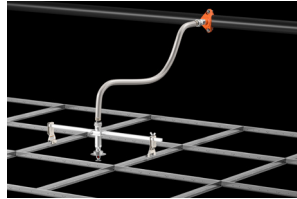


Victaulic® Vic-Flex™ Sprinkler Fittings

Series AH3 Braided Flexible Hose



1.0 PRODUCT DESCRIPTION

Available Sizes by Component

- **Series AH3 Braided Hose:** 31, 36, 48, 60, 72"/790, 914, 1220, 1525, 1830 mm. Note: length includes adapter nipple and 5.75"/140mm straight reducer.
- **Sprinkler Reducers:** ½" and ¾"/15 and 20mm sprinkler connections and 5.75"/140 mm, 9"/230 mm, 13"/330 mm straight lengths and short, long 90° elbows. Note: The short 90° elbow is typically used with concealed sprinklers while the long 90° elbow is typically used in the installation of recessed pendent sprinklers.
- **Adapter Nipples:** 1"/25 mm NPT or BSPT adapter nipples for attaching to pipe and fittings outlined in NFPA standards. ¾"/20 mm NPT or BSPT 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 AB5 for hard-lid ceilings, allows for vertical sprinkler adjustment
 - Style AB7 Adjustable for suspended and hard-lid ceilings

Maximum Working Temperature

- 225°F/107°C

Maximum Working Pressure

- 200 psi/1375 kPa (FM Approval)

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)

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" or ¾"/15 mm or 20 mm

Minimum Bend Radius

- 7"/178 mm (FM Approval)

Maximum Allowable Sprinkler K-Factors

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

2.0 CERTIFICATION/LISTINGS



3.0 SPECIFICATIONS – MATERIAL

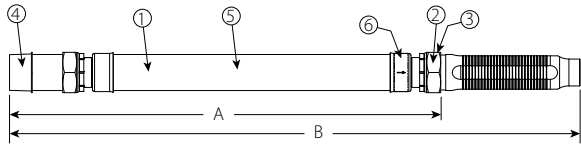
Series AH3

- **Flexible Hose:** 300-series Stainless Steel
- **Collar/Weld Fitting:** 300-series Stainless Steel
- **Gasket Seal:** Victaulic EPDM
- **Nut and 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

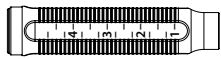


Item	Description
1	Flexible Hose
2	Gasket
3	Nut
4	Branch Line Nipple
5	Braid
6	Collar/Weld Fitting

Hose Length Dimensions

Hose Length inches mm	A inches mm	B inches mm
31/790	25.25/641	31/790
36/915	31.25/794	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

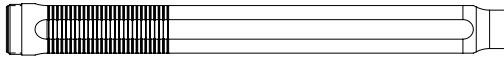


5.75"/140 mm straight reducer

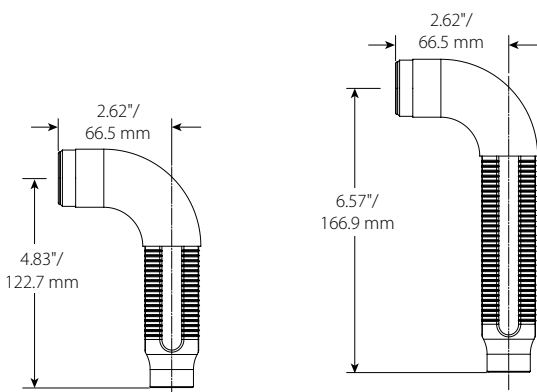
Optional Reducers



9.0"/229 mm straight reducer



13.0"/330 mm straight reducer



Short 90° elbow reducer

Long 90° elbow reducer

NOTE

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

4.1 DIMENSIONS

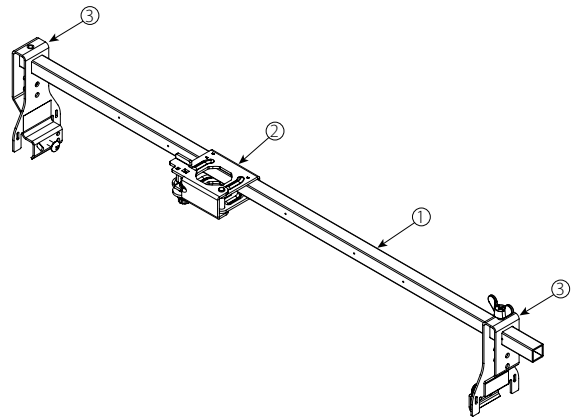
VicFlex Brackets

Style AB2

- Suspended Ceilings
- Hard-Lid Ceilings

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

*Both sizes FM approved.

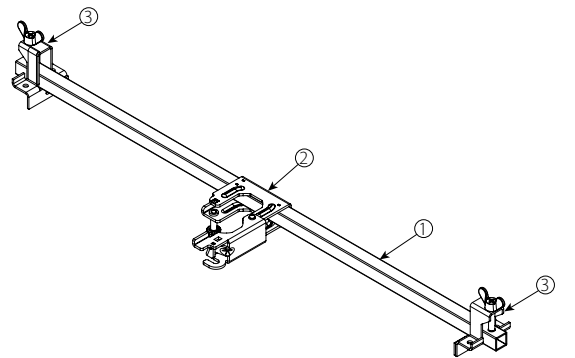


Style AB5

- Hard-Lid Ceilings

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

*Both sizes FM approved.

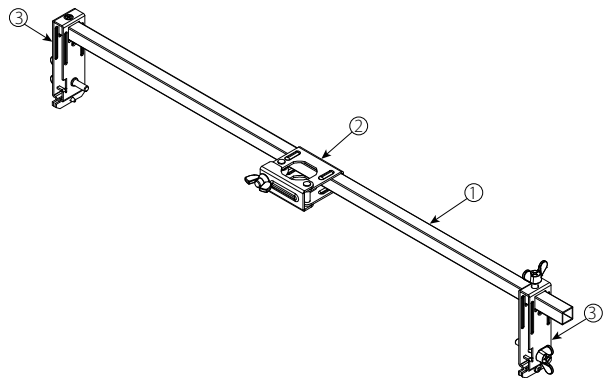


Style AB7 Adjustable

- 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)

*Both sizes FM approved.

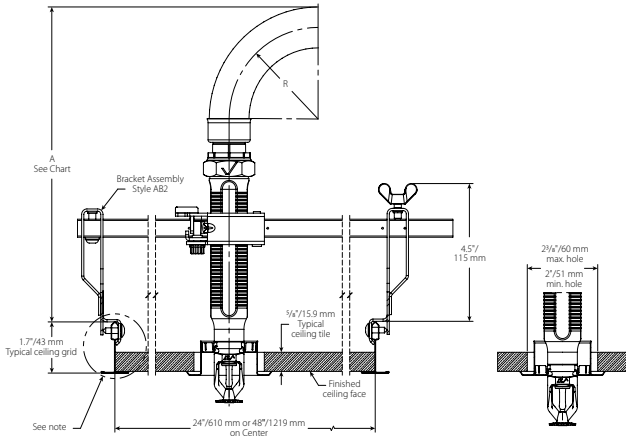


4.2 DIMENSIONS

CLEARANCES ABOVE CEILING

Series AH3 Braided Hose and Style AB2 Bracket

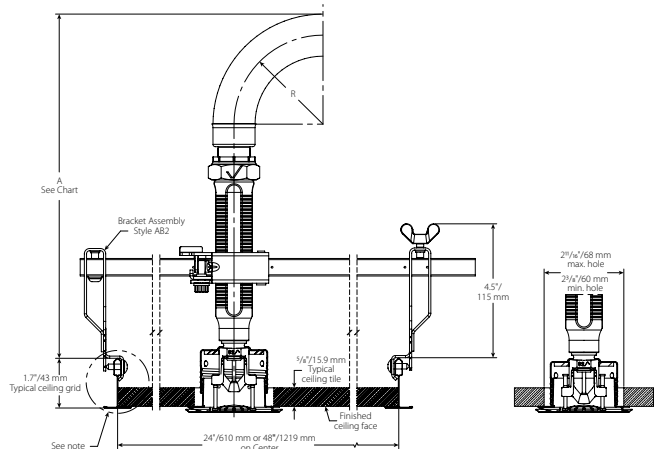
Suspended Ceiling Grid with Recessed Sprinkler



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

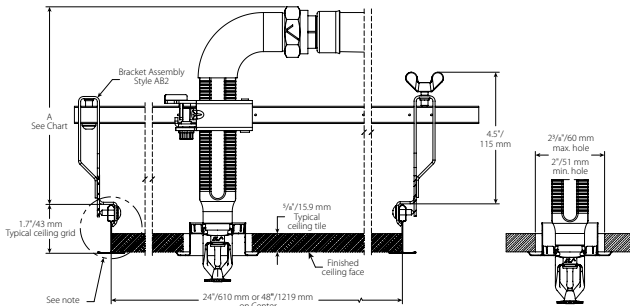
Suspended Ceiling Grid with Concealed Sprinkler



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

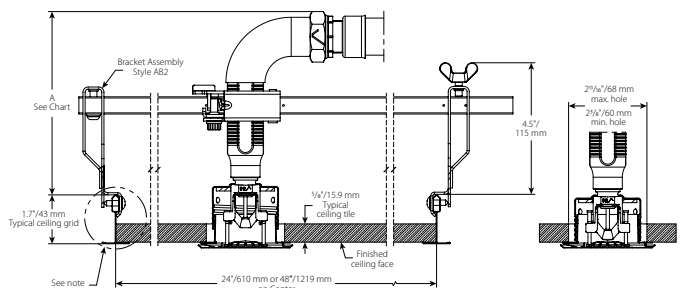
Suspended Ceiling Grid with Recessed Sprinkler with 90° Elbow (Long)



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

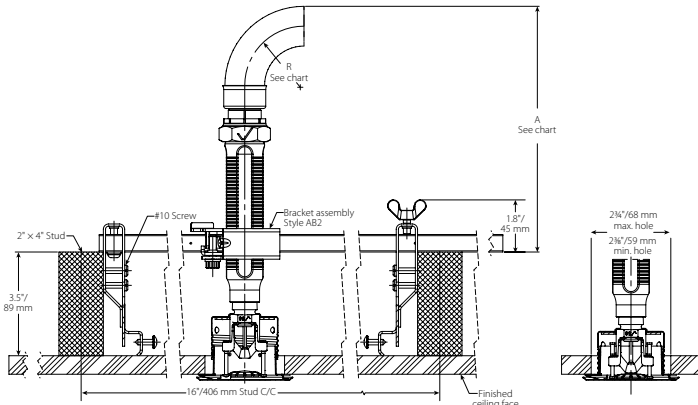
Hose Clearance Chart		
Dimension		inches
		mm
A	Min.	5.8
		147

4.3 DIMENSIONS

CLEARANCES ABOVE CEILING

Series AH3 Braided Hose and Style AB2 Bracket

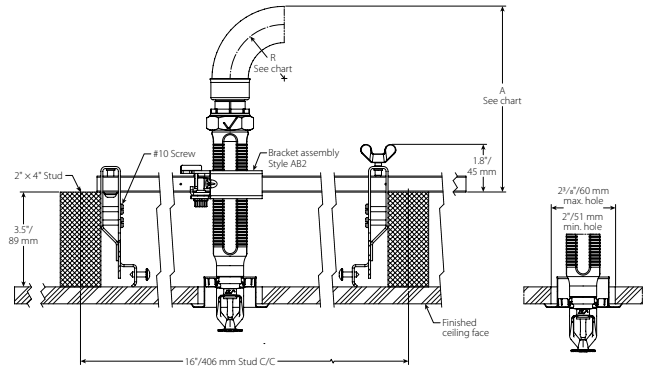
Hard-lid Ceiling with Concealed Sprinkler



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



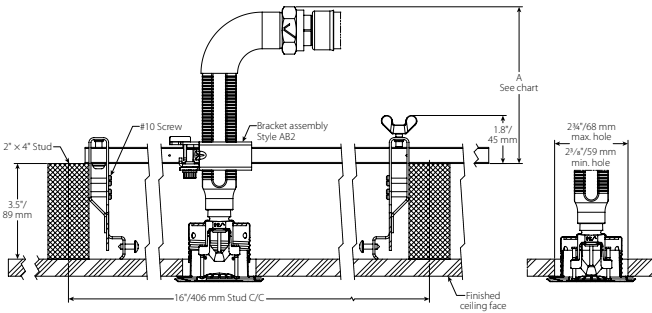
V2707 3/4"/19mm Max. Recess

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.

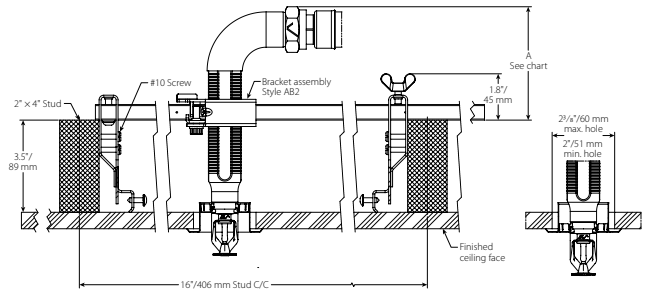
Hard-lid Ceiling Grid with Concealed Sprinkler with 90° Elbow (Short)



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

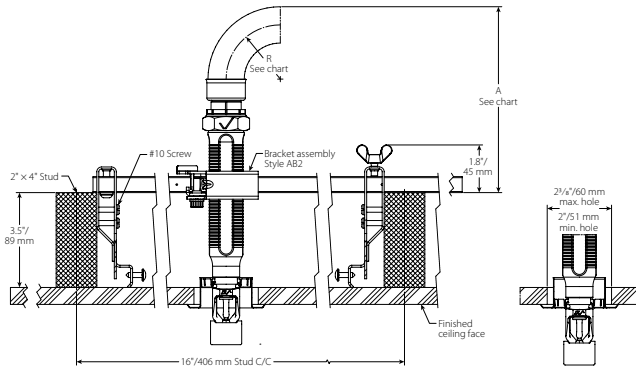
Hose Clearance Chart		
Dimension		inches
		mm
A	Min.	3.6
		91

4.4 DIMENSIONS

CLEARANCES WITHIN SIDEWALL

Series AH3 Braided Hose and Style AB2 Bracket

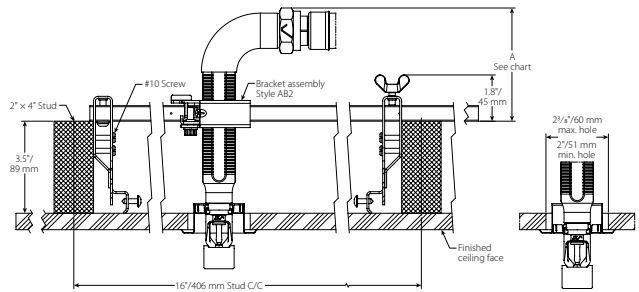
Horizontal Sidewall Sprinkler



V2707 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)



V2707 3/4"/19mm Max. Recess

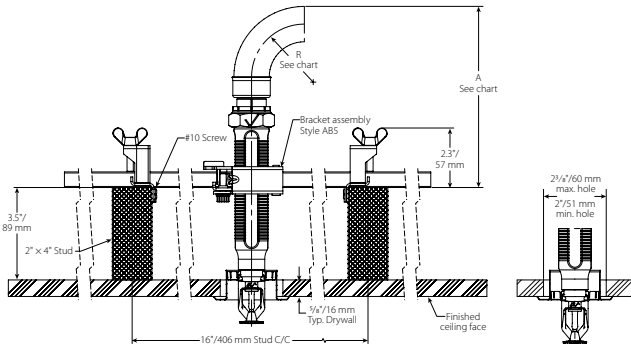
Hose Clearance Chart		
Dimension		inches
		mm
A	Min.	3.6
		91

4.5 DIMENSIONS

CLEARANCES ABOVE CEILING

Series AH3 Braided Hose and Style AB5 Bracket

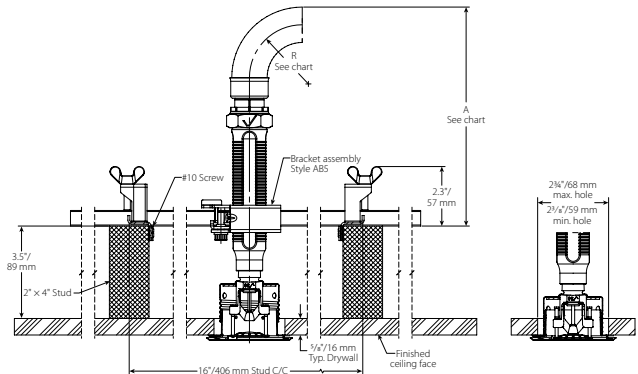
Hard-lid Ceiling with Recessed Sprinkler



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

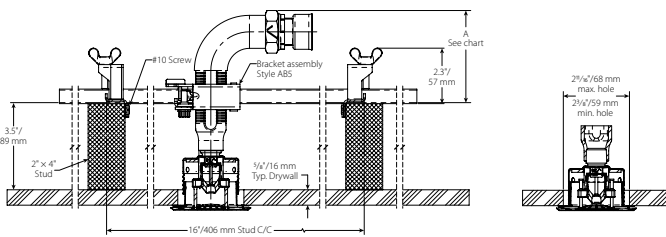
Hard-lid Ceiling with Concealed Sprinkler



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

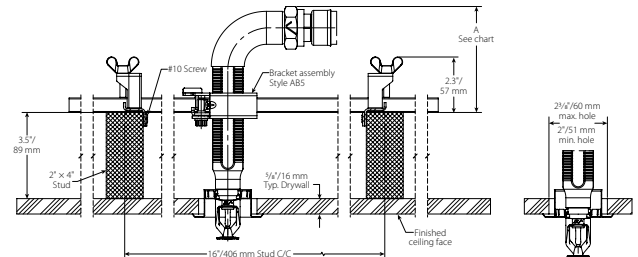
Hard-lid Ceiling with Recessed Pendant with 90° Elbow (Long)



V3802 1/2" 13mm Max. Recess

Hose Clearance Chart		
Dimension		inches
		mm
A	Min.	3.6
		91

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



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.

5.0 PERFORMANCE – FRICTION LOSS DATA



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

inches/mm	Imperial/S.I.	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	1/2"/15/Straight	33.8/10.3	2
		1/2"/15/90° Elbow	35.2/10.7	
36/900	5.6/8.1	1/2"/15/Straight	43.0/13.1	2
		1/2"/15/90° Elbow	44.9/13.7	
48/1200	5.6/8.1	1/2"/15/Straight	65.2/19.9	3
		1/2"/15/90° Elbow	68.3/20.8	
60/1500	5.6/8.1	1/2"/15/Straight	87.4/26.6	4
		1/2"/15/90° Elbow	91.7/27.9	
72/1800	5.6/8.1	1/2"/15/Straight	109.7/33.4	4
		1/2"/15/90° Elbow	115.3/35.1	
31/775	8.0/11.5	3/4"/20/Straight	53.4/16.3	2
		3/4"/20/90° Elbow	53.8/16.4	
36/900	8.0/11.5	3/4"/20/Straight	63.0/19.2	2
		3/4"/20/90° Elbow	63.8/19.4	
48/1200	8.0/11.5	3/4"/20/Straight	86.2/26.3	3
		3/4"/20/90° Elbow	87.8/26.7	
60/1500	8.0/11.5	3/4"/20/Straight	109.3/33.3	4
		3/4"/20/90° Elbow	111.8/34.1	
72/1800	8.0/11.5	3/4"/20/Straight	132.7/40.4	4
		3/4"/20/90° Elbow	135.8/41.4	
31/775	11.2/16.1	3/4"/20/Straight	34.1/10.4	2
		3/4"/20/90° Elbow	34.0/10.4	
36/900	11.2/16.1	3/4"/20/Straight	43.7/13.3	2
		3/4"/20/90° Elbow	43.9/13.4	
48/1200	11.2/16.1	3/4"/20/Straight	66.7/20.3	3
		3/4"/20/90° Elbow	67.8/20.7	
60/1500	11.2/16.1	3/4"/20/Straight	89.7/27.3	4
		3/4"/20/90° Elbow	91.7/27.9	
72/1800	11.2/16.1	3/4"/20/Straight	113.1/34.5	4
		3/4"/20/90° Elbow	115.6/35.2	
31/775	14.0/20.2	3/4"/20/Straight	34.2/10.4	2
		3/4"/20/90° Elbow	34.0/10.4	
36/900	14.0/20.2	3/4"/20/Straight	44.1/13.4	2
		3/4"/20/90° Elbow	44.2/13.5	
48/1200	14.0/20.2	3/4"/20/Straight	67.8/20.7	3
		3/4"/20/90° Elbow	68.8/21.0	
60/1500	14.0/20.2	3/4"/20/Straight	91.6/27.9	4
		3/4"/20/90° Elbow	93.4/28.5	
72/1800	14.0/20.2	3/4"/20/Straight	115.5/35.2	4
		3/4"/20/90° 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°.

6.0 NOTIFICATIONS

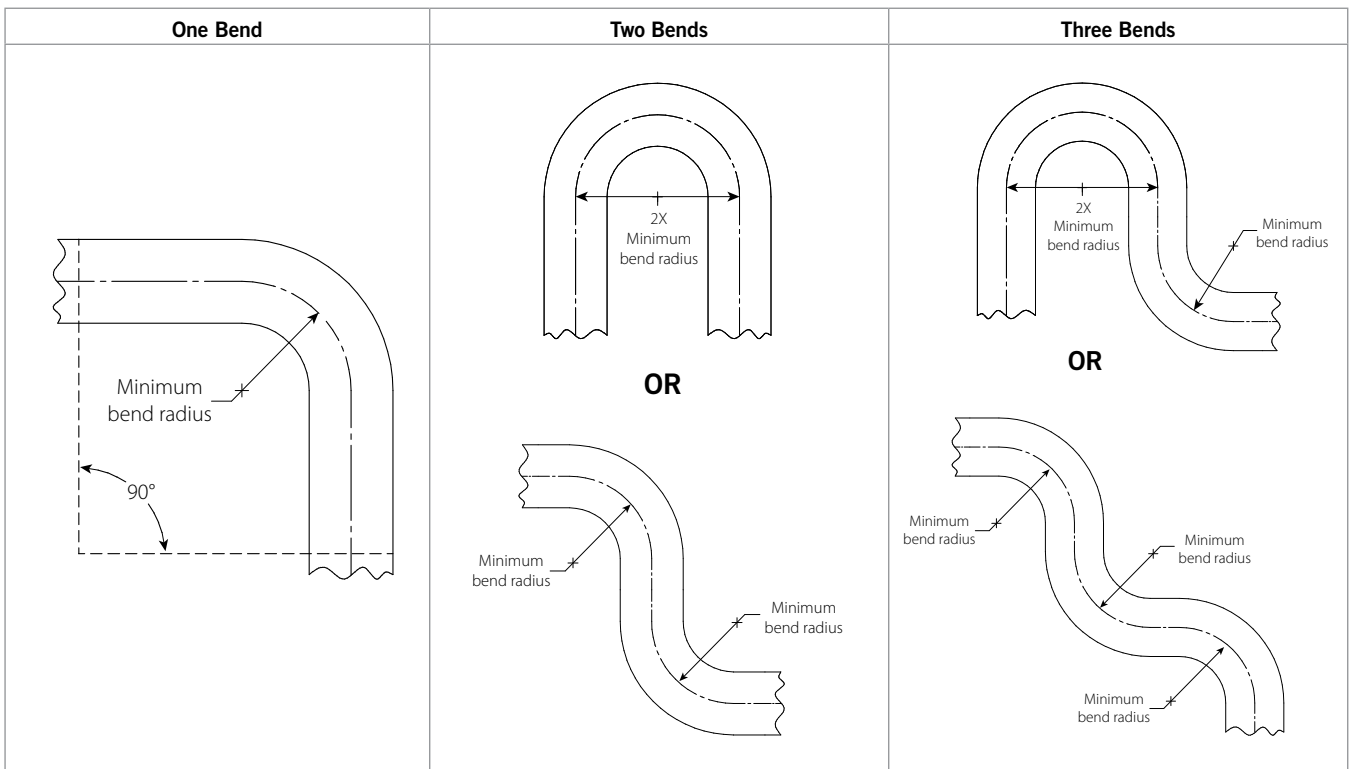
WARNING

- 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-AB7](#)

[I-VicFlex-AB5](#)

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.

Intellectual Property Rights

No statement contained herein concerning a possible or suggested use of any material, product, service, or design is intended, or should be construed, to grant any license under any patent or other intellectual property right of Victaulic or any of its subsidiaries or affiliates covering such use or design, or as a recommendation for the use of such material, product, service, or design in the infringement of any patent or other intellectual property right. The terms "Patented" or "Patent Pending" refer to design or utility patents or patent applications for articles and/or methods of use in the United States and/or other countries.

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.

Warranty

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

Trademarks

Victaulic and all other Victaulic marks are the trademarks or registered trademarks of Victaulic Company, and/or its affiliated entities, in the U.S. and/or other countries.