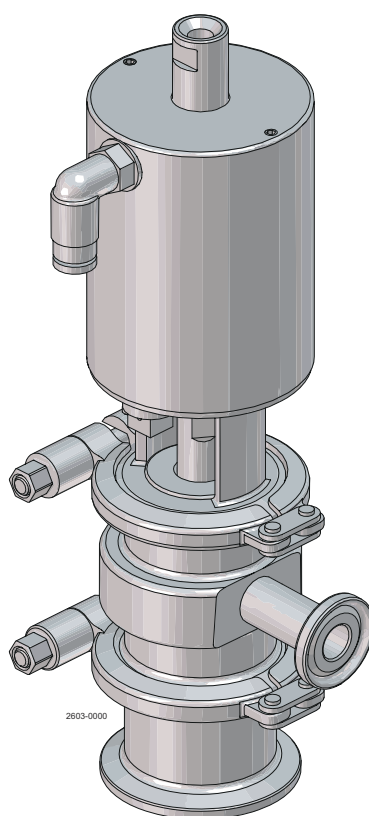


## Unique Vacuum Breaker Valve

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Lit. Code

200008034-1-EN-GB

Instruction Manual

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

**The original instructions are in English**

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# 1 Declarations of Conformity

## 1.1 EU Declaration of Conformity

### The designated company

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

Company name, address and phone number

### Hereby declare that

Unique Valve

Designation

Vacuum Breaker

Type

is in conformity with the following directives with amendments:

- Machinery Directive 2006/42/EC

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

Vice President BU Hygienic Fluid Handling

Head of Product Management

Title

Mikkel Nordkvist

Name

Kolding, Denmark

Place

2025-11-01

Date (YYYY-MM-DD)



Signature

DoC Revison\_ 01\_112025 / This Declaration of Conformity replaces Declaration of Conformity dated 2022-11-30



## 1.2 UK Declaration of Conformity

### The designated company

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

Company name, address and phone number

### Hereby declare that

Unique Valve

Designation

Vacuum Breaker

Type

is in conformity with the following directives with amendments:

- The Supply of Machinery (Safety) Regulations 2008

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

Vice President BU Hygienic Fluid Handling

Head of Product Management

Title

Mikkel Nordkvist

Name

Kolding, Denmark

Place

2025-11-01

Date (YYYY-MM-DD)



Signature

DoC Revision\_ 02\_112025



## 2 Safety

### Read this first



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

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

Not following the instructions can result in serious accidents.

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

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

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

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

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

#### NOTE

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

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







## 2.1 Safety Signs

### Mandatory Action Signs

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



## Warning Signs

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

## 2.2 Safety Precautions

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



### General

	<p>To prevent unexpected start and contact with electrical live and moving parts.</p> <p><b>Always</b> disconnect the power supply safely:</p> <ul style="list-style-type: none"> <li>The power supply disconnecting device must be disconnected (in off position) and locked.</li> </ul>
--	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------





### Transportation and Lifting

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





## Installation

	<p>If the local safety regulations prescribe that the installation has to be inspected and approved by responsible authorities before the valve is put into service, consult with such authorities before installing the equipment and have the projected installation approved by them.</p> <p>Always read <b>Technical Data</b> thoroughly.</p> <p><b>Always</b> release compressed air after use.</p>
	<p><b>Never</b> work on the valve or touch moving parts if the actuator is supplied with compressed air.</p> <p><b>Always</b> ensure that the valve and pipelines are depressurized, emptied, and cooled down to ambient temperature before installation, inspection, assembly, or dismantling of the valve.</p> <p><b>Never</b> touch the supplied product or the pipelines when processing hot liquids or sterilizing.</p>


## Operation

	<p>Always read <b>Technical Data</b> thoroughly.</p> <p><b>Never</b> dismantle the valve during operation or when pressurized.</p>
	<p><b>Never</b> touch the valve or pipelines when hot.</p> <p><b>Never</b> touch the supplied product or the pipelines when processing hot liquids or sterilizing.</p>
	<p><b>Always</b> rinse well with clean water after the cleaning.</p> <p><b>Always</b> handle lye and acid with great care.</p> <p><b>Always</b> follow the instructions in the safety data sheets from the suppliers of cleaning agents, detergents, oils etc.</p>
	<p><b>Always</b> release compressed air after use.</p> <p><b>Never</b> touch moving parts during operation.</p>


## Maintenance

	<p>In order to optimise the operation of the supplied Alfa Laval product and to minimize the down time due repair activities, the maintenance includes:</p> <ul style="list-style-type: none"> <li>• Inspection and maintenance of the supplied Alfa Laval product: strictly follow the technical documentation</li> <li>• <b>Preventive maintenance:</b> visual inspection of the supplied Alfa Laval product followed by necessary adjustments and planned periodic replacement of wear and tear parts</li> <li>• <b>Repairs:</b> unscheduled break down of a component, often causing the system to stop. Damaged components must be replaced</li> <li>• <b>Stock of Alfa Laval genuine spare parts:</b> Alfa Laval recommend keeping a stock of genuine spare parts facilitating preventive maintenance and reducing downtime in case of unplanned break downs</li> </ul>
 	<p><b>Always</b> release compressed air after use.</p> <p><b>Never</b> stick your fingers through the valve ports if the actuator is supplied with compressed air.</p> <p><b>Never</b> touch the moving parts if the actuator for force opening is supplied with compressed air.</p> <p><b>Never</b> service the valve when it is hot.</p>
	<p><b>Never</b> service the valve with valve and pipelines under pressure <b>unless specifically prescribed.</b></p>

## Storage

	<p><b>Alfa Laval recommend:</b></p> <ul style="list-style-type: none"> <li>• Store the supplied Alfa Laval product as supplied in original packaging</li> <li>• Port opening(s) should be protected against any ingress</li> <li>• Store in a clean, dry place without direct sunlight or UV light</li> <li>• Temperature range -5 °C to +40 °C (23 °F - 104 °F)</li> <li>• Relative humidity less than 60%</li> <li>• No exposure to corrosive substances (including contained air)</li> </ul>
-------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

## Noise

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

## Hazards



### Burn Hazard

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



### Corrosive Hazard

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



### Cut Hazard

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



### Crushing Hazard

- Avoid placing hands into valve orifice pinch points

## Safety check



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

**Inspection acceptance criteria:**

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

**Procedure in case of non-acceptance:**

- Fix and/or replace the protective device

## 2.3 Warning Signs in Text

Pay attention to the safety instructions in this Instruction Manual.

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



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



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



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



Indicates important information to simplify or clarify procedures.

## 2.4 Requirements of Personnel

### Operators

The operators shall read and understand this Instruction Manual.

### Maintenance personnel

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

### Trainees

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

### People in general

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

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



## 2.5 Recycling Information

### Unpacking

Packing material may consist of wood, plastics, cardboard boxes and in some cases metal straps.



- Wood and cardboard boxes can be reused, recycled or used for energy recovery
- Plastics should be recycled or burnt at a licensed waste incineration plant
- Metal straps should be sent for material recycling

### Maintenance

During maintenance, oil (if used) and wear parts in the supplied Alfa Laval product should be replaced.

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

### Scrapping

At end of use, the equipment must be recycled in accordance with the relevant local regulations. Besides the equipment itself, any hazardous residues from the process liquid must be considered and dealt with in a proper manner. When in doubt, or in the absence of local regulations, please contact your local Alfa Laval sales company.

### How to contact Alfa Laval

Contact details for all countries are continually updated on our website.

Please visit [www.alfalaval.com](http://www.alfalaval.com) to access the information directly.

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## 3 Introduction

The Alfa Laval Unique Vacuum Breaker Valve is a CIP-able pneumatic check valve that ensures positive pressure, thereby eliminating vacuum conditions on the downstream side of high-temperature, short-time (HTST) pasteurization piping and systems.

Its compact, modular and hygienic design meets the highest process demands in terms of hygiene and safety. Built on the well-proven Alfa Laval Unique SSSV small single seat valve, it features a fast-acting actuator and a single air connection to enable Cleaning-in-Place (CIP).

The valve can also be fitted with Alfa Laval ThinkTop sensing and control of the valve. Few moving parts ensure easy maintenance, high reliability, and low total cost of ownership.

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## 4 Installation

### 4.1 Unpacking/delivery

#### NOTE

Study the instructions carefully.

The items refer to *Parts Lists and Exploded Views* on page 41.

The valve is supplied as separate parts as standard.

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

#### CAUTION

Alfa Laval cannot be held responsible for incorrect unpacking.

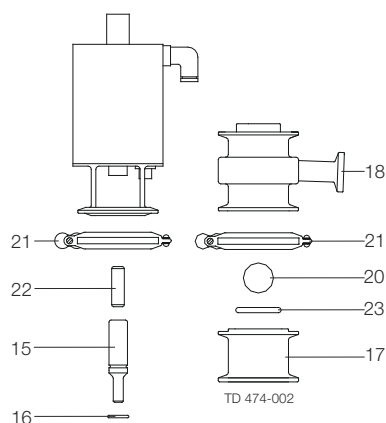
#### Check the delivery for:

1. Complete valve
2. Delivery note

#### Stop valve:

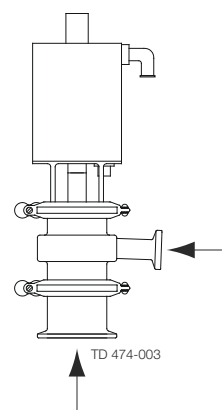
Complete actuator

- 15. Stem
- 16. O-ring
- 17. Base
- 18. Valve body
- 20. Ball
- 21. 2 x Clamp
- 22. Stud
- 23. O-ring



- 1 Inspect the valve/valve parts for visible transport damages.

Avoid damaging the valve/valve parts.



## 4.2 General installation

### NOTE

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

**Always** read the *Technical Data* on page 37 thoroughly.

### WARNING

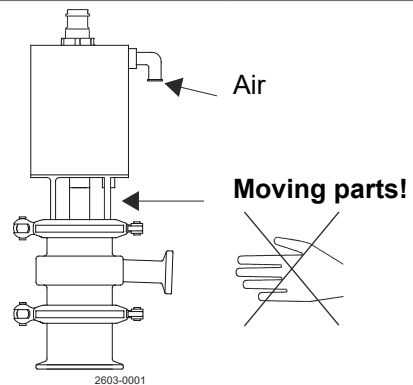
**Always** release compressed air after use.

### CAUTION

Alfa Laval cannot be held responsible for incorrect installation.

### WARNING

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

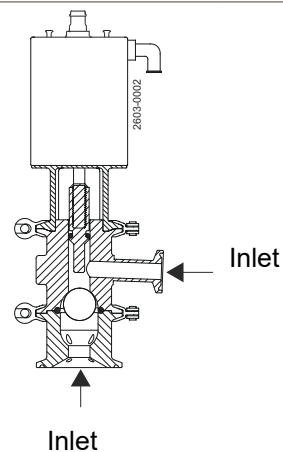


It is necessary to install the valve in the vertical position with the actuator on top.

#### Fittings:

Ensure that connections are tight.

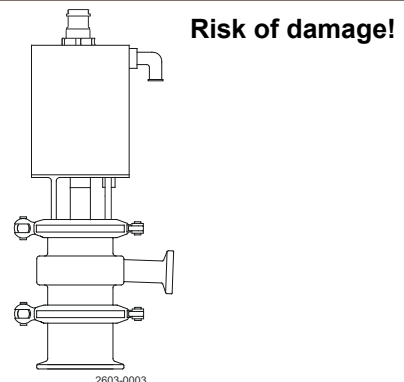
#### Remember seal rings



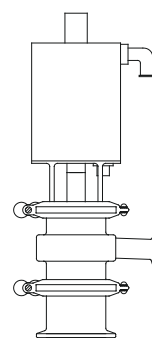
Avoid stressing the valve.

#### Pay special attention to:

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



Air connections at actuator 1/4" Poly-Flow tubing or equivalent.



**Air used only to  
pulse valve during  
CIP**

TD 474-003\_1

## 4.3 Important Installation Information

### NOTE

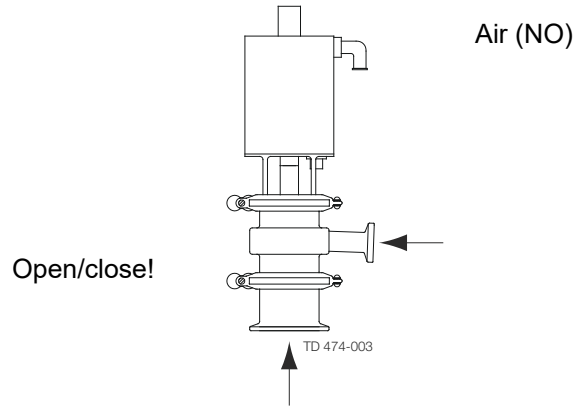
Study the instructions carefully and pay special attention to the warnings!

The installation variation below is ONLY A SUGGESTION. It is important that you contact your local regulatory agency for acceptance of your installation.

#### Pre-use check:

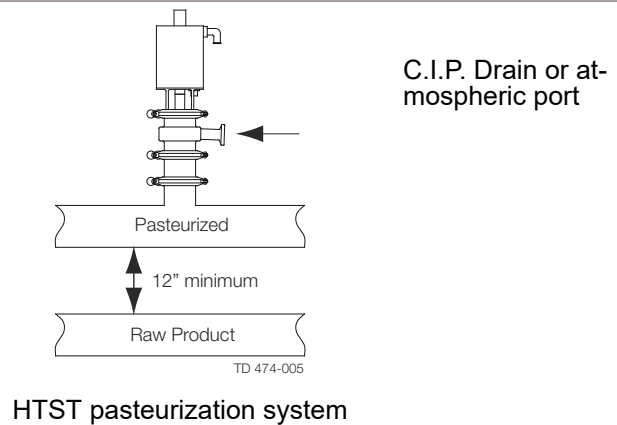
1. Supply compressed air to the actuator
2. Open and close the valve several times to ensure that it operates smoothly

#### Pay special attention to the warnings!

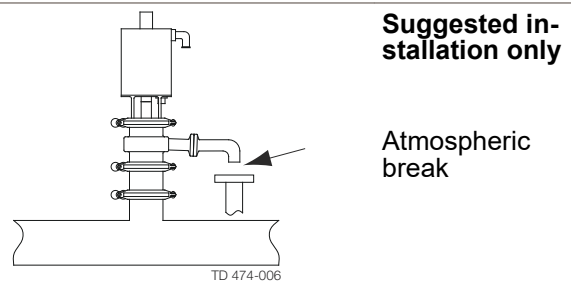


### NOTE

When installing C.I.P. drain pipe on the Vacuum Breaker discharge port, ensure that an atmosphere break exists no lower than the lowest point of the Vacuum Breaker. Ensure that the Vacuum Breaker is situated 12" above the highest point of the raw product pipeline on the pasteurized side.



During product process, port acts as an atmospheric break in case of power loss/failure. During C.I.P. the port acts as a C.I.P. drain port.





## 5 Operation

### 5.1 Operation

#### NOTE

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

The vacuum breaker is automatically operated by means of an actuator.

**Always** read the *Technical Data* on page 37 thoroughly.

#### WARNING

**Always** release compressed air after use.

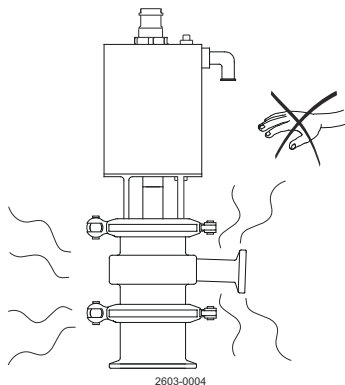
#### CAUTION

Alfa Laval cannot be held responsible for incorrect operation.

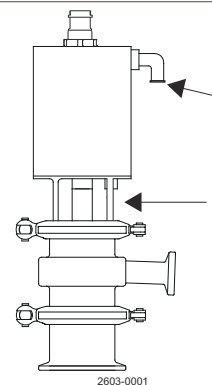
#### WARNING

##### Burn Hazard

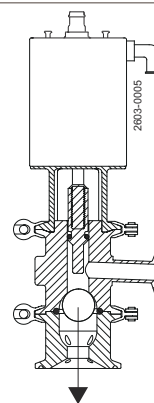
**Never** touch the vacuum breaker or the pipelines when processing hot liquids or when sterilising.



When pipelines are pressurized, the internal ball is forced upward, closing the port.

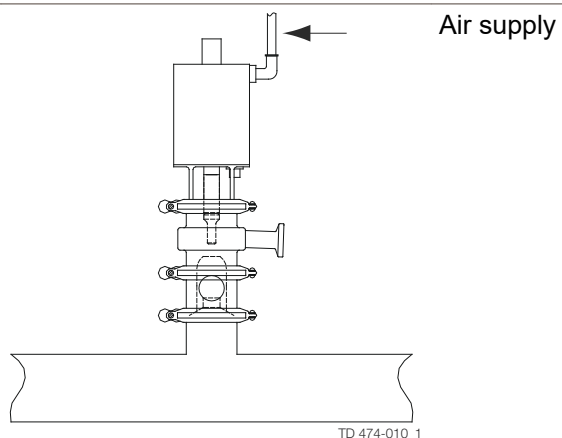


When internal pressure drops, the ball is drawn down, allowing air to enter and relieve the vacuum.



#### Operation by means of actuator: (C.I.P. only)

Automatic on/off operation by means of compressed air for pulsing the actuator during C.I.P.



TD 474-010\_1

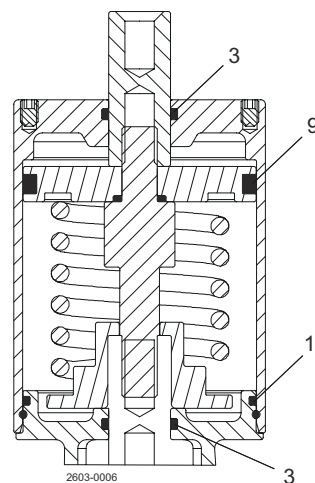
## 5.2 Troubleshooting

### NOTE

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

#### Lubrication of actuator:

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



### NOTE

Study the maintenance instructions carefully before replacing worn parts. See [General maintenance](#) on page 31!

Problem	Cause / Result	Repair
<ul style="list-style-type: none"> <li>• External product leakage</li> <li>• Internal leakage by closed valve (normal wear)</li> </ul>	<ul style="list-style-type: none"> <li>• Worn seal ring/O-rings</li> <li>• Worn ball</li> </ul>	Replace the seal ring, O-rings and ball
<ul style="list-style-type: none"> <li>• External leakage</li> <li>• Internal leakage by closed valve (too early)</li> </ul>	<ul style="list-style-type: none"> <li>• High pressure</li> <li>• High temperature</li> <li>• Aggressive liquids</li> <li>• Many activations</li> </ul>	<ul style="list-style-type: none"> <li>• Replace by a seal ring of a different rubber grade</li> <li>• Change the operation conditions</li> </ul>
Difficult to open/close	<ul style="list-style-type: none"> <li>• Worn O-rings</li> <li>• Worn stem</li> </ul>	<ul style="list-style-type: none"> <li>• Replace O-rings</li> <li>• Replace stem</li> </ul>
Difficult to open/close	The sealings seize	<b>Lubricate actuator parts:</b> <ul style="list-style-type: none"> <li>• O-rings (3)</li> <li>• O-rings (9) at inside of cylinder (1)</li> </ul>

## 5.3 Recommended Cleaning

### **WARNING** Risk of burns!

**Never** touch the supplied product or the pipelines when sterilizing.



### **CAUTION**

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



### **NOTE**

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

NaOH = Caustic soda.

HNO<sub>3</sub> = Nitric acid.

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

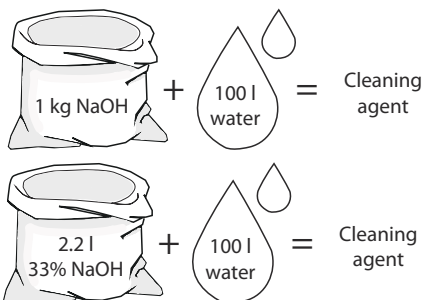
## Examples of cleaning agents

### **NOTE**

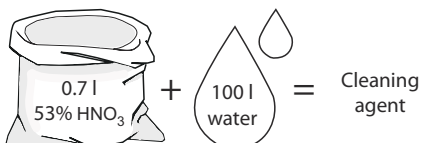
Use clean water free from chlorides.

### Metric System

1. 1% by weight NaOH at 70°C

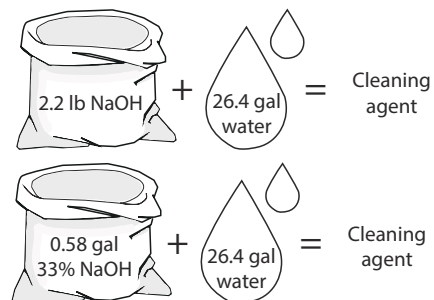


2. 0.5% by weight HNO<sub>3</sub> at 70°C

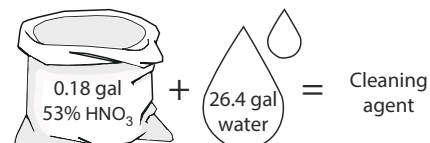


### Imperial System

1. 1% by weight NaOH at 158°F



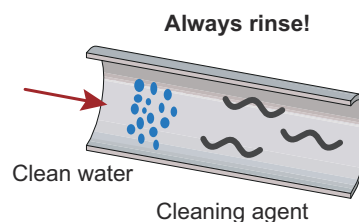
2. 0.5% by weight HNO<sub>3</sub> at 158°F



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



**Always** rinse well with clean water after the cleaning.

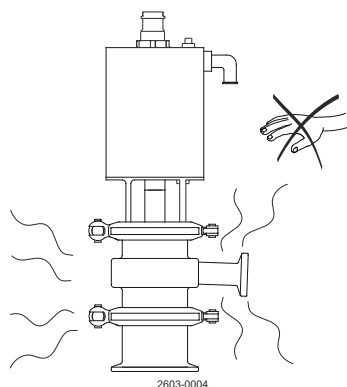


## 5.4 Additional Cleaning Information



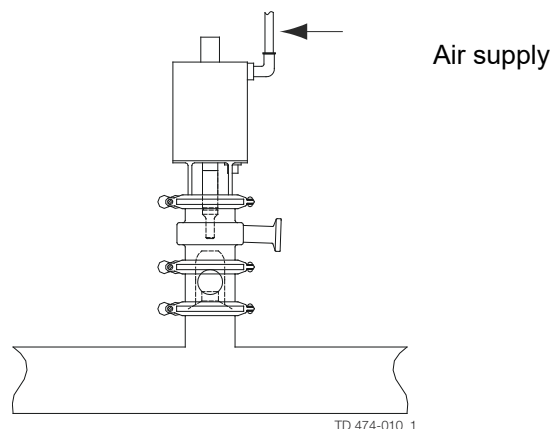
**WARNING** Burn hazard!

Never touch the vacuum breaker or the pipelines when processing hot liquids or when sterilising.



### Operation by means of actuator: (C.I.P. only)

Automatic on/off operation by means of compressed air for pulsing the actuator during C.I.P.



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## 6 Maintenance

### 6.1 General maintenance

#### ! NOTE

Maintain the valve regularly.

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

Always keep spare rubber seals in stock.

Check the valve for smooth operation after service.

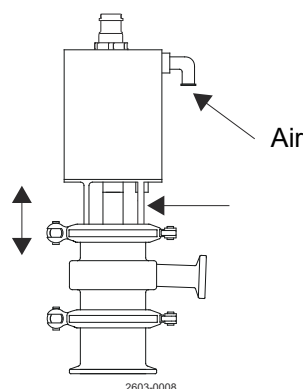
**Below are some guidelines for maintenance and lubrication intervals. Please note that the guidelines are for normal working conditions in one shift.**

	Valve rubber seals	Actuator rubber seals
Preventive maintenance	<b>Replace after 12 months</b>	<b>Replace after 5 years</b>
Maintenance after leakage (leakage normally starts slowly)	<b>Replace at the end of the day</b>	<b>Replace when possible</b>
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> USDA grade lubricant	<b>Before fitting</b> Oil or grease (USDA H1 approved oil/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!**



## 6.2 Dismantling of Unique Vacuum Breaker Valve

### NOTE

Study the instructions carefully.

The items refer to *Parts Lists and Exploded Views* on page 41.

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

**Always** read the *Technical Data* on page 37 thoroughly.

### WARNING

**Always** release compressed air before dismantling.

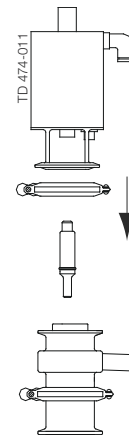
### WARNING

The Vacuum breaker must **never** be serviced while hot.

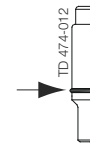
### WARNING

The vacuum breaker and the pipelines must **never** be serviced while pressurized.

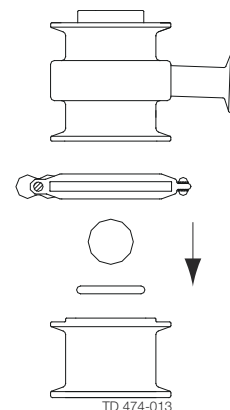
- 1
  - a) Remove clamp from actuator/body
  - b) Remove stem from actuator



- 2 Remove O-ring.



- 3
  - a) Remove clamp from base/body
  - b) Remove body, ball and gasket from the base





## 6.3 Assembly of Unique Vacuum Breaker Valve

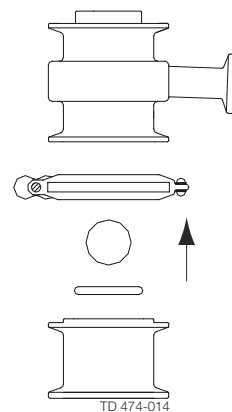
### NOTE

Study the instructions carefully.

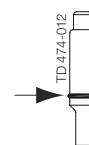
The items refer to *Parts Lists and Exploded Views* on page 41.

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

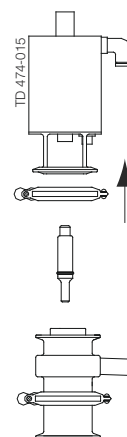
- 1
  - a) Assemble ball, gasket and body to the base
  - b) Assemble the clamp and tighten



- 2
  - a) Apply food-grade lubricant to O-ring
  - b) Assemble O-ring to stem
  - c) Assemble stem to actuator



- 3 Assemble actuator and stem to body.



## 6.4 Dismantling of actuator

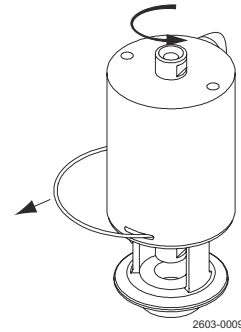
### NOTE

Study the instructions carefully.

The items refer to *Parts Lists and Exploded Views* on page 41.

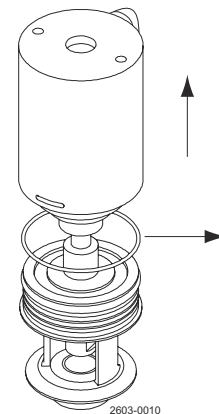
All scrap must be stored/disposed of in accordance with current regulations and directives.

- 1
  - a) Rotate cylinder (1)
  - b) Remove lock wire (12)

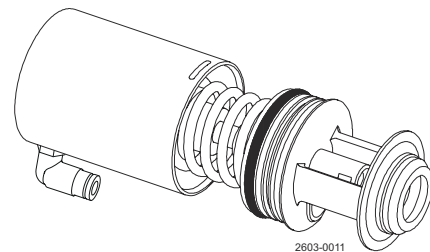


Rotate by hand or with filter strap!

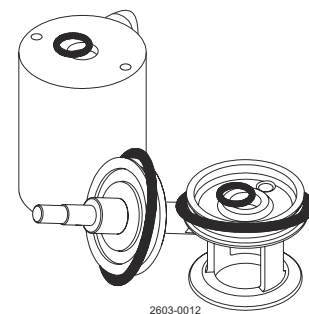
- 2
  - a) Remove cylinder (1)
  - b) Remove O-rings (3, 11) from bonnet (13) and O-ring (3) from cylinder (1)



- 3
  - a) Remove piston/spring package
  - b) Remove O-ring (9) from the piston (10)



- 4 Replace the rubber seals.



## 6.5 Assembly of actuator

### NOTE

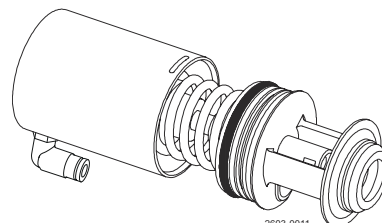
Study the instructions carefully.

The items refer to *Parts Lists and Exploded Views* on page 41.

Lubricate the rubber seals before fitting them.

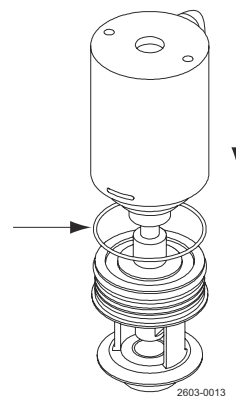
1

- a) Fit O-ring (9) on piston (10)
- b) Fit the piston/spring package



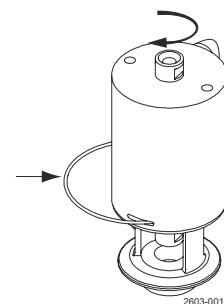
2

- a) Fit O-rings (3, 11) in bonnet (13) and O-ring (3) on cylinder (1)
- b) Fit the cylinder



3

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

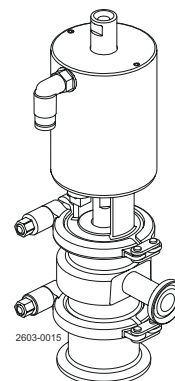


Rotate by hand or with filter strap!

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.



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## 7 Technical Data

### NOTE

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

### 7.1 Technical Data

#### Pressure

##### Valve

Maximum product pressure:	1000 kPa / 145 psi / 10 bar
Minimum product pressure:	Full vacuum

##### Actuator

Maximum air pressure:	700 kPa / 101.5 psi / 7 bar
Minimum air pressure:	500 kPa / 73 psi / 5 bar

#### Temperature

Temperature range:	-10 °C to 90 °C / 14 °F to 194 °F
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### 7.2 Physical Data

Valve/Actuator

#### Materials

Product wetted steel parts:	Stainless steel 1.4404 / AISI 316L
Product wetted seals:	EPDM
Ball:	Polypropylene HD
Internal surface finish:	Ra ≤0.8 µm / ≤32 µin

Actuator

#### Materials

Seals:	NBR
External surface finish:	Blasted

#### Connections

Compressed air:	6 mm / 1/4"
Vent:	1/2" Tri-Clamp
Process/CIP:	1 1/2" Tri-Clamp

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## 8 Spare Parts

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

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

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

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

### 8.1 Ordering Spare Parts

When ordering spare parts, please always state:

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

### 8.2 Alfa Laval Service

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

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

## 8.3 Warranty - Definition



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

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

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



### Liability and warranty are excluded:

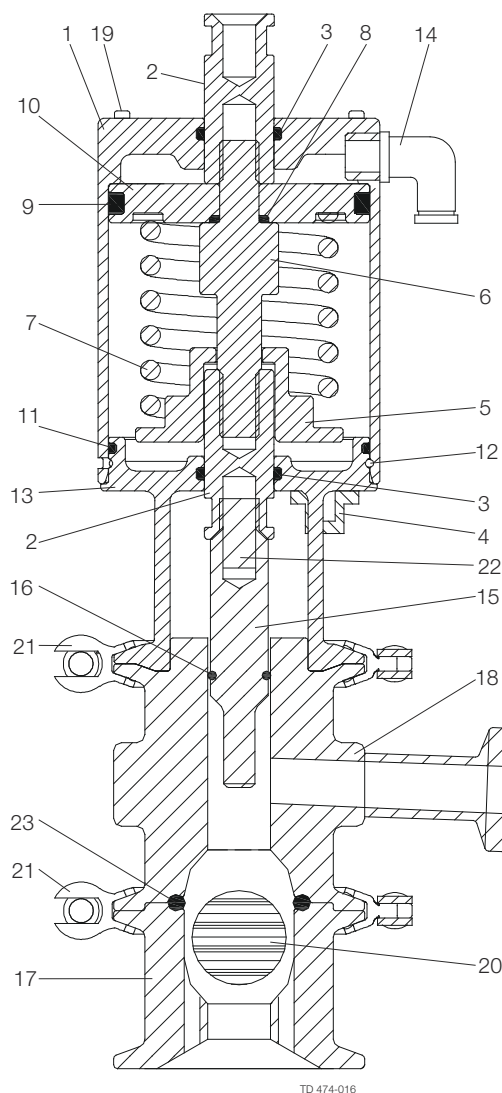
- If advice and instruction of operating instructions are ignored
- For incorrect operation or for insufficient maintenance of the supplied Alfa Laval product
- For any kind of change of function of the supplied Alfa Laval product without prior written agreement by Alfa Laval Kolding A/S
- If supplied Alfa Laval product is modified by non-authorised persons
- If using the supplied Alfa Laval product without attention of appropriate safety regulations, (see [Safety](#) on page 7)
- If protection equipment is not used and vessel process / ancillary equipment is not brought to a standstill
- If the supplied Alfa Laval product and ancillary parts are not properly maintained (to be executed in intervals and including fitting of prescribed replacement parts)

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



## 9 Parts Lists and Exploded Views

### 9.1 Unique Vacuum Breaker Valve



TD 474-016

Pos.	Qty.	Denomination
1	1	Cylinder
2	2	Middle piece
3	2	O-ring
4	1	Plug
5	1	Guide pin
6	1	Piston rod
7	1	Spring
8	1	O-ring
9	1	O-ring
10	1	Piston
11	1	O-ring
12	1	Lock wire

Pos.	Qty.	Denomination
13	1	Bonnet
14	1	Air fitting
15	1	Stem
16	1	O-ring
17	1	Base
18	1	Body
19	2	Screw
20	1	Ball
21	2	Clamp
22	1	Stud
23	1	O-ring