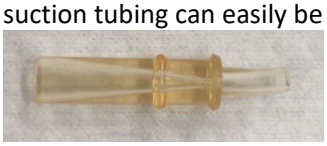
Vacuum pump troubleshooting guide

Maintenance

One important rule, to keep the vacuum pump working:

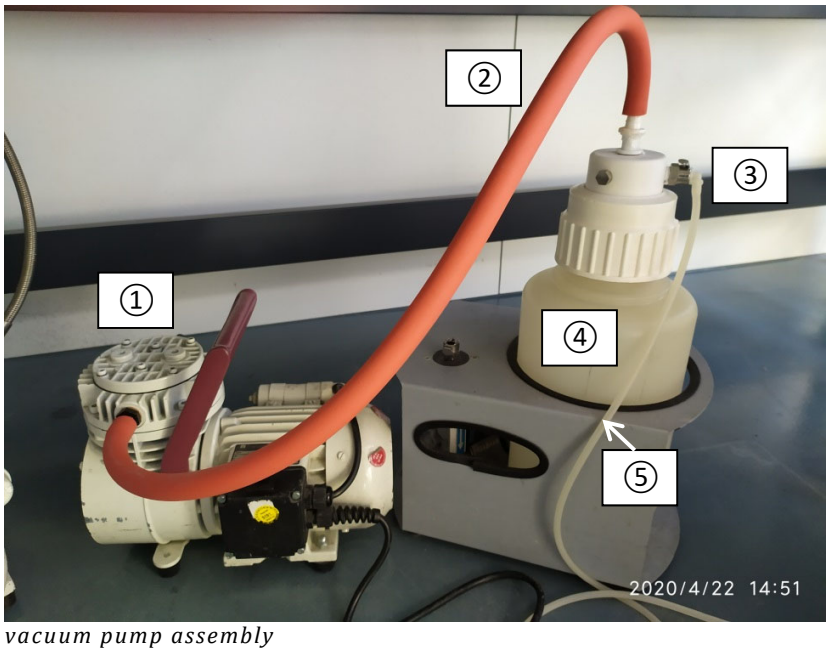
1) **Rinse the tubing** with 2% B15 solution after aspirating liquids, such as e.g. cell culture supernatant etc. The thin reduction connector (see picture below) at the beginning of the suction tubing can easily be blocked!



example of reduction connector

Troubleshooting

If the negative pressure of the pump is too weak, check the following points to detect the leakage in the vacuum system:



vacuum pump assembly

① vacuum pump (sometimes not visible; stored in floor cupboard)

② vacuum tubing

③ chevron connector

④ collection bottle (waste)

⑤ suction tubing

1) check, if there is a leakage in the pump assembly
   - fasten the cap of the collection bottle (liquid waste) ④ → test vacuum
   - remove the reduction connector of the suction tubing →
     a) vacuum w/o reduction connector is working (strong enough) → the connector is blocked → puncture the reducing connector with a canula or exchange the connector (lab manager have new ones)
     b) still no vacuum → leakage or failure must be somewhere else
   - remove suction tubing directly before the chevron connector of the collection bottle ③

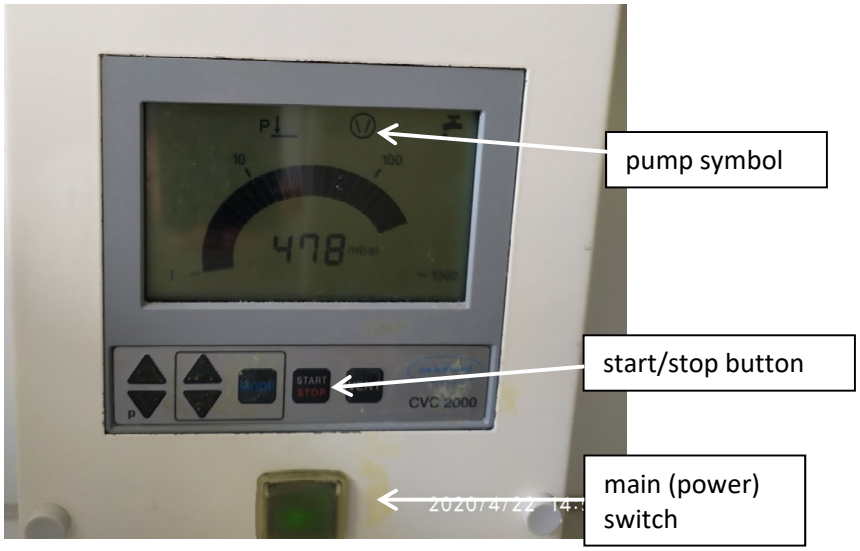
a) vacuum w/o suction tubing is working (strong enough) → suction tubing is damaged (has a leakage) or the reduction connector is blocked→ exchange suction tubing or clean/exchange reduction connector (provided by lab managers)

- check if the O-ring of the collection bottle cap is in the right position → readjust the O-ring, tighten the cap, and check if the vaccum is working again

2) disconnect the orange vacuum tubing ② of the collection bottle and check if there is vacuum at the end of the tubing

- no vacuum detectable:

a) check if the pump is switched ON (display is on and pump symbol is visible) →if not, switch on the vacuum pump (press main switch and start/stop button)



b) if the pump is switched on → inform the lab manager (room 2.08, labmanager@drfz.de, or call: -698)

- detectable vacuum → check again point 1 and 2
- only weak vacuum detectable → inform the lab manager