

SprinkFlex® Hose Braided Fig. HB-7

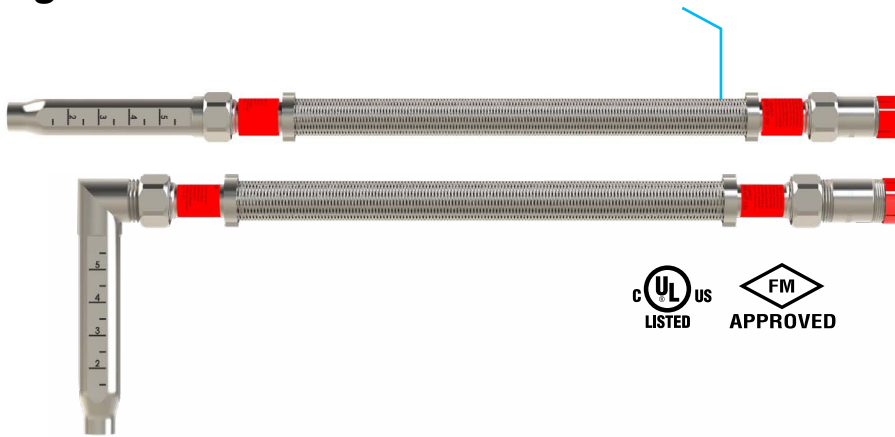


Fig. HB-7 Brackets

Bracket Figure Number & Size	cULus Listed	FM Approved	SprinkFlex Historical Model Number
BKT-IPT, 24in	✓	✓	IPT-24-BKT1
BKT-IPT, 48in			IPT-48-BKT1
BKT-SFO-4, 24in		✓	SFO-24-BKT1
BKT-SFO-4, 48in		✓	SFO-48-BKT1

Note: SprinkFlex Historical Model Numbers may be used to verify cULus Listings & FM Approvals.

Product Specifications

Assembly Length

- 28in
- 40in
- 48in
- 59in
- 71in

Straight Outlet Drop

- ½ NPS
- ¾ NPS

Optional Elbow Outlet Drops

HBC-7	HBC/SFBC*
6.3 x ½	4.8 x ½
6.3 x ¾	4.8 x ¾

* For Concealed Sprinkler applications with the BKT-IPT.

Inlet Nipple

1 NPS

Pressure Rating

UL: 200psi (1,379kPa)
FM: 175psi (1,205kPa)

Minimum Bend Radius

UL: 3.0in (76.2mm)
FM: 8.0in (203.2mm)

Ambient Temperature

225°F (107°C) Max

Material

304 Stainless Steel Hose
Carbon Steel Fittings

Ordering

Specify figure number, length, outlet size, & description. HBC-7 & HBC/SFBC Elbow Outlets sold separately.

PROJECT INFORMATION	APPROVAL STAMP
Project:	Approved
Address:	Approved as noted
Contractor:	Not approved
Engineer:	Remarks:
Submittal Date:	
Notes 1:	
Notes 2:	

SprinkFlex® Hose Braided Fig. HB-7

Fig. HB-7 cULus Listing per UL 2443 & FM Approval (Listing) per FM 1637

Assembly Length	Equivalent Length								Max # of 90° Bends	
	UL				FM				UL #	FM #
	½ NPS Outlet		¾ NPS Outlet		½ NPS Outlet		¾ NPS Outlet			
In	ft	m	ft	m	ft	m	ft	m		
28	28	8.5	28	8.5	18.6	5.7	18.8	5.7	2	1
40	52	15.8	52	15.8	24.6	7.5	24.8	7.6	3	1
48	64	19.5	64	19.5	28.5	8.6	28.7	8.7	3	3
59	72	21.9	72	21.9	34.4	10.4	34.6	10.5	3	3
71	94	28.7	94	28.7	40.4	12.3	40.6	12.4	3	4

1. Equivalent Length of NPS 1 (DN25) Sch 40 Pipe.
2. Equivalent Lengths listed above assume the maximum number of 90° bends.
3. A 90° bend can be achieved with two 45° bends or three 30° bends.
4. FM Equivalent Lengths are listed for installation with ½" sprinklers with a maximum k-factor of 5.6.
5. FM Equivalent Lengths are listed for installation with ¾" sprinklers with a maximum k-factor of 8.0.

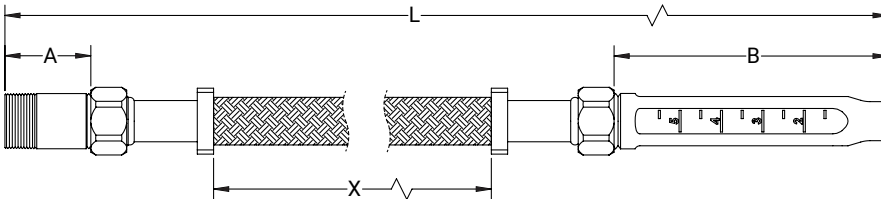


Fig. HB-7 Dimensions & Model Number

Assembly Length	True Length (L)		Braided Length (X)		Inlet Length (A)		Outlet Drop Length (B)		SprinkFlex Historical Model Number	
	In	mm	In	mm	In	mm	In	mm	½ Outlet	¾ Outlet
28	27.6	700	15.4	390					HB28H-7	HB28T-7
40	39.4	1000	27.2	690					HB40H-7	HB40T-7
48	47.2	1200	35.0	890	2.50	64	6.8	173	HB48H-7	HB48T-7
59	59.1	1500	45.7	1160					HB59H-7	HB59T-7
71	70.9	1800	58.7	1490					HB71H-7	HB71T-7

SprinkFlex® Hose Braided Fig. HB-7

Fig. HB-7 With HBC-7 & HBC/SFBC Elbow Outlets cULus Listing per UL 2443 & FM Approval (Listing) per FM 1637

Assembly Length	Equivalent Length								Max # of 90° Bends	
	UL				FM				UL	FM
	½ NPS Outlet		¾ NPS Outlet		½ NPS Outlet		¾ NPS Outlet			
In	ft	m	ft	m	ft	m	ft	m	#	#
28	33	10.1	33	10.1	20.6	6.3	20.8	6.3	2	1
40	56	17.1	56	17.1	26.6	8.1	26.8	8.2	3	1
48	67	20.4	67	20.4	30.5	9.3	30.7	9.4	3	3
59	76	23.2	76	23.2	36.4	11.1	36.6	11.2	3	3
71	97	29.6	97	29.6	42.4	12.9	42.6	13.0	3	4

1. Equivalent Length of NPS 1 (DN25) Sch 40 Pipe.
2. Equivalent Lengths listed above assume the maximum number of 90° bends.
3. A 90° bend can be achieved with two 45° bends or three 30° bends.
4. FM Equivalent Lengths are listed for installation with ½" sprinklers with a maximum k-factor of 5.6.
5. FM Equivalent Lengths are listed for installation with ¾" sprinklers with a maximum k-factor of 8.0.
6. The HBC-7 & HBC/SFBC Elbow Outlets are sold separately.
7. The HBC/SFBC Elbow Outlets are intended for concealed sprinkler applications only.

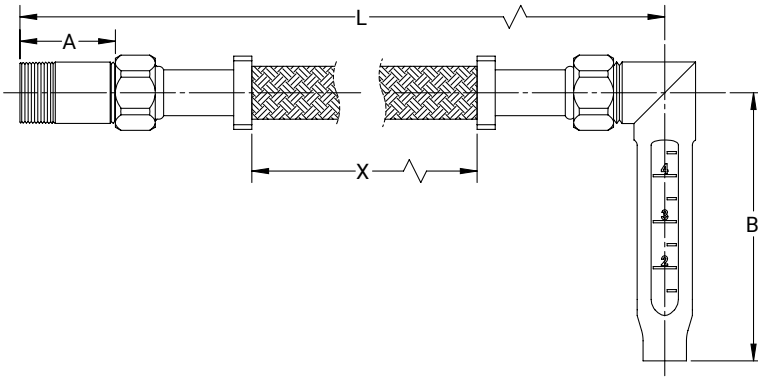


Fig. HB-7 With HBC-7 Elbow Outlet Dimensions & Model Number

Assembly Length	True Length (L)		Braid Length (X)		Inlet Length (A)		Outlet Drop Length (B)		SprinkFlex Historical Model Number	
	In	mm	In	mm	In	mm	In	mm	½ Outlet	¾ Outlet
28	24.5	623	15.4	390					HBE28H-7	HBE28T-7
40	36.3	923	27.2	690					HBE40H-7	HBE40T-7
48	44.1	1121	35.0	890	2.5	63.5	5.8	147.3	HBE48H-7	HBE48T-7
59	56.0	1423	45.7	1160					HBE59H-7	HBE59T-7
71	67.8	1723	58.7	1490					HBE71H-7	HBE71T-7

1. When installed with the HBC/SFBC Elbow Outlet, the "B" dimension is reduced to 4.3in (109mm)

SprinkFlex® Hose Braided Fig. HB-7

Connection to the Branch

1. Separate the threaded inlet nipple (if necessary) from the flexible hose. Apply pipe sealant or tape to the NPT thread on the threaded inlet nipple and install into the branch outlet. **Note:** Only place the pipe wrench on the unthreaded portion of the inlet nipple.
2. Examine the O-ring in the threaded hex union attached to the end of the hose. Ensure it is seated properly and free of debris.
3. Ensure the arrow on the hose is pointing in the direction of flow. Tighten the threaded hex union at the end of the braided hose to the inlet nipple. Hand tight plus ½ turn (15ft-lbs).

Bending the Hose

1. The hose may be bent to ensure the inlet nipple and outlet drop are in the desired locations.
2. The hose should never be bent to a radius less than minimum listed bend radius. The bend radius is defined to the center of the hose.
3. The hose should not be bent within 2½" of the threaded hex union at either end of the hose.
4. The hose must have at least one 90° bend. A 90° bend can be achieved with two 45° bends or three 30° bends.
5. For best performance, the bends in the hose should be as large and smooth as possible.

Connection to the Bracket

1. Installation of the outlet drop to the bracket shall be per the bracket's installation instructions. The bracket shall be listed for installation with the HB-7. See Page 1 for Listed and Approved brackets.
2. Examine the O-ring in the threaded hex union attached to the end of the hose. Ensure it is seated properly and free of debris.
3. Tighten the threaded hex union at the end of the braided hose to the outlet drop. Hand tight plus ¼ turn (15ft-lbs).

Connection to the Sprinkler Head

1. Installation of the outlet drop to the bracket shall be per the bracket's installation instructions. The bracket shall be listed for installation with the HB-7. See Page 1 for Listed and Approved brackets.

General Installation Notes

1. Never apply a wrench to the braided hose.
2. The Fig HB-7 may be installed in any direction from the branch.
3. If installing a sprinkler to a bracket after installation, it is best practice to prevent twisting of the bracket and hose by holding the outlet drop with a wrench.

SprinkFlex® Hose Non-Braided Fig. HN-7

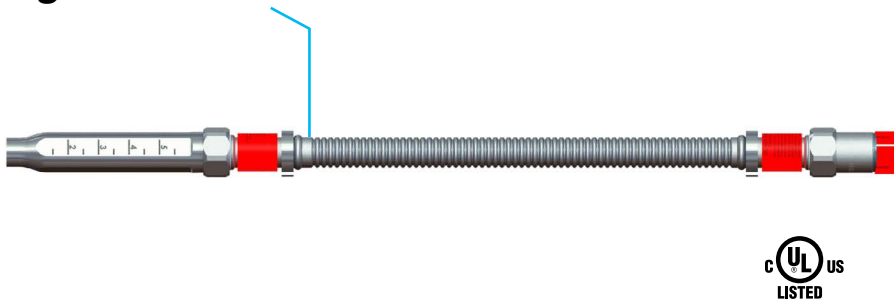


Fig. HN-7 Brackets

Bracket Figure Number & Size	cULus Listed	SprinkFlex Historical Model Number
BKT-IPT, 24in	✓	IPT-24-BKT1
BKT-IPT, 48in		IPT-48-BKT1

Note: SprinkFlex Historical Model Numbers may be used to verify cULus Listings.

Product Specifications

Assembly Length

- 28in
- 40in
- 48in
- 59in
- 71in

Straight Outlet Drop

- ½ NPS
- ¾ NPS

Inlet Nipple

- 1 NPS

Pressure Rating

200psi (1,379kPa)

Minimum Bend Radius

3.0in (76.2mm)

Ambient Temperature

225°F (107°C) Max

Material

- 304 Stainless Steel Hose
- Carbon Steel Fittings

Ordering

Specify figure number, length, outlet size, & description.

PROJECT INFORMATION	APPROVAL STAMP
Project:	Approved
Address:	Approved as noted
Contractor:	Not approved
Engineer:	Remarks:
Submittal Date:	
Notes 1:	
Notes 2:	

SprinkFlex® Hose Non-Braided Fig. HN-7

Fig. HN-7 cULus Listing per UL 2443

Assembly Length	Equivalent Length				Max # of 90° Bends
	½ NPS Outlet		¾ NPS Outlet		
	ft	m	ft	m	
28	28	8.5	28	8.5	2
40	52	15.8	52	15.8	3
48	64	19.5	64	19.5	3
59	72	21.9	72	21.9	3
71	94	28.7	94	28.7	3

1. Equivalent Length of NPS 1 (DN25) Sch 40 Pipe.
2. Equivalent Lengths listed above assume the maximum number of 90° bends.
3. A 90° bend can be achieved with two 45° bends or three 30° bends.

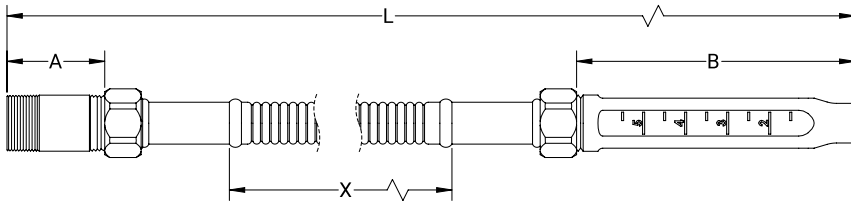


Fig. HN-7 Dimensions & Model Number

Assembly Length	True Length (L)		Corrugation Length (X)		Inlet Nipple Length (A)		Outlet Drop Length (B)		SprinkFlex Historical Model No.	
	in	mm	in	mm	in	mm	in	mm	½ Outlet	¾ Outlet
28	27.6	700	15.4	390					HN28H-7	HN28T-7
40	39.4	1000	27.2	690					HN40H-7	HN40T-7
48	47.2	1200	35.0	890	2.5	63.5	6.8	172.2	HN48H-7	HN48T-7
59	59.1	1500	45.7	1160					HN59H-7	HN59T-7
71	70.9	1800	58.7	1490					HN71H-7	HN71T-7

SprinkFlex® Hose Non-Braided Fig. HN-7

Connection to the Branch

1. Separate the threaded inlet nipple (if necessary) from the flexible hose. Apply pipe sealant or tape to the NPT thread on the threaded inlet nipple and install into the branch outlet.
Note: Only place the pipe wrench on the unthreaded portion of the inlet nipple.
2. Examine the O-ring in the threaded hex union attached to the end of the hose. Ensure it is seated properly and free of debris.
3. Ensure the arrow on the hose is pointing in the direction of flow. Tighten the threaded hex union at the end of the corrugated hose to the inlet nipple. Hand tight plus ½ turn (15ft-lbs).

Bending the Hose

1. The hose may be bent to ensure the inlet nipple and outlet drop are in the desired locations.
2. The hose should never be bent to a radius less than minimum listed bend radius. The bend radius is defined to the center of the hose.
3. The hose should not be bent within 2½in of the threaded hex union at either end of the hose.
4. The hose must have at least one 90° bend. A 90° bend can be achieved with two 45° bends or three 30° bends.
5. For best performance, the bends in the hose should be as large and smooth as possible.

Connection to the Bracket

1. Installation of the outlet drop to the bracket shall be per the bracket's installation instructions. The bracket shall be listed for installation with the HN-7. See Page 1 for Listed and Approved brackets.
2. Examine the O-ring in the threaded hex union attached to the end of the hose. Ensure it is seated properly and free of debris.
3. Tighten the threaded hex union at the end of the corrugated hose to the outlet drop. Hand tight plus ½ turn (15ft-lbs)

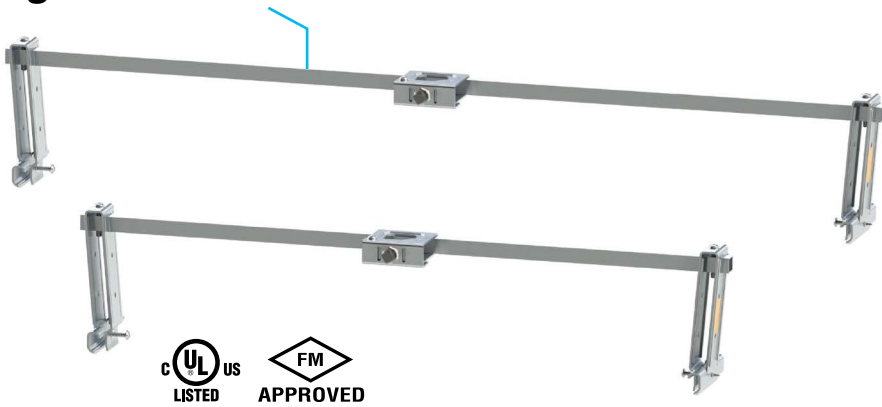
Connection to the Sprinkler Head

1. Installation of the sprinkler head into the outlet drop shall be per the sprinkler manufacturer's installation instructions.

General Installation Notes

1. Never apply a wrench to the corrugated hose.
2. The Fig HN-7 may be installed in any direction from the branch.
3. If installing a sprinkler to a bracket after installation, it is best practice to prevent twisting of the bracket and hose by holding the outlet drop with a wrench.

SprinkFlex® Infinite Position Tall Bracket Fig. BKT-IPT



Product Specifications

Bracket Length

- 24in
- 48in

Material

Carbon Steel

Applications

- Suspended Ceilings per ASTM C635 & C636
- Wood Framing – Gypsum or Dry Wall
- Steel Framing – Gypsum or Dry Wall

Ordering

Specify figure number, length, & description

Fig. BKT-IPT cULus & FM Listed Hose & Components

Hose & Component Figure #	cULus Listed		FM Approved	
	24in	48in	24in	48in
HB1 & HB1C	✓		✓	
HB-7 & HBC-7	✓		✓	
HN-7	✓			
SFB-4 & SFBC-4			✓	
SFN-4				

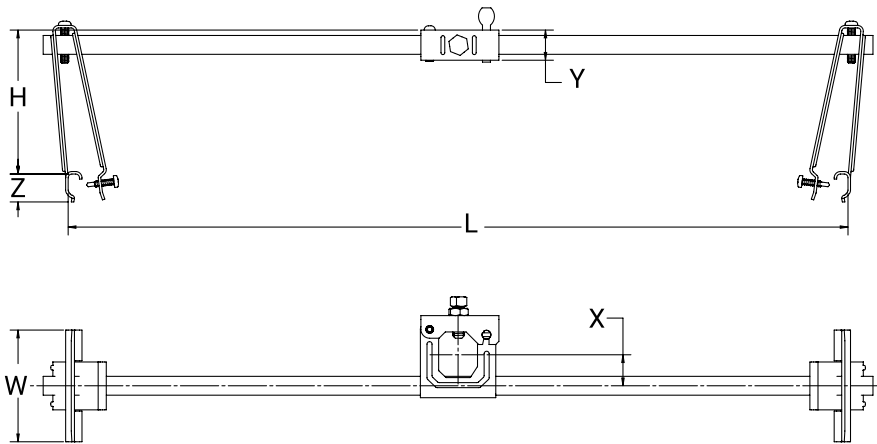


Fig. BKT-IPT Dimensions & Model Number

L	W	H	X	Y	Z	SprinkFlex Historical Model Number
in/mm	in/mm	in/mm	in/mm	in/mm	in/mm	
24 610	3.50	4.50	1.00	0.95	0.88	IPT-24-BKT1
48 1219	88.9	114.3	25.4	24.1	22.4	IPT-48-BKT1

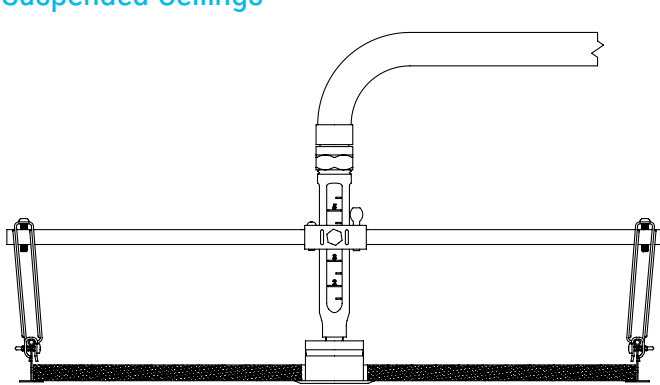
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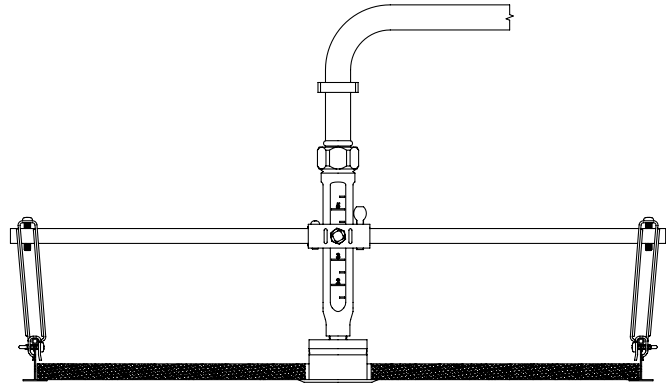
PROJECT INFORMATION	APPROVAL STAMP
Project:	Approved
Address:	Approved as noted
Contractor:	Not approved
Engineer:	Remarks:
Submittal Date:	
Notes 1:	
Notes 2:	

Fig. BKT-IPT – SprinkFlex® Infinite Position Tall Bracket Applications

Suspended Ceilings

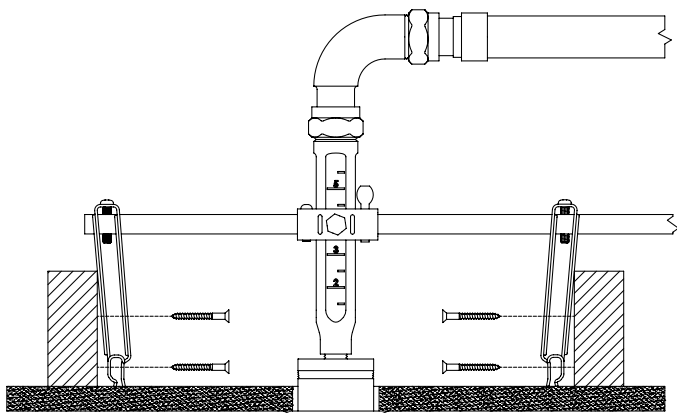


Shown with HB1

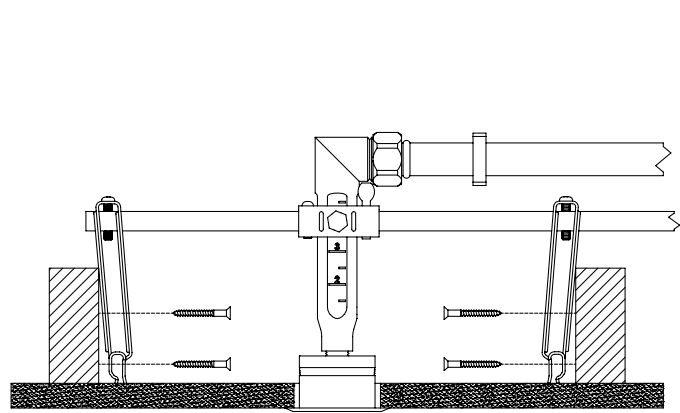


Shown with HB-7

Wood Framing - Gypsum or Dry Wall

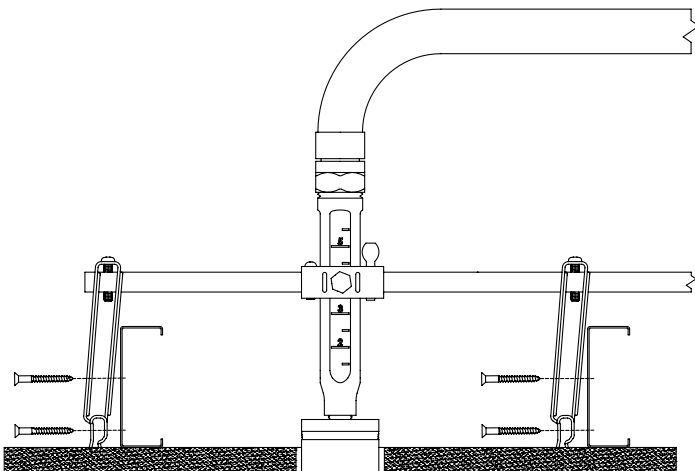


Shown with HB1 & HB1C Elbow



Shown with HB-7 & HBC-7 Elbow Drop

Steel Framing - Gypsum or Dry Wall



Shown with HB1

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Fig. BKT-IPT SprinkFlex® Infinite Position Tall Bracket

Connection to Suspended Ceiling T-bar

1. Determine the location of the sprinkler above the suspended ceiling tile. Position the bracket and hub in the desired location on suspended ceiling T-bar. Note: The center of the hub is offset 1" from the center of the mounting screws.
2. Adjust the position of the bracket legs to the desired length if necessary.
3. Install the self-drilling mounting screw into the suspended ceiling T-bar using a Phillips head drive while applying downward pressure on the bracket leg and T-bar.
4. Repeat on both sides of the bracket.

Suspended Ceiling Tile Installation

1. The BKT-IPT bracket may be installed prior to the ceiling tile installation, preventing the need for sprinkler contractor tile adjustment.
2. For ease of tile installation, cut the largest sprinkler hole recommended by sprinkler head manufacturer. The largest hole that is still covered by the sprinkler escutcheon allows for an easier install.
3. Angle the tile at a 45° angle and push the tile through the hole and up above the ceiling T-bar, maneuver the tile and allow it to drop in the proper location.

Connection to Wood Frames or Steel Studs in Gypsum or Drywall

1. Determine the location of the sprinkler between the wood frames or steel studs.
2. Adjust the position of the bracket legs to the desired length if necessary.
3. Install two (2) screws per leg into the structure. Four (4) screws total per bracket.
 - a. Wood Frames: #10 Wood Screws (1¾" Length Minimum)
 - b. Steel Studs: #10 Self-Tapping Sheet Metal Screw (1¼" Length Minimum)

Connection to the Flexible Sprinkler Hose

1. Open the hinge door on the bracket hub by rotating the locking shaft ¼ turn.
2. Slide the flexible hose drop into the hub.
3. Close the hinge door and re-lock the locking shaft with a ¼ turn.
4. Ensure the flexible hose drop is straight and not applying a substantial moment on the bracket which may cause sprinkler misalignment.
5. Adjust the flexible hose drop to the desired height and tighten the set screw hand-tight plus a ¾ turn (130 in-lbs).

Adjusting Bracket Legs

1. Determine the desired width of the legs.
2. Disassemble one leg
3. Drill a 7/32" hole at the new desired leg location
4. Assemble the leg in the desired orientation by drilling the mounting screw into the hole.
5. Excess Square Bar can be removed as needed. At least 1/2" (13mm) shall extend past the bracket leg.

Notes:

Installation & maintenance of SprinkFlex products shall be in accordance with applicable local and federal codes (E.g. NFPA 13, NFPA 13R, NFPA 13D, NFPA 25, FM Datasheets, IBC)

