SPE Vacuum Manifold and Pump Recommendations:

The following is the basic set-up for new SPE users. All of the components have are available from Fisher.

1. Manifold: Phenomenex (Refer to manifold brochure for options)
2. Vacuum Pump: A strong source of vacuum is necessary for proper SPE processing.. High quality vacuum pumps capable of generating a minimum of 20 " Hg vacuum are recommended. This will insure proper sample flow and cartridge drying when processing multiple SPE cartridges. A minimum of 1 cubic foot per minute of free air capacity is recommended for the vacuum pump. While a lower capacity pump will work, it is more likely to fail under heavy daily use. In addition, many solvents used in SPE contain volatile acids and bases which can cause corrosion of pump internals so corrosion resistance is a plus. NOTE: Water aspirators are NOT recommended as they simply do not provide sufficient vacuum.

   The following pumps are recommended (both on Fisher 2000/01 pg. 1398):
   Moderate cost: Gast, part number 01-094-22
   Low cost: Gast, part number 01-092-29

3. Waste Trap: A waste trap must be added in-line between the vacuum manifold and vacuum pump. The waste trap must be safe to use under vacuum.
   Nalgene sidearm flask (Fisher pg. 669), part number 10-182-51

4. Stopper: (Fisher pg. 1685) , part number 14-132H

5. Vacuum Tubing: Red vacuum tubing, ¼ " I.D., part number 14-173C.

NOTE: regular laboratory tubing does not work as it will collapse under heavy vacuum.