

SECTION XXXXXX

FIBERGLASS BACKDRAFT DAMPERS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Fiberglass back-draft, check or pressure relief dampers for corrosive environments.

1.2 RELATED SECTIONS

- A. * insert the section for fiberglass ductwork *

1.3 REFERENCES

- A. AMCA 500 - Test Methods for Louvers, Dampers and Shutters.
- B. ASME RTP-1
- C. ASTM E 84 - Surface Burning Characteristics of Building Materials.

1.4 SUBMITTALS

- A. Comply with requirements of Section XXXXX - Submittal Procedures.
- B. Product Data: Submit manufacturer's product data, including leakage, pressure drop, and maximum pressure data in accordance with AMCA 500 testing.
- C. Shop Drawings: Submit shop drawings indicating materials, construction, dimensions, and installation details.
- D. Submit a letter from the resin manufacturer stated that the system is suitable for the intended service conditions.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly indicating manufacturer, material, and location of installation.
- B. Storage: Store materials in a dry area indoors, protected from damage and in accordance with manufacturer's instructions.
- C. Handling: Protect materials and finishes during handling and installation to prevent damage.

PART 2 PRODUCTS

2.1 MANUFACTURER

- A. "ECS" Engineered Composite Systems 254-933-2270
- B. Belco Manufacturing
- C. Ershigs
- D. Engineer Pre-Qualified equal

2.2 FIBERGLASS BACKDRAFT DAMPERS

- A. Fabrication:
 - a. Fiberglass Material:
 - a. Class 1 Flame Retardant Vinyl Ester.
 - b. Contact Molded construction per ASME RTP-1
 - c. Comply with NBS PS 15-69, ASTM 3982 and ASTM E 84.
 - d. Materials in Airstream: Vinyl Ester or Stainless Steel
 - e. Exposed Glass is not acceptable. All surfaces exposed to chemical attack must have a 100-mil corrosion barrier applied. To extend service live, cure system for this liner should have a BPO/DMA cure. MEKP is acceptable in the structural portion only.
 - 3. Body: Single Piece contact molded flanged body. Pultruded parts utilizing filled resin systems and / or less than 100-mil corrosion barriers are not acceptable.
 - 4. Blades:
 - a. Style: Airfoil-shape.
 - b. Material: Fiberglass, vinyl ester resin with a BPO/DMA Cure.
 - c. Width: as required to meet the manufacturers design requirements. Blades must never protrude beyond the body.
 - 5. Axles: Stainless steel or fiberglass. Fiberglass shafts must have a 100-mil corrosion barrier applied to the exterior.
 - 6. Bearings: Graphite filled PTFE
 - 7. Linkage: Type 316 stainless steel, side linkage, out of airstream.
 - 8. Counterbalance Assembly: Type 316 stainless steel, out of airstream.
 - 9. Exterior surfaces should be finished to match ductwork or connecting equipment. Reference the ductwork specification for details.
 - 10. Shaft Seals: Double Quad-Ring assemblies. Shaft seals and packing should be design not to restrict normal damper operation.
 - 11. Flanges: Flanges should be sized to match connecting equipment. Thickness shall not be less than ASTM 3982 or NBS PS-1569.

2.4 SOURCE QUALITY CONTROL

- A. Factory Tests: Factory cycle each damper to assure proper operation. Testing must be witnessed by an independent inspection agency. Test results should be submitted to the engineer prior to shipment.

END OF SECTION

