



ARGCO

FLEXIBLE SPRINKLER DROPS CATALOG



FLEXIBLE SPRINKLER DROP HOSE

BRAIDED CONNECTIONS



ARGCO Flexible Sprinkler Drops are designed to reduce labor and installation costs by installing without cutting and threading pipe associated with installing a drop, arm-over and elbows. ARGCO offers braided and unbraided hoses in 28, 40, 48, 60 and 72" lengths with simple brackets for suspended ceilings.

Manufactured with corrosion resistant AISI Grade 304 Stainless Steel corrugated high flexibility tube with two hex slip nuts and high integrity O-ring seals with a burst test pressure of 70 bar/875 psi at ambient temperature, providing flexibility, high performance durability and reliability.

National Fire Protection Association (NFPA):

- NFPA 13: Standard for the Installation of Sprinkler Systems
- NFPA 13D: Standard for the Installation of Sprinkler Systems in One and Two-Family Dwellings and Manufactured Homes
- NFPA 13R: Standard for the Installation of Sprinkler Systems in residential Occupancies up to and including four stories in height.
- NFPA 13 Section 9.2.1.3.3.3: No hangers are required for flexible connections as long as the length does not exceed 6 feet.

American Society for Testing Methods (ASTM):

- ASTM C635: Standard specifications for the manufacture, performance, and testing of metal suspension systems for acoustical tile and lay-in panel ceilings
- ASTM C636: Standard practice for installation of metal ceiling suspension systems for acoustical tile and lay-in panels.

Factory Mutual (FM):

- Approved standard for flexible sprinkler hose with threaded end fittings

Underwriter's Laboratories (UL):

- Standard for flexible sprinkler hose with fittings for fire protection service

International Building Code (IBC):

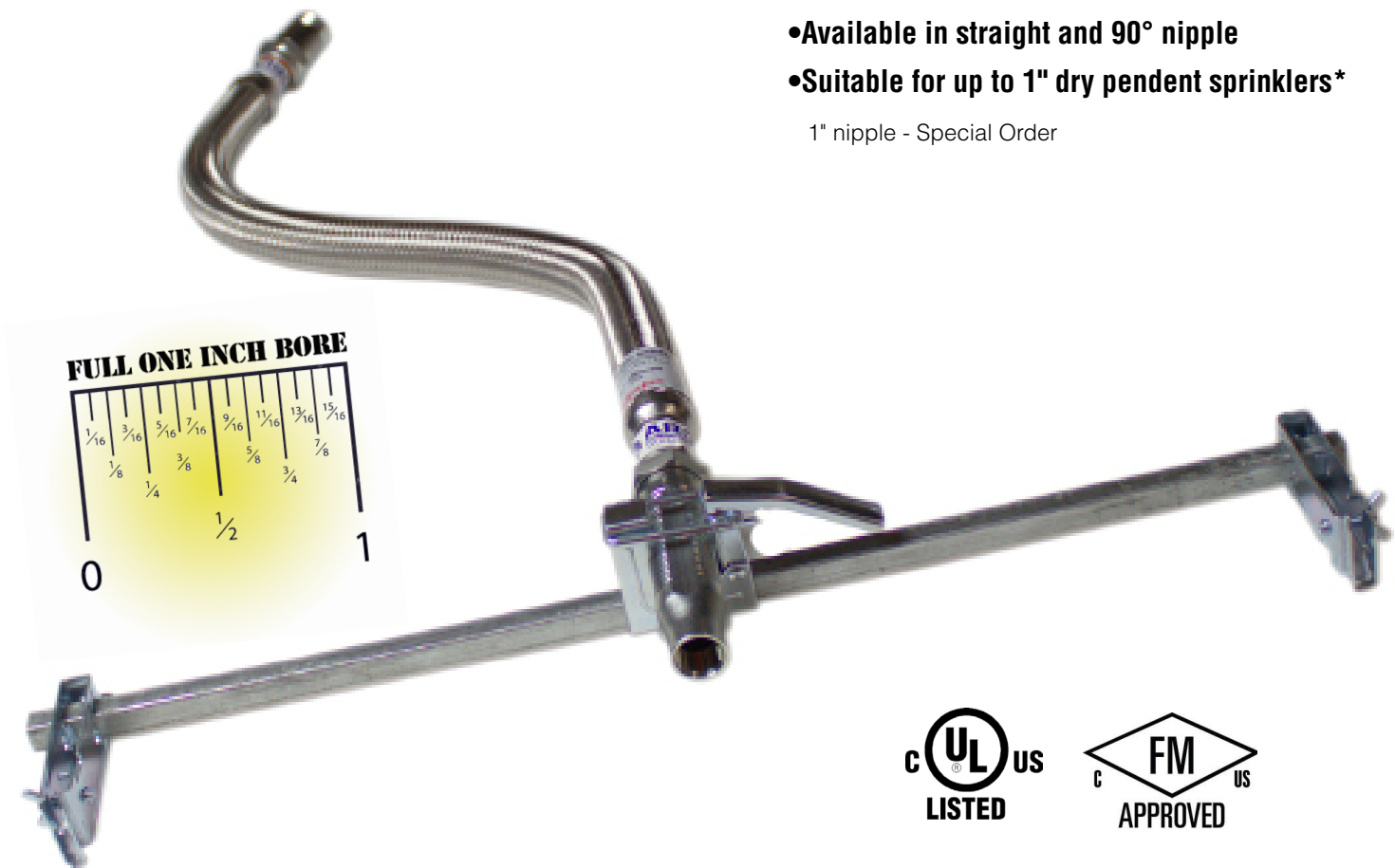
- Flexible Sprinkler Connections are an alternative solution to install without seismic escutcheons.

System No.		Location		Spec Section		Paragraph	
Submitted By		Date		Approved		Date	



- High Performance Flexible Connection
- Full 1" inner flow diameter
- Available in straight and 90° nipple
- Suitable for up to 1" dry pendent sprinklers*

1" nipple - Special Order



PRODUCT DESCRIPTION

- Series AR-400-BR 1"/DN25 Nominal ID Braided Hose: 28, 40, 48, 60, 72"
- Sprinkler Connections: ½", ¾" and 1" NPT
- Inlet Connections: 1"/25mm NPT
- Straight Reducing Nipple Length: 5.5" (other lengths available)
- 90° Elbows: Long (typically used with recessed pendent sprinklers)



Friction Loss Data continued on next page



TECHNICAL DATA

- Rated Pressure: 203 PSI (14 Bars)
- Maximum Ambient Temperature: 150°F (66°C)
- Maximum Sprinkler K-factor for ½" outlet:
8.0 gal/mm/(psi)^½
- Maximum Sprinkler K-factor for ¾" outlet:
14.0 gal/mm/(psi)^½
- Maximum Sprinkler K-factor for 1" outlet:
25.2 gal/mm/(psi)^½
- Designed for use in wet and dry systems
- Flexibility Type: Unlimited
- Minimum Bend Radius: 2"
- Hose Diameter: O.D. 1-3/8" / Flow 1"

System No.		Location		Spec Section		Paragraph	
Submitted By		Date		Approved		Date	


**Friction Loss Data
and Specifications**

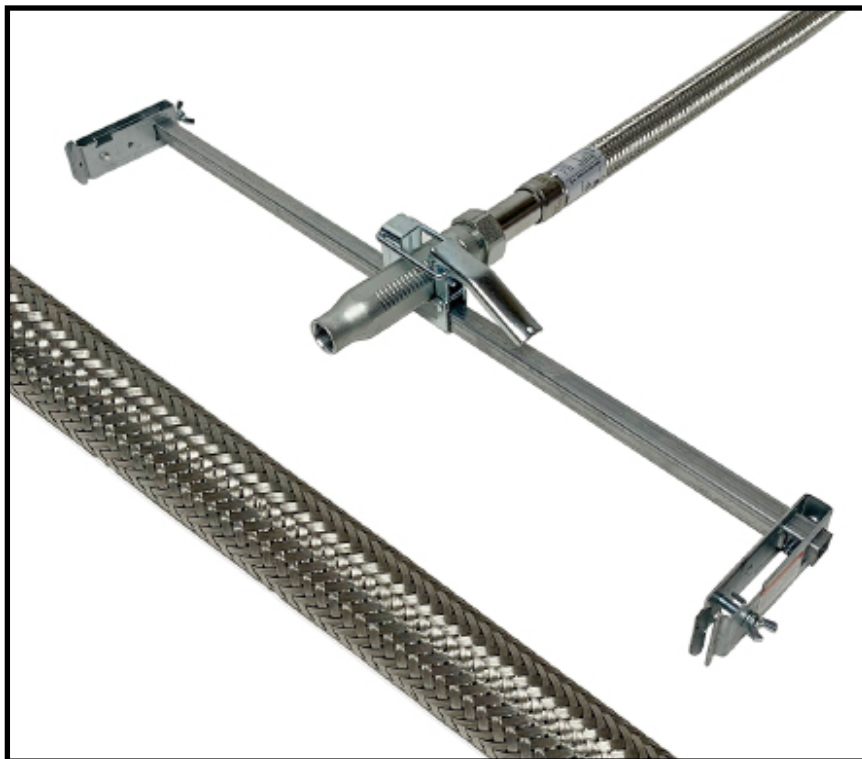
				Equivalent Length of 1 ft Sch 40 Pipe					
				 LISTED Max. # of Bends Min. Bending Radius			 APPROVED Max. # of Bends Min. Bending Radius		
Item #	Length	NPT	k-Factor	UL			FM		
6531165	28"	1/2"	5.6 & 8.0	18 ft	4	2"	4.5 ft	1	6.9"
6531166	39"	1/2"	5.6 & 8.0	24 ft	5	2"	9.8 ft	3	6.9"
6531167	47"	1/2"	5.6 & 8.0	37 ft	8	2"	13.4 ft	3	6.9"
6531168	59"	1/2"	5.6 & 8.0	49 ft	10	2"	18.8 ft	4	6.9"
6531169	71"	1/2"	5.6 & 8.0	52 ft	12	2"	24.2 ft	4	6.9"

				Equivalent Length of 1 ft Sch 40 Pipe					
				 LISTED Max. # of Bends Min. Bending Radius			 APPROVED Max. # of Bends Min. Bending Radius		
Item #	Length	NPT	k-Factor	UL			FM		
6531175	28"	3/4"	8.0, 11.2, 14.0	18 ft	4	2"	13.0 ft	1	6.9"
6531176	39"	3/4"	8.0, 11.2, 14.0	24 ft	5	2"	20.8 ft	3	6.9"
6531177	47"	3/4"	8.0, 11.2, 14.0	37 ft	8	2"	26.0 ft	3	6.9"
6531178	59"	3/4"	8.0, 11.2, 14.0	49 ft	10	2"	33.8 ft	4	6.9"
6531179	71"	3/4"	8.0, 11.2, 14.0	52 ft	12	2"	41.7 ft	4	6.9"

			Number of Bends Equivalent Length of 1 ft Sch 40 Pipe												
Item #	Length	NPT	0	1	2	3	4	5	6	7	8	9	10	11	12
6531165	28"	1/2"	8.0	10.5	13.0	15.5	18.0								
6531166	39"	1/2"	11.5	14.0	16.5	19.0	21.5	24.0							
6531167	47"	1/2"	17.0	19.5	22.0	24.5	27.0	29.5	32.0	34.5	37.0				
6531168	59"	1/2"	24.0	26.5	29.0	31.5	34.0	36.5	39.0	41.5	44.0	46.5	49.0		
6531169	71"	1/2"	22.0	24.5	27.0	29.5	32.0	34.5	37.0	39.5	42.0	44.5	47.0	49.5	52.0

			Number of Bends Equivalent Length of 1 ft Sch 40 Pipe												
Item #	Length	NPT	0	1	2	3	4	5	6	7	8	9	10	11	12
6531175	28"	3/4"	9.4	11.5	13.0	15.8	18.0								
6531176	39"	3/4"	13.2	15.4	16.5	19.7	21.8	24.0							
6531177	47"	3/4"	19.7	21.9	22.0	26.2	28.4	30.5	32.7	34.8	37.0				
6531178	59"	3/4"	27.4	29.6	29.0	33.9	36.0	38.2	40.4	42.5	44.7	46.8	49.0		
6531179	71"	3/4"	26.0	28.2	27.0	32.6	34.7	36.9	39.0	41.2	43.4	45.5	47.7	49.8	52.0

FLEXIBLE SPRINKLER DROP HOSE 3-BEND BRAIDED CONNECTIONS



- Save Time & Money
- No cutting, no welding, no threading
- Perfect for retrofit applications
- Easy to move for layout changes
- Most flexible hose in its class.

UL: 3 bends 4" minimum radius



Full assembly includes Stainless Steel Braided Hose, Reducing Discharge Nipple, 1" Inlet Nipple, Hinged Lever Center Bracket, two End Brackets & 24" Square Bar

TECHNICAL DATA

- Rated Pressure: 203 PSI (14 Bars)
- Maximum Ambient Temperature: 225°F (107°C)
- Designed for use in wet and dry systems
- Flexibility Type: Unlimited
- Hose Diameter: O.D. 1-1/16" / Flow 13/16"



Friction Loss Data and Specifications

			Equivalent Length of 1 ft Sch 40 Pipe					
			c  US LISTED			FM  APPROVED		
ITEM #	Length	NPT	UL	Max. # of Bends	Min. Bending Radius	FM	Max. # of Bends	Min. Bending Radius
6530165A	28" (0.6 m)	1/2"	25 ft	2	4"	26.7 ft	1	10"
6530166A	40" (0.9 m)	1/2"	33 ft	3	4"	42.6 ft	2	10"
6530167A	48" (1.2 m)	1/2"	39 ft	3	4"	53.2 ft	3	10"
6530168A	60" (1.5 m)	1/2"	50 ft	3	4"	67.8 ft	3	10"
6530169A	72" (1.8 m)	1/2"	58 ft	3	4"	82.4 ft	4	10"
6530175A	28" (0.6 m)	3/4"	21 ft	2	4"	22.1 ft	1	10"
6530176A	40" (0.9 m)	3/4"	36 ft	3	4"	40.6 ft	2	10"
6530177A	48" (1.2 m)	3/4"	43 ft	3	4"	53.0 ft	3	10"
6530178A	60" (1.5 m)	3/4"	52 ft	3	4"	64.2 ft	3	10"
6530179A	72" (1.8 m)	3/4"	63 ft	3	4"	75.5 ft	4	10"

Anchoring components are intended for use with drop ceilings conforming to ASTM C635 and other major standards when installed in accordance with the standard practice for installation of metal ceiling suspension systems for acoustical tile and lay-in panel, ASTM C635 or other equivalent standards.

FM Notes: ARGCO hoses have been tested and Approved by FM Global for use in wet, dry and preaction systems per NFPA13, 13R and 13D.

System No.		Location		Spec Section		Paragraph	
Submitted By		Date		Approved		Date	

FLEXIBLE SPRINKLER DROP HOSE 3-BEND

BRAIDED CONNECTIONS



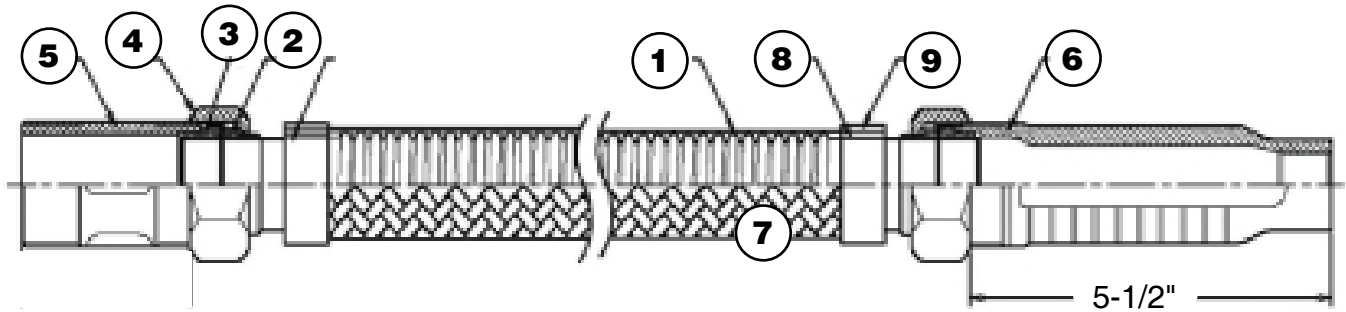
Number of Bends Equivalent Length of 1 ft Sch 40 Pipe							
ITEM #	Length	NPT	0	1	2	3	4
6530165A	28"	1/2"	15.1	18.0	25.0		
6530166A	39"	1/2"	19.0	24.0	28.0	33.0	
6530167A	47"	1/2"	26.0	30.0	34.0	39.0	
6530168A	59"	1/2"	35.0	41.0	45.0	50.0	
6530169A	71"	1/2"	42.0	47.5	52.8	58.1	63.4

Number of Bends Equivalent Length of 1 ft Sch 40 Pipe							
ITEM #	Length	NPT	0	1	2	3	4
6530175A	28"	3/4"	16.4	18.8	21.0		
6530176A	39"	3/4"	22.0	27.0	31.0	36.0	
6530177A	47"	3/4"	29.0	34.0	38.0	43.0	
6530178A	59"	3/4"	38.0	43.0	47.0	52.0	
6530179A	71"	3/4"	52.0	57.3	61.3	65.3	69.3

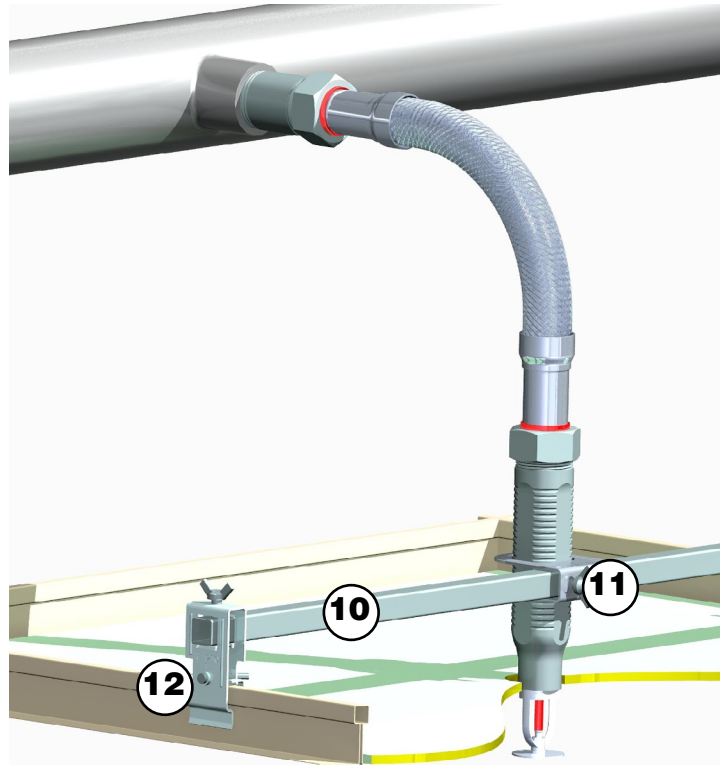
FLEXIBLE SPRINKLER DROP HOSE BRAIDED CONNECTIONS



COMPONENTS:



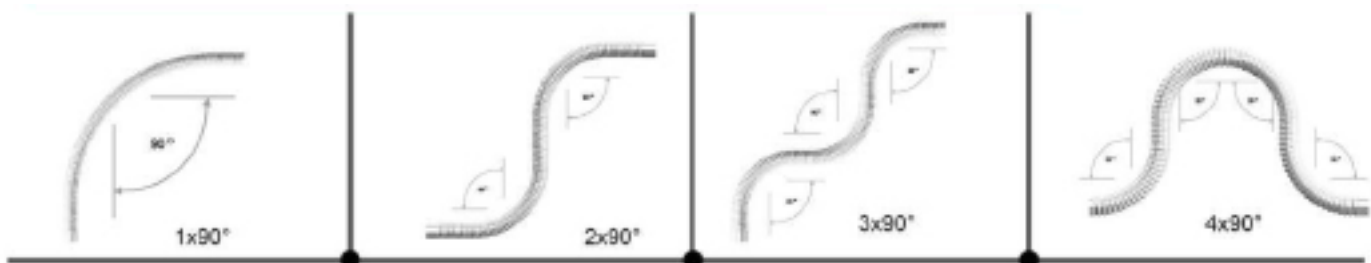
1. FLEXIBLE TUBE	304 STAINLESS STEEL
2. ISOLATION RING	NYLON 66
3. SEALING GASKET	EPDM
4. NUT	ZINC PLATED STEEL
5. NIPPLE 1"	ZINC PLATED STEEL
6. REDUCING NIPPLE	ZINC PLATED STEEL
7. BRAID	304 STAINLESS STEEL
8. COLLAR RING (INNER)	304 STAINLESS STEEL
9. COLLAR RING (OUTER)	304 STAINLESS STEEL
10. SQUARE BAR	ZINC PLATED STEEL
11. CENTER BRACKET	ZINC PLATED STEEL
12. 4" END BRACKET(S)	ZINC PLATED STEEL



CHARACTERISTICS:

- Minimum bend radius Braided 3" (230 mm)
- Flexibility Type: Limited

HOSE BENDING PARAMETERS



FLEXIBLE SPRINKLER DROP HOSE

UNBRAIDED CONNECTIONS



- Save Time & Money
- No cutting, no welding, no threading
- Perfect for retrofit applications
- Easy to move for layout changes
- Most flexible hose in its class.
UL: 3 bends 4" minimum radius

Full assembly includes Stainless Steel Unbraided Hose, Reducing Discharge Nipple, 1" Inlet Nipple, Hinged Lever Center Bracket, two End Brackets & 24" Square Bar

TECHNICAL DATA

- UL Approved for Unbraided
- Rated Pressure: 203 PSI (14 Bar)
- Max. Burst Pressure: 875 PSI (70 Bar)
- Maximum Ambient Temperature: 225°F (107°C)
- Designed for use in wet and dry systems
- Flexibility Type: Limited
- Hose Diameter: O.D. 1-1/16" / Flow 7/8"



Friction Loss Data and Specifications

UNBRAIDED



Length	1/2" NPT		3/4" NPT		Max. # of Bends	Min. Bending Radius
	ITEM #	Equivalent Length of 1 ft Sch 40 Pipe*	ITEM #	Equivalent Length of 1 ft Sch 40 Pipe*		
28" (0.6 m)	6530160	27 ft	6530170	28 ft	2	4"
40" (0.9 m)	6530161	37 ft	6530171	41 ft	2	4"
48" (1.2 m)	6530162	49 ft	6530172	47 ft	2	4"
60" (1.5 m)	6530163	63 ft	6530173	64 ft	3	4"
72" (1.8 m)	6530164	78 ft	6530174	80 ft	4	4"

*Based on UL Listing

*Based on UL Listing

COMPONENT LIST

NO	Part Name	Material	QTY
1	Corrugated Tube	304 Stainless Steel	1
2	Nut	Galv Steel (ASTM283)	2
3	Isolation Ring	Nylon 66	1
4	O-Ring	EPDM	1
5	Reducer	Zinc Plated Steel	1
6	Nipple	Galv Steel (ASTM283)	1
7	Center Bracket	Galv Steel (ASTM283)	1
8	End Bracket	Galv Steel (ASTM283)	2
9	Square Bar	Galv Steel (ASTM283)	1

Anchoring components are intended for use with drop ceilings conforming to ASTM C635 and other major standards when installed in accordance with the standard practice for installation of metal ceiling suspension systems for acoustical tile and lay-in panel, ASTM C635 or other equivalent standards.

System No.		Location		Spec Section		Paragraph	
Submitted By		Date		Approved		Date	

FLEXIBLE SPRINKLER DROP HOSE

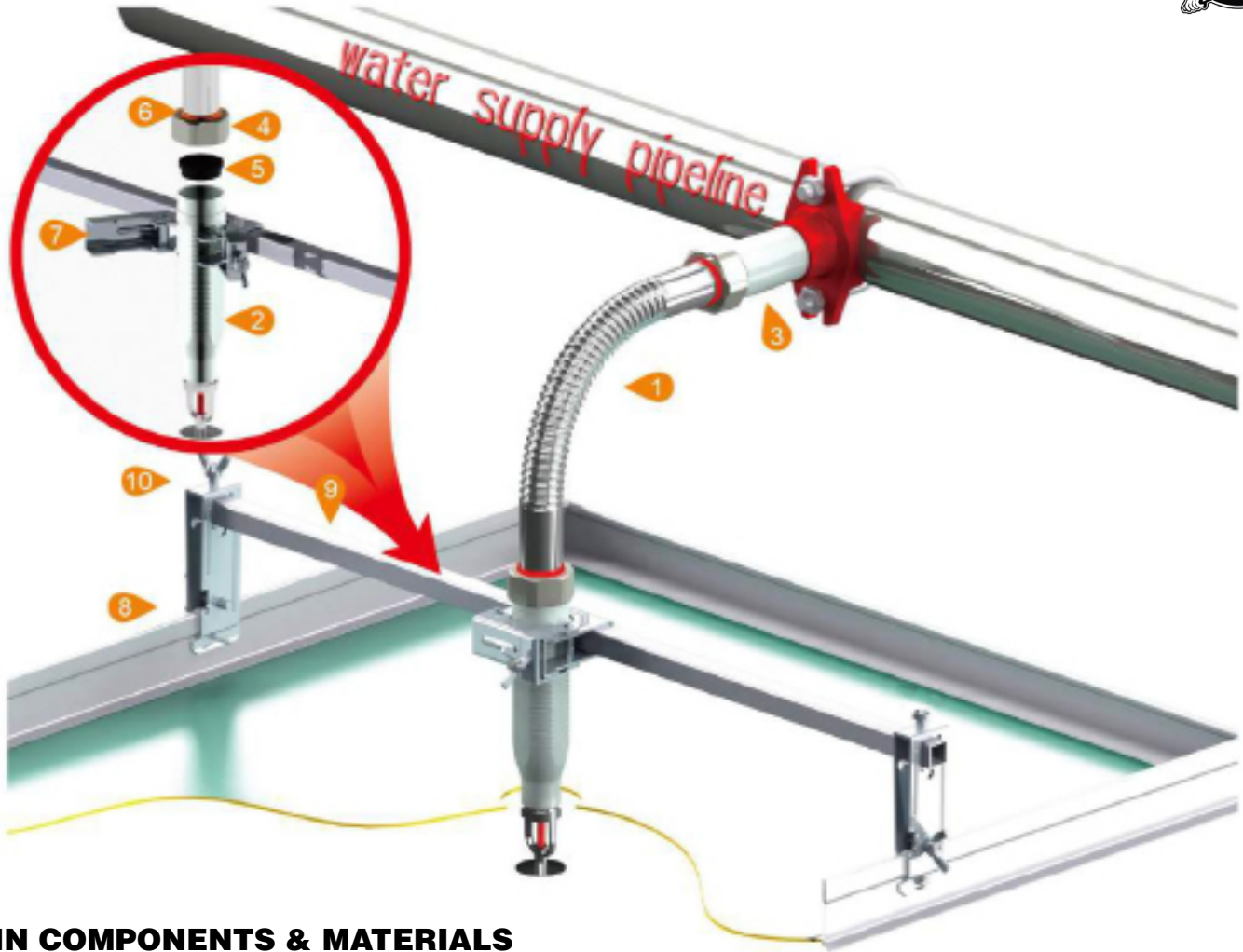
UNBRAIDED CONNECTIONS



Number of Bends Equivalent Length of 1 ft Sch 40 Pipe							
ITEM #	Length	NPT	0	1	2	3	4
6530160	28"	1/2"	13.8	20.0	27.0		
6530161	39"	1/2"	17.5	24.0	30.5		
6530162	47"	1/2"	29.5	36.0	42.5		
6530163	59"	1/2"	43.5	50.0	56.5	63.0	
6530164	71"	1/2"	58.0	64.5	69.7	74.9	80.1

Number of Bends Equivalent Length of 1 ft Sch 40 Pipe							
ITEM #	Length	NPT	0	1	2	3	4
6530170	28"	3/4"	20.4	24.3	28.0		
6530171	39"	3/4"	29.6	33.4	37.2		
6530172	47"	3/4"	35.6	39.4	43.2		
6530173	59"	3/4"	52.6	56.4	60.2	64.0	
6530174	71"	3/4"	59.1	66.3	71.5	76.7	81.9

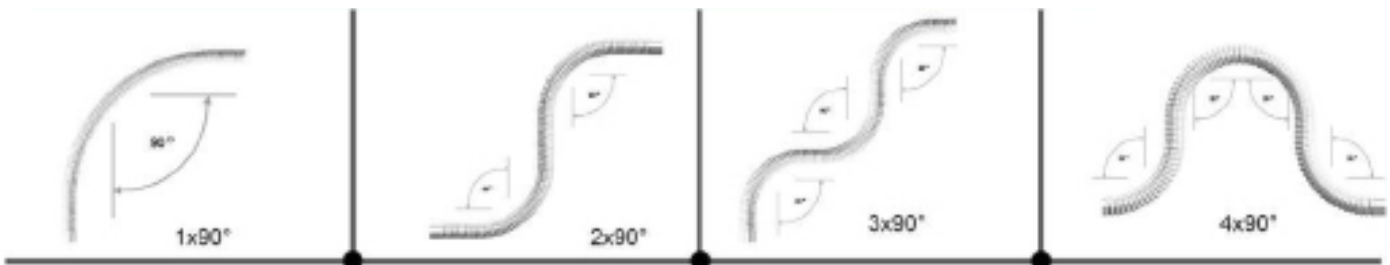
FLEXIBLE SPRINKLER DROP HOSE UNBRAIDED CONNECTIONS



MAIN COMPONENTS & MATERIALS

1. FLEXIBLE TUBE	304 STAINLESS STEEL	6. ISOLATION RING	NYLON 66
2. DISCHARGE NIPPLE 1"	ZINC PLATED STEEL	7. CENTER BRACKET	ZINC PLATED STEEL
3. INLET NIPPLE	ZINC PLATED STEEL	8. END BRACKET(S)	ZINC PLATED STEEL
4. NUT	ZINC PLATED STEEL	9. SQUARE BAR	ZINC PLATED STEEL
5. SEALING GASKET	EPDM	10. BOLTS & SCREWS	ZINC PLATED STEEL

HOSE BENDING PARAMETERS



FLEXIBLE SPRINKLER DROP HOSE

INSTALLATION INSTRUCTIONS



Determine the approximate place where the sprinklers will be located. The sprinkler should be located as close as possible to the center of the distance between ceiling grid's T-bars.

CONNECT INLET NIPPLE

Use a pipe wrench to screw the INLET NIPPLE into the branch outlet. Apply pipe joint compound or Teflon tape to the tapered threads to seal and tighten the branch line nipple into the branch line outlet, with 35ft-lbs/50N•m. DO NOT OVERTIGHTEN.



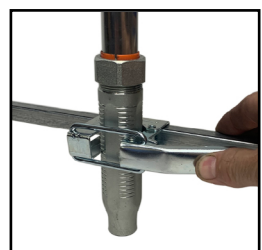
ATTACH BRACKET SET

Attach SIDE BRACKETS and SQUARE BAR to the main rail of the T-Bar grid, with the CENTER BRACKET in the middle. Tighten horizontal bolts on the side brackets with 3ft-lbs/4N•m. A second hole is pre-drilled for optional installation applications.



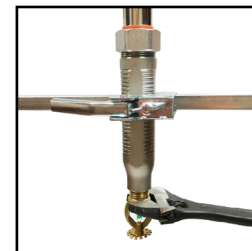
BENDING AND LOCATING

With CENTER BRACKET in the middle of the SQUARE BAR, bend the FLEXIBLE HOSE body as desired (According to hose bending parameters) and locate the DISCHARGE NIPPLE into the CENTER BRACKET and hinge arm and tighten wing nut with 3ft-lbs/4N•m torque, after the proper location of sprinkler head has been determined.



CONNECT DISCHARGE NIPPLE

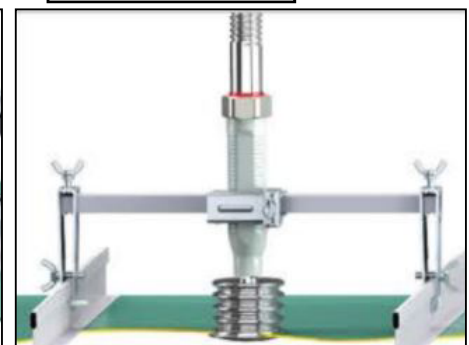
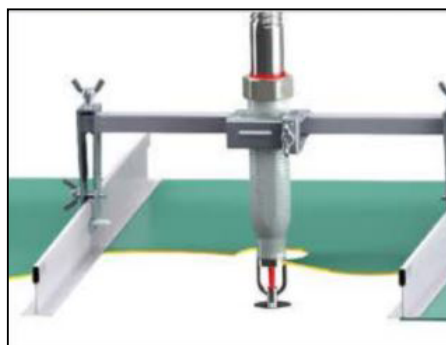
Apply Teflon tape to the male threads of the sprinkler. Tighten slip nuts of CENTER BRACKET and install sprinkler head to discharge nipple by following the sprinkler manufacturer's installation instructions.



TEST

After installation is complete, test the system for leaks in accordance with NFPA guidelines.

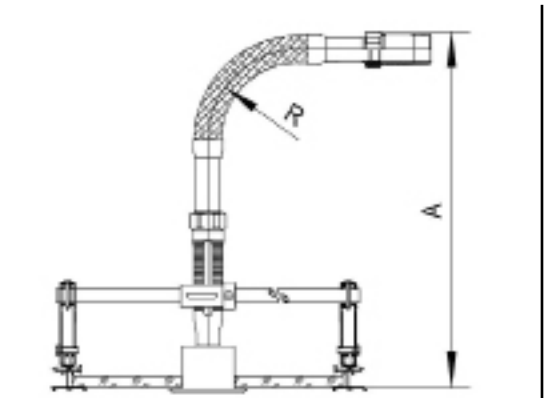
Simply add 4x sheet metal screws to build a tamper resistant installation.



FLEXIBLE SPRINKLER DROP HOSE

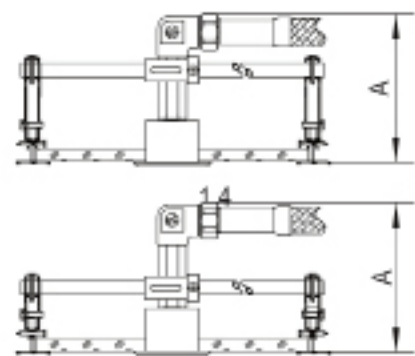
INSTALLATION CLEARANCE SPECIFICATIONS

Concealed Sprinklers on T-Bar Grid



Straight Reducer + Standard End Bracket

Installation Clearance (inch/mm)			
		UL	FM
R	min. bend radius	3.9/100	9.8/250
A	minimum height	13.4/340	20.0/510



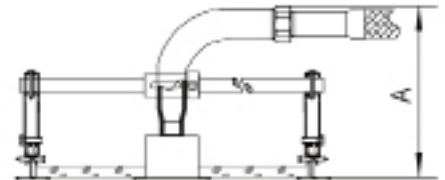
Cast Elbow Reducer + Long, Short & B-Shaped End Brackets

Installation Clearance (inch/mm)		
A	minimum height	5.3/135



Long End Bracket
4" Height

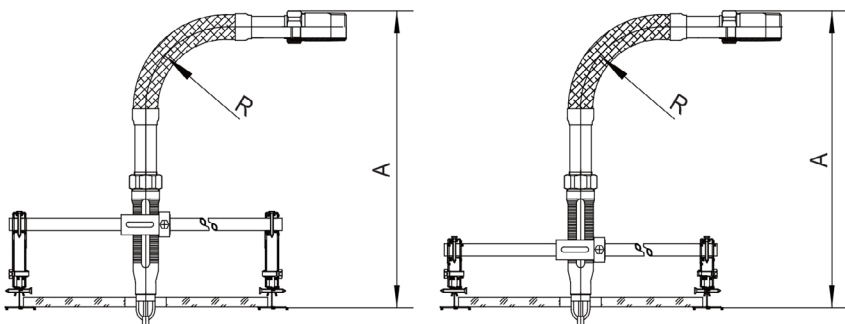
Short End Bracket
2-1/4" Height



Elbow Reducer + Long End Brackets

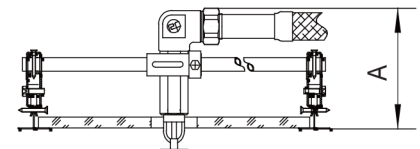
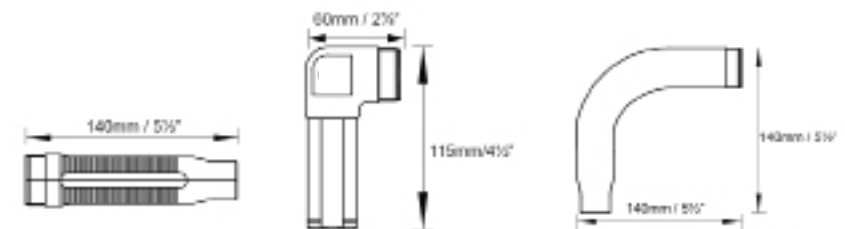
Installation Clearance (inch/mm)		
A	minimum height	6.3/160

Pendent Sprinklers on T-Bar Grid



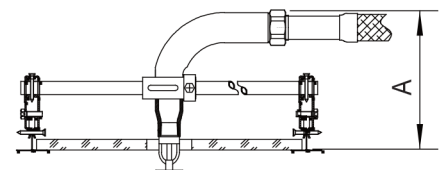
Straight Reducer + Long & Short End Bracket

Installation Clearance (inch/mm)					
		AR-UB		AR-BR	
		UL	FM	UL	FM
R	min. bend radius	3.9/100	9.8/250	3.9/100	9.8/250
A	minimum height	14.0/360	20.0/510	14.0/360	20.0/510



Cast 90° Reducer + Long & Short End Bracket

Installation Clearance (inch/mm)				
		AR-UB	AR-BR	AR-400-BR
		UL	FM	FM
A	min. height	5.3/135	5.3/135	5.3/135



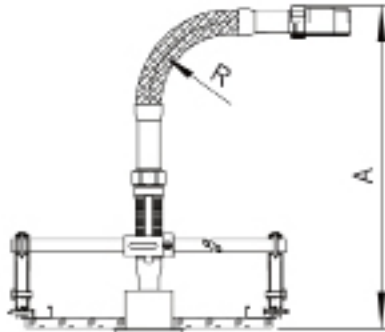
Long 90° Degree Reducer + Short End Bracket

Installation Clearance (inch/mm)				
		AR-UB	AR-BR	AR-400-BR
		UL	FM	FM
A	min. height	6.3/160	6.3/160	6.3/160

FLEXIBLE SPRINKLER DROP HOSE

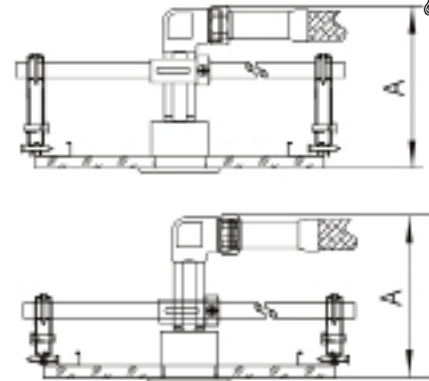
INSTALLATION CLEARANCE SPECIFICATIONS

Concealed Sprinklers on C-Beam



Straight Reducer + Long End Bracket

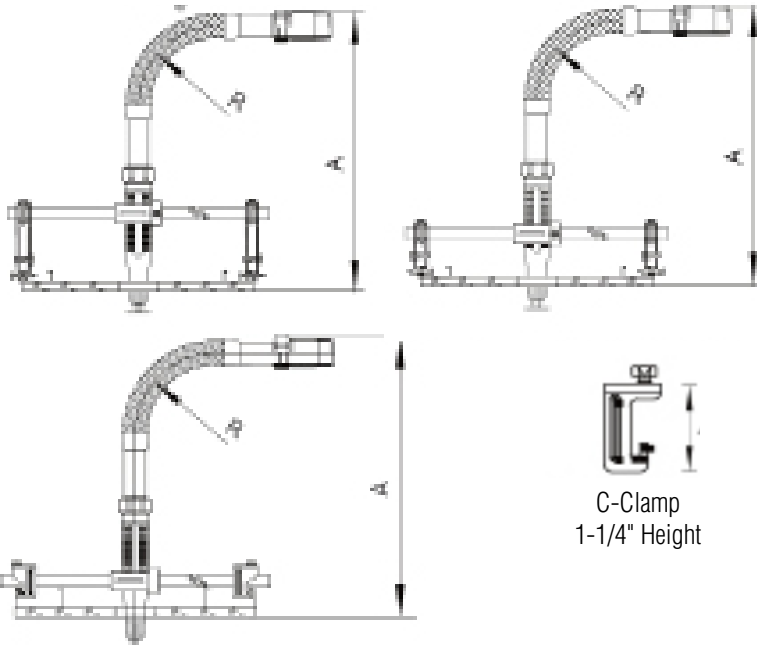
		Installation Clearance (inch/mm)				
		AR-UB	AR-BR		AR-400-BR	
		UL	UL	FM	UL	FM
R	min. bend radius	3.9/100	3.9/100	9.8/250	2/50	6.9/175
A	min. height	15.4/390	16.1/410	22/560	13.4/340	18.5/470



Cast 90° Degree Reducer + Long & Short End Bracket

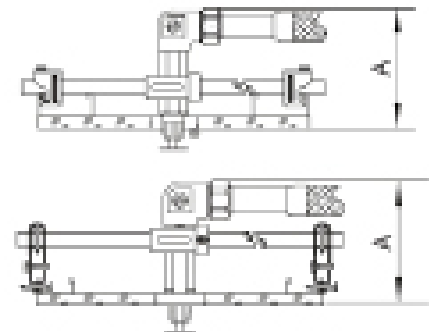
		Installation Clearance (inch/mm)		
		AR-UB	AR-BR	AR-400-BR
		UL	FM	FM
A	min. height	7.5/190	7.5/190	7.5/190

Pendent Sprinklers on C-Beam



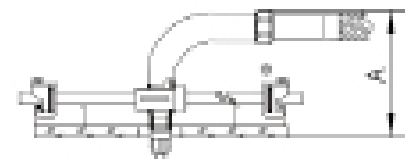
Straight Reducer + Long, Short End Bracket & C-Clamp

		Installation Clearance (inch/mm)				
		AR-UB	AR-BR		AR-400-BR	
		UL	UL	FM	UL	FM
R	min. bend radius	3.9/100	3.9/100	9.8/250	2/50	6.9/175
A	minimum height	13.4/340	14.0/360	20.0/510	11.4/360	16.5/420



Cast 90° Degree Reducer + Short End Bracket & C-Clamp

		Installation Clearance (inch/mm)		
		AR-UB	AR-BR	AR-400-BR
		UL	FM	FM
A	min. height	5.3/135	5.3/135	5.3/135

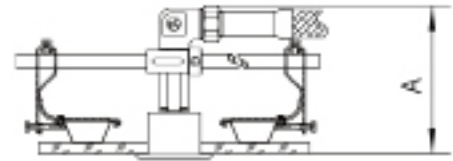
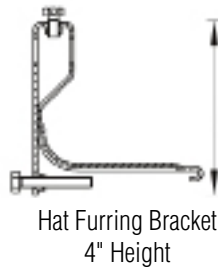
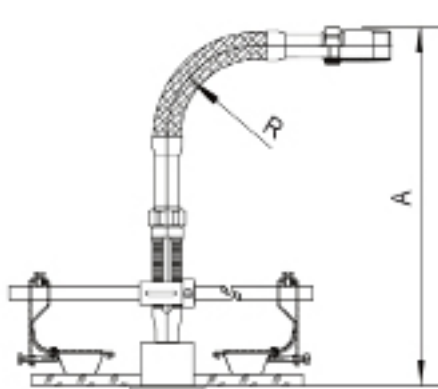


Elbow Reducer + Short End Bracket & C-Clamp

		Installation Clearance (inch/mm)		
		AR-UB	AR-BR	AR-400-BR
		UL	FM	FM
A	min. height	6.3/160	6.3/160	6.3/160

FLEXIBLE SPRINKLER DROP HOSE

INSTALLATION CLEARANCE SPECIFICATIONS



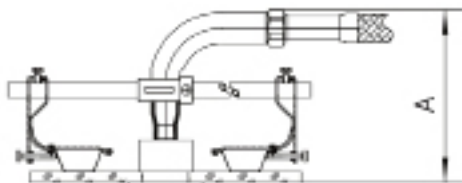
Straight Reducer + Hat Furring Bracket

		Installation Clearance (inch/mm)				
		AR-UB	AR-BR		AR-400-BR	
		UL	UL	FM	UL	FM
R	min. bend radius	3.9/100	3.9/100	9.8/250	2/50	6.9/175
A	min. height	15.4/390	16.1/410	22/560	13.4/340	18.5/470

Cast 90° Degree Reducer + Hat Furring Bracket

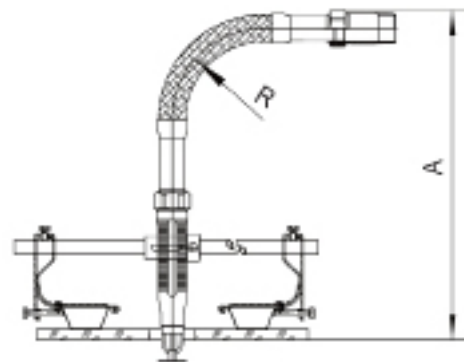
		Installation Clearance (inch/mm)		
		AR-UB	AR-BR	AR-400-BR
		UL	FM	FM
A	min. height	7.5/190	7.5/190	7.5/190

Pendent Sprinklers on Hat Furring Channel



Elbow Reducer + Hat Furring Bracket

		Installation Clearance (inch/mm)		
		AR-UB	AR-BR	AR-400-BR
		UL	FM	FM
A	min. height	8.3/210	8.3/210	8.3/210



Straight Reducer + Hat Furring Bracket

		Installation Clearance (inch/mm)				
		AR-UB	AR-BR		AR-400-BR	
		UL	UL	FM	UL	FM
R	min. bend radius	3.9/100	3.9/100	9.8/250	2/50	6.9/175
A	min. height	13.4/340	14/360	20/510	11.4/290	18.6/470

FLEXIBLE SPRINKLER DROP HOSE ACCESSORIES



90° Reducing Nipple

for Braided & Unbraided

[6530190](#): 1" x 1/2"

[6530192](#): 1" x 3/4"

for MegaFlex:

[6531190](#): 1" x 1/2"

[6531192](#): 1" x 3/4"



Straight Reducing Nipple

for Braided & Unbraided

[6530181](#): 1" x 1/2" standard

[6530180](#): 1" x 3/4" standard

[6530191](#): 1" x 1/2" x 10" length

for MegaFlex:

[6531181](#): 1" x 1/2" standard

[6531180](#): 1" x 3/4" standard

[6531191](#): 1" x 1/2" x 10" length

[6531191-3/4](#): 1" x 3/4" x 10" length



Flex Hose End Brackets

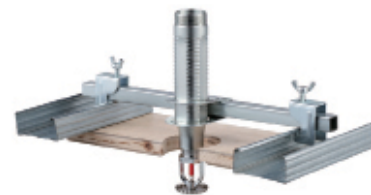
[6530185](#): Standard 4" End Brackets (sold each)

[6530183](#): Short 2-1/4" End Brackets (sold each)



[6530194](#):

Metal Stud End Bracket
(C-Clamp)



[6530195](#):

Furring Channel End Bracket
(Hat Channel Bracket)



Flex Hose Center Brackets

[6530184](#): Center bracket with hinged lever handle



Flex Hose Square Bar

[6530182](#): 25" Square bar to fit standard ceiling tile grids

Warranty:

We warrant all ARGCO Brand Flexible Fire Sprinkler Drop products to be free from defects in materials and workmanship under normal conditions of use and service.

Our obligation under this warranty is limited to repairing at our option at our factory or designated facility any product which shall within 1 year after delivery to the original buyer be returned with transportation charges prepaid, and which our examination and inspection shall show to our satisfaction to have been defective.

This warranty is made expressly in lieu of any other warranties, express or implied, including any implied warranty of merchantability or fitness for a particular purpose.

The buyer's sole and exclusive remedy shall be for the replacement or repair of defective products as provided herein.

The buyer agrees that no other remedy (including but not limited to), incidental or consequential damages for lost profits, lost sales, injury to person or property or any other incidental or consequential loss shall be available to him/her.

Argco neither assumes nor authorizes any person to assume for it any other liability in connection with the sale of such products.

This warranty shall not apply to any product which has been the subject to misuse, negligence or accident, which has been repaired or altered in any manner outside of Argco's factory or designated facility or which has been used in a manner contrary to Argco's instructions, recommendations or generally accepted practices.

Argco shall not be responsible for design errors due to inaccurate or incomplete information supplied by the buyer or his representatives.



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