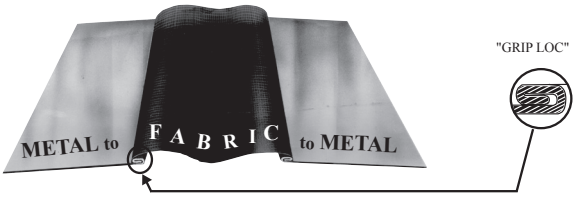
SUBMITTAL RECORD
JOB _____
LOCATION _____
SUBMITTED TO _____
SUBMITTAL PREPARED BY _____
APPROVED BY _____
DATE _____

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
Leakage Resistance[2]	350	595	250	650
Tear Strength[3]	100 lbs. / 100 lbs.	12 lbs. / 12 lbs.	20 lbs. / 20 lbs.	50 lbs. / 30 lbs.
Tensile Strength[4]	240 lbs. / 220 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)	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:

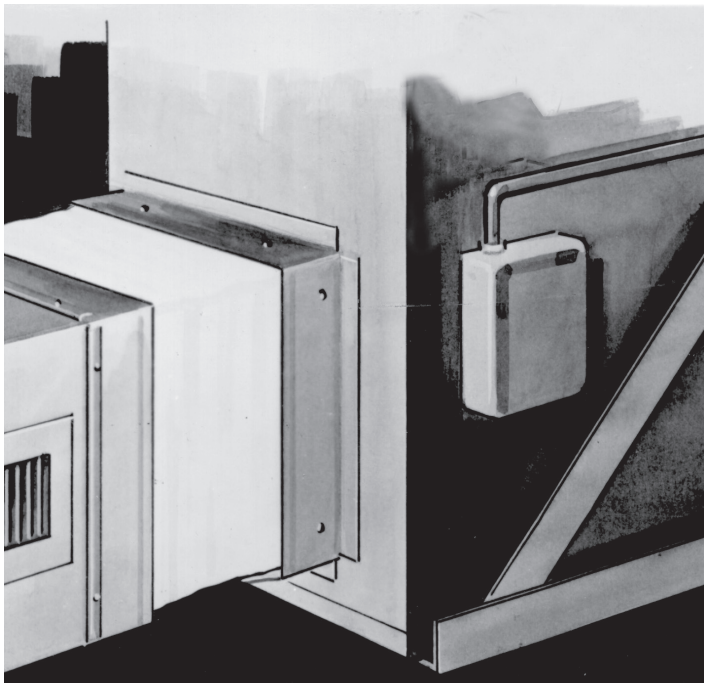
1. Abrasion resistance as per Federal Test Standard 191 Method #5306 using CS 17 wheel with 250 Gram load.
2. Leakage resistance as per Federal Test Standard 191 Method #5512. Results in P.S.I.
(To convert inches of water multiply P.S.I. x 27.176.).
3. Tear strength in tongue pounds as per Federal Test Standard 191 Method #5134.1 (warp/fill).
4. Tensile strength in grab pounds as per Federal Test Standard 191 Method #5100 (warp/fill).
5. Standard Excelon is not LA city approved. Use Excelon-LA when LA city approval is necessary.
(See Specification Form Excelon-LA - 203)

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 fabric 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 double 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. MIL-C-20696B Para. 4.4.3. (Oil Resistance).
2. MIL-C-20696B Para. 4.4.4. (Hydro Carbon Resistance).
3. NFPA701 Tests for Flame Propagation of Fabrics and film (except Teflon).
4. California State Fire Marshal Approved.
5. Los Angeles City Approved. *(*See note below*)
6. Denver City Approved.

All Duro Dyne Flexible Duct Connectors utilize galvanized steel meeting ASTM-A-525 G 60 or better.

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

****Note*** - Standard Excelon is not LA city approved. Use Excelon-LA when LA city approval is necessary. (See Submittal Form for Excelon-LA)

CHEMICAL RESISTANCE

(X = Extremely Resistant)
(NR = Not Recommended)
(O = No Data Available)

Chemical	Excelon	Neoprene	Durolon	Teflon
Acetic Acid	NR	X	X	X
Aluminum Chloride	X	X	X	X
Aluminum Sulfate	X	X	X	X
Ammonia (Anhyd)	X	X	X	X
Ammonium Hydroxide	X	X	X	X
Ammonium Sulfate	X	X	X	X
Barium Sulfide	X	X	X	X
Black Sulfate Liquor	X	X	X	X
Boric Acid	X	X	X	X
Butyl Alcohol	NR	X	X	X
Cadmium Plating Solution	X	NR	NR	O
Calcium Chloride	X	X	X	X
Calcium Hypochlorite	X	NR	X	X
Chlorine Water	X	NR	NR	O
Chromic Acid	X	NR	X	X
Chromium Plating Solution	X	O	O	O
Citric Acid	X	X	X	X
Copper Chloride	X	X	X	X
Copper Sulfate	X	X	X	X
Cottonseed Oil	X	X	X	O
Diacetone Alcohol	NR	X	X	O
Disodium Phosphate	X	NR	NR	O
Ethyl Alcohol	NR	X	X	X
Ethylene Glycol	NR	X	X	X
Ferric Chloride	X	X	X	X
Ferric Sulfate	X	X	X	X
Fluroboric Acid	X	X	X	O
Formaldehyde (40%)	X	X	X	X
Formic Acid	X	X	X	X
Glucose	X	X	X	X
Glycerine	NR	X	X	X
Heptane	NR	X	X	X
Hexane	NR	X	X	X
Hydrobromic Acid (40%)	NR	X	X	X
Hydrochloric Acid (conc)	NR	X	X	X

Chemical	Excelon	Neoprene	Durolon	Teflon
Hydrofluoric Acid (100%)	NR	X	X	X
Hydrogen Peroxide	X	NR	X	NR
Hydrogen Sulfide	X	X	X	X
Lactic Acid	NR	X	X	X
Linseed Oil	NR	X	X	O
Magnesium Chloride	NR	X	X	X
Maleic Acid	X	NR	X	O
Methyl Alcohol	NR	X	X	X
Methyl Cellosolve	NR	X	X	O
Mineral Oil	X	X	X	X
Naptha	NR	NR	NR	X
Nickel Chloride	X	X	X	X
Nickel Sulfate	X	X	X	X
Nitric Acid (40%)	X	NR	X	X
Oleic Acid	X	NR	NR	X
Oleum	NR	NR	X	X
Oxalic Acid	X	X	X	X
Phosphoric Acid (85%)	NR	X	X	X
Pickling Solution	X	NR	X	O
Potassium Chloride	X	X	X	O
Potassium Cyanide	X	X	X	X
Potassium Dichromate	X	X	X	X
Potassium Hydroxide (40%)	X	X	X	X
Potassium Sulfate	X	X	X	X
Propyl Alcohol	NR	X	X	O
Sodium Chloride	X	X	X	X
Sodium Hydroxide (40%)	NR	X	X	X
Sodium Hypochlorite	NR	NR	X	X
Steam	NR	X	NR	X
Sulfur Dioxide (Liquid)	NR	X	X	X
Sulfuric Acid (50%)	X	NR	X	X
Sulfuric Acid (over 50%)	NR	NR	X	X
Tannic Acid	X	X	X	X
Vinegar	X	X	X	X

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