

Victaulic® QuickVic™ Installation-Ready™ Rigid Couplings for Copper Tubing Style 607 and Style 607Z



Style 607



Style 607Z

Patented

1.0 PRODUCT DESCRIPTION

Available Sizes

- Style 607: 2 – 8"/54.0 – 206.4 mm
- Style 607Z: 2 – 4"/54.0 – 104.8 mm

Pipe Material

- ASTM B88 drawn temper Types K, L, and M
- 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

- Dependent on gasket selection from Section 3.0

Function

- Provides a rigid joint designed to restrict axial or angular movement
- Style 607Z is available only with a Grade "V" Neoprene gasket and shall not be used in water services

Codes and Requirements

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

2.0 CERTIFICATION/LISTINGS

This section applies only to the Style 607 QuickVic™ Installation-Ready™ Rigid Coupling.



The Victaulic Grade P gasket supplied with the Style 607 QuickVic™ Installation-Ready™ Rigid Coupling is UL Classified in accordance with NSF/ANSI/CAN 61 and NSF/ANSI/CAN 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.



3.0 SPECIFICATIONS – MATERIAL

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.

Style 607 Housing Coating: (specify choice)

- ☐ Standard: Copper coating
- ☐ Optional: Hot dipped galvanized conforming to ASTM A123
- ☐ Optional: Contact Victaulic with your requirements for other coatings

Style 607 Gasket: (specify choice¹)

☐ Grade "P" Fluoroelastomer Blend

P (Red and blue stripes 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 NSF/ANSI/CAN 61 for cold +73°F/+23°C and hot +180°F/+82°C potable water service and NSF/ANSI/CAN 372.

☐ Grade "EHP" EPDM

EHP (Red and copper stripes color code). Temperature range in non-potable water applications: -30°F to +250°F/-34°C to +121°C. May be specified for hot water service within the specified temperature range plus a variety of dilute acids, oil-free air and many chemical services. NOT COMPATIBLE FOR USE WITH PETROLEUM SERVICES OR STEAM SERVICES.

☐ Grade "T" Nitrile

Nitrile (Orange and copper stripes color code). Temperature range -20°F to +180°F/-29°C to +82°C. May be specified for oil related services, including air with oil vapor, this gasket may be specified for temperatures rated up to +180°F/+82°C. For water related services, this gasket may be specified for temperatures rated up to +150°F/+66°C. For oil free, dry air services, this gasket may be specified for temperatures rated up to +140°F/+60°C. NOT COMPATIBLE FOR USE WITH HOT WATER SERVICES OR STEAM SERVICES.

Style 607Z Housing Coating:

- ☐ Standard: Black coating

Style 607Z Gasket:¹

☐ Grade "V" Neoprene (Gasket is pre-lubricated with silicone-based lubricant)

Neoprene (Yellow stripe color code). Temperature range -30°F to +160°F/-34°C to +71°C. May be specified for hot lubricating oils and certain chemicals. Good ozone resistance. Will not support combustion. NOT COMPATIBLE FOR USE WITH WATER SERVICES.

Bolts/Nuts: (specify choice²)

- ☐ 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.

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.

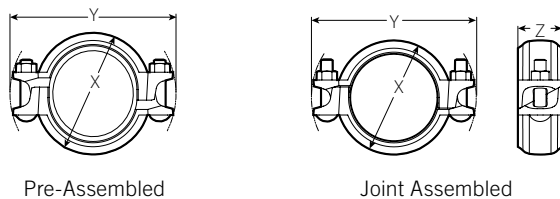
² Optional bolts/nuts are available in imperial size only.

NOTE

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

4.0 DIMENSIONS

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



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

³ The allowable tubing end separation dimension shown is for system layout purposes only. Style 607/607Z 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.

⁴ Style 607 available in these sizes.

NOTE

The X, Y, and Z dimensions are intended to be used for layout and clearance purposes only.

5.0 PERFORMANCE

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

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 ⁵ psi kPa	Maximum Permissible End Load ⁵ 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	3.125 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 ⁴	5.125 130.2	0.160 4.1	± 0.016 ± 0.41	300 2068	6190 27550
6 ⁴	6.125 155.6	0.192 4.9	± 0.019 ± 0.48	300 2068	8840 39340
8 ⁴	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 ⁵ psi kPa	Maximum Permissible End Load ⁵ 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	3.125 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 ⁴	5.125 130.2	0.125 3.2	± 0.012 ± 0.30	300 2068	6190 27550
6 ⁴	6.125 155.6	0.140 3.6	± 0.014 ± 0.36	300 2068	8840 39340
8 ⁴	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 ⁵ psi kPa	Maximum Permissible End Load ⁵ 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	3.125 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 ⁴	5.125 130.2	0.109 2.8	± 0.011 ± 0.28	200 1379	4125 18360
6 ⁴	6.125 155.6	0.122 3.2	± 0.012 ± 0.30	200 1379	5890 26210
8 ⁴	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 ⁵ psi kPa	Maximum Permissible End Load ⁵ lb N
2	2.125 54.0	0.042 1.1	—	100 689	355 1580
2½	2.625 66.7	—	—	—	—
3	3.125 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 ⁴	5.125 130.2	0.072 1.8	± 0.008 ± 0.20	100 689	2060 9170
6 ⁴	6.125 155.6	0.083 2.1	± 0.008 ± 0.20	100 689	2945 13105
8 ⁴	8.125 206.4	0.109 2.8	± 0.011 ± 0.28	100 689	5180 23000

⁴ Style 607 available in these sizes.

⁵ 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 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.
- Confirm that any equipment, branch lines, or sections of piping that may have been isolated for/during testing or due to valve closures/positioning are identified, depressurized, and drained immediately prior to installation, removal, adjustment, or maintenance of any Victaulic products.
- Always reference Victaulic [publication I-ENDCAP](#) for important end cap installation safety instructions.
- Wear safety glasses, hardhat, foot protection, and hearing 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 cause product failure, resulting in property damage and personal injury.

- When assembling Style 607/607Z Couplings onto end caps, take additional time to inspect and verify that the end cap is seated fully against the center leg of the gasket. Use only Victaulic No. 660 End Caps.
- Victaulic recommends the use of Victaulic copper fittings with Style 607/607Z Rigid Couplings.
- Tools shall 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-607/607Z: Victaulic QuickVic™ Rigid Couplings for Copper Style 607/607Z Installation Instructions](#)

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

[I-IMPACT: Impact Tool Usage Guidelines](#)

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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