

Victaulic® VicFlex™ Sprinkler Fittings

Series AQC-U Braided Flexible Hose Assemblies for Clean Room Ceilings



1.0 PRODUCT DESCRIPTION

Available Sizes by Component

- **Series AQC-U Assembly Hose:** 36"/915 mm, 48"/1220 mm, 72"/1830 mm
- **Brackets:** Swivel bracket integrated in Series AQC-U assembly

Maximum Working Pressure

- 200 psi/1375 kPa (FM)
- 1.4 MPa/203 psi (CCC)

Maximum Working Temperature

- 225°F/107°C

Connections:

- To branch line (inlet) via 1"/DN25 Grooved IGS or 1"/25 mm NPT/BSPT Male Thread
- To sprinkler head (outlet) via ½"/15 mm NPT or BSPT Female Thread
- To sprinkler head (outlet) via ¾"/20 mm NPT or BSPT Female Thread

Minimum Bend Radius

- 7"/178 mm

Maximum Number of Bends per Flexible Drop: See [Section 5.0 Performance](#)

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



2.0 CERTIFICATIONS/LISTINGS



Application:

FM Approved for use with the following manufacturer's ceiling types:

- Exyte US Inc
- Channel Systems
- Clin Ceilings
- Gorilla Grid
- Daldrop + Dr. Ing. Huber
- Gordon Cleanroom Ceilings
- Suzhou Pophen Ceilings
- BASX Ceilings
- UG Ceilings
- AJ Manufacturing
- Long Sight and Sunway Ceilings
- Airtho Intelligrid Ceilings

NOTE

- Other cleanroom ceiling manufacturers can be evaluated and potentially approved on a case-by-case basis. For further assistance, refer to the form in Section [7.0 Reference Materials](#).

3.0 MATERIAL SPECIFICATIONS

Reducer: 300-Series Stainless Steel

Ceiling Gasket Seal: EPDM

Nut and Nipple: Zinc Plated Carbon Steel

Isolation Ring: Nylon

Collar/Weld Fitting: 300-Series Stainless Steel

Swivel Bracket: 300-Series Stainless Steel

Housing: Ductile Iron conforming to ASTM A 536, Grade 65-45-12. Ductile Iron conforming to ASTM A 395, Grade 65-45-15, is available upon special request.

Coupling Housing Coating:

- Orange Enamel (North America, Asia Pacific)
- Red Enamel (Europe)
- Hot Dipped Galvanized

Gasket:¹

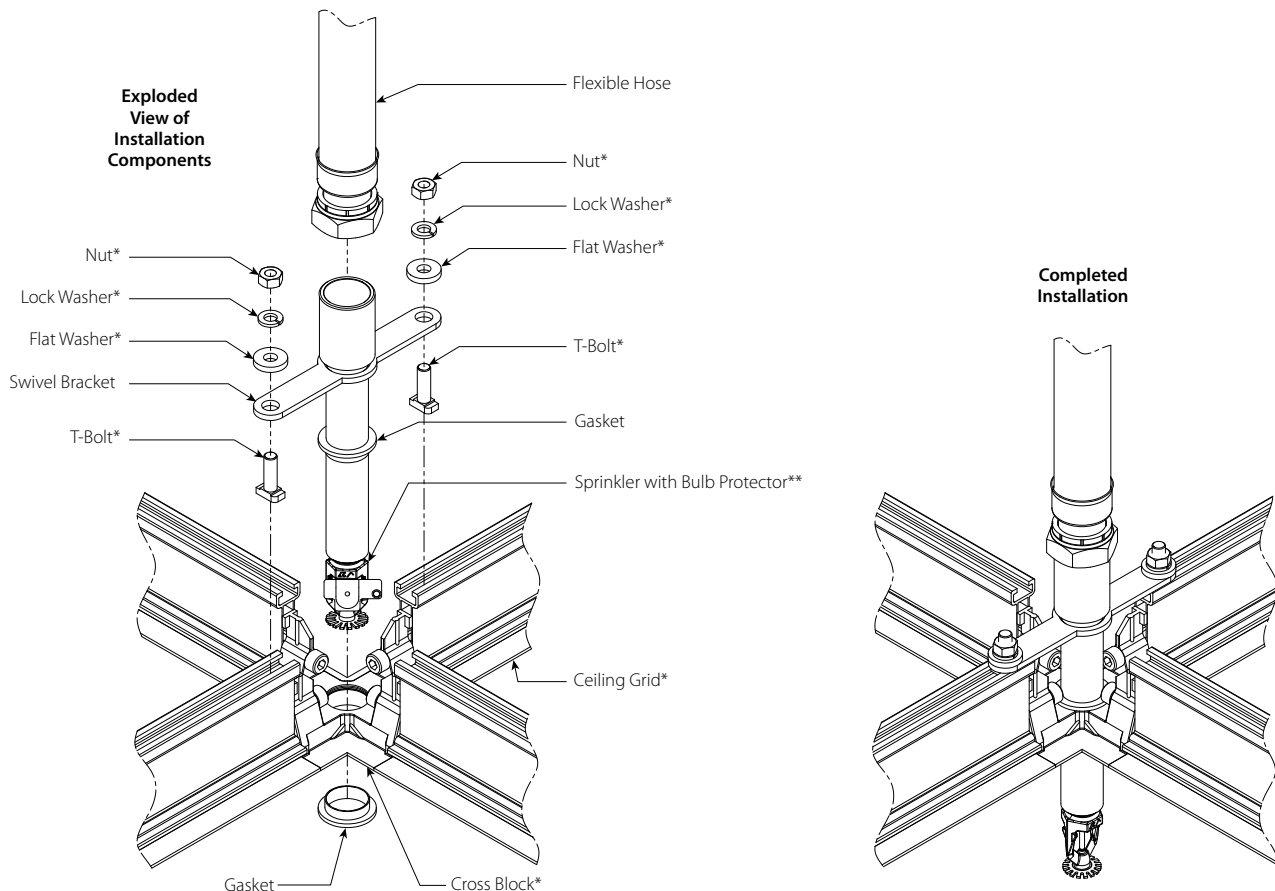
Grade "E" EPDM (Type A)

FireLock EZ™ products have been Listed by Underwriters Laboratories Inc., Underwriters Laboratories of Canada Limited, and Approved by Factory Mutual Research for wet and dry (oil free air) sprinkler services within the rated working pressure.

¹ Services listed are General Service Guidelines only. It should be noted that there are services for which these gaskets are not compatible. Reference should always be made to the latest [Victaulic® Seal Selection Guide](#) for specific gasket service guidelines and for a listing of services which are not compatible.

Bolts/Nut: Zinc electroplated carbon steel, trackhead meeting the physical and chemical requirements of ASTM A 449 and physical requirements of ASTM A 183.

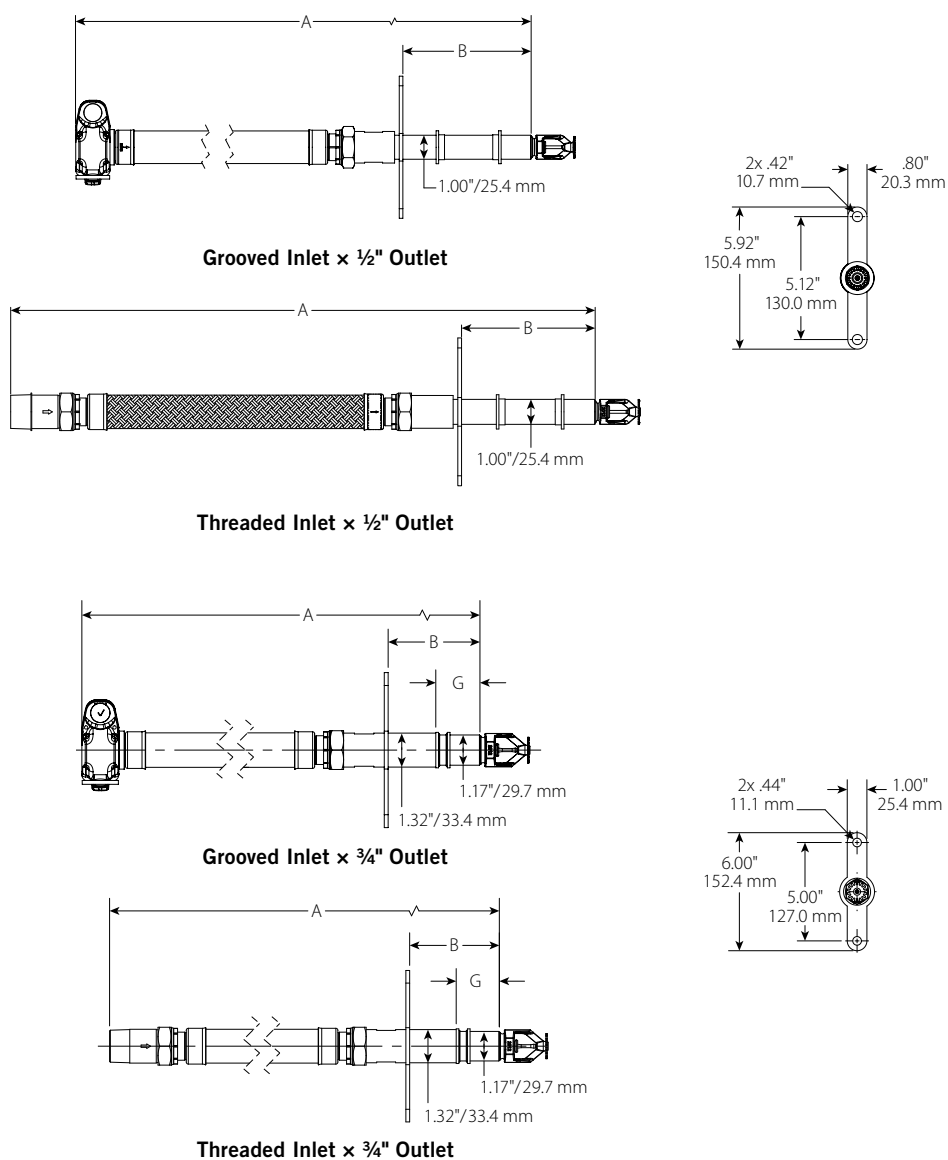
Linkage: CrMo Alloy Steel zinc electroplated per ASTM B633 Zn/Fe 5, Type III Finish



* Components provided by ceiling grid manufacturers or others.

** Optional made-on sprinkler

4.0 DIMENSIONS



Hose	Dimensions		
Series	A inches mm	B inches mm	G inches mm
AH2-36	38.2 970	5.4 137	1.00 25.4
AH2-48	50.2 1275	5.4 137	1.00 25.4
AH2-72	74.2 1885	5.4 137	1.00 25.4
AH2-CC-36	36.8 935	5.4 137	1.00 25.4
AH2-CC-48	48.8 1240	5.4 137	1.00 25.4
AH2-CC-72	72.8 1849	5.4 137	1.00 25.4

NOTE

- "G" dimension for 3/4" outlet version only
- To specify alternative dimensions, use the order form in Section [7.0 Reference Materials](#).

5.0 PERFORMANCE - FRICTION LOSS DATA



Series AQC-U Assembly for Clean Room Ceilings

Hose		FM			
Length	Nominal Outlet Size inches mm	K-factor Imperial S.I.	EQL feet meters	Bend Radius inches mm	Max Bends
36 915	½ 15	5.6	24.0	7 178	2
		8.1	7.3		
	¾ 20	8.0	18.3		
		11.5	5.6		
48 1220	½ 15	11.2	19.9	7 178	3
		16.1	6.1		
	¾ 20	5.6	31.5		
		8.1	9.6		
72 1830	½ 15	8.0	25.8	7 178	4
		11.5	7.9		
	¾ 20	11.2	25.8		
		16.1	7.9		
72 1830	½ 15	5.6	46.6	7 178	4
		8.1	14.2		
	¾ 20	8.0	40.8		
		11.5	12.4		
72 1830	¾ 20	11.2	37.7		
		16.1	11.5		

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) standards, or equivalent local and national fire protection 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 internal and external 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. • It is the responsibility of the owner of a building or their authorized agent to provide the sprinkler system installer with any knowledge that the water supply might be contaminated with or conducive to the development of microbiologically influenced corrosion (MIC), including as required by NFPA 13. Failure to identify adverse water quality issues may affect the <i>VicFlex</i> product and void the manufacturer's warranty. 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.	

Victaulic VicFlex™ Braided Hoses may be painted/coated or caulked around, including fire barrier sealant, provided that the substance is compatible with stainless steel and zinc-plated carbon steel or ductile iron. Care shall be taken to ensure that the sprinkler and associated components do not come into contact with paint/coatings and caulking.

Victaulic VicFlex™ Braided Hoses that penetrate through non-fire rated gypsum wall (drywall) will function as designed, provided the components are installed in accordance with the respective installation instructions referenced in this document.

7.0 REFERENCE MATERIALS

VicFlex™ Series AQC-U Flexible Sprinkler Fitting Assembly for Clean Rooms Form

For ceiling grids incompatible with the standard dimensions stated in [Section 4.0 Dimensions](#), fill out the form below to request a quote. Email or fax the form to Engineered Products at ep@victaulic.com or 610-923-3010.

Company Name	
Company Address	
Contact Name	
Contact Phone	
Contact Email	
Project Name	
End User Name	

Quantity If different configurations are required, please attach a separate form for each configuration.

Step 1: Specify Ceiling Manufacturer:

Step 2: Select Assembly Type: ☐ No sprinkler pre-assembled ☐ Assembly with sprinkler pre-assembled

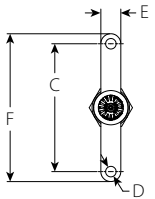
Optional (Please Select):

Pendent Model (SIN)	
Temperature Rating	
Finish	

Step 3: Select and specify values in tables below for each configuration as required.

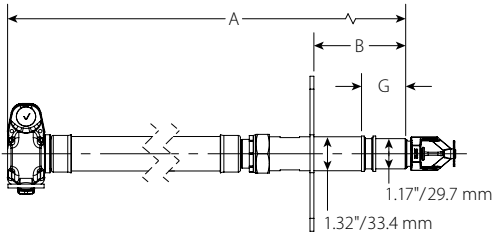
Select One Each:

A	Hose Model	36"/914mm ☐	48"/1219mm ☐	72"/1830mm ☐	
I	Inlet	1"/25mm NPT ☐	1"/25mm BSPT ☐	1"/IGS ☐	
O	Outlet Thread	½"/15mm NPT ☐	½"/15mm BSPT ☐	¾"/20mm NPT ☐	¾"/20mm BSPT ☐



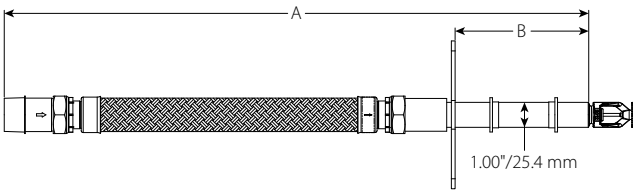
Specify Swivel Bracket Dimensions in accordance with different ceilings:

B	
C	
D	
E	
F	
G	



NOTES

- Specified systems DO NOT include escutcheon plates.
- "G" dimension for ¾" outlet version only



7.0 REFERENCE MATERIALS (CONTINUED)

Flexible Hose In-Plane Bend

One Bend	Two Bends	Three Bends

NOTE

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

- I-VICFLEX™ Field Installation Handbook
- [41.01 Victaulic® FireLock™ Series FL-QR Standard Coverage, Quick Response Upright, Pendent and Recessed Pendent Sprinklers K2.8 \(4.0\), K4.2 \(6.1\), K5.6 \(8.1\), K8.0 \(11.5\)](#)
- [41.04 Victaulic® FireLock™ Series FL-QR/CNV Standard Coverage, Quick Response Conventional Sprinklers, K5.6 \(8.1\), K8.0 \(11.5\)](#)
- [41.05 Victaulic® FireLock™ Series FL-QR/CNV Standard Coverage, Quick Response Conventional Sprinklers, K5.6 \(8.1\), K8.0 \(11.5\)](#)
- [41.51 Victaulic® FireLock™ Series FL-SR Standard Coverage, Standard Response Upright Pendent and Recessed Pendent Sprinklers, K2.8 \(4.0\), K4.2 \(6.1\), K5.6 \(8.1\), K8.0 \(11.5\)](#)
- [41.54 Victaulic® FireLock™ Series FL-SR/CNV Standard Coverage, Standard Response Conventional Sprinklers K5.6 \(8.1\), K8.0 \(11.5\)](#)
- [41.55 Victaulic® FireLock™ Series FL-SR/EUR Standard Coverage, Standard Response European Pendent Sprinklers K5.6 \(8.1\), K8.0 \(11.5\) 5](#)

User Responsibility for Product Selection and Suitability

Each user bears final responsibility for determining the suitability of Victaulic products for their end-use application, in accordance with industry standards, project specifications, and Victaulic’s published performance, maintenance, and safety data, as well as all warnings and installation 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, warranty, installation instructions, or this disclaimer.

Installation

Always refer to and follow the [Victaulic Installation Handbook](#) or installation instructions for the product you are installing. Handbooks are included with each shipment of Victaulic products, providing complete installation and assembly data, and are available in PDF format on our website at [victaulic.com](#).

Warranty

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

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Note

All products bearing a Victaulic trademark are manufactured by Victaulic or to Victaulic specifications. All products are to be installed only in accordance with the applicable Victaulic installation instructions. Victaulic reserves the right to change product specifications, designs and standard equipment without notice and without incurring obligations.