

one pipe is necessarily passed through a single sleeve as to a unit piping enclosure or other conditions resulting in larger than 1/8" gap within the sleeve, tightly pack space with proper material to form a barrier against sound, vermin, fire, etc.

2. Provide escutcheons on all finished surfaces where exposed piping, bare or insulated, pass through floors, walls or ceiling, except in boiler, utility or equipment rooms. Fasten escutcheons securely to pipe or pipe covering.

3.3 APPLICATION

- A. Fixtures, Floor Drains and Cleanouts: Provide all fixtures and floor drains with traps to comply with local regulations and as hereinafter specified. Provide exposed traps with brass cleanout plugs. Provide cleanouts in soil and waste lines as shown on the Plans and as required by the governing codes. Extend cleanouts for piping concealed in floor or ceiling construction through the floor above and provide with adjustable floor level cleanout set flush with the finished floor. Use wall cleanouts for piping concealed in wall construction only where indicated on the Drawings.
- B. Install unions downstream of valves and at equipment or apparatus connections.
- C. Install gate valves or ball valves for shut-off and to isolate equipment, part of systems, or vertical risers.
- D. Provide check valves on discharge of water pumps.
- E. Provide flow controls in water recirculating systems where indicated.

3.4 ERECTION TOLERANCES

- A. Drainage Piping: establish invert elevations within 1/2 inch vertically of location indicated and slope to drain at minimum of 1/4 inch per foot slope.
- B. Water Piping: Slope at minimum of 1/32 inch per foot and arrange to drain at low points.

3.5 TESTS

- A. Testing requirements are minimum and are not intended to be limiting where additional testing methods are required by the authority having jurisdiction.
- B. Water Piping: Slope at minimum of 1/32 inch per foot and arrange to drain at low points.
- C. Test all water supply piping before fixtures, equipment and/or hydrants are connected. Cap or plug the openings, fill the system with water and apply a hydrostatic pressure of 125 PSIG. Hold test pressure for at least 2 hours. Remake all leaking joints and retest.
- D. Test each fixture for soundness, stability of support and satisfactory operation of all its parts.