

# How to Set-up the miVac Lyo-option

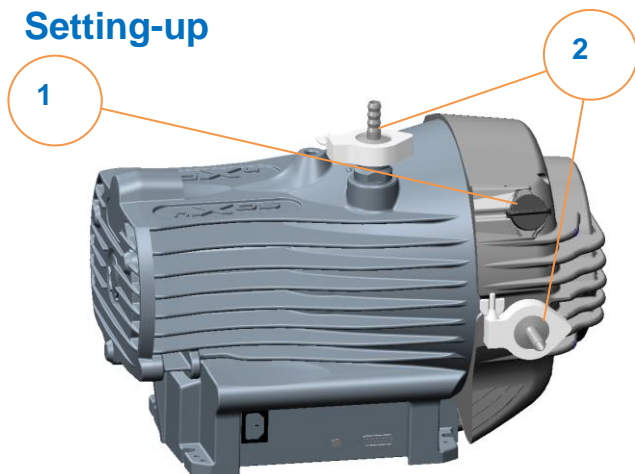
**miVac Lyo-option** is a freeze drying accessory kit that can be fitted to any miVac system that has a **SpeedTrap** with switchable defrost mode (manufactured from March 2011 onwards) and a **miVac super vacuum pump**. The miVac Lyo-option consists of:

- iso-valve and mounting bracket
- cascade condenser pot
- three quick seal valves
- three insulated vial holders.

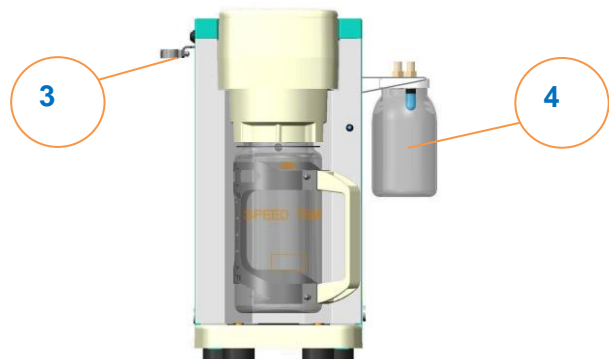
Additional accessories can be ordered individually.



## Setting-up



1. **Pump gas ballast:** Set the pump gas ballast control to position 1.
2. **Hose adapters:** Using KF25 centring rings and clamps (supplied in the super vacuum pump kit) fit hose adapters to the pump vacuum inlet (top connector) and pump exhaust (side connector).



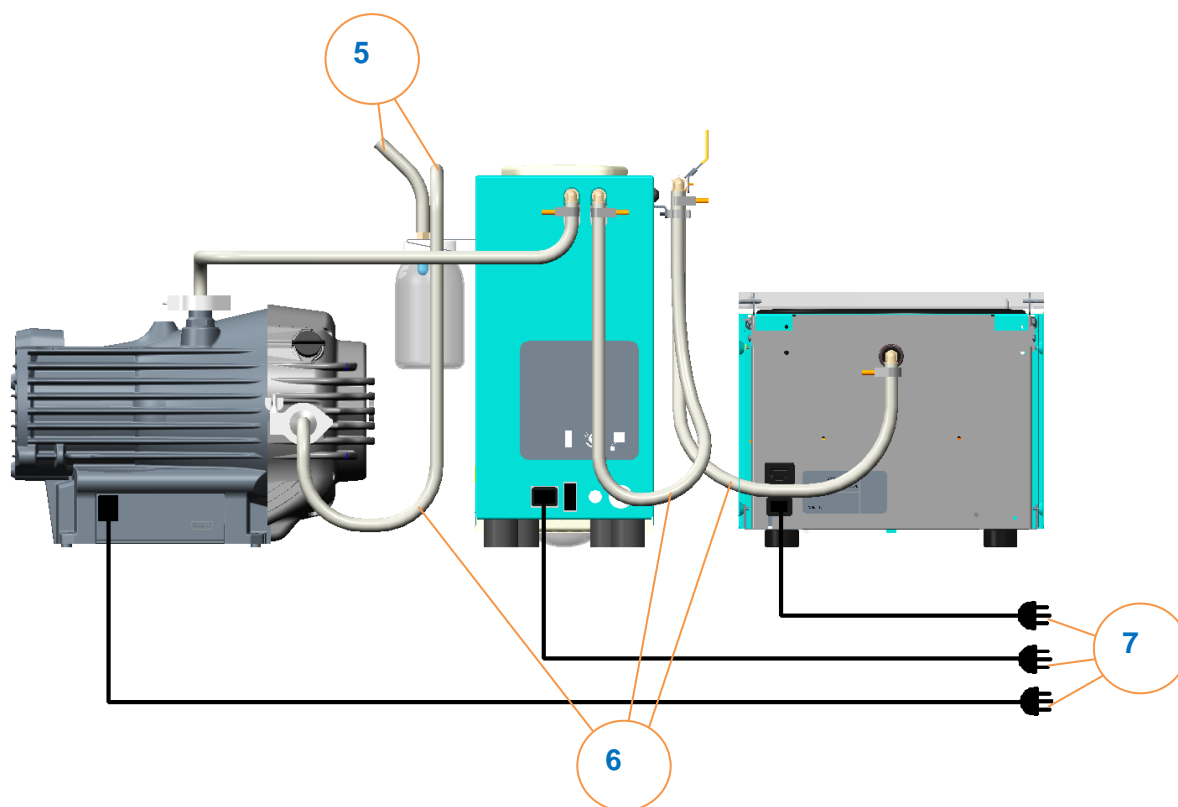
3. **Iso-valve bracket:** Fit the iso-valve bracket to the SpeedTrap by clipping it to the ventilation holes in the side of the unit and securing it in place with the screws provided.



**Note:** Large and small screws are provided to enable the bracket to be fitted to either side of the SpeedTrap.

4. **Catch-pot:** Fit the catch-pot to the SpeedTrap by clipping it to the ventilation holes in the side of the unit.





5. **Exhaust hose:** Cut a suitable length of exhaust hose and use it to connect the pump exhaust to the catch-pot inlet. Using the remaining exhaust hose, connect the catch-pot outlet to the laboratory fume extraction system.

**Note:** The catch-pot outlet has a filter on the inside of the glass jar.

6. **Vacuum hose:** Using the vacuum hoses, connect:
- the concentrator vacuum outlet to the iso-valve inlet
  - the iso-valve outlet to the SpeedTrap vacuum inlet
  - the SpeedTrap vacuum outlet to the pump vacuum inlet. Secure the connections using the hose clips supplied.

Clip the iso valve to the mounting bracket making sure the flow direction (indicated by an arrow on the valve) is from concentrator to SpeedTrap.



7. **Power cables:** Using the power cables supplied, connect the super vacuum pump, SpeedTrap and concentrator to three separate mains power supply outlets.

8. On the SpeedTrap, set the mode switch to the no defrost (centre) position.



#### **To use the miVac as a combination system:**

- Open the lyo-option vacuum-isolation valve
- Fit the collection jar to the SpeedTrap
- lyophilise samples directly from the concentrator.

#### **To use the miVac system as a stand-alone freeze dryer:**

- Close the lyo-option vacuum-isolation valve
- Remove the collection jar from the SpeedTrap
- Connect the cascade condenser pot
- Connect up to three lyophilisation jars.