

# **DRAFT SPECIFICATION**

## **ANTI-STATIC POLYESTER FABRIC**

### **FLOWCON AIR DIFFUSERS**

#### **PART 1-GENERAL**

##### **1.01 DESCRIPTION OF WORK:**

- A. Extent of fabric ductwork is indicated on drawings and by requirements of this section.
- B. Types of fabric ductwork required for this project include the following:
  - 1.FlowCon Fabric Air Diffusers.

##### **1.02 QUALITY ASSURANCE:**

- A. Building Codes and Standards:
  - 1. Product must be tested in accordance with the 25/50 flame spread / smoke developed requirements of NFPA 90-A and are also UL classified (R20672)
- B. Design & Quality Control
  - 1. Manufacturer must have documented design support information including duct sizing, vent and orifice location, vent and orifice sizing, length, and suspension. Parameters for design, including maximum air temperature, velocity, pressure and fabric permeability, shall be considered and documented.
  - 2. Product must be treated with an EPA registered antimicrobial agent. 99% effective after 10 laundry cycles.

##### **1.03 SUBMITTALS:**

- A. Product Data: Submit manufacturer's specifications on materials and manufactured products used for work of this section.

##### **1.04 WARRANTY**

- A. Manufacturer must provide a 5 Year Product Warranty for products supplied for the fabric portion of this system.

##### **1.05 DELIVERY, STORAGE AND HANDLING:**

- A. Protect fabric air diffuser systems from damage during shipping, storage and handling.
- B. Where possible, store products inside and protect from weather. Prevent dirt and moisture from entering packaging.

#### **PART 2 - PRODUCTS**

##### **2.01 MANUFACTURER:**

Subject to compliance with requirements, provide product manufactured in the United States. Choose one of the following:

- A. FlowCon fabric air diffusers  
Phone: (262) 728-6860  
FAX: (262) 728-6840  
[www.adctubes.com](http://www.adctubes.com)

##### **2.02 FABRIC AIR DISPERSION SYSTEM:**

- A. Air diffusers shall be constructed of a treated woven fire retardant fabric complying with the following physical characteristics:
  - 1. Fabric Construction: 98%Polyester + 2% carbon
  - 2. Coating: air permeable treatment
  - 3. Weight: 3.2 oz./yd<sup>2</sup>
  - 4. Color: (MUST SPECIFY-white, gray, blue, green)
  - 5. Air Permeability: .98 cfm/ft<sup>2</sup> per ASTM D737, Frazier
  - 6. Temperature Range: 0 degrees F to 250 degrees F
  - 7. Product must be tested in accordance with the 25/50 flame spread / smoke developed requirements of NFPA 90-A and are also UL classified.
- B. SYSTEMS FABRICATION REQUIREMENTS:
  - 1. Dispersion orifice sizing,.5 up to 2 inch diameter (design dependant).
  - 2. Size, quantity, and location of orifices to be specified and approved by manufacturer.
  - 3. Inlet connection to metal duct via wormgear band as supplied by manufacturer.
  - 4. Lengths to include required zippers as specified by manufacturer.

5. Fabric system shall include connectors to accommodate suspension system listed below.
6. Any deviation from a straight run shall be made using a gored elbow or a take-off port. Normal 90 degree elbows are 6 gores and a radius of 2.5 times the diameter of the diffuser
7. End caps can be zippered on or used with an adjustable draw cord end.

C. DESIGN PARAMETERS:

1. Fabric air diffusers shall be designed from 0.25" water gage minimum to 3" maximum, with 0.5" as the standard.
2. Fabric air diffusers shall be limited to design temperatures between 0 degrees F and 250 degrees F.
3. Design CFM, static pressure and diffuser length shall be designed or approved by the manufacturer. (1000 to 1700 cfm recommended).
4. Use fabric diffusers only for positive pressure air distribution components of the mechanical ventilation system.

D. SUSPENSION HARDWARE: (one of following)

1. **Cable:** System shall be installed using a cable system including a single (1 Row) of cable located 2" above top-dead-center (1 Row) or 2.5" above top center. System attachment shall be made using acetyl snap clips spaced 36 inches. Component options include (must specify per area if multiple on same project):
  1. Galvanized Steel Cable

### PART 3 - INSTALLATION

#### 3.01 INSTALLATION OF FABRIC AIR DISPERSION SYSTEM:

- A. Install chosen suspension system in accordance with the requirements of the manufacturer. Instructions for installation shall be provided by the manufacturer with product.

#### 3.02 CLEANING AND PROTECTION:

- A. Clean external surfaces of foreign substance which may cause corrosive deterioration of facing.
- B. If diffuser systems become soiled during installation, they should be removed and cleaned following the manufacturers standard terms of laundry.

\*\*\*END OF SECTION\*\*\*