

# Victaulic® VicFlex™ Sprinkler Fittings

## Series AH3 Braided Flexible Hose



### 1.0 PRODUCT DESCRIPTION

#### Available Sizes by Component

- **Series AH3 0.8"/DN20 Nominal ID Braided Hose:** 31, 36, 48, 60, 72"/790, 914, 1220, 1525, 1830 mm. Note: length includes adapter nipple and 5.75"/146 mm straight reducer.
- **Sprinkler Reducers:**
  - **Sprinkler Connections:** ½ and ¾"/15 and 20 mm NPT or BSPT
  - **Straight Lengths:** 5.75, 9, 13"/146, 230, 330 mm
  - **90° Elbows:**
    - **Short** (typically used with concealed sprinklers)
    - **Long** (typically used with recessed pendent sprinklers)
    - **Low Profile Short** (for use with Style AB5, AB11 and AB12 Bracket)
    - **Low Profile Long** (for use with Style AB5, AB11 and AB12 Bracket)
- **Inlet Connections:**
  - 1"/25 mm NPT or BSPT adapter nipples for attaching to pipe and fittings outlined in NFPA standards
  - ¾"/20 mm NPT or BSPT adapter nipples available for VdS
- **Brackets:**
  - Style AB2 for suspended and hard-lid ceilings, allows for vertical sprinkler adjustment, and installation before ceiling tiles in place
  - Style AB4 for hard-lid ceilings with hat furring channel grid systems, allows for vertical sprinkler adjustment
  - Style AB5 for hard-lid ceilings, allows for vertical sprinkler adjustment
  - Style AB7 Adjustable for suspended and hard-lid ceilings
  - Style AB11 for lay-in panel suspended t-grid ceilings or drywall suspended t-grid ceilings, allows for low profile installations (use only with 90° low profile elbows)
  - Style AB12 for suspended and hard-lid ceilings, allows for vertical sprinkler adjustment, and allows for low profile installation down to 4"/100mm.
  - Style ABBA bracket for suspended, exposed, and hard-lid ceilings
  - Style ABMM bracket for surface mount and stand off-mount applications, wood, metal and block walls, or ceilings and hard-lid ceilings

#### Maximum Working Temperature

- 225°F/107°C

ALWAYS REFER TO ANY NOTIFICATIONS AT THE END OF THIS DOCUMENT REGARDING PRODUCT INSTALLATION, MAINTENANCE OR SUPPORT.

System No.		Location	
Submitted By		Date	

Spec Section		Paragraph	
Approved		Date	

## 1.0 PRODUCT DESCRIPTION (Continued)

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### Maximum Working Pressure

- 200 psi/1375 kPa (FM Approval)
- 1600 kPa/232 psi (VdS Approved)

### Connections

- To adapter nipple (inlet) via 1"/25.4 mm NPT or BSPT male thread
- OR
- To adapter nipple (inlet) via ¾"/20 mm BSPT male thread (VdS only)
  - To sprinkler head (outlet) via ½"/15mm or ¾"/20 mm

### Minimum Bend Radius

- 7"/178 mm (FM Approval)
- 3"/76.2 mm (VdS Approved)

### Maximum Allowable Sprinkler K-Factors

- FM (½"/15mm reducer) K5.6/8,1 (S.I.), (¾"/20mm reducer) K14.0/20,2 (S.I.)
- VdS (½"/15mm reducer) K5.6/8,1 (S.I.), (¾"/20mm reducer) K8.0/11,5 (S.I.)

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## 2.0 CERTIFICATION/LISTINGS

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## 3.0 SPECIFICATIONS – MATERIAL

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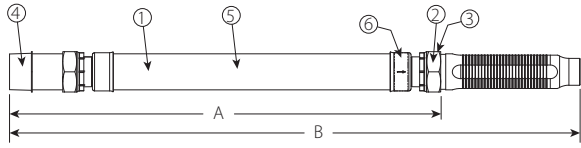
### Series AH3

- **Flexible Hose:** 300-series Stainless Steel
- **Collar/Weld Fitting:** 300-series Stainless Steel
- **Gasket Seal:** Victaulic EPDM
- **Nut and Adapter Nipple:** Carbon Steel, Zinc Plated
- **Reducer (½ or ¾"):** Carbon Steel, Zinc-Plated

**Brackets:** Carbon Steel, Zinc-Plated

## 4.0 DIMENSIONS

### Product Details - Series AH3 Braided Hose

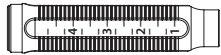


Item	Description
1	Flexible Hose
2	Gasket
3	Nut
4	Branch Line Adapter Nipple
5	Braid
6	Collar/Weld Fitting

### Hose Length Dimensions

Hose Length inches mm	A inches mm	B inches mm
31/790	25.25/641	31/790
36/915	30.25/768	36/915
48/1220	42.25/1073	48/1220
60/1525	54.25/1378	60/1525
72/1830	66.25/1683	72/1830

### Standard Reducer

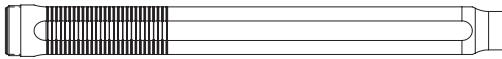


5.75"/146 mm straight reducer

### Optional Reducers

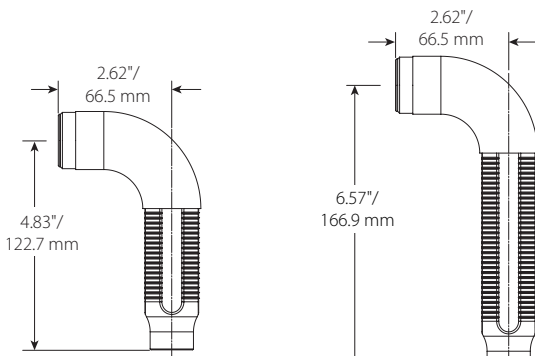


9.0"/230 mm straight reducer



13.0"/330 mm straight reducer

### Standard Elbow Reducers



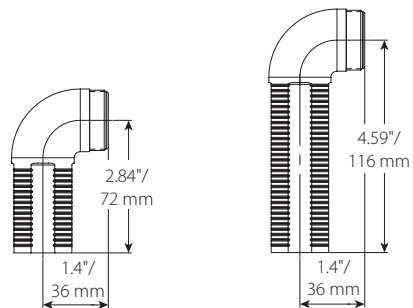
Short 90° elbow reducer

Long 90° elbow reducer

#### NOTE

- The Short 90° elbow reducer is typically used with concealed sprinklers while the Long 90° elbow is typically used in the installation of recessed pendent sprinklers.

### Low Profile Elbow Reducers



Short 90° low profile elbow reducer

Long 90° low profile elbow reducer

#### NOTE

- Style AB11: When low profile elbows are used with the Style AB11 bracket, the Low Profile Short Elbow is typically used with concealed sprinklers while the Low Profile Long Elbow is typically used in the installation of recessed pendent sprinklers.

## 4.1 DIMENSIONS

### VicFlex Brackets

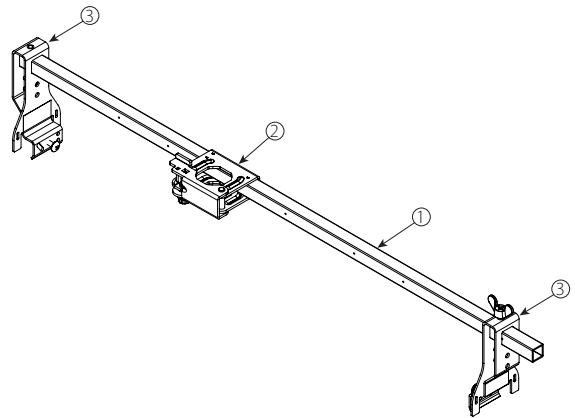
#### Style AB2

- Suspended Ceilings
- Hard-Lid Ceilings

Item	Description
1	24"/610 mm or 48"/1219 mm Square Bar
2	Patented Vertically Adjustable Center Bracket
3	End Bracket

**NOTE**

- Both sizes FM/VdS approved.



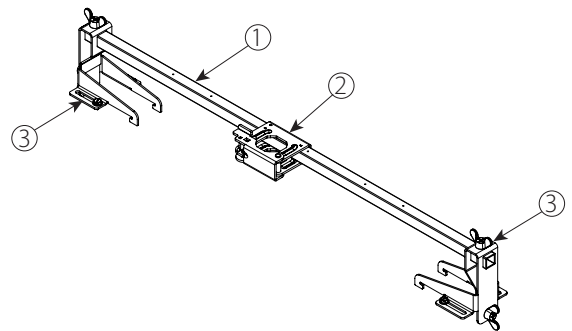
#### Style AB4

- Hard-lid Ceilings with Hat furring channel grid system

Item	Description
1	24"/610 mm or 48"/1220 mm Square Bar
2	Patented Vertically Adjustable Center Bracket
3	End Bracket for Hat Furring Channel

**NOTE**

- Both sizes VdS approved.



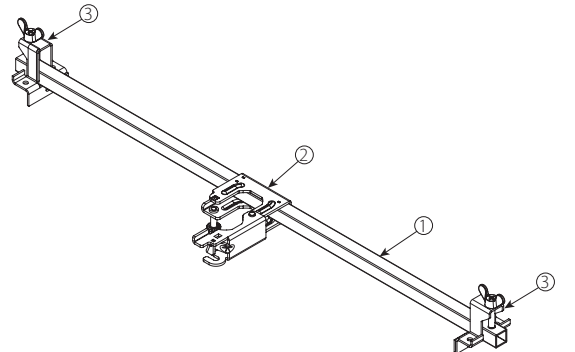
#### Style AB5

- Hard-Lid Ceilings

Item	Description
1	24"/610 mm or 48"/1219 mm Square Bar
2	Patented Vertically Adjustable Center Bracket
3	End Bracket

**NOTE**

- Both sizes FM/VdS approved.



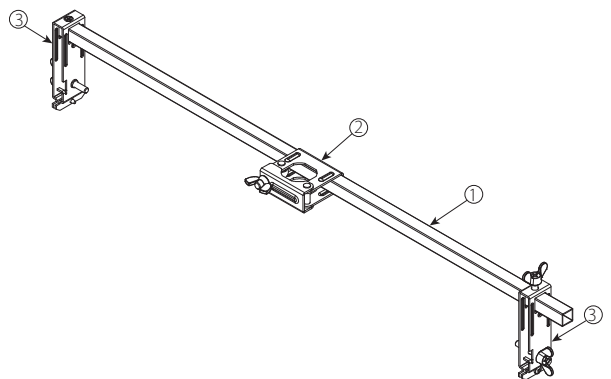
#### Style AB7 Adjustable

- Suspended Ceilings
- Hard-Lid Ceilings

Item	Description
1	700 mm or 1400 mm Square Bar
2	Patented 1-Bee2® Center Bracket
3	End Bracket (adjustable)

**NOTE**

- Both sizes FM/VdS approved.



## 4.2 DIMENSIONS

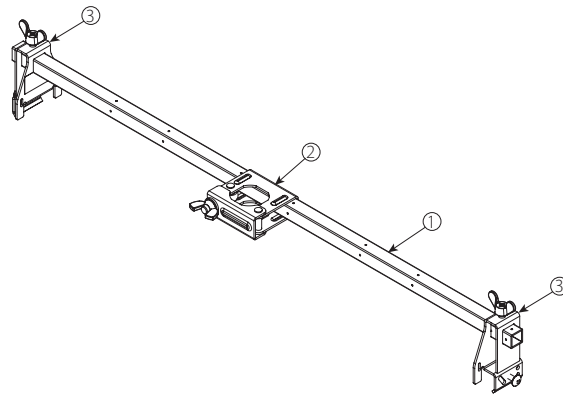
### Style AB11

- Suspended Ceilings
- Hard-Lid Ceilings

Item	Description
1	24"/610 mm or 48"/1219 mm Square Bar
2	Patented 1-Bee2® Center Bracket
3	End Bracket

**NOTE**

- FM/VdS Approved.



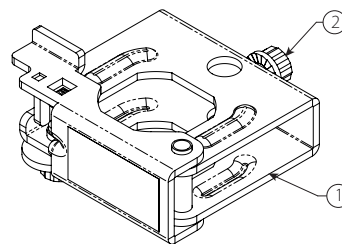
### Style AB12

- Suspended ceilings
- Hard-Lid ceilings

Item	Description
1	Style AB12 Bracket Body
2	#2 Square Drive Set Screw

**NOTE**

- FM Approved.



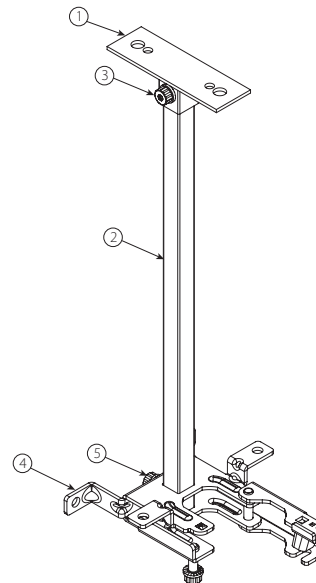
### Style ABBA

- Suspended Ceilings
- Hard-Lid Ceilings

Item	Description
1	Style ABBA Mounting Weldment
2	Style ABBA Square Bar
3	Cap Screw, Serrated Flange, M6 x 1 x 20, T25 Torx Drive Recessed
4	Style ABBA Bracket Subassembly

**NOTE**

- FM approved



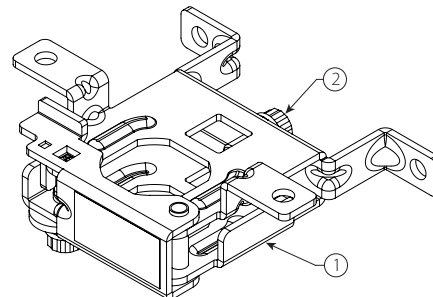
### Style ABMM

- Suspended Ceilings
- Hard-Lid Ceilings

Item	Description
1	Style ABMM Bracket Body
2	Cap Screw, Serrated Flange, M6 x 1 x 15.24, T25 Torx Drive Recessed

**NOTE**

- FM approved

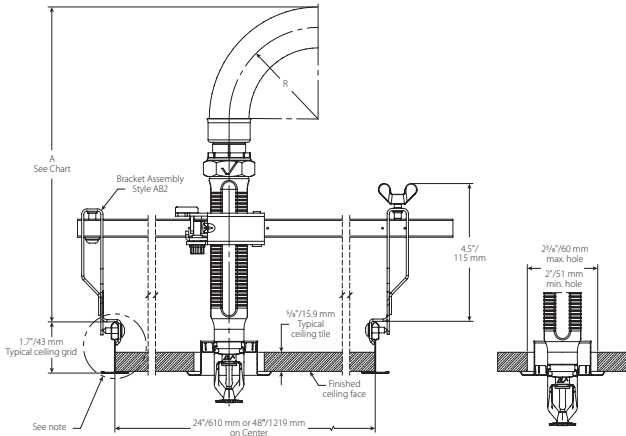


### 4.3 DIMENSIONS

#### CLEARANCES ABOVE CEILING

Series AH3 Braided Hose and Style AB2 Bracket

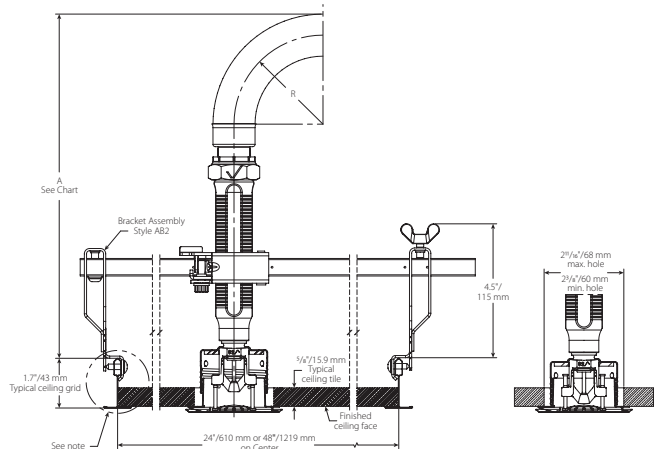
Suspended Ceiling Grid with Recessed Sprinkler



V2707 3/4"/19mm Max. Recess

Hose Clearance Chart						
Dimension		inches	inches	inches	inches	inches
		mm	mm	mm	mm	mm
R	Minimum Bend Radius	3	4	5	6	7
		80	100	125	150	175
A	Min.	9.6	10.6	11.6	12.6	13.6
		262	287	312	338	363

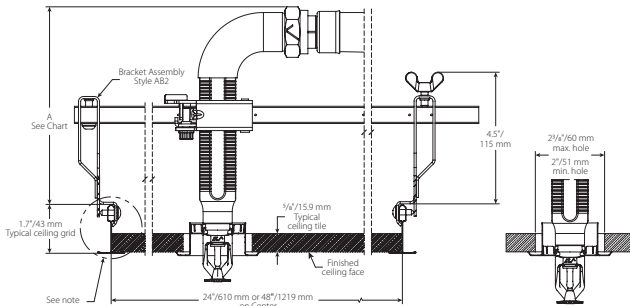
Suspended Ceiling Grid with Concealed Sprinkler



V3802 1/2"/12.7mm Max. Recess

Hose Clearance Chart						
Dimension		inches	inches	inches	inches	inches
		mm	mm	mm	mm	mm
R	Minimum Bend Radius	3	4	5	6	7
		80	100	125	150	175
A	Min.	11.1	12.1	13.1	14.1	15.1
		281	307	333	358	383

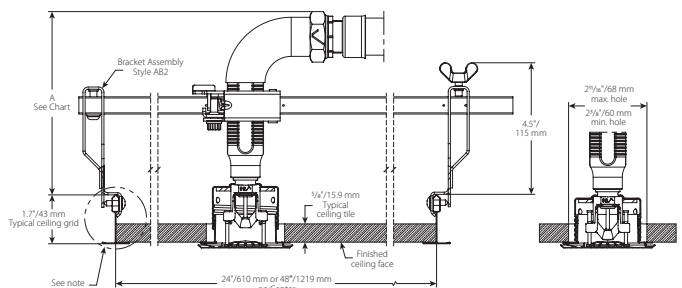
Suspended Ceiling Grid with Recessed Sprinkler with 90° Elbow (Long)



V2707 3/4"/19mm Max. Recess

Hose Clearance Chart			
Dimension		inches	
		mm	
A	Min.	5.8	146

Suspended Ceiling Grid with Concealed Sprinkler with 90° Elbow (Short)



V3802 1/2"/12.7mm Max. Recess

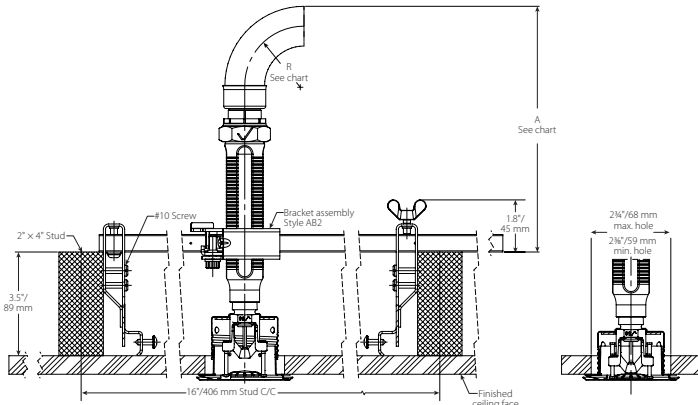
Hose Clearance Chart			
Dimension		inches	
		mm	
A	Min.	5.8	147

## 4.4 DIMENSIONS

### CLEARANCES ABOVE CEILING

Series AH3 Braided Hose and Style AB2 Bracket

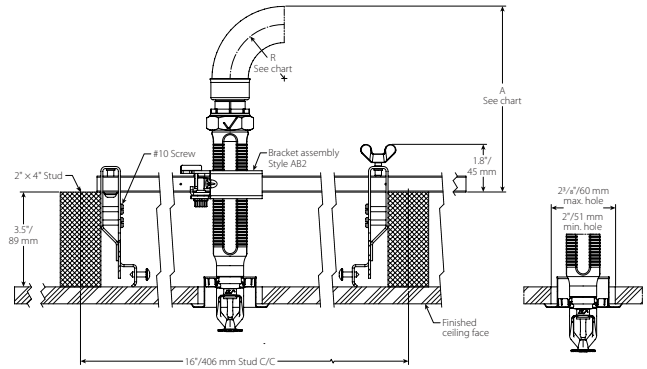
Hard-lid Ceiling with Concealed Sprinkler



V3802 1/2"/12.7mm Max. Recess

Hose Clearance Chart						
Dimension		inches	inches	inches	inches	inches
		mm	mm	mm	mm	mm
R	Minimum Bend Radius	3	4	5	6	7
		80	100	125	150	175
A	Min.	8.6	9.6	10.6	11.6	12.6
		218	244	269	295	320

Hard-lid Ceiling with Recessed Sprinkler



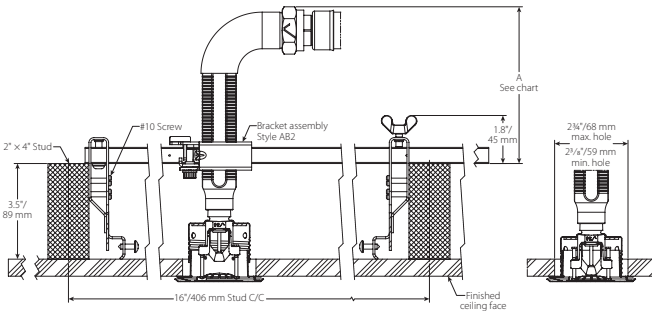
V2707 3/4"/19mm Max. Recess

Hose Clearance Chart						
Dimension		inches	inches	inches	inches	inches
		mm	mm	mm	mm	mm
R	Minimum Bend Radius	3	4	5	6	7
		80	100	125	150	175
A	Min.	7.1	8.1	9.1	10.1	11.1
		180	206	231	256	282

**NOTE**

- Variations of ceiling grids, sprinkler heads, brackets, and hoses are permitted but may result in clearance differences from the figures above.

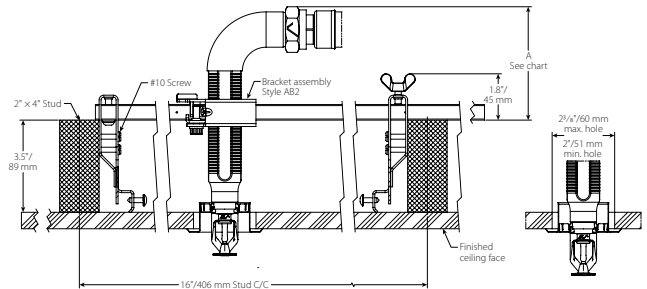
Hard-lid Ceiling Grid with Concealed Sprinkler with 90° Elbow (Long)



V3802 1/2"/12.7mm Max. Recess

Hose Clearance Chart		
Dimension		inches
		mm
A	Min.	5.0
		127

Hard-lid Ceiling with Recessed Sprinkler with 90° Elbow (Long)



V2707 3/4"/19mm Max. Recess

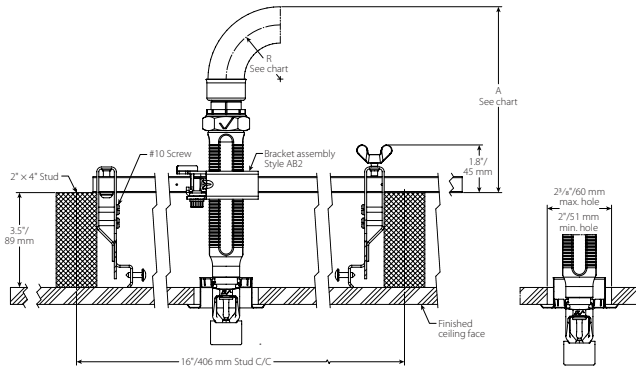
Hose Clearance Chart		
Dimension		inches
		mm
A	Min.	3.6
		91

## 4.5 DIMENSIONS

### CLEARANCES WITHIN SIDEWALL

Series AH3 Braided Hose and Style AB2 Bracket

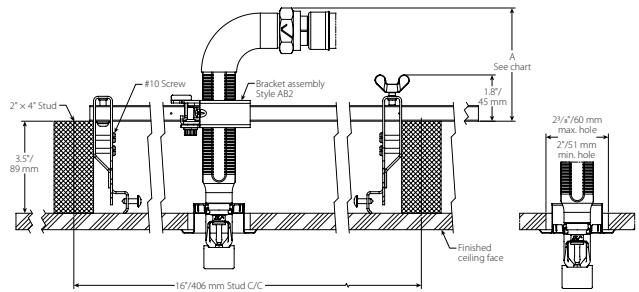
Horizontal Sidewall Sprinkler



V2709 3/4"/19mm Max. Recess

Hose Clearance Chart						
Dimension		inches				
		mm	mm	mm	mm	mm
R	Minimum Bend Radius	3	4	5	6	7
		80	100	125	150	175
A	Min.	7.1	8.1	9.1	10.1	11.1
		180	206	231	256	282

Horizontal Sidewall Sprinkler with 90° Elbow (Long)



V2709 3/4"/19mm Max. Recess

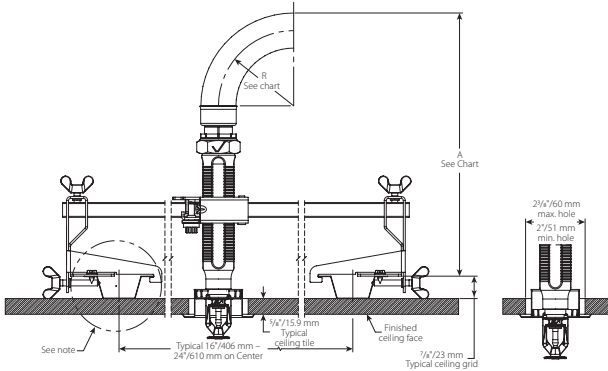
Hose Clearance Chart		
Dimension		inches
		mm
A	Min.	3.6
		91

## 4.6 DIMENSIONS

### CLEARANCES ABOVE CEILING

Series AH3 Braided Hose and Style AB4 Bracket

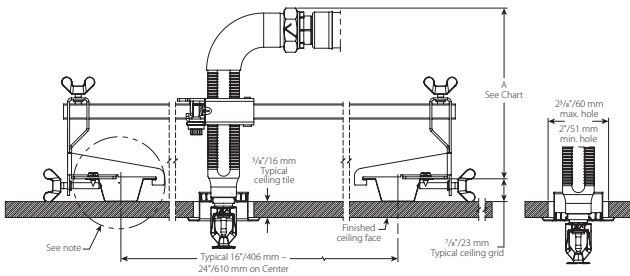
Hat Furring Channel Grid with Recessed Sprinkler



V2707 3/4"/19mm Max. Recess

Hose Clearance Chart						
Dimension		inches	inches	inches	inches	inches
		mm	mm	mm	mm	mm
R	Minimum Bend Radius	3 80	4 100	5 125	6 150	7 175
A	Min.	9.8 249	10.8 274	11.8 300	12.8 325	13.8 351

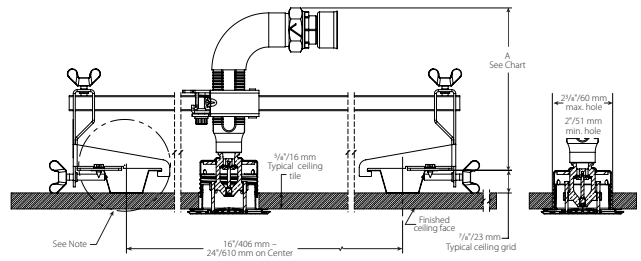
Hat Furring Channel Grid with Recessed Sprinkler with 90° Elbow (Long)



V2707 3/4"/19mm Max. Recess

Hose Clearance Chart		
Dimension		inches mm
A	Min.	8.0 200

Hat Furring Channel Grid with Concealed Sprinkler with 90° Elbow (Short)



V2707 3/4"/19mm Max. Recess

Hose Clearance Chart		
Dimension		inches mm
A	Min.	5.9 149

**NOTE**

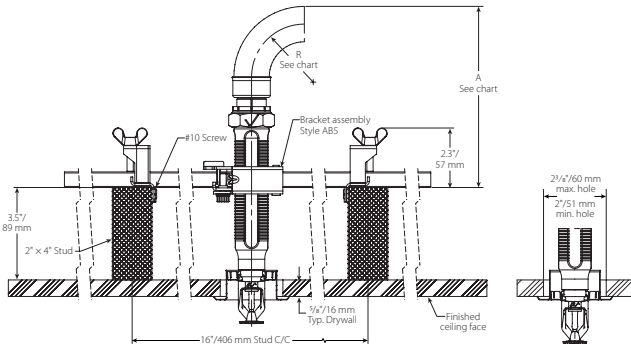
- Variations of ceiling grids, sprinkler heads, brackets, and hoses are permitted but may result in clearance differences from the figures above.

## 4.6 DIMENSIONS (CONTINUED)

### CLEARANCES ABOVE CEILING

Series AH3 Braided Hose and Style AB5 Bracket

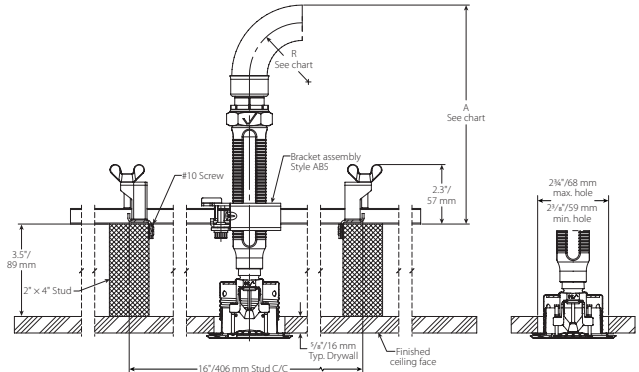
Hard-lid Ceiling with Recessed Sprinkler



V2707 3/4" 19mm Max. Recess

Hose Clearance Chart						
Dimension		inches	inches	inches	inches	inches
		mm	mm	mm	mm	mm
R	Minimum Bend Radius	3	4	5	6	7
		80	100	125	150	175
A	Min.	7.1	8.1	9.1	10.1	11.1
		180	206	231	256	282

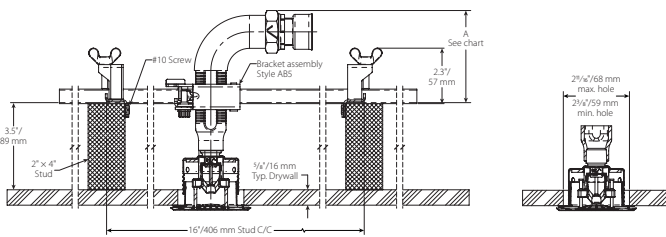
Hard-lid Ceiling with Concealed Sprinkler



V3802 1/2" 13mm Max. Recess

Hose Clearance Chart						
Dimension		inches	inches	inches	inches	inches
		mm	mm	mm	mm	mm
R	Minimum Bend Radius	3	4	5	6	7
		80	100	125	150	175
A	Min.	8.6	9.6	10.6	11.6	12.6
		218	244	269	295	320

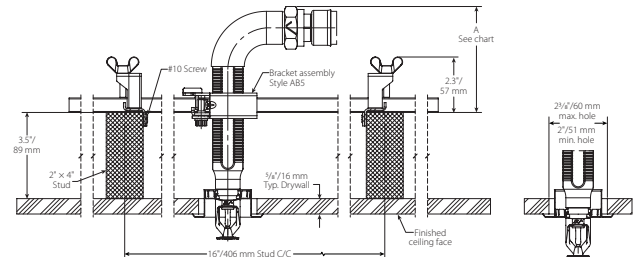
Hard-lid Ceiling with Concealed Pendant with 90° Elbow (Short)



V3802 1/2" 13mm Max. Recess

Hose Clearance Chart		
Dimension		inches
		mm
A	Min.	3.6
		91

Hard-lid Ceiling with Recessed Pendant with 90° Elbow (Long)



V2707 3/4" 19mm Max. Recess

Hose Clearance Chart		
Dimension		inches
		mm
A	Min.	3.3
		84

**NOTE**

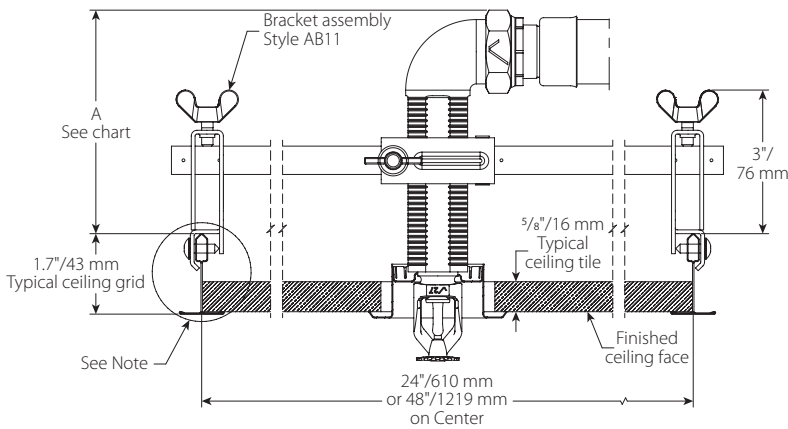
- Variations of ceiling grids, sprinkler heads, brackets, and hoses are permitted but may result in clearance differences from the figures above.

## 4.7 DIMENSIONS

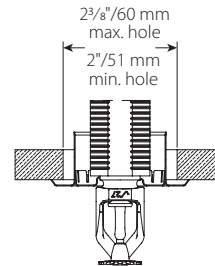
### CLEARANCES ABOVE CEILING

Series AH3 Braided Hose and Style AB11 Bracket (LOW PROFILE SOLUTION)

Suspended Ceiling Grid with Recessed Sprinkler with LP 90° Elbow (Long)



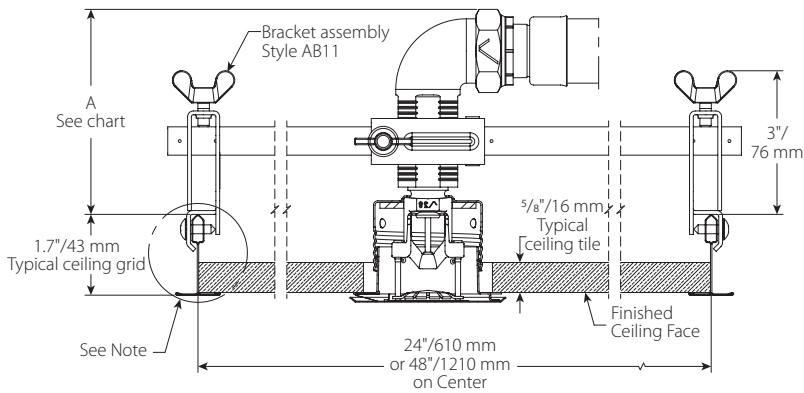
V2707 3/4\"/>



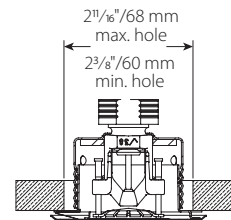
V2707 MAX. EXTENSION

Hose Clearance Chart		
Dimension		inches mm
A	Min.	4.0 100

Suspended Ceiling Grid with Concealed Pendent with LP 90° Elbow (Short)



V3802 1/2\"/>



V3802 MAX. EXTENSION

Hose Clearance Chart		
Dimension		inches mm
A	Min.	3.9 99

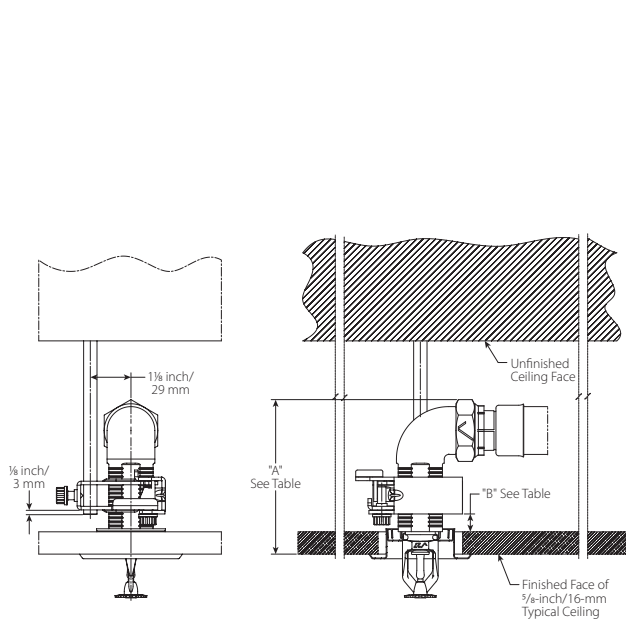
## 4.7 DIMENSIONS (CONTINUED)

### CLEARANCES ABOVE CEILING

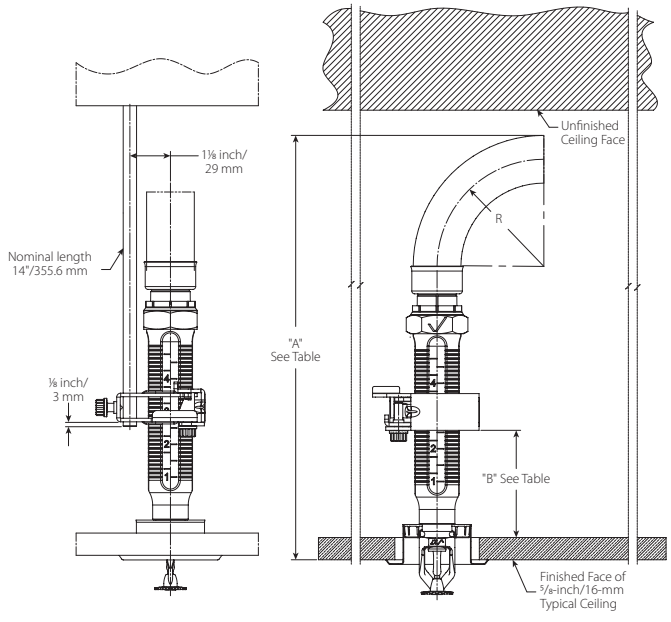
Series AH3 Braided Hose and Style AB12 and ABBA Bracket

Suspended Ceiling Grid with Recessed Sprinkler with Low Profile Short Elbow

Suspended Ceiling Grid with Recessed Sprinkler and Straight 5.75"/146 mm Reducer



V2707 1/2"/12.7 mm MAX. RECESS



V2707 3/4"/19 mm MAX. RECESS

Dimension		Low Profile Short Elbow		Low Profile Long Elbow		Standard Short Elbow		Standard Long Elbow		Standard Straight Reducer	
		3/4"/19mm Recessed*	Concealed	3/4"/19mm Recessed	Concealed	3/4"/19mm Recessed	Concealed	3/4"/19mm Recessed	Concealed	3/4"/19mm Recessed	Concealed
		inches	inches	inches	inches	inches	inches	inches	inches	inches	inches
		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
A	Minimum Required Installation Space	4.0	5.5	5.6	7.2	5.9	7.5	7.7	9.3	15.0	16.6
		101.6	139.7	142.2	182.9	149.9	190.5	195.6	236.2	381.0	421.6
B	Distance from Top of Typical Ceiling Tile to Bottom of Gate	0.5	2.0	1.5	1.5	1.5	1.5	3.0	3.0	3.0	3.0
		12.7	50.8	38.1	38.1	38.1	38.1	76.2	76.2	76.2	76.2

\* Adjustability will be limited

#### NOTE

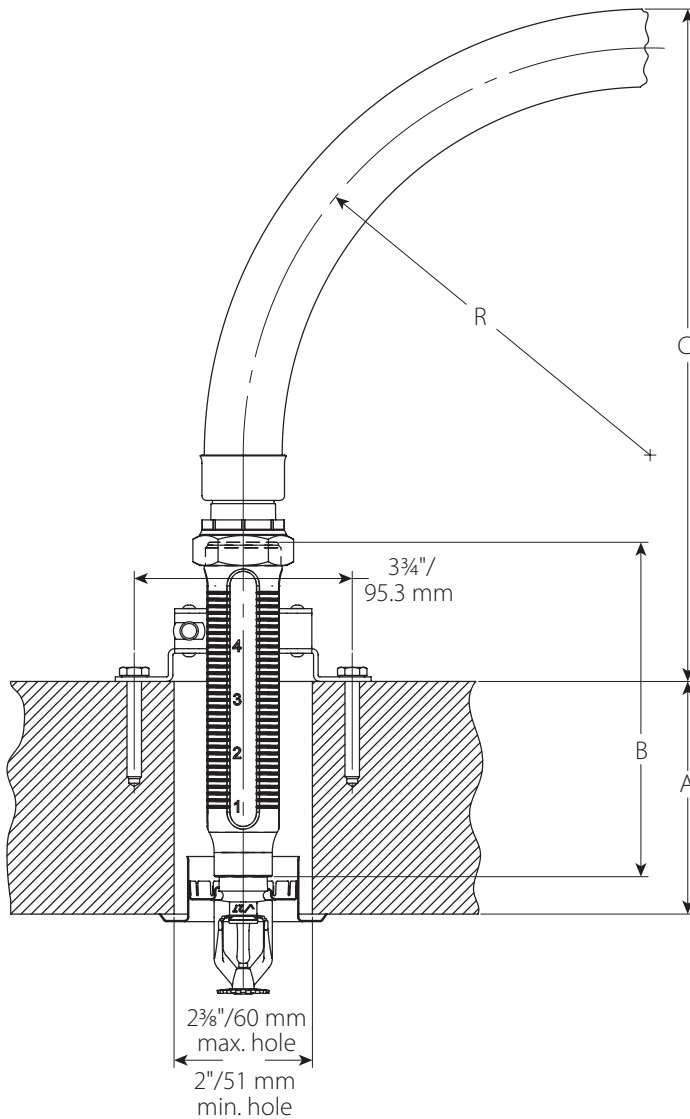
- For Style AB12 Bracket Sprinkler location relative to 3/8" threaded rod is 1 1/8"/29mm center-to-center.
- Variations of ceiling grids, sprinkler heads, brackets, and hoses are permitted but may result in clearance differences from the figures above.

## 4.8 DIMENSIONS

### CLEARANCES

Style ABMM Bracket

Surface Mount Application with Recessed Sprinkler



Hose Clearances																														
Dimension	inches			inches			inches			inches			inches			inches			inches											
	mm			mm			mm			mm			mm			mm			mm											
Wall Thickness "A"	2			4			6			8			10			2			4			6			8			10		
	50			100			150			200			250			50			100			150			200			250		
Outlet Length "B"	5.75	9	13	5.75	9	13	9	13	13	13	5.75	9	13	5.75	9	13	9	13	13	13	5.75	9	13	5.75	9	13	9	13	13	13
	146.1	228.6	330.2	146.1	228.6	330.2	228.6	330.2	330.2	330.2	146.1	228.6	330.2	146.1	228.6	330.2	228.6	330.2	330.2	330.2	146.1	228.6	330.2	146.1	228.6	330.2	228.6	330.2	330.2	330.2
Hose Clearance "C"	11.6	14.8	18.8	9.6	12.8	16.8	10.8	14.8	12.8	10.8	12.6	15.8	19.8	10.6	13.8	17.8	11.8	15.8	13.8	11.8	12.6	15.8	19.8	10.6	13.8	17.8	11.8	15.8	13.8	11.8
	294	376	478	243	325	427	275	376	325	275	319	402	503	268	351	452	300	402	351	300	319	402	503	268	351	452	300	402	351	300
Bend Radius "R"	7									8																				
	175									200																				

**NOTE**

- Variations of ceiling grids, sprinkler heads, brackets, and hoses are permitted but may result in clearance differences from the figures above.

5.0 PERFORMANCE – FRICTION LOSS DATA



Series AH3 Braided Hose  
Style AB2, AB5, AB7 Adj., AB12, ABBA and ABMM VicFlex Brackets

Hose Length inches/mm	K-factor Imperial/S.I.	Outlet Size inches/mm/type	Series AH3 Hose	
			Equivalent Length of 1"/33.7mm Sch. 40 Pipe feet/meters	Maximum Number of 90° Bends at 7"/178mm Bend Radius
31/775	5.6/8.1	½"/15/Straight	33.8/10.3	2
		½"/15/90° Standard Elbow	35.2/10.7	
36/900	5.6/8.1	½"/15/Straight	43.0/13.1	2
		½"/15/90° Standard Elbow	44.9/13.7	
48/1200	5.6/8.1	½"/15/Straight	65.2/19.9	3
		½"/15/90° Standard Elbow	68.3/20.8	
60/1500	5.6/8.1	½"/15/Straight	87.4/26.6	4
		½"/15/90° Standard Elbow	91.7/27.9	
72/1800	5.6/8.1	½"/15/Straight	109.7/33.4	4
		½"/15/90° Standard Elbow	115.3/35.1	
31/775	8.0/11.5	¾"/20/Straight	30.9/9.4	2
		¾"/20/90° Standard Elbow	32.1/9.7	
36/900	8.0/11.5	¾"/20/Straight	39.2/11.9	2
		¾"/20/90° Standard Elbow	40.8/12.4	
48/1200	8.0/11.5	¾"/20/Straight	68.3/20.8	3
		¾"/20/90° Standard Elbow	68.5/20.8	
60/1500	8.0/11.5	¾"/20/Straight	97.7/29.7	4
		¾"/20/90° Standard Elbow	100.8/30.7	
72/1800	8.0/11.5	¾"/20/Straight	95.4/29.0	4
		¾"/20/90° Standard Elbow	97.0/29.5	
31/775	11.2/16.1	¾"/20/Straight	34.1/10.4	2
		¾"/20/90° Standard Elbow	34.0/10.4	
36/900	11.2/16.1	¾"/20/Straight	43.7/13.3	2
		¾"/20/90° Standard Elbow	43.9/13.4	
48/1200	11.2/16.1	¾"/20/Straight	66.7/20.3	3
		¾"/20/90° Standard Elbow	67.8/20.7	
60/1500	11.2/16.1	¾"/20/Straight	89.7/27.3	4
		¾"/20/90° Standard Elbow	91.7/27.9	
72/1800	11.2/16.1	¾"/20/Straight	113.1/34.5	4
		¾"/20/90° Standard Elbow	115.6/35.2	
31/775	14.0/20.2	¾"/20/Straight	34.2/10.4	2
		¾"/20/90° Standard Elbow	34.0/10.4	
36/900	14.0/20.2	¾"/20/Straight	44.1/13.4	2
		¾"/20/90° Standard Elbow	44.2/13.5	
48/1200	14.0/20.2	¾"/20/Straight	67.8/20.7	3
		¾"/20/90° Standard Elbow	68.8/21.0	
60/1500	14.0/20.2	¾"/20/Straight	91.6/27.9	4
		¾"/20/90° Standard Elbow	93.4/28.5	
72/1800	14.0/20.2	¾"/20/Straight	115.5/35.2	4
		¾"/20/90° Standard Elbow	118.4/36.1	

FM NOTES:

- Series AH3 has been tested and Approved by FM Global for use in wet, dry and preaction systems per NFPA 13, 13R, and 13D and FM data sheets 2-0, 2-5, and 2-8. FM 1637 standards for safety include, but are not limited to, pressure cycling, corrosion resistance, flow characteristics, vibration resistance, leakage, mechanical and hydrostatic strength.
- Differences in equivalent lengths are due to varying test methods, per FM 1637 and VdS standards. Refer to these standards for additional information regarding friction loss test methods.
- EXAMPLE: A 48-inch hose installed with two 30° bends and two 90° bends at a 7-inch bend radius is permitted and considered equivalent to the data in the table shown above. In this example, the total number of degrees is 240°, which is less than the allowable 270°.

5.1 PERFORMANCE – FRICTION LOSS DATA

 **Series AH3 Braided Hose**  
**Style AB11, AB12, ABBA and ABMM VicFlex® Brackets**

Length of Stainless Steel Flexible Hose inches/mm	K-factor Imperial/S.I.	Outlet Size inches/mm/type	Series AH3 Hose	
			Equivalent Length of 1"/33.7mm Sch. 40 Pipe feet/meters	Maximum Number of 90° Bends at 7"/178mm Bend Radius
31/775	5.6/8.1	½"/15/90° Low Profile Elbow	53.8/16.3	2
36/900		½"/15/90° Low Profile Elbow	60/18.2	2
48/1200		½"/15/90° Low Profile Elbow	75/22.8	3
60/1500		½"/15/90° Low Profile Elbow	90/27.4	4
72/1800		½"/15/90° Low Profile Elbow	105.2/32	4
31/775	8.0/11.5	¾"/20/90° Low Profile Elbow	71.3/21.7	2
36/900		¾"/20/90° Low Profile Elbow	77.8/23.7	2
48/1200		¾"/20/90° Low Profile Elbow	93.4/28.4	3
60/1500		¾"/20/90° Low Profile Elbow	109/33.2	4
72/1800		¾"/20/90° Low Profile Elbow	124.8/38	4
31/775	11.2/16.1	¾"/20/90° Low Profile Elbow	69.8/21.2	2
36/900		¾"/20/90° Low Profile Elbow	76.5/23.3	2
48/1200		¾"/20/90° Low Profile Elbow	92.5/28.1	3
60/1500		¾"/20/90° Low Profile Elbow	108.6/33.1	4
72/1800		¾"/20/90° Low Profile Elbow	124.9/38	4

**FM NOTES:**

- Series AH3 has been tested and Approved by FM Global for use in wet, dry and preaction systems per NFPA 13, 13R, and 13D and FM data sheets 2-0, 2-5, and 2-8. FM 1637 standards for safety include, but are not limited to, pressure cycling, corrosion resistance, flow characteristics, vibration resistance, leakage, mechanical and hydrostatic strength.
- Differences in equivalent lengths are due to varying test methods, per FM 1637 and VdS standards. Refer to these standards for additional information regarding friction loss test methods.
- EXAMPLE: A 48-inch hose installed with two 30° bends and two 90° bends at a 7-inch bend radius is permitted and considered equivalent to the data in the table shown above. In this example, the total number of degrees is 240°, which is less than the allowable 270°.

5.2 PERFORMANCE – FRICTION LOSS DATA



Series AH3 Braided Hose  
Style AB2, AB5, AB7 Adj. and AB11 Brackets

Length of Stainless Steel Flexible Hose	Outlet Size	Series AH3 Hose	
		Equivalent Length of steel pipe according to EN 10255 DN 20 (26,9 x 2,65)	Maximum Number of 90° Bends at 3"/76.2mm Bend Radius
mm/inches	mm/inches	meters/feet	
790/31	15mm/1/2"	5.9/19.4	3
	20 mm/3/4"		
915/36	15mm/1/2"	6.9/22.5	3
	20 mm/3/4"		
1220/48	15mm/1/2"	9.2/30.0	3
	20 mm/3/4"		
1525/60	15mm/1/2"	11.4/37.5	4
	20 mm/3/4"		
1830/72	15mm/1/2"	13.7/45.0	4
	20 mm/3/4"		

VDS CEILING MANUFACTURERS LIST

AB2, AB7, AB11

1. AMF
2. Armstrong
3. Chicago Metallic
4. Dipling
5. Durlum
6. Geipel
7. Gema-Armstrong
8. Hilti
9. Knauf
10. Lafarge
11. Linder
12. Odenwald
13. Richter
14. Rigips
15. Rockfon Pagos
16. Suckow & Fischer
17. USG Donn

AB5

1. Hilti
2. Knauf
3. Lafarge
4. Lindner
5. Rigips

## 6.0 NOTIFICATIONS

### WARNING



- Read and understand all instructions before attempting to install any Victaulic products.
- Always verify that the piping system has been completely depressurized and drained immediately prior to installation, removal, adjustment, or maintenance of any Victaulic products.
- Wear safety glasses, hardhat, and foot protection.

Failure to follow these instructions could result in death or serious personal injury and property damage.

- These products shall be used only in fire protection systems that are designed and installed in accordance with current, applicable National Fire Protection Association (NFPA 13, 13D, 13R, etc.) standards, or equivalent standards, and in accordance with applicable building and fire codes. These standards and codes contain important information regarding protection of systems from freezing temperatures, corrosion, mechanical damage, etc.
- The installer shall understand the use of this product and why it was specified for the particular application.
- The installer shall understand common industry safety standards and potential consequences of improper product installation.
- It is the system designer's responsibility to verify suitability of materials for use with the intended fluid media within the piping system and external environment.
- The material specifier shall evaluate the effect of chemical composition, pH level, operating temperature, chloride level, oxygen level, and flow rate on materials to confirm system life will be acceptable for the intended service.

Failure to follow installation requirements and local and national codes and standards could compromise system integrity or cause system failure, resulting in death or serious personal injury and property damage.

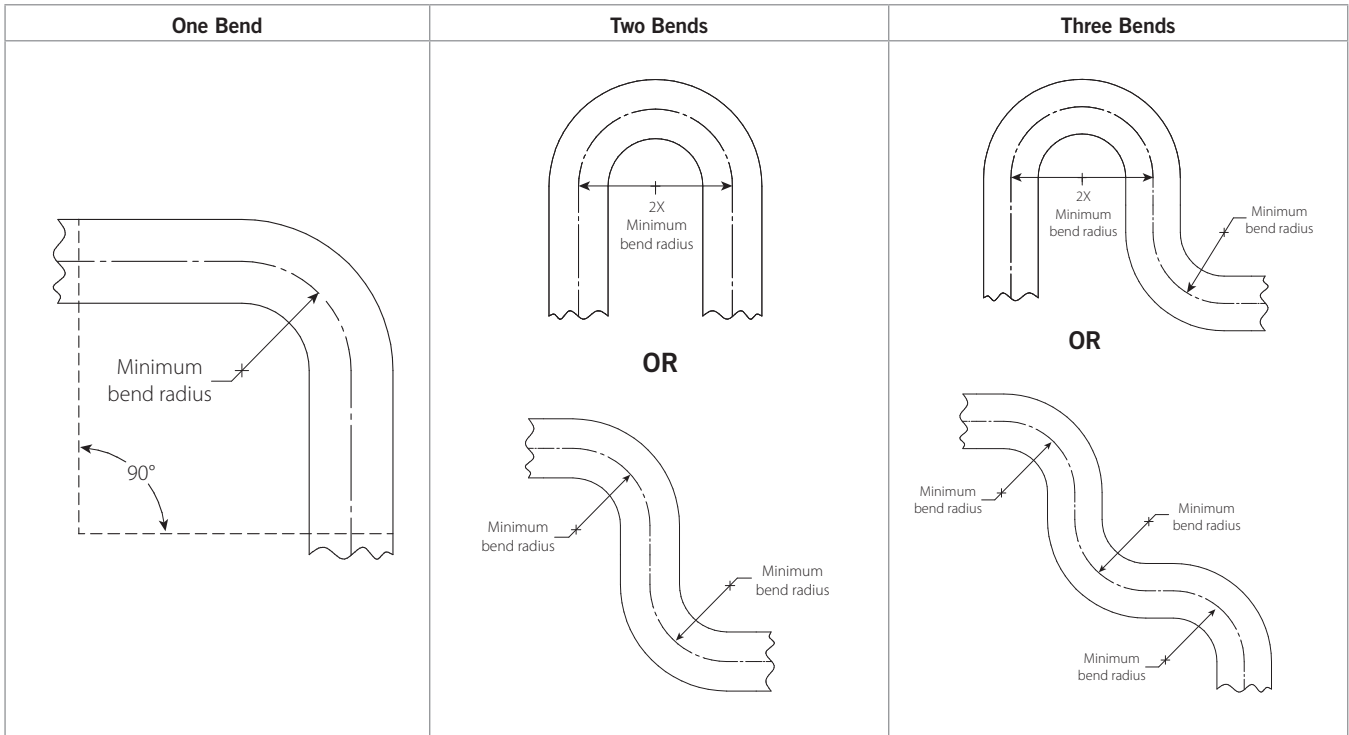
### WARNING

- It is the responsibility of the system designer to verify suitability of 300-series stainless steel flexible hose for use with the intended fluid media within the piping system and external environments.
- The effect of chemical composition, pH level, operating temperature, chloride level, oxygen level, and flow rate on 300-series stainless steel flexible hose must be evaluated by the material specifier to confirm system life will be acceptable for the intended service.

Failure to follow these instructions could cause product failure, resulting in serious personal injury and/or property damage.

## 7.0 REFERENCE MATERIALS – CHARACTERISTICS

### Flexible Hose In-Plane Bend Characteristics



**NOTE**

- For out-of-plane (three-dimensional) bends, care must be taken to avoid imparting torque on the hose.

[I-VicFlex-AB1-AB2-AB10](#)

[I-VicFlex-AB5](#)

[I-VicFlex-AB7](#)

[I-VicFlex-AB11](#)

[I-VicFlex-AB12](#)

[I-VicFlex-ABBA-ABMM](#)

**User Responsibility for Product Selection and Suitability**

Each user bears final responsibility for making a determination as to the suitability of Victaulic products for a particular end-use application, in accordance with industry standards and project specifications, and the applicable building codes and related regulations as well as Victaulic performance, maintenance, safety, and warning instructions. Nothing in this or any other document, nor any verbal recommendation, advice, or opinion from any Victaulic employee, shall be deemed to alter, vary, supersede, or waive any provision of Victaulic Company's standard conditions of sale, installation guide, or this disclaimer.

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**Note**

This product shall be manufactured by Victaulic or to Victaulic specifications. All products to be installed in accordance with current Victaulic installation/assembly instructions. Victaulic reserves the right to change product specifications, designs and standard equipment without notice and without incurring obligations.

**Installation**

Reference should always be made to I-VICFLEX-AB1-AB2-AB10, I-VICFLEX-AB4-AB9, I-VICFLEX-AB7, or I-VICFLEX-AB8 for the product you are installing. Handbooks are included with each shipment of Victaulic products for complete installation and assembly data, and are available in PDF format on our website at [www.victaulic.com](http://www.victaulic.com).

**Warranty**

Refer to the Warranty section of the current Price List or contact Victaulic for details.

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