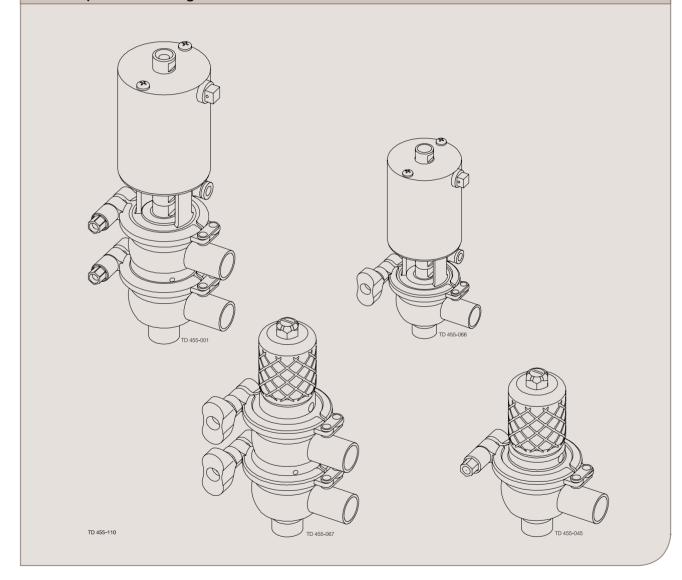


# Instruction Manual

# Unique Small Single Seat Valve



ESE02232-EN7

2022-10

Original manual

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

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# 1 Declarations of Conformity

EU Declaration of Conformity		
The Designated Company		
Alfa Laval Kolding A/S, Albuen 31, DK-6000 Kolding, De	enmark, +45 79 32 22 00	
Company name, address and phone number		
Hereby declare that		
<u>Valve</u> Designation		
Size: 12,7mm PN10, Size: 19mm PN10		
is in conformity with the following directives with amend	ments:	
<ul> <li>- Machinery Directive 2006/42/EC</li> <li>- Pressure Equipment Directive 2014/68/EU category 1</li> </ul>	and subjected to assessment prod	cedure Module A
The person authorised to compile the technical file is the	e signer of this document.	
' '	Ŭ	
Global Product Quality Manage	r	Lars Kruse Andersen Name
		A
Kolding, Denmark	2022–10–01	4
Place	Date (YYYY-MM-DD)	Signature
Ti D I II (0 ( II I D I II I )	. ( ''	
This Declaration of Conformity replaces Declaration of C	Conformity dated 2016-06-01	
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# 1 Declarations of Conformity

UK Declaration of Conformity		
The Designated Company		
Alfa Laval Kolding A/S, Albuen 31, DK-6000 Kolding Company name, address and phone number	g, Denmark, +45 79 32 22 00	
Hereby declare that		
Valve Designation		
Size: 12,7mm PN10, Size: 19mm PN10 Type		
is in conformity with the following directives with am - The Supply of Machinery (Safety) Regulations 200 - The Pressure Equipment (Safety) Regulations 2016	nendments: 8 3 category 1 and subjected to	assessment procedure Module A
Signed on behalf of: Alfa Laval Kolding A/S		
Global Product Quality Man	nager	Lars Kruse Andersen
Title		Name
Kolding, Denmark	2022-10-01 Date (YYYY-MM-DD)	Signature
		-
DoC Revison_01_102022		
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55

# 2 Safety

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

### Important information 2.1

# Always read the manual before using the valve!

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

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:	$\bigwedge$
Caustic agents:	$\triangle$

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**

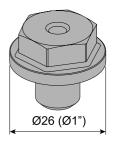
If support air is utilised:



- 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.

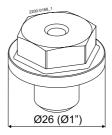


### Pos. no. 5



### Pos. no. 5

For actuators, manufactured year 2019 --> with serial number from 6000000 to 7000000 and from 60000000000 to 7000000000 always use steel adapter (pos 5) = 9615374701
Tighten torque = 15 Nm



# Pos. no. 5



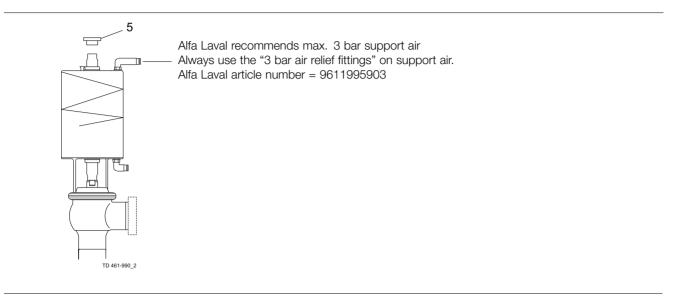
### Pos. no. 5

For actuators, manufactured year 2019 --> with serial number from 6000000 to 7000000 and from 6000000000 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.



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





### 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

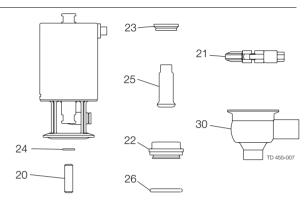
### Check the delivery for:

- 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

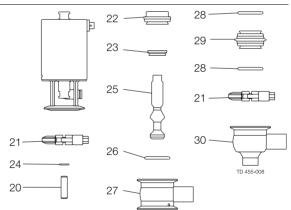
- 1. Complete actuator with bonnet
- 2. Lip seal (23)
- 3. Clamp (21)
- 4. Shut-off plug (25)
- 5. Lower valve body (30)
- 6. O-ring (26)
- 7. Threaded pin (20)
- 8. Sealing element (22)
- 9. O-ring (24)



### Step 3

### Change-over valve

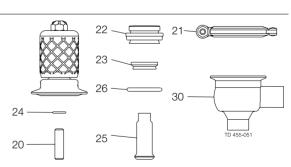
- 1. Complete actuator with bonnet
- 2. Lip seal (23)
- 3. Two clamps (21)
- 4. Change-over plug (25)
- 5. Upper valve body (27)
- 6. Valve seat (29)
- 7. O-ring (26)
- 8. Threaded pin (20)
- 9. Sealing element (22)
- 10. O-ring 24)
- 11. Two o-rings (28)
- 12. Lower valve body (30)



### 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.

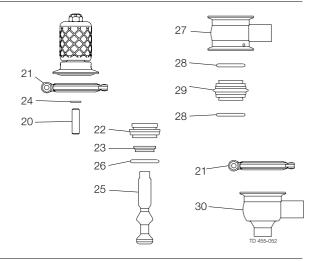
The valve is supplied as separate parts as standard (for welding).

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

### Step 5

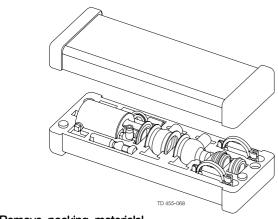
### Manual change-over valve

- 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

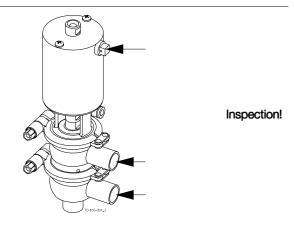
Remove any possible packing materials from the valve/ valve parts.



Remove packing materials!

### Step 7

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



# 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

Alvania 1200

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



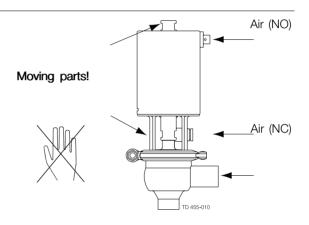
Always release compressed air after use.

### **CAUTION!**

Alfa Laval cannot be held responsible for incorrect installation.

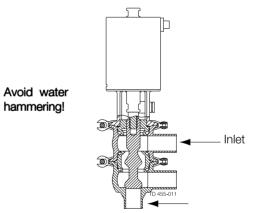
# Step 2

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



### Step 3

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

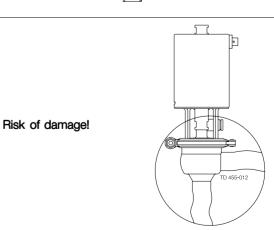


### Step 4

Avoid stressing the valve.

# Pay special attention to

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



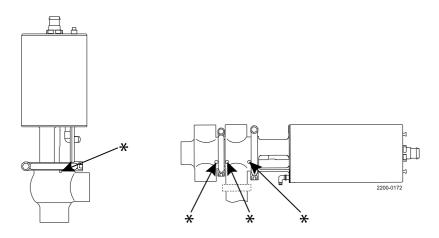
Study the instructions carefully and pay special attention to the warnings!

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.



<sup>\* =</sup> 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.

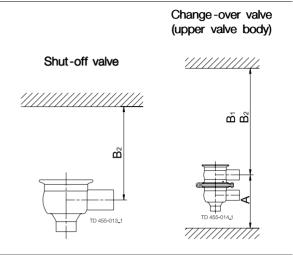
# 3.3 Welding

# 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	Measurements in mm (inch)			
DN/OD	Α	B <sub>1</sub>	B <sub>2</sub> (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)	

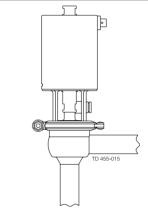


Step 2

# 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!

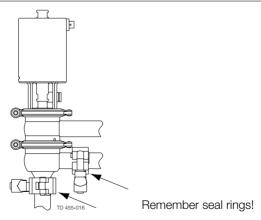


Step 3

### 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!



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.

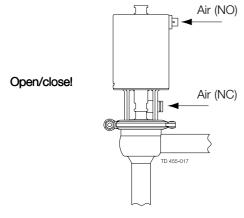
NO = Normally open. NC = Normally closed.

### Step 4

### Pre-use check

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

# Pay special attention to the warnings!



# 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)

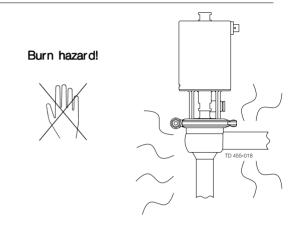
Always release compressed air after use.

### **CAUTION!**

Alfa Laval cannot be held responsible for incorrect operation.

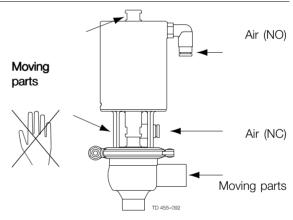
### Step 2

**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.

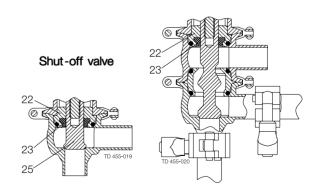


Step 4

### 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.

Change-over valve



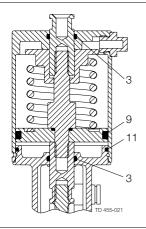
Lubricate if necessary!

(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/r esult	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)	<ul><li>Replace the seals</li><li>Replace with seals of a different rubber grade</li></ul>
Product leakage (closed valve)	<ul><li>Worn/product affected</li><li>Loose plug parts (vibrations)</li><li>Product deposits on the seat and/or plug</li></ul>	<ul><li>Replace the plug</li><li>Tighten the loose parts</li><li>Frequent cleaning</li></ul>
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	<ul><li>Faulty plug/piston rod assembly</li><li>The pressure on the plug is too high</li></ul>	<ul><li>Replace o-ring (24) between plug and piston rod</li><li>Reduce the pressure</li></ul>

# 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!





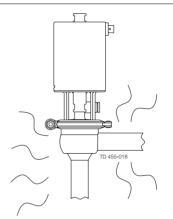


**Always** use protective goggles!

### Step 2



Never touch the valve or the pipelines when sterilising.



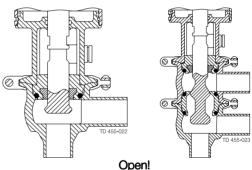
Burn hazard!



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

Shut-off valve

Change-over valve



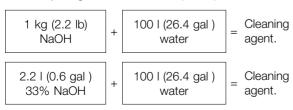
Lift and lower momentarily (flip)!

Step 4

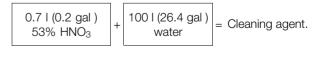
### Examples of cleaning agents:

Use clean water, free from chlorides.

1. 1% by weight NaOH at 70° C (158°F)



2. 0.5% by weight HNO<sub>3</sub> at 70° C (158°F)



The valve is designed for Cleaning In Place (= CIP).

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

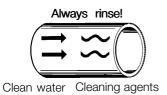
NaOH = Caustic Soda.

 $HNO_3 = Nitric \ acid.$ 

### 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.



# 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.

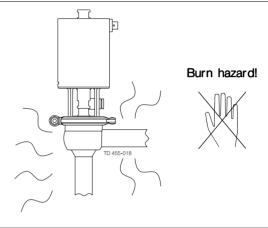
All scrap must be stored/disposed of in accordance with current rules/directives.

# Step 2



Never service the valve when it is hot.

Never service the valve with valve/actuator under pressure



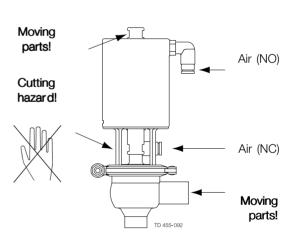
# Step 3



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	<ul> <li>Regular inspection for leakage and smooth operation</li> <li>Keep a record of the valve</li> <li>Use the statistics for planning of inspections</li> </ul> Replace after leakage	Replace when replacing the rubber seals	<ul> <li>Regular inspection for leakage and smooth operation</li> <li>Keep a record of the actuator</li> <li>Use the statistics for planning of inspections</li> <li>Replace after leakage</li> </ul>
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

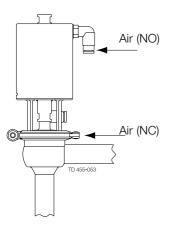
### Pre-use check:

- 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).



# 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.

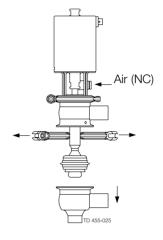
### 5.2 Dismantling of valve

### Step 1

## 1A - Change-over valve

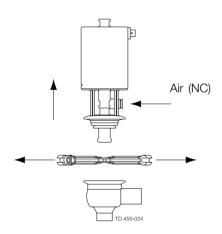
- 1. Supply compressed air to the actuator (only NC).
- 2. Loosen and remove lower clamp (21).
- 3. Remove lower valve body (30).
- 4. Release compressed air.

### Pay special attention to the warnings!



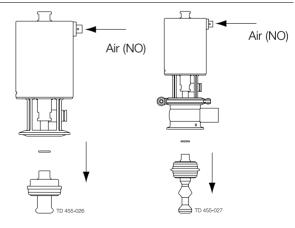
- 1B Shut-off valve1. Supply compressed air to the actuator (only NC).
- 2. Loosen and remove clamp (21).
- 3. Lift out the actuator.
- 4. Release compressed air.

### Pay special attention to the warnings!



- 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.

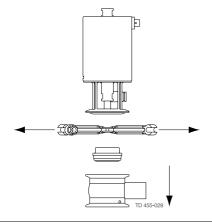
The items refer to the parts list and service kits section.

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

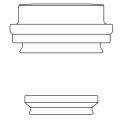
# Step 3

# Change-over valve

- Remove upper clamp (21).
   Remove upper valve body (27).



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

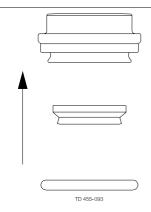




# 5.3 Valve assembly

# 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.

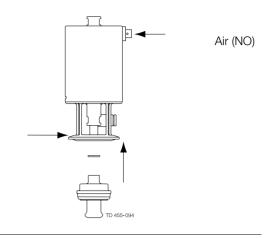
Lubricate the rubber seals and the lip seal before fitting them.

### 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!

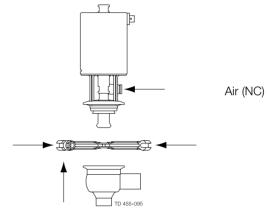


### Step 3

### 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.

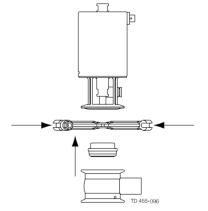
### Pay special attention to the warnings!



# 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).

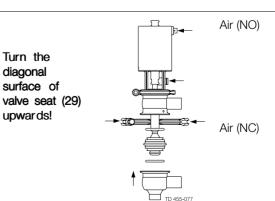


### Step 5

# 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!



Study the instructions carefully.

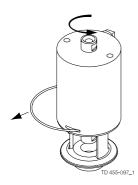
The items refer to the parts list and service kits section. Handle scrap correctly

# 5.4 Dismantling of actuator

# Step 1

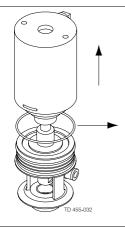
- 1. Remove cylinder (1).
- 2. Remove lock wire (12).

# Rotate by hand or with filter strap!



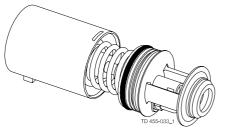
# Step 2

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



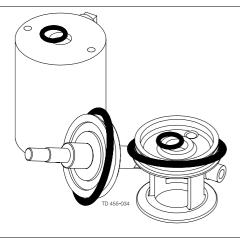
# Step 3

- Remove piston/spring package.
   Remove o-ring (9) from the piston (10).



### Step 4

Replace the rubber seals



# 5 Maintenance

Study the instructions carefully.

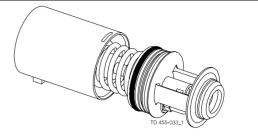
The items refer to the parts list and service kits section.

Lubricate the rubber seals before fitting them.

# 5.5 Assembly of actuator

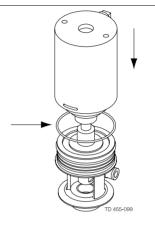
# Step 1

- 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

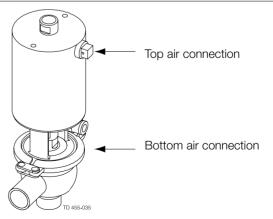
- 1. Fit lock wire (12) through the slot in cylinder (1) into the hole in bonnet (13).
- 2. Rotate the cylinder 360° (see step 4).

# 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.



### 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)

	Remote -controlled		Manually operated		
Nominal Size	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.

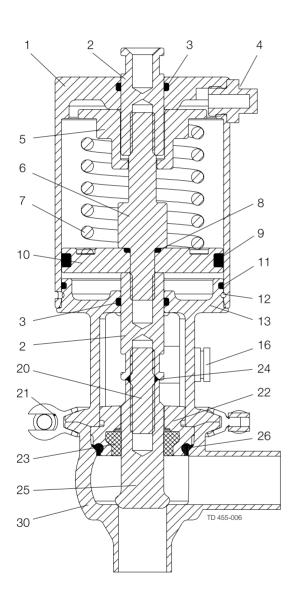
# 7 Parts list and service kits

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

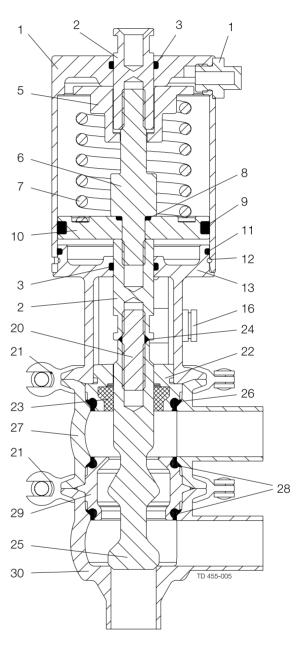
# 7.1 Drawings

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

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



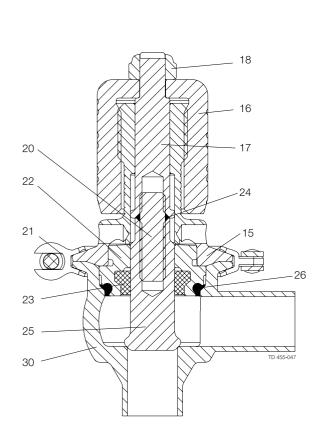
Small Single Seat Valve Shut-off Valve DN/OD12.7 -19mm



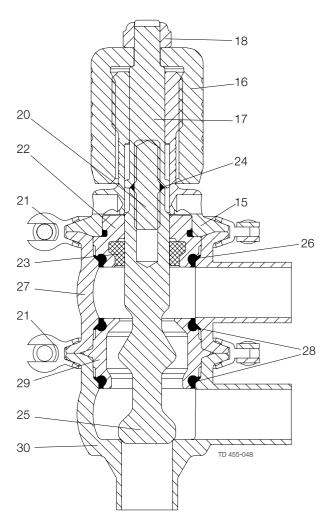
Small Single Seat Valve Change-Over Valve DN/OD12.7 -19mm

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

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



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

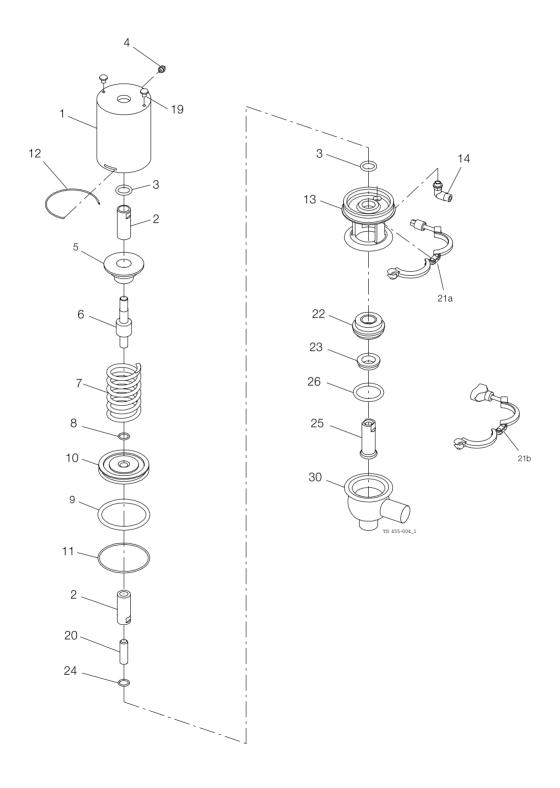


Small Single Seat Valve Manual Change-Over Valve DN/OD12.7 -19mm

# 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



# Parts list

Pos.	Qty	Denomination
1	1	Cylinder
2	2	Middle piece
3 🗆	2	O-ring
4	1	Plug
5	1	Guide pin
6 7	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		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

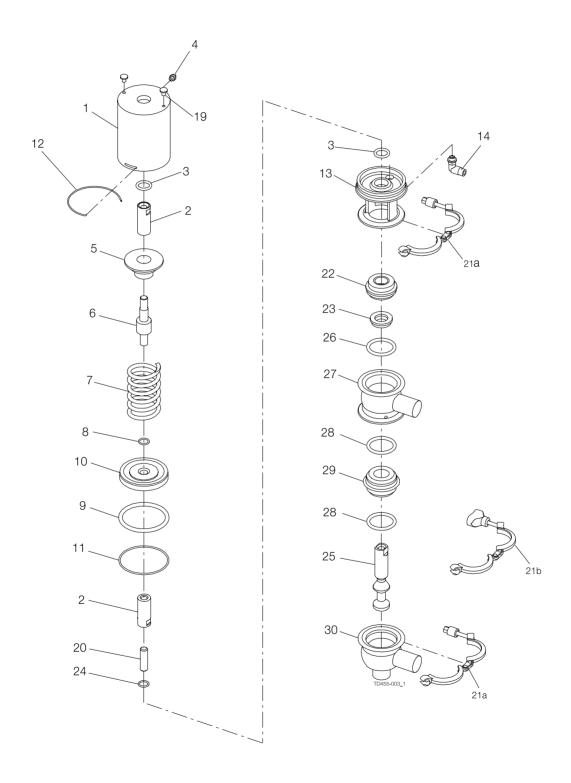
	Denomination	12.7 mm	19 mm
Service	e kit for actuator Service kit, NBR	9611926323	9611926323
Service	e kits for product wetted parts, standard		
<b>*</b>	Service kits, EPDM	9611926319	9611926330
•	Service kits, HNBR	9611926317	9611926328
•	Service kits, FPM	9611926318	9611926329

Parts marked with □◆ are included in the service kit.

Recommended spare parts: service kits.

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



# Parts list

Pos.	Qty	Denomination	
1	1	Cylinder	
2	2	Middle piece	
3 🗆	2	O-ring	
4	1	Plug	
5	1	Guide pin	
6 7	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		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  $\square \bullet$  are included in the service kit.

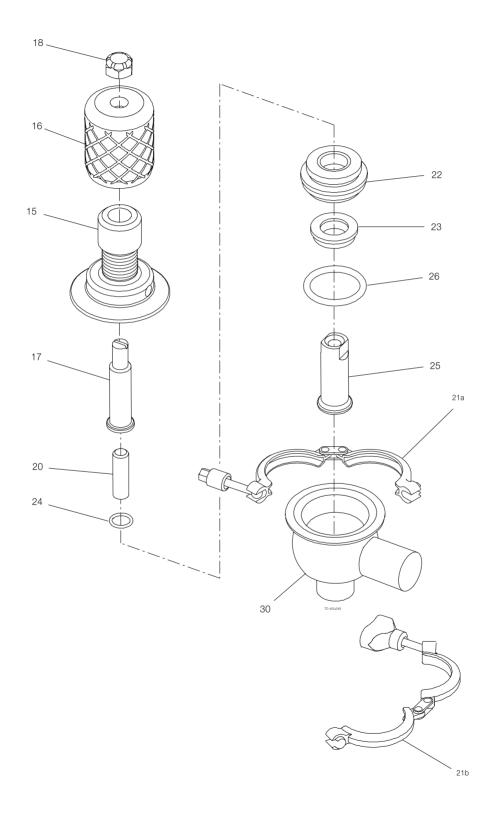
Recommended spare parts: service kits.

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# 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



# 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

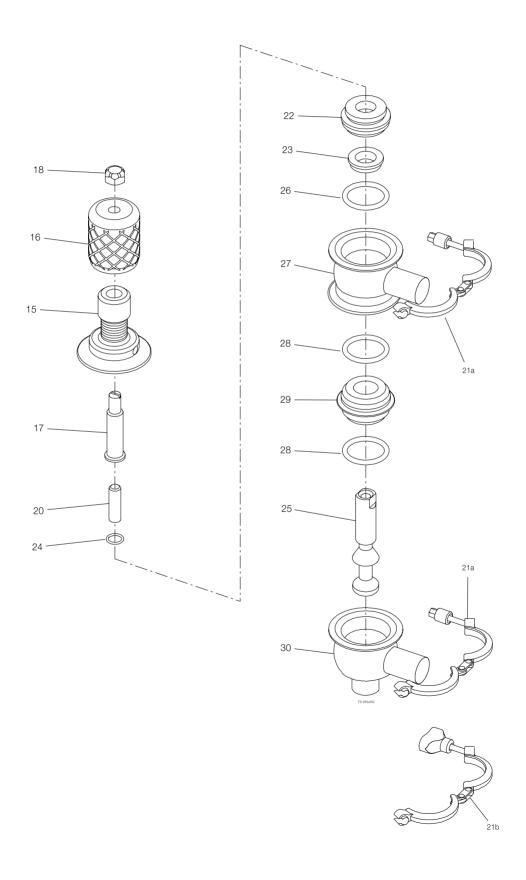
	Denomination	12.7 mm	19 mm	
Servic	e kits for actuator Service kit, NBR	9611926323	9611926323	
Service kits for product wetted parts, standard				
•	Service kits, EPDM	9611926319	9611926330	
•	Service kits, HNBR	9611926317	9611926328	
•	Service kits, FPM	9611926318	9611926329	

Parts marked with  $\square \bullet$  are included in the service kit.

Recommended spare parts: service kits.

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



# 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	e kits for actuator			
	Service kit, NBR	9611926323	9611926323	
Service kits for product wetted parts, standard				
<b>*</b>	Service kits, EPDM	9611926322	9611926333	
<b>*</b>	Service kits, HNBR	9611926320	9611926331	
<b>+</b>	Service kits, FPM	9611926321	9611926332	

Parts marked with □◆ are included in the service kit.

Recommended spare parts: service kits.

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