

# Victaulic® QuickVic™ Installation-Ready™ Rigid Coupling for Copper Tubing in Potable Water Applications



22.13

## 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

- +0°F to +180°F/-18°C to +82°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 Style 607 QuickVic™ Installation-Ready™ Rigid Coupling is 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.

#### 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 +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.

<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>)**

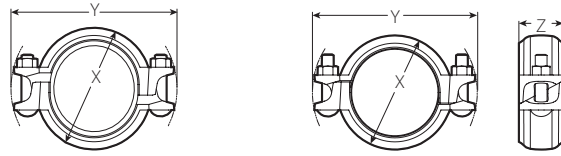
Standard: Carbon steel oval neck track bolts meeting the mechanical property requirements of ASTM A449 (imperial) and ISO 898-1 Class 9.8 (M10-M16) Class 8.8 (M20 and greater). Carbon steel hex nuts meeting the mechanical property requirements of ASTM A563 Grade B (imperial - heavy hex nuts) and ASTM 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 in Potable Water Applications



Pre-Assembled  
(Installation-Ready™)

Joint Assembled

Size		Tubing End Separation <sup>3</sup>	Bolt/Nut		Dimensions					Weight
Nominal inches	Actual Outside Diameter inches mm	Allowable inches mm	Qty.	Size inches	Pre-Assembled (Installation-Ready™)		Joint Assembled			Approximate (Each) lb kg
					X inches mm	Y inches mm	X inches mm	Y inches mm	Z inches mm	
2	2.125	0.16 4	2	5/8 x 2 1/2	3.63	5.50	3.38	5.50	2.00	1.9 0.9
	54.0				92	138				
2 1/2	2.625	0.16 4	2	5/8 x 2 1/2	4.19	6.00	3.94	6.00	2.00	2.2 1.0
	66.7				106	152				
3	3.312	0.16 4	2	1/2 x 3	4.75	7.00	4.50	7.00	2.00	3.0 1.4
	79.4				121	178				
4	4.125	0.16 4	2	1/2 x 3	5.63	8.00	5.38	8.00	2.00	3.6 1.6
	104.8				143	203				
5	5.125	0.16 4	2	5/8 x 3 1/4	6.63	9.63	6.38	9.63	2.00	5.2 2.4
	130.2				168	245				
6	6.125	0.16 4	2	5/8 x 3 1/4	7.75	10.63	7.50	10.63	2.00	5.8 2.6
	155.6				197	270				
8	8.125	0.16 4	2	5/8 x 4	9.88	12.75	9.63	12.75	2.00	7.7 3.5
	206.4				251	324				

<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.

## 5.0 PERFORMANCE

### Style 607 QuickVic™ Installation-Ready™ Rigid Coupling for Copper Tubing in Potable Water Applications

#### ASTM B88 Type K

Size		ASTM B88 Type K			
Nominal inches	Actual Outside Diameter inches mm	Wall Thickness inches mm	Wall Thickness Tolerance inches mm	Maximum Joint Working Pressure <sup>4</sup> psi kPa	Maximum Permissible End Load <sup>4</sup> lb N
2	2.125 54.0	0.083 2.1	± 0.008 ± 0.20	300 2068	1065 4740
2½	2.625 66.7	0.095 2.4	± 0.010 ± 0.25	300 2068	1625 7230
3	3.312 79.4	0.109 2.8	± 0.011 ± 0.28	300 2068	2300 10235
4	4.125 104.8	0.134 2.8	± 0.013 ± 0.33	300 2068	4005 17825
5	5.125 130.2	0.160 4.1	± 0.016 ± 0.41	300 2068	6190 27550
6	6.125 155.6	0.192 4.9	± 0.019 ± 0.48	300 2068	8840 39340
8	8.125 206.4	0.271 6.9	± 0.027 ± 0.69	300 2068	15550 69200

#### ASTM B88 Type L

Size		ASTM B88 Type L			
Nominal inches	Actual Outside Diameter inches mm	Wall Thickness inches mm	Wall Thickness Tolerance inches mm	Maximum Joint Working Pressure <sup>4</sup> psi kPa	Maximum Permissible End Load <sup>4</sup> lb N
2	2.125 54.0	0.070 1.8	± 0.007 ± 0.18	300 2068	1065 4740
2½	2.625 66.7	0.080 2.0	± 0.008 ± 0.20	300 2068	1625 7230
3	3.312 79.4	0.090 2.3	± 0.009 ± 0.23	300 2068	2300 10235
4	4.125 104.8	0.110 2.8	± 0.011 ± 0.28	300 2068	4005 17825
5	5.125 130.2	0.125 3.2	± 0.012 ± 0.30	300 2068	6190 27550
6	6.125 155.6	0.140 3.6	± 0.014 ± 0.36	300 2068	8840 39340
8	8.125 206.4	0.200 5.1	± 0.020 ± 0.51	300 2068	15550 69200

#### ASTM B88 Type M

Size		ASTM B88 Type M			
Nominal inches	Actual Outside Diameter inches mm	Wall Thickness inches mm	Wall Thickness Tolerance inches mm	Maximum Joint Working Pressure <sup>4</sup> psi kPa	Maximum Permissible End Load <sup>4</sup> lb N
2	2.125 54.0	0.058 1.5	± 0.006 ± 0.15	250 1724	890 3960
2½	2.625 66.7	0.065 1.7	± 0.006 ± 0.15	250 1724	1350 6010
3	3.312 79.4	0.072 1.8	± 0.007 ± 0.187	250 1724	1415 6300
4	4.125 104.8	0.095 2.4	± 0.010 ± 0.25	250 1724	3340 14865
5	5.125 130.2	0.109 2.8	± 0.011 ± 0.28	200 1379	4125 18360
6	6.125 155.6	0.122 3.2	± 0.012 ± 0.30	200 1379	5890 26210
8	8.125 206.4	0.170 4.3	± 0.017 ± 0.43	200 1379	10370 46100

#### ASTM B306 Type DWV


Size		ASTM B306 Type DWV			
Nominal inches	Actual Outside Diameter inches mm	Wall Thickness inches mm	Wall Thickness Tolerance inches mm	Maximum Joint Working Pressure <sup>4</sup> psi kPa	Maximum Permissible End Load <sup>4</sup> lb N
2	2.125 54.0	0.042 1.1	—	100 689	355 1580
2½	2.625 66.7	—	—	—	—
3	3.312 79.4	0.045 1.1	± 0.004 ± 0.10	100 689	765 3405
4	4.125 104.8	0.058 1.5	± 0.007 ± 0.18	100 689	1335 5940
5	5.125 130.2	0.072 1.8	± 0.008 ± 0.20	100 689	2060 9170
6	6.125 155.6	0.083 2.1	± 0.008 ± 0.20	100 689	2945 13105
8	8.125 206.4	0.109 2.8	± 0.011 ± 0.28	100 689	5180 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

- [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.

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