

The goal of installation is to layout the straightest, most direct route of tubing to achieve an efficient built-in central vacuum system. Second, is to place the inlet valves in the most convenient, inconspicuous, and easy-to-use locations that will not interfere with or compromise the integrity of the structure in which they are installed.

- **Tubing**
  - Only use the highest quality PVC tubing made.
  - All cuts are to be made with a thin-wall tubing cutter for straight, clean cuts, leaving no gaps between pipe and fitting seat.
  - All pipes are to be deburred, assuring proper gluing and seating of pipe.
  - Design piping system in the most direct route to achieve optimal airflow efficiency.
  
- **Fittings**
  - Only use top quality fittings which are produced in polished stainless steel molds and are 25% heavier than inferior fittings.
  - All fittings to have 3/4" cuff, not 1/2".
  - Only install tight 90 degree elbows at the inlet valve connection.
  - Offset jogs with two 45 degree ells not two 90 degree ells.
  - Never install drop out tees (where the sweep part of a tee goes directly on top of another inlet valve run) because debris can fall down to the inlet.
  
- **Wire**
  - Only install CL 2 Fire-Rated 20 gauge wire or stronger for low voltage wiring.
  - Secure the wire to the pipe every 5' minimum and at most elbows with plastic wire tie wraps or tape to insure a neat and safe installation.
  - Nail-on safety plates are installed to prevent drywall nails from accidentally protruding into the tubing.
  
- **Inlet Valves**
  - All inlets to be installed at exact height corresponding to electrical outlets unless otherwise specified and placed in the most convenient, inconspicuous locations.
  - Never install fewer outlets than required to adequately reach all areas with a 35' hose, but preferably 30' hose.
  - Always attempt to color match inlet valve covers to the outlet covers.
  
- **Power Unit**
  - Never install any power unit which is not adequately designed to handle the home into which it is installed.
  - Always double check each finished installation to insure proper suction and air flow.
  - Never install a power unit which will emit dust or debris from the exhaust into the room which it is installed.
  - Never knowingly sell any consumer anything they do not need!

The extra time required for demanding standards is well worth the extra effort to the installer, the contractor, and to the end user. Demand these standards for your vacuum system; your vacuum system will only be as good as the installation.