

## CG-1850 Morris NMR Tube Cleaner Instruction Sheet

Assembly of the NMR tube cleaner is not complicated and should only take a few minutes before you can begin washing your NMR tubes.

The NMR tube cleaner was designed to be used on NMR tubes and does not require you to stopper the NMR tubes as in other designs which can lead to breakage on a tube with such a thin wall thickness.

The principle behind the tube cleaner is to wet the inside of the NMR tube with solvent and then to allow it to stand for a few minutes to allow the solvent to loosen the contamination. After this the tube can be rinsed clear of contamination with fresh solvent.

### INSTRUCTIONS FOR SETUP AND USE:

1. Assemble the NMR tube cleaner. Make sure you tighten the compression fitting down on the washer.
2. Clamp as desired and attach a vacuum source to the vacuum adapter.
3. First insert an NMR tube into the cleaner and turn on the vacuum source.
4. Create a vacuum in the cleaner by placing a finger over the hole in the vacuum adapter. Add approximately 2-3mL of solvent to the top of the cleaner and **immediately remove your finger from the hole**. This action will completely wet the inside of the NMR tube while breaking the vacuum so the solvent will not evaporate before wetting the inside of the tube.
5. Allow tube to stand for several minutes to permit the solvent to dissolve contaminants. There is no reason to add more solvent at this time, this will only cause you to waste solvent.
6. After the tube has set for several minutes place a finger over the hole on the adapter to recreate a vacuum in the cleaner, this will draw out the contaminated solvent from the tube and into the filter flask. Immediately rinse the tube several times by adding 2-3mL of solvent to the top of the cleaner. The NMR tube can be left to air dry in the unit if so desired.
7. To remove the NMR tube from the cleaner be certain the vacuum source is off! Failure to turn the vacuum off could result in breakage of the NMR tube.

Common laboratory solvents such as Acetone, Chloroform or Ethyl Acetate usually suffice for normal cleaning. If these do not work Chromerge or Aqua Regia can be used followed by acetone rinses.

**\*\*\* Designed and developed by Mr. Earl Morris • Georgetown University • Washington, DC \*\*\***

