

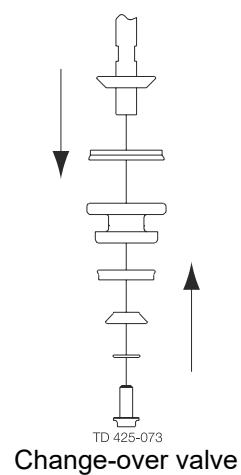
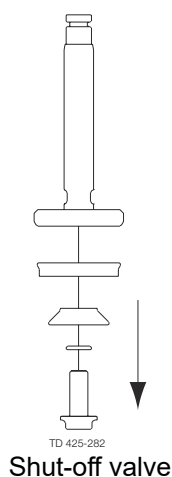
The items refer to [Parts Lists and Exploded Views](#) on page 47.

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

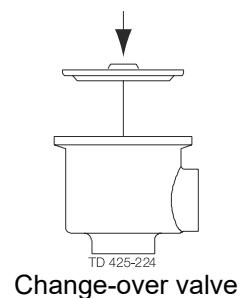
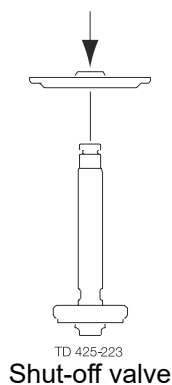
Lip seal (14) can be replaced by a special stem seal.

Step 1

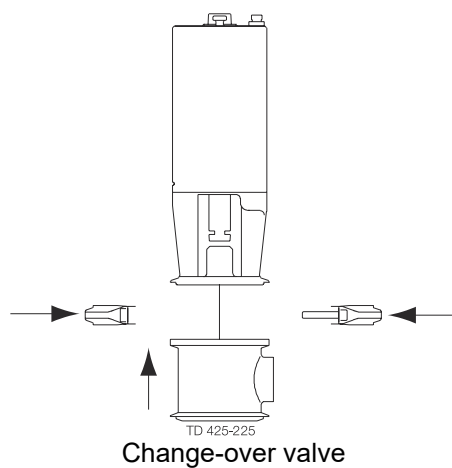
1. Assemble the complete valve plug.
2. Fix screw (19h, 20h) by using loctite or something similar.

**Step 2**

1. Fit lip seal (14).

**Step 3****Change-over valve**

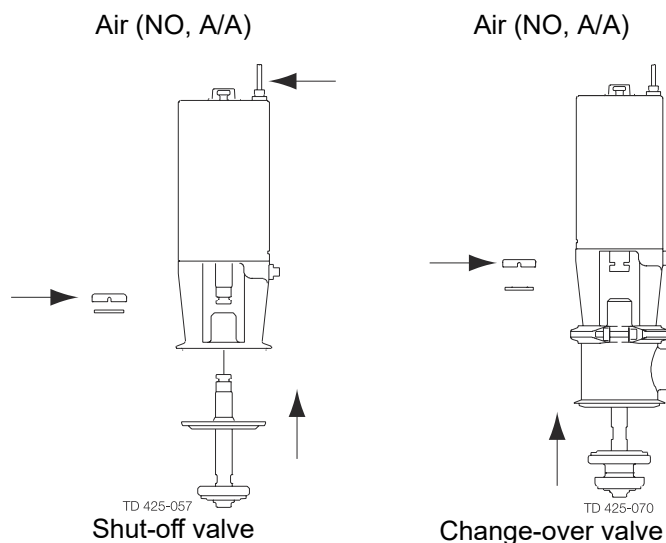
1. Assemble upper valve body (16) and the actuator.
2. Fit and tighten upper clamp (15).



Step 4

1. Fit the plastic ring of clip assembly (11) on the actuator piston rod.
2. Supply compressed air to the actuator (Only NO).
3. Fit valve plug (19, 20).
4. Fit and assemble clip assembly (11) by using pliers.
5. Release compressed air.

Pay special attention to the warnings!

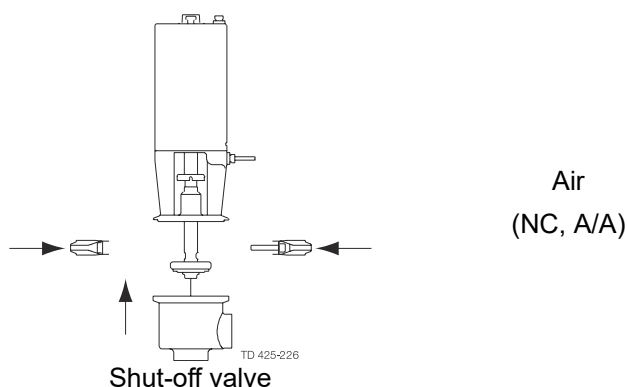


Step 5

Shut-off valve

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

Pay special attention to the warnings!



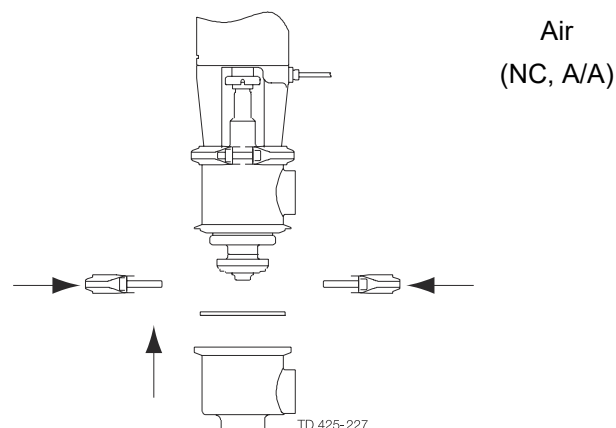
Step 6

Change-over valve

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

Pay special attention to the warnings!

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



6.4 Dismantling of actuator

NOTE

Study the instructions carefully.

The items refer to *Parts Lists and Exploded Views* on page 47.

Handle scrap correctly.

NO = Normally open.

NC = Normally closed.

A/A = Air/air activated

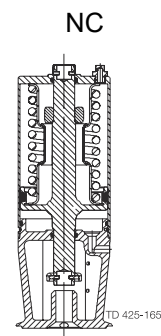
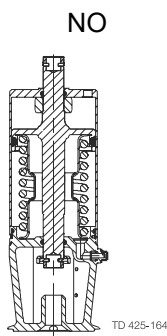
Service tool: See Spare Parts.

25 mm shut-off valve

The 25 mm actuator is **only** for use on the 25 mm shut-off valve.

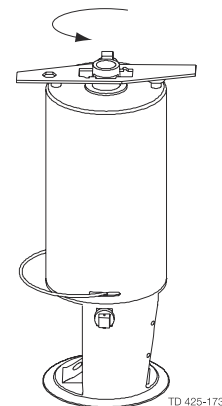
WARNING

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



1

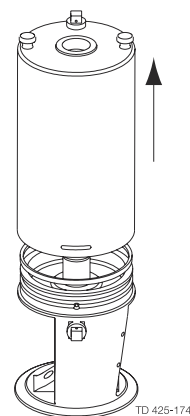
1. Rotate cylinder (3).
2. Remove lock wire (4).



Rotate cylinder with service tool.

2

1. Remove cylinder (3).
2. Remove O-rings (2, 7) from bonnet (8) and cylinder (3).

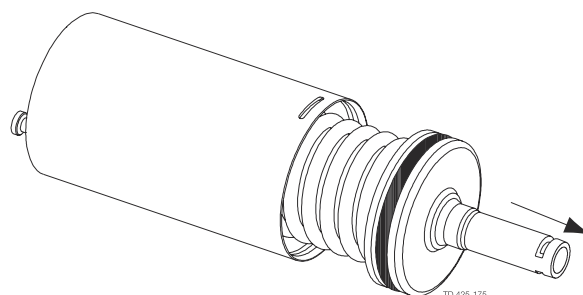


3

1. Remove piston (6) and spring assembly (10).
2. Remove O-ring (5) from the piston.

NOTE

The A/A actuator has no spring assembly.



6.5 Assembly of actuator

NOTE

Study the instructions carefully.

The items refer to [Parts Lists and Exploded Views](#) on page 47.

Lubricate the rubber seals before fitting them.

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

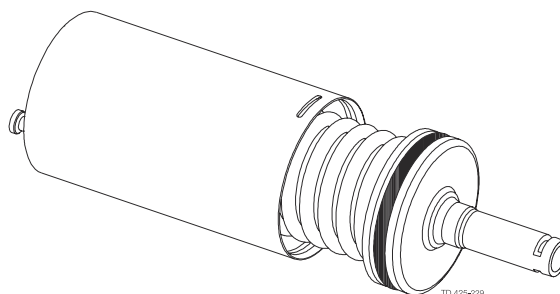
A/A = Air/air activated

1

1. Fit O-ring (5) on piston (6).
2. Fit the piston and spring assembly (10).

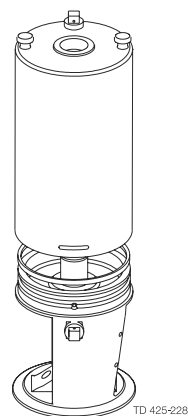
NOTE

The A/A actuator has no spring assembly.



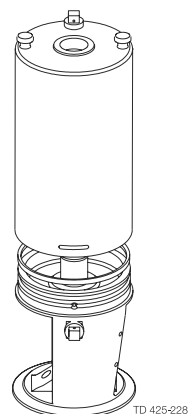
2

1. Fit O-rings (2, 7) in bonnet (8) and cylinder (3).
2. Fit the cylinder.



3

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



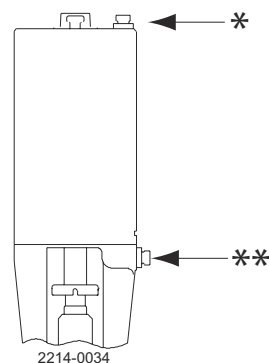
Rotate by hand or with the service tool!

a) * Top air connection

** Bottom air connection



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



7 Technical Data

NOTE

Technical data must be observed during installation, operation and maintenance.
All personnel should be informed about the technical data.

7.1 Technical data

Pressure		
Max. product pressure:	1000 kPa (10 bar)	
Min. product pressure:	Full vacuum	
Temperature range		
Standard lip seal:	-10 °C to +100 °C (EPDM)	
Special lip seal:	-10 °C to +140 °C (EPDM)	
Air pressure, actuator		
Sizes 25-101.6mm /DN25-100	500 to 700 kPa (5 to 7 bar)	
Air consumption (litres free air) for one stroke		
Size	25-63.5 mm / DN 25-65	76-101.6 mm / DN 80-100
Shut-off valve/ Change-over valve Actuator function	0.2 x Air pressure (bar) NO and NC	0.7 x Air pressure (bar) NO and NC
Shut-off valve/ Change-over valve Actuator function	0.4 x Air pressure (bar) A/A	1.3 x Air pressure (bar) A/A

7.2 Physical data

Materials	
Product wetted steel parts:	Stainless steel 1.4307 (304L) or 1.4404 (316L)
Finish:	Semi bright
Other steel parts:	Stainless steel 1.4307 (304L)
Plug stem:	1.4307 (304L) with hard chrome plated stem surface
Product wetted seals:	EPDM (standard)
Other seals:	Nitrile (NBR)
Alternative product wetted seals:	Nitrile (NBR) and Fluorinated rubber (FPM)

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8 Spare Parts

For every delivered Alfa Laval Product, a spare part list is available.

This spare part list contains a range of the most common wear parts for the machinery. If any component not mentioned is required, please contact your local Alfa Laval representative for availability.

You can find our spare part catalogue at <https://hygienicfluidhandling-catalogue.alfalaval.com>.

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

8.1 Ordering Spare Parts

When ordering spare parts, please always state:

1. Serial number (if available)
2. Item number/spare part number (if available)
3. Capacity or other relevant identification

8.2 Alfa Laval Service

Alfa Laval is represented in all larger countries of the world.

Do not hesitate to contact your local Alfa Laval representative, with any questions or requirement of spare parts for Alfa Laval equipment.

8.3 Warranty - Definition



The rules of Intended use are absolute. Use of the supplied Alfa Laval product is allowed only when in compliance with the technical data supplied with the Intended use.

Differing utilisation, other than agreed with Alfa Laval Kolding A/S, exclude any liability and warranty.

No modification or alteration of the supplied Alfa Laval product is allowed, unless explicit permission is granted by Alfa Laval Kolding A/S.



Liability and warranty are excluded:

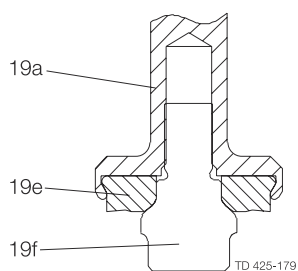
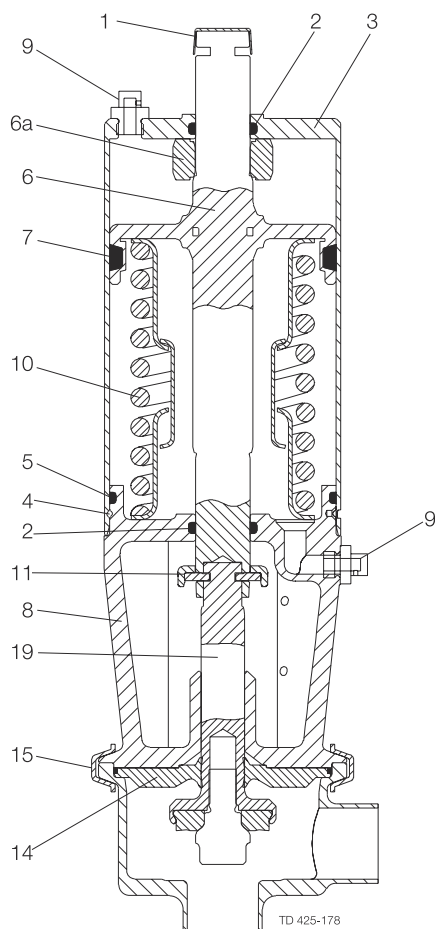
- If advice and instruction of operating instructions are ignored
- For incorrect operation or for insufficient maintenance of the supplied Alfa Laval product
- For any kind of change of function of the supplied Alfa Laval product without prior written agreement by Alfa Laval Kolding A/S
- If supplied Alfa Laval product is modified by non-authorised persons
- If using the supplied Alfa Laval product without attention of appropriate safety regulations, (see [Safety](#) on page 7)

- If protection equipment is not used and vessel process / ancillary equipment is not brought to a standstill
- If the supplied Alfa Laval product and ancillary parts are not properly maintained (to be executed in intervals and including fitting of prescribed replacement parts)

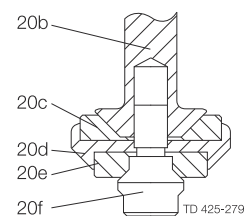
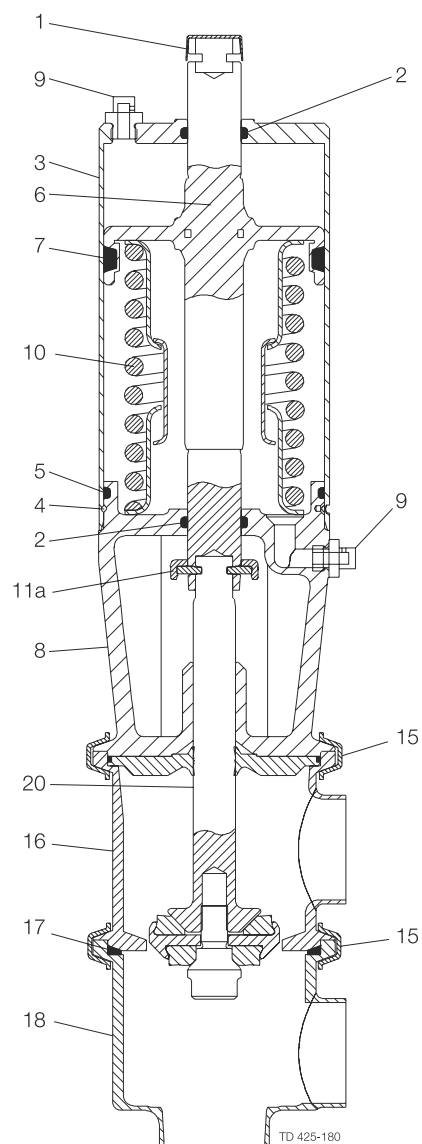
When exchanging parts, only original replacement parts, released from the manufacturer, must be used.

9 Parts Lists and Exploded Views

9.1 Drawing, I-SSV 25 mm/DN25

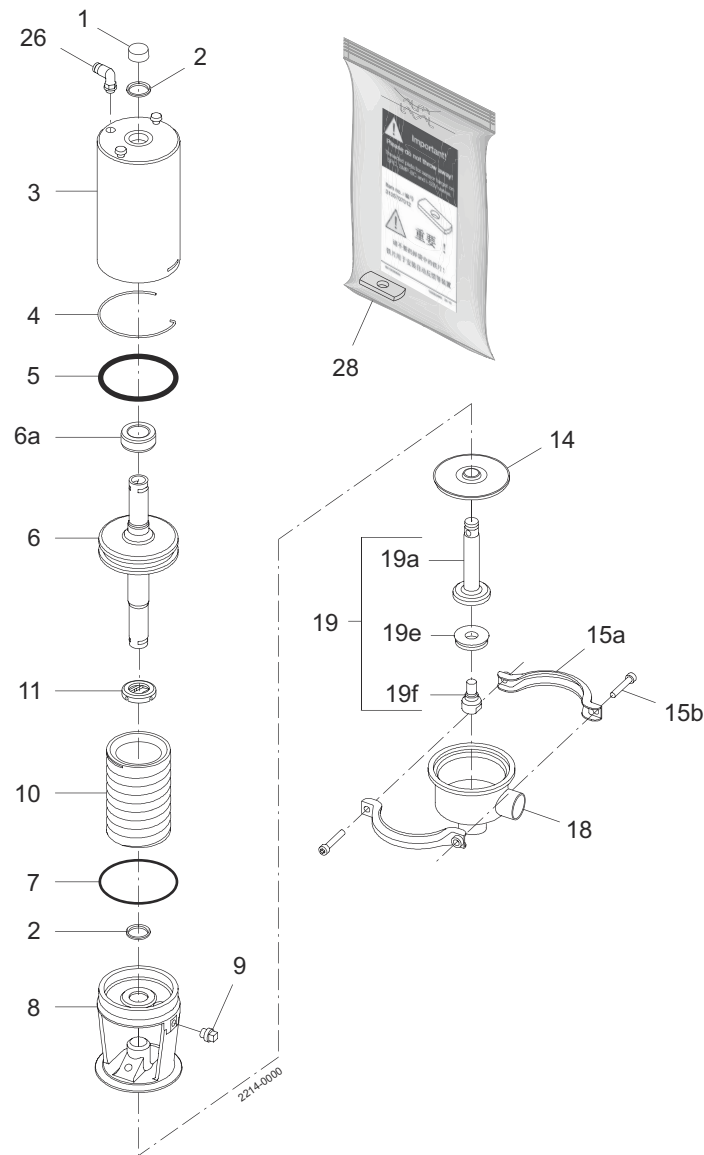


25 mm/DN25 Shut-off valve



25 mm/DN25 Change-over valve

9.2 i-SSV 25 mm/DN25 Shut-off Valve



Alternative stem seal



Special lip seal

Parts for FEP lip seal

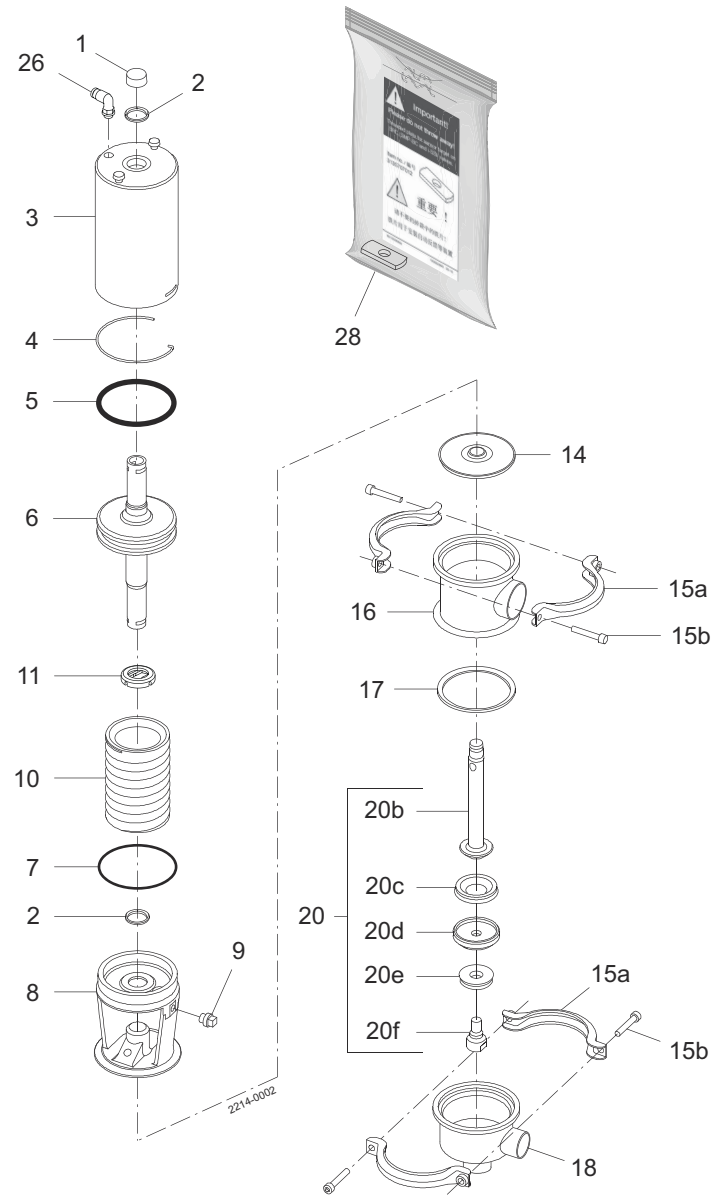
Pos.	Qty.	Denomination
		Actuator
1	1	Cap
2	2	O-ring
3	1	Cylinder
4	1	Lock wire
5	1	O-ring
6	1	Piston
6a	1	Stop ring
7	1	O-ring
8	1	Bonnet
9	2	Plug
10	1	Spring assembly (black)
11	1	Clip, complete
14	1	Lip seal
14a	1	Lip seal

Pos.	Qty.	Denomination
14b	1	Plate
14c	1	Seal ring
14d	1	Washer
14e	1	O-ring FEP/Silicone
14f	1	Holder
14g	1	Seal ring, PTFE
15a+b	1	Clamps and screws
18	1	Valve body
19	1	Plug
19a	1	Stem
19e	1	Plug seal
19f	1	Screw
26	1(2)	Air fitting (2 pcs. only for A/A)
28	1	Threaded plate for sensor target

NOTE

Find article numbers in the Spare part manual available from the on-line [Alfa Laval product catalogue Anytime](#) or in the [Close at hand spare part catalogue](#).

9.3 i-SSV 25 mm/DN25 Change-over valve



Alternative stem seal



Special lip seal

Parts for FEP lip seal

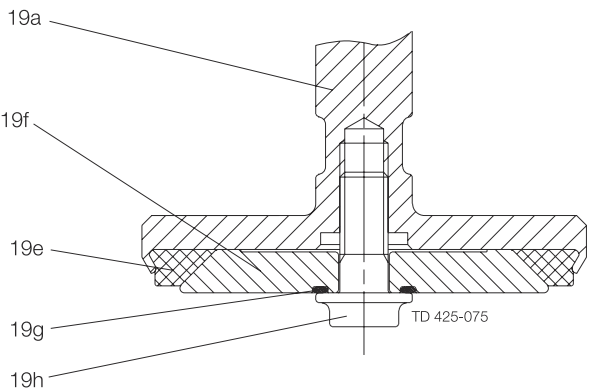
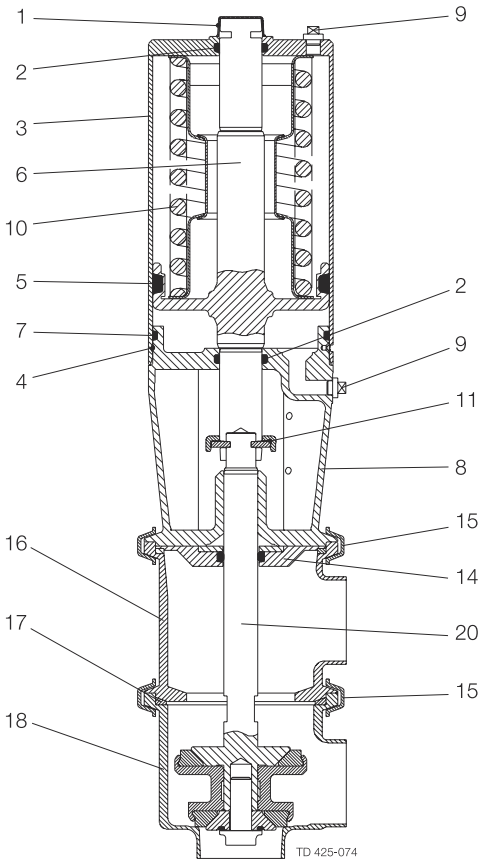
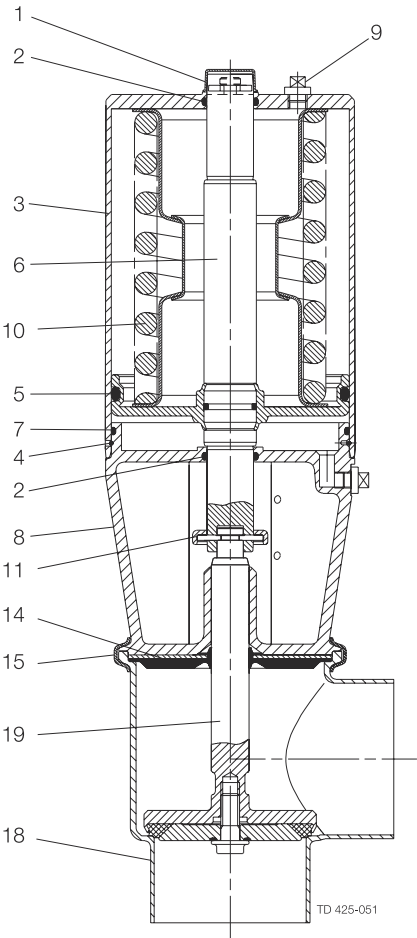
Pos.	Qty.	Denomination
		Actuator
1	1	Cap
2	2	O-ring
3	1	Cylinder
4	1	Lock wire
5	1	O-ring
6	1	Piston
7	1	O-ring
8	1	Bonnet
9	2	Plug
10	1	Spring assembly, standard (black)
11	1	Clip, complete
14	1	Lip seal/lip seal kit
14a	1	Lip seal
14b	1	Plate
14c	1	Seal ring

Pos.	Qty.	Denomination
14d	1	Washer
14e	1	O-ring FEP/Silicone
14f	1	Holder
14g	1	Seal ring, PTFE
15a+b	2	Clamps and screws (Period 9209-)
16	1	Valve body
17	1	Seal ring
18	1	Valve body
20	1	Plug
20b	1	Stem
20c	1	Plug seal
20d	1	Middle piece
20e	1	Plug seal
20f	1	Screw
26	1(2)	Air fitting (2 pcs. only for A/A)
28	1	Threaded plate for sensor target

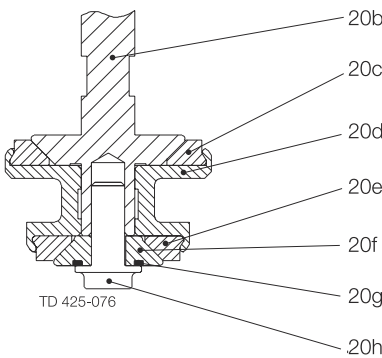
NOTE

Find article numbers in the Spare part manual available from the on-line [Alfa Laval product catalogue Anytime](#) or in the [Close at hand spare part catalogue](#).

9.4 Drawing, i-SSV 38-101.6 mm/DN40-100

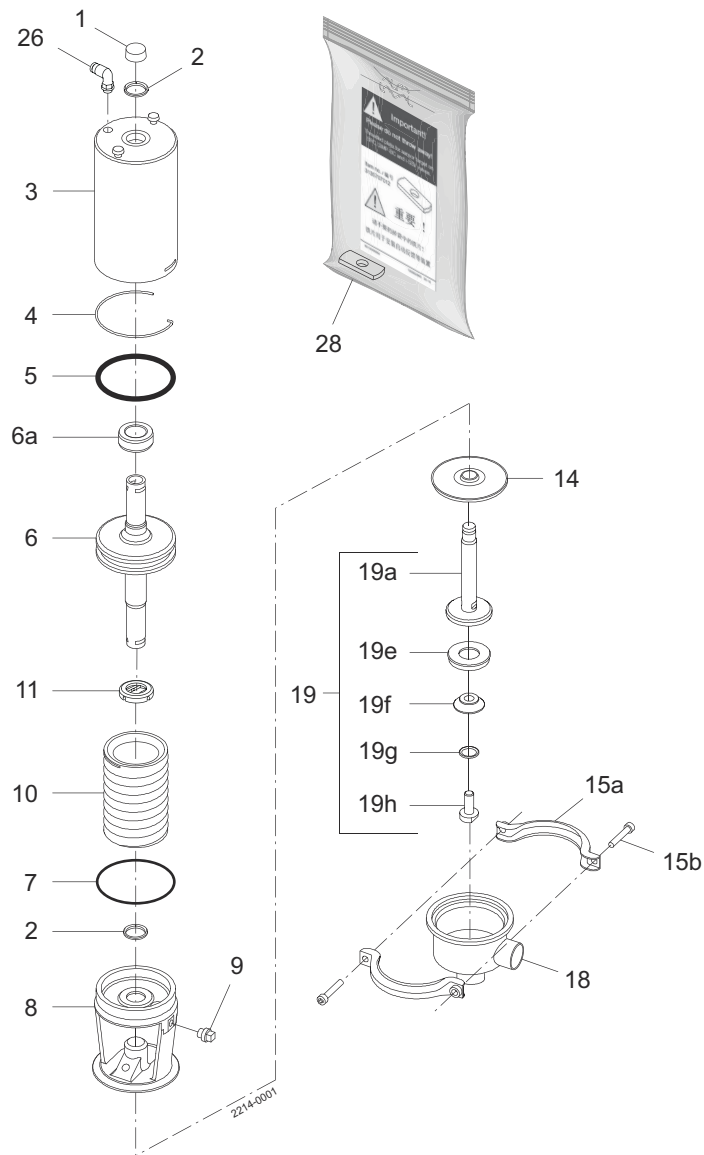


25 mm/DN25 Shut-off valve

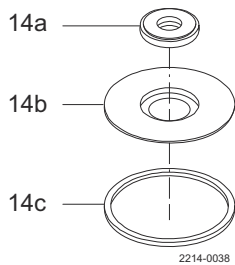


25 mm/DN25 Change-over valve

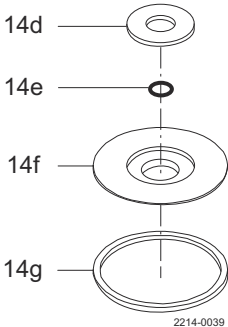
9.5 i-SSV 38-101.6 mm/DN40-100 Shut-off Valve



Alternative stem seal



Special lip seal



Parts for FEP lip seal

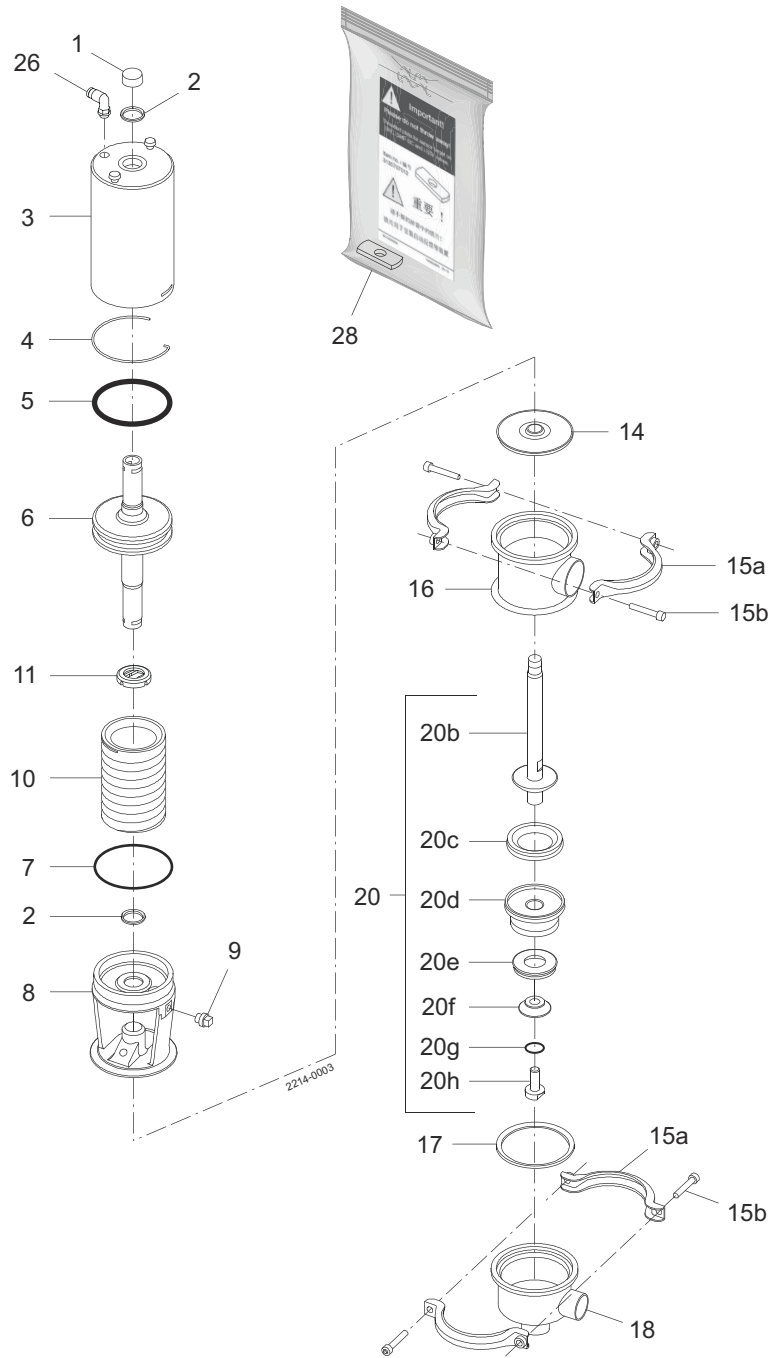
Pos.	Qty.	Denomination
		Actuator
	1	Spring assembly with extra strong spring (white)
	1	Clip
1	1	Cap
2	2	O-ring
3	1	Cylinder
4	1	Lock wire
5	1	O-ring
6	1	Piston
6a	1	Stop ring (only for actuator-3)
7	1	O-ring
8	1	Bonnet
9	2	Plug
10	1	Spring assembly standard (black)
11	1	Clip, complete
14	1	Lip seal

Pos.	Qty.	Denomination
14a	1	Lip seal
14b	1	Plate
14c	1	Seal ring
14d	1	Washer
14e	1	O-ring FEP/Silicone
14f	1	Holder
14g	1	Seal ring, PTFE
15a+b	2	Clamps and screws
18	1	Valve body
19	1	Plug
19a	1	Stem
19e	1	Plug seal
19f	1	Washer
19g	1	O-ring
19h	1	Screw
26	1(2)	Air fitting (2 pcs. only for A/A)
28	1	Threaded plate for sensor target

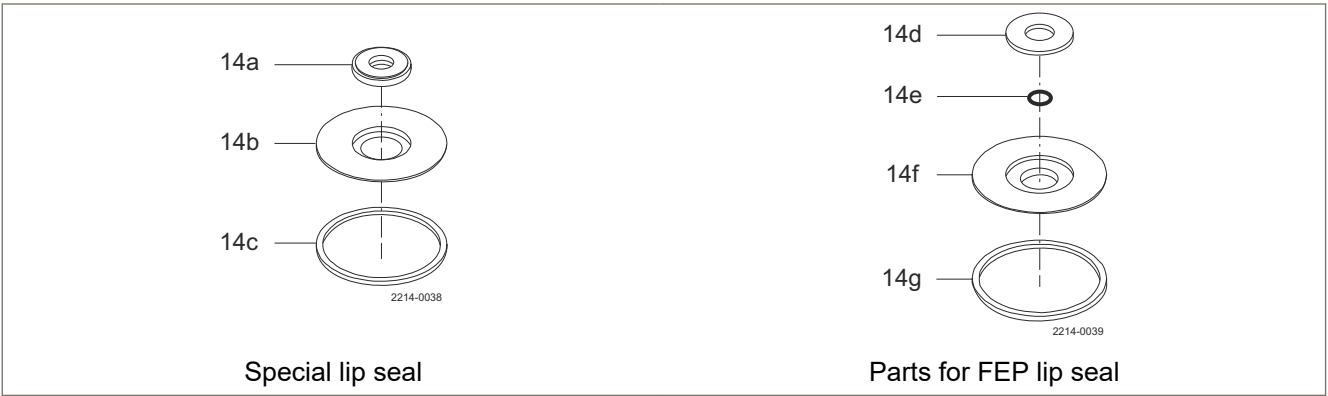
 NOTE

Find article numbers in the Spare part manual available from the on-line [Alfa Laval product catalogue Anytime](#) or in the [Close at hand spare part catalogue](#).

9.6 i-SSV 38-101.6 mm/DN40-100 Change-over valve



Alternative stem seal



Pos.	Qty.	Denomination
		Actuator
	1	Spring assembly with extra strong spring (white)
	1	Clip, (period 68.02 - 84.07)
1	1	Cap
2	2	O-ring
3	1	Cylinder
4	1	Lock wire
5	1	O-ring
6	1	Piston
7	1	O-ring
8	1	Bonnet
9	2	Plug
10	1	Spring assembly, standard (black)
11	1	Clip, complete (period 84.08-)
14	1	Lip seal
14a	1	Lip seal
14b	1	Plate
14c	1	Seal ring

Pos.	Qty.	Denomination
14d	1	Washer
14e	1	O-ring FEP/Silicone
14f	1	Holder
14g	1	Seal ring, PTFE
15a+b	2	Clamps and screws (Period 9209-)
16	1	Valve body
17	1	Seal ring
18	1	Valve body
20	1	Plug
20b	1	Stem
20c	1	Plug seal
20d	1	Middle piece
20e	1	Plug seal
20f	1	Washer
20g	1	O-ring
20h	1	Screw
26	1(2)	Air fitting (2 pcs. only for A/A)
28	1	Threaded plate for sensor target

 NOTE

Find article numbers in the Spare part manual available from the on-line [Alfa Laval product catalogue Anytime](#) or in the [Close at hand spare part catalogue](#).