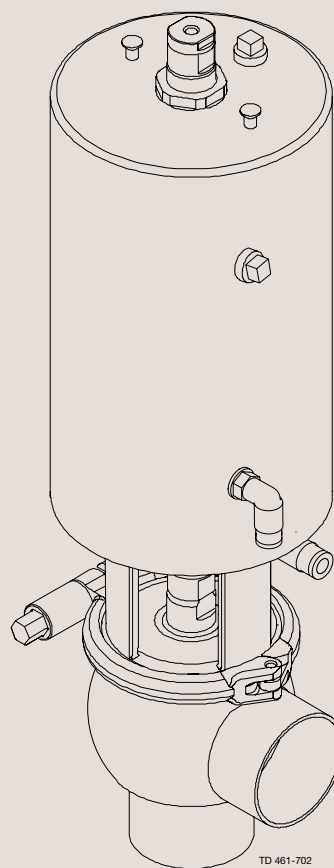
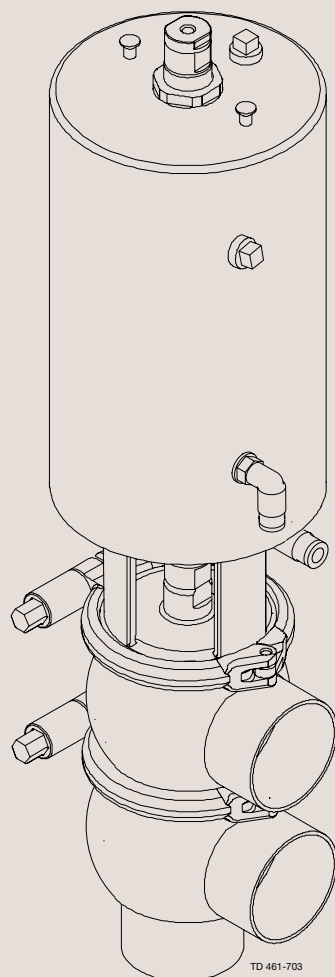




Instruction Manual

Unique **Single Seat Valve - Two Step**



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

Unique **Single Seat Valve**

Denomination

Two Step

Type

2007

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**

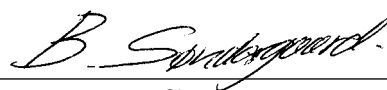
Title

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!**

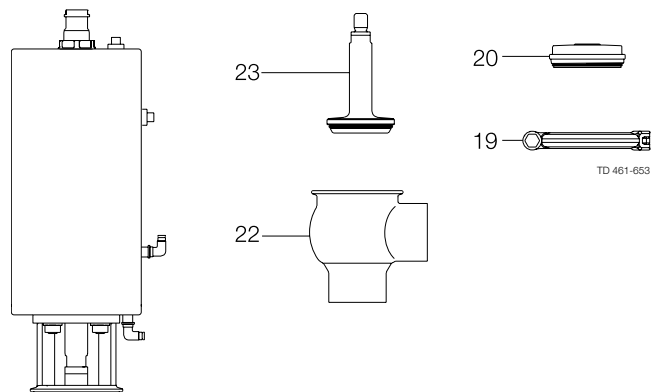
Alfa Laval cannot be held responsible for incorrect unpacking.

Check the delivery for:

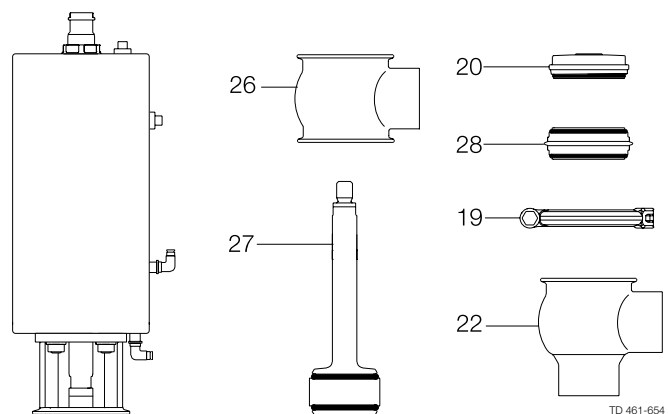
1. Complete valve, shut off valve or change-over valve.
2. Delivery note.
3. Instruction Manual.

Step 2a**Shut-off valve:**

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

**Step 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).

**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.

Step 1

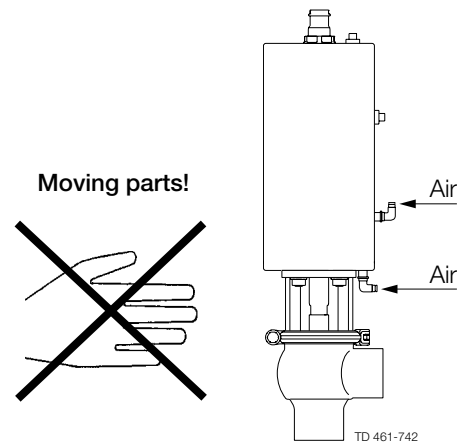
- **Always** read the technical data thoroughly (see chapter 5).
- **Always** release compressed air after use.

CAUTION!

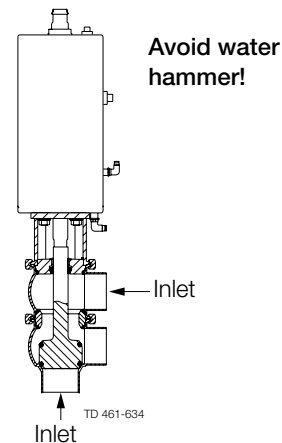
Alfa Laval cannot be held responsible for incorrect installation.

Step 2

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

**Step 3**

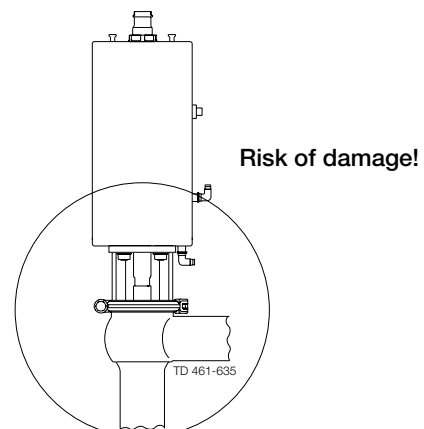
It is recommended to install the valve so that the flow is against the closing direction to avoid water hammer.

**Step 4**

Avoid stressing the valve.

Pay special attention to:

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



NO=Normally open
NC=Normally closed

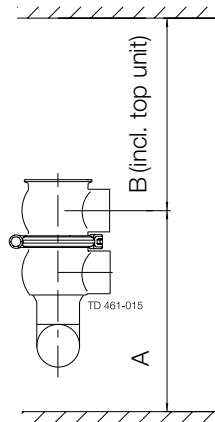
Study the instructions carefully.
The valve is supplied as separate parts to facilitate the welding.
The items refer to the parts list and service kits section.
Check the valve for smooth operation after welding.

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)
DN40/38 mm	*	740
DN50/51 mm	*	770
DN65/63.5 mm	*	780
DN80/76.1 mm	*	830
DN100/101.6 mm	*	880

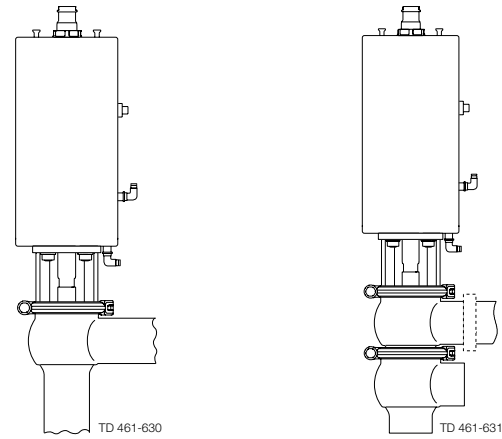
* Depending on body combination and piping solution.



Step 2

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

Pay special attention to the warnings!

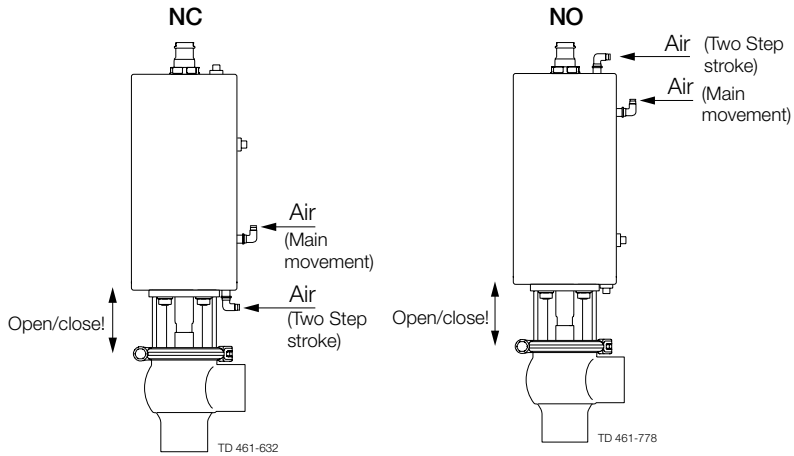


Step 3

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

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

NO=Normally open (pneumatic movement downwards)

NC=Normally closed (pneumatic movement upwards)

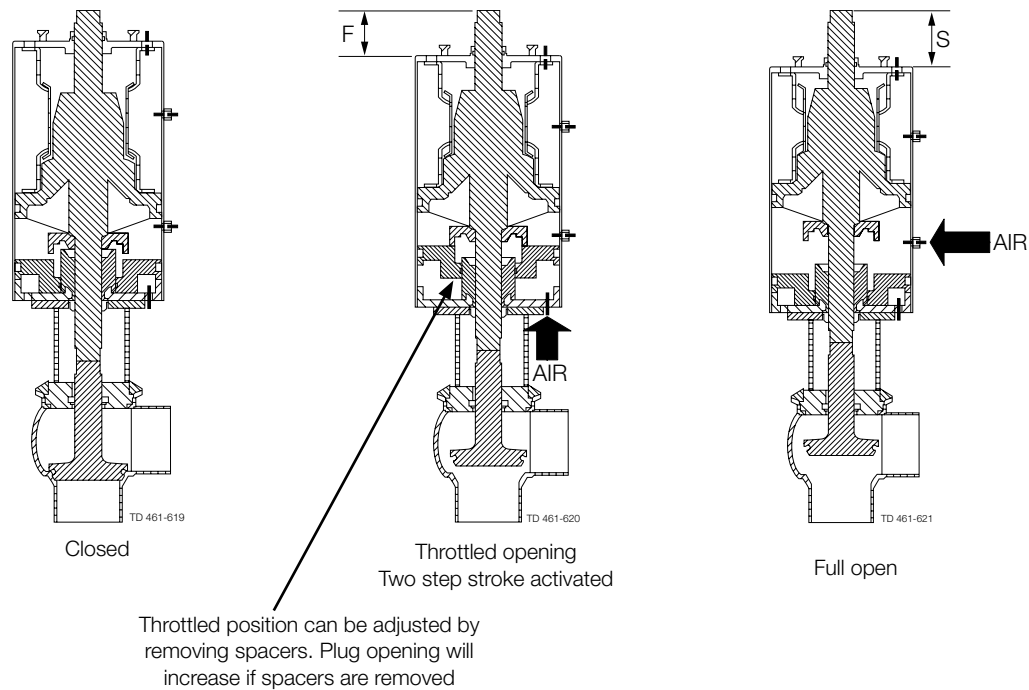
The SSV Two step valve has two pistons inside the actuator, which makes it possible to have an intermediate plug position where all body ends are open.

SSV Two step valves are made in a Shut off valve type and a Change – Over valve type.

Type shut off valve (only NC)

Two step valves as shut off (only as NC) can be used for reducing pressure hammers or dosing e.g. in connection with filling of a vessel where an exact volume is required.

The degree of opening for the intermediate position can be adjusted by removing spacer rings inside the actuator (see 4.5).



The plug opening for different Shut off valves and Actuator size is shown below.

Dimensions = mm	Standard Actuator choice (NC)										High pressure Actuator (NC)			
	Inch tube					DIN tube					Inch tube		DIN tube	
	38	51	63,5	76,1	101,6	40	50	65	80	100	51	63,5	50	65
F min. Two step stroke (with spacers inside Actuator)	3	3	3	2,5	2,5	3	3	3	2,5	2,5	6	6	6	6
F max. Two step stroke (Spacers removed inside Actuator)	6	11	11	14	14	6	11	11	14	14	9	9	9	9
S = full stroke opening	20	25	25	30	30	20	25	25	30	30	25	25	25	25

Study the instructions carefully

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

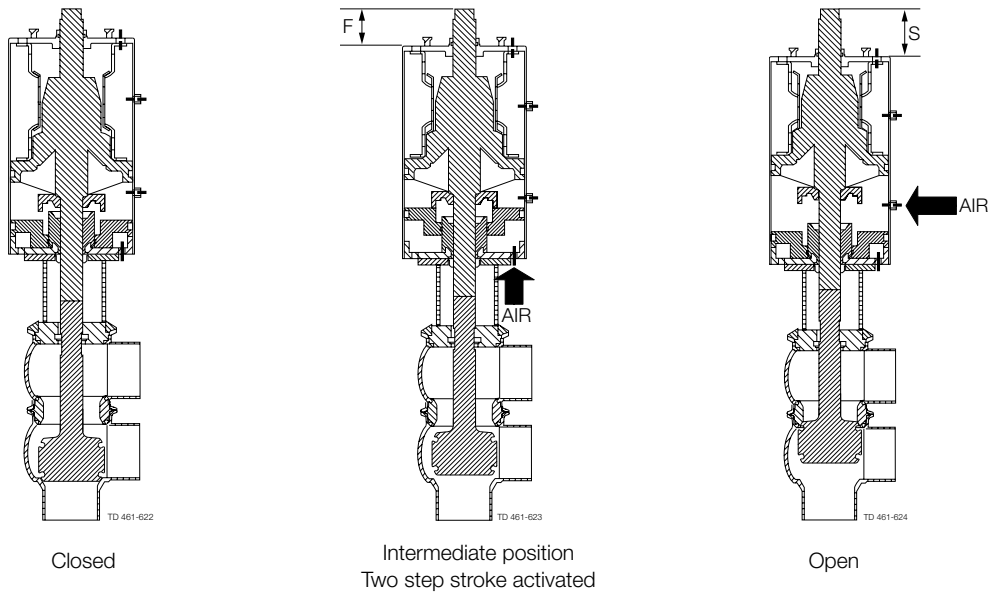
NO=Normally open (pneumatic movement downwards)

NC=Normally closed (pneumatic movement upwards)

Type Change-over valve (NC and NO)

Two step valves as change over (NC and NO) can be used for drainage of two pipes simultaneously or split of flow in three lines. The valve has a fixed intermediate position and spring return to the end positions.

Spring return to lower position = NC



The plug opening for different Change-Over valves and Actuator size is shown below.

	Standard Actuator choice (NC)										High pressure Actuator (NC)			
	Inch tube					DIN tube					Inch tube		DIN tube	
Dimensions = mm	38	51	63,5	76,1	101,6	40	50	65	80	100	51	63,5	50	65
F= Fixed intermediate position	6.5	11	11	14	14	6.5	11	11	14	14	9	9	9	9
S = Stroke opening	17	22	22	27	27	17	22	22	27	27	22	22	22	22

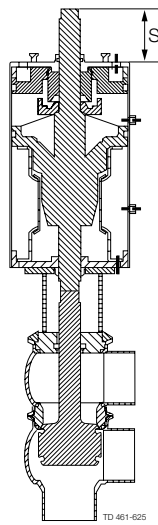
Study the instructions carefully

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

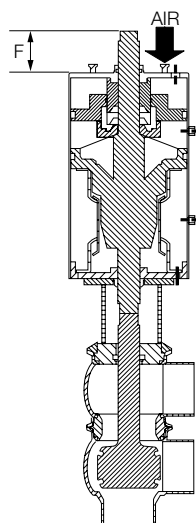
NO=Normally open (pneumatic movement downwards)

NC=Normally closed (pneumatic movement upwards)

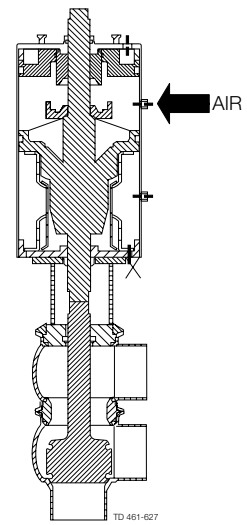
Spring return to upper position = NO



Closed



Intermediate position
Two step stroke activated



Open

The plug opening for different Change-Over valves and Actuator size is shown below.

	Standard Actuator choice (NC)										High pressure Actuator (NC)			
	Inch tube					DIN tube					Inch tube		DIN tube	
Dimensions = mm	38	51	63,5	76,1	101,6	40	50	65	80	100	51	63,5	50	65
F= Fixed intermediate position	11	11	11	11	11	11	11	11	11	11	11	11	11	11
S = Stroke opening	17	22	22	27	27	17	22	22	27	27	22	22	22	22

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

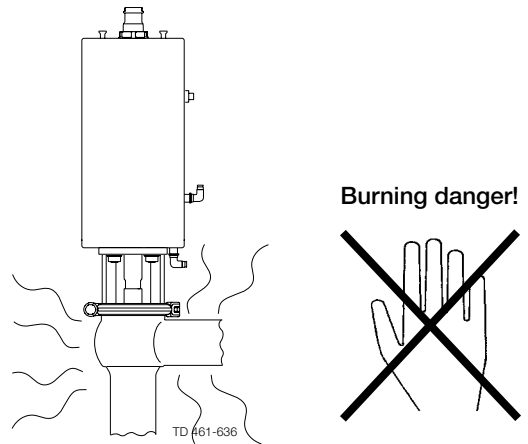
- **Always** read the technical data thoroughly (see chapter 5).
- **Always** release compressed air after use.

CAUTION!

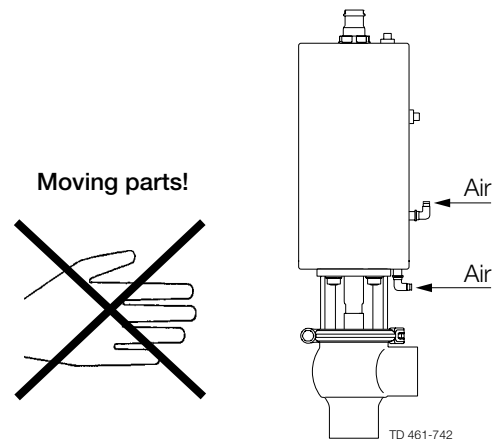
Alfa Laval cannot be held responsible for incorrect operation.

Step 2

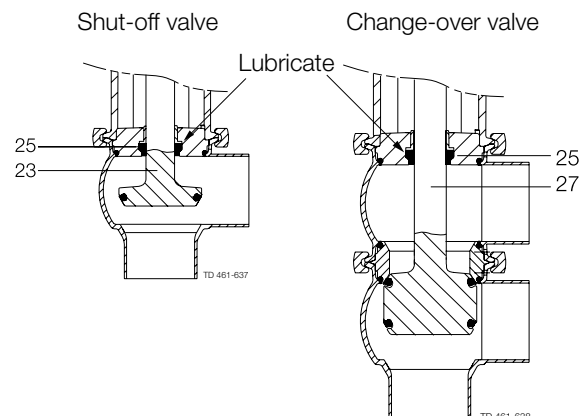
Never touch the valve or the pipelines when processing hot liquids or when sterilizing.

**Step 3**

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

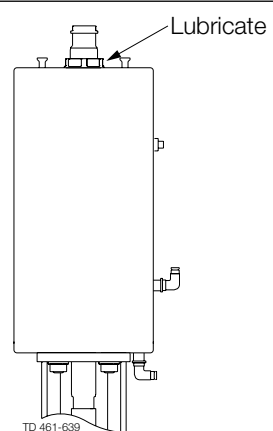
**Step 4****Lubrication of valves:**

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)



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

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.
HNO₃ = Nitric acid.

Step 1

Always handle lye and acid with great care.

Caustic danger!



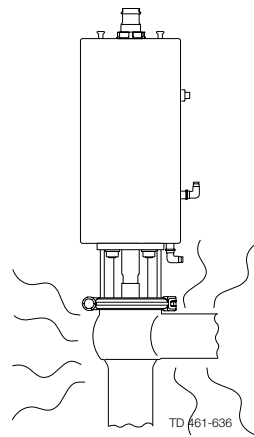
Always use
rubber gloves!



Always use
protective goggles!

Step 2

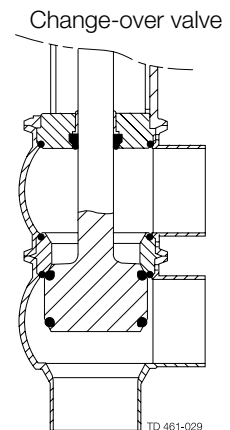
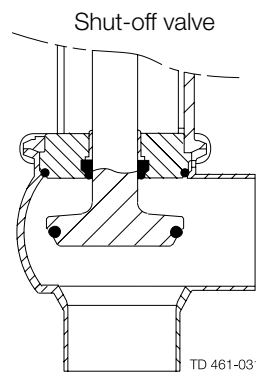
Never touch the valve or the pipelines when sterilizing.



Burning danger!

**Step 3**

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

**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
--------------	---	----------------	------------------

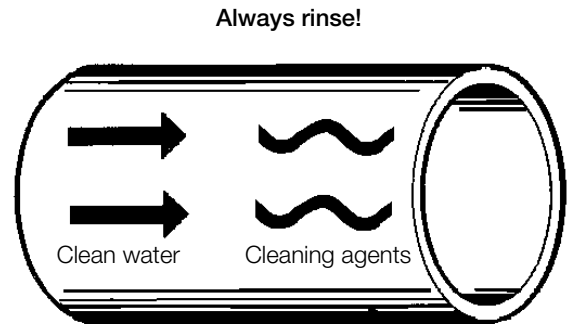
2.2 l 33% NaOH	+	100 l water	= Cleaning agent
-------------------	---	----------------	------------------

2. 0.5% by weight HNO₃ at 70° C

0.7 l 53% HNO ₃	+	100 l water	= Cleaning agent
-------------------------------	---	----------------	------------------

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.

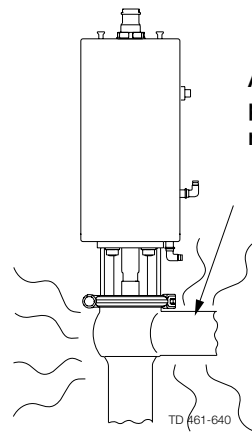
CAUTION!

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.



Atmospheric pressure required!

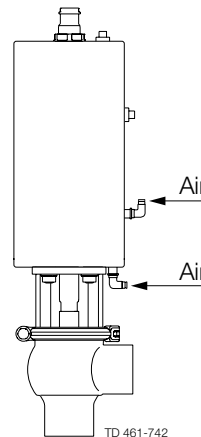
Burning danger!



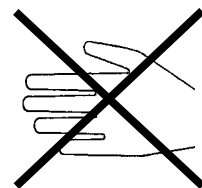
Step 3



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



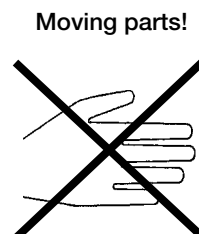
Cutting danger!



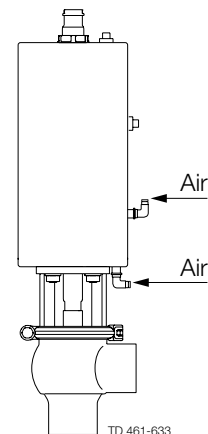
Step 4



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



Moving parts!



TD 461-633

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.

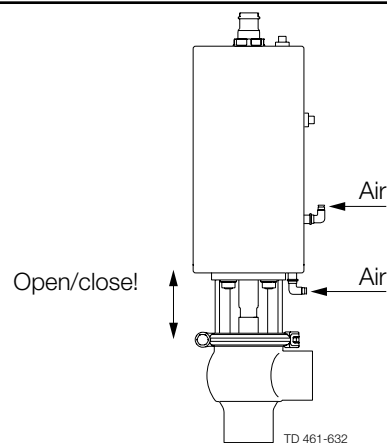
Below are some guidelines for maintenance and lubrication intervals. Please note that the guidelines are for normal working conditions in one shift.

	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"> - Regular inspection for leakage and smooth operation - Keep a record of the valve - Use the statistics for planning of inspections Replace after leakage	<ul style="list-style-type: none"> - Regular inspection for leakage and smooth operation - Keep a record of the actuator - Use the statistics for planning of inspections Replace after leakage
Lubrication	Before fitting Klüber Paraliq GTE 703 or similar USDA H1 approved oil/grease	Before fitting Molykote Longterm 2 plus

Pre-use check:

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

Pay special attention to the warnings!



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.

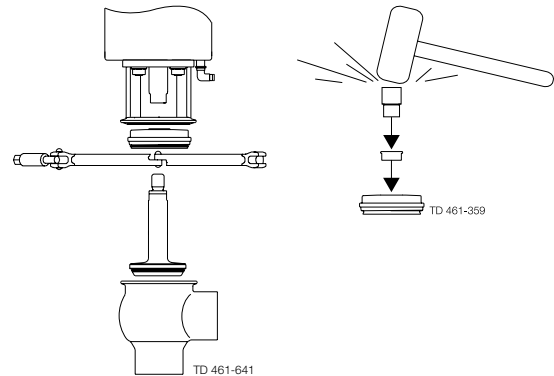
Step 1a

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.



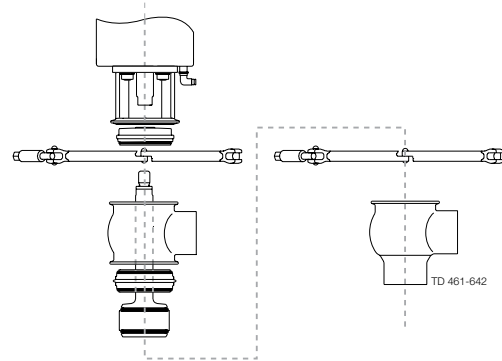
Step 1b

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).

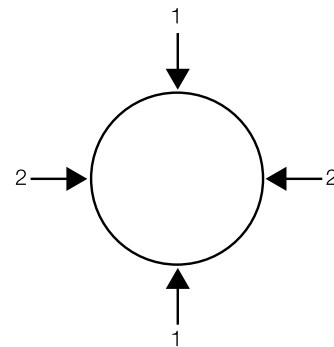
Pay special attention to the warnings!

Note! For plug seal replacement please see section 4.3.



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.

Study the instructions carefully

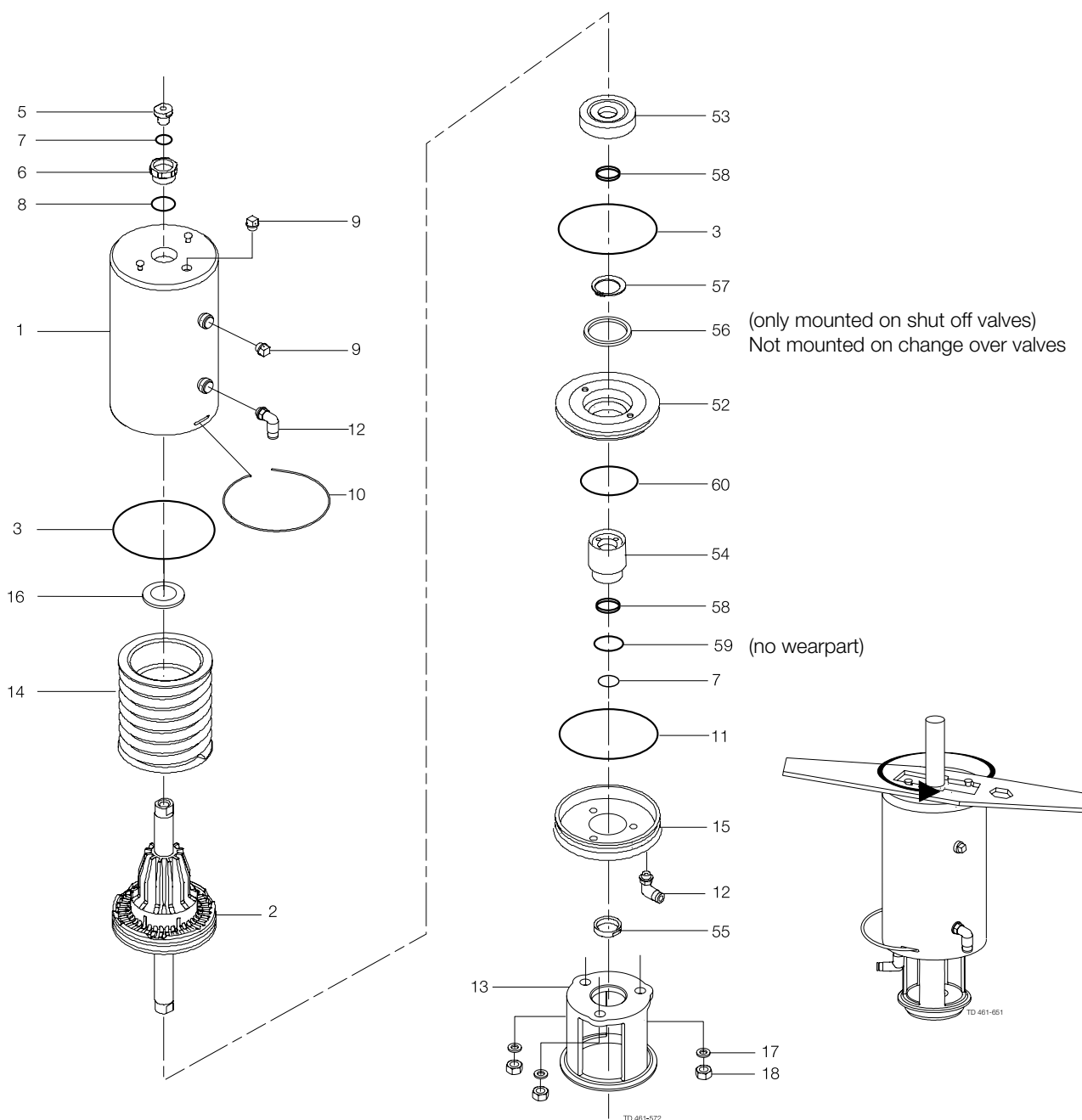
The item refer to the parts list and service kits section.

NO=Normally open (pneumatic movement downwards)

NC=Normally closed (pneumatic movement upwards)

4.5. Dismantling of (NC) maintainable actuator (changing of wear parts)

- 1) Rotate cylinder (1)
- 2) Remove lock wire (10) and pull away cylinder (1). This can be done by careful using air on fitting (12)
- 3) Remove o-ring (11) from bottom (15)
- 4) Unscrew top bushing (6) and remove o-ring (8)
- 5) Remove piston (2) together with support disk (16), thrust plate (53) and o-ring (3)
- 6) Remove spring assembly (14)
- 7) Remove seegering lock ring (57) using a seegering-tang tool
- 8) Remove piston (52) and o-rings (3+60) together with spacer rings(56)
Spacer rings (56) are only mounted on Shut off valve and not on Change-over valve.
Spacer rings are used to reduce the piston (52) stroke, so that the Shut off valves intermediate plug position can be adjusted.
- 9) Remove guide ring (58) and o-ring (7)
- 10) Guide (54) is screwed on bottom part (15) and should only be dismantled if guide (54) is broken.
If guide (54) has to be dismantled start with unscrewing nuts (18) and remove yoke (13) and loosen nut (55). With a special tool it now is possible to dismantle guide (54). This is shown in 4,8



Study the instructions carefully

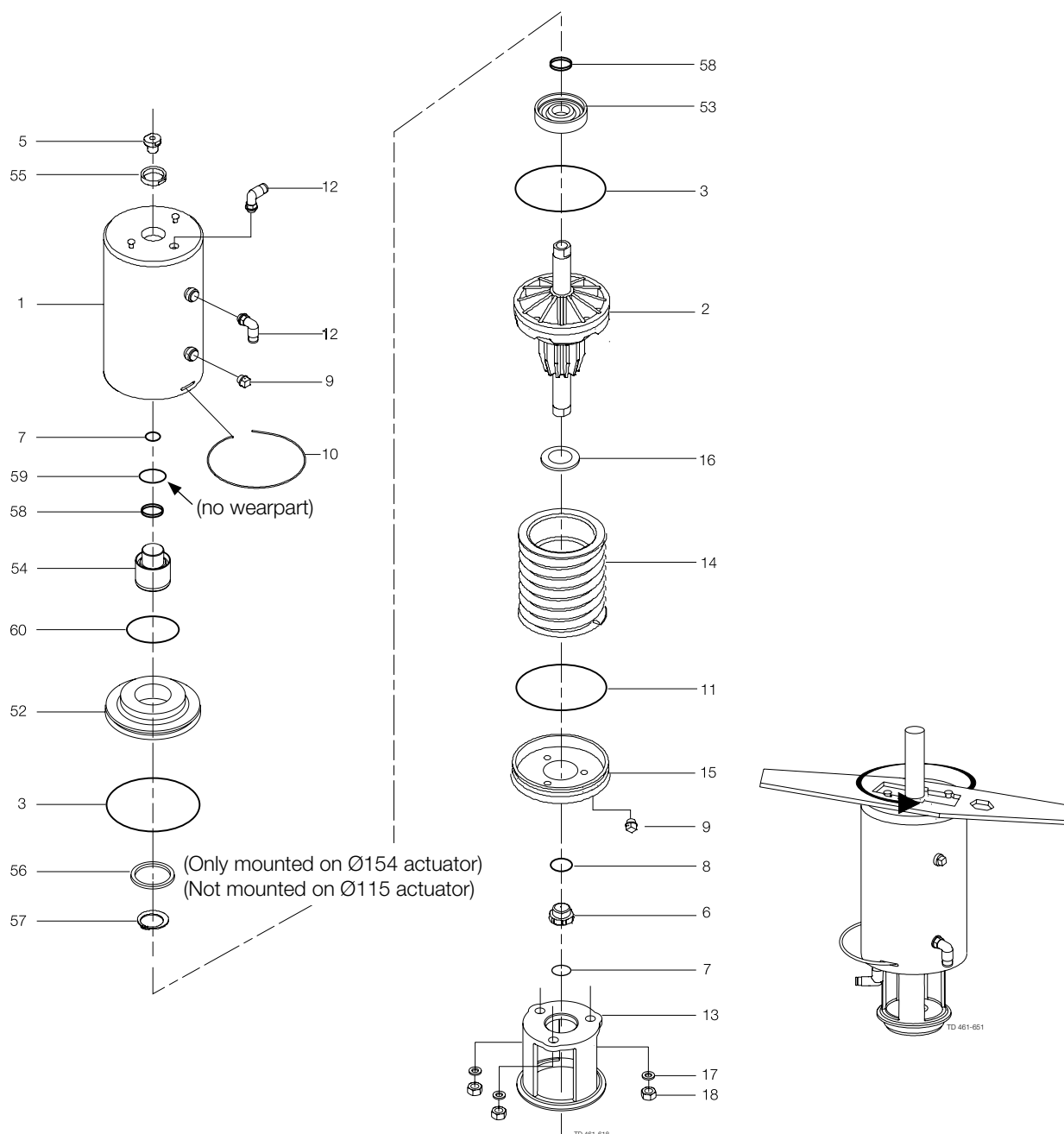
The item refer to the parts list and service kits section.

NO=Normally open (pneumatic movement downwards)

NC=Normally closed (pneumatic movement upwards)

4.6. Dismantling of Change-over (NO) maintainable actuator (changing of wear parts)

- 1) Rotate cylinder (1)
- 2) Remove lock wire (10) and pull away cylinder (1). This can be done by carefully using air on fitting (12)
- 3) Remove o-ring (11) from bottom (15)
- 4) Remove piston (2) together with support disk (16), thrust plate (53) and o-ring (3)
- 5) Remove spring assembly (14)
- 6) Unscrew nuts (18) and remove yoke (13)
- 7) Unscrew bottom bushing (6) and remove o-ring (8)
- 8) Remove seegering lock ring (57) using a seegering-tang tool
- 9) Push piston (52) out of cylinder (1) using air on fitting (12) and remove o-rings (3+60) together with spacer ring (56).
Spacer ring (56) are only mounted on GR.3 actuator (diameter = $\varnothing 154$) type normally open.
- 10) Remove guide ring (58) and o-ring (7)
- 11) Guide (54) is screwed on top of cylinder (1) and should only be dismantled if guide (54) is broken.
If guide (54) has to be dismantled loosen nut (55). With a special tool it now is possible to dismantle guide (54). This is shown in 4.8



4.7 Assembly of optional maintainable actuator

4.8 Reversing optional maintainable actuator operation

4. Maintenance

Study the instructions carefully

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

NO=Normally open (pneumatic movement downwards)

NC=Normally closed (pneumatic movement upwards)

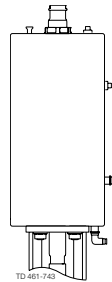
4.7. Assembly of maintainable actuator

Reverse order of 4.5 (Dismantling of (NC) maintainable actuator)

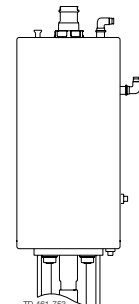
Reverse order of 4.6 (Dismantling of (NO) maintainable actuator)

4.8. Reversing maintainable actuator operation.

Actuator for the Shut-Off valves can not be reversed as it only is possible to operate in NC position.



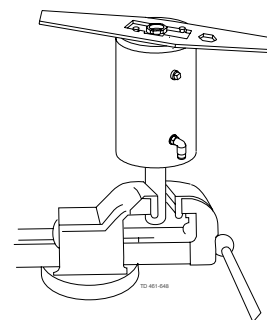
Actuator for the Change-over valves can be reversed from NC to NO and from NO to NC.



Reversing maintable actuator operation can be done by reversing parts inside the actuator (see 4,5 and 4,6).

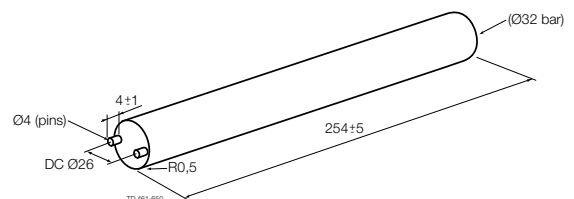
It is necessary to use a special "SSV Two step guide tool" and a "turning tool" (Item no. 31353-02191) for mounting the guide (54).

- 1) Fit the "SSV Two step guide tool" in a vice.
- 2) Fit o-ring (59) in Guide (54) and by hand screw it in cylinder (1).
- 3) Fit "turning tool" on top of cylinder (1) and tighten (Torque 15 – 20 Nm)



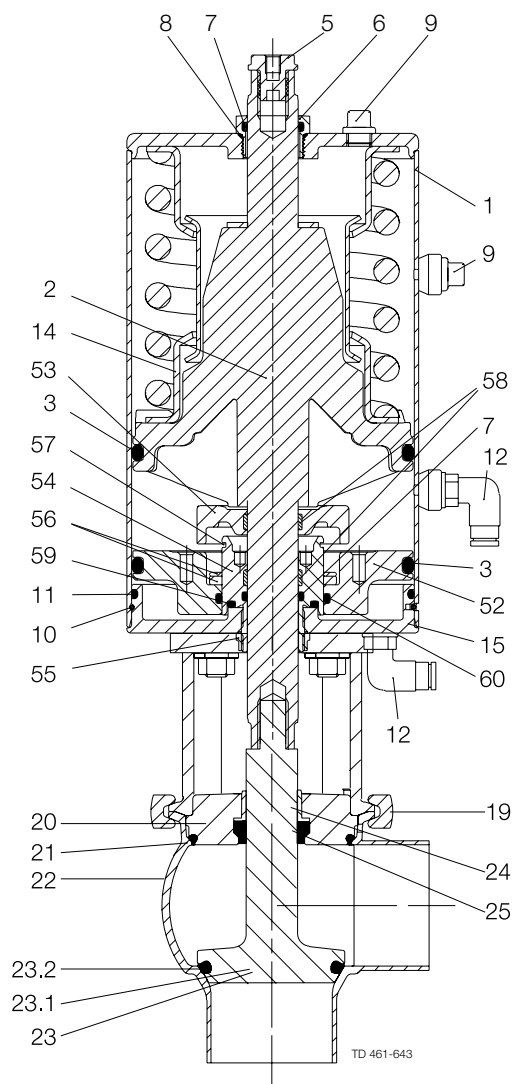
Drawing of "SSV Two step mounting tool":

- 1) Use $\varnothing 32$ mm bar and drill two $\varnothing 4$ holes in a diameter $\varnothing 26$ mm. (The depth of $\varnothing 4$ holes should be approx 6 mm)
- 2) Edges on $\varnothing 32$ bar has to be min. R0.5 so it can fit into guide (54)
- 3) Use $\varnothing 4$ mm bar with a length of approx 10 mm.
- 4) Apply loctite 270 or 638 and fit the two $\varnothing 4$ pins so length are according to drawing

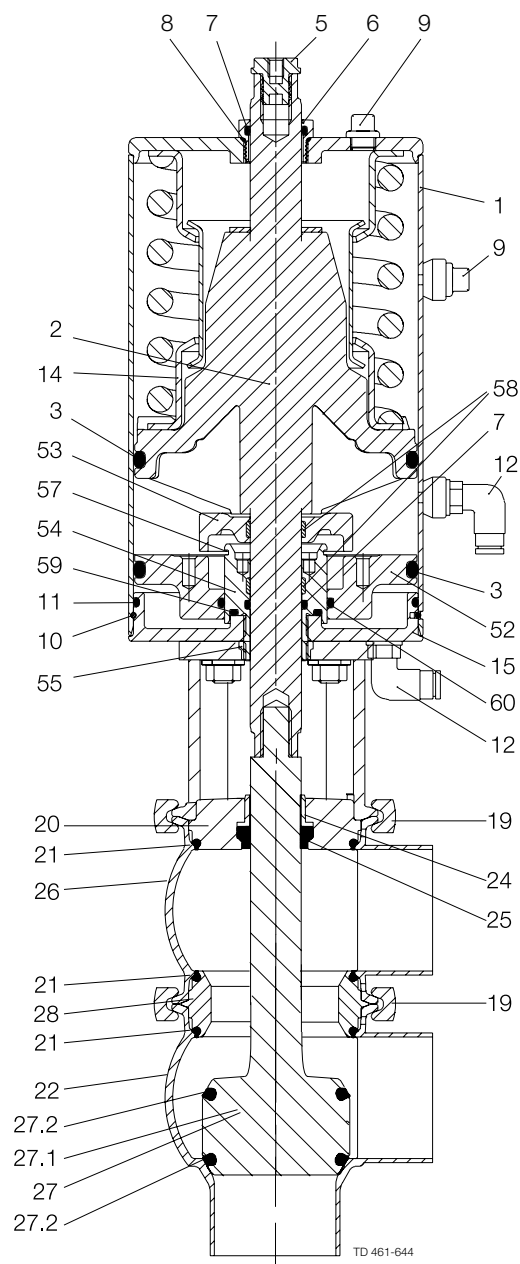


It is important to observe the technical data during installation, operation and maintenance.
Inform the personnel about the technical data.

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



Shut-off valve



Change over valve

The parts list includes all items.

Parts List			Service Kits	
Pos.	Qty.	Denomination	Denomination	Item number
		Actuator - complete (NC) Stop valve	Product wetted parts (Shut-off)	
		Actuator - complete (NO) Change-over valve		
		Actuator - complete (NC) Change-over valve		
1	1	Cylinder	Service kit, actuator	
2	1	Piston	38-63.5 mm/DN40-65.....	9611-92-6738
3 ●	2	O-ring	Service kit, actuator	
5	1	Adapter	76.1-101.6 mm/DN80-100.....	9611-92-6739
6 ●	1	Bushing		
7 ●	2	O-ring		
8 ●	1	O-ring		
9	2	Plug		
10	1	Lock wire		
11 ●	1	O-ring		
12	2	Air fitting		
14	1	Spring assembly		
15	1	Bottom		
16 ●	1	Support disc		
52	1	Piston		
53	1	Thrust plate		
54	1	Guide		
55	1	Nut		
56	2	Spacer 38 mm/DN40		
	4	Spacer 51-63,5 mm /DN50-65		
	5	Spacer 76,1-101,6 mm /DN80-100		
57	1	Lock ring		
58	2	Guide ring		
59 ●	1	O-ring		
60 ●	1	O-ring		
13	1	Yoke		
17	3	Washer		
18	3	Nut		
19	1	Clamp		
20	1	Bonnet		
21 Δ	1	O-ring		
24	1	Bushing		
25 Δ	1	Lip seal		
22	1	Valve body, lower, 2 ports		
22	1	Valve body, lower, 3 ports		
23	1	Plug, shut-off, complete		
23.1	1	Plug, shut-off		
23.2 Δ	1	Plug seal		
			DN/OD 38 mm / DN 40	
			EPDM.....	9611-92-6502
			HNBR.....	9611-92-6508
			FPM	9611-92-6514
			DN/OD 51 mm / DN 50	
			EPDM.....	9611-92-6503
			HNBR.....	9611-92-6509
			FPM	9611-92-6515
			DN/OD 63.5 mm / DN 65	
			EPDM.....	9611-92-6504
			HNBR.....	9611-92-6510
			FPM	9611-92-6516
			DN/OD 76.1 mm / DN 80	
			EPDM.....	9611-92-6505
			HNBR.....	9611-92-6511
			FPM	9611-92-6517
			DN/OD 101.6 mm / DN 100	
			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

6.2 Unique Single Seat Valve - Change-over DN/OD 38 mm/DN40- DN/OD 101.6 mm/DN100

6. Parts list and Service Kits

The parts list includes all items.

Parts List

Pos.	Qty.	Denomination
		Actuator - complete (NC) Stop valve
		Actuator - complete (NO) Change-over valve
		Actuator - complete (NC) Change-over valve
1	1	Cylinder
2	1	Piston
3 ●	2	O-ring
5	1	Adapter
6 ●	1	Bushing
7 ●	2	O-ring
8 ●	1	O-ring
9	2	Plug
10	1	Lock wire
11 ●	1	O-ring
12	2	Air fitting
14	1	Spring assembly
15	1	Bottom
16 ●	1	Support disc
52	1	Piston
53	1	Thrust plate
54	1	Guide
55	1	Nut
56	1	Spacer 76,1-101,6 mm/DN80-100 (Ø154))
57	1	Lock ring
58	2	Guide ring
59 ●	1	O-ring
60 ●	1	O-ring
13	1	Yoke
17	3	Washer
18	3	Nut
19	2	Clamp
20	1	Bonnet
21 Δ	3	O-ring
24	1	Bushing
25 Δ	1	Lip seal
28	1	Seat
26	1	Valve body, upper, 1 port ISO
	1	Valve body, upper, 2 ports ISO
22	1	Valve body, lower, 2 ports ISO
	1	Valve body, lower, 3 ports ISO
27	1	Plug, change over, ISO complete, EPDM (standard)
27.1	1	Plug, change over, ISO
	1	Plug, change over, DIN
27.2Δ	2	Plug seal, EPDM (standard)
	2	Plug seal, HNBR
	2	Plug seal, FPM

Service Kits

Denomination Item number

Product wetted parts (Shut-off)

Service kit, actuator
38-63.5 mm/DN40-65.....9611-92-6738
Service kit, actuator
76.1-101.6 mm/DN80-100.....9611-92-6739

DN/OD 38 mm / DN 40

EPDM.....9611-92-6580
HNBR.....9611-92-6586
FPM9611-92-6592

DN/OD 51 mm / DN 50

EPDM.....9611-92-6581
HNBR.....9611-92-6587
FPM9611-92-6593

DN/OD 63.5 mm / DN 65

EPDM.....9611-92-6582
HNBR.....9611-92-6588
FPM9611-92-6594

DN/OD 76.1 mm / DN 80

EPDM.....9611-92-6583
HNBR.....9611-92-6589
FPM9611-92-6595

DN/OD 101.6 mm / DN 100

EPDM.....9611-92-6584
HNBR.....9611-92-6590
FPM9611-92-6596

●: Service kits - Actuator

Δ: Service kits - EPDM

Δ: Service kits - HNBR

Δ: Service kits - FPM

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 direct.