

PART 2 PRODUCTS

2.1 MATERIALS

- A. The following requirements are for the different materials allowed to be used for this project. See schedule at the end of Part 3 for acceptable locations of acceptable duct materials.
- B. Galvanized Steel Ducts: Hop-dipped galvanized steel sheet, ASTM A 653/A 653M FS Type B, with G60/Z180 coating.
- C. Insulated Flexible Ducts:
 - 1. UL 181, Class 1, aluminum laminate and polyester film with latex adhesive supported by helically wound spring steel wire; fiberglass insulation; polyethylene vapor barrier film.
 - a. Pressure Rating: 10 inches WG positive and 1.0 inches WG negative.
 - b. Maximum Velocity: 4000 fpm.
 - c. Temperature Range: -20 degrees F to 210 degrees F.
- D. Hanger rod: ASTM A 36/A 36M; steel, galvanized; threaded both ends, threaded one end, or continuously threaded.

2.2 MANUFACTURED METAL DUCTWORK AND FITTINGS

- A. Manufacture in accordance with SMACNA HVAC Duct Construction standard - Metal and Flexible, and as indicated. Provide duct material, gauges, reinforcing, and sealing for operating pressures indicated.

2.3 DUCT INSULATION

- A. General: Duct insulation shall be the required thickness and material to provide a minimum thermal resistance "R" of 6. Rating shall be at 75 degrees F, tested in accordance with ASTM C-518 or ASTM C-177.
- B. Coverings and lining shall have a flamespread rating of not over 25 without evidence of continued progressive combustion and a smoke developed rating of not over 50, and shall not flame, flow, smolder or smoke when tested in accordance with ASTM C 411 at the designated maximum service temperature.
- C. For determination of R-value of flexible duct wrap, the installed wrap shall have an assumed thickness of 75% of the nominal thickness, allowing for 25% compression.
- D. Insulation: ASTM C 553; flexible noncombustible blanket.
 - 1. "K" value: ASTM C 518, 0.25 at 75 degrees F.
 - 2. Maximum service temperature: 250 degrees F.
 - 3. Maximum moisture absorption: 0.20 percent by volume.
- E. Vapor Barrier Jacket:
 - 1. Kraft paper with glass fiber yarn and bonded to aluminized film.