

SPRINKLER FLEXIBLE DROP



**HD FIRE PROTECT
PVT. LTD.**

TECHNICAL DATA

TYPE	Braided & Unbraided
SIZES	700mm, 1000mm, 1200mm, 1500mm, 1800mm
MAXIMUM RATED PRESSURE	200 psi and 175 psi*
HYDRO TEST PRESSURE	263 psi
BURST PRESSURE	875 psi
MAXIMUM AMBIENT TEMPERATURE	*Mentioned on Pages 2 of 4
END CONNECTION	Inlet: 1" BSPT (M) Outlet: 1/2" or 3/4" BSPT (F)
LARGEST SPRINKLER K-FACTOR FOR 1/2" OUTLET	HD-UB: 5.6 HD-28B: 5.6
LARGEST SPRINKLER K-FACTOR FOR 3/4" OUTLET	HD-UB: 8.0, 11.2 HD-28B: 8.0, 11.2
FLEXIBILITY	Limited
APPROVALS	UL Listed / FM Approved
ORDERING INFORMATION	Size, Type of Bracket, Length of Square Bar

*175 psi is only for FM Approved Flexible Drops

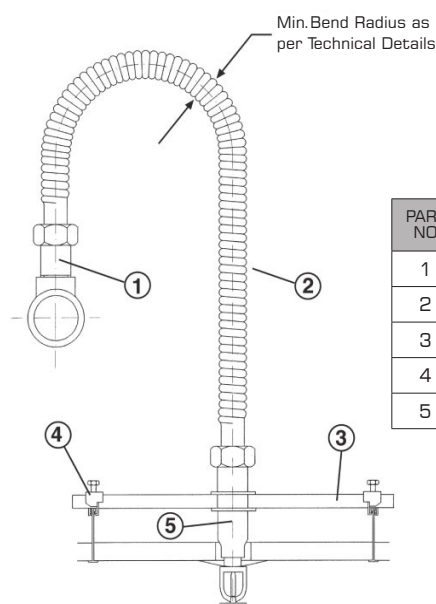
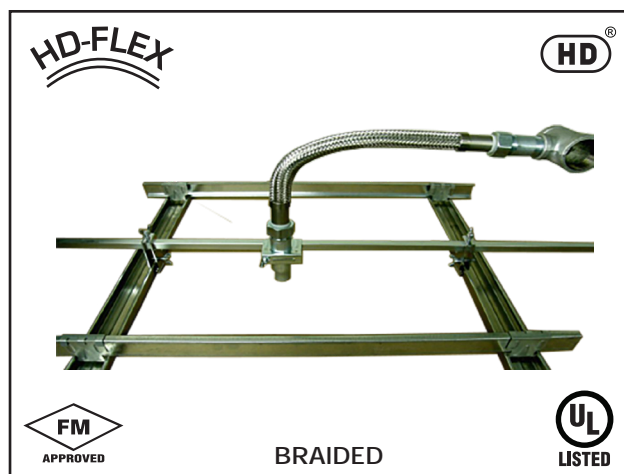
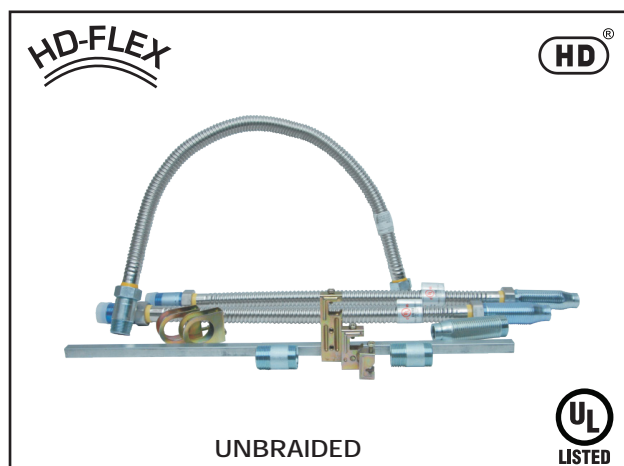
APPLICATION

Sprinkler Flexible Drop system is a ready to use assembly to fit sprinkler heads in desired location in a suspended ceiling. It easily positions the sprinkler in center of the ceiling tile at a correct height. Installation can be done in 10 to 15 minutes and does not require any special preparation.

The flexible drop system is a complete unit in itself which includes a corrugated stainless steel flexible drop with nipple, reducer, square bar and brackets, which are fitted to the ceiling tile support rails to locate and secure the sprinkler in correct position. Not only does this reduce installation time but also makes the installation process a 'mess-free' activity by eliminating cutting and threading activities on site.

The structure of threaded connection of the fitting is a limited thread (which cannot be over-tightened), and the packing seat at the Reducer and Nipple is tapered to 45°. This prevents leakage caused by damaged packing due to over tightening by an unskilled installer.

These flexible drops are used in wet & dry systems for direct connection to fire sprinkler. It can be used with intermediate and heavy duty ceiling.



PART NO	DESCRIPTION
1	Nipple
2	Flexible
3	Square Bar
4	Bracket
5	Reducer

TECHNICAL DETAILS FOR BRAIDED FLEXIBLE DROP :

Model	Rated Pressure psig		Max. Ambient Temp. °F	Nominal Inlet X Outlet Size, In.	Assembly Length, ft. (mm)	Max. No. of 90° Bends		Min. Bend Radius in.		Equivalent Length of 1 in. Schedule, 40 Steel Pipe, ft	
	UL	FM				UL	FM	UL	FM		
HD-28B-700 Braided	200	175	225	1x1/2	2.3 (700)	3	1	3	9	18	22.9
HD-28B-1000 Braided	200	175	225	1x1/2	3.3 (1000)	5	2	3	9	23	34.6
HD-28B-1200 Braided	200	175	225	1x1/2	3.9 (1200)	7	3	3	9	29	41.0
HD-28B-1500 Braided	200	175	225	1x1/2	4.9 (1500)	9	4	3	9	39	50.4
HD-28B-1800 Braided	200	175	225	1x1/2	5.9 (1800)	12	4	3	9	50	58.5
HD-28B-700 Braided	200	175	225	1x3/4	2.3 (700)	3	1	3	9	20	15.7
HD-28B-1000 Braided	200	175	225	1x3/4	3.3 (1000)	5	2	3	9	24	26.9
HD-28B-1200 Braided	200	175	225	1x3/4	3.9 (1200)	7	3	3	9	31	34.8
HD-28B-1500 Braided	200	175	225	1x3/4	4.9 (1500)	9	4	3	9	40	43.8
HD-28B-1800 Braided	200	175	225	1x3/4	5.9 (1800)	12	4	3	9	70	53.4

TECHNICAL DETAILS FOR UNBRAIDED FLEXIBLE DROP :

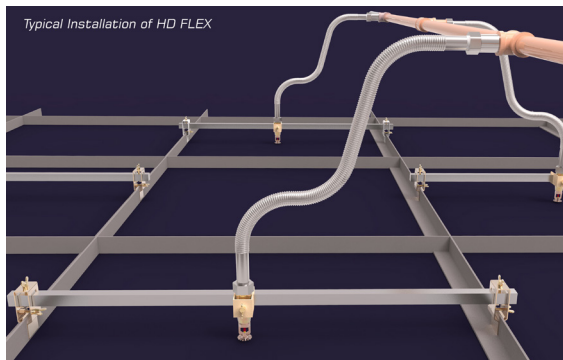
Model	Rated Pressure psig	Max. Ambient Temp. °F	Nominal Inlet X Outlet Size, in.	Assembly Length, ft. (mm)	Max No. of 90° Bends	Min Bend Radius. in.	Equivalent Length of 1 in. Schedule, 40 Steel Pipe (C=120), ft
HD-UB-700 unbraided	200	225	1x1/2	2.3 (700)	2	4	32
HD-UB-1000 unbraided	200	225	1x1/2	3.3 (1000)	3	4	55
HD-UB-1200 unbraided	200	225	1x1/2	3.9 (1200)	3	4	64
HD-UB-1500 unbraided	200	225	1x1/2	4.9 (1500)	3	4	75
HD-UB-1800 unbraided	200	225	1x1/2	5.9 (1800)	3	4	81
HD-UB-700 unbraided	200	225	1x3/4	2.3 (700)	2	4	31
HD-UB-1000 unbraided	200	225	1x3/4	3.3 (1000)	3	4	50
HD-UB-1200 unbraided	200	225	1x3/4	3.9 (1200)	3	4	57
HD-UB-1500 unbraided	200	225	1x3/4	4.9 (1500)	3	4	68
HD-UB-1800 unbraided	200	225	1x3/4	5.9 (1800)	3	4	79

INSTALLATION INSTRUCTIONS

1. Introduction

The HD-FLEX Sprinkler Drop is an innovative product designed to save time and cost. It can be installed fast with ease by an unskilled worker and its flexibility also allows the sprinkler drop to be installed in a limited space. The advanced technology and high quality control of HD FIRE PROTECT PVT LTD meets customer's high standards. HD-FLEX Sprinkler Drop is designed in accordance with NFPA 13, 13D, and 13R for limited flexible application.

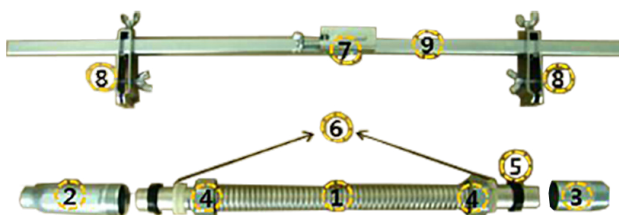
All of anchoring components to building components for this sprinkler hose fitting are intended for use with drop ceilings, reference to specific ceiling constructions such as intermediate and heavy duty ceilings as described in the standard specification for the manufacture, performance, testing of Metal Suspension Systems for Acoustical Tile and Lay-in Panel Ceilings, ASTM C635 when installed in accordance with the standard practice for installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-in Panel, ASTM C636.



(Figure 1)

(General features of HD-FLEX Sprinkler Drop with fittings and ceiling structure when assembled)

2. Parts List

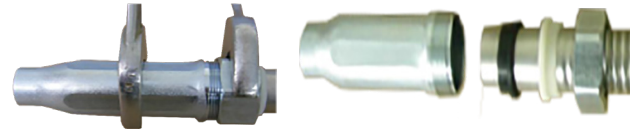


(Figure 2)

Part No.	Part Name	Material	Qty.	Remark
1	Flexible Tube	STS304	1	0.3mm
2	Reducer	STPG370	1	Zn plated
3	Nipple	STPG370	1	Zn plated
4	Nut	S10C	2	Zn plated
5	Gasket	EPDM	2	-
6	Isolation Ring	NYLON66	2	-
7	Middle Bracket	STEEL	1	Zn plated
8	End Bracket	STEEL	2	Zn plated
9	Square Bar	GI PIPE	1	Zn plated 700mm Long

3. Assembly Instructions

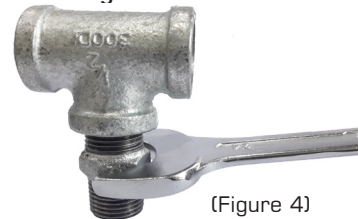
A. Connecting the Reducer



(Figure 3)

Disconnect the reducer by turning the nut (not the reducer) from the flexible sprinkler drop. Check that the gasket and isolation ring are properly in place. Reconnect the reducer to the Flexible Sprinkler Drop by turning the nut. Two open-ended spanners (or adjustable wrenches) should be used to tighten the nut closely to ensure the leak-proof connection. Recommended torque for the work is 320 kgf.cm.

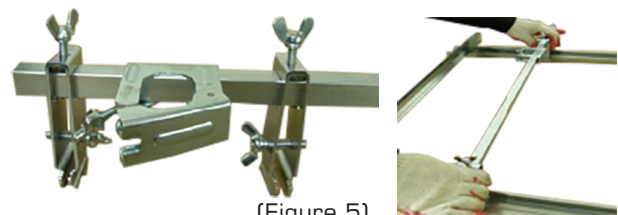
B. Connecting Nipple to the main piping system of the building



(Figure 4)

Disconnect the nipple from Flexible Sprinkler Drop. Assemble nipple to the main piping system of the building with normal sealing procedures and tighten it closely to ensure a leak-proof connection as shown in the picture (Fig 4). Recommended torque for this work is 950~1,000 kgf.cm. Check that the gasket and the isolation ring are properly placed at the end of the Flexible Drop. Connect the Flexible Drop to the Nipple by tightening the nut closely. Recommended torque for this work is 320 kgf.cm

C. Connecting square bar on the ceiling structure



(Figure 5)

- Join the two end brackets and middle bracket to the square bar and place the end brackets properly the aimed ceiling structure as shown in the picture. (Figure 5) (The maximum distance between two end brackets is 1500mm & minimum 600mm).
- Fasten the wing bolts on top of the end brackets tightly. Recommended torque for this work is 20-25 kgf.cm (Figure 5).
- Push the end brackets into the ceiling structure rail and check that the end brackets sit on the ceiling structure properly.
- Fasten the wing bolts on the side of the end brackets. Recommended torque for this work is 25~30 kgf.cm.

D. Installing Reducer to the Middle Bracket

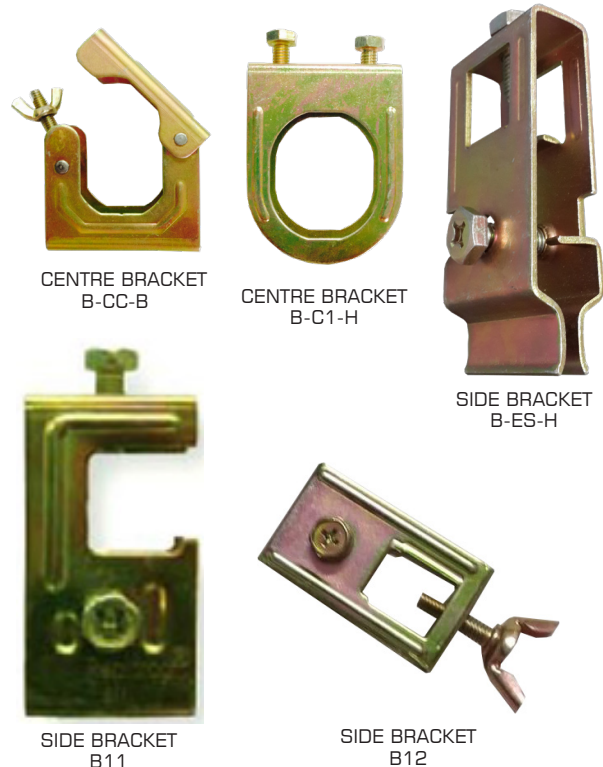


(Figure 6)

Open the middle bracket cover and position the Reducer inside the middle bracket properly.

Close the middle bracket cover and fasten the wing bolt firmly. Recommended torque for this work is 25~30 kgf.cm (Figure 6).

Accessories and Brackets:



Every Flexible Drop is accompanied by inlet nipple, outlet reducing nipple, 700mm square bar and brackets suitable to ceiling type.

Contact HD Sales for more information on type of brackets and accessories to be used.

LIMITED WARRANTY

HD FIRE PROTECT PVT. LTD. hereby referred to as HD FIRE warrants to the original purchaser of the fire protection products manufactured by HD FIRE and to any other person to whom such equipment is transferred, that such products will be free from defect in material and workmanship under normal use and care, for two (2) years from the date of shipment by HD FIRE. Products or Components supplied or used by HD FIRE, but manufactured by others, are warranted only to the extent of the manufacturer's warranty. No warranty is given for product or components which have been subject to misuse, improper installation, corrosion, unauthorized repair, alteration or un-maintained. HD FIRE shall not be responsible for system design errors or improper installation or inaccurate or incomplete information supplied by buyer or buyer's representatives. HD FIRE will repair or replace defective material free of charge, which is returned to our factory, transportation charge prepaid, provided after our inspection the material is found to have been defective at the time of initial shipment from our works. HD FIRE shall not be liable for any incidental or consequential loss, damage or expense arising directly or indirectly from the use of the product including damages for injury to person, damages to property and penalties resulting from any products and components manufactured by HD FIRE. HD FIRE shall not be liable for any damages or labour charges or expense in making repair or adjustment to the product. HD FIRE shall not be liable for any damages or charges sustained in the adaptation or use of its engineering data & services. In no event shall HD Fire's product liability exceed an amount equal to the sale price. The foregoing warranty is exclusive and in lieu of all other warranties and representation whether expressed, implied, oral or written, including but not limited to, any implied warranties or merchantability or fitness for a particular purpose. All such other warranties and representations are hereby cancelled.

NOTICE :

The equipment presented in this bulletin is to be installed in accordance with the latest publication standards of NFPA or other similar organisations and also with the provision of government codes or ordinances wherever applicable.

The information provided by us is to the best of our knowledge and belief, and consist of general guidelines only. Site handling and installation control is not in our scope. Hence we give no guarantee for result and take no liability for damages, loss or penalties whatsoever, resulting from our suggestion, information, recommendation or damages due to our product.

Product development is a continuous programme of HD FIRE PROTECT PVT. LTD. and hence the right to modify any specification without prior notice is reserved with the company.



HD FIRE PROTECT PVT. LTD.
Protecting What Matters Most to You

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