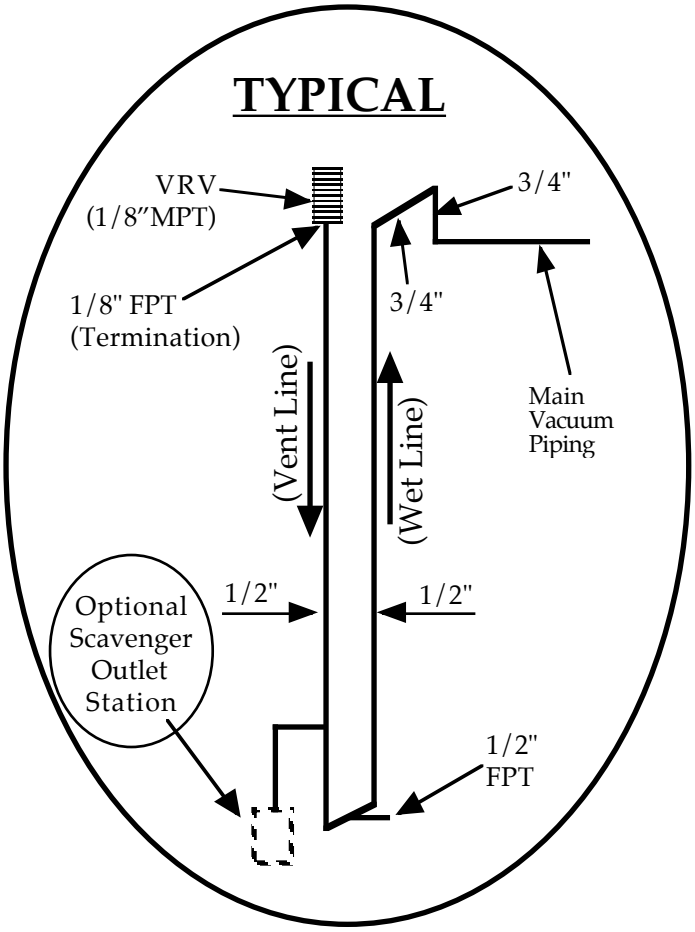
Piping
Overhead

MATRX
TECH TALK

Daniel Shoemaker 1999/04/02 *Rev. 2001/02/06*



Overhead Piping "101"

Since the days of PVS and Ohmeda, we have installed hundreds of overhead piping systems that work so efficiently that the users can not detect the difference between our "overhead" and a "through the floor" systems. The following are some basic rules that will ensure proper performance for your application.

- Always ensure that you size the pumps with at least 2 extra users more than needed. *(to maintain system pressure)*
- When running "overhead" oral evacuation and hand wash stations, they should be run in separate vacuum piping systems to separate pumps. The flow of each system is opposite the other. One is 90% air and 10% liquids, while the other is 90% liquids and 10% air. When they share the same vacuum piping, there is a sudden drop in oral evacuation when a hand wash station fills the system. *(liquids move through the pipes slower than air)*. Installing separate piping systems prevent "drop-outs" during oral evacuation.
- A manual cross-over valve. *(for back up)* should be installed, along with check valves on each pump intake. *(see drawing)*
- Each vacuum inlet should be run separately. *(eg. Two rooms back to back should not share a riser or vent)*
- Scavenger systems should either be in a separate riser *(no separate vent line necessary)*, or on the vent line, as shown.
- Wet line riser must be vertical. *(no angles!)*
- Vacuum inlets that originate in a floor junction can be run overhead; with some variations to the piping. *(see drawing)*
- The main piping system should be sized and run through the ceiling exactly like a through the floor system.
- Note the sloped pipes, follow this very carefully. *(Slope: In direction of arrow)*

Matrx • 145 Mid County Drive • Orchard Park, NY 14127 • 800-847-1000 Phone • 716-662-7130 Fax

Matrx Overhead Piping

Slope Direction: ⟶

Lines "slope" downward toward the vacuum producer.
(1/4"per 10 ft, min)