SUBMITTAL RECORD JOB _______ LOCATION ______ SUBMITTED TO ______ SUBMITTAL PREPARED BY ______ APPROVED BY _______ DATE _____



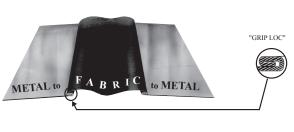
Submittal Form FDC Flexible Duct Connector

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".





Fabric Comparisons	Excelon®	Neoprene (Specification Grade)	Durolon	Teflon	
UL Classified Listing #	R4462	R4462	R4462	n/a	
Continuous Temp. Range	-40°F. to 180°F.	-40°F. to 200°F.	-40°F. to 250°F.	-150°F. to 500°F.	
Color	Black	Black	White	Grey Outside/Beige Inside	
Commercial Grade Weight	22 oz.	30 oz.	30±2 oz.	16.5 oz.	
Residential Grade Weight	17 oz.	30 oz.	30±2 oz.	16.5 oz.	
Abrasion Resistance ¹	15,000 cycles	600 cycles	500 cycles	1,000 cycles	
Hydrostatic Burst ²	610 psi	595	250	650	
Tear Strength ³	170 lbs. / 190 lbs.	12 lbs. / 12 lbs.	20 lbs. / 20 lbs.	50 lbs. / 30 lbs.	
Tensile Strength ⁴	320 lbs. / 315 lbs.	500 lbs. / 450 lbs.	475 lbs. / 375 lbs.	400 lbs. / 300 lbs.	
Base Fabric	Woven Nylon/Polyester Blend	Woven Fiberglass	Woven Fiberglass	Fiberglass/Satin Weave	
Coating	Vinyl	Neoprene	Hypalon	Teflon	
Features	Excellent water resistance Excellent tear strength Excellent all purpose fabric Unaffected by mildew	Extremely resistant to alkalies & gasoline Excellent on systems exposed to toxic fumes Good general purpose fabric Unaffected by mildew	Excellent ozone & weathering resistance Best overall acid resistance Recommended for rooftop applications Unaffected by mildew	High temperature resistant High corrosion resistance Excellent chemical resistance	
Metal-Fab [®] Grip Loc	MBX333 (#10159)	MFN333 (#10003)	MFD333 (#10002)	MCT333 (#10278)	
Super Metal-Fab [®] Grip Loc	MB6X363 (#10160) MB12X3123 (#10252)	MF6N363 (#10012) MFN12N3123 (#10251)	MF6D363 (#10011)	MC6T363 (#10069)	
TDC/TDF Grip Loc	MBX444 (#10210) MBX464 (#10214) MBX484 (#10280) MBX4104 (#10286)	MFN444 (#10211) MFN464 (#10246) MFN484 (#10281) MFN4124 (#10254)	MFD444 (#10237) MFD464 (#10245) MFD4124 (#10255)	MCT444 (#10279) MCT4104 (#10287)	

Please see individual submittals for each fabric/configuration for flame/smoke test results (ASTM E84 rating & NFPA 701). Excelon and Neoprene are available in 1000 foot rolls (Metal-Fab) and 800 foot rolls (TDC/TDF).

All Metal-Fab, Super Metal-Fab and TDC/TDF Flexible Duct Connectors are manufactured with 24 gauge galvanized steel. Duro Dyne meets or exceeds the SMACNA steel requirements for flexible duct connector.

Other materials are available upon request.

Notes:

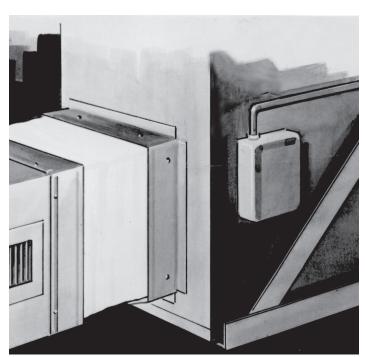
- Abrasion resistance as per Federal Test Standard 191 Method #5306 using CS 17 wheel with 250 Gram load.
- 2. Tear strength in tongue pounds as per Federal Test Standard 191 Method #5134.1 (warp/fill).
- 3. Tensile strength in grab pounds as per Federal Test Standard 191 Method #5100 (warp/fill).
- Standard Excelon is not LA city approved. Use Excelon-LA when LA city approval is necessary. (See Specification Form Excelon-LA - 203)
- 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.).

All Duro Dyne Flexible Duct Connector Products are suitable for pressures of -10 to +15 wg. Duro Dyne's standard 'single fold' metal to fabric grip has been tested by an independent testing laboratory to withstand a negative pressure of -10"WC and a positive pressure of +17.25" WC with no tearing or visible separation.

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 fab
named and shall be "Underwriters Laboratories Classified". Vibration isolators shall have a tear strength of not less then, 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 dou
lock seam. Vibration isolators shall be code (called Flexible Duct Connectors) as manufactured by Duro Dyne Corporation, Bay Shore, N.Y.





Specifications

All Listed Duro Dyne Flexible Duct Connector Fabrics are designed to meet the following specifications:

- 1. NFPA701 Tests for Flame Propagation of Fabrics and film (except Teflon).
- 2. Denver City Approved.

All Duro Dyne Flexible Duct Connectors utilize galvanized steel meeting ASTM-A-525 G $60\ \mbox{or}$ better.

Duro Dyne Flexible Duct Connectors are also available with $300 \ series$ stainless steel or $3003 \ aluminum$ upon request.

CHEMICAL RESISTANCE

(X = Extremely Resistant) (NR = Not Recommended)

(O = No Data Available)

Chemical	K. Keelof	, Acadic	ne Durolor	Tellon	Chemical	Excelor	. Acopie	ie Durolof	Teffon
Acetic Acid	NR	X	X	X	Hydrofluoric Acid (100%)	NR	X	X	X
Aluminum Chloride	X	X	X	X	Hydrogen Peroxide	X	NR	X	NR
Aluminum Sulfate	X	X	X	X	Hydrogen Sulfide	X	X	X	X
Ammonia (Anhyd)	X	X	X	X	Lactic Acid	NR	X	X	X
Ammonium Hydroxide	X	X	X	X	Linseed Oil	NR	X	X	O
Ammonium Sulfate	X	X	X	X	Magnesium Chloride	NR	X	X	X
Barium Sulfide	X	X	X	X	Maleic Acid	X	NR	X	O
Black Sulfate Liquor	X	X	X	X	Methyl Alcohol	NR	X	X	X
Boric Acid	X	X	X	X	Methyl Cellosolve	NR	X	X	O
Butyl Alcohol	NR	X	X	X	Mineral Oil	X	X	X	X
Cadmium Plating Solution	X	NR	NR	O	Naptha	NR	NR	NR	X
Calcium Chloride	X	X	X	X	Nickel Chloride	X	X	X	X
Calcium Hypochlorite	X	NR	X	X	Nickel Sulfate	X	X	X	X
Chlorine Water	X	NR	NR	O	Nitric Acid (40%)	X	NR	X	X
Chromic Acid	X	NR	X	X	Oleic Acid	X	NR	NR	X
Chromium Plating Solution	X	O	O	O	Oleum	NR	NR	X	X
Citric Acid	X	X	X	X	Oxalic Acid	X	X	X	X
Copper Chloride	X	X	X	X	Phosphoric Acid (85%)	NR	X	X	X
Copper Sulfate	X	X	X	X	Pickling Solution	X	NR	X	O
Cottonseed Oil	X	X	X	O	Potassium Chloride	X	X	X	O
Diacetone Alcohol	NR	X	X	O	Potassium Cyanide	X	X	X	X
Disodium Phosphate	X	NR	NR	O	Potassium Dichromate	X	X	X	X
Ethyl Alcohol	NR	X	X	X	Potassium Hydroxide (40%)	X	X	X	X
Ethylene Glycol	NR	X	X	X	Potassium Sulfate	X	X	X	X
Ferric Chloride	X	X	X	X	Propyl Alcohol	NR	X	X	O
Ferric Sulfate	X	X	X	X	Sodium Chloride	X	X	X	X
Fluroboric Acid	X	X	X	O	Sodium Hydroxide (40%)	NR	X	X	X
Formaldehyde (40%)	X	X	X	X	Sodium Hypochlorite	NR	NR	X	X
Formic Acid	X	X	X	X	Steam	NR	X	NR	X
Glucose	X	X	X	X	Sulfur Dioxide (Liquid)	NR	X	X	X
Glycerine	NR	X	X	X	Sulfuric Acid (50%)	X	NR	X	X
Heptane	NR	X	X	X	Sulfuric Acid (over 50%)	NR	NR	X	X
Hexane	NR	X	X	X	Tannic Acid	X	X	X	X
Hydrobromic Acid (40%)	NR	X	X	X	Vinegar	X	X	X	X
Hydrochloric Acid (conc)	NR	X	X	X					

