







VicFlex™ Sprinkler Fittings for Cleanroom Applications

STYLE AQC

 WARNING	
   	<ul style="list-style-type: none"> • Read and understand all instructions before attempting to install any Victaulic VicFlex™ products. • Wear safety glasses, hardhat, foot protection, and proper cleanroom attire during installation.
<p>Failure to follow these instructions could cause improper sprinkler operation, serious personal injury, and/or property damage.</p>	

 WARNING	
<ul style="list-style-type: none"> • These installation instructions are intended for an experienced, trained installer. • The user must understand the purpose of these products, common industry standards for safety, and the potential consequences of improper product installation. 	
<p>Failure to follow these instructions could cause improper sprinkler operation, serious personal injury, and/or property damage.</p>	

INTRODUCTION

VicFlex™ Sprinkler Fittings connect the branch line directly to the sprinkler using a flexible hose and fittings. Below is a listing of cleanroom ceilings that have been FM Approved for use with the VicFlex™ Style AQC. Other cleanroom ceilings can be evaluated on a case-by-case basis. Contact Victaulic with questions concerning manufacturers whose product does not appear in this list.

- Fuji Electric Co., Ltd.
- M+W Zander Facility Engineering GmbH
- Shanghai Huiyu Aluminum Alloy Products Co., Ltd.
- Tenryo Technology and Engineering Co., Ltd.
- Tien Hann Engineering Co., Ltd.
- Topline Engineering Co., Ltd.
- Topwell Engineering Co., Ltd.
- United Information Systems Co., Ltd.
- Vero Veria Corporation
- Yung Cheng Feng Engineering Co., Ltd.

TECHNICAL DATA FOR FLEXIBLE HOSES

Maximum Working Pressure Rating:

175 psi/12 Bar (FM Approval)

Maximum Ambient Temperature Rating:

225° F/107° C

Connection to Branch Line:

1-inch/25-mm NPT/BSPT

Minimum Bend Radius of Flexible Hose:

6 inch/152 mm (FM Approval)

Maximum Number of 90° Bends Per Flexible Hose:

Refer to the "Friction Loss Data" section


Maximum K-Factor of Sprinkler to be Connected to the Style AQC:

5.6 US/80 metric

IMPORTANT INSTALLATION INFORMATION

- The installer must wear proper cleanroom attire during installation of the VicFlex™ Style AQC. Contact the building owner or their representative to confirm requirements for the specific cleanroom application.
- The graphics shown in this instruction sheet illustrate only one type of cleanroom ceiling grid. If another type of cleanroom ceiling grid is used, the same installation steps can be followed.
- VicFlex™ products must be installed according to current, applicable National Fire Protection Association (NFPA 13, 13D, 13R, etc.) standards or equivalent standards. VicFlex™ products are intended to be installed in wet or dry sprinkler systems. Deviations from these standards or alterations to VicFlex™ products or sprinklers will void any Victaulic warranty. In addition, installations must meet provisions of the local authority having jurisdiction and local codes, as applicable.

- Refer to the specific product submittal for applications and listing information. These submittals are located in Sections 10 and 40 of the Victaulic G-100 Catalog or on the Victaulic website at www.victaulic.com. In addition, when installing Victaulic FireLock® Automatic Sprinklers with Victaulic VicFlex™ Sprinkler Fittings, refer to the I-40 Installation and Maintenance Instructions for details on sprinkler installation requirements.
- Size the piping system to provide at least the minimum required flow rate for the sprinkler system.
- Per NFPA requirements, flush the system to remove foreign material. Continue to flush the system until water runs clear.
- **DO NOT** install sprinkler system piping through heating ducts.
- **DO NOT** connect sprinkler system piping to domestic hot water systems.
- **DO NOT** install sprinklers and sprinkler fittings where they will be exposed to temperatures that exceed the maximum ambient temperature rating for the sprinkler and sprinkler fittings.
- The flexible hose should not be bent or fluctuated up-and-down or side-to-side when it is pressurized.
- Flexible hose and fittings have limited flexibility and are intended only to be installed with bends not less than their respective minimum bend radii. DO NOT install flexible hose in a straight configuration.
- Protect wet piping systems from freezing temperatures.
- If construction is altered, refer to applicable standards to determine if additional sprinklers are required.
- The owner is responsible for maintaining the fire protection system in proper operating condition.
- For minimum maintenance and inspection requirements, refer to NFPA 25 and the NFPA pamphlet that describes the care and maintenance of sprinkler systems. In addition, the authority having jurisdiction may have additional maintenance, testing, and inspection requirements that must be followed.

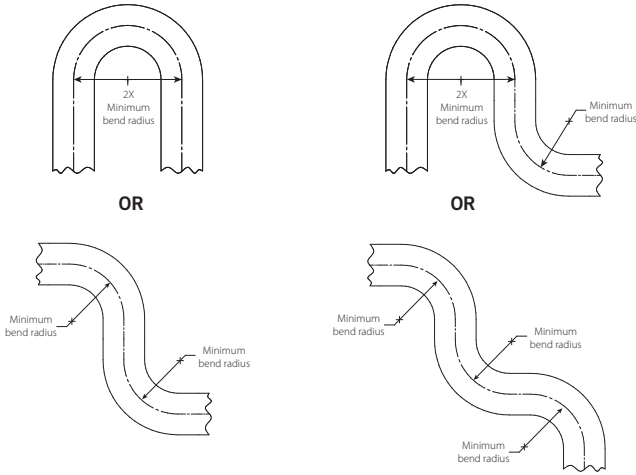
 WARNING	
<ul style="list-style-type: none"> • Relocation of VicFlex™ products MUST be performed by qualified personnel familiar with the system's original design criteria, sprinkler listings/approvals, and state and local codes (including NFPA 13 standards). 	
<p>Failure to relocate this VicFlex™ product properly could affect its performance during a fire, resulting in serious personal injury and property damage.</p>	

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FLEXIBLE HOSE BEND CHARACTERISTICS

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

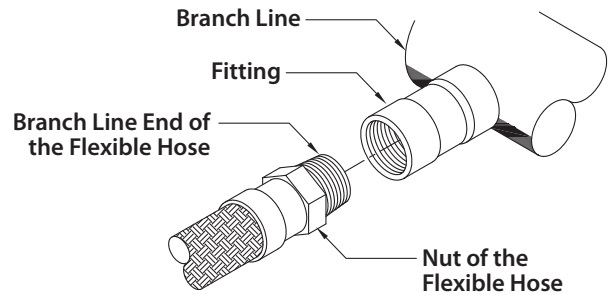


CONNECTING THE VICFLEX™ STYLE AQC TO THE BRANCH LINE

⚠ WARNING

- The flexible hose should not be bent or fluctuated up-and-down or side-to-side when it is pressurized for test.

Failure to follow this instruction could cause improper sprinkler operation, resulting in serious personal injury and/or property damage.



Style AQC Friction Loss Data

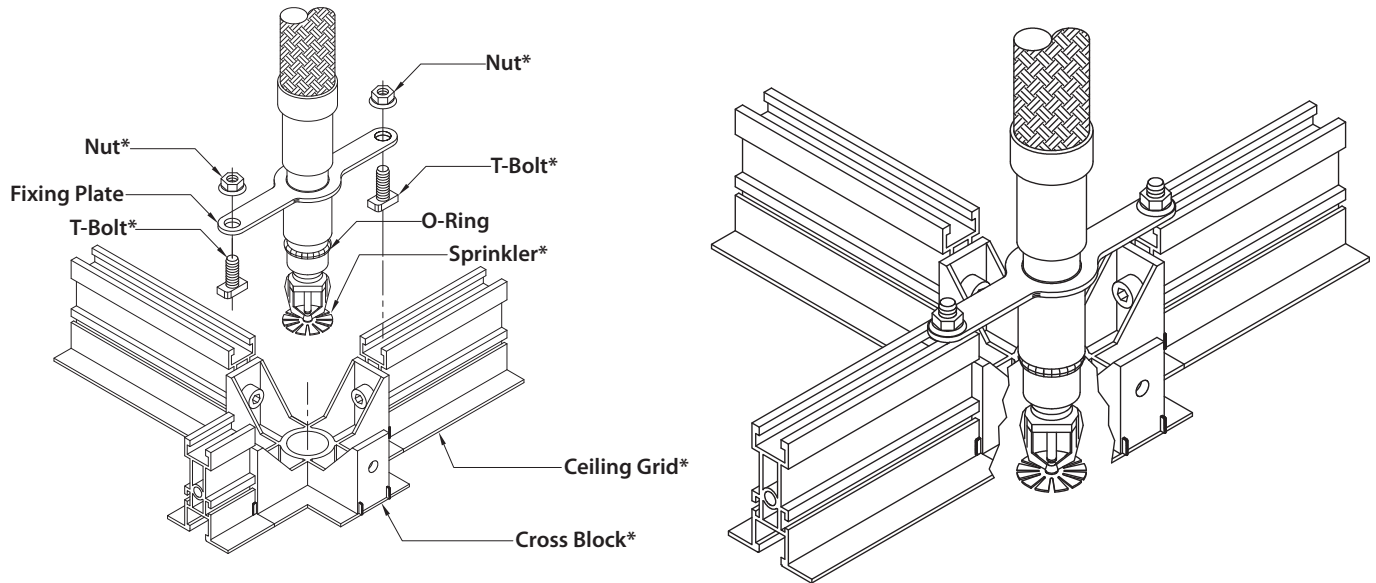
Length of Flexible Hose	NPT Sprinkler End	Maximum Number of 90° Bends	Equivalent Length of 1-inch/33.7-mm Schedule 40 Pipe
			feet/meters
24	½	1	20.3
610			6.2
48	½	3	25.4
1220			7.7
72	½	3	31.9
1830			9.7

- Apply pipe joint compound or PTFE thread sealant tape to the branch line end of the flexible hose, in accordance with the pipe joint compound or tape manufacturer's instructions. Tighten the hose into the branch line fitting by using a pipe wrench on the nut of the flexible hose.

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INSTALLING THE STYLE AQC TO A CLEANROOM CEILING GRID



* These components are not provided with the VicFlex™ Style AQC

1. Apply pipe joint compound or PTFE thread sealant tape to the male threads of the sprinkler, in accordance with the pipe joint compound or tape manufacturer's instructions. Install the sprinkler into the reducer of the Style AQC by following the sprinkler manufacturer's installation instructions.
2. Insert the Style AQC/sprinkler assembly into the pre-determined location in the cleanroom ceiling grid. **NOTE:** The graphics shown above illustrate the use of a cross block. Be careful not to damage the sprinkler during insertion. Make sure the bends in the flexible hose comply with requirements in this instruction sheet.
3. Align the holes in the fixing plate with the holes in the ceiling grid. Using the appropriate hardware supplied with the ceiling grid, secure the fixing plate to the ceiling grid. **NOTE:** The graphics shown above illustrate T-bolts and nuts being used to secure the fixing plate to the ceiling grid. Tighten the hardware completely to ensure a rigid connection.
4. At this point, any ceiling grid face plates, sprinkler escutcheons, elastic decorative rings or covers, etc. can be installed. Be careful not to damage the sprinkler during installation of any accessories.
5. After installation is complete, test the system for leaks in accordance with NFPA guidelines.

WARNING

- Re-location of VicFlex™ products **MUST** be performed by qualified personnel familiar with the system's original design criteria, sprinkler listings/approvals, and state and local codes (including NFPA 13 standards).

Failure to re-locate this VicFlex™ product properly could affect its performance during a fire, resulting in serious personal injury and property damage.

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For complete contact information, visit www.victaulic.com

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