

Short Operating Instructions

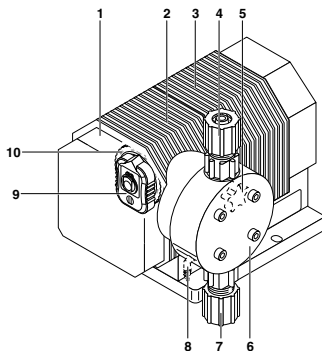
ProMinent® alpha b



ProMinent®

Also read the full operating instructions!
The warranty does not cover damage resulting from faulty operation.

Operating parts



- 1 Hood
- 2 Motor base
- 3 Housing
- 4 Pressure connection
- 6 Liquid end
- 7 Suction connection
- 9 Locking bar for stroke length adjustment
- 10 Eccentric plate with scale

Only for PP/NP3 version:

- 5 Bleed valve with fine bleed screw
- 8 Bypass hose nozzle

Only for NP6 version:

- 5 Simple bleeder valve not illustrated

Safety instructions



ProMinent metering pumps may not be assembled with third-party parts which have not been tested and recommended by ProMinent! Failure to observe this can lead to personal injury and damage to property for which no liability is accepted!



Before removing the hood or before opening the pump, pull out the mains plug or disconnect the mains supply! Check the pump is voltage-free and that it cannot be switched on again by unauthorised persons!



During repair or maintenance work first free the discharge line of pressure! If hazardous or unknown metering media are used, always first empty the liquid end and rinse out! Please observe the data safety sheets of the metering fluids!



When working on the liquid end wear protective clothing (glasses, gloves)!



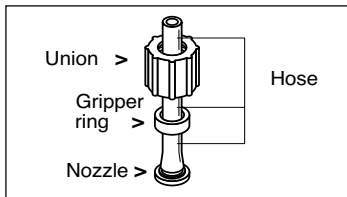
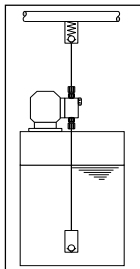
Stroke length adjustments may only be made when the pump is switched off!

Commissioning



Only use original hoses with specified hose dimensions and wall thicknesses, otherwise there is no guarantee that the connection will hold!

- Assemble the metering pump onto a container or console with screws and washers (dia. 6 mm).
- Keep the suction lift and suction line length as short as possible.
- Lay the suction line ascending.
- Shorten the suction and discharge lines to the necessary length.
- Pull union nut and gripper ring over the hose line.
- Push the cut hose end over the nozzle until it stops.
- Press hose against the nozzle and tighten union nut.
- Assemble foot valve.



- For this purpose shorten the end of the suction line so far that the foot valve is hanging just above the floor of the container.
- For metering solutions with impurities or feculency shorten the free suction line end so far that the foot valve is hanging at least 50 mm above the floor of the container.

Installation of the bypass hose line.

- For liquid end PP/NP3 versions a bleed valve (5) with bypass (8) is present on the liquid end.
- Plug the hose line with an internal diameter of 4-5 mm (preferably soft PVC 6 x 4 mm) onto the bypass hose nozzle and secure with a fast action clamp.
- Lead the free end of the line back into the metering container.
- Connect the discharge line directly to the discharge connection and injection valve.

PUMP INSTALLATION: ELECTRIC PART



Only connect the pump with the respective mains cable and plug to the power supply! Please observe the mains voltage specified on the name plate! Please observe VDE 0165 (abroad: the respective national regulations in your country)!



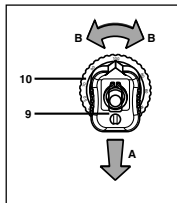
As there is no on/off switch on the pump, the pump operates immediately after the mains plug has been plugged in or the mains power has been connected!



The metering pump may only be operated with the hood (1) closed!

- The fluid is in the suction container.
- Remove the hood (1) and check whether the stroke length is set to 100%.
- if not,

A: push back locking bar (9) to eccentric plate,
B: set eccentric plate (10) to 100%, slot in locking bar again.



Commissioning

- Refit the hood (1).
- The discharge line is connected to the liquid end, however not to the injection valve.
- Switch on the pump and allow it to operate at 100% stroke length until the medium has completely filled the liquid end without bubbles.
- This can be recognised when the medium can be seen in the discharge line.
- Switch off the metering pump.
- Connect the discharge line to the injection valve.
- The pump is now ready to operate.

For the PP/NP3 version bleed the pump:

- Check if the stroke length is set to 100%.
- Open the bleed valve (5) by turning one turn anti-clockwise.
- Switch on the pump and allow it to operate at 100% stroke length until the medium has completely filled the liquid end without bubbles.
- This can be recognised when the medium can be seen in the discharge line or bleed line.
- Switch off the metering pump.
- Close the bleed valve again.

For media which emit gases easily, the fine bleeding can be additionally switched on continuously for PP/NP3 liquid ends with bleed valve (5).

- For this purpose, after removing the attached star handle, the fine bleed screw inside the bleed valve is opened approx. 1 turn anti-clockwise.
- As a result a partial flow of the metering quantity is fed back to the supply container.
- The return quantity should be approx. 20% of the metering quantity.
- The media must be fluid and without any solid particles.



Warning:

These measures do not guarantee any absolute reliable metering after the pump has come to a standstill! It is essential that it is checked regularly!

Setting the capacity.

- Read off the desired capacity from the capacity label.
- Stop the pump and remove the hood (1).
- Push the locking bar (9) back onto the eccentric plate.
- Set the eccentric plate (10) to the desired stroke length (in %) (arrow of the locking bar must be precisely on the desired scale position of the eccentric plate). - The stroke length can be set in 20% steps from 100% to 20%.
- Slot in the locking bar again.
- Refit the hood (1) again.

Short guide to breakdowns

TROUBLESHOOTING/ ELIMINATING ERRORS

- In order to be able to correct minor breakdowns at any time we recommend that you always have a spare parts set ready - consisting of diaphragm, valves, balls and seals!



Before opening the pump, remove the mains plug or disconnect the mains supply! Check that the pump is voltage-free!



Before working on the pump first bleed the discharge line of pressure!



During repair or maintenance work - when hazardous or unknown metering media have been used - first rinse out the liquid end! Protective clothing should be worn (glasses, gloves)!

Please observe the data safety sheets of the metering fluids!

Pump is operating but no metering takes place.

> Collection of air in the liquid end.

- Bleed the liquid end, for this purpose first switch off the pump. Remove the discharge line at the injection valve (wear protective clothing), for PP/NP3 version open the bleed valve.
- No automatic fine bleeding.

> Bleeding bore blocked (only for PP/NP3 version).

- Open the fine bleed screw (5) with the pump operating approx. two turns anti-clockwise until the blockage is flushed out.

Pump does not prime in spite of full stroke movement and bleeding.

> Crystal deposits in the valves.

- Remove the suction line from the metering container and rinse out the liquid end well.
- If no improvement occurs the valves should be disassembled and cleaned.

- The valve set in the suction and discharge valve can be pushed out with an arbor dia. 3 mm.

Pump switches off automatically during metering although mains voltage is applied.

> Due to too high counter pressure, the thermal safety device has switched off the motor independently.

- Reduce the counter pressure.
- If there is no success check whether the stop valve is closed or if there is a blockage in the discharge line and the following pressure system.



Caution, the thermal safety device switches the pump on again independently after cooling down!

Fluid is leaking out behind the head disc.

> The liquid end is leaking at the pump diaphragm. Tighten the head screws. If this is not successful the pump diaphragm is faulty and must be exchanged; please consult the main operating instructions regarding this matter.



Metering pumps may only be repaired by trained and authorised personnel! Please inform your customer service department responsible or the ProMinent subsidiary or representative responsible for you!

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