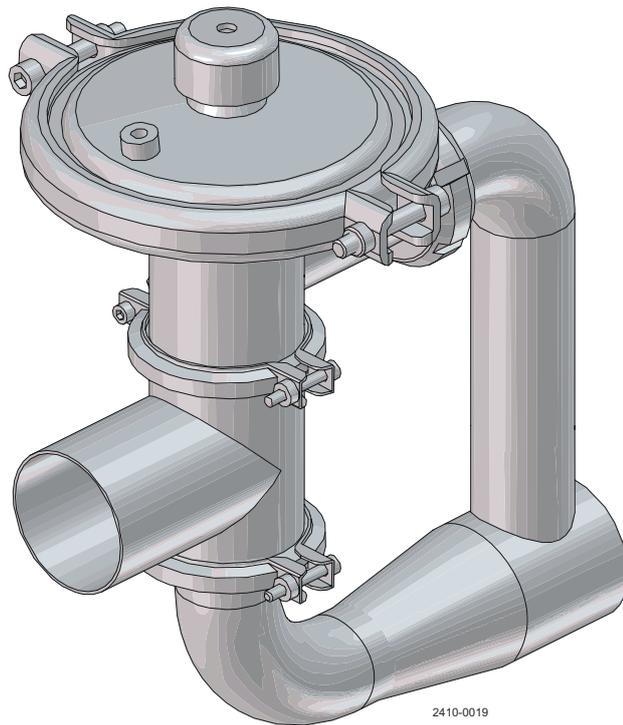


CPM-I-D60

Regulating valves



Lit. Code

200007889-1-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

© Alfa Laval AB 2026-01

This document and its contents are subject to copyrights and other intellectual property rights owned by Alfa Laval AB (publ) or any of its affiliates (jointly "Alfa Laval"). No part of this document may be copied, re-produced or transmitted in any form or by any means, or for any purpose, without Alfa Laval's prior express written permission. Information and services provided in this document are made as a benefit and service to the user, and no representations or warranties are made about the accuracy or suitability of this information and these services for any purpose. All rights are reserved.

Contents

1	Declarations of Conformity	5
1.1	EU Declaration of Conformity.....	5
1.2	UK Declaration of Conformity.....	6
2	Safety	7
2.1	Safety Signs.....	8
2.2	Safety Precautions.....	10
2.3	Warning Signs in Text.....	15
2.4	Requirements of Personnel.....	16
2.5	Recycling Information.....	17
3	Introduction	19
3.1	Working Principle.....	19
4	Installation	21
4.1	Unpacking/Delivery.....	21
4.2	General installation.....	23
4.3	Welding.....	25
4.4	Fitting of Booster (optional extra).....	27
5	Operation	29
5.1	General Operation.....	29
5.2	Troubleshooting.....	31
5.3	Recommended Cleaning.....	32
6	Maintenance	33
6.1	General Maintenance.....	33
6.2	Dismantling.....	34
6.3	Assembly.....	38
7	Technical Data	43
7.1	Technical Data.....	43
7.2	Physical Data.....	43
7.2.1	Weight.....	43
7.3	Selection / Pressure drop - capacity diagram.....	44
8	Spare Parts	45
8.1	Ordering Spare Parts.....	45
8.2	Alfa Laval Service.....	45
9	Parts Lists and Exploded Views	47

9.1 Alfa Laval CPM-I-D60.....47
9.2 Booster..... 49

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

Valve

Designation

CPM-I-D60

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

2026-01-01

Date (YYYY-MM-DD)



Signature

DoC Revison_ 01_012026 / This Declaration of Conformity replaces Declaration of Conformity dated 2022-11-18



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

Valve

Designation

CPM-I-D60

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

2026-01-01

Date (YYYY-MM-DD)



Signature

DoC Revison_02_012026



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.
	Heavy object lifting.
	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.

Transportation and Lifting

	<p>Never lift or elevate in any way other than described in this manual.</p> <p>Always use the original packaging or similar during transportation.</p> <p>Always ensure that personnel must have experience with lifting operations.</p> <p>Always ensure that all connections are disconnected before attempting to remove the valve from the installation.</p> <p>Always ensure that no leakage of lubricants can occur.</p> <p>Always drain liquid out of the valves before transportation.</p> <p>Always ensure sufficient fixing of the valve during transportation - if specially designed packaging material is available, it must be used.</p> <p>Always ensure that compressed air is released.</p>
	<p>Always use designated lifting points if defined. Ensure that the lifting equipment is suitable for the supplied Alfa Laval product.</p> <p>Always ensure that the unit is securely fixed during transportation.</p> <p>Always ensure the lifting point to be in line with center of gravity. Adjust lifting point if necessary.</p> <p>Always use suitable transport device ie. forklift or pallet lifter.</p> <p>Always use appropriate lifting equipment for heavy parts when relevant. Use lifting logs when available.</p> <p>Always 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 release compressed air after use.</p> <p>Always assemble the valve completely before startup and make sure everything is in place and correctly tightened.</p>
  	<p>Never work on the valve or touch moving parts if the actuator is supplied with compressed air.</p> <p>Always 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>Never touch the valve or the pipelines when processing hot liquids or when sterilising.</p>
	

Operation

	<p>Never operate the valve unless a correct installation has been verified.</p> <p>Never dismantle the valve during operation or when pressurized.</p> <p>Necessary precautions must be taken if leakage occurs as this can lead to hazardous situations.</p>
	<p>Never touch the valve or pipelines when hot.</p> <p>Never touch the valve or the pipelines when processing hot liquids or when sterilising.</p>
	<p>Always rinse well with clean water after cleaning.</p> <p>Always handle lye and acid with great care.</p> <p>Always follow the instructions in the safety data sheets from the suppliers of cleaning agents, detergents, oils etc.</p>
	<p>Never touch moving parts of the valve during operation.</p> <p>Always release compressed air after use.</p> <p>Never touch the moving parts if the actuator is supplied with compressed air.</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"> • Inspection and maintenance of the supplied Alfa Laval product: strictly follow the technical documentation • Preventive maintenance: visual inspection of the supplied Alfa Laval product followed by necessary adjustments and planned periodic replacement of wear and tear parts • Repairs: unscheduled break down of a component, often causing the system to stop. Damaged components must be replaced • Stock of Alfa Laval genuine spare parts: Alfa Laval recommend keeping a stock of genuine spare parts facilitating preventive maintenance and reducing downtime in case of unplanned break downs
 	<p>Always use Alfa Laval genuine spare parts.</p> <p>Always release compressed air after use.</p> <p>Always ensure that the valve and pipelines are depressurized, emptied, and cooled down to ambient temperature before dismantling the valve.</p> <p>Never work on the valve or touch moving parts if the actuator is supplied with compressed air.</p>
	<p>Never service the valve with valve and pipelines under pressure unless specifically prescribed.</p>

Storage

	<p>Alfa Laval recommend:</p> <ul style="list-style-type: none"> • Store the supplied Alfa Laval product as supplied in original packaging • Port opening(s) should be protected against any ingress • Bare steel (not stainless) should be lightly oiled/greased • Store in a clean, dry place without direct sunlight or UV light • Temperature range -5 °C to +40 °C (23 °F - 104 °F) • Relative humidity less than 60% • No exposure to corrosive substances (including contained air)
---	---

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

	<p>Burn Hazard</p> <ul style="list-style-type: none">• Lubrication oil, machine parts and various machine surfaces can be hot and cause burns. Wear protective gloves
	<p>Corrosive Hazard</p> <ul style="list-style-type: none">• 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.
	<p>Cut Hazard</p> <ul style="list-style-type: none">• Sharp edges, especially on bowl discs and threads, can cause cuts. Wear protective gloves
	<p>Crushing Hazard</p> <ul style="list-style-type: none">• 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 to access the information directly.

This page is intentionally left blank.

3 Introduction

The Alfa Laval CPM-I-D60 Constant Pressure Modulating Valve is a pneumatic regulating valve that maintains constant pressure in hygienic process lines and stainless steel pipe systems at the inlet side of the valve. Safe, reliable and easy to clean, this regulating valve provides accurate pressure control, quickly adjusting position to maintain the pressure at pre-set values without any need for electronic control.

3.1 Working Principle

The Alfa Laval CPM-I-D60 is controlled remotely by means of compressed air. The valve operates without a transmitter in the product line and requires only a self-relieving precision air regulator with gauge for the compressed air and a pressure gauge in the product line. A diaphragm/valve plug system reacts immediately to any alteration of the product pressure and changes position to maintain the pre-set pressure. The CPM-I-D60 opens when the product pressure increases and closes when the product pressure decreases.

This page is intentionally left blank.

4 Installation

4.1 Unpacking/Delivery

NOTE

This Instruction Manual is part of the delivery. Study the instructions carefully.

The valve is assembled before delivery.

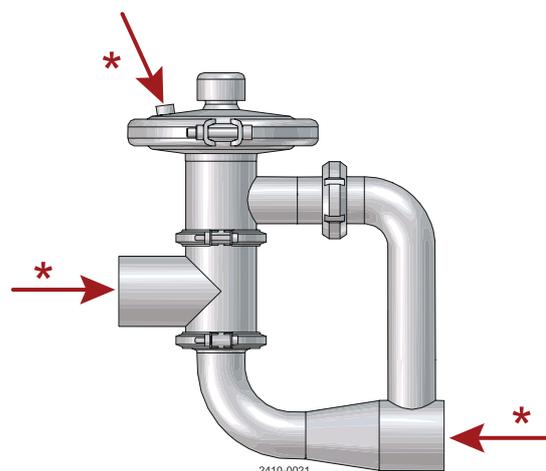
CAUTION

Alfa Laval cannot be held responsible for incorrect unpacking.

Check the delivery for:

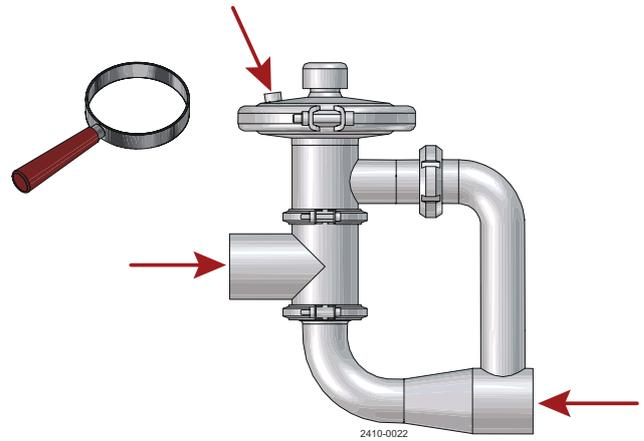
1. Complete valve.
2. Delivery note.
3. Instruction Manual.

- 1 Remove possible packing materials from the valve ports.

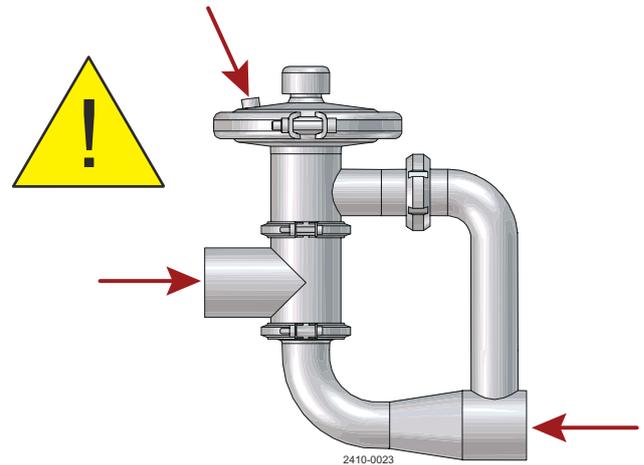


* = Remove packing materials!

- 2 Inspect the valve for visible transport damage.



- 3 Avoid damaging the air connection and the valve ports.



4.2 General installation

NOTE

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.

Always read the technical data thoroughly. See [Technical Data](#) on page 43.

CAUTION

Alfa Laval cannot be held responsible for incorrect installation.

WARNING

Always release compressed air after use. **Never** touch the valve top if compressed air is supplied to the valve.

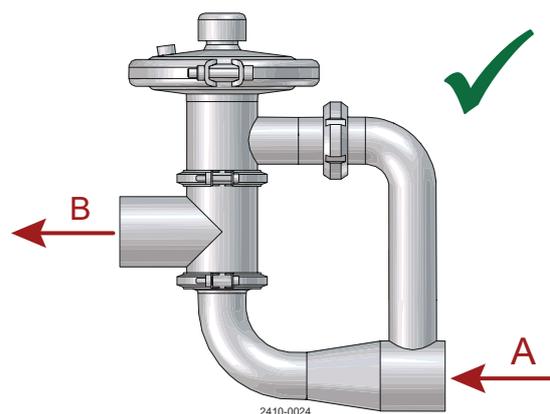


1

Ensure that the flow direction is correct.

A = Inlet

B = Outlet

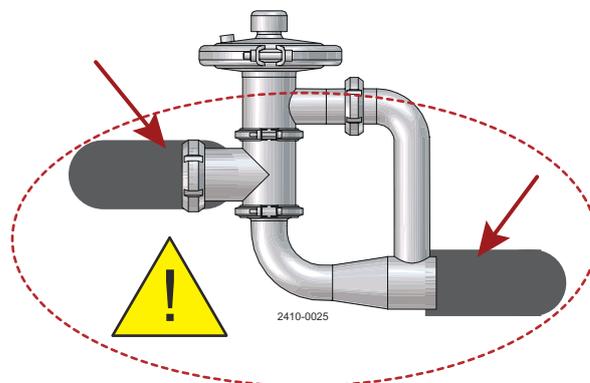


2

Avoid stressing the valve.

Pay special attention to:

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

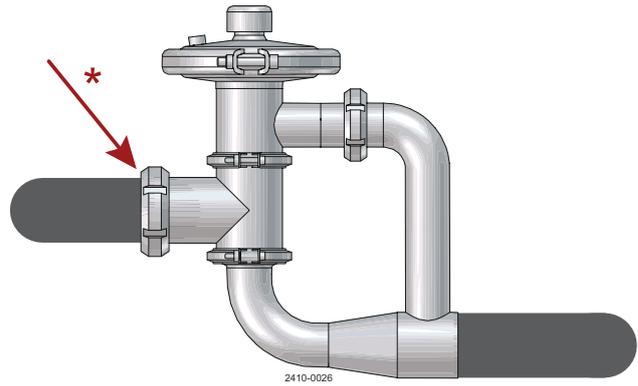


3

Fittings:

Ensure that the connections are tight.

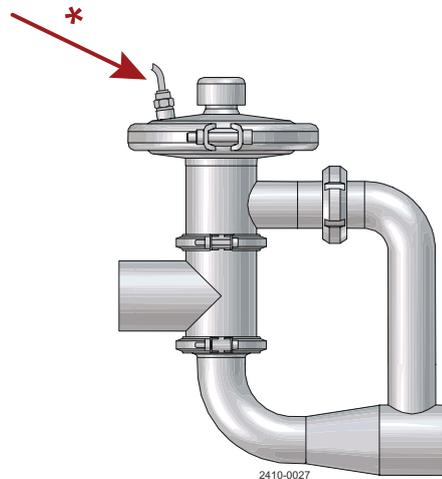
*** = Remember seal rings!**



4

Air connection:

*** = R1/4" (BSP)**

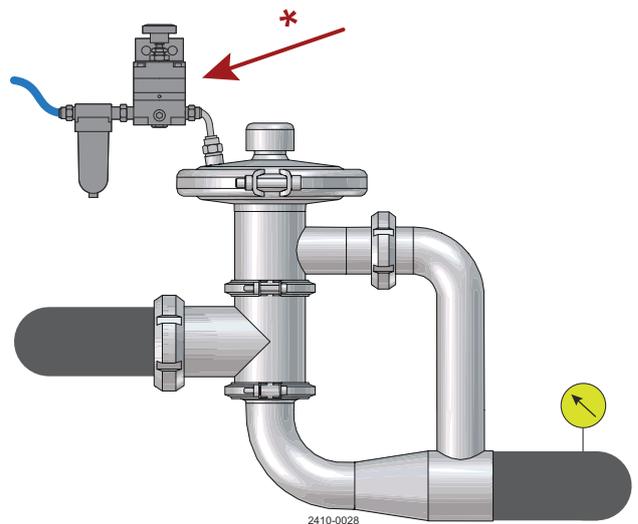


5

Air pressure regulating valve (optional extra):

It is recommended to install the air pressure regulating valve as close as possible to the valve.

*** = Pressure regulating valve. Install as close as possible.**



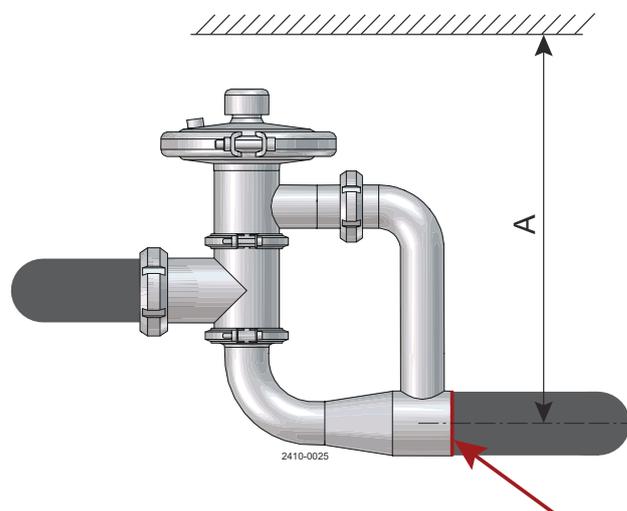
4.3 Welding

NOTE Never weld both the inlet and outlet connections. If so, it will be impossible to service the lower valve body seal ring (16).

1 Welding the inlet connection

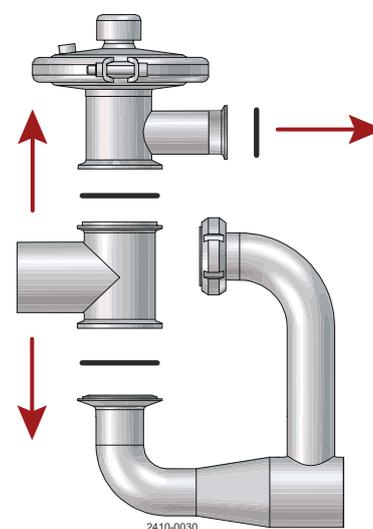
1. Weld the valve body into the pipelines.
2. Maintain the minimum clearance so that the internal valve parts can be removed.

A = 440 mm (without booster) / 540 mm (with booster)



2 Welding the outlet connection

Dismantle the valve in accordance with section [Dismantling](#) on page 34, Step 1 and 2.

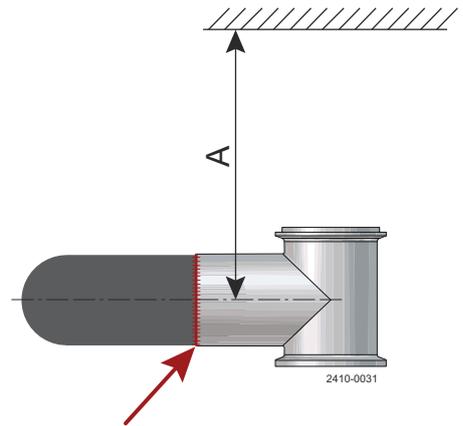


3

Welding the outlet connection:

1. Weld the lower body (10) into the pipelines.
2. Maintain the minimum clearance so that the internal valve parts can be removed.

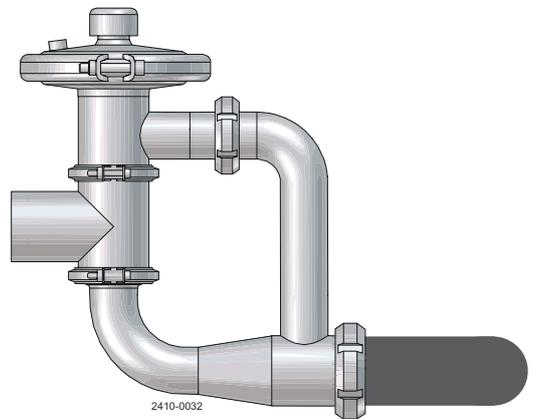
A = 284 mm (without booster) / 384 mm (with booster)



4

Welding the outlet connection:

Assemble the valve in accordance with section *Assembly* on page 38, Step 11 on page 41 and Step 12 on page 41.



5

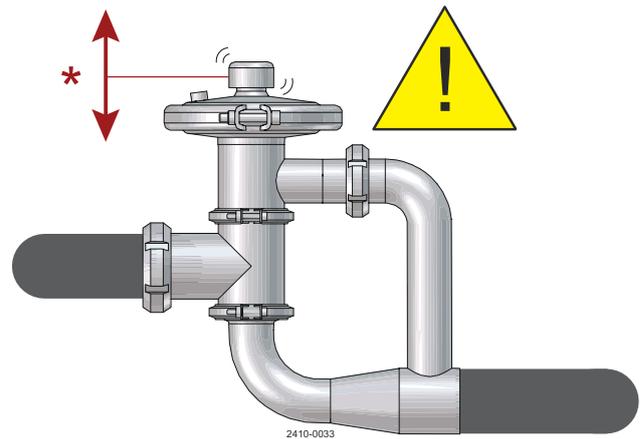
Pre-use check:

Lift and lower the valve top several times to ensure that the valve operates smoothly.

NOTE

Pay special attention to the warning!

* = Lift and lower by hand!



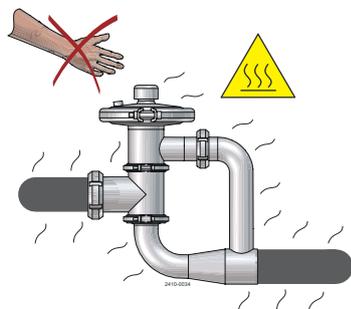
4.4 Fitting of Booster (optional extra)

DANGER

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

The valve and the pipelines must **never** be pressurised when dismantling the valve.

Atmospheric pressure required.



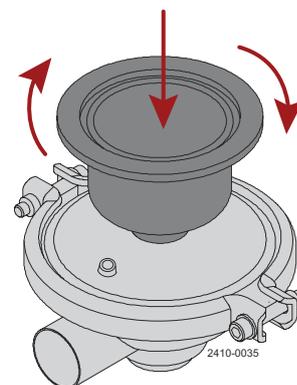
1

1. Remove the valve top in accordance with section *Dismantling* on page 34, Step 5 on page 35.

NOTE

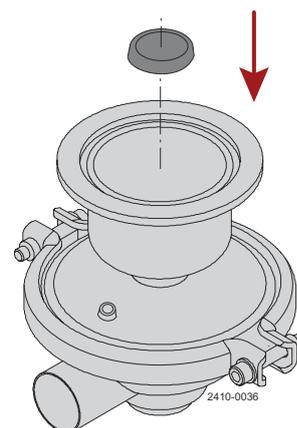
Pay special attention to the warnings!

2. Fit Booster housing (1) on the cover.
3. Fit and tighten lock nut (2).



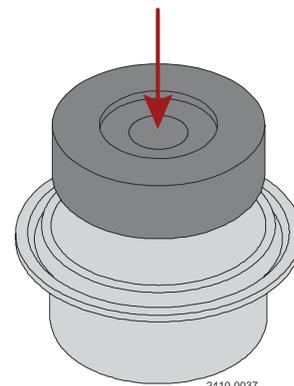
2

1. Fit washer (3).
2. Refit the washer and the top nut on the valve plug.



3

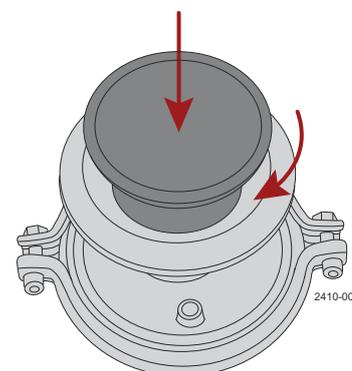
1. Turn diaphragm (7) inside out.
2. Place piston (6) in the diaphragm so that the hole is visible.



2410-0037

4

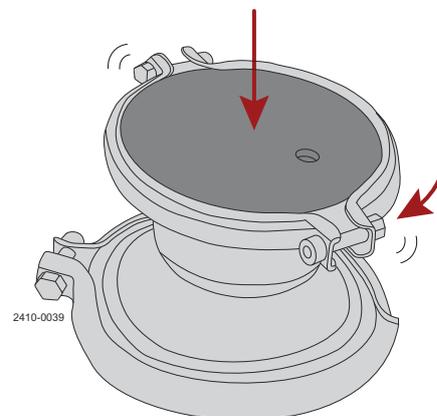
1. Roll diaphragm (7) down half its length.
2. Fit the diaphragm with piston (6) in Booster housing (1).



2410-0038

5

1. Fit cover (8) on Booster housing (1).
2. Fit and tighten clamp (9).
3. The valve and the Booster are now ready for operation.



2410-0039

5 Operation

5.1 General Operation

NOTE

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

Ensure that the valve operates smoothly.

Always read the technical data thoroughly. See [Technical Data](#) on page 43.

Always release compressed air after use.

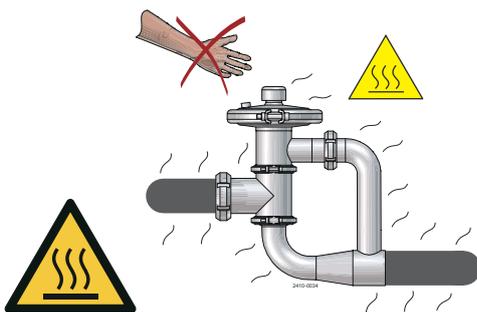


CAUTION

Alfa Laval cannot be held responsible for incorrect operation.

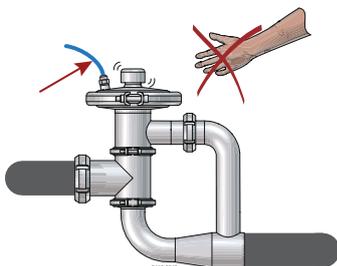
DANGER Danger of burns!

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



DANGER

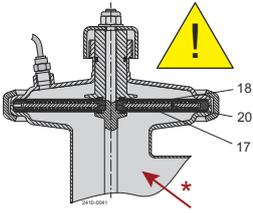
Never touch the valve top if compressed air is supplied to the valve.



CAUTION

There must not be vacuum in the valve as air can be drawn into the product and diaphragms (17) can then be pulled out from support sectors (20).

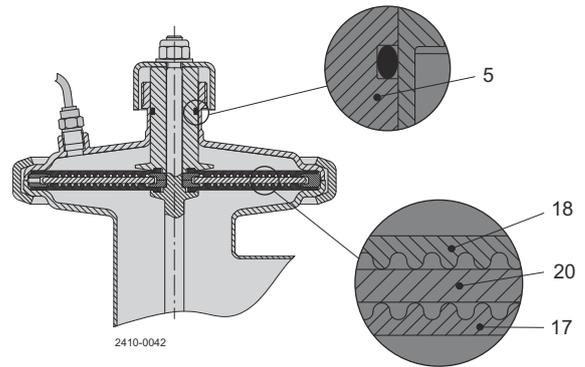
* = No vacuum!

**Lubrication**

1. Ensure smooth movement between diaphragms (17,18) and support sectors (20).
2. Ensure smooth movement of guide (5).

NOTE Lubricate if necessary!

See *General Maintenance* on page 33.



5.2 Troubleshooting

NOTE

Pay attention to possible faults.

Study the maintenance instructions carefully before replacing worn parts (see [General Maintenance](#) on page 33).

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

Problem	Cause/result	Repair
The valve does not maintain the preset pressure	<ul style="list-style-type: none"> Faulty diaphragm Guide (9) seizes Incorrect operating range The available air pressure is lower than the product pressure The air pressure is not correctly adjusted Faulty air pressure regulating valve or incorrect type 	<ul style="list-style-type: none"> Replace the diaphragm Lubricate the guide (see chapter General Operation, section Lubrication on page 30) Check the pressure drop over the valve and check the flow rate (see chapter Selection / Pressure drop - capacity diagram on page 44) Increase the air pressure eg. by using a Booster (see chapter Fitting of Booster (optional extra) on page 27). Readjust the air pressure Repair the valve or check that it is pressure compensating
Product leakage	<ul style="list-style-type: none"> Worn diaphragm or product affected diaphragm 	<ul style="list-style-type: none"> Replace the diaphragm
Air leakage	<ul style="list-style-type: none"> Worn O-ring Worn diaphragm (10) Worn and hard diaphragm (10) 	<ul style="list-style-type: none"> Replace the O-ring Replace the diaphragm Replace by a diaphragm of a different grade for higher temperature (see chapter Weight on page 43)
Valve plug moving too fast up and down (unstable)	<ul style="list-style-type: none"> Pressure pulsations because of fast changes in process conditions 	<ul style="list-style-type: none"> Use an air throttling valve (optional extra between the air pressure regulating valve and the CPM-I-D 60 valve).

5.3 Recommended Cleaning

NOTE

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

NaOH = Caustic soda.

HNO₃ = Nitric acid.

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

CAUTION

Never touch the supplied product or the pipelines when sterilizing.

Always handle lye and acid with great care.

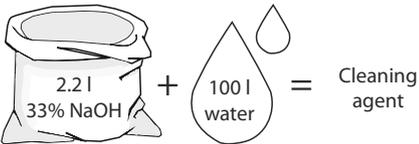
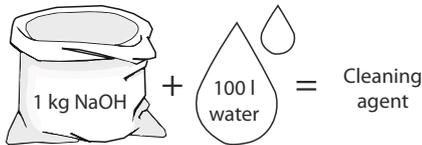


Examples of cleaning agents

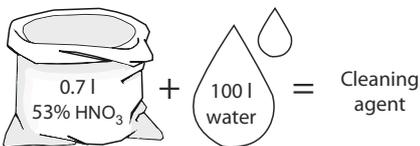
Use clean water free from chlorides

Metric System

1. 1% by weight NaOH at 70°C

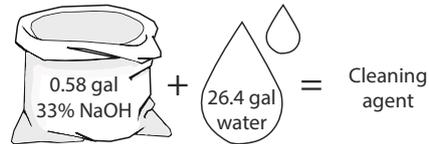
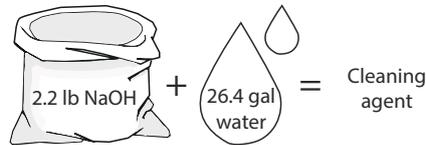


2. 0.5% by weight HNO₃ at 70°C

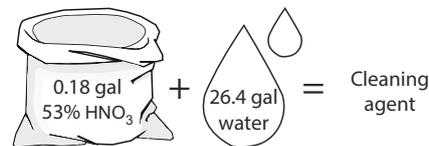


Imperial System

1. 1% by weight NaOH at 158°F



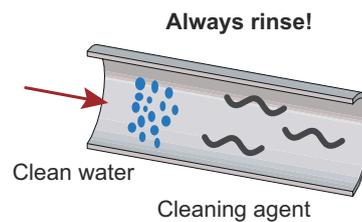
2. 0.5% by weight HNO₃ at 158°F



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!

CAUTION

Always rinse well with clean water after the cleaning.



6 Maintenance

6.1 General Maintenance

NOTE

Maintain the valve regularly.

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

Always read the technical data thoroughly. See *Technical Data* on page 43.

All scrap must be stored/discharged in accordance with current regulations/directives.

Always keep spare diaphragms and o-rings in stock. Always use Alfa Laval genuine spare parts.

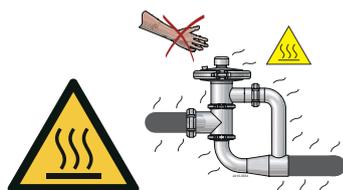
Check the valve for smooth operation after service.

DANGER Danger of burns!

Never service the valve when it is hot.

Never service the valve with valve and pipelines under pressure.

* = Atmospheric pressure required!



Guidelines for maintenance intervals and lubrication

Please note that the guidelines are for normal working conditions in one shift.

	Diaphragms	O-ring
Preventive maintenance	Replace after 12 months	Replace when replacing the diaphragms
Maintenance after leakage (leakage normally starts slowly)	Replace by the end of the day	Replace when replacing the diaphragms
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 when replacing diaphragms
	Replace after leakage	

Lubrication (before assembly)

Guide	Molycote longtherm 2 Plus
Sectors	Molycote 111
Threads	Molycote TP42

6.2 Dismantling

NOTE

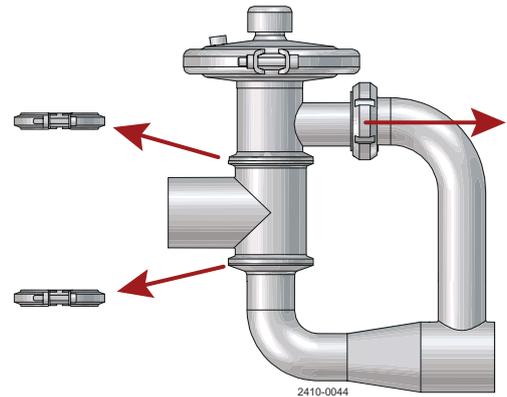
Study the instructions carefully.

The items refer to *Parts Lists and Exploded Views* on page 47.

Handle scrap correctly.

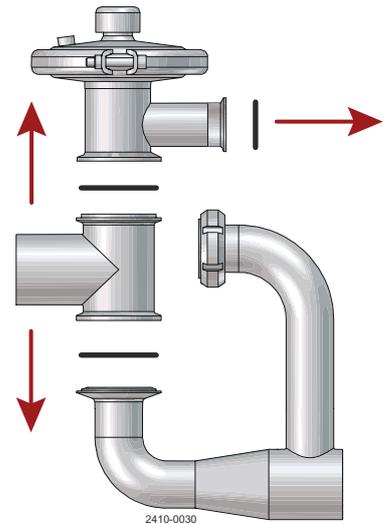
1

1. Remove clamps (14,15).
2. Loosen the connection between valve body (12) and inlet tube (9).



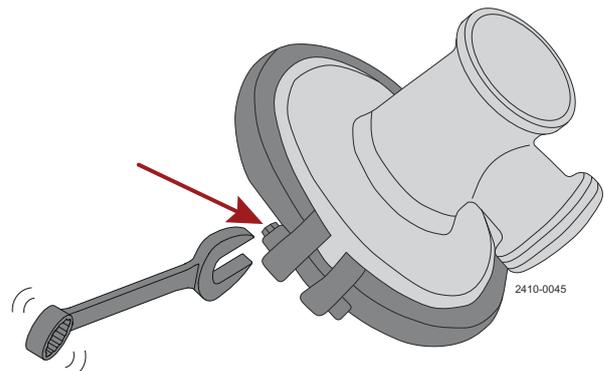
2

1. Remove inlet tube (9) and lower valve body (10).
2. Remove seal rings (8, 16).

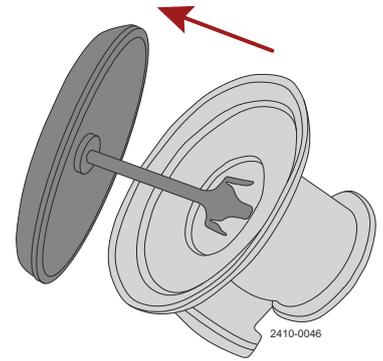


3

1. Remove clamp (22).

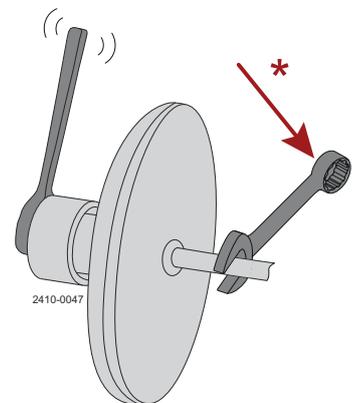


- 4 Remove cover (19) together with the internal parts of the valve.



- 5 Remove top nut (1), washer (2) and top (3).

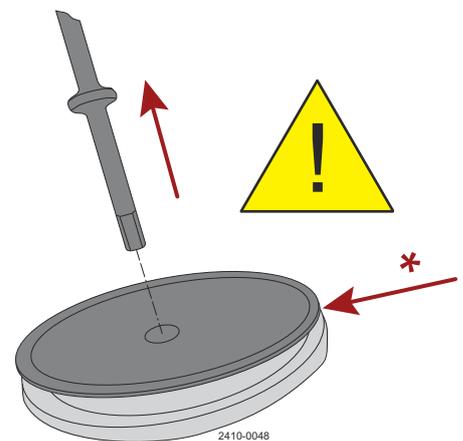
* = Counterhold!



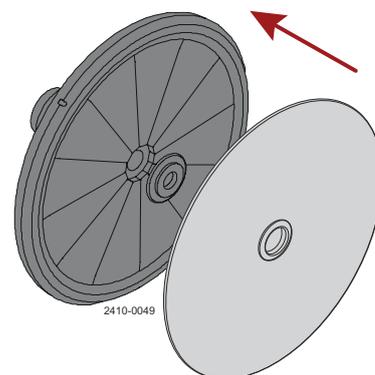
- 6 Remove plug (7) from the diaphragm unit and guide (5).

CAUTION

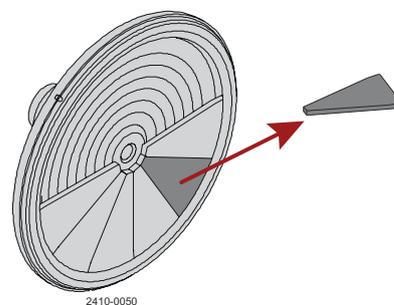
* = Ensure that cover (19) is turned downwards and plug (7) is pulled upwards so that sectors (20) are not separated from diaphragms (17, 18).



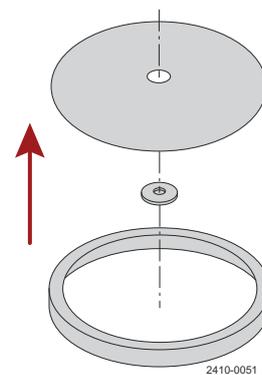
- 7 Remove lower inner ring (13) and lower diaphragm (17).



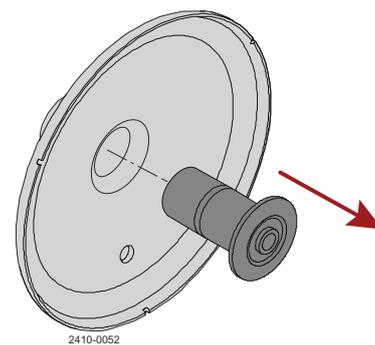
- 8 Remove sectors (20).



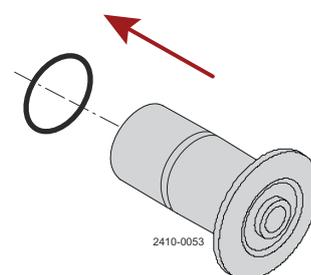
- 9 Remove outer ring (21), upper inner ring (13) and upper diaphragm (18).



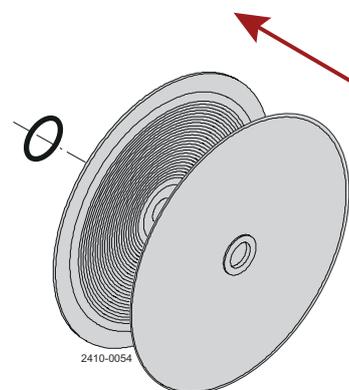
- 10 Remove guide (5).



- 11 Remove o-ring (6).



- 12 Replace the o-ring, the seal rings and the diaphragms.



6.3 Assembly

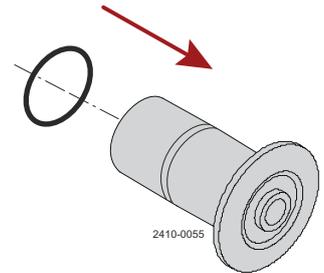
NOTE

Study the instructions carefully.

Lubricate the guide, the sectors and the threads before assembly.

The items refer to *Parts Lists and Exploded Views* on page 47.

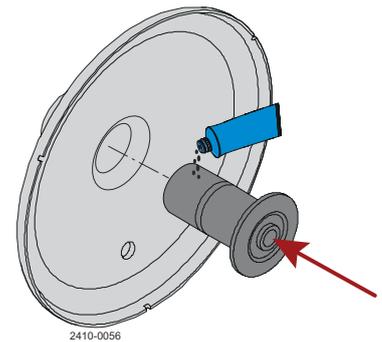
- 1 Fit O-ring (6).



- 2 Lubricate guide (5), and fit it.

NOTE

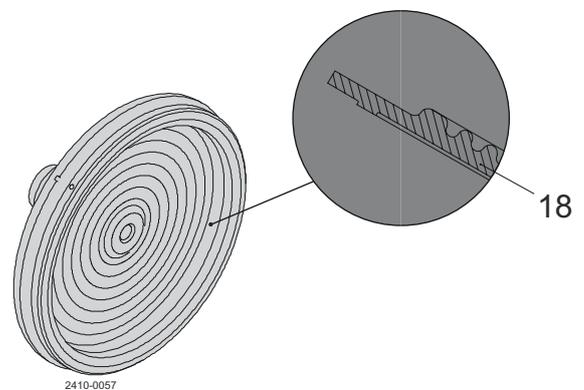
Turn cover (19) downwards before continuing.



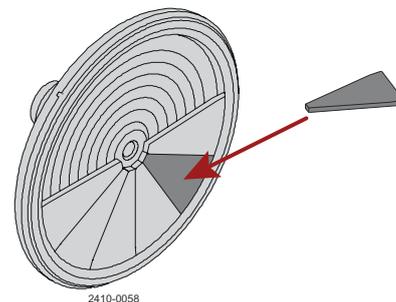
- 3 Fit upper diaphragm (18), upper inner ring (13) and outer ring (21) on guide (5) and cover (19).

NOTE

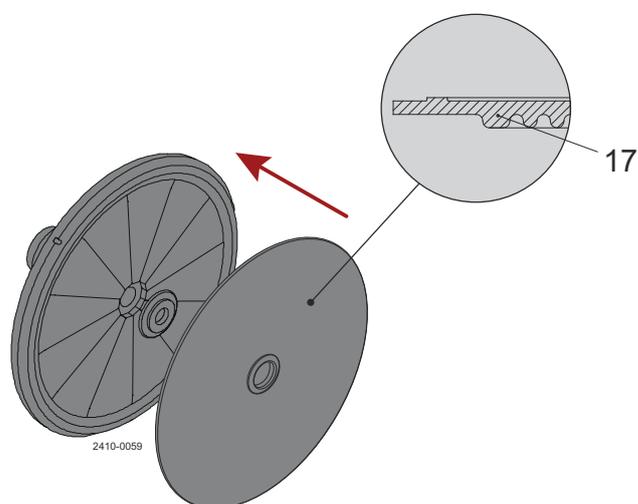
The outer ring must be turned so that the indication hole is fixed to the indication hole in the cover.



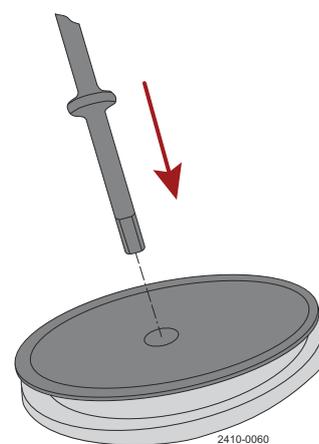
- 4 Fit sectors (20) between upper inner ring (13) and outer ring (21).



- 5 Fit lower inner ring (13) and lower diaphragm (17).

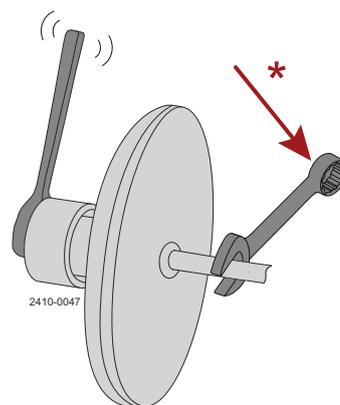


- 6 Fit plug (7) in the diaphragm unit and guide (5) until the flange of the plug contacts lower diaphragm (17).

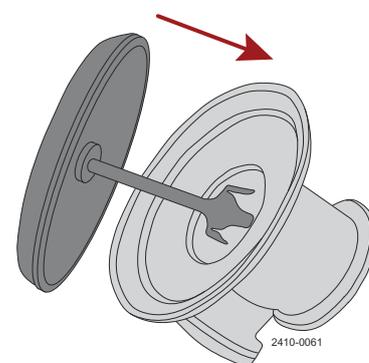


- 7 Fit top (3), washer (2) and top nut (1).

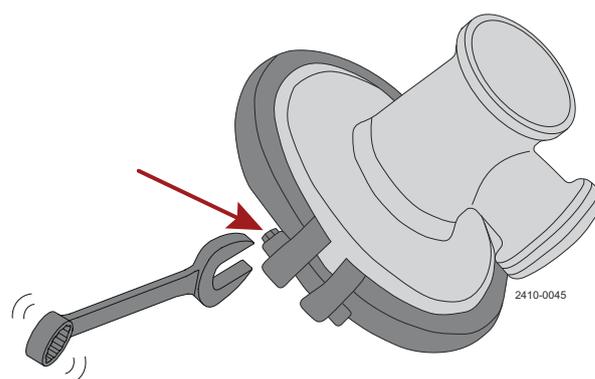
* Counterhold!



- 8 Fit cover (19) together with the internal parts of the valve.

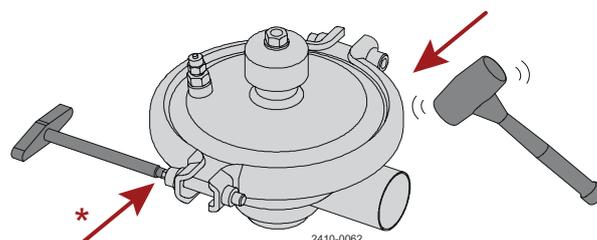


- 9 Fit and tighten clamp (22).



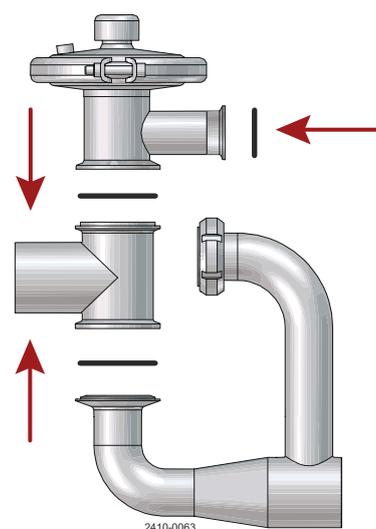
- 10** Assemble the valve in accordance with step 6 - 10 in chapter *Assembly* on page 38.

* = tighten clamp 10-15 Nm (7.5-11 lbf-ft)



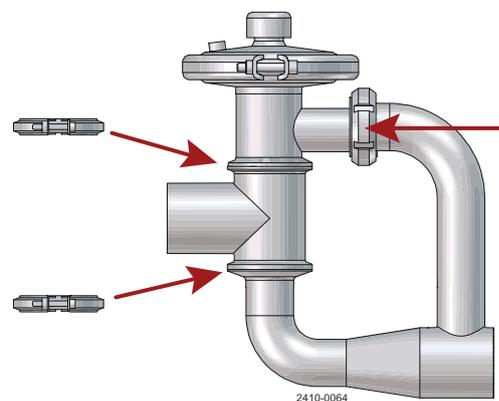
11

1. Fit seal rings (8, 16).
2. Fit lower valve body (10) and inlet tube (9).



12

1. Tighten the connection between valve body (12) and inlet tube (9).
2. Fit and tighten clamps (14, 15).

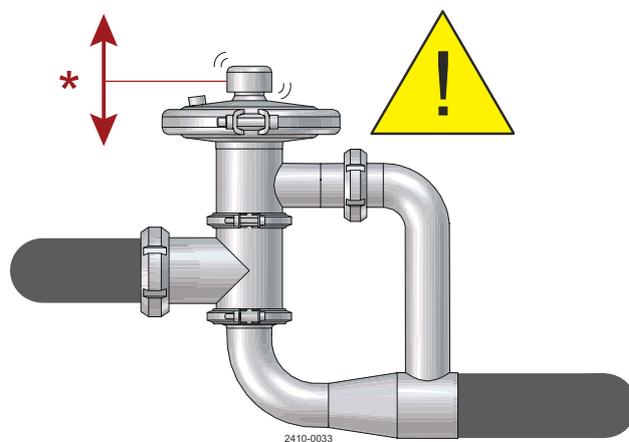


- 13** **Pre-use check:** Lift and lower the valve top a few times to ensure that the valve operates smoothly.

! NOTE

Pay special attention to the warning!

*** = Lift and lower by hand!**



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

Temperature

Temperature range:	-10°C to +95°C / 14°F to 203°F
Temperature range with upper diaphragm in PTFE/ EPDM:	-10°C to +140°C / 14°F to 286°F

Pressure

Max. product pressure:	1000 kPa (10 bar) / 145 psi
Min. product pressure:	0 kPa (0 bar = Atmospheric) / 0 psi
Air pressure:	0 to 600 kPa (0 to 6 bar) / 0 to 87 psi
Flow Kv 60, fully open (Dp = 14.5 psi):	Approx 60 m ³ /h / 264 gpm

7.2 Physical Data

Materials

Product wetted steel parts:	EN 1.4404 / AISI 316L
Other steel parts:	EN 1.4301 / AISI 304
Lower diaphragm:	PTFE covered EPDM rubber
Upper diaphragm:	NBR
O-ring:	Nitrile (NBR)
Seal rings:	EPDM (standard)
Finish:	≤ 32 RA

7.2.1 Weight

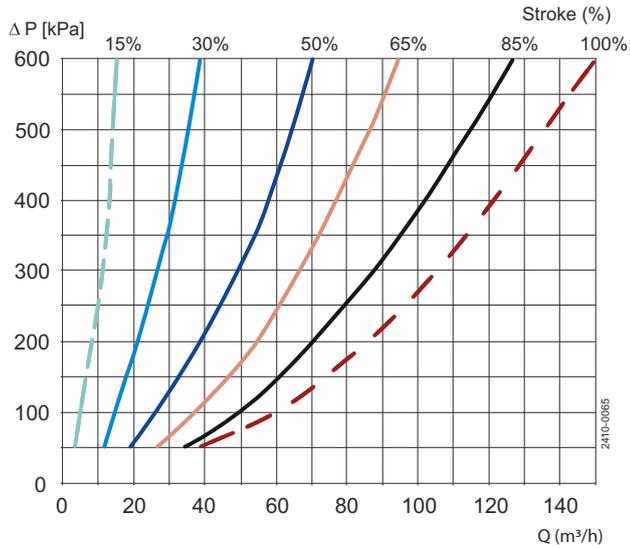
Weight (kg)

Size	CPMI - 2			CPMO - 2			CPM-I-D60
	Kv 23	Kv 7	Kv 2/15	Kv 23	Kv 9	Kv 2/15	76 mm
Weight	5.5	5.5	5.5	5.5	5.5	5.5	10.00

Weight (lbs)

Size	CPMI - 2			CPMO - 2			CPM-I-D60
	Kv 23	Kv 7	Kv 2/15	Kv 23	Kv 9	Kv 2/15	76 mm
Weight	12.1	12.1	12.1	12.1	12.1	12.1	22.0

7.3 Selection / Pressure drop - capacity diagram



NOTE

For the diagrams the following applies:

Medium: Water (20°C) (68°F).

Measurement: In accordance with VDI 2173.

Example of using the diagram:

Pressure drop $\Delta p = 300$ kPa.

Flow = 50 m³/h.

The intersection is on the 50% curve

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

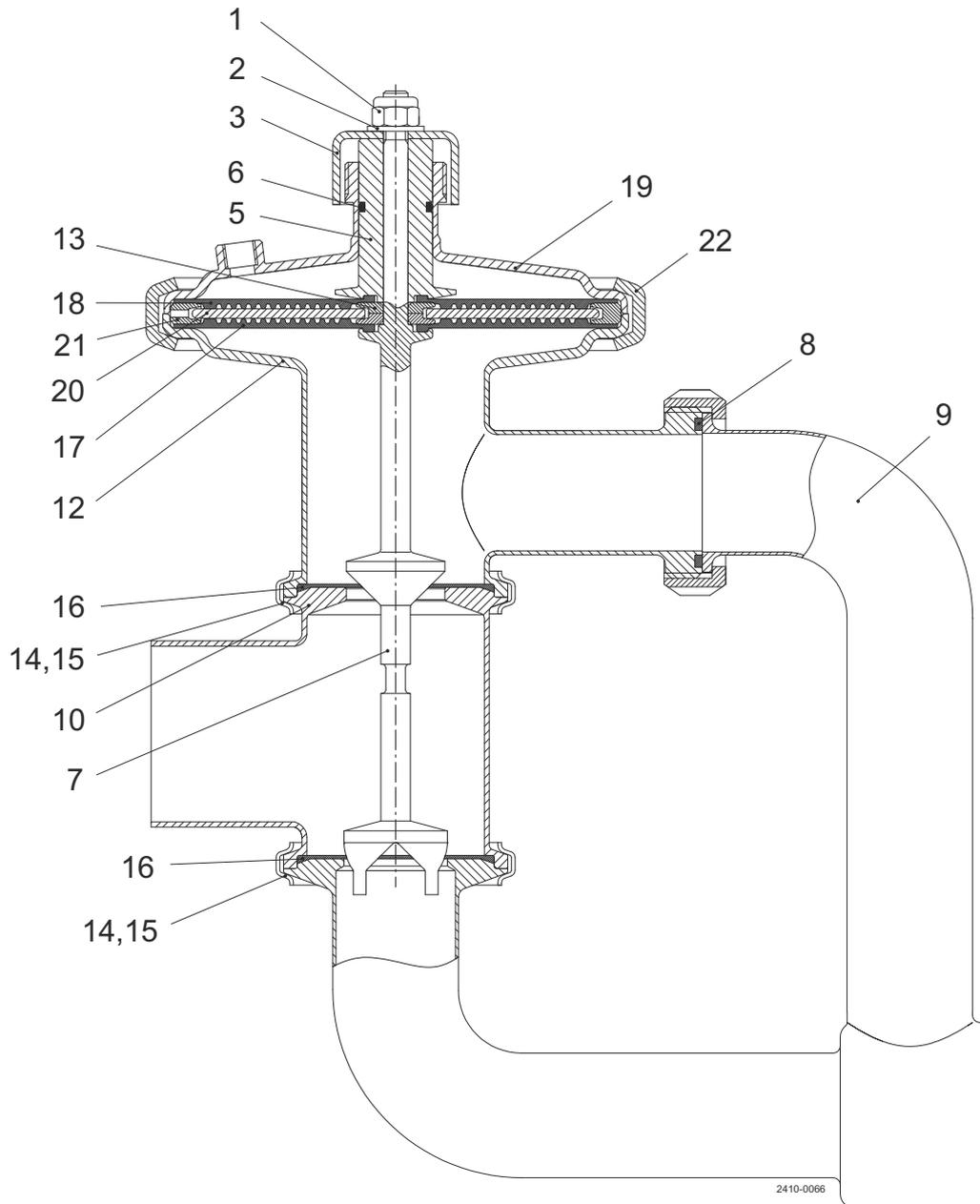
Alfa Laval is represented in all larger countries of the world.

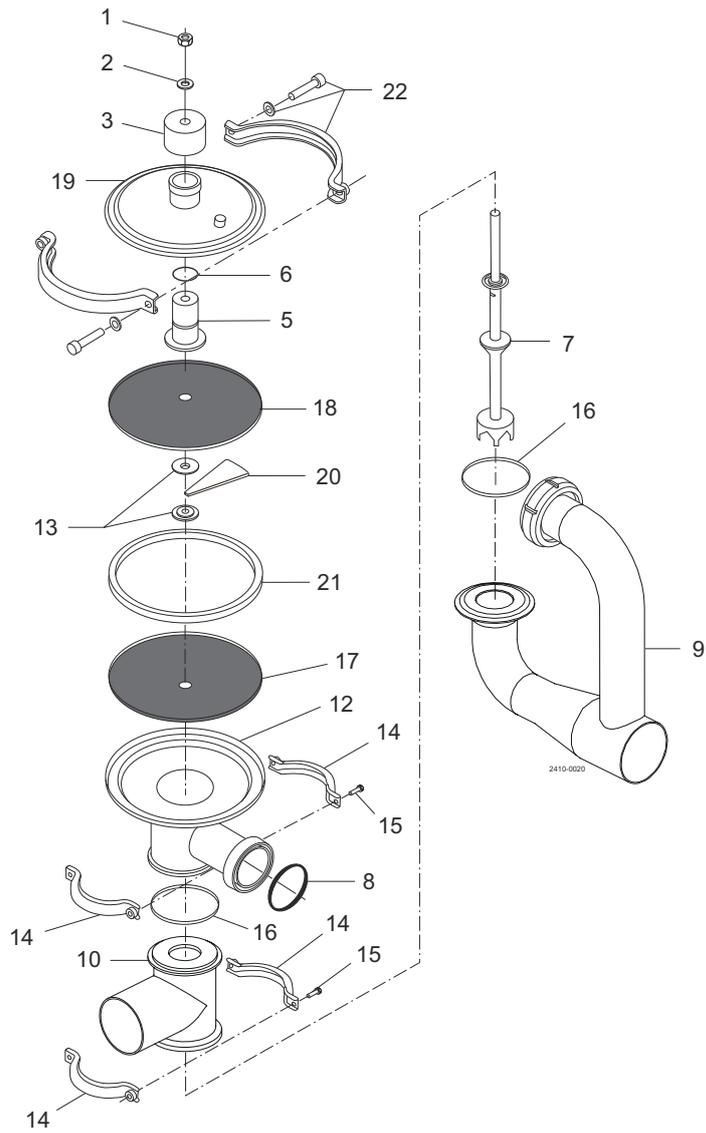
Do not hesitate to contact your local Alfa Laval representative, with any questions or requirement of spare parts for Alfa Laval equipment.

This page is intentionally left blank.

9 Parts Lists and Exploded Views

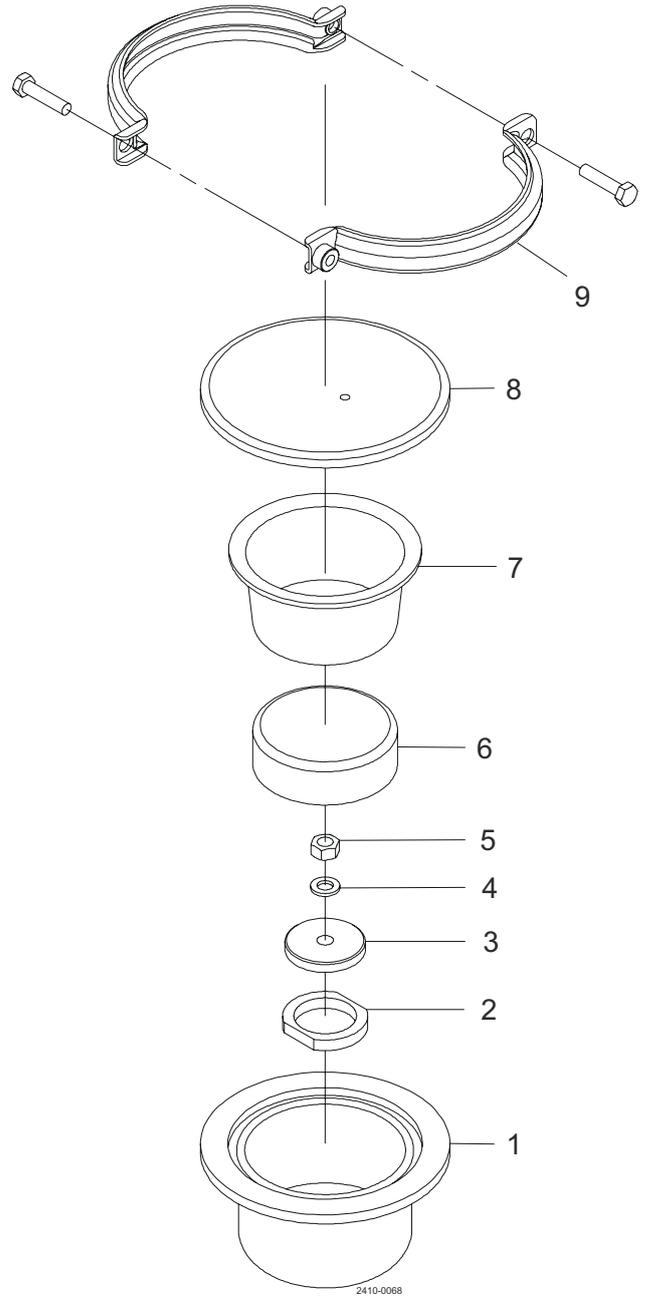
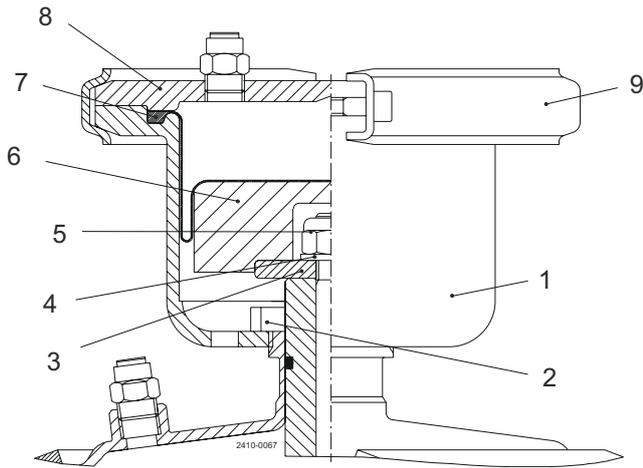
9.1 Alfa Laval CPM-I-D60





Pos	Qty	Denomination	Pos	Qty	Denomination
1	1	Nut	14+15	2	Clamps and screws (Period 9209-)
2	1	Washer	14	4	Clamp half (Period -9209)
3	1	Top	15	4	Screw (Period -9209)
5	1	Guide	16	2	Valve body seal ring
6	1	O-ring	17	1	Diaphragm, PTFE covered EPDM (std.) (product side)
7	1	Plug	18	1	Diaphragm
8	1	Seal ring	19	1	Cover
9	1	Inlet tube	20	12	Support sector
10	1	Valve body, lower	21	1	Outer ring
12	1	Valve body	22	1	Clamp set (Period 9310-)
13	2	Inner ring			

9.2 Booster



Pos.	Qty	Denomination	Pos.	Qty	Denomination
1	1	Booster housing	6	1	Booster piston
2	1	Lock nut	7	1	Diaphragm
3	1	Washer	8	1	Booster cover
4	1	Spring washer	9	1	Clamps and screws
5	1	Nut			