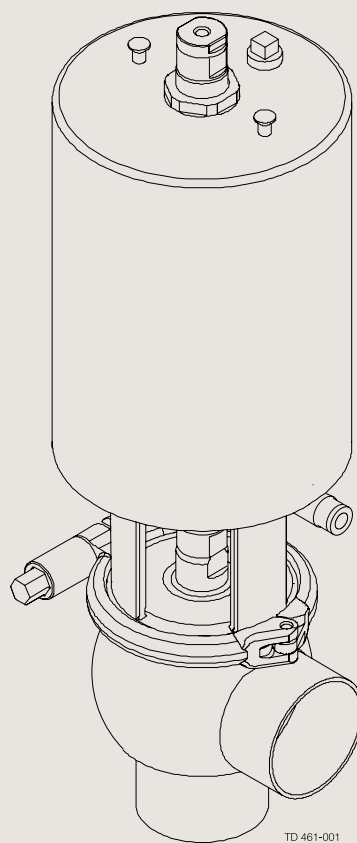
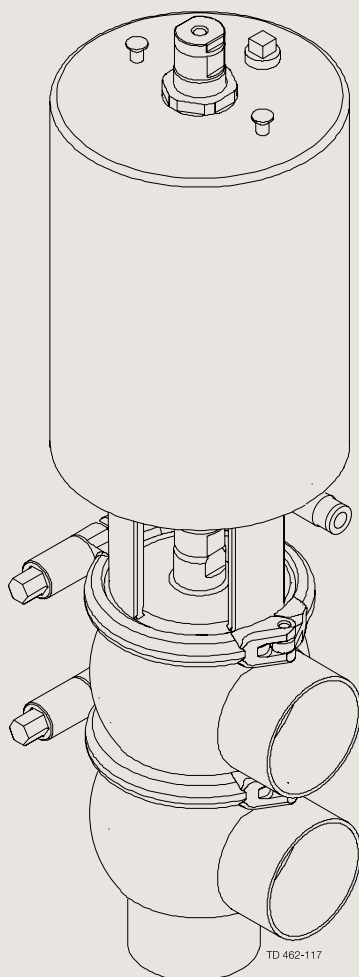




## Instruction Manual

### *Unique Single Seat Valve - Standard and Reverse Acting*





# Declaration of Conformity

---

The designating company

**Alfa Laval**

Company Name

**Albuen 31, DK-6000 Kolding, Denmark**

Address

**+45 79 32 22 00**

Phone No.

hereby declare that

**Sanitary Single Seat Valve**

Denomination

**Unique Single Seat Valve**

Type

**2006**

Year

is in conformity with the following directive:

- Machinery Directive 98/37/EEC
- Pressure Equipment Directive 97/23/EC category 1 and subjected to assessment procedure Module A.

**Manager, Product Centres,  
Compact Heat Exchangers & Fluid Handling**

Title

**Bjarne Søndergaard**

Name

**Alfa Laval Kolding**

Company



Signature

---

Designation





---

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

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## 1.1 Important information

### 1.2 Warning signs

## 1. Safety

---

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

---

**Always read the manual before using the valve!**

#### **WARNING!**

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

#### **CAUTION!**

Indicates that special procedures **must** be followed to avoid damage to the valve.

#### **NOTE!**

Indicates important information to simplify or clarify practices.

---

General warning:



Caustic agents:



---

*All warnings in the manual are summarized on this page.*

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

---

#### Installation

- **Always** read the technical data thoroughly (see chapter 5).
- **Always** release compressed air after use.
- **Never** touch the moving parts if the actuator is supplied with compressed air.
- **Never** touch the valve or the pipelines when processing hot liquids or when sterilizing.
- **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 5).
- **Always** release compressed air after use.
- **Never** touch the valve or the pipelines when processing hot liquids or when sterilizing.
- **Never** touch the moving parts if the actuator is supplied with compressed air.
- **Always** rinse well with clean water after the cleaning.



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



#### Maintenance

- **Always** read the technical data thoroughly (see chapter 5).
- **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 the moving parts if the actuator is supplied with compressed air.



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 1

#### CAUTION!

Alfa Laval cannot be held responsible for incorrect unpacking.

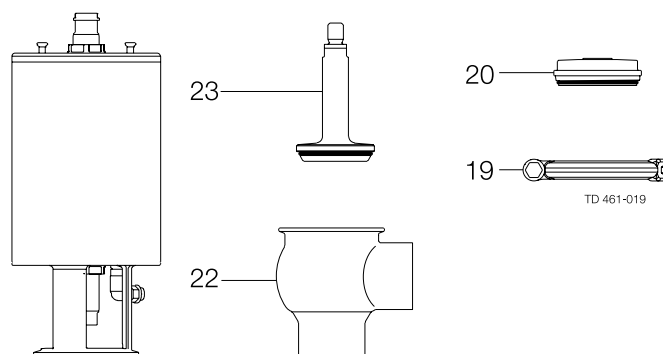
Check the delivery for:

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

#### 2a

##### Shut-off valve:

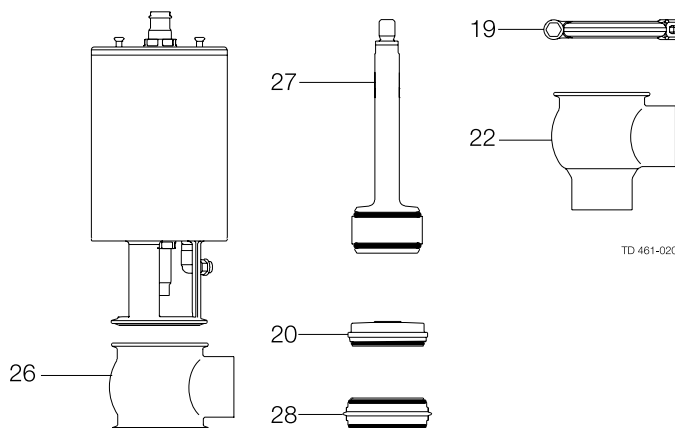
1. Complete actuator.
2. Bonnet (20).
3. Clamp (19).
4. Valve plug (23).
5. Valve body (22).



#### 2b

##### Change-over valve:

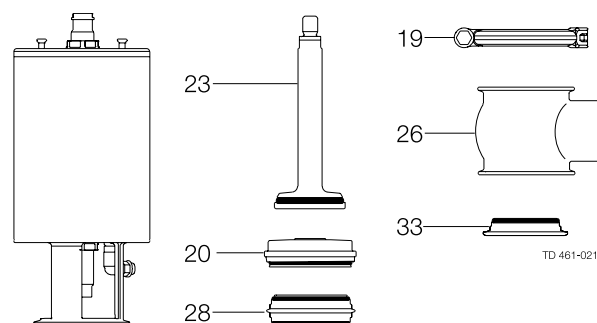
1. Complete actuator.
2. Bonnet (20).
3. 2 x clamp (19).
4. Valve plug (27).
5. Lower valve body (22).
6. Valve seat (28).
7. Upper valve body (26).



#### 2c

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

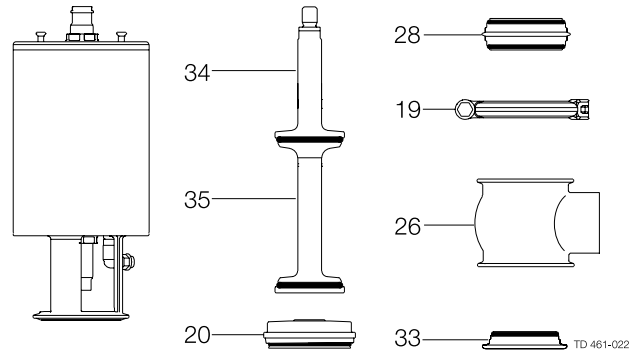
1. Complete actuator.
2. Bonnet (20).
3. 3 x clamp (19).
4. Valve plug (23).
5. 2 x upper valve body (26).
6. Valve seat (28).
7. Lower bonnet (33).





**2d****Change-over valve - Reverse Acting:**

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

**Step 3**

Remove possible packing materials from the valve/valve parts.  
Inspect the valve/valve parts for visible transport damages.  
Avoid damaging the valve/valve parts.

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

**Step1**

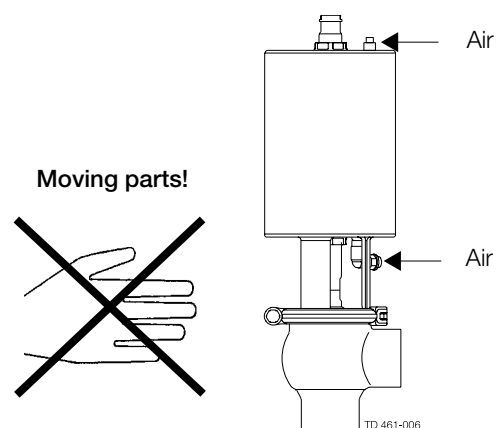
- **Always** read the technical data thoroughly (see chapter 5).
- **Always** release compressed air after use.

**CAUTION!**

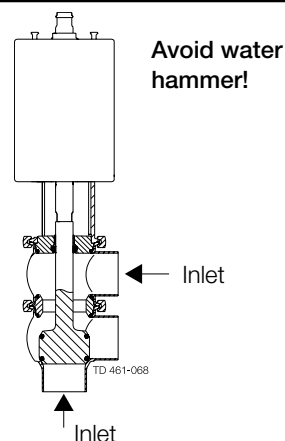
Alfa Laval cannot be held responsible for incorrect installation.

**Step 2**

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

**Step 3**

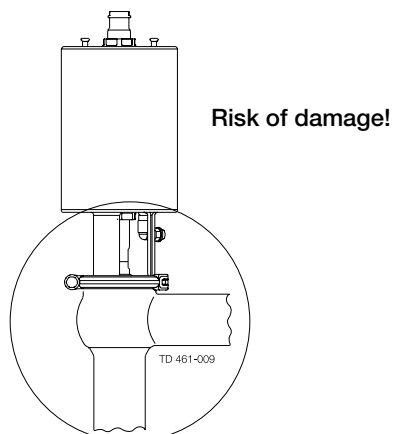
It is recommended to install the valve so that the flow is against the closing direction to avoid water hammer.

**Step 4**

Avoid stressing the valve.

**Pay special attention to:**

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



*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.*

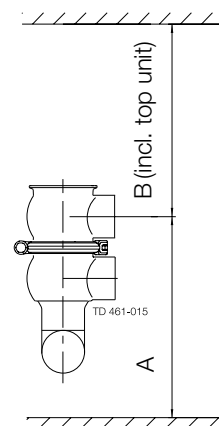
*Check the valve for smooth operation after welding.*

### Step 1

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

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

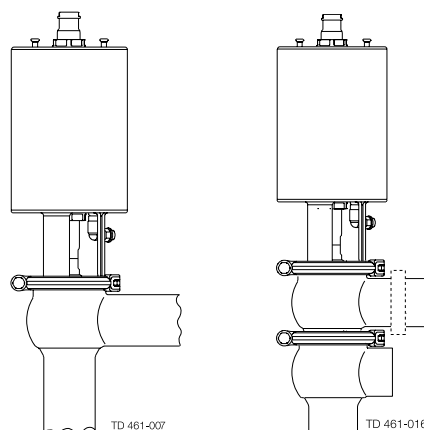
\* Depending on body combination and piping solution.



### Step 2

Assemble the valve in accordance with the steps in section 4.4.

**Pay special attention to the warnings!**

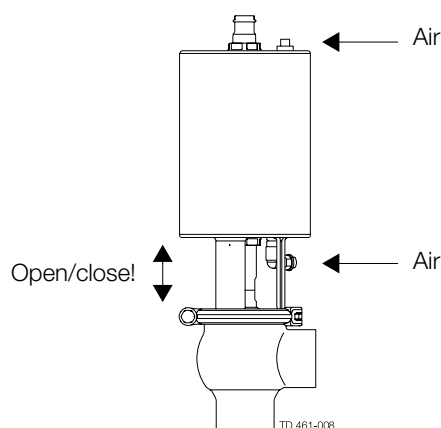


### Step 3

#### Pre-use check:

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

**Pay special attention to the warnings!**



Study the instructions carefully and pay special attention to the warnings!  
 Ensure that the valve operates smoothly.  
 The items refer to the parts list and service kits section.

**Step 1**

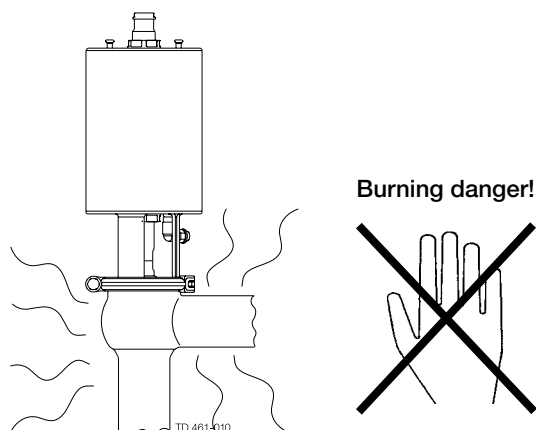
- **Always** read the technical data thoroughly (see chapter 5).
- **Always** release compressed air after use.

**CAUTION!**

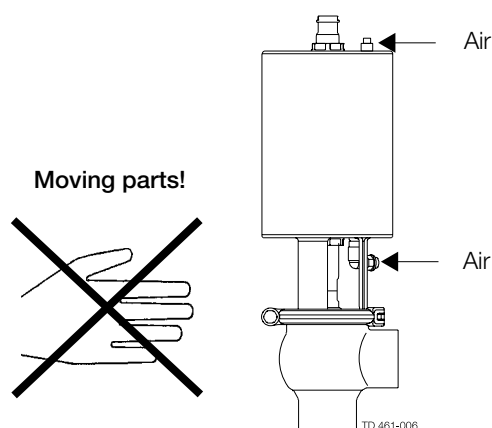
Alfa Laval cannot be held responsible for incorrect operation.

**Step 2**

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

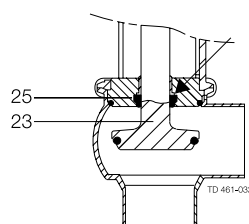
**Step 3**

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

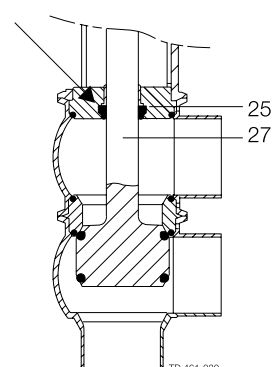
**Step 4****Lubrication of valves:**

1. Ensure smooth movement between lip seal (25) and plug stem (23, 27).
2. Lubricate with Klüber Paraliq GTE 703 if necessary. (see section 4.1)

Shut-off valve



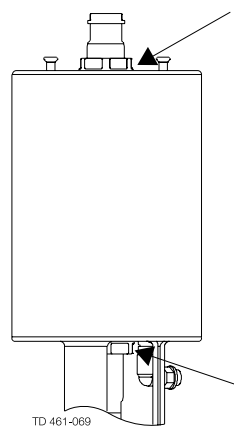
Change-over valve



---

**Step 5****Lubrication of actuator**

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



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

**NOTE!**

Study the maintenance instructions carefully before replacing worn parts. - See section 4.1!

Problem	Cause/result	Repair
External product leakage	Worn or product affected lip seal and/or O-ring	<ul style="list-style-type: none"> <li>- Replace the seals</li> <li>- Replace with seals of a different rubber grade</li> </ul>
Internal product leakage	<ul style="list-style-type: none"> <li>- Worn or product affected plug seal</li> <li>- Product deposits on the seat and/or plug</li> <li>- Product pressure exceeds actuator specification</li> </ul>	<ul style="list-style-type: none"> <li>- Replace the seal</li> <li>- Replace with a seal of a different rubber grade</li> <li>- Frequent cleaning</li> <li>- Replace with a high pressure actuator</li> <li>- Use auxiliary air on the spring side</li> <li>- Reduce product pressure</li> </ul>
Water hammer	The flow direction is the same as the closing direction	<ul style="list-style-type: none"> <li>- The flow direction should be against the closing direction</li> <li>- Throttle air release of solenoid in top unit</li> </ul>
The valve does not open/close	<ul style="list-style-type: none"> <li>- Product pressure exceeds actuator specification</li> </ul>	<ul style="list-style-type: none"> <li>- Replace with a high pressure actuator</li> <li>- Use auxiliary air on the spring side</li> <li>- Reduce product pressure</li> </ul>

The valve is designed for cleaning in place (CIP). CIP = Cleaning In Place.  
 Study the instructions carefully and pay special attention to the warnings!  
 NaOH = Caustic Soda.  
 HNO<sub>3</sub> = Nitric acid.

**Step 1**

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

**Caustic danger!**



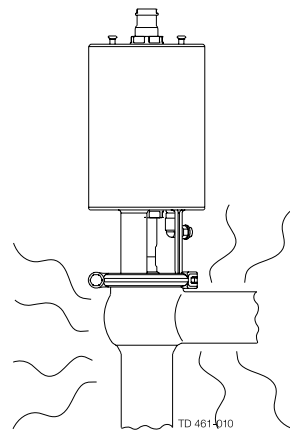
**Always** use  
rubber gloves!



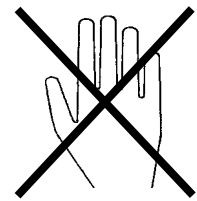
**Always** use  
protective goggles!

**Step 2**

**Never** touch the valve or the pipelines when sterilizing.

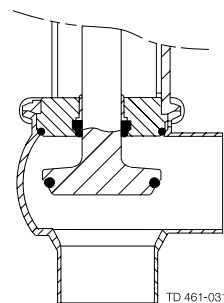


**Burning danger!**

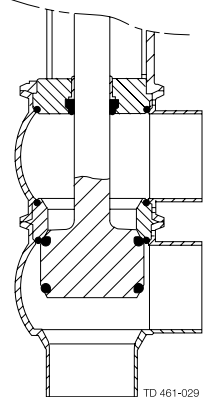
**Step 3**

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

Shut-off valve



Change-over valve

**Step 4****Examples of cleaning agents:**

Use clean water, free from chlorides.

1. 1% by weight NaOH at 70° C

1 kg NaOH	+	100 l water	= Cleaning agent
--------------	---	----------------	------------------

2.2 l 33% NaOH	+	100 l water	= Cleaning agent
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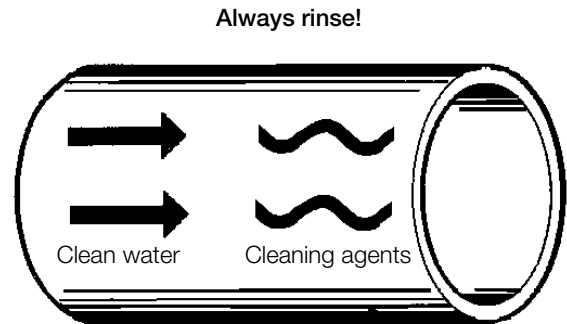
2. 0.5% by weight HNO<sub>3</sub> at 70° C

0.7 l 53% HNO <sub>3</sub>	+	100 l water	= Cleaning agent
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**Step 5**

1. Avoid excessive concentration of the cleaning agent
2. Adjust the cleaning flow to the process
3. **Always** rinse well with clean water after the cleaning.



---

**Step 6****NOTE!**

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

---



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.

### Step 1



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

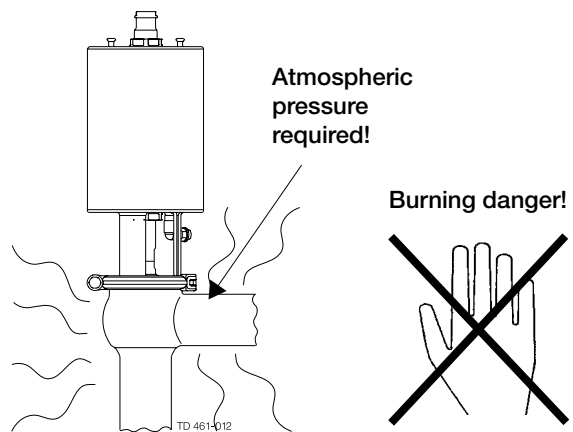
### CAUTION!

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

### Step 2



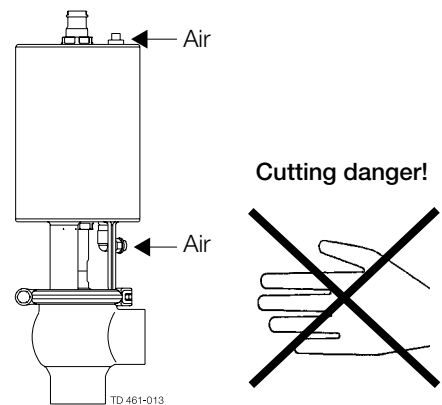
- **Never** service the valve when it is hot.
- **Never** service the valve with valve and pipelines under pressure.



### Step 3



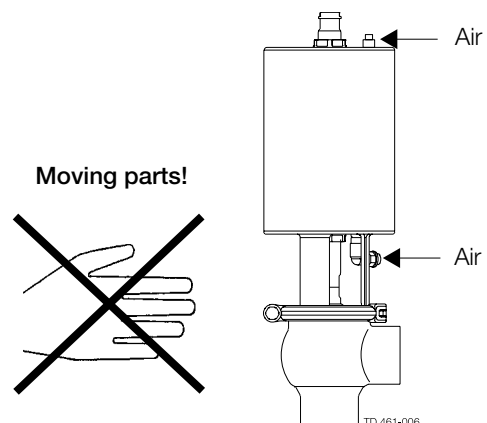
**Never** stick your fingers through the valve ports if the actuator is supplied with compressed air.



### Step 4



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



Maintain the valve regularly.  
 Study the instructions carefully.  
 Always keep spare rubber seals and lip seals stock.  
 Check the valve for smooth operation after service.

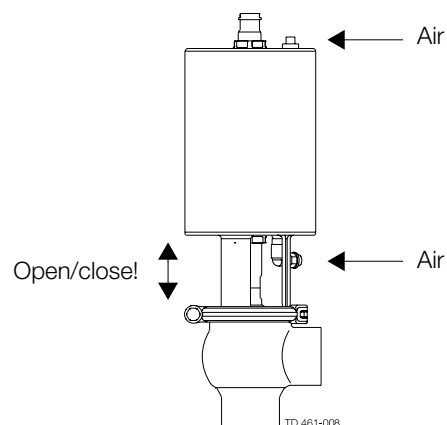
Below are some guidelines for maintenance and lubrication intervals. Please note that the guidelines are for normal working conditions in one shift.

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

#### Pre-use check:

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

**Pay special attention to the warnings!**



#### Recommended spare parts

Service kits (see chapter 6)

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

NC = Normally closed.

NO = Normally open.

A/A = Air/air activated.

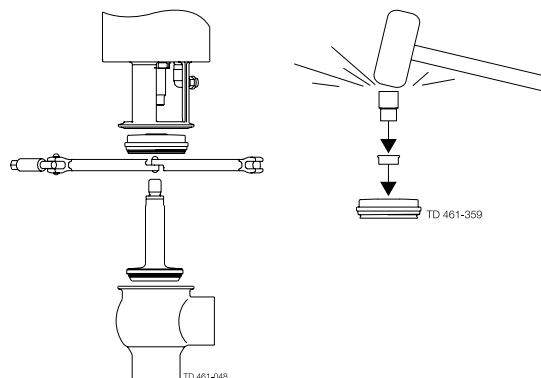
### Step 1a

#### Shut-off valve:

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

**Pay special attention to the warnings!**

**Note!** For plug seal replacement please see section 4.3.



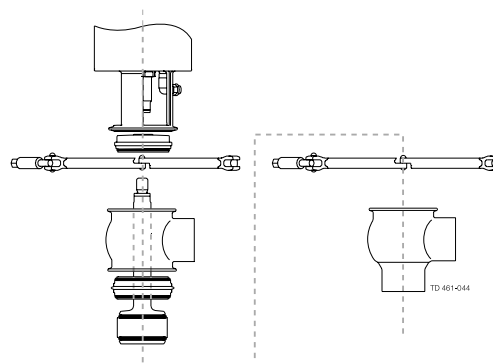
### Step 1b

#### Change-over valve:

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

**Pay special attention to the warnings!**

**Note!** For plug seal replacement please see section 4.3.



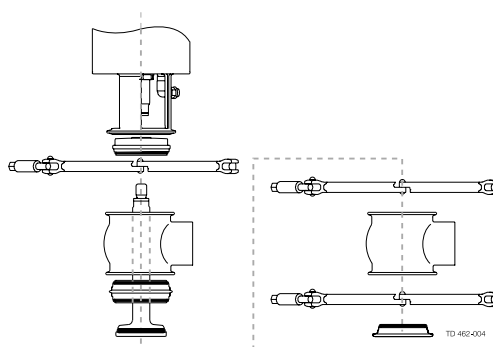
### Step 1c

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

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

**Pay special attention to the warnings!**

**Note!** For plug seal replacement please see section 4.3.



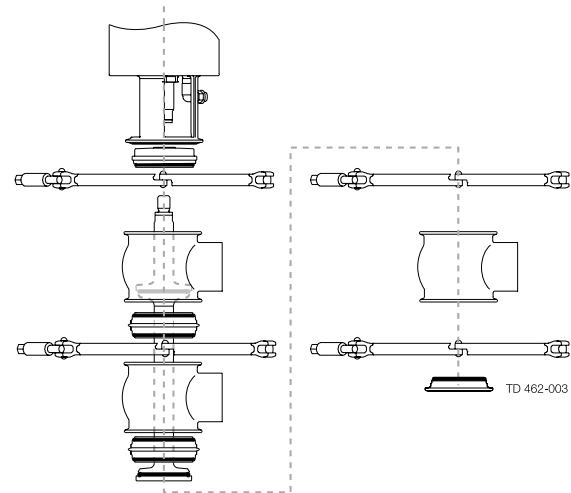
### Step 1d

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

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

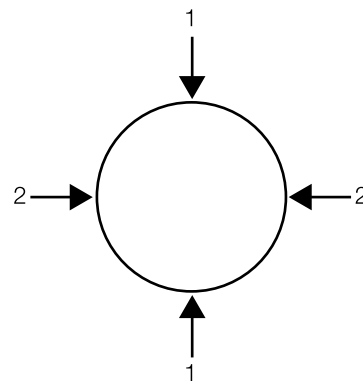
**Pay special attention to the warnings!**

**Note!** For plug seal replacement please see section 4.3.



### 4.3 Plug seal replacement

1. Remove old seal ring using a knife, screwdriver or similar.  
Be careful not to damage metal parts.
2. Pre-mount plug seal without pressing it into the groove.
3. Squeeze plug seal into the groove using opposite pressure points.
4. Release compressed air behind plug seal.



### 4.4 Assembly of valve

Reverse order of 4.2, Dismantling of valve.  
Lubricate O-ring (21) and lip seal (25) with Klüber Paraliq GTE 703.

#### 4. Maintenance    4.5 Actuator bushing replacement - 4.6 Dismantling of optional maintainable actuator 4.7 Assembly of optional maintainable actuator 4.8 Reversing optional maintainable actuator operation

Study the instructions carefully.

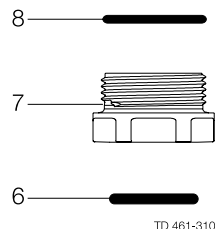
The items refer to the parts list and service kits section. Handle scrap correctly.

A/A = Air/air activated.

Service tool: See Spare Parts

##### 4.5 Actuator bushing replacement

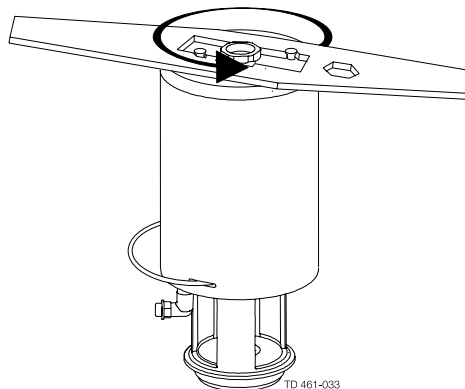
1. Unscrew and remove top and bottom bushings with O-rings.
2. Lubricate O-rings with Molykote Longterm 2 plus before fitting.
3. Fit bushings and O-rings. Be careful not to overtighten.



##### 4.6 Dismantling of optional maintainable actuator

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

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



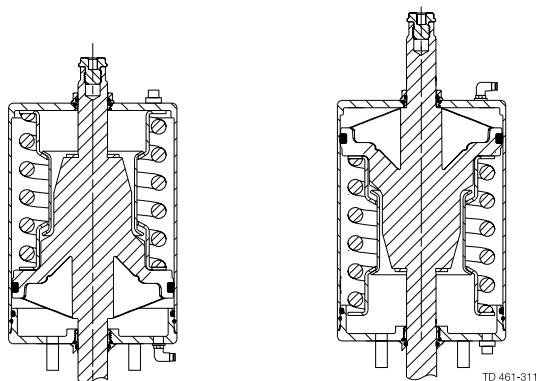
##### 4.7 Assembly of optional maintainable actuator

Reverse order of 4.6. Dismantling of actuator.

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

##### 4.8 Reversing optional maintainable actuator operation

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



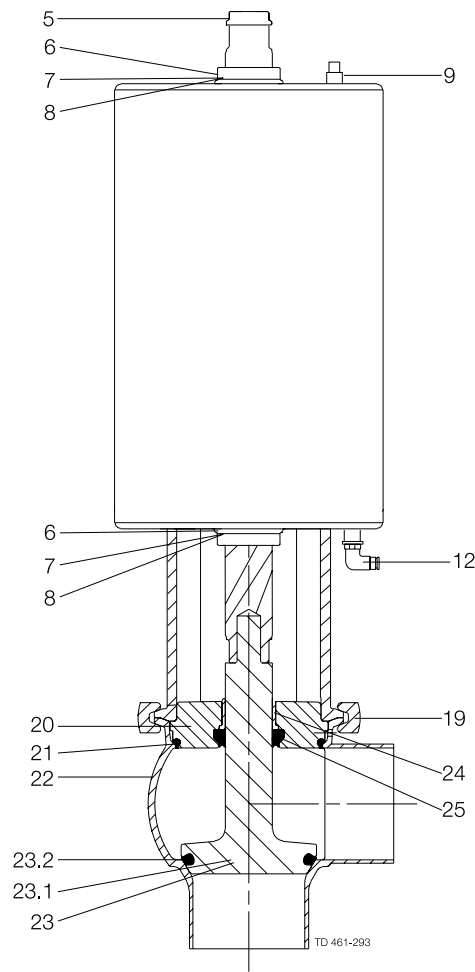
pneumatic movement  
upwards

pneumatic movement  
downwards

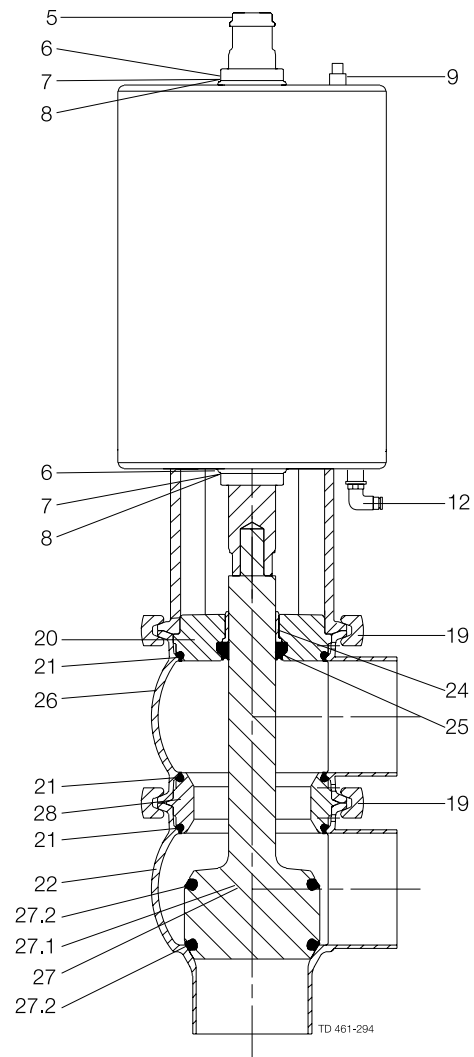
*It is important to observe the technical data during installation, operation and maintenance.  
Inform the personnel about the technical data.*

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

For parts lists please see section 6.1. The drawings include all items.



Shut-off valve



Change-over valve

## 6.1 Unique Single Seat Valve - Shut-off

### DN/OD 25 mm/DN25 - DN/OD 101.6 mm/DN100

## 6. Parts list and Service Kits

The parts list includes all items.

Parts List			Service Kits	
Pos.	Qty.	Denomination	Denomination	Item number
5	1	Actuator, complete	<b>Product wetted parts (Shut-off)</b>	
6 ●	2	Adapter	Service kit, actuator.....	
7 ●	2	Bushing	9611-92-6500	
8 ●	2	O-ring	<b>DN/OD 25 mm / DN 25</b>	
9	1	O-ring	EPDM.....	
12	1(2)	Plug	9611-92-6501	
19	1	Air fitting	HNBR.....	
20	1	Clamp	9611-92-6507	
21 Δ	1	Bonnet	FPM.....	
24 Δ	1	O-ring	9611-92-6513	
25 Δ	1	Bushing	<b>DN/OD 38 mm / DN 40</b>	
22	1	Lip seal	EPDM.....	
22	1	Valve body, lower, 2 ports	9611-92-6502	
23	1	Valve body, lower, 3 ports	HNBR.....	
23.1	1	Plug, shut-off, complete	9611-92-6508	
23.2 Δ	1	Plug, shut-off	FPM.....	
		Plug seal	9611-92-6514	
			<b>DN/OD 51 mm / DN 50</b>	
			EPDM.....	
			9611-92-6503	
			HNBR.....	
			9611-92-6509	
			FPM.....	
			9611-92-6515	
			<b>DN/OD 63.5 mm / DN 65</b>	
			EPDM.....	
			9611-92-6504	
			HNBR.....	
			9611-92-6510	
			FPM.....	
			9611-92-6516	
			<b>DN/OD 76.1 mm / DN 80</b>	
			EPDM.....	
			9611-92-6505	
			HNBR.....	
			9611-92-6511	
			FPM.....	
			9611-92-6517	
			<b>DN/OD 101.6 mm / DN 100</b>	
			EPDM.....	
			9611-92-6506	
			HNBR.....	
			9611-92-6512	
			FPM.....	
			9611-92-6518	

●: Service kits - Actuator

Δ: Service kits - EPDM

Δ: Service kits - HNBR

Δ: Service kits - FPM



The parts list includes all items.

Parts List			Service Kits	
Pos.	Qty.	Denomination	Denomination	Item number
5	1	Actuator, complete	<b>Product wetted parts (Change-over)</b>	
6 ●	2	Adapter	Service kit, actuator.....	
7 ●	2	Bushing	9611-92-6500	
8 ●	2	O-ring	<b>DN/OD 25 mm / DN 25</b>	
9	1	O-ring	EPDM.....	
12	1(2)	Plug	9611-92-6579	
19	2	Air fitting	HNBR.....	
20	2	Clamp	9611-92-6585	
21 Δ	1	Bonnet	FPM.....	
24 Δ	3	O-ring	9611-92-6591	
25 Δ	1	Bushing	<b>DN/OD 38 mm / DN 40</b>	
28	1	Lip seal	EPDM.....	
26	1	Seat	9611-92-6580	
26	1	Valve body, upper, 1 port	HNBR.....	
22	1	Valve body, upper, 2 ports	9611-92-6586	
22	1	Valve body, lower, 2 ports	FPM.....	
22	1	Valve body, lower, 3 ports	9611-92-6592	
27	1	Plug, change-over, complete,	<b>DN/OD 51 mm / DN 50</b>	
27.1	1	Plug, change-over	EPDM.....	
27.2 Δ	2	Plug seal	9611-92-6581	
			HNBR.....	
			9611-92-6587	
			FPM.....	
			9611-92-6593	
			<b>DN/OD 63.5 mm / DN 65</b>	
			EPDM.....	
			9611-92-6582	
			HNBR.....	
			9611-92-6588	
			FPM.....	
			9611-92-6594	
			<b>DN/OD 76.1 mm / DN 80</b>	
			EPDM.....	
			9611-92-6583	
			HNBR.....	
			9611-92-6589	
			FPM.....	
			9611-92-6595	
			<b>DN/OD 101.6 mm / DN 100</b>	
			EPDM.....	
			9611-92-6584	
			HNBR.....	
			9611-92-6590	
			FPM.....	
			9611-92-6596	

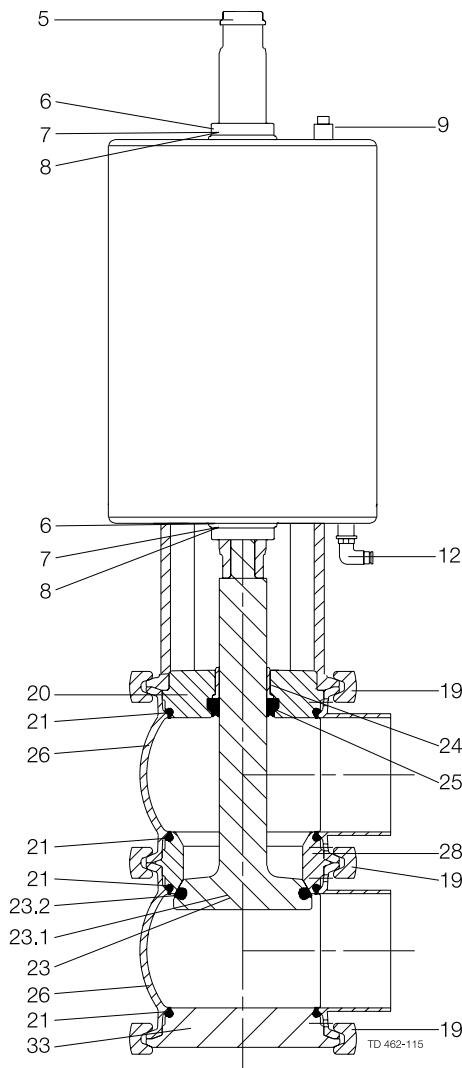
●: Service kits - Actuator

Δ: Service kits - EPDM

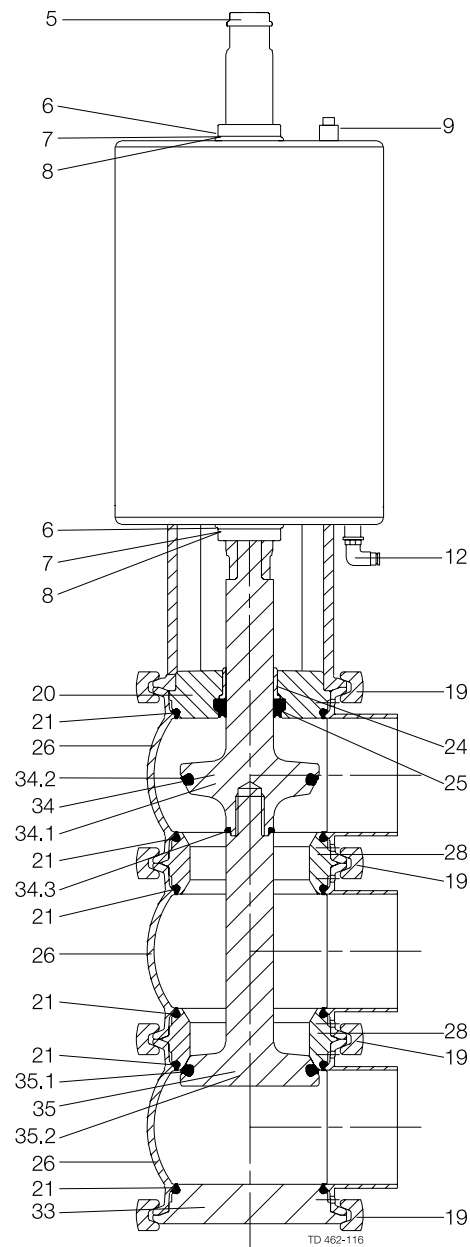
Δ: Service kits - HNBR

Δ: Service kits - FPM

For parts lists please see section 6.2. The drawings include all items.



Shut-off valve - Reverse Acting



Change-over valve - Reverse Acting

## 6.2 Unique Single Seat Valve - Reverse Acting - Shut-off DN/OD 25 mm/DN25 - DN/OD 101.6 mm/DN100

## 6. Parts list and Service Kits

The parts list includes all items.

Parts List			Service Kits	
Pos.	Qty.	Denomination	Denomination	Item number
5	1	Actuator, complete	<b>Product wetted parts (Shut-off)</b>	
6 ●	2	Adapter	Service kit, actuator .....	9611-92-6500
7 ●	2	Bushing	<b>DN/OD 25 mm / DN 25</b>	
8 ●	2	O-ring	EPDM.....	9611-92-6525
9	1	Plug	HNBR .....	9611-92-6531
12	1(2)	Air fitting	FPM .....	9611-92-6537
19	3	Clamp	<b>DN/OD 38 mm / DN 40</b>	
20	1	Bonnet	EPDM.....	9611-92-6526
21 Δ	4	O-ring	HNBR.....	9611-92-6532
24 Δ	1	Bushing	FPM .....	9611-92-6538
25 Δ	1	Lip seal	<b>DN/OD 51 mm / DN 50</b>	
33	1	Lower bonnet	EPDM.....	9611-92-6527
28	1	Seat	HNBR.....	9611-92-6533
26	2	Valve body, upper, 1 port	FPM .....	9611-92-6539
26	2	Valve body, upper, 2 ports	<b>DN/OD 63.5 mm / DN 65</b>	
23	1	Plug, shut-off RA, complete	EPDM.....	9611-92-6528
23.1	1	Plug, shut-off RA	HNBR.....	9611-92-6534
23.2 Δ	1	Plug seal	FPM .....	9611-92-6540
●: Service kits - Actuator			<b>DN/OD 76.1 mm / DN 80</b>	
Δ: Service kits - EPDM			EPDM.....	9611-92-6529
Δ: Service kits - HNBR			HNBR.....	9611-92-6535
Δ: Service kits - FPM			FPM .....	9611-92-6541
			<b>DN/OD 101.6 mm / DN 100</b>	
			EPDM.....	9611-92-6530
			HNBR.....	9611-92-6536
			FPM .....	9611-92-6542

The parts list includes all items.

Parts List			Service Kits	
Pos.	Qty.	Denomination	Denomination	Item number
			<b>Product wetted parts (Change-over)</b>	
5	1	Actuator, complete		
6 ●	2	Adapter		
7 ●	2	Bushing		
8 ●	2	O-ring		
9	1	O-ring		
12	1(2)	Plug		
19	4	Air fitting		
20	1	Clamp		
21 Δ	6	Bonnet		
24 Δ	1	O-ring		
25 Δ	1	Bushing		
33	1	Lip seal		
28	1	Lower bonnet		
26	2	Seat		
26	3	Valve body, upper, 1 port		
26	3	Valve body, upper, 2 ports		
34	1	Plug, change-over upper RA, complete		
34.1	1	Plug, change-over upper RA		
34.2 Δ	1	Plug seal		
34.3 Δ	1	O-ring		
35	1	Plug, change-over lower RA, complete		
35.1	1	Plug, change-over upper RA		
35.2 Δ	2	Plug seal		
			<b>DN/OD 25 mm / DN 25</b>	
			EPDM.....	9611-92-6597
			HNBR.....	9611-92-6603
			FPM.....	9611-92-6609
			<b>DN/OD 38 mm / DN 40</b>	
			EPDM.....	9611-92-6598
			HNBR.....	9611-92-6604
			FPM.....	9611-92-6610
			<b>DN/OD 51 mm / DN 50</b>	
			EPDM.....	9611-92-6599
			HNBR.....	9611-92-6605
			FPM.....	9611-92-6611
			<b>DN/OD 63.5 mm / DN 65</b>	
			EPDM.....	9611-92-6600
			HNBR.....	9611-92-6606
			FPM.....	9611-92-6612
			<b>DN/OD 76.1 mm / DN 80</b>	
			EPDM.....	9611-92-6601
			HNBR.....	9611-92-6607
			FPM.....	9611-92-6613
			<b>DN/OD 101.6 mm / DN 100</b>	
			EPDM.....	9611-92-6602
			HNBR.....	9611-92-6608
			FPM.....	9611-92-6614

●: Service kits - Actuator  
Δ: Service kits - EPDM  
Δ: Service kits - HNBR  
Δ: Service kits - FPM

The parts list includes all items.

NC = Normally closed.

NO = Normally open.

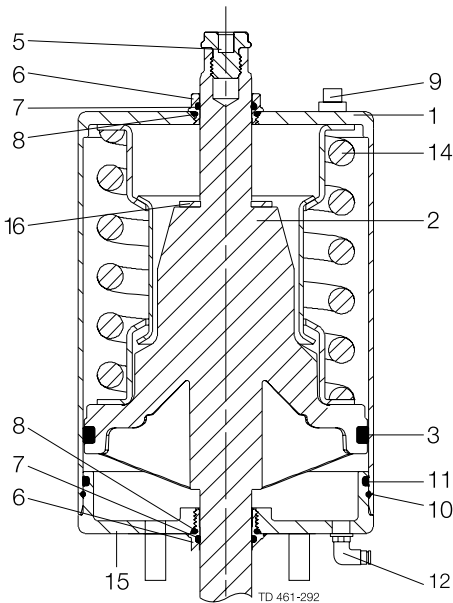
A/A = Air/air activated.

Parts List

Pos.	Qty.	Denomination
		Actuator, complete
1	1	Cylinder
2	1	Stem
3 ●*	1	O-ring
5	1	Adapter
6 ●*	2	Bushing
7 ●*	2	O-ring
8 ●*	2	O-ring
9	1	Plug
10	1	Lock wire
11	1	O-ring
12	1(2)	Air fitting (2 only for A/A)
14	1	Spring assembly
15	1	Bottom
16 *	1(2)	Support disc (2 only for A/A)
13	1	Yoke (not shown in drawing)
17	3	Washer (not shown in drawing)
18	3	Nut (not shown in drawing)

●: Service kits - Actuator, NO, NC

\*: Service kits - Actuator, A/A



Service Kits

Denomination Item number

Product wetted parts

Service kit, actuator

DN/OD 25 mm / DN 25 - DN/OD 38 mm / DN 40

NO, NC .....9611-92-6497

A/A .....9611-92-6519

DN/OD 51 mm / DN 50 - DN/OD 63.5 mm / DN 65

NO, NC .....9611-92-6498

A/A .....9611-92-6520

DN/OD 76 mm / DN 80 - DN/OD 101.6 mm / DN 100

NO, NC .....9611-92-6499

A/A .....9611-92-6521





**How to contact Alfa Laval**

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