

**SUBMITTAL RECORD**

JOB \_\_\_\_\_  
 LOCATION \_\_\_\_\_  
 SUBMITTED TO \_\_\_\_\_  
 SUBMITTAL PREPARED BY \_\_\_\_\_  
 APPROVED BY \_\_\_\_\_  
 DATE \_\_\_\_\_

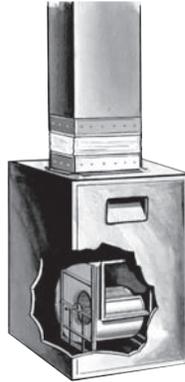


**Specification Form**  
**DDFDC**  
**Flexible Duct Connector**

**DESCRIPTION**

All air duct installations for heating, cooling or ventilation are attached to mechanical equipment containing a fan or blower. Vibrations, noises and rattles resulting from operation of the fan or blower are transmitted into the metal ducts which carry the noises throughout the system.

In order to isolate the vibration and noises to the source, an air-tight flexible joint, consisting of a fabric which is attached to sheet metal on both side, must be inserted between the equipment and the ductwork. This vibration isolator is called a "Flexible Duct Connector".



**RELATED NFPA 90A & 90 B STANDARDS**

**2-3.2.2** Vibration isolation connectors in duct systems shall be made of an approved flame-retardant fabric or shall consist of sleeve joints with packing of approved material, each having a maximum flame spread index of 25 and a maximum smoke developed index of 50. Exception: Approved flame-retardant fabric having a maximum length of 10 in. (45.4 cm) in the direction of airflow-**NFPA No. 90A 1999**

**2-1.1.1** Exception No. 3: Vibration isolation connectors in duct systems shall be made of approved flame-retardant fabric or shall consist of sleeve joints with packing of approved noncombustible material. The fabric shall not exceed 10 in. (254 mm) in length in direction of airflow-**NFPA No. 90B 1999**

**"METAL - FAB"**

**Gauge: 24\***  
**Dimensions: 3" metal-**  
**3" fabric- 3" metal**  
**Seam: "Grip Loc"**



**"SUPER METAL - FAB"**

**Gauge: 24**  
**Dimensions: 3" metal-**  
**6" fabric- 3" metal**  
**Seam: "Grip Loc"**

| FABRIC COMPARISONS              | Envirofab  | Dynalon  | Excelon <sup>4</sup>                                      | Neoprene                             | Durolon  | Insulflex*  | Thermafab   |
|---------------------------------|--|--|---|--------------------------------------|--|---|---|
| Continuous Temp. Range          | -40 F. - 200 F.  | -40 F. - 280 F.  | -40 F. to 180 F.  | -40 F. to 200 F.                     | -40 F. to 250 F.   | -40 F. to 180 F.  | -65 F. to 500 F.  |
| Color                           | Black/White  | White  | Black or Spec Chek Orange                                 | Black                                | White  | Black   | Grey  |
| Weight Per Square Yard          | 18   | 24   | 22  | 30                                   | 26   | 28(composite weight)  | 17  |
| Leakage Resistance <sup>1</sup> | 350  | 250  | 350   | 595                                  | 250  | 125   | 400   |
| Tear Strength <sup>2</sup>      | 60 x 80  | 110 x 100  | 100/100   | 12/12                                | 12/12  | 8/11  | 50/40   |
| Tensile Strength <sup>3</sup>   | 200 x 190  | 280 x 235  | 240/220   | 500/450                              | 225/300  | 70/70   | 200/150   |
| Features                        | "Green"<br>10% recycled content<br>UV reflective<br>puncture resistant | Highly Flexible<br>UV resistant<br>excellent<br>weathering | High Tear Strength<br>High Abrasion<br>Resistance.        | General Purpose                      | Excellent Ozone<br>and Weathering<br>Resistance.<br>Best Overall Acid<br>Resistance. | Low Smoke<br>Emission<br>Insulated<br>3-4-3<br>Configuration. | Very Low Smoke<br>Emission.<br>High Temperature<br>Resistant. |
| Codes                           |  |  |   |                                      |  |   |   |
| Metal-Fab                       | MEV4-100(#10301)   | MYL4-100(#10316)   | MBX(#10159)<br>MSPX(#10263)                               | MFN(#10003)                          | MFD(#10002)  | IDC(#10173)<br>*Gauge: 28                                     | MFT(#10005)   |
| Super Metal-Fab                 |  |  | MB6X(#10160)<br>MSP6X(#10265)                             | MF6N(#10012)                         | MF6D(#10011)   |   | MF6T(#10013)  |
| TDC/TDF                         | MEV4x4x4(#10300)   | MYL4x4x4(#10315)   | MBX4x4x4(#10210)<br>MSPX4x4x4(#10264)<br>MBX4x6x4(#10214) | MFN4x4x4(#10211)<br>MFN4x6x4(#10246) | MFD4x4x4(#10237)<br>MFD4x6x4(#10245)   |   |   |

**Notes:**

1. Leakage resistance as per Federal Test Standard 191 Method #5512. Results in P.S.I. (To convert inches of water multiply P.S.I. x 27.176).
2. Tear strength in tongue pounds as per Federal Test Standard 191 Method #5134.1 (warp/fill).
3. Tensile strength in grab pounds as per Federal Test Standard 191 Method #5100 (warp/fill).
4. Standard Excelon is not LA city approved. Use Excelon-LA when LA city approval is necessary. (See Specification Form Excelon-LA - 203)

**SUGGESTED SPECIFICATION**

**Vibration Isolating Flexible Duct Connector For Heating, Cooling & Exhaust Supplies & Returns.**

At the inlet and discharge of all air handling equipment( unless otherwise noted) furnish and install vibration isolators. Vibration isolators shall be a coated woven fabric named \_\_\_\_\_ and shall be "Underwriters Laboratories Classified".

Vibration isolators shall have a tear strength of not less than \_\_\_\_\_, an abrasion resistance of not less than \_\_\_\_\_, and a continuous temperature range of \_\_\_\_\_. Vibration isolators shall be preassembled metal to exposed fabric to metal. Fabric and metal shall be joined by means of a double lock seam.

Vibration isolators shall be code \_\_\_\_\_ ( called Flexible Duct Connectors) as manufactured by Duro Dyne Corporation, Bay Shore, N.Y.