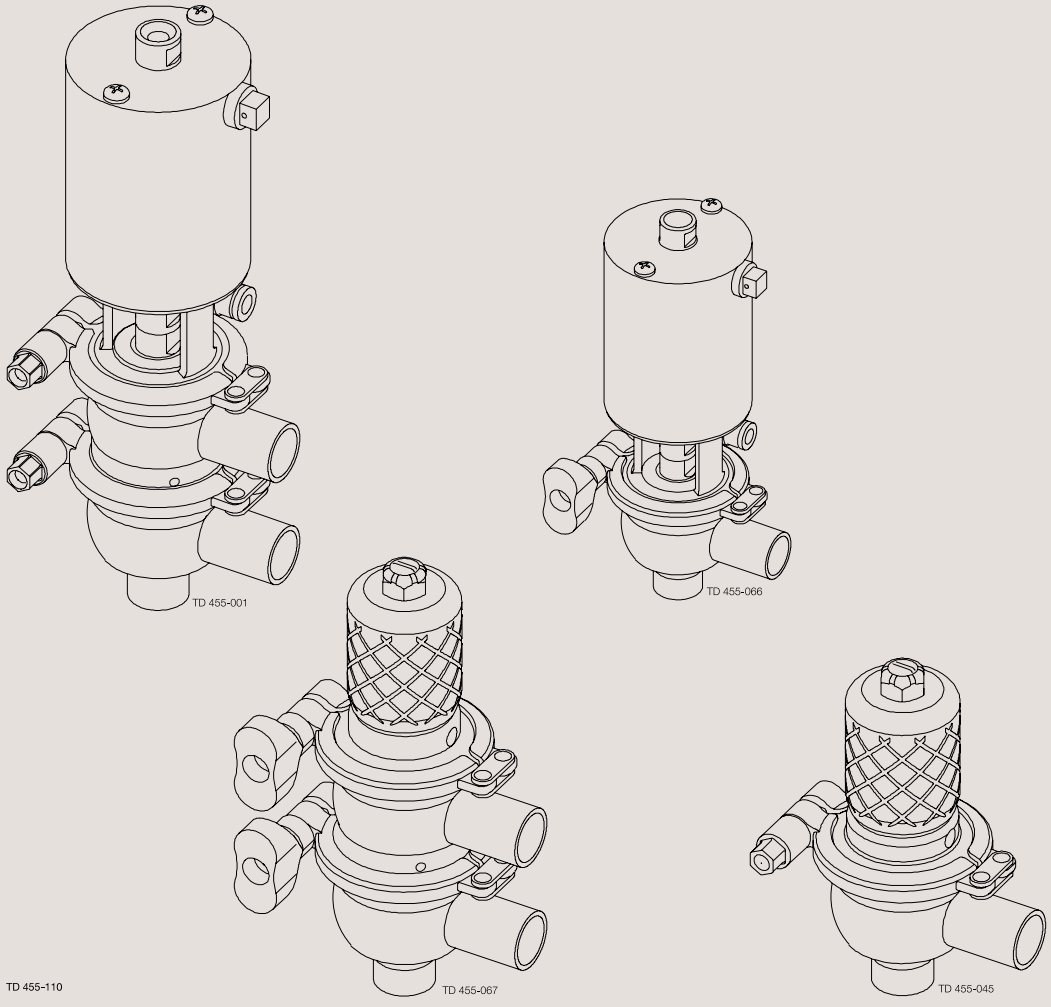
Instruction Manual

Unique Small Single Seat Valve



ESE02232-EN8 2024-03

Original manual

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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

Small Single Seat Valve
Type

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.

Vice President BU Hygienic Fluid Handling Head of Product Management		Mikkel Nordkvist
Title		Name
Kolding, Denmark	2024-03-19	
Place	Date (YYYY-MM-DD)	Signature

This Declaration of Conformity replaces Declaration of Conformity dated 2022-10-01

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

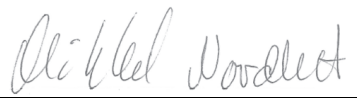
Hereby declare that

Valve
Designation

Small Single Seat Valve
Type

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

Vice President BU Hygienic Fluid Handling Head of Product Management		Mikkel Nordkvist
Title		Name
Kolding, Denmark	2024-03-19	
Place	Date (YYYY-MM-DD)	Signature

DoC Revison_02_032024

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:

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

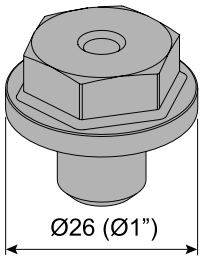
Actuators

If support air is utilised:

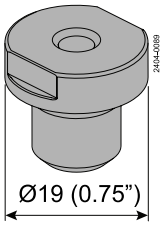
- Shock in the actuator must **NEVER** occur
- Support air on high pressure actuator versions is **NOT** allowed

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.

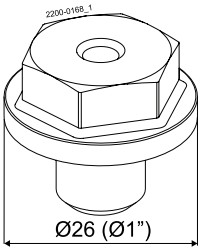
If support air is connected always use the 3 bar/43.5 PSI air relief fittings = 9611995903.
Using the air relief fitting also extends the service life of the actuator piston o-ring.



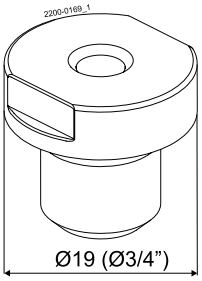
Pos. no. 5
For actuators, manufactured year 2005-2018, with serial number
from 1000000 - 5999999 and from 20000000000 - 59999999999
always use steel adapter (pos 5) = 9614065301
Tighten torque = 30 Nm



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



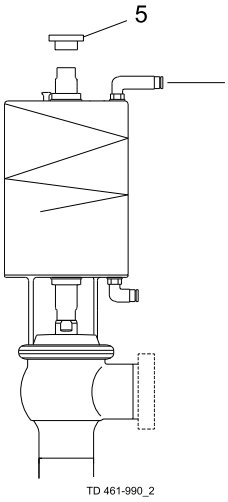
Pos. no. 5
For actuators, manufactured year 2005-2018, with serial number from 1000000 - 5999999 and from 20000000000 - 59999999999 always use steel adapter (pos 5) = 9614065301
Tighten torque = 30 Nm



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 chapter 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

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 chapter 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 handle lye and acid with great care

Maintenance:

Always read the technical data thoroughly (see chapter 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

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

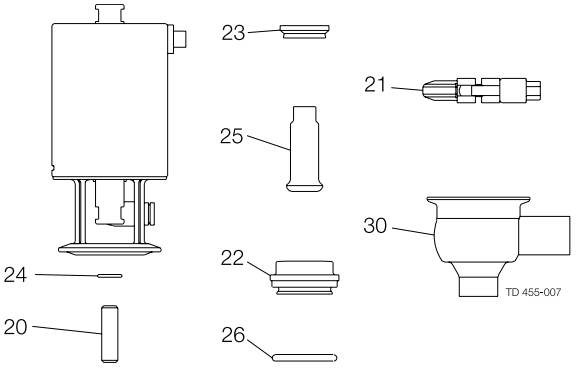
The instruction manual is part of the delivery. Study the instructions carefully.
The items refer to parts list and service kits section.
The valve is supplied as separate parts as standard (for welding).
The valve is assembled before delivery, if it is supplied with fittings.

3.1 Unpacking/Delivery

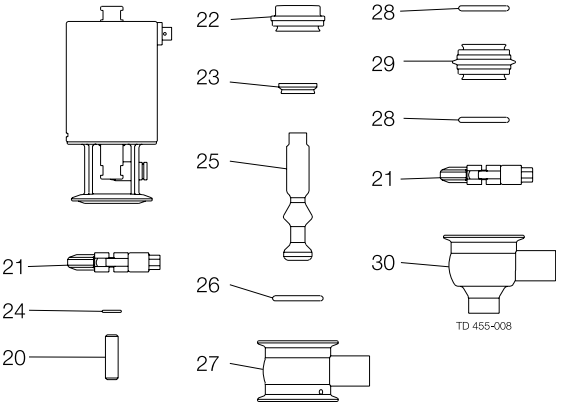
Step 1
CAUTION!
Alfa Laval cannot be held responsible for incorrect unpacking.

Check the delivery for:
1. Complete valve, shut-off valve, change-over valve, manual shut-off valve or manual change-over valve (see steps 2, 3, 4 and 5).
2. Delivery note
3. Instruction Manual.

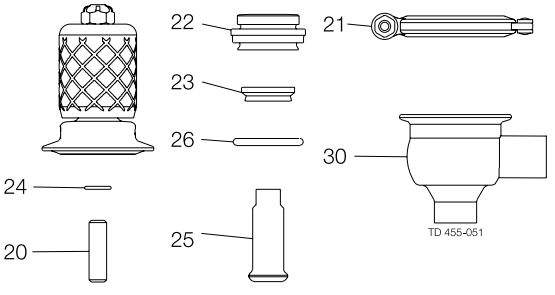
Step 2
Shut-off valve
1. Complete actuator with bonnet
2. Lip seal (23)
3. Clamp (21)
4. Shut-off plug (25)
5. Lower valve body (30)
6. O-ring (26)
7. Threaded pin (20)
8. Sealing element (22)
9. O-ring (24)



Step 3
Change-over valve
1. Complete actuator with bonnet
2. Lip seal (23)
3. Two clamps (21)
4. Change-over plug (25)
5. Upper valve body (27)
6. Valve seat (29)
7. O-ring (26)
8. Threaded pin (20)
9. Sealing element (22)
10. O-ring 24)
11. Two o-rings (28)
12. Lower valve body (30)

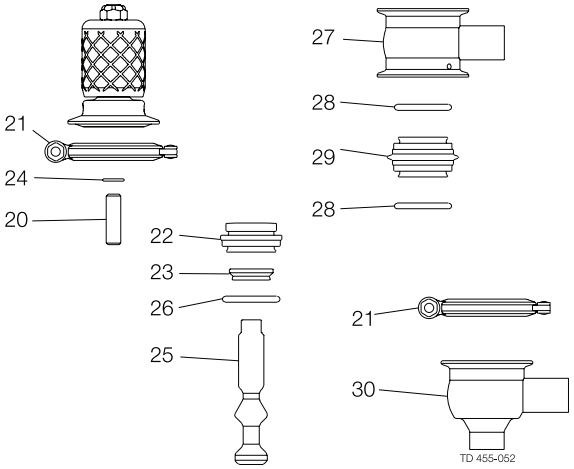


Step 4
Manual Shut-off valve
1. Complete bonnet with handle, plug extension and lock hexnut
2. Clamp (21)
3. Lower valve body (30)
4. O-ring (26)
5. Lip seal (23)
6. Sealing element (22)
7. O-ring (24)
8. Threaded pin (20)
9. Shut-off plug (25)

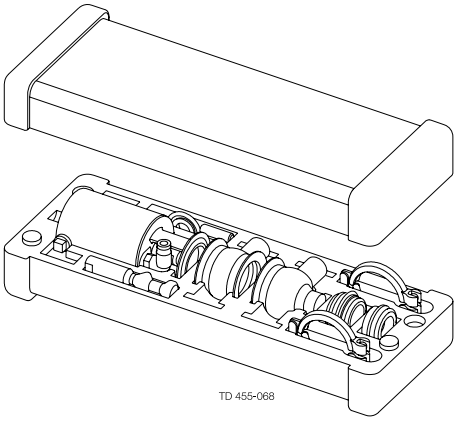


The instruction manual is part of the delivery. Study the instructions carefully.
The items refer to parts list and service kits section.
The valve is supplied as separate parts as standard (for welding).
The valve is assembled before delivery, if it is supplied with fittings.

Step 5
Manual change-over valve
1. Complete bonnet with handle, plug extension and lock hexnut
2. Change-over plug (25).
3. Two clamps (21).
4. Upper valve body (27).
5. O-ring (26).
6. Lip seal (23).
7. Sealing element (22).
8. Valve seat (29)
9. O-ring (24)
10. Threaded pin (20)
11. Two o-rings (28)
12. Lower valve body (30)

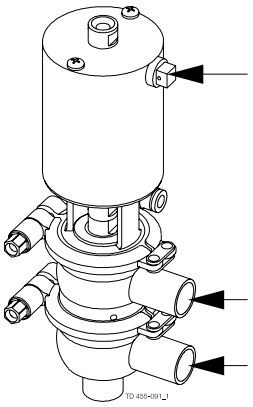


Step 6
Remove any possible packing materials from the valve/ valve parts.



Remove packing materials!

Step 7
Inspect the valve/valve parts for visible transport damages. Avoid damaging the valve/valve parts.



Inspection!

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 clamp fittings.

3.2 General installation

Step 1

Always read the technical data thoroughly.
See section 6 Technical data

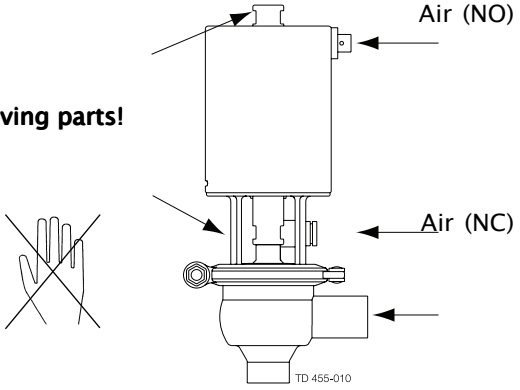
Always release compressed air after use.

CAUTION!
Alfa Laval cannot be held responsible for incorrect installation.

Step 2

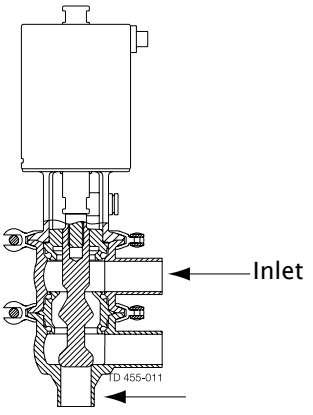
Never touch the moving parts if the actuator is supplied with compressed air.

Moving parts!



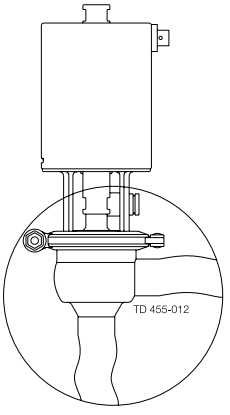
Step 3
It is recommended to install the valve so that the flow is against the closing direction to avoid water hammering.

Avoid water hammering!



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

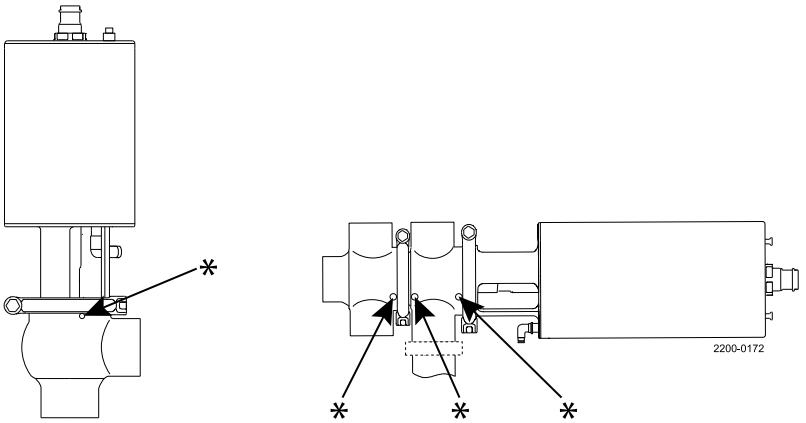
Risk of damage!



Study the instructions carefully and pay special attention to the warnings!
The valve has welding ends as standard but can also be supplied with clamp fittings.

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

3 Installation

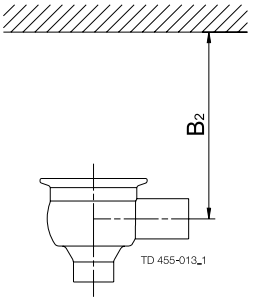
Study the instructions carefully.
The valve is supplied as separate parts to facilitate the welding. The items refer to the parts list and service kits section.
Check the valve for smooth operation after welding.
NO = Normally open. NC = Normally closed.

3.3 Welding

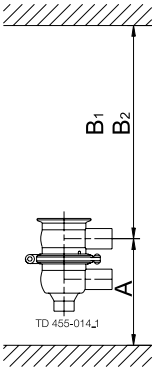
Step 1
Always weld the valve so that the seals between the valve bodies can be replaced.
Maintain the minimum clearances (A and B) so that the lower valve body and plug (change-over valve) and the actuator with the internal parts can be removed.

Valve size DN/OD	Measurements in mm (inch)		
	A	B_1	B_2 (incl. top unit)
12.7 mm	160 (6.3)	175 (6.9)	245 (9.7)
19 mm	175 (6.9)	180 (7.1)	250 (9.8)

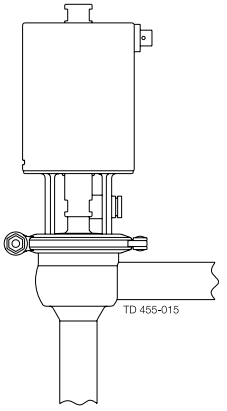
Shut-off valve



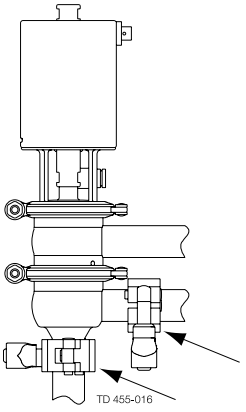
Change-over valve (upper valve body)



Step 2
Shut-off valve/manual Shut-off valve:
Assemble the valve in accordance with the steps in section 5.3 Valve assembly.
Pay special attention to the warnings!



Step 3
Change-over valve/manual change-over valve:
Assemble the valve in accordance with the steps in section 5.3 Valve assembly.
Pay special attention to the warnings!



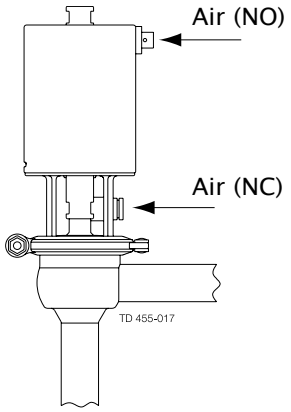
Remember seal rings!

Study the instructions carefully.
The valve is supplied as separate parts to facilitate the welding. The items refer to the parts list and service kits section.
Check the valve for smooth operation after welding.
NO = Normally open. NC = Normally closed.

Step 4
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!



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

4 Operation

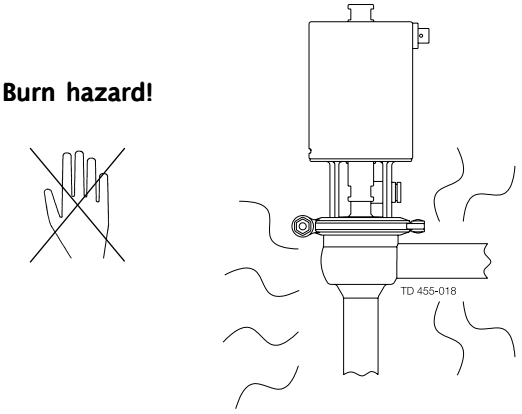
Study the instructions carefully and pay special attention to the warnings!
Ensure that the valve operates smoothly.
The items refer to the parts list and service kits section.
NO = Normally open. NC = Normally closed.

4.1 Operation

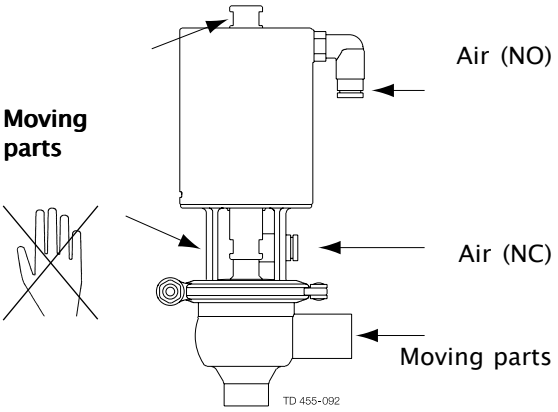
Step 1
Always read the technical data thoroughly (see chapter 5)
Always release compressed air after use.

CAUTION!
Alfa Laval cannot be held responsible for incorrect operation.

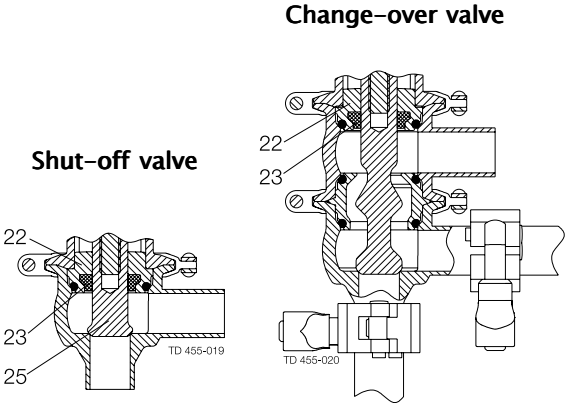
Step 2
Never touch the valve or the pipelines when processing hot liquids or when sterilizing.



Step 3
Never touch the moving parts if the actuator is supplied with compressed air.



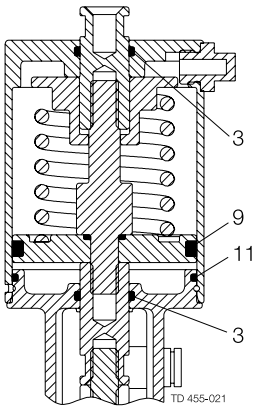
Step 4
Lubrication of valves
1. Ensure smooth movement between sealing element (22),
   lip seal (23) and plug (25).
2. Lubricate the lip seal with silicone oil/grease if necessary.



Lubricate if necessary!
(see section 5.1 General maintenance)

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

Step 5
Lubrication of actuator
1. Ensure smooth movement of the actuator (the actuator is lubricated before delivery).
2. Lubricate all seals with grease if necessary.



4.2 Trouble shooting

NOTE!

Study the maintenance instructions carefully before replacing worn parts. - See section 5.1 General maintenance!

Problem	Cause/result	Repair
The valve plug jerks	The sealings seize	Lubricate: - O-rings (3) - O-ring (9) and the inside of cylinder (1) - Lip seal (23)
Product leakage at stem and/or clamp	Worn/product affected lip seal (23) and/or o-ring (26/28)	- Replace the seals - Replace with seals of a different rubber grade
Product leakage (closed valve)	- Worn/product affected - Loose plug parts (vibrations) - Product deposits on the seat and/or plug	- Replace the plug - Tighten the loose parts - Frequent cleaning
Product leakage (too high pressure)	- Worn actuator o-rings - Too weak spring	- Replace the o-rings - Fit a stronger spring
Water hammer	The flow direction is the same as the closing direction	- The flow direction should be against the closing direction
The valve does not open/close	- Faulty plug/piston rod assembly - The pressure on the plug is too high	- Replace o-ring (24) between plug and piston rod - Reduce the pressure

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_3 = Nitric acid.

4.3 Recommeded cleaning

Step 1

Always handle lye and acid with great care.

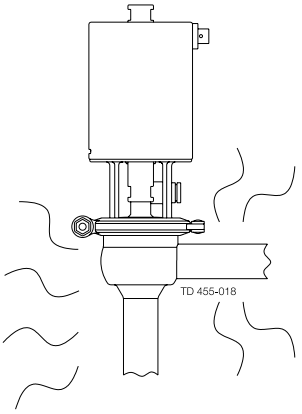
Caustic danger!

Always use rubber gloves!

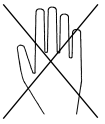
Always use protective goggles!

Step 2

Never touch the valve or the pipelines when sterilising.

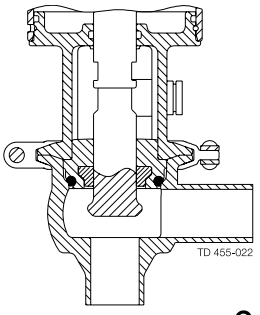


Burn hazard!

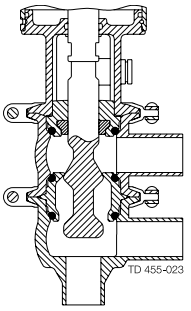


Step 3
Clean the plug and the seats correctly.
Pay special attention to the warnings

Shut-off valve



Change-over valve



Open!
Lift and lower momentarily (flip)!

Step 4
Examples of cleaning agents:
Use clean water, free from chlorides.

1. 1% by weight NaOH at 70° C (158°F)

1 kg (2.2 lb) NaOH	+	100 l (26.4 gal) water	=	Cleaning agent.
2.2 l (0.6 gal) 33% NaOH	+	100 l (26.4 gal) water	=	Cleaning agent.

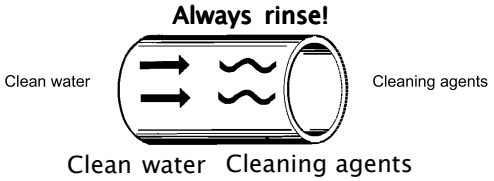
2. 0.5% by weight HNO_3 at 70° C (158°F)

0.7 l (0.2 gal) 53% HNO_3	+	100 l (26.4 gal) water	=	Cleaning agent.

The valve is designed for Cleaning In Place (= CIP).
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.
   ⇒ **Dose gradually!**
2. Adjust the cleaning flow to the process.
   ⇒ **Milk sterilization/viscous liquids**
   ⇒ **Increase the cleaning flow!**
3. **Always** rinse well with clean water after the cleaning.



Clean water Cleaning agents

Step 6

NOTE
The cleaning agents must be stored/disposed of 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

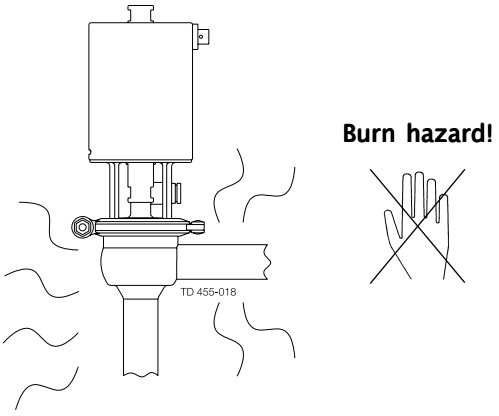
Step 1

- **Always** read the technical data thoroughly (see 6 Technical data).
- **Always** release the compressed air after use.

NOTE!
All scrap must be stored/disposed of in accordance with current rules/directives.

Step 2

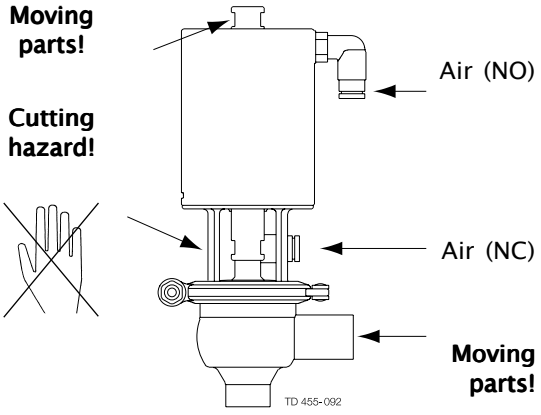
- **Never** service the valve when it is hot.
- **Never** service the valve with valve/actuator under pressure



Step 3

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

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



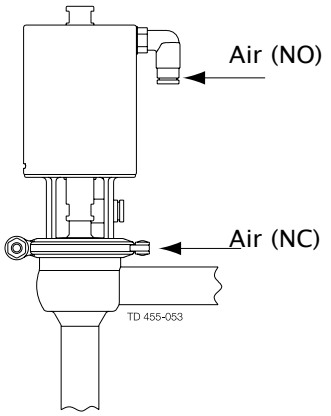
Maintain the valve regularly.
Study the instructions carefully and pay special attention to the warnings!
Always keep spare rubber seals and lip seals in stock.

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

	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 (USDA H1 approved oil/grease)	**Before fitting** Silicone oil or silicone grease	**Before fitting** Silicone oil or silicone 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.

Pay special attention to the warnings!



Recommended spare parts
Service kits (see chapter 6).
Order service kits from the service kits list
(see chapter 7 Parts list and service kits).

5 Maintenance

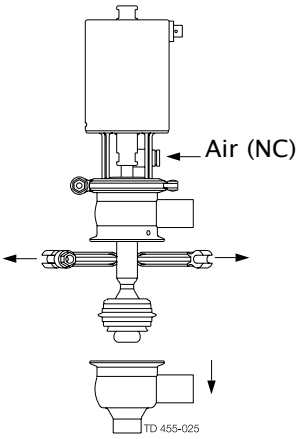
Study the instructions carefully. The items refer to the parts list and service kits section.
Handle scrap correctly.
NC = Normally closed. NO = Normally open.

5.2 Dismantling of valve

Step 1

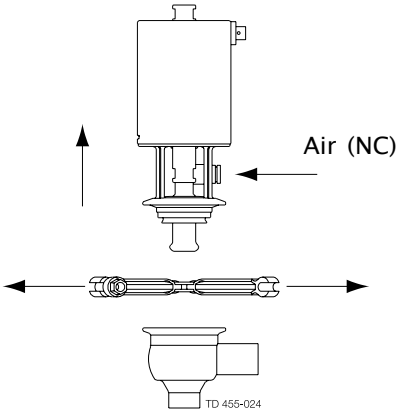
1A - Change-over valve
1. Supply compressed air to the actuator (only NC).
2. Loosen and remove lower clamp (21).
3. Remove lower valve body (30).
4. Release compressed air.

Pay special attention to the warnings!



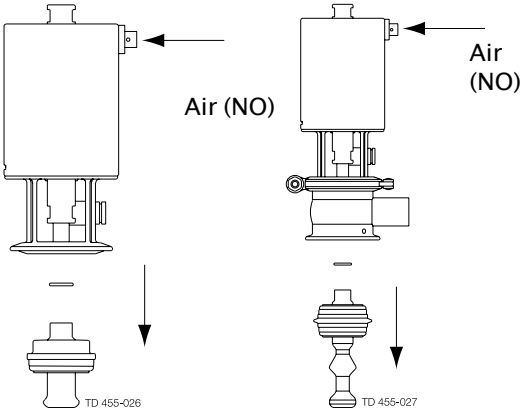
1B - Shut-off valve
1. Supply compressed air to the actuator (only NC).
2. Loosen and remove clamp (21).
3. Lift out the actuator.
4. Release compressed air.

Pay special attention to the warnings!



Step 2
1. Supply compressed air to the actuator (only NO).
2. Remove plug (25) and o-ring (24). Use 11mm spanner and counterhold on actuator shaft.
3. Release compressed air.
4. Remove o-rings (28) from seat (only change-over).

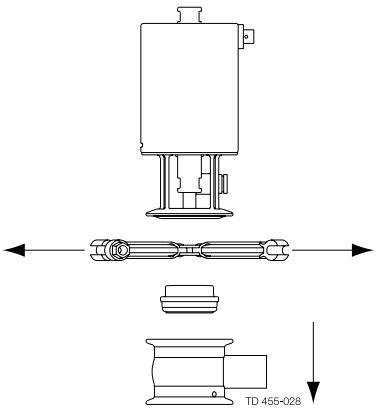
Pay special attention to the warnings!



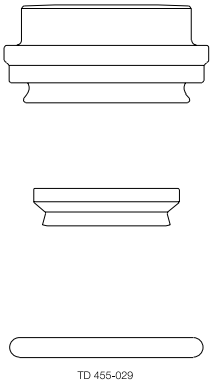
Shut-off valve **Change-over valve**

Study the instructions carefully.
The items refer to the parts list and service kits section.
Lubricate the rubber seals and the lip seal before fitting them.

Step 3
Change-over valve
1. Remove upper clamp (21).
2. Remove upper valve body (27).

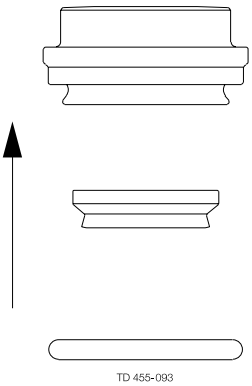


Step 4
Remove lip seal (23) and o-ring (26) from sealing element (22).



5.3 Valve assembly

Step 1
Fit lip seal (23) and o-ring (26) on sealing element (22).

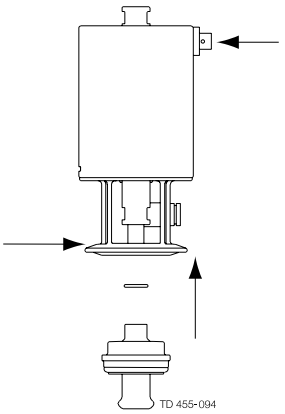


5 Maintenance

Study the instructions carefully.
The items refer to the parts list and service kits section.
Lubricate the rubber seals and the lip seal before fitting them.

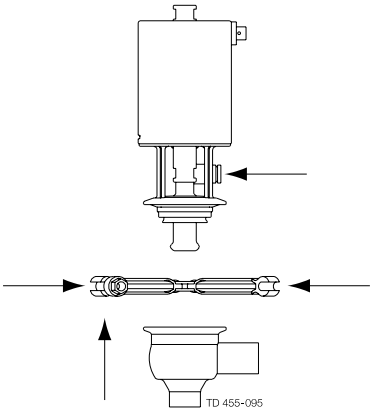
Step 2
Shut-off valve
1. Supply compressed air to the actuator (only NO).
2. Fit threaded pin (20) using Loctite 326 or similar glue.
3. Fit sealing element (22), plug (25) and o-ring (24).
4. Release compressed air.

Pay special attention to the warnings!

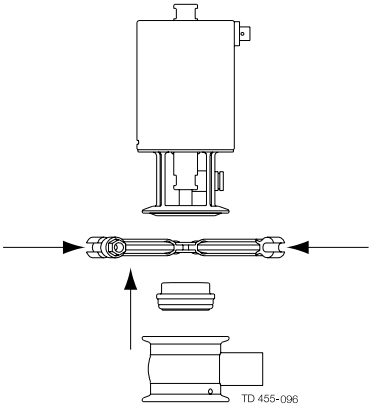


Step 3
Shut-off valve
1. Supply compressed air to the actuator (only NC).
2. Fit the actuator.
3. Fit and tighten clamp (21).
4. Release compressed air.

Pay special attention to the warnings!



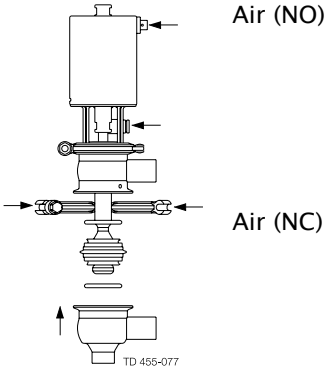
Step 4
Change-over valve
1. Fit threaded pin (20) using Loctite 326 or similar glue.
2. Assemble upper valve body (27), sealing element (22) and the actuator.
3. Fit and tighten upper clamp (21).



Step 5
Change-over valve
1. Supply compressed air to the actuator (only NO).
2. Fit o-rings (28) on valve seat (29).
3. Fit valve seat (29), o-ring (24) and plug (25). Use 11 mm spanner to counterhold actuator stem.
4. Gently release compressed air (NO).
5. Supply compressed air (only NC).
6. Assemble lower and upper valve bodies (27 and 30).
7. Fit and tighten lower clamp (21).
8. Release compressed air (NC).

Pay special attention to the warnings!

Turn the diagonal surface of valve seat (29) upwards!

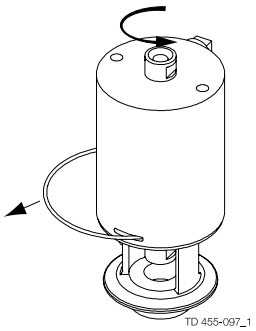


Study the instructions carefully.
The items refer to the parts list and service kits section. Handle scrap correctly

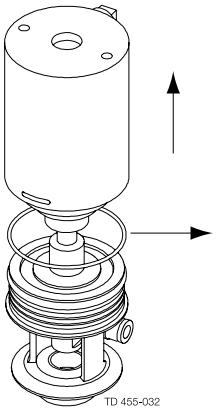
5.4 Dismantling of actuator

Step 1
1. Remove cylinder (1).
2. Remove lock wire (12).

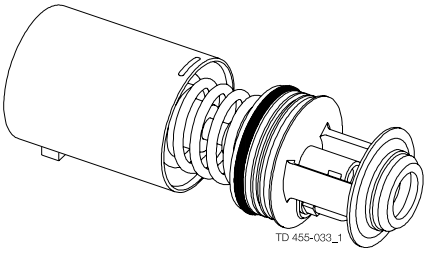
Rotate by hand or with filter strap!



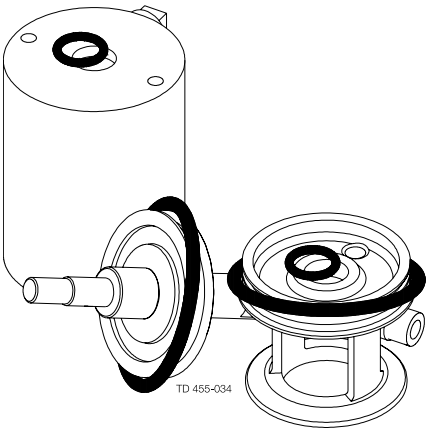
Step 2
1. Remove cylinder (1).
2. Remove o-rings (3, 11) from bonnet (13) and o-ring (3) from cylinder (1).



Step 3
1. Remove piston/spring package.
2. Remove o-ring (9) from the piston (10).



Step 4
Replace the rubber seals

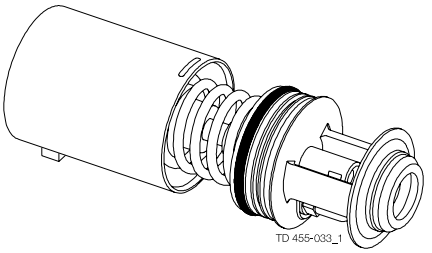


5 Maintenance

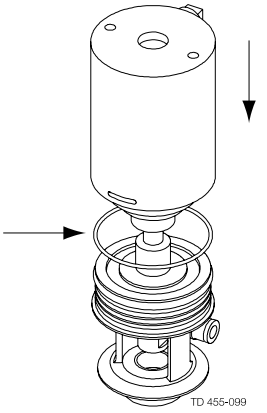
Study the instructions carefully.
The items refer to the parts list and service kits section.
Lubricate the rubber seals before fitting them.

5.5 Assembly of actuator

Step 1
1. Fit o-ring (9) on piston (10).
2. Fit the piston/spring package.

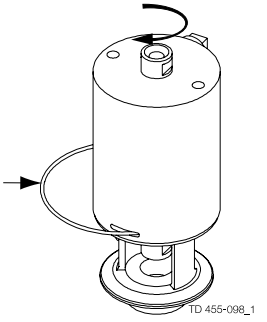


Step 2
1. Fit o-rings (3, 11) in bonnet (13) and o-ring (3) on cylinder (1).
2. Fit the cylinder.

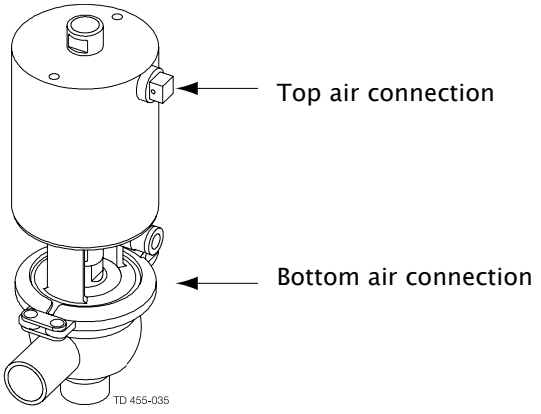


Step 3
1. Fit lock wire (12) through the slot in cylinder (1) into the hole in bonnet (13).
2. Rotate the cylinder 360° (see step 4).

Rotate by hand or with filter strap!



Step 4
NOTE!
It is recommended to rotate cylinder (1) further 180° in relation to bonnet (13) so that the top and bottom air connections are fixed on the same side.



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

6.1 Technical data

The valve is remote-controlled by means of compressed air or manually operated. The small single seat valve is very reliable due to its simple design and few moving parts.

Standard Design The Small Single Seat Valve comes as a pneumatic or manual operated in either a one or two body configuration.

The plug is a PVDF plug. All components are assembled by means of clamp rings, whereas the piston and valve plug have a threaded connection.

Technical data - valve/actuator	
Max. product pressure	1000 kPa (10 bar) (145 psi)
Min. product pressure	Full vacuum
Temperature range	-10°C to + 140°C (14°F to 284°F) (EPDM)
Air pressure, actuator	100 to 700 kPa (1 to 7 bar) (14.5 to 101.5 psi)
Materials - valve/actuator	
Product wetted steel parts	Acid-resistant steel 1.4404 (AISI 316L)
Finish, outside	Semi bright
Finish, inside	Ra ≤ 0.5µm
Other steel parts	Stainless steel 1.4307 (AISI 304L)
Plug	PVDF
Product wetted seals	EPDM
Actuator seals	Nitrile (NBR)
Alternative product wetted seals	HNBR and FPM

Weight (kg)

Nominal Size	Remote-controlled		Manually operated	
	DN/OD		DN/OD	
	12.7mm	19mm	12.7mm	19mm
Weight (kg) - Shut-off valve	1.07	1.10	0.5	0.53
Weight (kg) - Change-over valve	1.36	1.41	0.8	0.85

Noise

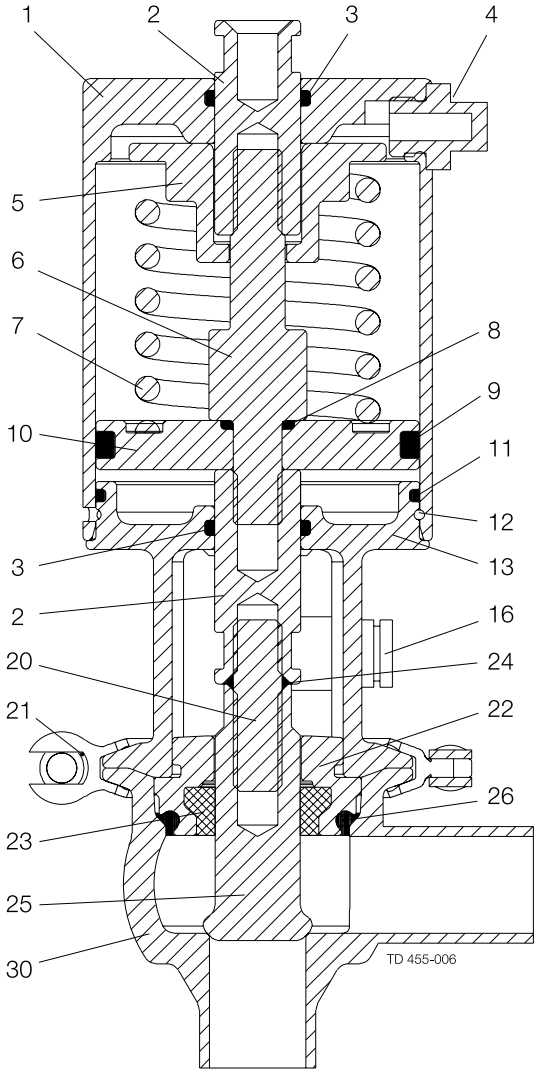
One meter away from - and 1.6 meter above the exhaust the noise level of a valve actuator will be approximately 77db(A) without noise damper and approximately 72 db(A) with damper - Measured at 7 bars air-pressure.

7 Parts list and service kits

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

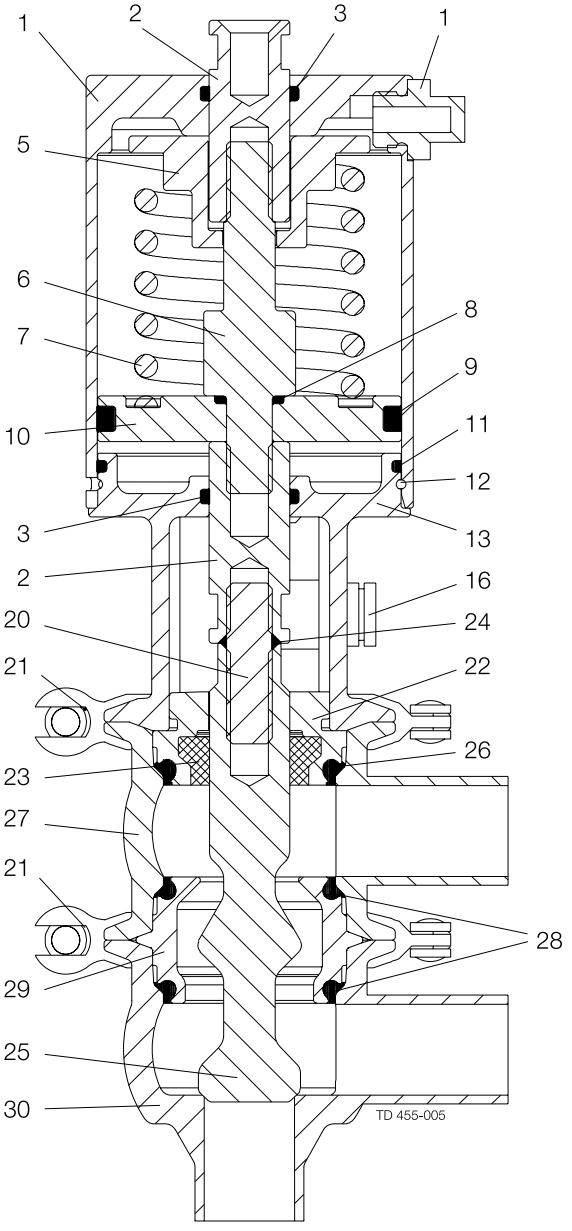
7.1 Drawings

See parts list in section 7.2 Small Single Seat Valve - Shut-off Valve 12.7-19mm



Small Single Seat Valve
Shut-off Valve DN/OD12.7-19mm

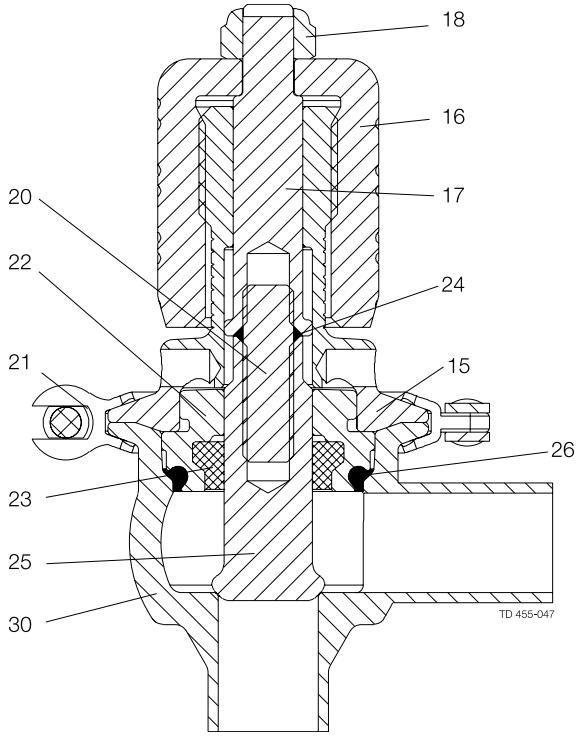
See parts list in section 7.3 Small Single Seat Valve - Change-over Valve 12.7-19 mm



Small Single Seat Valve
Change-Over Valve DN/OD12.7-19mm

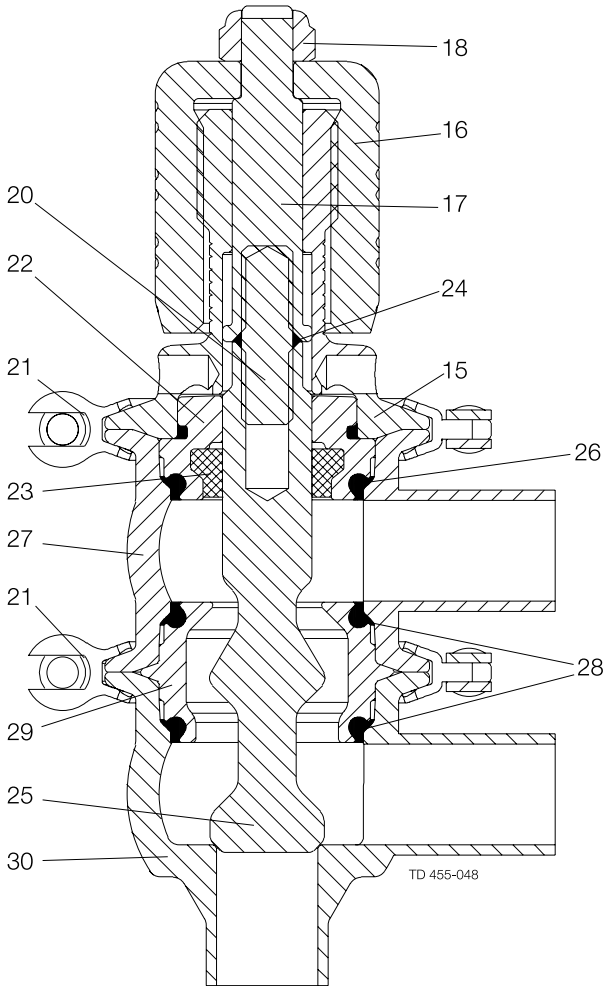
It is important to observe the technical data during installation, operation and maintenance.
Inform the personnel about the technical data.

See parts list in section 7.4 Small Single Seat Valve - Shut-off Valve Manual 12.7-19 mm



Small Single Seat Valve
Manual Shut-off Valve DN/OD12.7-19mm

See parts list in section 7.5 Small Single Seat Valve - Change-over Valve Manual 12.7-19 mm

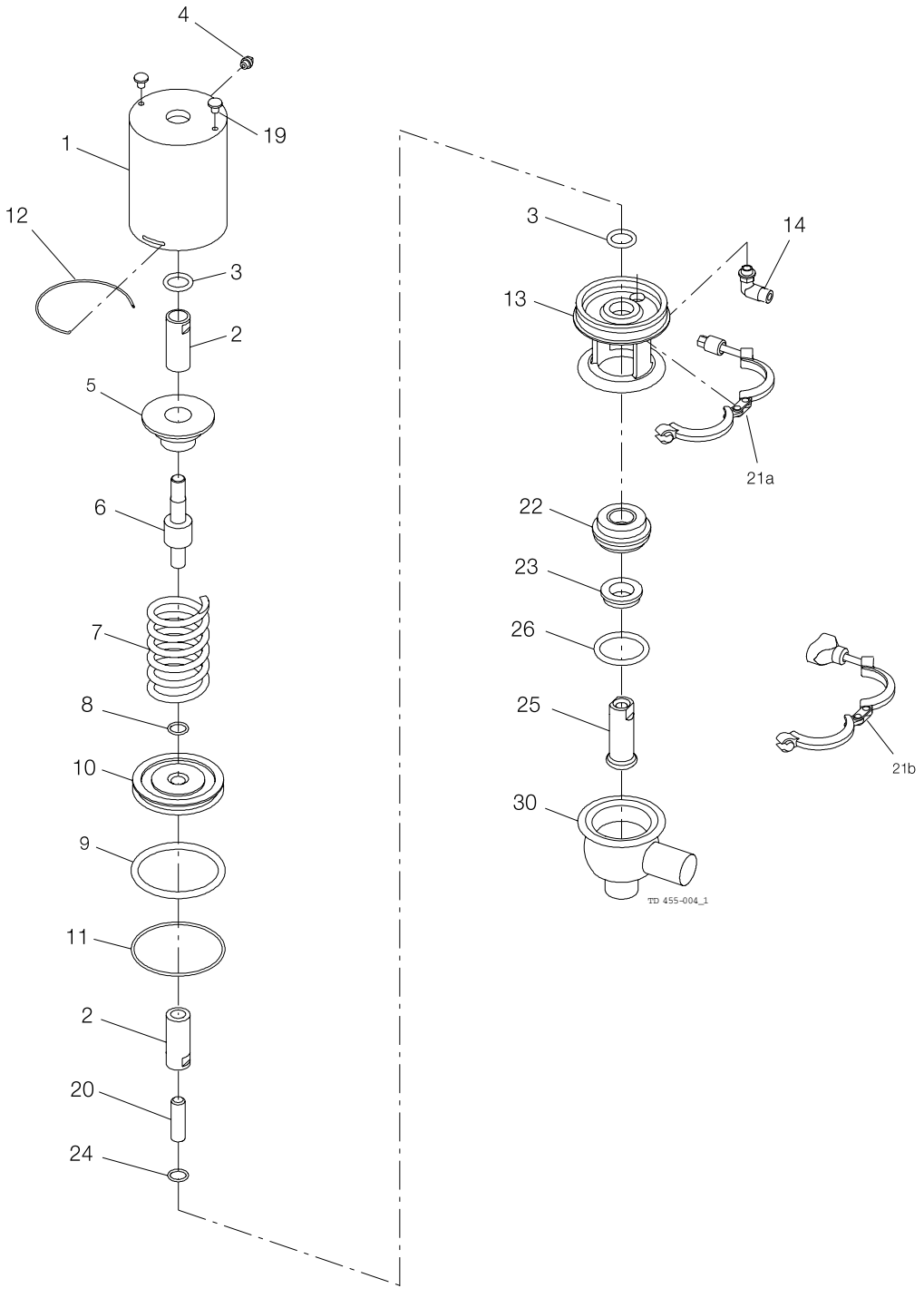


Small Single Seat Valve
Manual Change-Over Valve DN/OD12.7-19mm

7 Parts list and service kits

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

7.2 Small Single Seat Valve - Shut-off Valve 12.7-19mm



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

Parts list

Pos.		Qty	Denomination
1		1	Cylinder
2		2	Middle piece
3	□	2	O-ring
4		1	Plug
5		1	Guide pin
6		1	Piston rod
7		1	Spring
8		1	O-ring
9	□	1	O-ring
10		1	Piston
11	□	1	O-ring
12		1	Lock wire
13		1	Bonnet
14		1	Air fitting
19		2	Screw
20		1	Threaded pin
21a		1	Clamp with hexnut
21b		1	Clamp with wingnut
22		1	Sealing element
23	◆	1	Lip seal
24	◆	1	O-ring
25	◆	1	Stop plug
26	◆	1	O-ring
30		1	Lower valve body

Service kits

	Denomination	12.7 mm	19 mm
Service kit for actuator			
□	**Service kit, NBR**	**9611926323**	**9611926323**
Service kits for product wetted parts, standard			
◆	**Service kits, EPDM**	**9611926319**	**9611926330**
◆	**Service kits, HNBR**	**9611926317**	**9611926328**
◆	**Service kits, FPM**	**9611926318**	**9611926329**

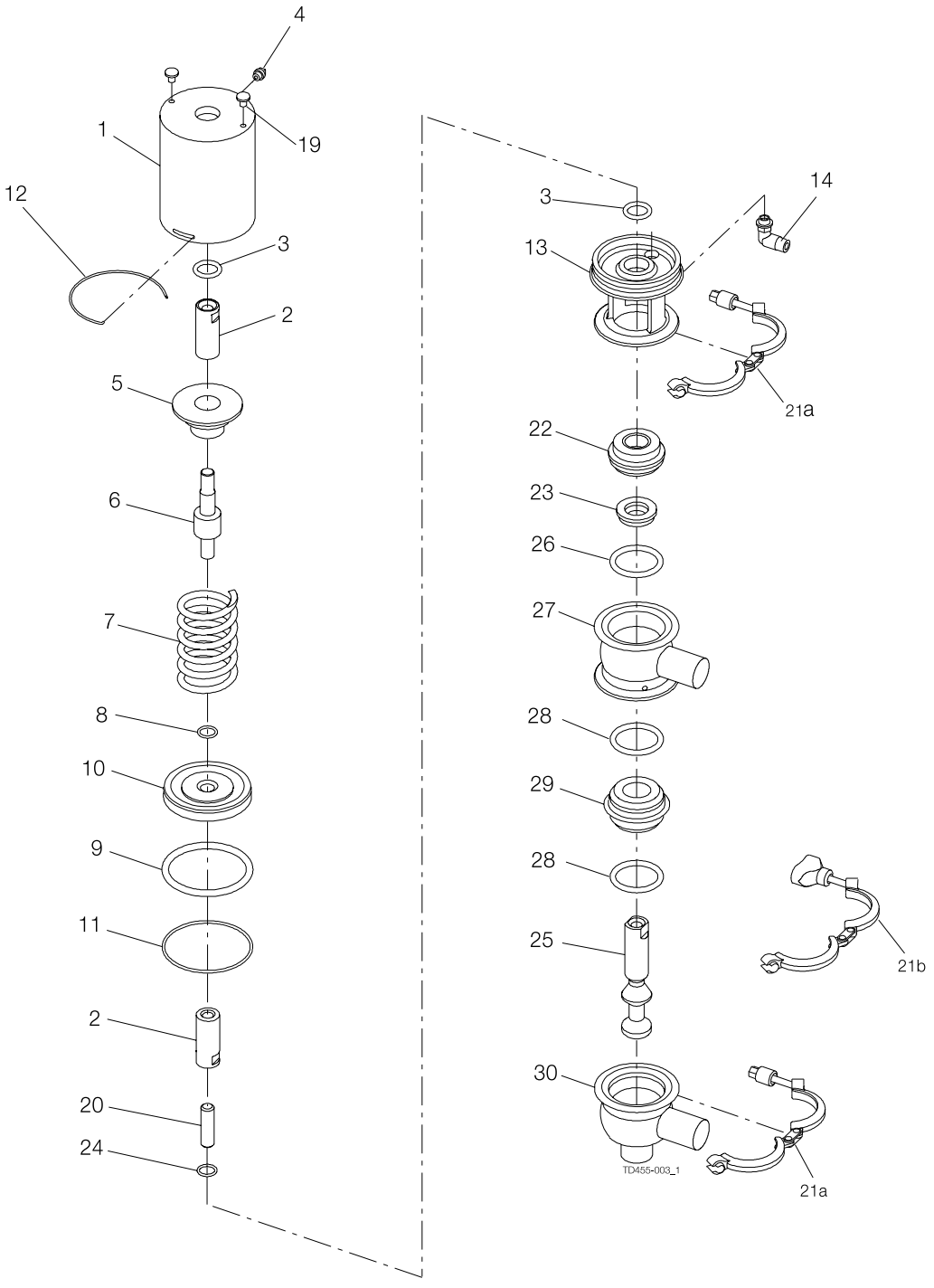
Parts marked with □◆ are included in the service kit.
Recommended spare parts: service kits.

TD 900218/1

7 Parts list and service kits

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

7.3 Small Single Seat Valve - Change-over Valve 12.7-19 mm



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

Parts list

Pos.		Qty	Denomination
1		1	Cylinder
2		2	Middle piece
3	□	2	O-ring
4		1	Plug
5		1	Guide pin
6		1	Piston rod
7		1	Spring
8		1	O-ring
9	□	1	O-ring
10		1	Piston
11	□	1	O-ring
12		1	Lock wire
13		1	Bonnet
14		1	Air fitting
19		2	Screw
20		1	Threaded pin
21a		2	Clamp with hexnut
21b		2	Clamp with wingnut
22		1	Sealing element
23	◆	1	Lip seal
24	◆	1	O-ring
25	◆	1	Change-over plug
26	◆	1	O-ring
27		1	Upper valve body
28	◆	2	O-ring
29		1	Valve seat
30		1	Lower valve body

Service kits

	Denomination	12.7 mm	19 mm
Service kits for actuator			
□	**Service kit, NBR**	**9611926323**	**9611926323**
Service kits for product wetted parts, standard			
◆	**Service kits, EPDM**	**9611926322**	**9611926333**
◆	**Service kits, HNBR**	**9611926320**	**9611926331**
◆	**Service kits, FPM**	**9611926321**	**9611926332**

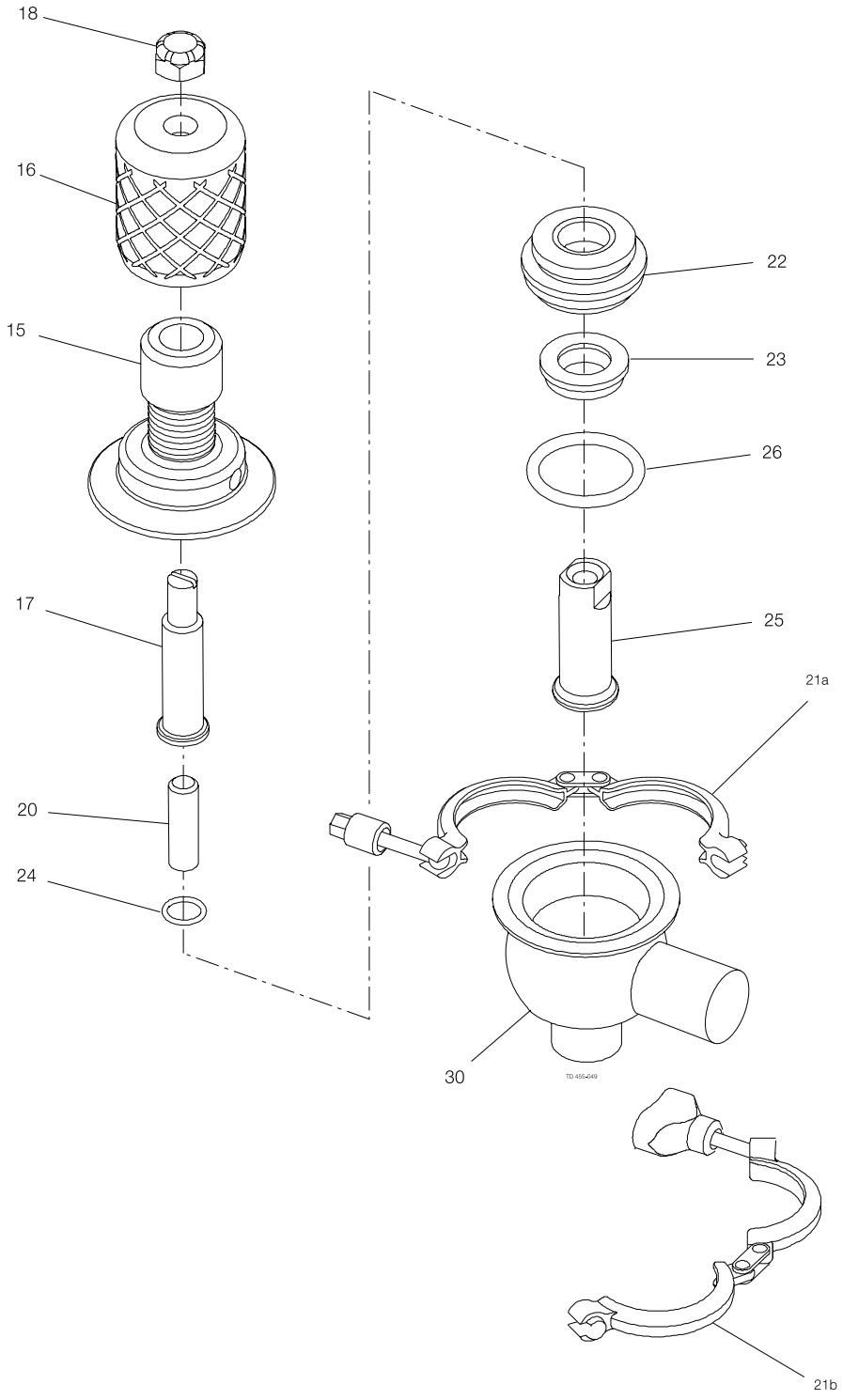
Parts marked with □◆ are included in the service kit.
Recommended spare parts: service kits.

TD 900219/1

7 Parts list and service kits

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

7.4 Small Single Seat Valve - Shut-off Valve Manual 12.7-19 mm



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

Parts list

Pos.	Qty	Denomination
15	1	Manual bonnet
16	1	Handle
17	1	Stem extension
18	1	Lock nut
20	1	Threaded pin
21a	1	Clamp with hexnut
21b	1	Clamp with wingnut
22	1	Sealing element
23 ◆	1	Lip seal
24 ◆	1	O-ring
25 ◆	1	Stop plug
26 ◆	1	O-ring
30	1	Lower valve body

Service kits

	Denomination	12.7 mm	19 mm
Service kits for actuator			
□	**Service kit, NBR**	**9611926323**	**9611926323**
Service kits for product wetted parts, standard			
◆	**Service kits, EPDM**	**9611926319**	**9611926330**
◆	**Service kits, HNBR**	**9611926317**	**9611926328**
◆	**Service kits, FPM**	**9611926318**	**9611926329**

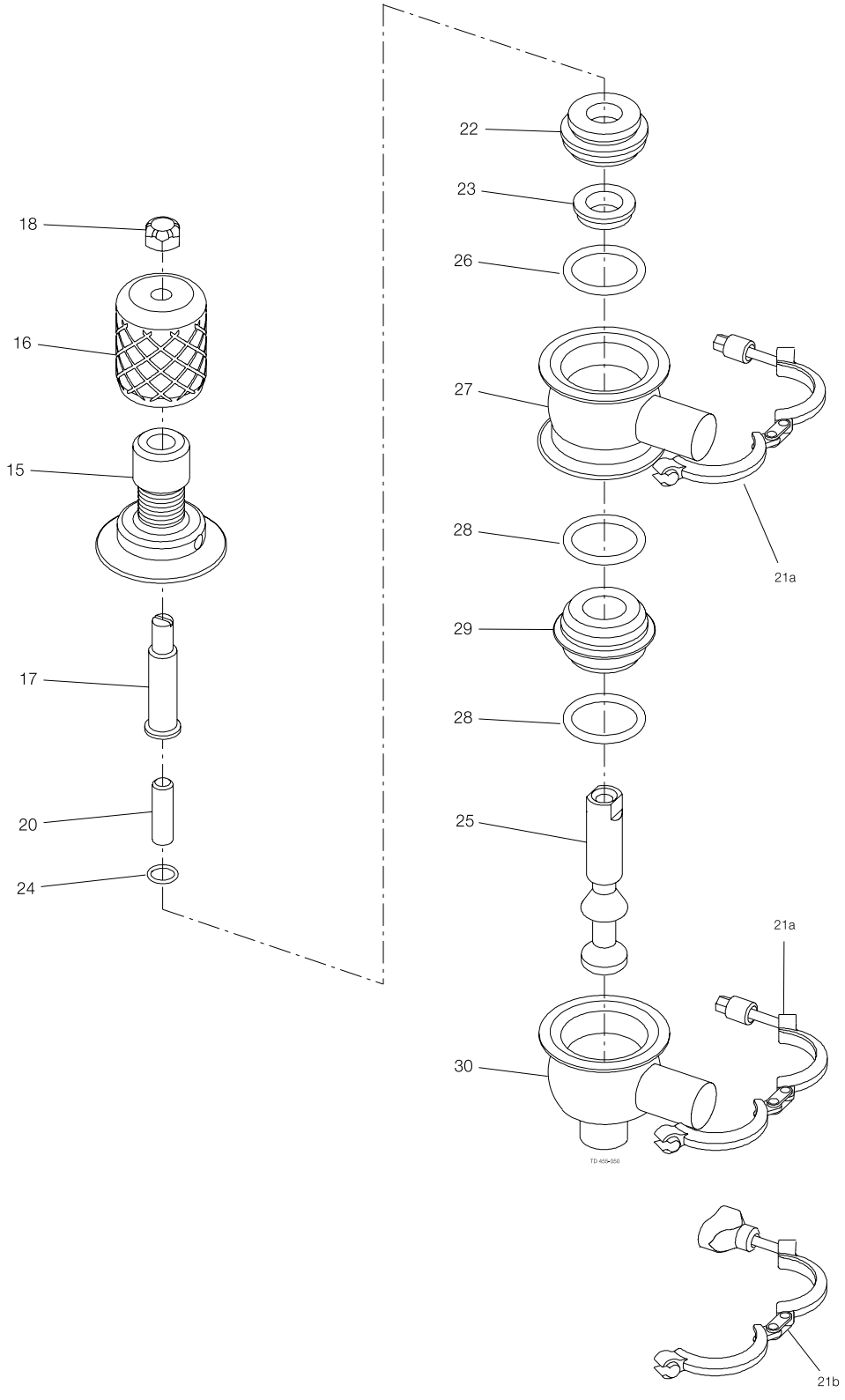
Parts marked with □◆ are included in the service kit.
Recommended spare parts: service kits.

TD 900220/1

7 Parts list and service kits

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

7.5 Small Single Seat Valve - Change-over Valve Manual 12.7-19 mm



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

Parts list

Pos.	Qty	Denomination
15	1	Manual bonnet
16	1	Handle
17	1	Stem extension
18	1	Lock nut
20	1	Threaded pin
21a	2	Clamp with hexnut
21b	2	Clamp with wingnut
22	1	Sealing element
23 ◆	1	Lip seal
24 ◆	1	O-ring
25 ◆	1	Change-over plug
26 ◆	1	O-ring
27	1	Upper valve body
28 ◆	2	O-ring
29	1	Valve seat
30	1	Lower valve body

Service kits

	Denomination	12.7 mm	19 mm
Service kits for actuator			
□	**Service kit, NBR**	**9611926323**	**9611926323**
Service kits for product wetted parts, standard			
◆	**Service kits, EPDM**	**9611926322**	**9611926333**
◆	**Service kits, HNBR**	**9611926320**	**9611926331**
◆	**Service kits, FPM**	**9611926321**	**9611926332**

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

TD 900221/1

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.