

# Victaulic® QuickVic™ Installation-Ready™ Rigid Coupling for Copper Tubing Style 607



Patented

## 1.0 PRODUCT DESCRIPTION

### Available Sizes

- 2 – 8"/54.0 – 206.4 mm

### Pipe Material

- ASTM B88 drawn temper Types K, L and M and ASTM B306 Type DWV copper tubing

### Maximum Working Pressure

- Accommodates pressures ranging from full vacuum (29.9 in Hg/760 mm Hg) up to 300 psi/2068 kPa
- Working pressure dependent on Type and size of tubing

### Operating Temperature Range

- Potable Water Applications: +0°F to +180°F/-18°C to +82°C
- Non-Potable Water Applications: +0°F to +215°F/-18°C to +102°C

### Function

- Provides a rigid joint designed to restrict axial or angular movement

### Codes and Requirements

- Support and hanging requirements correspond to NFPA 13 Sprinkler Systems and ASME B31.9.

## 2.0 CERTIFICATION/LISTINGS



The Victaulic Grade P gasket supplied with the Style 607 QuickVic™ Installation-Ready™ Rigid Coupling is UL Classified in accordance with ANSI/NSF 61 and ANSI/NSF 372 as noted in section 3.0 Specifications – Material.

The Style 607 QuickVic™ Installation-Ready™ Rigid Coupling is UL Listed in accordance with UL 213 and UL 467.

### NOTES

- Download [publication 10.01](#) for Fire Protection Certifications/Listings Reference Guide.
- UL Listed for wet and dry fire protection services to 175 psi/1207 kPa on ASTM B88 hard drawn Types K, L and M copper tubing.
- UPC Listed for plumbing systems on ASTM B88 drawn temper tube Types K, L and M copper tubing.
- See [publication 02.06](#): Victaulic Potable Water Approvals ANSI/NSF for potable water approvals if applicable.

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      |  |



### 3.0 SPECIFICATIONS – MATERIAL

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**Housing:** Ductile iron conforming to ASTM A536, Grade 65-45-12. Ductile iron conforming to ASTM A395, Grade 65-45-15, is available upon special request.

**Housing Coating: (specify choice)**

Standard: Copper colored alkyd enamel.

Optional: Hot dipped galvanized conforming to ASTM A153.

Optional: Contact Victaulic with your requirements for other coatings.

**Gasket<sup>1</sup>: Grade “P” Fluoroelastomer Blend**

P (Red and blue stripe color code). Temperature range in potable water applications: +0°F to +180°F/-18°C to +82°C. Specifically formulated for compatibility with potable water systems. Optimized for improved resistance to chlorine, chloramine and other typical potable water disinfectants. UL Classified in accordance with ANSI/NSF 61 for cold +73°F/+23°C and hot +180°F/+82°C potable water service and ANSI/NSF 372. Temperature range in non-potable water applications: +0°F to +215°F/-18°C to +102°C.

<sup>1</sup> 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.

**NOTE**

- Victaulic reserves the right to substitute equivalent and/or higher grade elastomer products.

**Bolts/Nuts: (specify choice<sup>2</sup>)**

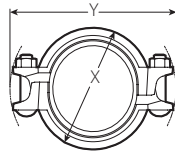
Standard: Carbon steel oval neck track bolts meeting the mechanical property requirements of ASTM A449 (imperial) and ISO 898-1 Class 9.8 (M10-M16) Class 8.8 (M20 and greater). Carbon steel hex nuts meeting the mechanical property requirements of ASTM A563 Grade B (imperial - heavy hex nuts) and ASTM A563M Class 9 (metric – hex nuts). Track bolts and hex nuts are zinc electroplated per ASTM B633 ZN/FE5, finish Type III (imperial) or Type II (metric).

Optional (imperial): Stainless steel oval neck track bolts meeting the mechanical property requirements of ASTM F593, Group 2 (316 stainless steel), condition CW. Stainless steel heavy nuts meeting the mechanical property requirements of ASTM F594, Group 2 (316 stainless steel), condition CW. Bolts and nuts include galling reducing coating.

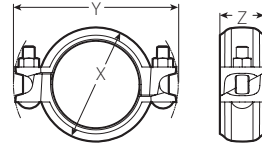
<sup>2</sup> Optional bolts/nuts are available in imperial size only.

## 4.0 DIMENSIONS

### Style 607 QuickVic™ Installation-Ready™ Rigid Coupling for Copper Tubing



Pre-Assembled  
(Installation-Ready™)



Joint Assembled

| Size              |   | Tubing End Separation <sup>3</sup> | Bolt/Nut |                | Dimensions                             |                   |                   |                   |                   | Weight                            |
|-------------------|---|------------------------------------|----------|----------------|--|-------------------|-------------------|-------------------|-------------------|-----------------------------------|
| Nominal<br>inches | Actual<br>Outside<br>Diameter<br>inches<br>mm | Allowable<br>inches<br>mm          | Qty.     | Size<br>inches | Pre-Assembled<br>(Installation-Ready™) |                   | Joint Assembled   |                   |                   | Approximate<br>(Each)<br>lb<br>kg |
|                   |   |                                    |          |                | X<br>inches<br>mm                      | Y<br>inches<br>mm | X<br>inches<br>mm | Y<br>inches<br>mm | Z<br>inches<br>mm |                                   |
| 2                 | 2.125<br>54.0                                 | 0.16<br>4                          | 2        | 5/8 x 2 1/2    | 3.63<br>92                             | 5.50<br>138       | 3.38<br>86        | 5.50<br>138       | 2.00<br>51        | 1.9<br>0.9                        |
| 2 1/2             | 2.625<br>66.7                                 | 0.16<br>4                          | 2        | 5/8 x 2 1/2    | 4.19<br>106                            | 6.00<br>152       | 3.94<br>100       | 6.00<br>152       | 2.00<br>51        | 2.2<br>1.0                        |
| 3                 | 3.125<br>79.4                                 | 0.16<br>4                          | 2        | 1/2 x 3        | 4.75<br>121                            | 7.00<br>178       | 4.50<br>114       | 7.00<br>178       | 2.00<br>51        | 3.0<br>1.4                        |
| 4                 | 4.125<br>104.8                                | 0.16<br>4                          | 2        | 1/2 x 3        | 5.63<br>143                            | 8.00<br>203       | 5.38<br>137       | 8.00<br>203       | 2.00<br>51        | 3.6<br>1.6                        |
| 5                 | 5.125<br>130.2                                | 0.16<br>4                          | 2        | 5/8 x 3 1/4    | 6.63<br>168                            | 9.63<br>245       | 6.38<br>163       | 9.63<br>245       | 2.00<br>51        | 5.2<br>2.4                        |
| 6                 | 6.125<br>155.6                                | 0.16<br>4                          | 2        | 5/8 x 3 1/4    | 7.75<br>197                            | 10.63<br>270      | 7.50<br>191       | 10.63<br>270      | 2.00<br>51        | 5.8<br>2.6                        |
| 8                 | 8.125<br>206.4                                | 0.16<br>4                          | 2        | 5/8 x 4        | 9.88<br>251                            | 12.75<br>324      | 9.63<br>245       | 12.75<br>324      | 2.00<br>51        | 7.7<br>3.5                        |

<sup>3</sup> The allowable tubing end separation dimension shown is for system layout purposes only. Style 607 rigid couplings for copper are considered rigid connections and will not accommodate expansion or contraction of the piping system and will not accommodate expansion/contraction or angular movement of the piping system. Contact Victaulic for torsional resistance information.

## 5.0 PERFORMANCE

### Style 607 QuickVic™ Installation-Ready™ Rigid Coupling for Copper Tubing

#### ASTM B88 Type K

| Size              |   | ASTM B88 Type K                   |  |  |  |
|-------------------|---|-----------------------------------|--|--|--|
| Nominal<br>inches | Actual<br>Outside<br>Diameter<br>inches<br>mm | Wall<br>Thickness<br>inches<br>mm | Wall<br>Thickness<br>Tolerance<br>inches<br>mm | Maximum<br>Joint<br>Working<br>Pressure <sup>4</sup><br>psi<br>kPa | Maximum<br>Permissible<br>End Load <sup>4</sup><br>lb<br>N |
| 2                 | 2.125<br>54.0                                 | 0.083<br>2.1                      | ± 0.008<br>± 0.20                              | 300<br>2068  | 1065<br>4740   |
| 2½                | 2.625<br>66.7                                 | 0.095<br>2.4                      | ± 0.010<br>± 0.25                              | 300<br>2068  | 1625<br>7230   |
| 3                 | 3.125<br>79.4                                 | 0.109<br>2.8                      | ± 0.011<br>± 0.28                              | 300<br>2068  | 2300<br>10235  |
| 4                 | 4.125<br>104.8                                | 0.134<br>2.8                      | ± 0.013<br>± 0.33                              | 300<br>2068  | 4005<br>17825  |
| 5                 | 5.125<br>130.2                                | 0.160<br>4.1                      | ± 0.016<br>± 0.41                              | 300<br>2068  | 6190<br>27550  |
| 6                 | 6.125<br>155.6                                | 0.192<br>4.9                      | ± 0.019<br>± 0.48                              | 300<br>2068  | 8840<br>39340  |
| 8                 | 8.125<br>206.4                                | 0.271<br>6.9                      | ± 0.027<br>± 0.69                              | 300<br>2068  | 15550<br>69200   |

#### ASTM B88 Type L

| Size              |   | ASTM B88 Type L                   |  |  |  |
|-------------------|---|-----------------------------------|--|--|--|
| Nominal<br>inches | Actual<br>Outside<br>Diameter<br>inches<br>mm | Wall<br>Thickness<br>inches<br>mm | Wall<br>Thickness<br>Tolerance<br>inches<br>mm | Maximum<br>Joint<br>Working<br>Pressure <sup>4</sup><br>psi<br>kPa | Maximum<br>Permissible<br>End Load <sup>4</sup><br>lb<br>N |
| 2                 | 2.125<br>54.0                                 | 0.070<br>1.8                      | ± 0.007<br>± 0.18                              | 300<br>2068  | 1065<br>4740   |
| 2½                | 2.625<br>66.7                                 | 0.080<br>2.0                      | ± 0.008<br>± 0.20                              | 300<br>2068  | 1625<br>7230   |
| 3                 | 3.125<br>79.4                                 | 0.090<br>2.3                      | ± 0.009<br>± 0.23                              | 300<br>2068  | 2300<br>10235  |
| 4                 | 4.125<br>104.8                                | 0.110<br>2.8                      | ± 0.011<br>± 0.28                              | 300<br>2068  | 4005<br>17825  |
| 5                 | 5.125<br>130.2                                | 0.125<br>3.2                      | ± 0.012<br>± 0.30                              | 300<br>2068  | 6190<br>27550  |
| 6                 | 6.125<br>155.6                                | 0.140<br>3.6                      | ± 0.014<br>± 0.36                              | 300<br>2068  | 8840<br>39340  |
| 8                 | 8.125<br>206.4                                | 0.200<br>5.1                      | ± 0.020<br>± 0.51                              | 300<br>2068  | 15550<br>69200   |

#### ASTM B88 Type M

| Size              |   | ASTM B88 Type M                   |  |  |  |
|-------------------|---|-----------------------------------|--|--|--|
| Nominal<br>inches | Actual<br>Outside<br>Diameter<br>inches<br>mm | Wall<br>Thickness<br>inches<br>mm | Wall<br>Thickness<br>Tolerance<br>inches<br>mm | Maximum<br>Joint<br>Working<br>Pressure <sup>4</sup><br>psi<br>kPa | Maximum<br>Permissible<br>End Load <sup>4</sup><br>lb<br>N |
| 2                 | 2.125<br>54.0                                 | 0.058<br>1.5                      | ± 0.006<br>± 0.15                              | 250<br>1724  | 890<br>3960  |
| 2½                | 2.625<br>66.7                                 | 0.065<br>1.7                      | ± 0.006<br>± 0.15                              | 250<br>1724  | 1350<br>6010   |
| 3                 | 3.125<br>79.4                                 | 0.072<br>1.8                      | ± 0.007<br>± 0.187                             | 250<br>1724  | 1415<br>6300   |
| 4                 | 4.125<br>104.8                                | 0.095<br>2.4                      | ± 0.010<br>± 0.25                              | 250<br>1724  | 3340<br>14865  |
| 5                 | 5.125<br>130.2                                | 0.109<br>2.8                      | ± 0.011<br>± 0.28                              | 200<br>1379  | 4125<br>18360  |
| 6                 | 6.125<br>155.6                                | 0.122<br>3.2                      | ± 0.012<br>± 0.30                              | 200<br>1379  | 5890<br>26210  |
| 8                 | 8.125<br>206.4                                | 0.170<br>4.3                      | ± 0.017<br>± 0.43                              | 200<br>1379  | 10370<br>46100   |

#### ASTM B306 Type DWV

| Size              |   | ASTM B306 Type DWV                |  |  |  |
|-------------------|---|-----------------------------------|--|--|--|
| Nominal<br>inches | Actual<br>Outside<br>Diameter<br>inches<br>mm | Wall<br>Thickness<br>inches<br>mm | Wall<br>Thickness<br>Tolerance<br>inches<br>mm | Maximum<br>Joint<br>Working<br>Pressure <sup>4</sup><br>psi<br>kPa | Maximum<br>Permissible<br>End Load <sup>4</sup><br>lb<br>N |
| 2                 | 2.125<br>54.0                                 | 0.042<br>1.1                      | —  | 100<br>689   | 355<br>1580  |
| 2½                | 2.625<br>66.7                                 | —                                 | —  | —  | —  |
| 3                 | 3.125<br>79.4                                 | 0.045<br>1.1                      | ± 0.004<br>± 0.10                              | 100<br>689   | 765<br>3405  |
| 4                 | 4.125<br>104.8                                | 0.058<br>1.5                      | ± 0.007<br>± 0.18                              | 100<br>689   | 1335<br>5940   |
| 5                 | 5.125<br>130.2                                | 0.072<br>1.8                      | ± 0.008<br>± 0.20                              | 100<br>689   | 2060<br>9170   |
| 6                 | 6.125<br>155.6                                | 0.083<br>2.1                      | ± 0.008<br>± 0.20                              | 100<br>689   | 2945<br>13105  |
| 8                 | 8.125<br>206.4                                | 0.109<br>2.8                      | ± 0.011<br>± 0.28                              | 100<br>689   | 5180<br>23000  |

<sup>4</sup> Working Pressure and End Load are total, from all internal and external loads, based on drawn temper tube of the weight indicated, roll grooved in accordance with Victaulic specifications.

#### NOTES

- WARNING: FOR ONE TIME FIELD TEST ONLY, the Maximum Joint Working Pressure may be increased to 1½ times the figures shown.
- Performance ratings also apply to the Victaulic Series 608N butterfly valve, Style 641 *Vic-Flange* adapter, and copper fittings connected to the indicated Types of tubing.

## 6.0 NOTIFICATIONS

### WARNING



- Read and understand all instructions before attempting to install, remove, adjust, or maintain any Victaulic piping products.
- Depressurize and drain the piping system before attempting to install, remove, adjust, or maintain any Victaulic piping products.
- Wear safety glasses, hardhat, and foot protection.

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

### CAUTION

- Copper roll sets shall be used to roll groove copper tubing. Always specify copper roll sets at the time of order.
- DO NOT use rolls intended for steel, stainless steel, aluminum, PVC, or CPVC pipe or rolls intended for other groove profiles.

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

- For Style 607 rigid couplings, use Victaulic No. 660 end caps containing the “QV” markings on the inside face. Victaulic recommends the use of Victaulic copper fittings with Style 607 rigid couplings.
- Tools must be equipped only with Victaulic rolls designed specifically for grooving copper tubing (color coded copper).
- Roll grooving tools VE272SFS, VE270FSD, VE268, VE416FSD, and VE414MC can be used to roll groove Types K, L, M and DWV copper tubing from 2 – 8”/54.0 – 206.4 mm.
- VE226C can be used for 2 – 6”/54.0 – 155.6 mm copper tubing.
- VE26C allows in-place manual grooving of 2 – 6”/54.0 – 155.6 mm copper tubing.

## 7.0 REFERENCE MATERIALS

[02.06: Victaulic Potable Water Approvals ANSI/NSF](#)

[05.01: Victaulic Seal Selection Guide](#)

[10.01: Victaulic Products for Fire Protection Piping Systems - Regulatory Approval Reference Guide](#)

[22.03: Victaulic Style 641 Vic-Flange Adapter for Copper Tubing](#)

[22.14: Victaulic Copper Connection Butterfly Valve Series 608N](#)

[22.15: Victaulic Installation-Ready™ Fittings for Grooved Copper Tubing](#)

[25.06: Victaulic Copper Tubing Roll Groove Specifications](#)

[I-600: Victaulic Field Installation Handbook: Copper Connection Products](#)

[I-607: Victaulic QuickVic™ Rigid Coupling for Copper Style 607 Installation Instructions](#)

[I-ENDCAP: Victaulic End Cap Installation Safety Instructions](#)

### 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, 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 the Victaulic installation handbook or installation instructions of 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 [www.victaulic.com](http://www.victaulic.com).

### Warranty

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

### Trademarks

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