MBraun Solvent System: Instructions

Please see Mitchell for training before your first use.

Use a bomb flask or Schlenk tube for bringing solvents into a glovebox. To use SPS solvents on your Schlenk line, one option is to dispense into a Schlenk tube which you place under nitrogen on your line, and then transfer solvent to your reaction vessel via cannula or syringe. Another option is to dispense into one of the custom SPS flasks and transfer via syringe to your reaction vessel.

1. Turn on vacuum pump.

2. Clamp an oven-dried flask while still hot and turn the valves to VACUUM and EVAC/REFILL. If using an adapter for ground-glass-jointed flasks, USE KECK CLIPS and support the flask. Make sure the flask is closed to outside air, but that the stopcock does not seal it off from the solvent system vacuum.

3. After the flask has cooled to rt, flush it with N₂ by turning the valve to NITROGEN.

4. After a minute, turn the valve back to VACUUM to evacuate the flask.

5. Repeat this process (refill and evacuation) one more time. The flask should be under vacuum before you proceed to the next step.

6. To dispense solvent, turn the NITROGEN /VACUUM valve to “off” and very slowly turn the bottom valve towards DISPENSE.
7. After the desired amount of solvent has been dispensed, turn the EVAC/REFILL valve to “off.”

8. Slowly turn the upper valve toward NITROGEN.

9. Then turn the lower valve toward EVAC/REFILL to flush the system.

10. With the solvent-filled flask under nitrogen pressure, you may now dispense via syringe transfer. If you are leaving solvent for other users, leave the flask under nitrogen pressure and turn off the vacuum pump. If you are using a bomb flask or Schlenk tube, close the stopcock completely and remove it from the SPS line.

    ---- UNLESS leaving solvent for other users ----

11. Turn the valves both back to the “off” position and remove the collection flask. Remove the stopcocks, place it in the oven, and turn off the vacuum pump.