

## **233346S02 FLEXIBLE DUCTS**

### **STEEL / ALUMINUM FLEXIBLE DUCT**

1. Flexible duct shall be a factory-fabricated assembly consisting of an all steel or aluminum material.
2. All supply flexible duct shall be insulated with 1 1/2-inch blanket of glass wool with an outer moisture barrier. The insulation assembly shall have a flame spread of not more than 25 and a smoke development rate of not over 50.
3. Flexible duct shall be rated for 10 inches W.G. static pressure.
4. A single length of flexible duct shall not exceed 4'0".
5. The minimum bend radius shall be 1 1/2 times the duct diameter. The radius shall be measured to the inside edge of the flexible duct.
6. Total offset in any run of flexible duct shall not exceed 90 degrees.
7. Provide a minimum of one hanger of each run of flexible duct. The hanger must be strapped around the flexible duct and secured to the structure above. Hangers shall not be attached to other mechanical or electrical objects. Hangers may be attached to an approved trapeze. Ceiling grid shall not be used to fabricate a trapeze. Support hangers shall be installed horizontal. Screws shall not be used to penetrate the flexible duct to attach the hanger.
8. Flexible duct shall be secured to the rigid duct and appliance with a nylon adjustable, self-locking, strap and a minimum of three sheet metal screws. The flexible duct shall be sealed airtight at each connection with self-adhesive aluminum tape. Fiber or cloth duct tape is not permitted to seal rigid or flexible duct.
9. All flexible duct shall be pressure tested by a testing and balancing agency to ensure the installation is airtight.

### **POLY / PLASTIC FLEXIBLE DUCT**

Poly/plastic flexible ductwork shall **not** be used on Main Campus Projects, Medical Center Only and must be approved by the design engineer and UK project manager.

1. Install flexible ducts in accordance with manufacturer's installation instructions and The Sheet Metal and Air Conditioning Contractors' National Association (SMACNA) Standards, except as modified in this Section of Specifications.
2. Flexible ducts may be used for final connections to return grills, registers and general exhaust grills and registers. Flexible ducts shall be of minimum length required to make connections, but no greater than 4 ft. in length, unless noted otherwise.
3. Flexible ducts are not allowed for special exhaust systems, such as dryer exhaust.
4. Centerline radius of bends shall not be less than 1-1/2 duct diameter.

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5. Support flexible ductwork at connection to diffuser/grill with "Flexright" flexible duct elbow support or similar radius support, and a maximum of 3 ft. on center, with no portion lying on ceiling support system and a minimum of one hanger on each 4 ft. run.
6. Individual sections of flexible ductwork shall be of one-piece construction. Splicing of short sections is not allowed.
7. Connect flexible duct liner to collars with nylon adjustable, self-locking strap and a minimum of 3 sheet metal screws. If collars have beads, position draw bands behind beads
8. Pull insulation and vapor barrier jacket over liner connection and secure with strap. Flexible duct shall be sealed air tight at each connection with self-adhesive aluminum tape.
9. Flexible ducts are not allowed above non-accessible ceilings.
10. Flexible ducts are not allowed in high pressure ductwork.
11. Flexible ducts are not allowed to pass through any partition, wall, floor or ceiling.
12. Total offset in any run of flexible duct shall not exceed 180 degrees.