

SPRINKLER FLEXIBLE DROP



Technical Data

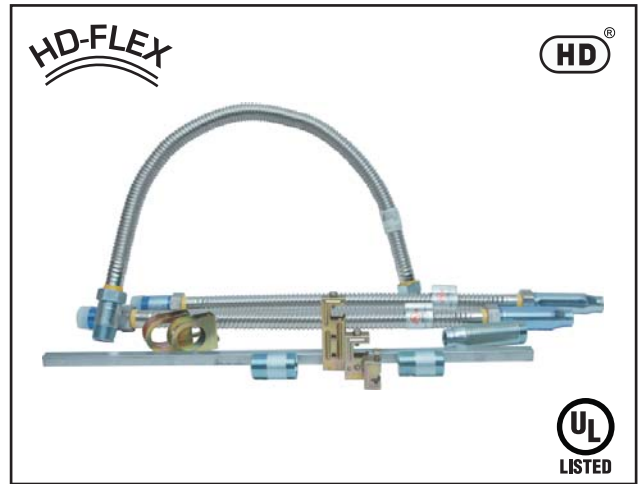
Style	Unbraided & Braided
Sizes	700mm, 1000mm, 1200mm, 1500mm, 1800mm
Max. Service Pressure	175 PSI (12 Bar)
Approvals	UL Listed
Ordering Information	Size, Type of Bracket, Length of Square Bar

APPLICATION

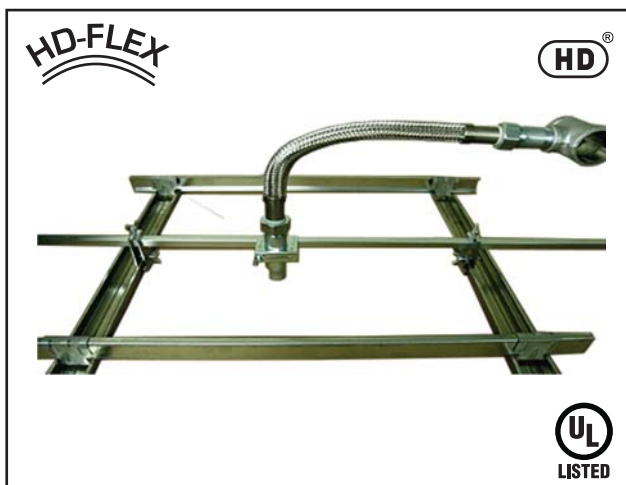
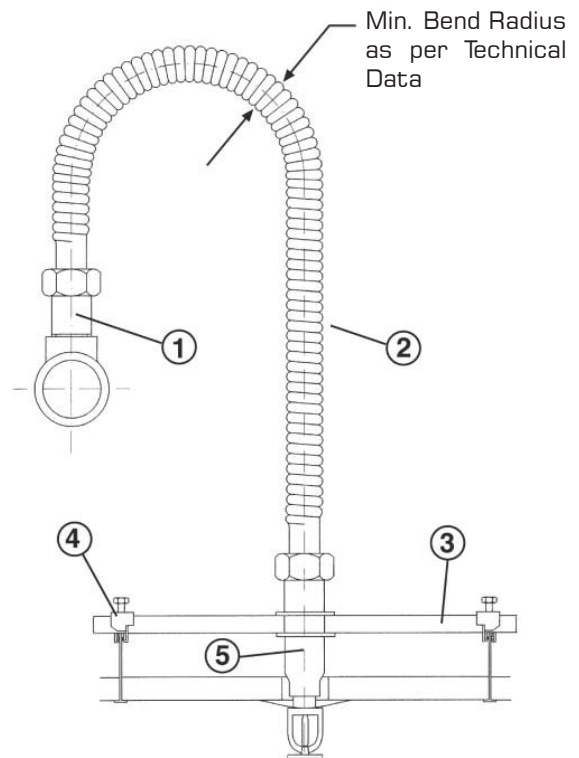
Sprinkler Flexible Drop system is a ready to use assembly to fit sprinkler heads in desired location in a suspended ceiling. It easily positions the sprinkler in center of the ceiling tile at a correct height. Installation can be done in 10 to 15 minutes and does not require any special preparation.

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 the correct position. Not only does this reduce the 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.



UNBRAIDED



BRAIDED

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

INSTALLATION INSTRUCTIONS

1. Introduction

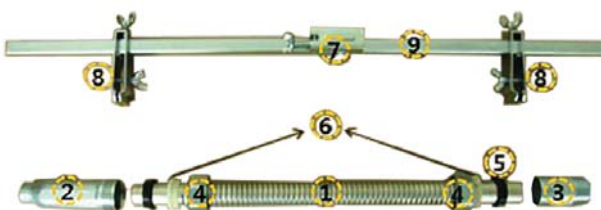
The HD-Flex Sprinkler Drop is an innovative product designed to save time and cost. It can be installed fast with ease by an unskilled worker and its flexibility also allows the sprinkler drop to be installed in a limited space. The advanced technology and high quality control of HD FIRE PROTECT PVT LTD meets customers' 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)

No	Part Name	Material	Q'ty	Remark
1	Flexible Tube	STS304	1	0.3t
2	Reducer	STPG370	1	Zn plate
3	Nipple	STPG370	1	Zn plate
4	Nut	S10C	2	Zn plate
5	Gasket	EPDM	2	
6	Isolation Ring	NYLON66	2	
7	Middle Bracket (A-DFM)	STEEL	1	Zn plate
8	End Bracket (A-DFM)	STEEL	2	Zn plate
9	Square Bar	GI PIPE	1	Zn plate 700mm Long

3. Technical data

- Rated Pressure, psi : 175
- Maximum Ambient Temperature, F,C : 225°F, 107°C
- Largest Sprinkler K-factor for 1/2 in. outlet : HD-UB, HD-B: 5.6
- Largest Sprinkler K-factor for 3/4 in. outlet : HD-UB:11.2, HD-B: 8.0
- Intended use in Wet systems and Dry systems
- Minimum Bending Radius, mm : HD-UB:100, HD-B:190
- Maximum Bends :
 - 3 : HD-UB-1800 / HD-B-15 / HD-B-18
 - 2 : HD-UB-1000 / HD-UB-1200 / HD-UB-1500 / HD-B-9 / HD-B-12
 - 1 : HD-UB-700 / HD-B-6 / HD-B-8
- Flexibility : limited
- Intended use for direct connection to fire sprinklers
- Intended for use with drop ceilings, HD-Flex Sprinkler Drop can be installed on intermediate and heavy duty ceilings.

Equivalent length :

Model	Nominal Inlet by Outlet Size, In.	Assembly Length, mm	Max No. of 90 ° Bends	Min Bend Radius mm	Equivalent Length of 1 in. Schedule, 40 Steel Pipe (C=120), ft
HD-UB-700mm	1 X 1/2	700	1	100	24
HD-UB-1000mm	1 X 1/2	1000	2	100	44
HD-UB-1200mm	1 X 1/2	1200	2	100	49
HD-UB-1500mm	1 X 1/2	1500	2	100	59
HD-UB-1800mm	1 X 1/2	1800	3	100	84

Model	Nominal Inlet by Outlet Size, In.	Assembly Length, mm	Max No. of 90 ° Bends	Min Bend Radius mm	Equivalent Length of 1 in. Schedule, 40 Steel Pipe (C=120), ft
HD-UB-700mm	1 X 3/4	700	1	100	30
HD-UB-1000mm	1 X 3/4	1000	2	100	48
HD-UB-1200mm	1 X 3/4	1200	2	100	55
HD-UB-1500mm	1 X 3/4	1500	2	100	64
HD-UB-1800mm	1 X 3/4	1800	3	100	86

Model	Specified Length, mm, (Inch)	Nominal Outlet Size, In.	Number of Bends	Equivalent Length (ft)
HD-B-6	610 (24")	1 X 1/2	0	4
			1	12
HD-B-8	790 (31")	1 X 1/2	0	9
			1	19
HD-B-9	915 (36")	1 X 1/2	0	20
			2	42
HD-B-12	1220 (48")	1 X 1/2	0	35
			2	53
HD-B-15	1525 (60")	1 X 1/2	0	36
			3	68
HD-B-18	1800 (72")	1 X 1/2	0	60
			3	94

Model	Specified Length, mm, (Inch)	Nominal Outlet Size, In.	Number of Bends	Equivalent Length (ft)
HD-B-6	610 (24")	1 X 3/4	0	10
			1	21
HD-B-8	790 (31")	1 X 3/4	0	16
			1	27
HD-B-9	915 (36")	1 X 3/4	0	24
			2	47
HD-B-12	1220 (48")	1 X 3/4	0	31
			2	49
HD-B-15	1525 (60")	1 X 3/4	0	42
			3	73
HD-B-18	1800 (72")	1 X 3/4	0	66
			3	99

4. 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 the 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 (Figure 3).

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 the Middle bracket to the Square bar and place the End brackets properly on the aimed ceiling structure as shown in the picture. (Figure 5) (The maximum distance between two End brackets is 1500mm and minimum 600mm).
- Fasten the Wing bolts on the 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.cm¹ (Figure 6).

Accessories and Brackets:



CENTRE BRACKET
B-CC-B



CENTRE BRACKET
B-C1-H



SIDE BRACKET
B-ES-H



SIDE BRACKET
B11

Every flexible drop is accompanied by Inlet Nipple, Outlet Reducing Nipple, 1m Square Bar and Brackets suitable to ceiling type.

Most common brackets used are - Bracket B-CC-B and B-ES-H.

Contact HD Sales for more information.

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 are to the best of our knowledge and belief, and are general guidelines only. Site handling and installation control is beyond our reach. 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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