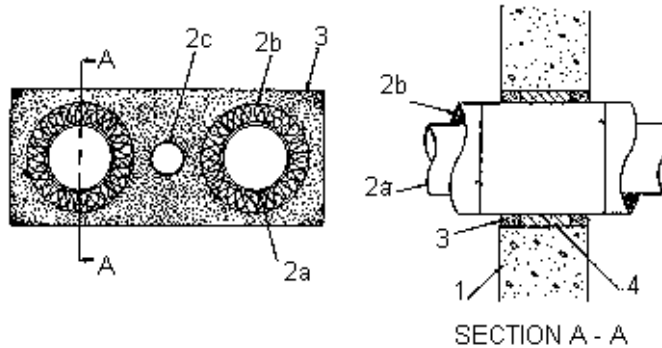


**DESIGN NO. TRC/PV 180-03**  
**VERTICAL (WALL), F RATING - 3 HRS,**  
**T RATING - 1 HR ON 2A PENETRATIONS, T RATING - 0 ON 2C PENETRATIONS;**  
**ANNULAR SPACING - 1/2" TO 1"**  
**TEST PRESSURE DIFFERENTIAL - 2.5 Pa (0.01" OF WATER) MINIMUM**



Manufacturer's Designation: 950 CW-19.

1. Wall: Minimum 4-1/2" lightweight or normal weight concrete with a maximum area of opening 96 sq. in. with a maximum dimension of 16".
2. Penetrations: Type M Nominal 3" and 1-1/2" Copper Tubing.
  - a) Two - Nominal 3" Type M (or heavier) Copper Tubing with insulation.
  - b) Nominal 1" thick hollow cylindrical heavy density (nominal 2 pcf density) unfaced mineral fiber pipe covering material with a resin binder.
  - c) One - Nominal 1-1/2" Type M (or heavier) Copper Tubing.
3. Caulking Compound or Filler Material: Minimum thickness 1/2" Metalines, Inc. Metacaulk\*950 each side of partition.
4. Insulation: Minimum 2" thickness of minimum 4 pcf density mineral wool batt material tightly packed.

\*Component bearing the Warnock Hersey Certification Mark