

6 Maintenance

During maintenance, remember:

- The equipment must be maintained by a professional familiar with the safety requirements and risks.
- Only perform maintenance work described in these operating and installation instructions.
- Observe the respective safety regulations and operating specifications when performing any type of maintenance.
- Always use genuine spare parts.

DANGER



Electrical voltage

Electrocution hazard.

- Disconnect the device from power supply.
- Make sure that the equipment cannot be reconnected to mains unintentionally.
- The device must be opened by trained staff only.
- Regard correct mains voltage.



DANGER



The gas inside the filter, condensate and used filter elements may be caustic or corrosive.

Sample gas can be harmful.

- Before maintenance turn off the gas supply and surge with air if necessary.
- Exhaust sample gas to a safe place.
- Protect yourself against toxic / corrosive gas during maintenance. Wear appropriate personal protection equipment.



CAUTION



Hot surface

Risk of burns

Depending on the operating parameters, the housing temperature may reach over 100 °C during operation.

Allow the unit to cool down before performing maintenance.

CAUTION



Excess pressure

The unit mustn't be pressurised or energised when opened.

If necessary, close the gas supply and ensure a safe pressure on the process end before opening.

The hose inside the pumps is a wear item and must regularly be checked for leaks. Replace as described in chapter "Replacing the hose".

The maintenance cover can be removed by loosening the four screws.

6.1 Maintaining the filter element

The probes feature a particle filter which needs to be changed as it becomes dirty.

To do so, disconnect the voltage supply and if applicable close the shut-off valve to the process or switch off the process.

CAUTION! Do not damage the rear filter seat.

NOTICE



Ceramic filter elements are very brittle by nature. Handle them with care, don't let them fall.

Filter elements made out of sintered stainless steel can be cleaned in an ultrasonic bath and be used several times as long as both seals are still in proper conditions.

6.1.1 Replacing the downstream filter

- Unlock and lift up the weather hood.
- Turn the handle at the back end of the probe by 90° (handle must then be horizontal), pushing in slightly, and remove.
- Remove the dirty filter element and check the sealing surfaces.
- Before installing the new filter element, replace the seal on the handle plug (seal included with the filter element).
- Then carefully insert the handle with new filter, push in slightly and turn 90° (handle must then be vertical). Pull on the handle to verify the filter element is firmly seated.
- With the filter removed, if necessary also need clean the inside of the sampling tube by blowing it out or using a cleaning wand.

NOTICE



The weather hood can only be closed again when the handle is completely vertical. In order to do so, loosen the hood from the locking supports by lifting slightly and then fold down. Ensure that the hood lock clicks into place correctly.

6.2 Replacing the glass pearl receptacle

CAUTION



Hot surface

Risk of burns on the anti-freeze protection heating
Allow the heating to cool down before performing maintenance.

- Close the gas supply.
- Switch off and unplug the device.
- Loosen the 4 screws at the maintenance cover and remove the cover.
- Remove the lines from the glass pearl receptacle.
- Loosen hinged clamp at the adapter and carefully remove the glass vessel.
- Replace / clean glass pearls and/or glass vessel.
- If necessary, replace the gasket.
- Re-mount the glass vessel in reverse order.
- Reconnect the lines carefully and properly. Check that there are no leaks!
- Secure the maintenance cover with 4 screws.
- Reconnect to power.

6.3 Replacing the hose

- Close gas supply.
- Switch off device and disconnect all plugs (e.g. connector plug alarm output, supply input, etc.).
- Disconnect supply and discharge tube on peristaltic pump (**observe safety notes!**).
- Loosen but do not remove centre knurled nut on the hammer-head screw. Flip down screw.
- Pull the cap off to the side.
- Unplug external connections and remove hose.
- Replace hose (Bühler spare part) and install peristaltic pump in reverse order.
- Restore the power and gas supply.

NOTICE



Never grease the pump hoses!

Check all parts for contamination prior to assembly and clean with a damp cloth as necessary.