

## SuperFlex® Hoses Fig. FH200 Hose Series



Fig. FH200 Hose Series cULus & FM Approved Brackets

FlexHead Bracket	Fig. #	Size	FH206, FH206S, FH206G FH209, FH209S, FH209G		FH222, FH222S, FH222G FH224, FH224S, FH224G FH225, FH225S, FH225G FH226, FH226S, FH226G	
			cULus	FM	cULus	FM
FH120		24"	✓	✓	✓	✓
		48"		✓		✓
FH150		24"	✓	✓	✓	✓
FH101		-	✓	✓	✓	✓
FH110		16"	✓	✓	✓	✓
		24"	✓	✓	✓	✓
BKT-MPT		48"		✓		✓
		24"	✓	✓		
BKT-ADO		16"	✓	✓		
		24"	✓	✓		
		30"		✓		
BKT-MPO		48"		✓		
		24"	✓	✓		
BKT-UH03		-		✓		

### Product Specifications

#### Hose Figure Number

FH206	FH206S	FH206G
FH209	FH209S	FH209G
FH222	FH222S	FH222G
FH224	FH224S	FH224G
FH225	FH225S	FH225G
FH226	FH226S	FH226G

#### Hose Assembly Number

24in	60in
36in	72in
48in	

#### Outlet Thread Size (ASME B1.20.1)

½ NPT	¾ NPT
-------	-------

#### Inlet Nipple Style

FH2XX:	1 MNPT Thread
FH2XXS:	1 FP74 Coupling
FH2XXG:	1 NPS Groove

#### Pressure Rating

UL & FM: 175psi (1,205kPa)

#### Minimum Bend Radius

UL: 2.0in (50.8mm)  
FM: 7.0in (177.8mm)

#### Ambient Temperature

300°F (145°C) Max

#### Material

304 Stainless Steel Hose

#### Features

- 100% Leak Tested Fully Welded Design
- Pre-Installed Sprinkler Head option available upon request
- Compliant with NFPA 13, 13R, & 13D
- Compliant with the FM Datasheets
- Wet, Dry, & Pre-Action Sprinkler Systems
- UL Listed for "Limited Flexibility".

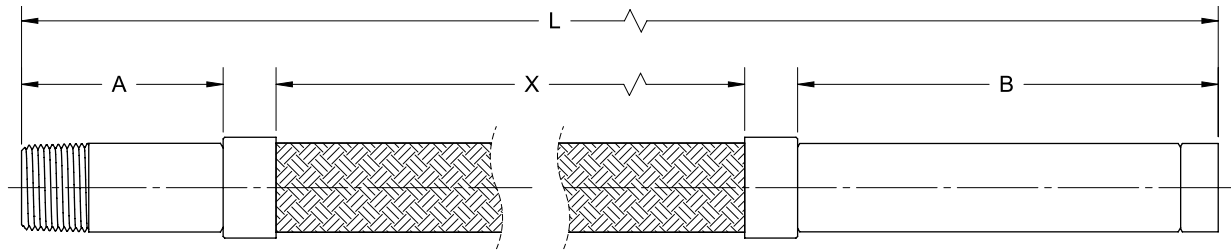
#### Ordering

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

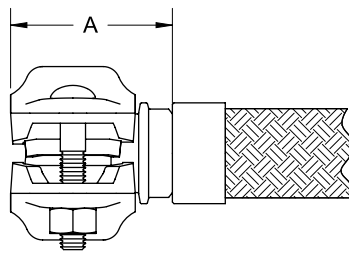


PROJECT INFORMATION	APPROVAL STAMP
Project:	Approved
Address:	Approved as noted
Contractor:	Not approved
Engineer:	Remarks:
Submittal Date:	
Notes 1:	
Notes 2:	

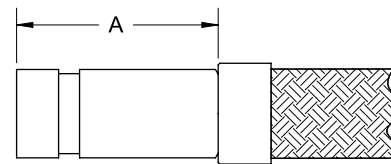
## FH206 & FH209 Series Straight Drop Hoses Fig. FH206, FH206S, FH206G, FH209, FH209S, FH209G



FH206 & FH209



FH206S & FH209S – FP74 Inlet



FH206G & FH209G – Grooved Inlet

Fig. FH206 & FH209 Series Dimensions

Assembly Length	True Length (L)				Braid Length (X)				Inlet Nipple Length (A)	
	FH206	FH209	FH206	FH209	FH206	FH209	FH206	FH209	in	mm
in	in	in	mm	mm	in	in	mm	mm		
24	24.0	26.7	610	678	14.7	14.7	373	373		
36	36.0	38.7	914	983	26.7	26.7	678	678		
48	48.0	50.7	1219	1288	38.7	38.7	983	983	3.0	76.2
60	60.0	62.7	1524	1593	50.7	50.7	1288	1288		
72	72.0	72.0	1829	1829	62.7	60.0	1593	1524		

### Dimensions (Continued)

Figure Number	Outlet Drop Length (B)	
	in	mm
-		
FH206, FH206S, FH206G	6.3	160
FH209, FH209S, FH209G	9.0	203

1. The Inlet on the FH206 is a male 1 NPT thread.
2. The Inlet on the FH206S is the FP74 Coupling and may install on industry standard 1 NPS roll or cut grooves.
3. The Inlet on the FH206G is a 1 NPS cut groove and is compatible with industry standard 1 NPS couplings.
4. The listed & approved FlexHead brackets may be installed on the entire "B" section of the outlet drop.



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## FH206 Series Straight Drop Hoses Fig. FH206, FH206S, FH206G

Fig. FH206 Series cULus Listing per UL 2443 & FM Approval (Listing) per FM 1637

Outlet Thread Size	Nominal Length	Equivalent Length							Max # of 90° Bends		
		UL		FM					UL		FM
		3-Bend	Max	k = 5.6	k = 8.0	k = 11.2	k = 14.0	k = 16.8	3-Bend	Max	
ft/m	ft/m	ft/m	ft/m	ft/m	ft/m	ft/m	ft/m	#	#	#	
½ NPT	24	15 4.6	16 4.9	3.7 1.1	4.5 1.4	7.5 2.3	-	-	3	4	1
	36	20 6.1	23 7.0	16.2 4.9	16.9 5.2	11.5 3.5	-	-	3	5	2
	48	22 6.7	32 9.8	28.7 8.7	29.3 8.9	15.4 4.7	-	-	3	8	3
	60	23 7.0	44 13.4	41.2 12.5	41.7 12.7	19.3 5.9	-	-	3	10	3
	72	32 9.8	54 16.5	53.9 16.4	54.3 16.5	23.2 7.0	-	-	3	12	4
¾ NPT	24	18 5.5	19 5.8	-	8.8 2.6	8.7 2.6	12.5 3.8	13.2 4.0	3	4	1
	36	23 7.0	26 7.9	-	21.5 6.5	21.6 6.5	21.8 6.6	22.0 6.7	3	5	2
	48	27 8.2	41 12.5	-	30.5 9.2	30.6 9.3	31.1 9.4	30.8 9.3	3	8	3
	60	34 10.4	56 17.1	-	39.5 12.0	39.6 12.0	40.4 12.3	39.6 12.1	3	10	4
	72	39 11.9	63 19.2	-	48.5 14.7	48.8 14.8	49.9 15.2	48.6 14.8	3	12	4

1. Equivalent Length of 1 NPS (DN25) Sch 40 Pipe.
2. Equivalent Lengths listed above assume the corresponding number of 90° bends listed to the right of the table.
3. A 90° bend can be achieved with two 45° bends or three 30° bends.
4. UL Equivalent Lengths are listed for installation with sprinklers with a maximum k-factor of 14.0.
5. FM Equivalent Lengths listed above include the Friction Loss of the Sprinkler.



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## FH209 Series Straight Drop Hoses Fig. FH209, FH209S, FH209G

Fig. FH209 Series cULus Listing per UL 2443 & FM Approval (Listing) per FM 1637

Outlet Thread Size	Nominal Length	Equivalent Length							Max # of 90° Bends		
		UL		FM					UL		FM
		3-Bend	Max	k = 5.6	k = 8.0	k = 11.2	k = 14.0	k = 16.8	3-Bend	Max	
	ft/m	ft/m	ft/m	ft/m	ft/m	ft/m	ft/m	ft/m	#	#	#
½ NPT	24	14 4.3	17 5.2	13.7 4.1	4.5 1.4	7.5 2.3	-	-	3	4	1
	36	18 5.5	26 7.9	16.2 4.9	16.9 5.2	11.5 3.5	-	-	3	5	2
	48	22 6.7	40 12.2	28.7 8.7	29.3 8.9	15.4 4.7	-	-	3	8	3
	60	28 8.5	50 15.2	41.2 12.5	41.7 12.7	19.3 5.9	-	-	3	10	4
	72	33 10.1	56 17.1	53.9 16.4	54.3 16.5	23.2 7.0	-	-	3	12	4
¾ NPT	24	17 5.2	20 6.1	-	8.8 2.6	8.7 2.6	12.5 3.8	13.2 4.0	3	4	1
	36	25 7.6	29 8.8	-	21.5 6.5	21.6 6.5	21.8 6.6	22.0 6.7	3	5	2
	48	30 9.1	45 13.7	-	30.5 9.2	30.6 9.3	31.1 9.4	30.8 9.3	3	8	3
	60	34 10.4	54 16.5	-	39.5 12.0	39.6 12.0	40.4 12.3	39.6 12.0	3	10	4
	72	37 11.3	64 19.5	-	48.5 14.7	48.8 14.8	49.9 15.2	48.6 14.8	3	12	4

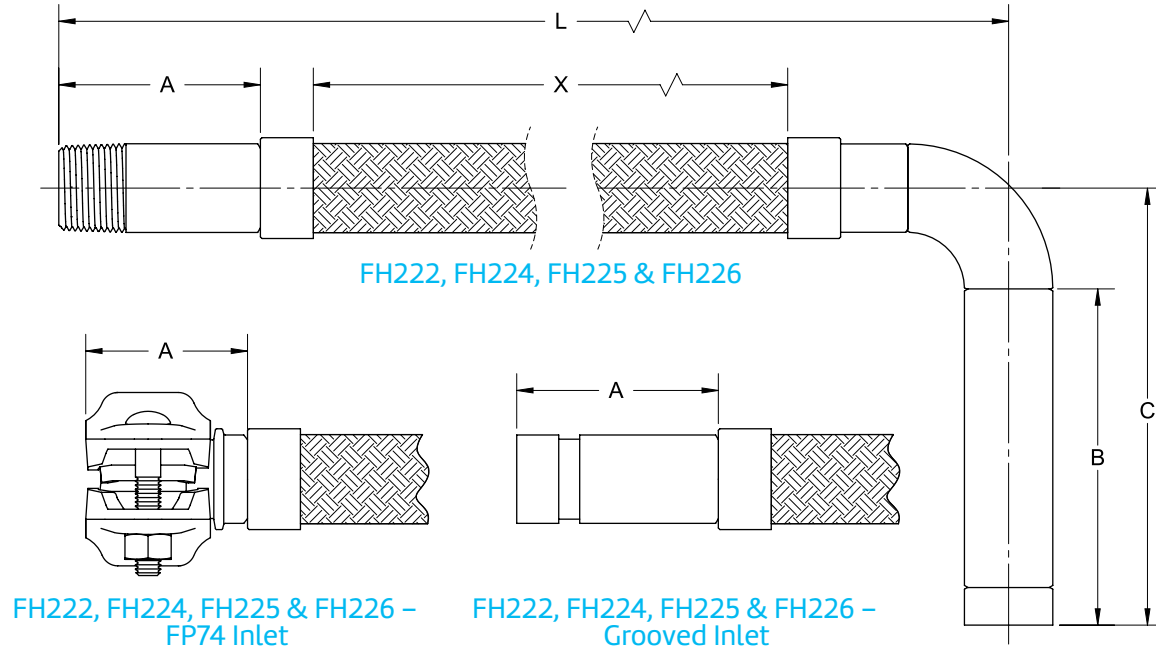
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4. UL Equivalent Lengths are listed for installation with sprinklers with a maximum k-factor of 14.0.
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FH222, FH224, FH225, FH226 Series Elbow Drop Hoses  
**Fig. FH222, FH222S, FH222G, FH224, FH224S, FH224G, FH225, FH225S, FH225G, FH226, FH226S, FH226G**



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## FH222, FH224, FH225 & FH226 Series Elbow Drop Hoses **Fig. FH222, FH222S, FH222G, FH224, FH224S, FH224G, FH225, FH225S, FH225G, FH226, FH226S, FH226G continued**

**Fig. FH222, FH224, FH225 & FH226 Series Dimensions**

Nominal Length	True Length (L)		Braid Length (X)		Inlet Nipple Length (A)		Outlet Drop Length (B)	Outlet Drop Length (C)
	in	mm	in	mm	in	mm		
24	20.2	518	14.7	373			-	-
36	32.2	827	26.7	678				
48	44.2	1127	38.7	983	3.0	76.2	See Below	See Below
60	56.2	1427	50.7	1288				
72	68.2	1727	62.7	1593				

**Dimensions (Continued)**

Figure Number	Outlet Drop Length (B)		Outlet Drop Height (C)	
	in	mm	in	mm
-				
FH222, FH222S, FH222G	2.0	50.8	3.5	88.9
FH224, FH224S, FH224G	4.0	101.6	5.5	139.7
FH225, FH225S, FH225G	5.0	127.0	6.5	165.1
FH226, FH226S, FH226G	6.0	152.4	7.5	190.5



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## FH222 Series Elbow Drop Hoses Fig. FH222, FH222S, FH222G

Fig. FH222 Series cULus Listing per UL 2443 & FM Approval (Listing) per FM 1637

Outlet Thread Size	Nominal Length	Equivalent Length							Max # of 90° Bends		
		UL		FM					UL		FM
		3-Bend	Max	k = 5.6	k = 8.0	k = 11.2	k = 14.0	k = 16.8	3-Bend	Max	
	In	ft/m	ft/m	ft/m	ft/m	ft/m	ft/m	ft/m	#	#	#
½ NPT	24	12 3.7	16 4.9	32.1 9.8	31.4 9.6	50.5 15.4	-	-	3	4	1
	36	18 5.5	22 6.7	38.8 11.8	41.7 12.7	61.2 18.7	-	-	3	5	2
	48	22 6.7	36 11.0	45.5 13.9	45.8 14.0	65.5 20.0	-	-	3	8	3
	60	26 7.9	47 14.3	52.2 15.9	51.5 15.7	71.4 21.8	-	-	3	10	3
	72	31 9.4	57 17.4	58.9 18.0	56.2 17.1	76.3 23.3	-	-	3	12	4
¾ NPT	24	18 5.5	20 6.1	-	16.8 5.1	17.0 5.2	15.4 4.7	17.1 5.2	3	4	1
	36	23 7.0	28 8.5	-	23.7 7.2	29.1 8.9	27.8 8.5	29.0 8.8	3	5	2
	48	27 8.2	39 11.9	-	31.2 9.5	33.8 10.3	32.7 10.0	33.6 10.2	3	8	3
	60	29 8.8	49 14.9	-	38.8 11.8	40.5 12.3	39.6 12.1	40.1 12.2	3	10	3
	72	36 11.0	59 18.0	-	46.3 14.1	46.0 14.0	45.3 13.8	45.5 13.9	3	12	4

1. Equivalent Length of 1 NPS (DN25) Sch 40 Pipe.
2. Equivalent Lengths listed above assume the corresponding number of 90° bends listed to the right of the table.
3. A 90° bend can be achieved with two 45° bends or three 30° bends.
4. UL Equivalent Lengths are listed for installation with sprinklers with a maximum k-factor of 14.0.
5. FM Equivalent Lengths listed above include the Friction Loss of the Sprinkler.



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## FH224 Series Elbow Drop Hoses Fig. FH224, FH224S, FH224G

Fig. FH224 Series cULus Listing per UL 2443 & FM Approval (Listing) per FM 1637

Outlet Thread Size	Nominal Length	Equivalent Length							Max # of 90° Bends		
		UL		FM					UL		FM
		3-Bend	Max	k = 5.6	k = 8.0	k = 11.2	k = 14.0	k = 16.8	3-Bend	Max	#
-	In	ft/m	ft/m	ft/m	ft/m	ft/m	ft/m	ft/m	#	#	#
½ NPT	24	12 3.7	16 4.9	32.1 9.8	31.4 9.6	50.5 15.4	-	-	3	4	1
	36	18 5.5	22 6.7	38.8 11.8	41.7 12.7	61.2 18.7	-	-	3	5	2
	48	22 6.7	36 11.0	45.5 13.9	45.8 14.0	65.5 20.0	-	-	3	8	3
	60	26 7.9	47 14.3	52.2 15.9	51.5 15.7	71.4 21.8	-	-	3	10	4
	72	31 9.4	57 17.4	58.9 18.0	56.2 17.1	76.3 23.3	-	-	3	12	4
¾ NPT	24	18 5.5	20 6.1	-	16.8 5.1	17.0 5.2	15.4 4.7	17.1 5.2	3	4	1
	36	23 7.0	28 8.5	-	23.7 7.2	29.1 8.9	27.8 8.5	29.0 8.8	3	5	2
	48	27 8.2	39 11.9	-	31.2 9.5	33.8 10.3	32.7 10.0	33.6 10.2	3	8	3
	60	29 8.8	49 14.9	-	38.8 11.8	40.5 12.3	39.6 12.1	40.1 12.2	3	10	4
	72	36 11.0	59 18.0	-	46.3 14.1	46.0 14.0	45.3 13.8	45.5 13.9	3	12	4

1. Equivalent Length of 1 NPS (DN25) Sch 40 Pipe.
2. Equivalent Lengths listed above assume the corresponding number of 90° bends listed to the right of the table.
3. A 90° bend can be achieved with two 45° bends or three 30° bends.
4. UL Equivalent Lengths are listed for installation with sprinklers with a maximum k-factor of 14.0.
5. FM Equivalent Lengths listed above include the Friction Loss of the Sprinkler.



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## FH225 Series Elbow Drop Hoses Fig. FH225, FH225S, FH225G

Fig. FH225 Series cULus Listing per UL 2443 & FM Approval (Listing) per FM 1637

Outlet Thread Size	Nominal Length	Equivalent Length							Max # of 90° Bends		
		UL		FM					UL		FM
		3-Bend	Max	k = 5.6	k = 8.0	k = 11.2	k = 14.0	k = 16.8	3-Bend	Max	
	In	ft/m	ft/m	ft/m	ft/m	ft/m	ft/m	ft/m	#	#	#
½ NPT	24	12 3.7	16 4.9	32.1 9.8	31.4 9.6	50.5 15.4	-	-	3	4	1
	36	18 5.5	22 6.7	38.8 11.8	41.7 12.7	61.2 18.7	-	-	3	5	2
	48	22 6.7	36 11.0	45.5 13.9	45.8 14.0	65.5 20.0	-	-	3	8	3
	60	26 7.9	47 14.3	52.2 15.9	51.5 15.7	71.4 21.8	-	-	3	10	4
	72	31 9.4	57 17.4	58.9 18.0	56.2 17.1	76.3 23.3	-	-	3	12	4
¾ NPT	24	18 5.5	20 6.1	-	16.8 5.1	17.0 5.2	15.4 4.7	17.1 5.2	3	4	1
	36	23 7.0	28 8.5	-	23.7 7.2	29.1 8.9	27.8 8.5	29.0 8.8	3	5	2
	48	27 8.2	39 11.9	-	31.2 9.5	33.8 10.3	32.7 10.0	33.6 10.2	3	8	3
	60	29 8.8	49 14.9	-	38.8 11.8	40.5 12.3	39.6 12.1	40.1 12.2	3	10	4
	72	36 11.0	59 18.0	-	46.3 14.1	46.0 14.0	45.3 13.8	45.5 13.9	3	12	4

1. Equivalent Length of 1 NPS (DN25) Sch 40 Pipe.
2. Equivalent Lengths listed above assume the corresponding number of 90° bends listed to the right of the table.
3. A 90° bend can be achieved with two 45° bends or three 30° bends.
4. UL Equivalent Lengths are listed for installation with sprinklers with a maximum k-factor of 14.0.
5. FM Equivalent Lengths listed above include the Friction Loss of the Sprinkler.



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## FH226 Series Elbow Drop Hoses Fig. FH226, FH226S, FH226G

Fig. FH226 Series cULus Listing per UL 2443 & FM Approval (Listing) per FM 1637

Outlet Thread Size	Nominal Length	Equivalent Length							Max # of 90° Bends		
		UL		FM					UL		FM
		3-Bend	Max	k = 5.6	k = 8.0	k = 11.2	k = 14.0	k = 16.8	3-Bend	Max	#
-	In	ft/m	ft/m	ft/m	ft/m	ft/m	ft/m	ft/m	#	#	#
½ NPT	24	12 3.7	16 4.9	32.1 9.8	31.4 9.6	50.5 15.4	-	-	3	4	1
	36	18 5.5	22 6.7	38.8 11.8	41.7 12.7	61.2 18.7	-	-	3	5	2
	48	22 6.7	36 11.0	45.5 13.9	45.8 14.0	65.5 20.0	-	-	3	8	3
	60	26 7.9	47 14.3	52.2 15.9	51.5 15.7	71.4 21.8	-	-	3	10	4
	72	31 9.4	57 17.4	58.9 18.0	56.2 17.1	76.3 23.3	-	-	3	12	4
¾ NPT	24	18 5.5	20 6.1	-	16.8 5.1	17.0 5.2	15.4 4.7	17.1 5.2	3	4	1
	36	23 7.0	28 8.5	-	23.7 7.2	29.1 8.9	27.8 8.5	29.0 8.8	3	5	2
	48	27 8.2	39 11.9	-	31.2 9.5	33.8 10.3	32.7 10.0	33.6 10.2	3	8	3
	60	29 8.8	49 14.9	-	38.8 11.8	40.5 12.3	39.6 12.1	40.1 12.2	3	10	4
	72	36 11.0	59 18.0	-	46.3 14.1	46.0 14.0	45.3 13.8	45.5 13.9	3	12	4

1. Equivalent Length of 1 NPS (DN25) Sch 40 Pipe.
2. Equivalent Lengths listed above assume the corresponding number of 90° bends listed to the right of the table.
3. A 90° bend can be achieved with two 45° bends or three 30° bends.
4. UL Equivalent Lengths are listed for installation with sprinklers with a maximum k-factor of 14.0.
5. FM Equivalent Lengths listed above include the Friction Loss of the Sprinkler.



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## SuperFlex® Hoses Fig. FH200 Hose Series

### Installation Instructions

#### Connection to the Threaded Branch – FH2XX models

- 1 Inspect both male and female threads prior to assembly. Threads should be free from mechanical damage, dirt, chips, and excess cutting oil. Clean components as necessary.
- 2 Apply pipe dope, sealant, or tape to the male NPT thread on the hose.
- 3 Thread into the branch outlet. Tighten the assembly wrench-tight by placing the pipe wrench on the pipe nipple section. Only place the pipe wrench on the unthreaded portion of the inlet nipple.
- 4 Typical wrench-tight makeup is 3 full turns past hand-tight. Typical hand-tight makeup is between 4½ to 5 turns.

#### Connection to the Grooved Branch – FH2XXS models

- 1 Slide the FP74 coupling over the grooved end of the branch fitting until the key of the coupling is located over the grooves.
- 2 Tighten nuts equally and alternately (keeping the gaps at the bolt pads evenly spaced), until nuts reach 40-50 ft-lbs.
- 3 Installation per FP74 Installation Instructions. Visit [www.asc-es.com](http://www.asc-es.com) for the current edition of the installation instructions.

#### Connection to the Grooved Branch – FH2XXG models

- 1 The inlet nipple shall be connected to the branch outlet with a 1 NPS grooved coupling designed for installation with AWWA C606 grooves.

#### Connection to the Sprinkler Head

- 1 Install the sprinkler head into the outlet threads per the sprinkler manufacturer's installation instructions.
- 2 If installing a sprinkler to a hose after the hose has been connected to the bracket, it is best practice to prevent twisting of the bracket and hose by holding the outlet drop with a pipe wrench.

#### Connection to the Bracket

- 1 Installation of the hose to the bracket shall be per the bracket's installation instructions. See Page 1 for Listed and Approved brackets.

#### 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 must have at least one 90° bend. A 90° bend can be achieved with two 45° bends or three 30° bends.
- 4 For best performance, the bends in the hose should be as large and smooth as possible.

#### General Installation Notes

- 1 Never apply a wrench to the braided section of the hose.
- 2 The hose inlet may be installed in any direction from the branch.



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