

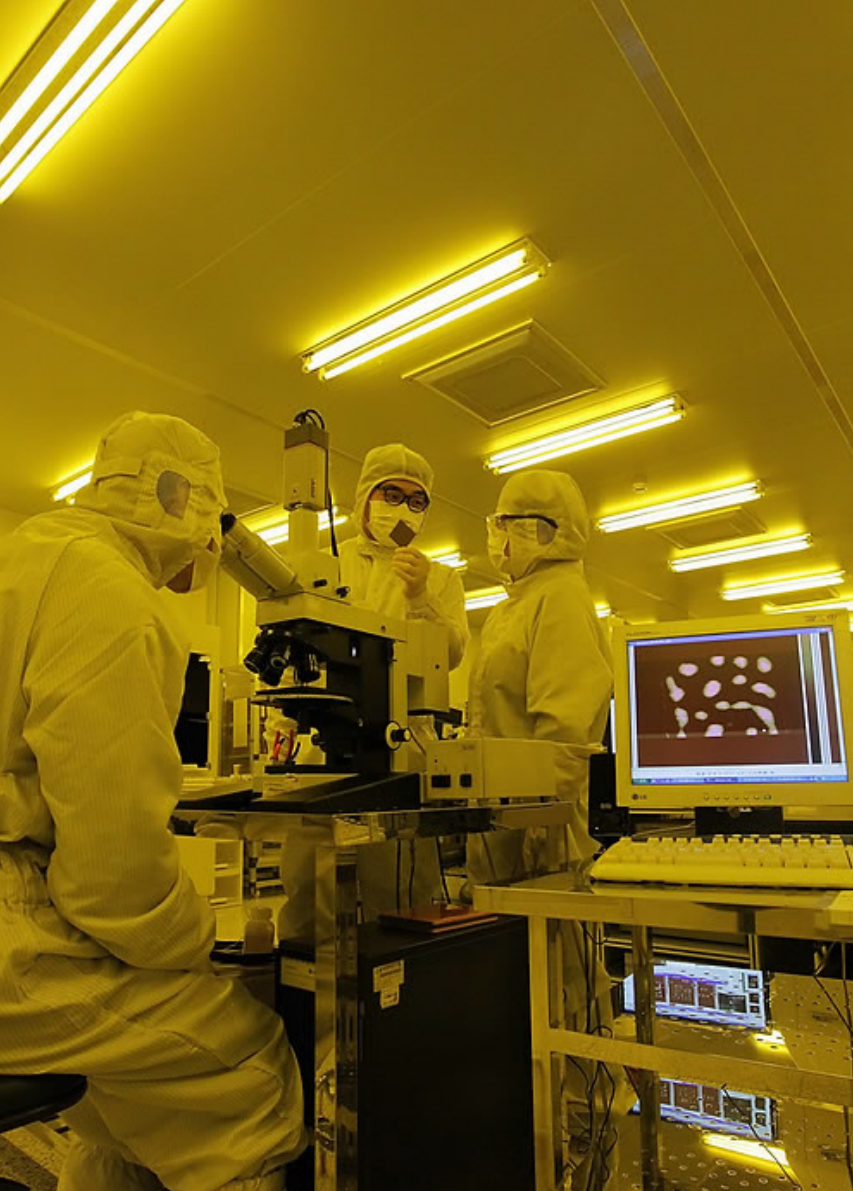
Flexible Sprinkler Drops for Cleanroom Ceilings

Specially designed for fire sprinkler connections to protect against fires, leaks, and cleanroom contaminations.

Certifications & Approvals

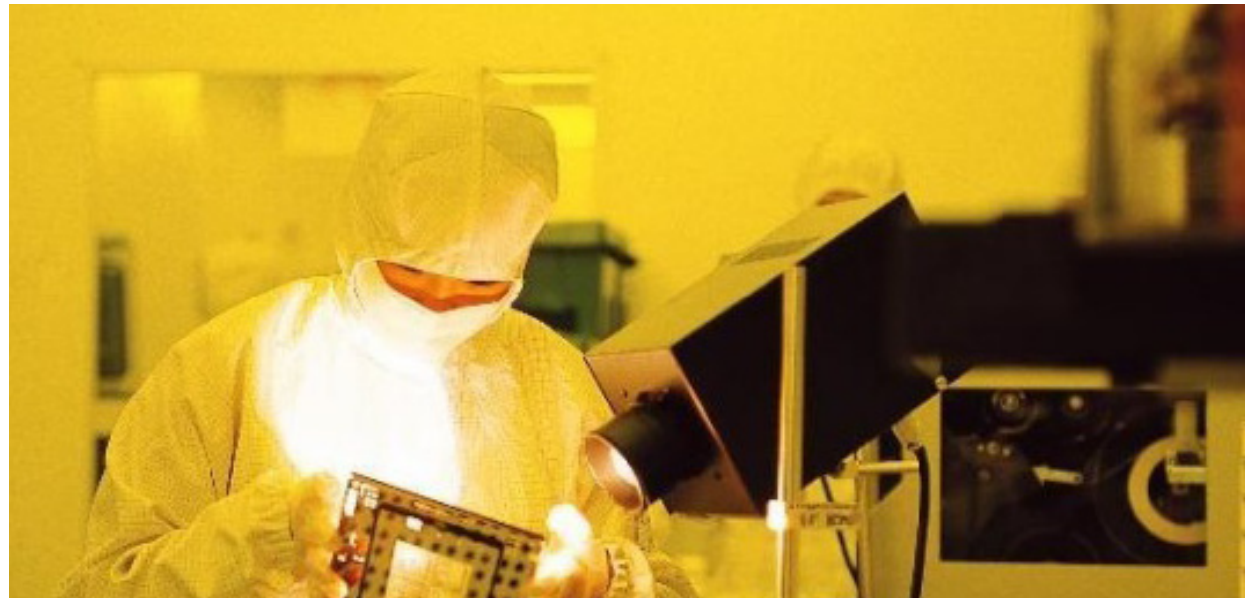
- FM (Factory Mutual) approved
- FM Class No. 1637





Applications

- Clean room environments



Benefits

- Ready to install out of the box.
- Accelerates cleanroom installation and certification.
- Allows quick and easy relocations.
- Dissipates any vibration even during seismic activities.

Designed to work with any major manufacturer's ceiling grid, FC STEEL cleanroom sprinkler drop provide maximum protection against fire, leaks, and contamination due particulate discharge. Each FM-approved, ready to install system comes complete with a flexible stainless steel hose, one piece stainless steel sprinkler drop with O-ring seal and grid attachment.

Simple installation, Easy Relocation, Faster Cleanroom Certification

With no required in-field assembly, each one piece system installs in about 10 minute. It's a simple matter of connecting to the sprinkler main, inserting the one-piece, stainless steel sprinkler drop with O-ring seal through the ceiling grid and securely fastening it down. Uniform, ultraclean grid penetration eliminates the need for escutcheons. In service, the flexible connection between the sprinkler main and ceiling grid dissipates any vibration, so gel seals remain intact, even in seismically active areas. Because installation takes a fraction of the time of hard pipe systems, cleanrooms can be certified and online faster – a critical factor in getting your cleanroom up and running. And unlike transitional hard pipe method, relocation of FC STEEL units can occur without the need to shut down and drain the entire fire sprinkler system, or to worry about the particulate contamination caused when hard pipe are disassembled. This means there is virtually no downtime while sprinkler heads are moved to accommodate new tool or floor plan reconfiguration.

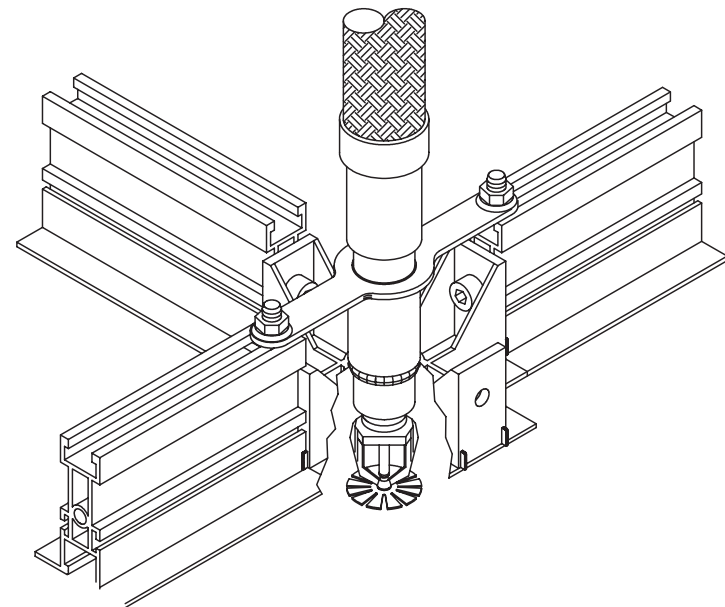
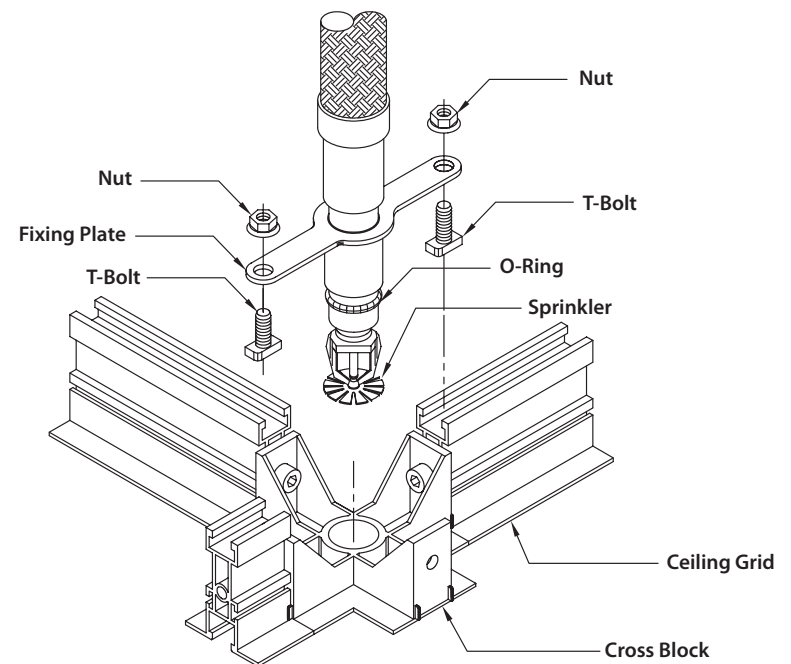
Features and Benefits

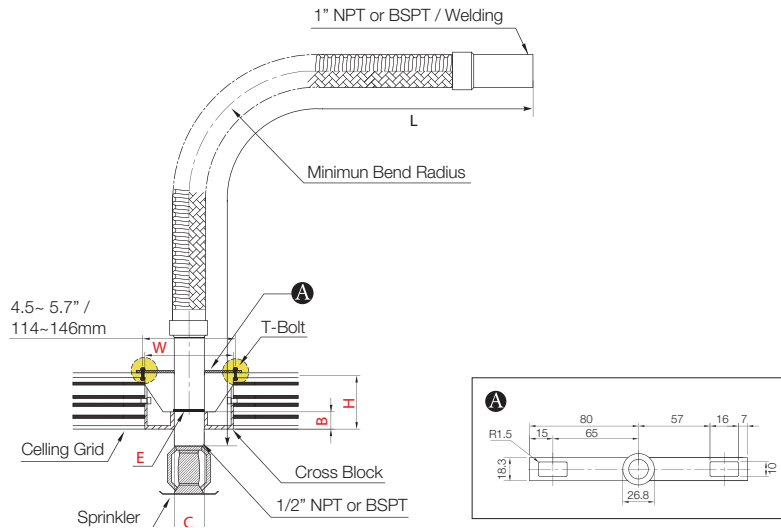
- FM approved right out of the box. Meets all insurance requirements
- Leak-tested assembly installs in a fraction of hard-pipe installation time – accelerating cleanroom certification and operational readiness
- Allows quick and easy relocation when floor plan changes due to reconfiguration of tool layout
- Allows for independent motion (sway) between ceiling grid and water main to accommodate filter vibration and during possible seismic activity – eliminating potential leaks and protecting gel seals
- Eliminates ceiling stress/leaks due to mis-aligned hard pipe installation
- Uniform sprinkler-head protrusion through grid and stainless steel construction eliminate the need for unsightly escutcheons.

System Option

- Braided flexible stainless steel hose in lengths: 2.5, 3.9, 5.6, 7.2 ft.

Flexible Sprinkler Drops for Cleanroom Parts





- L : Total Hose Length
- W : Width of Cross Block
- H : Height of Ceiling Grid
- B : Height of Cross Block
- C : Diameter of Cross Block
- E : O-ring

*** Sprinkler and escutcheon plate are not included**

Features

Lengths	2.5', 3.9' and 5.6'
Sizes	1" Inlet, 1/2" Outlet
Type	Braided Hose With Flanges Welded to Outlet Reducer

Materials

Hose / Braid	Stainless Steel 304
Nut & Nipple	Stainless Steel 304
O-ring	EPDM

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	Max. Rated Pressure psi (Kpa)	Equivalent Length of 1" Sch. 40 pipe in ft.
EFSPC-01A	2.5 ft.	1/2"	1	175 psi (1205 Kpa)	1.6
EFSPC-02A	3.9 ft.	1/2"	3	175 psi (1205 Kpa)	9.5
EFSPC-03A	5.6 ft.	1/2"	4	175 psi (1205 Kpa)	13.6

1.

After desired location of sprinkler is determined, connect FC STEEL flexible hose to submain of sprinkler system per NFPA standards and state/local building codes.

2.

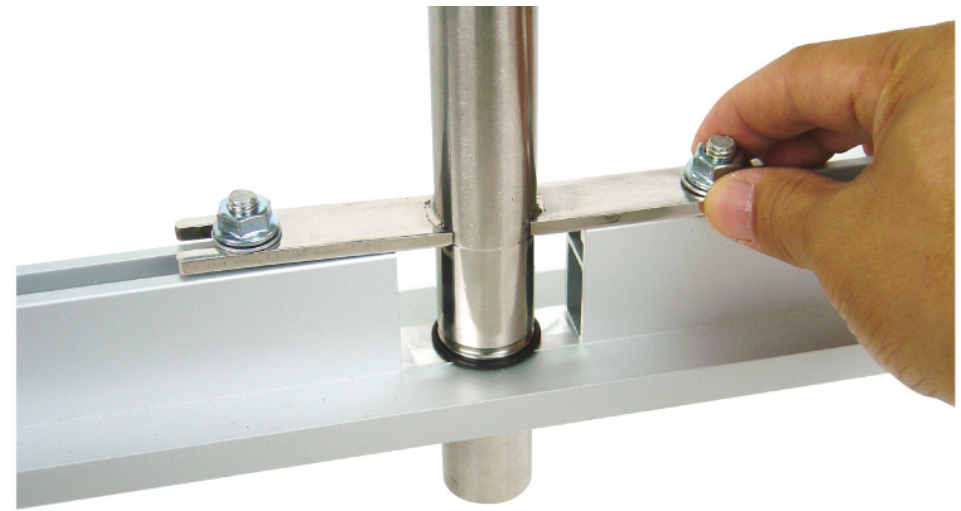
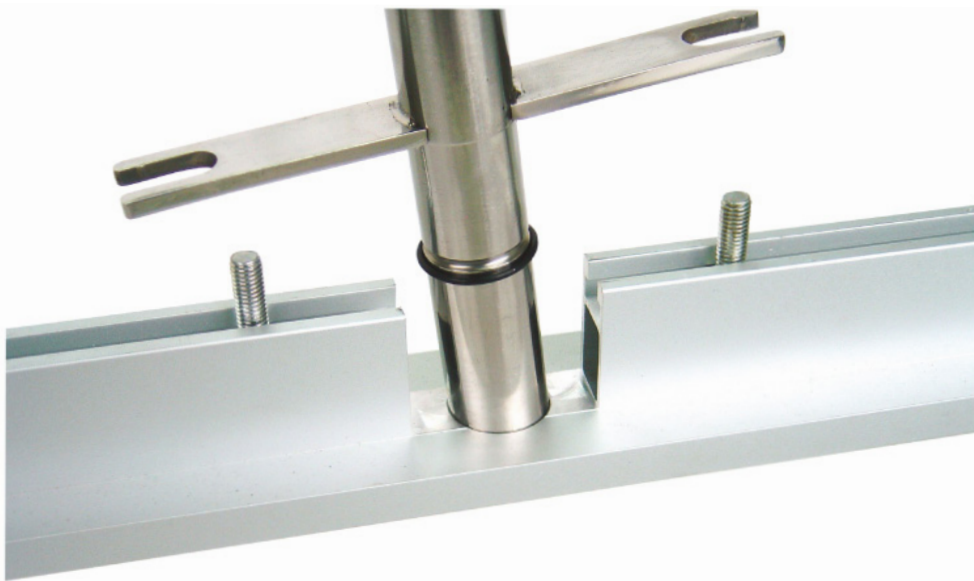
Insert FC STEEL hose assembly through top side of the pre drilled sprinkler port in the clean room ceiling grid. Be careful not to damage sprinkler head during insertion.

DO NOT bend the hose up and down or side to side and the hose shouldn't be bent within 2 1/2" of the connection at both ends.

3.

Align the holes in the support plate with the mounting T-bolts on both sides of sprinkler port and insert the mounting T-bolts into the holes of support plate and secure the support plate with supplied nuts with proper tools.

Mounting T-bolts and nuts are not provided with FC STEEL products and are supplied with ceiling grid system.



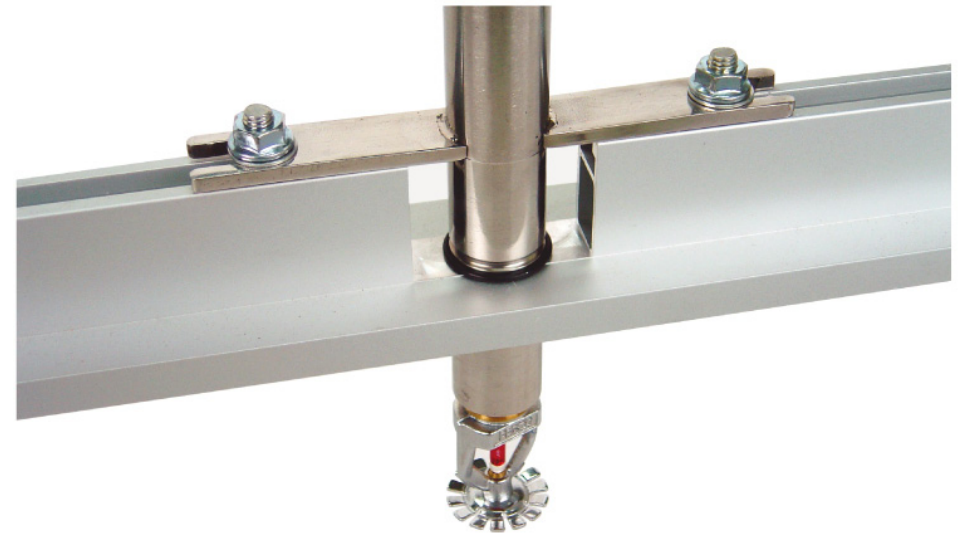
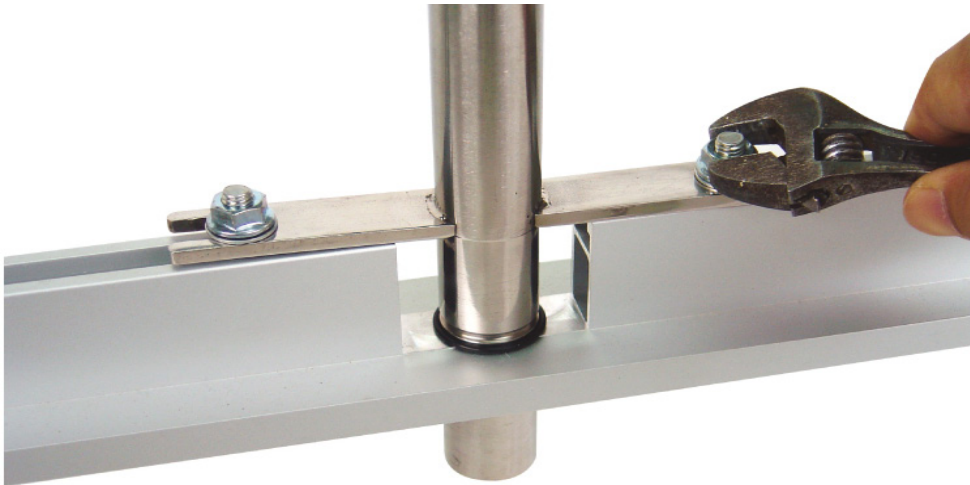
- ▲ • Installation of FC STEEL products must be performed only by licensed and experienced technicians in Fire Protection field familiar with system design criteria, industry standards, state/local building codes and NFPA 13 standards.
- Failure to follow these instructions may cause serious personal injury and property damage. Read and understand the entire instruction guide prior to the installation of products.
- Fire protection system must completely be turned off during the installation and refer to NFPA Guideline for detailed information.
- Wear safety glass, hardhat, foot protection, proper attire during installation

4.

Ceiling grid face plate, escutcheons, elastic decorative rings or cover, etc. can be installed being careful not to damage sprinkler head during installation of the accessories.

5.

The FC STEEL sprinkler system installation is completed and ready for the NFPA leak test.



Required System Parts

- Qty. 2 : Nuts
- Qty. 2 : T-bolts
- Qty. 1 : Fixing plate
- Qty. 1 : Hose

Required Tool

- Pipe Wrench
- PTFE Tape

INSTALLATION INSTRUCTION