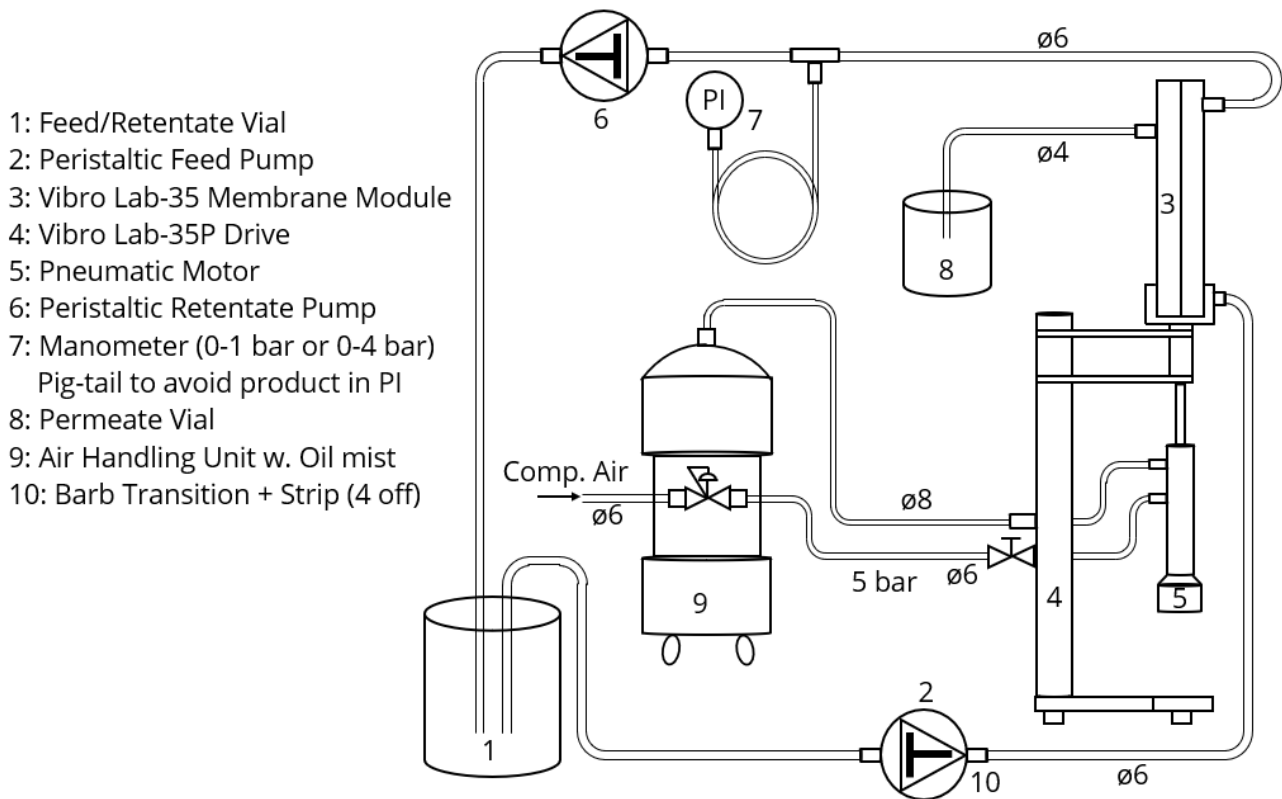


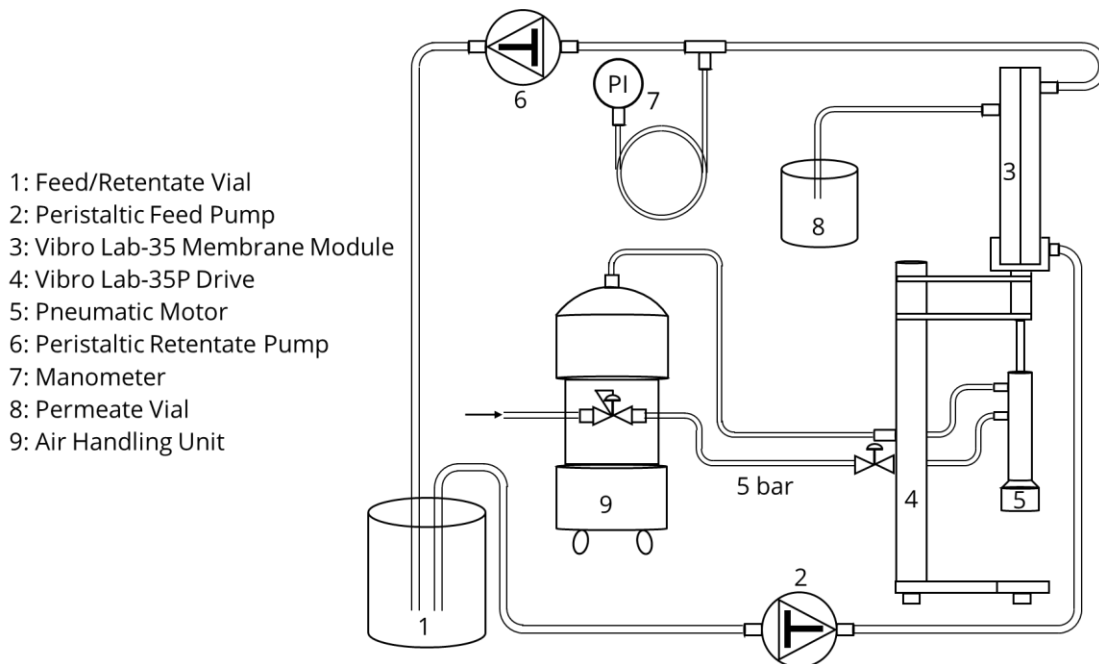
Assembly of the Vibro-Lab35P system with the SANI Membranes Feed Pump System for 0-3 bar MF/UF



1. Unpack the parts for the Vibro-Lab35P and the SANI Membranes Feed Pump System and connect the Vibro-Lab35P system as above. For the peristaltic pump, cut two 25cm pieces of the #16 pump tubing, and connect through the barbed fitting.
2. Fill the Air handling Unit with pneumatic oil (5 to 15 cSt) and connect to pressurized Air of 6-10 bar.

The system is ready for filtration.

Operation of the Vibro-Lab35P system with the SANI Membranes Feed Pump System for 0-3 bar MF/UF



New membranes should always be washed thoroughly with clean hot water before the first use as they are covered in a water-soluble glycerin protection layer. A 20 min warm water wash where both retentate and permeate is discarded continuously is necessary before use.

Always use the best quality water you have access to. Water is many things and parts like carbonates, phosphates, particles etc. present in normal tap water can harm the effectiveness of the membrane and the CIP cleaning

1. Start with a fully assembled and drained Vibro-Lab35P system as shown above
2. Fill the Feed/Retentate Vial (1) with your feed solution
3. Start the Peristaltic Feed Pump (2) and the Peristaltic Retentate Pump (6) at the same speed (approx. 2,1 l/h or 40 RPM) to fill the system with media
4. Start the Vibro-Lab35P Drive (4) at 5 Bars as soon as the Lab35 Membrane Module is filled with media (adjust it to 5 bars on the regulator when you use it the first time and use the pneumatic drive valve to turn it on/off hereafter)
5. Adjust the speed of the Peristaltic Feed Pump (2) to regulate the pressure up to the desired pressure
6. Re-adjust the speed of the Peristaltic Feed Pump (2) and the Peristaltic Retentate Pump (6) throughout the experiment to run at the desired pressure and retentate flow
7. When the Feed/Retentate Vial (1) plus the dead volume of the system (approx. 40ml) has reached the desired volume for the concentration the experiment should be stopped. 1st stop the Peristaltic Feed Pump (2) until the pressure has gone down and 2nd drain the unit with both pumps running slowly in reverse at the same speed while letting air into the system.
8. Clean the system with an appropriate CIP protocol for your membrane and application (Remember to CIP the manometer tubing as well) and finish the CIP by filling the system with an appropriate storing solution for your membrane and application (e.g. 20% Isopropanol). The Membrane Modules (3) can also be stored separately in an appropriate storing solution after disassembling the system.