

Flexible Sprinkler Drops for Industrial Ducts

Applicable for round and square ducts. Pre-installed double layered polytecs the life of sprinkler head.

Certifications & Approvals

- FM (Factory Mutual) approved
- FM Class No. 1637





Applications

- Industrial duct systems

Benefits

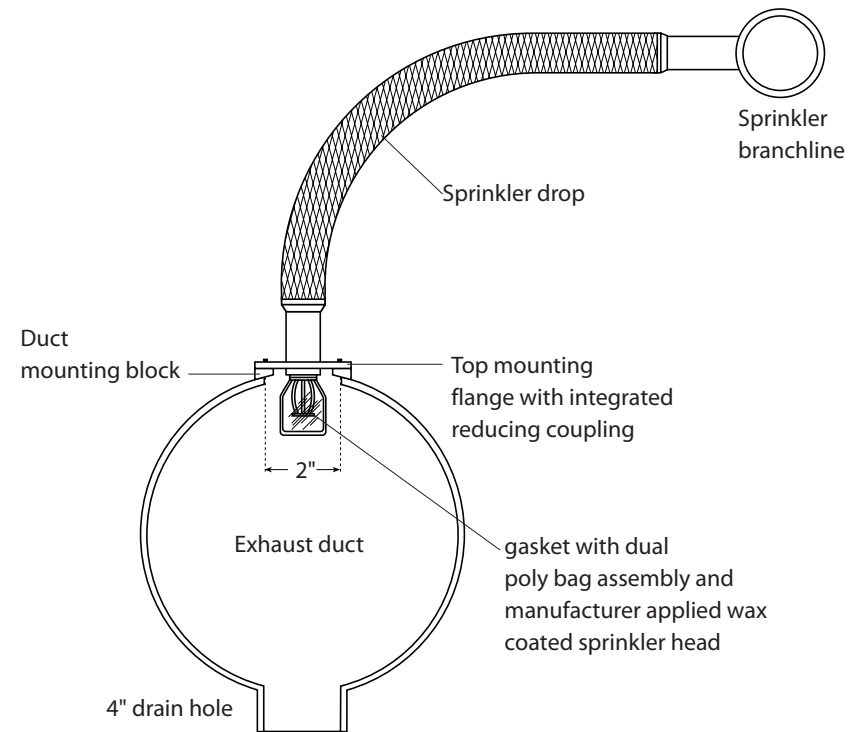
- The best corrosion resistant duct material
- Half the cost of any supposedly non-sprinkler duct materials
- The most cost-efficient choice in exhaust duct systems
- Mounting blocks available for all types of exhaust ducts

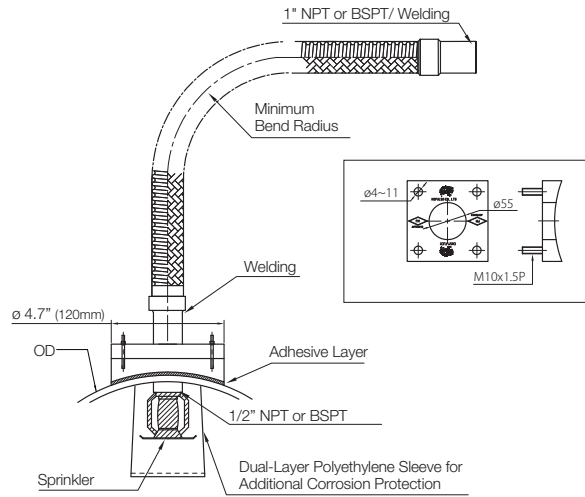
FM-Approved FC STEEL flexible sprinkler hose with threaded end fittings are for use in ducts. The flexible hoses are to be installed according to the manufacturer's directives. All of the models listed below are 1" nominal dia. Flexible metal sprinkler hose for providing a connection to automatic sprinkler in ducts. The hoses have a rated working pressure of 175 psi (1205 kPa).

Features and Benefits

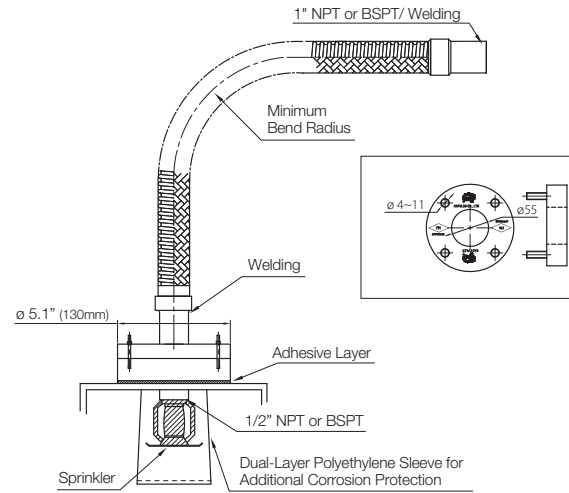
- Labor-saving, simplified installation that takes minutes instead of hours
- FM-Approved out of the box - meets insurance requirements and usually requires no insurance inspection
- Elimination of costly access panel mounted on duct (mandatory with hard-piped sprinklers)
- Patented polybag/gasket assembly creates clean mini-environment for sprinkler heads within ducts. Indefinitely prolongs life of sprinkler heads, and prevents production downtime caused by false alarms.
- Preventive maintenance becomes a routine, 10-minute procedure during which the FAB continues to run. Hard-piped sprinkler maintenance requires the FAB to cease activity during the inspection cycle.
- Acceptable for use in a return-air plenum
- Allows design choices and flexibility during retrofit and expansion
- Allows for independent motion (sway) between duct and water main during seismic activity eliminating potential leaks.

Flexible Sprinkler Drops for Industrial Ducts Parts





< Square Duct Application >



< Round Duct Application >

Features

Lengths	2.5', 3.9' and 5.6'
Sizes	1" Inlet, 1/2" Outlet
Type	Braided (FM approved)

Materials

Hose / Braid	Stainless Steel 304
Nut & Nipple	Stainless Steel 304

Technical Data

Max. Operating Pressure	175 psi		Max. Bend Radius	8" by FM DO NOT bend within 2.25" from connection nuts	
Max. Ambient Temp.	225°F				
Connections	Inlet	1" NPT	K-Factor	1/2" Outlet	5.6
	Outlet	1/2" NPT			

Model Numbers and Friction Loss Data

Model#	Length	Outlet size	Max.# of 90° Bend	Equivalent Length of 1" Sch. 40 pipe in ft.
EFDC-01A	2.5 ft.	1/2"	1	8.7
EFDC-02A	3.9 ft.	1/2"	3	16.7
EFDC-03A	5.6 ft.	1/2"	4	22.5

*Data on Max. number of bend is provided as recommendation by FC STEEL and FM used Max. 4 bends for their test.

1.

Drill a 1 1/2-inch/38-mm hole into the surface of the duct at the desired location.

Remove all cutting particles from the surface of the duct.



2.

To aid in preparing the area where the mounting block will be installed, place the mounting block onto the duct with the hole in the duct centered in the opening of the mounting block. Draw a line around the outside of the mounting block to identify the surface preparation area.



3.

Using a disc sander, prepare a 6 x 6-inch/152 x 152-mm area around the hole cut into the duct in Step 1. This area must be sanded until the surface is rough to ensure a proper bond with the mounting block. Remove sanding dust with a clean, dry cloth.



- ▲ • A particle mask should be worn during preparation of the duct to prevent inhalation of fiberglass dust.
- Wear safety glasses, hardhat, and foot protection.
- Failure to follow these instructions could result in serious respiratory system illness or other personal injury.

4.

Using sandpaper, sand the mating surface of the mounting block until the surface is rough. The surface must be rough to ensure a proper bond with the duct. Remove sanding dust.

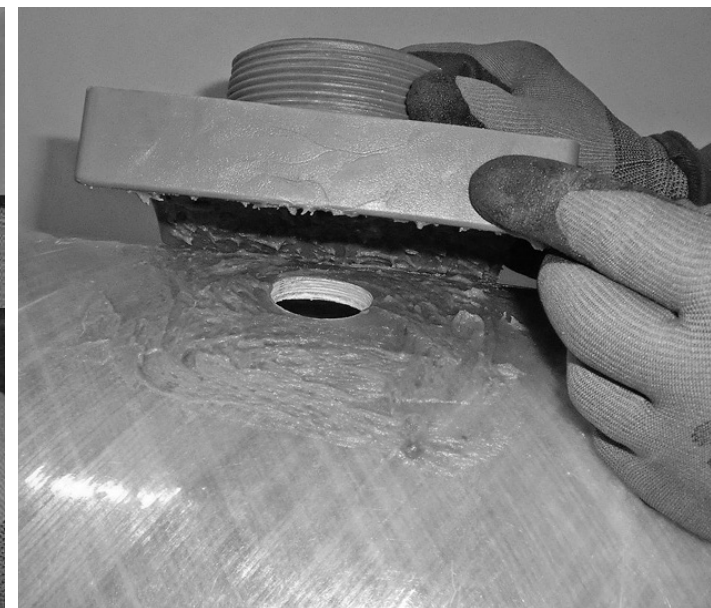
5.

Wear protective gloves during this phase of installation. Apply an 1/8 – 1/4-inch/3 – 6-mm layer of resin to the mating surface of the mounting block and the 6 x 6-inch/152 x 152-mm area prepared in Step 2. Refer to the table in the following column for a listing of recommended resins.

6.

Install the mounting block onto the prepared section of the duct. Make sure the hole in the mounting block aligns with the hole drilled into the duct. Remove any air pockets in the resin by applying light pressure to the entire surface of the mounting block.

To enhance the seal, apply a bead of resin around all four sides where the mounting block contacts the surface of the duct.



Required System Parts

- Qty. 1 : Flexible Hose (EFB or EFU)
- Qty. 2 : TBS Side Brackets
- Qty. 1 : Stock Bar (25" or 50")
- Qty. 1 : SSB Center Bracket

Required Tool

- Pipe Wrench
- PTFE Tape

INSTALLATION INSTRUCTION

7.

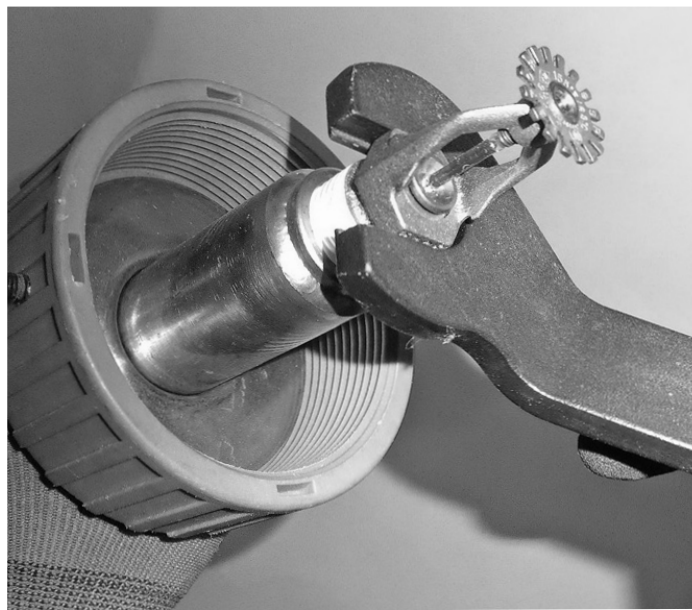
Stabilize the mounting block in position. Using duct tape, secure the mounting block to the duct by adhering the tape to one side of the duct, wrapping it over the mounting block, and adhering it to the opposite side of the duct. The assembly should not be disturbed for a minimum of 4 hours to ensure that the resin has hardened.

After a minimum of 4 hours, remove the duct tape from the mounting block/duct assembly. Allow the assembly to cure for a minimum of 24 hours before placing any stress on the joint.



8.

Install the sprinkler by following the manufacturer's installation instructions.



9.

If the protective polyethylene sleeve assembly is required for corrosive applications, install the sleeve assembly by inserting it into the hole in the mounting block and duct. Make sure the sleeve is inserted completely into the hole in the duct to prevent the sleeve from being damaged during installation of the union.



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10.

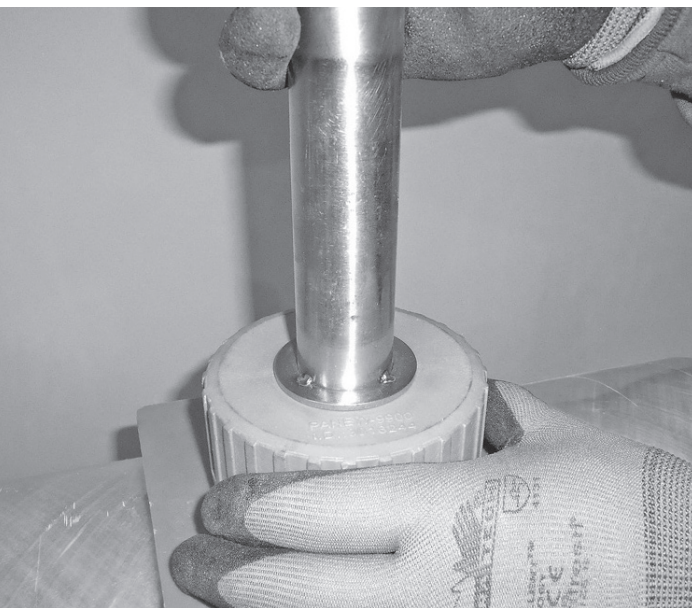
Tighten the union onto the mounting block by turning it clockwise until contact occurs between the union and mounting block. Use caution to prevent cross-threading. DO NOT over-tighten the union.

11.

Using a 3-mm allen wrench, tighten the locking screw on the union by turning it clockwise.

12.

Installation is complete.



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