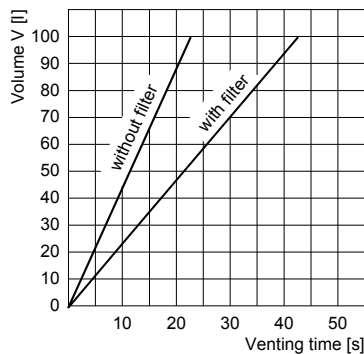


Venting as a function of the volume



Installation

Caution



Caution: line voltage
Incorrect voltages can destroy the product.
The local line voltage ratings must correspond to the nominal voltage of the product (→ product nameplate). If they do not correspond, please contact the next Pfeiffer Vacuum service center otherwise.

Vacuum Connection

DANGER



DANGER: overpressure in the vacuum system >1 bar
Injury caused by released parts and harm caused by escaping process gases can result if clamps are opened while the vacuum system is pressurized.
Do not open any clamps while the vacuum system is pressurized. Use the type of clamps which are suited to overpressure.

DANGER



DANGER: overpressure in the vacuum system >2.5 bar
KF flange connections with elastomer seals (e.g. O-rings) cannot withstand such pressures. Process media can thus leak and possibly damage your health.
Use O-rings provided with an outer centering ring.

Caution



Caution: vacuum component
Dirt and damages impair the function of the vacuum component.
When handling vacuum components, take appropriate measures to ensure cleanliness and prevent damages.

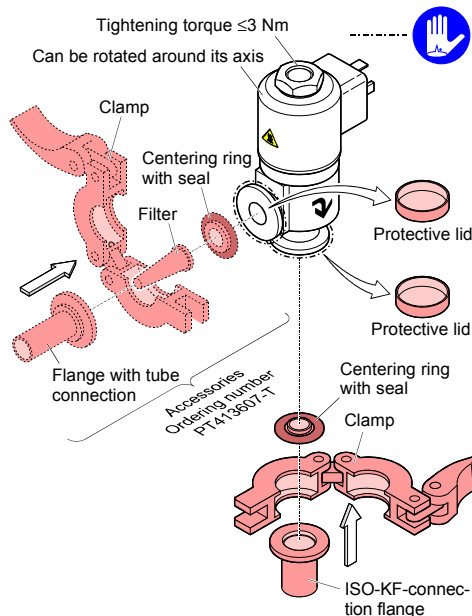
Caution



Caution: dirt sensitive area
Touching the product or parts thereof with bare hands increases the desorption rate.
Always wear clean, lint-free gloves and use clean tools when working in this area.

To prevent contamination of the vacuum system during venting, a filter (accessory) can be mounted.

Remove the protective lids and connect the product to the vacuum system.



Preferred flow direction

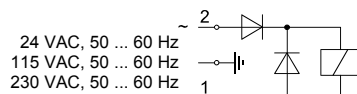
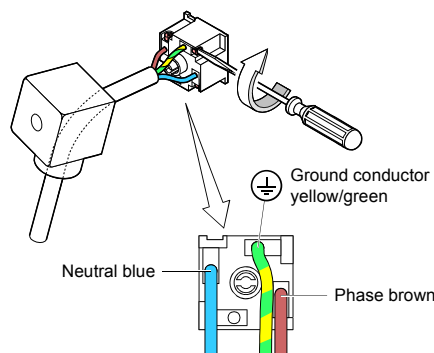


Keep the protective lids.

Power Connection



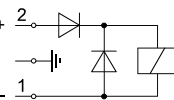
Make a cable according to the following diagram.



24 VDC



Check polarity



Connect cable.

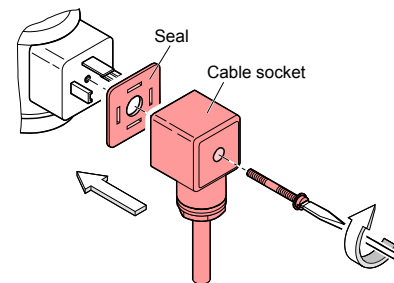
DANGER



DANGER: protective ground
Incorrectly grounded products can be extremely hazardous in the event of a fault.
Use only a 3-conductor power cable with protective ground. The power connector may only be plugged into a socket with a protective ground. The protection must not be nullified by an extension cable without protective ground.



Before connecting or disconnecting the product, turn off the control system.



Operation

The product is ready for operation as soon as it has been installed.

It will close, or remain closed, on power loss.



DANGER



DANGER: hot surface
Touching the hot surface (>55 °C) can cause burns.
Wear protective gloves.

Deinstallation

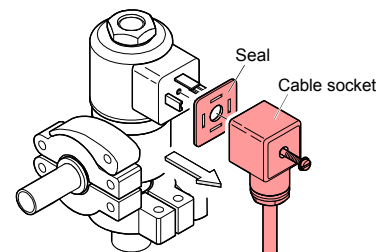
Precondition: Vent the vacuum system and wait until the valve has cooled down to <55 °C.

Power Connection



Before connecting or disconnecting the product, turn off the control system.

Unlock the cable socket and unplug it.



Vacuum Connection



DANGER

DANGER: contaminated parts
Contaminated parts can be detrimental to health and environment.
Before beginning to work, find out whether any parts are contaminated. Adhere to the relevant regulations and take the necessary precautions when handling contaminated parts.

Caution



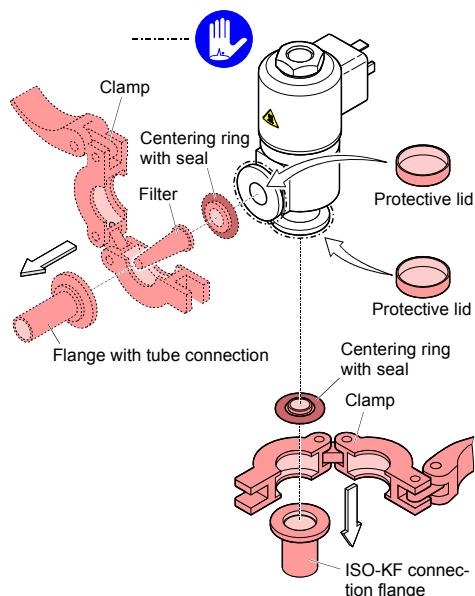
Caution: vacuum component
Dirt and damages impair the function of the vacuum component.
When handling vacuum components, take appropriate measures to ensure cleanliness and prevent damages.

Caution



Caution: dirt sensitive area
Touching the product or parts thereof with bare hands increases the desorption rate.
Always wear clean, lint-free gloves and use clean tools when working in this area.

Remove the valve from the vacuum system and put the protective lids in place.



Maintenance, Repair

Under clean operating conditions, the product requires no maintenance during the rated cycle life.



Failures due to contamination or wear and tear, as well as expendable parts (e.g. seals), are not covered by the warranty.



DANGER

DANGER: contaminated parts
Contaminated parts can be detrimental to health and environment.
Before beginning to work, find out whether any parts are contaminated. Adhere to the relevant regulations and take the necessary precautions when handling contaminated parts.

Caution



Caution: vacuum component
Dirt and damages impair the function of the vacuum component.
When handling vacuum components, take appropriate measures to ensure cleanliness and prevent damages.

Caution

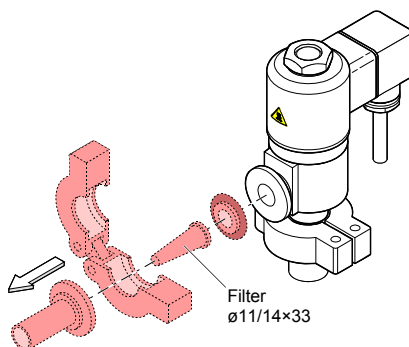


Caution: dirt sensitive area
Touching the product or parts thereof with bare hands increases the desorption rate.
Always wear clean, lint-free gloves and use clean tools when working in this area.

Precondition: Valve deinstalled.

Replacing / cleaning the filter

We recommend to use a new filter (→ "Spare Parts").



DANGER

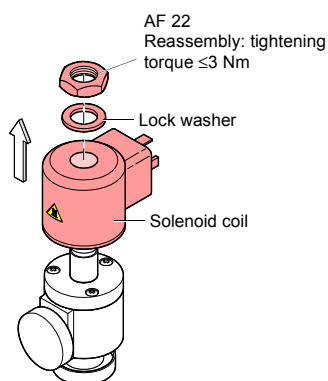


DANGER: cleaning agents
Cleaning agents can be detrimental to health and environment.
Adhere to the relevant regulations and take the necessary precautions when handling cleaning agents and disposing of them. Consider possible reactions with the product materials.

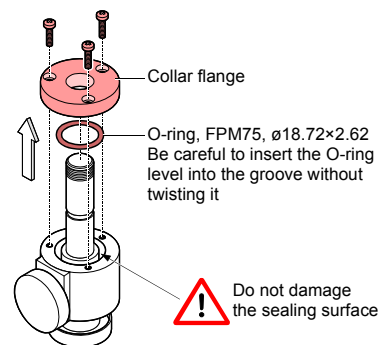
Clean the filter in an ultrasonic bath rinse it with alcohol and dry it with an industrial blower.

Cleaning the valve / replacing parts

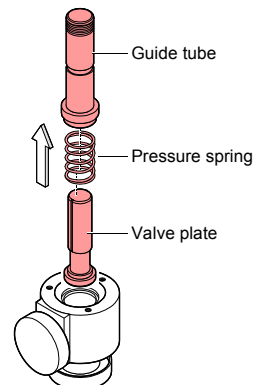
- 1 Remove the solenoid coil.



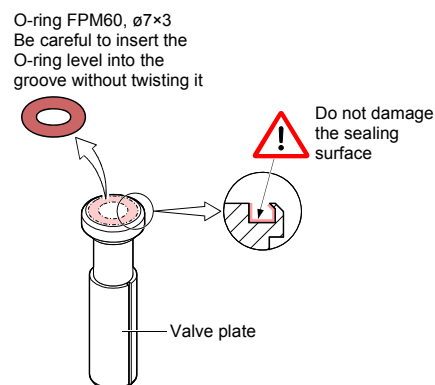
- 2 Remove the collar flange and seal.



- 3 Remove the guide tube, pressure spring, and valve plate from the housing.



- 4 Remove the seal from the valve plate.



- 5 Clean the valve and replace its parts.

DANGER



DANGER: cleaning agents
Cleaning agents can be detrimental to health and environment.
Adhere to the relevant regulations and take the necessary precautions when handling cleaning agents and disposing of them. Consider possible reactions with the product materials.

- Carefully clean the parts with a grease solving, non-scouring cleaner.
- After cleaning, the parts should preferably be rinsed with alcohol and subsequently heated to ≈50 °C in an oven or with an industrial blower.
- Carefully clean the sealing surfaces with a lint-free cloth moistened with alcohol. Allow them to dry.
- Wipe the seals with a lint-free cloth slightly moistened with vacuum oil.

- 6 Proceed in reverse order to reassemble the valve.



After reassembly, a few switching cycles should be performed in order for the O-rings to perfectly adapt to the sealing surfaces. Take the necessary precautions for this procedure.

Accessories

	Ordering number
Filter kit, comprising 1× Reducing centering ring DN 10-16 KF 1× Filter, ø11/14x33 1× Clamp DN 10-16 KF 1× Flange DN 16 KF with tube connection	PT 413 607-T

Spare Parts

	Ordering number
Seal kit, comprising 1× O-ring, FPM 75, ø18.72x2.62 1× O-ring, FPM 60, ø7x3	PT 130 170-T
1× Filter, ø11/14x33	B 4161 210 4F

Storage

Caution



Caution: vacuum component

Inappropriate storage leads to an increase of the desorption rate and/or may result in mechanical damage of the product.

Cover the vacuum ports of the product with protective lids or grease free aluminum foil. Do not exceed the admissible storage temperature range (→ "Technical Data").

Disposal

DANGER



DANGER: contaminated parts

Contaminated parts can be detrimental to health and environment.

Before beginning to work, find out whether any parts are contaminated. Adhere to the relevant regulations and take the necessary precautions when handling contaminated parts.

WARNING



WARNING: substances detrimental to the environment

Products or parts thereof (mechanical and electric components, operating fluids etc.) can be detrimental to the environment.

Dispose of such substances in accordance with the relevant local regulations.

Separating the components

After disassembling the product, separate its components according to the following criteria:

- Contaminated components
Contaminated components (radioactive, toxic, caustic, or biological hazard etc.) must be decontaminated in accordance with the relevant national regulations, separated according to their materials, and disposed of.
- Other components
Such components must be separated according to their materials and recycled.

Returning the Product

WARNING



WARNING: forwarding contaminated products
Contaminated products (e.g. radioactive, toxic, caustic or biological hazard) can be detrimental to health and environment.

Products returned to Pfeiffer Vacuum should preferably be free of harmful substances. Adhere to the forwarding regulations of all involved countries and forwarding companies and enclose a duly completed declaration of contamination^{*)}.

^{*)} Form under www.pfeiffer-vacuum.net

Products that are not clearly declared as "free of harmful substances" are decontaminated at the expense of the customer.

Products not accompanied by a duly completed declaration of contamination are returned to the sender at his own expense.

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