

®

Delta Duct

Delta Duct Air Conditioning

DELTA-FLEX FLEXIBLE DUCTS, SEMI RIGID FLEXIBLE DUCTS & AIR CONNECTORS



► Insulated Flexible Ducts

Delta-flex DF-FD3

Delta-flex DF-FD4

Delta-flex DF-FD5

Delta-flex DF-FD3-RN

Delta-flex DF-FD4-RN

Delta-flex DF-FD5-RN

(UL Listed)

► Uninsulated Flexible Ducts

Delta-flex DF-FD100

Delta-flex DF-FD200

► Semi Rigid Flexible Ducts

Delta-flex DF-SFD-300

Delta-flex DF-SFD-6

www.deltaduct.com



MH 61332



Thermal Performance

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Flexible Ducts

Insulated Flexible Ducts

Delta-flex is a very strong fully flexible compressible light weight air duct which is widely used in Air Conditioning and Ventilation Systems for Commercial, Industrial and Residential applications. Delta-flex is extremely durable and will maintain dimensional stability when fully extended.

Applications:

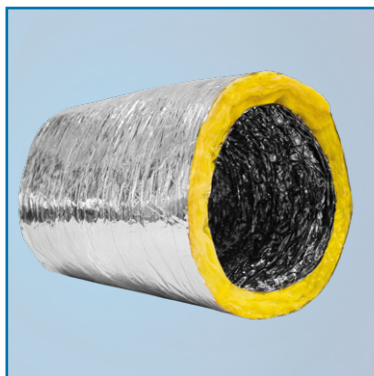
- Economical & ideal solution for connecting equipment's in air conditioning and ventilation systems, for applications such as, office Buildings and many other Industrial and Residential projects.
- Available Uninsulated & Insulated with quality fiberglass insulation.
- Offers high degree of flexibility, which allows it to be easily connected to any desired position.
- A quick and economical means of correcting misalignment between system components.
- Allows ducting around obstacles where fabricated and fitted ducts would be difficult and costly to install.
- Highly efficient when correctly installed & provides a maintenance free service life under normal operating conditions.

Features:

Tear and puncture resistant construction

- Delta-flex offers smooth air tight inner core when correctly installed which provides low friction loss. Highly resistant to corrosion and microorganism.
- Spring steel wire helix assures dimensional stability, resists mechanical abuse and provides more efficient air distribution.

Delta-flex DF-FD3

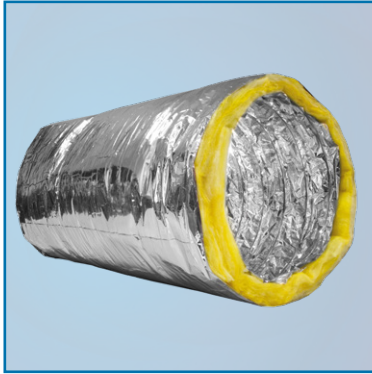


Delta-flex DF-FD3 is insulated flexible duct with outer jacket as metalized PET laminated over clear polyester, middle layer is of Good quality fiber glass insulation & inner core is double layer of clear polyester permanently bonded with flame retardant bonding adhesive with coated steel spring helix.

Specification:

Diameter	: 4" to 20"	Maximum Velocity	: 5000 FPM (25.5 m/s)
Insulation Density	: (16, 24, 32) kg/m ³	Maximum Positive Pressure	: 10" W.C. (2.5 KPa)
Available Insulation Thickness	: 25 mm	Maximum Negative Pressure	: ½" W.C. (0.12 KPa)
Length	: 25 feet	Insulation R Value	: 4.2 or 6 (F-hr/BTU)

Delta-flex DF-FD4

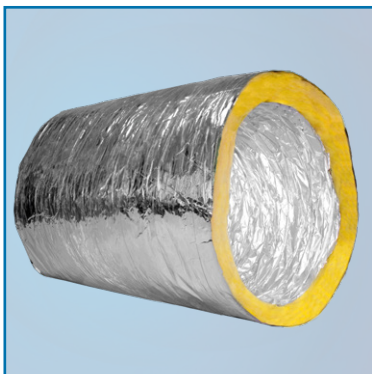


Delta-flex DF-FD4 is insulated flexible duct with outer jacket as metalized PET laminated over clear polyester, middle layer is of Good quality fiber glass insulation & inner core is double layer of metalized PET & clear polyester permanently bonded with flame retardant bonding adhesive with coated steel spring helix.

Specification:

Diameter	: 4" to 20"	Maximum Velocity	: 5000 FPM (25.5 m/s)
Insulation Density	: (16, 24, 32) kg/m ³	Maximum Positive Pressure	: 10" W.C. (2.5 KPa)
Available Insulation Thickness	: 25 mm	Maximum Negative Pressure	: ½" W.C. (0.12 KPa)
Length	: 25 feet	Insulation R Value	: 4.2 or 6 (F-hr/BTU)

Delta-flex DF-FD5

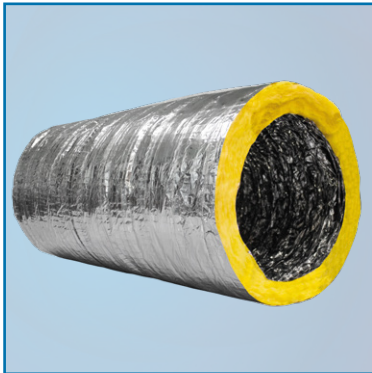


Delta-flex DF-FD5 is insulated flexible duct with outer jacket as metalized PET laminated over clear polyester, middle layer is of Good quality fiber glass insulation & inner core is double layer of ALU PET & clear polyester permanently bonded with flame retardant bonding adhesive with coated steel spring helix.

Specification:

Diameter	: 4" to 20"	Maximum Velocity	: 5000 FPM (25.5 m/s)
Insulation Density	: (16, 24, 32) kg/m ³	Maximum Positive Pressure	: 10" W.C. (2.5 KPa)
Available Insulation Thickness	: 25 mm	Maximum Negative Pressure	: ½" W.C. (0.12 KPa)
Length	: 25 feet	Insulation R Value	: 4.2 or 6 (F-hr/BTU)

Delta-flex DF-FD3-RN

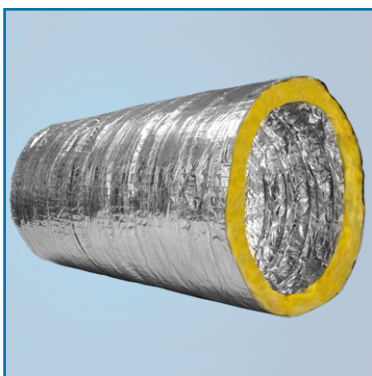


Delta-flex DF-FD3-RN is insulated flexible duct with outer jacket as reinforced metalized PET laminated over clear polyester, middle layer is of Good quality fiber glass insulation & inner core is double layer of clear polyester permanently bonded with flame retardant bonding adhesive with coated steel spring helix.

Specification:

Diameter	: 4" to 20"	Maximum Velocity	: 5000 FPM (25.5 m/s)
Insulation Density	: (16, 24, 32) kg/m ³	Maximum Positive Pressure	: 10" W.C. (2.5 KPa)
Available Insulation Thickness	: 25 mm	Maximum Negative Pressure	: ½" W.C. (0.12 KPa)
Length	: 25 feet	Insulation R Value	: 4.2 or 6 (F-hr/BTU)

Delta-flex DF-FD4-RN

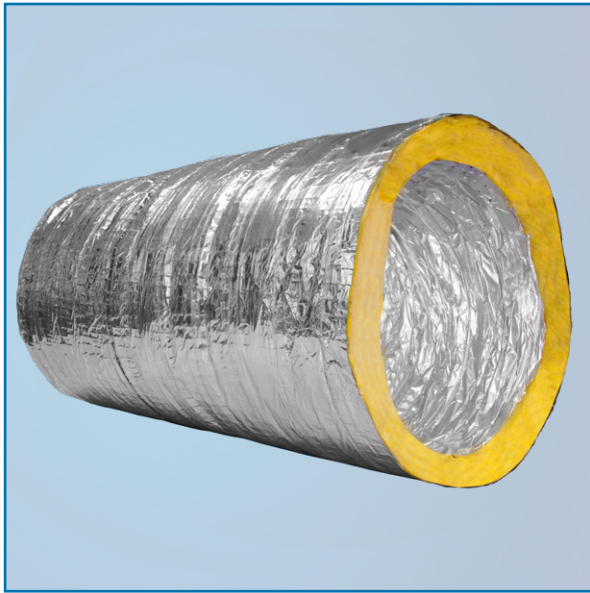


Delta-flex DF-FD4-RN is insulated flexible duct with outer jacket as reinforced metalized PET laminated over clear polyester, middle layer is of Good quality fibre glass insulation & inner core is double layer of metalized PET & clear polyester permanently bonded with flame retardant bonding adhesive with coated steel spring helix.

Specification:

Diameter	: 4" to 20"	Maximum Velocity	: 5000 FPM (25.5 m/s)
Insulation Density	: (16, 24, 32) kg/m ³	Maximum Positive Pressure	: 10" W.C. (2.5 KPa)
Available Insulation Thickness	: 25 mm	Maximum Negative Pressure	: ½" W.C. (0.12 KPa)
Length	: 25 feet	Insulation R Value	: 4.2 or 6 (F-hr/BTU)

Delta-flex DF-FD5-RN



Delta-flex DF-FD5-RN is UL listed flexible duct according to UL 181 Class 1 standard. Also classified by Underwriters Laboratories INC, in accordance with ADC flexible duct performance and installation standards using ASTM C518.

Delta-flex DF-FD5-RN is insulated flexible duct with outer jacket as reinforced metalized PET laminated over clear polyester, middle layer is of Good quality fiber glass insulation & inner core is double layer of ALU PET & clear polyester permanently bonded with flame retardant bonding adhesive with coated steel spring helix.

Specification:

Diameter	: 4" to 20"	Maximum Velocity	: 5000 FPM (25.5 m/s)
Insulation Density	: 32 kg/m ³	Maximum Positive Pressure	: 10" W.C. (2.5 KPa)
Available Insulation Thickness	: 25 mm	Maximum Negative Pressure	: ½" W.C. (0.12 KPa)
Class	: 1	Insulation R Value	: 4.2 or 6 (F-hr/BTU)
Length	: 25 feet		

- Delta-flex DF-FD5-RN complies with UAE Fire & Life Safety Code - 2017.
- The insulation is DCL certified.
- The insulation confirms with Dubai Green Building Code.

Tests

1. Test for Surface Burning Characteristics

Delta-flex Duct is positioned in the 25 ft. long fire test chamber specified in the standard for test for surface burning characteristics of building material, UL 723.

Delta-flex Duct has achieved Class 1 rating that is flame spread index less than equal to 25 without evidence of continued progressive combustion and smoke developed index of not over 50.

2. Flame Penetration Test

This test measures resistance to flame while the sample supports a static load of 2 pounds per square inch. The test was conducted in a furnace for 30 minutes.

3. Burning Test

This test measures resistance to ignition and to progressive burning. The test utilizes a Bunsen burner; Insulated Flexible duct sections mounted in horizontal, vertical and 45-degree positions.

4. Mold Growth and Humidity Test

This test measures resistance to mold growth and to the effects of high humidity. The samples are kept for 60 days in an atmosphere saturated with water vapor.

5. Temperature and High Temperature Test

This test measures resistance to the temperatures higher and lower than normal service.

6. Puncture Test

This test measures resistance to puncture by a plunger. The test apparatus provides a free fall of a plunger onto the surface of the flexible duct.

7. Static Load Test

This test measures resistance to sagging, permanent deformation or damage.

Sections of flexible duct are installed horizontally on supports. A static load is applied at the longitudinal center of the sample by suspending two 5-pound (2.26 kg) weights on a 1-inch (25.4 mm) wide pipe strap material for 24 hours.

8. Impact Test

This test measures resistance to damage as a result of an impact. The test apparatus provides a free fall of a sand bag weighing 15 pounds (6.8 kg) onto the surface of the flexible duct.

9. Erosion Test

This test measures resistance to erosion when air is passed through typical flexible duct sections at a velocity of two and one-half times the manufacturer's rated velocity.

10. Pressure and Collapse Tests

These tests measure resistance to positive and negative pressure.

Sections of flexible duct are subject to internal air pressure of 2-1/2 times the manufacturer's rated positive pressure and 2-1/2 times the manufacturer's rated negative pressure.

11. Torsion Test

This test state that, flexible duct joints between sections, shall not be damaged when subjected to a torque of 25 foot-pounds (33.9 N-m) or a torque capable of reducing an angular rotation of 180 degrees. The duct shall not rupture, break, tear, rip, collapse, or separate.

12. Corrosion Resistance Test

This test measures resistance to corrosion for iron and steel articles using the Standard Test Method for Weight [Mass] of Coating ANSI/ASTM A90.

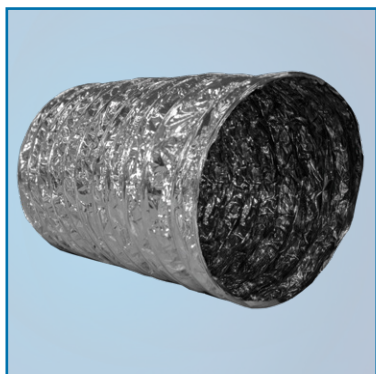
13. Leakage Test

This test measures flexible duct air leakage

An air pressure of 0.5 inch water column (125.5 Pa) is to be maintain in the duct for a period of 1 hour.

Uninsulated Flexible ducts:

Delta-flex DF-FD100

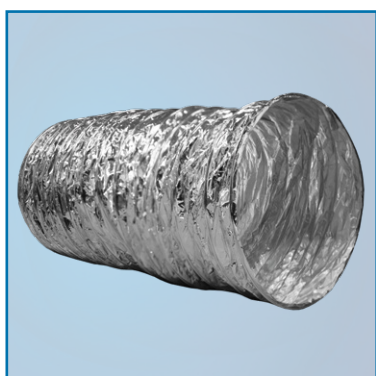


Delta-flex DF-FD100 is made of Double lamination of metalized PET & polyester film permanently bonded using flame retardant bonding adhesive to a coated spring steel wire helix.

Specification:

Diameter	: 4" to 20"	Maximum Positive Pressure	: 10" W.C. (2.5 KPa)
Length	: 25 feet	Maximum Negative Pressure	: ½" W.C. (0.12 KPa)
Maximum Velocity	: 5000 FPM (25.5 m/s)		

Delta-flex DF-FD200

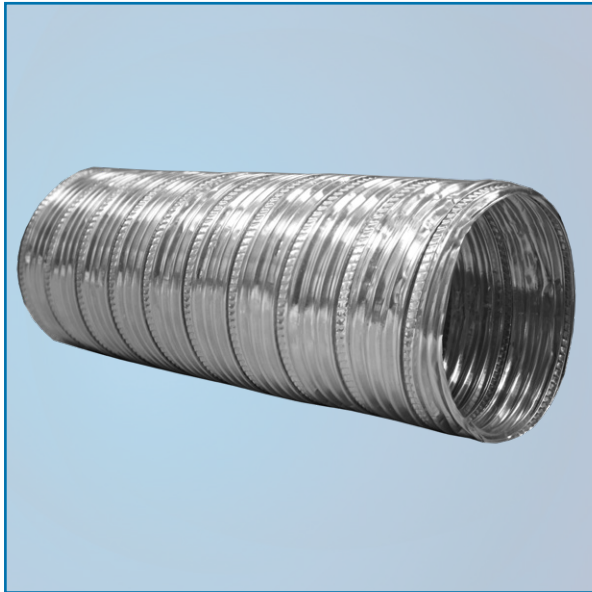


Delta-flex DF-FD200 is made of Double lamination of ALU PET & polyester film permanently bonded using flame retardant bonding adhesive to a coated spring steel wire helix.

Specification:

Diameter	: 4" to 20"	Maximum Positive Pressure	: 10" W.C. (2.5 KPa)
Length	: 25 feet	Maximum Negative Pressure	: ½" W.C. (0.12 KPa)
Maximum Velocity	: 5000 FPM (25.5 m/s)		

Semi Rigid Flexible Duct



Delta-flex Semi Rigid Flexible Duct comply with UL 181 Class 0 standard having surface burning characteristic zero (i.e. flame spread and smoke developed). Delta-flex is manufactured in accordance with (NFPA 90A & 90B standard).

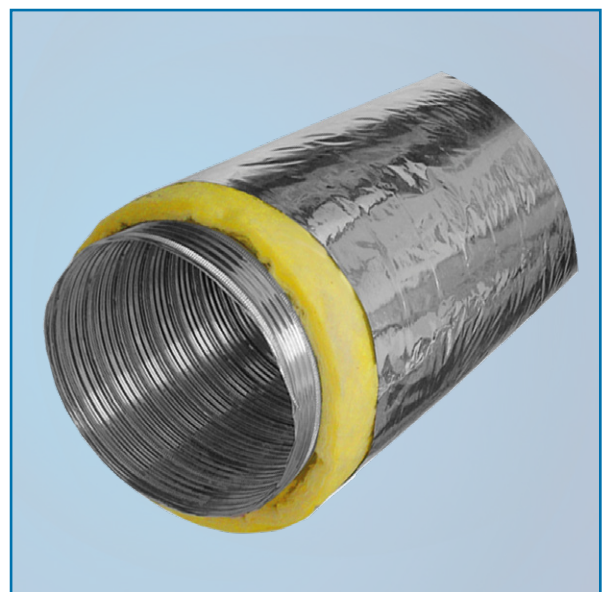
Fire resistant, non-combustible, light weight, very strong with high degree of flexibility, which is widely used in dryer, bathroom or kitchen ventilation for commercial, industrial and residential applications. Delta-flex Semi Rigid Flexible Duct is manufactured from aluminum foil with interlocking seam which is extremely strong yet permits both bending and compression forces without leakage. These self-supporting semi rigid duct designed to be bent into position and yet remain in place to meet heavy-duty applications.

Applications:

- Ideal for Dryer, Bathroom or Kitchen Ventilation for Commercial, Industrial and Residential applications.
- Offers high degree of flexibility, which allows it to be easily connected to any desired position.
- No need for additional supports.
- Semi rigid but flexible for easy installation.
- Fire resistant, non-combustible and resistance to chemical fumes.
- High resistance to UV rays.
- Easy to transport & store.
- Quick and easy installation.
- Air tight.
- Energy efficient, low operation and maintenance cost.

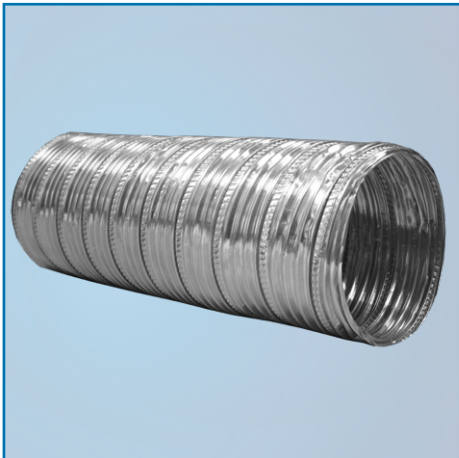
Features:

- Fire Resistant to BS 476 part 6 & 7.
- Extremes heat resistance; non-combustible.
- Low operating cost, fully lined for efficient air delivery.
- Compressed ducts reduces freight and storage costs.
- Leak proof interlocked crimp locking.



- Flexible and ideal for low and medium pressure application.
- Quick installation
- Offers high degree of flexibility, which allows it to be easily connected to any desired position.
- No need for additional supports.
- Semi rigid but flexible for easy installation.
- Fire resistant, non-combustible and resistance to chemical fumes.
- High resistance to UV rays.
- Easy to transport & store.
- Quick and easy installation.
- Air tight.
- Energy efficient, low operation and maintenance cost.

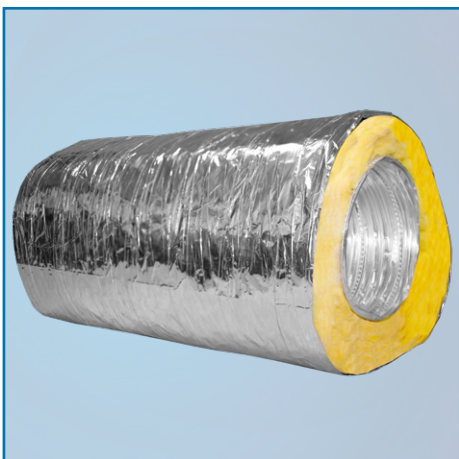
Delta-flex DF-SFD-300



Delta-flex DF-SFD-300 Uninsulated Semi Rigid Flexible Duct is made in accordance with UL 181 Class 0 standard & following 90A & 90B standard procedure for duct construction using heavy gauge corrugated aluminum with water tight continuous lock seams.

Available ID : 3" to 14"
Standard Length : 10 feet

Delta-flex DF-SFD-6



Delta-flex DF-SFD-6 Insulated Semi Rigid Flexible Duct is made in accordance with UL 181 Class 0 standard & following 90A & 90B standard procedure for duct construction, core is made with heavy gauge corrugated aluminum with water tight continuous lock seams, 25 mm thick fiber glass insulation of density 32 kg/m³ is applied around duct and sheathed in a durable multilayer of metalized pet as a vapour barrier.

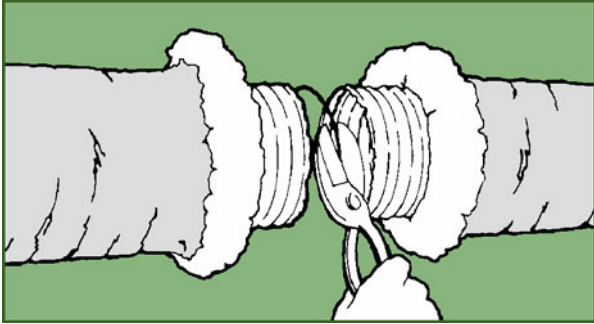
Available ID : 3" to 14"
Standard Length : 10 feet

Installation Instructions

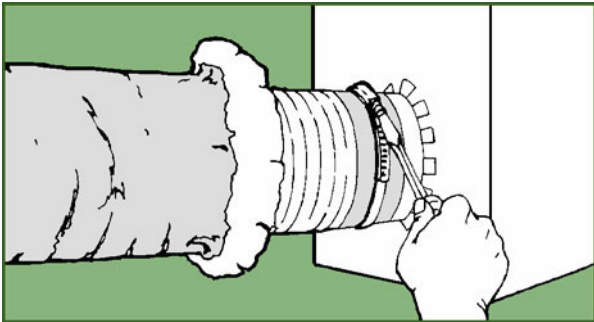
Air Duct and Air Connectors - Nonmetallic with Plain Ends

Connections

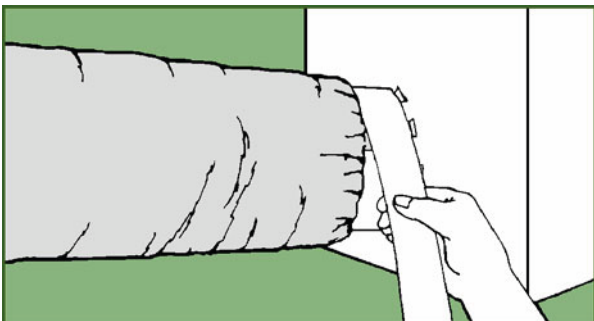
1. After desired length is determined, cut completely around and through duct with knife or scissors. Cut wire with wire cutters. Fold back jacket and insulation.



2. Slide at least 1" [25 mm] of core over fitting and past the bead. Seal core to collar with at least 2 wraps of duct tape. Secure connection with clamp placed over the core and tape and past the bead.

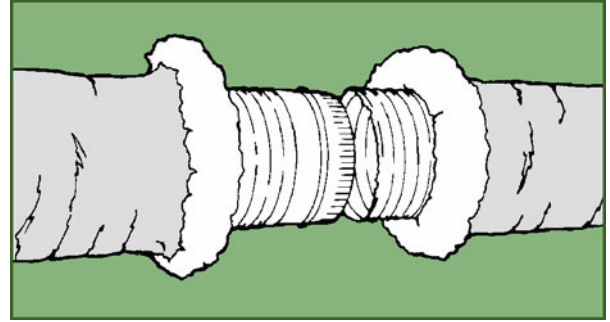


3. Pull jacket and insulation back over core. Tape jacket with at least 2 wraps of duct tape. A clamp may be used in place of or in combination with the duct tape.

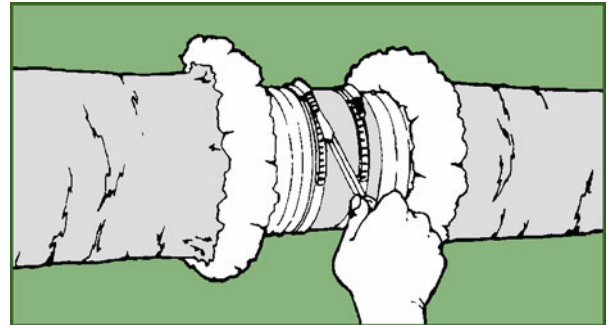


Splices

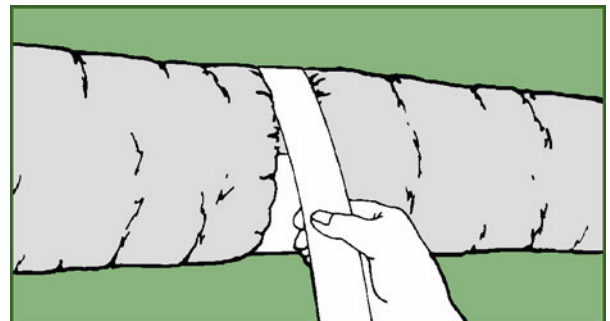
1. Fold back jacket and insulation from core. Butt two cores together on a 4" [100 mm] min. length metal sleeve.



2. Tape cores together with at least 2 wraps of duct tape. Secure connection with 2 clamps placed over the taped core ends and past the beads.



3. Pull jacket and insulation back over cores. Tape jackets together with at least 2 wraps of duct tape.



NOTES:

1. For uninsulated air ducts and air connectors, disregard references to insulation and jacket.
2. Use beaded sheet metal fittings and sleeves when using non-metallic clamps.
3. Use tapes listed and labeled in accordance with Standard UL 181B and marked "181B-FX".
4. Non-metallic clamps shall be listed and labeled in accordance with Standard UL 181B and marked "181B-C".
5. Use of non-metallic clamps shall be limited to 6 in. w.g. [1500 Pa] positive pressure.



Delta Duct Air Conditioning

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