

# Chemical Resistant Coated Ductwork

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## Materials of construction:

1. Ductwork and fittings: epoxy coated G60 galvanized steel
2. Transverse connections: Epoxy coated G60 Accuflange (refer to note below) with 0.1875 thick 100% expanded PTFE gasket (W.L. Gore) with a self-adhesive strip.
3. Flange-to-flange mechanical connection: #10 type 316 stainless steel attaching screws spaced every 4 inches around the circumference. Stainless steel (type 316) nuts/bots/washers are to be used if angle rings are required.
4. Epoxy coating: electrostatic applied and baked on 3M™ Scotchkote™ Fusion-Bonded Epoxy Coating 135 (light gray) applied at a minimum 3 mil minimum inside and out. Refer to the manufacturer's literature for chemical resistance information.

## Construction Methods:

1. Fittings:
  - a. All seams exposed to the airstream will be either gore locked, fully welded, or stitch welded. Fillet welds, spot welds, punch welds, screws, rivets, or other attachment methods will not be used.
  - b. Stamped fittings will be preferred to fabricated styles to minimize seams.
2. Spiral pipe:
  - a. Minimum gauges for spiral pipe and fitting in accordance with 2005 SMACNA HVAC Duct Construction Standards for specified pressure (specify requirement between -10 iwg to +10 iwg), however, the spiral pipe will be 1 even gauge heavier.
  - b. For negative pressure applications, if reinforcement is required per SMACNA HVAC Duct Construction Standards, Accuflanges will be replaced with suitably proportioned galvanized angle rings.
  - c. Spiral pipe 8 inches and larger will be corrugated for additional strength.
3. Fully weld the airside of the flanged connection to the spiral pipe and fittings. The outside of the flanged connection, not exposed to the airstream, is to be tack welded at 4 inch intervals.
4. NO internal sealants to be used.
5. Touchup to damaged coating shall be an industrial quality 2 part epoxy brush or spray applied following the manufacturer's application recommendations.

NOTE – in lieu of Accuflange and for a more rigid and reusable connection, substitute suitably proportioned galvanized angle rings.