

## Operating Instructions Diaphragm pump

Building: SupraFAB

Area of application:  
Freie Universität Berlin  
Altensteinstraße 23a



### Operating Instructions – Working with diaphragm pump

According to Occupational Health and Safety Regulation

Work space: SupraFAB

Work station: Room 114/115

#### Hazards for people and the environment



Explosion Hazard if device is damaged or non-suitable glassware is used!  
Risk of injury due to flying glass shards.



#### Protective measures and rules of behaviour



##### Only use the Pump after proper introduction by an assistant on duty!

Pumps are only for transferring gases or vapours.

Before use test aperture if it is air tight. Pump must be stored in a dry place and protected from water.

Medium that is transferred should be checked if transferring it can be done without danger.

Don't use pump:

In explosive atmosphere

For transferring dust

For transferring liquids

To create vacuum and overpressure simultaneously

To create overpressure at the suction side of the pump

And exceed max. permissible pressure

Pump will automatically restart in case of overheating shut down after having cooled down. This can cause personal injury if not careful.

Only use glassware designed for that purpose: thick-walled Büchner flask with fitting volume

Drying solids: use a round-bottom flask

evacuate and vent carefully, in a manner were no dust or particles get disturbed and sucked into Pump

Check the glassware before use thoroughly through visual inspection

If glassware is damaged, talk to an assistant and properly dispose of it.

Pump needs to be checked every year by a Person trained in electrical engineering.

Pump has to be cleaned before being handed into the workshop. Ensure that no liquid enters inside of Pump. If dangerous substances were used ensure that proper precaution is taken while cleaning.

#### Behaviour in case of danger




By signs of damage or device malfunction take device out of service and contact Biolab team. If device is not airtight, slowly vent and turn of pump. Contact Biolab team.

Electrical shock: Disconnect Pump immediately. Ensure affected Person is supervised and medical help is administered if needed.

Warning signs: "Danger" warns of immediate danger (consequences may be death or serious injury)

"Warning" warns of possible danger (consequences may be death or serious injury)

"Caution" warns of possibly dangerous situation (consequences may be minor injury or minor damage)

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Inform the person responsible for the area immediately in the event of faults! Switch off the machine!

**In case of fire: Keep calm!**

**Call the fire department on 112! Inform the central control room on 55112!**

Warn employees!

Fight the fire with a CO2 extinguisher! Pay attention to self protection!

### First Aid



Inform first aiders (see alarm plan). Treat minor injuries immediately and enter them in the first aid book.

In the event of more serious injuries, consult a general practitioner or call an emergency doctor.

Inform the workshop management.

Rescue service: **112**

### Proper disposal

Repairs may only be carried out by authorised, qualified persons. Regular inspections may only be carried out by authorised persons.

**For further questions, please contact the Occupational Safety department**

**Tel.: -54495**

Date and Signature of the division manager: