QuickVic® Rigid Coupling for Copper

SEE VICTAULIC PUBLICATION 10.01 FOR DETAILS

STYLE 607

PATENTED

The patented Style 607 rigid coupling joins 2 – 8"/50 – 200 mm rolled grooved, hard-drawn copper tubing (CTS). The joint is assembled without disassembling the bolts, nuts, gasket and housings. The Style 607 coupling requires lubrication be applied to the sealing lips of the gasket before sliding the coupling on pipe grooved to Victaulic specifications. Refer to Victaulic Installation Instructions I-600 for required steps.

The Style 607 provides rigidity with its angle bolt pad design and accommodates pressures ranging from full vacuum (29.9 in Hg/ 760 mm Hg) up to 300 psi/2065 kPa. The maximum operating pressure will depend on the diameter and wall thickness of the copper tubing.

The Style 607 is rigid and does not accommodate expansion, contraction or angular deflection. Support and hanging requirements correspond to NFPA 13 Sprinkler Systems and ASME B31.9.

Victaulic Vic-Easy® 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. The Vic-Easy VE226C can be used for 2 – 6"/54.0 – 155.6 mm copper tubing. The VE26C allows in-place manual grooving of 2 – 6"/54.0 – 155.6 mm copper tubing. Tools must be equipped only with Victaulic rolls designed specifically for grooving copper tube (color coded copper).

⚠ CAUTION

- **DO NOT use rolls intended for steel. stainless steel. aluminum or PVC pipe.**

The Victaulic copper connection system is available in Australian Standard (Request 22.10). British Standard (Request 22.08) and DIN Standard (Request 22.09).

MATERIAL SPECIFICATIONS

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.

Housing Coating: Copper colored alkyd enamel.

Optional Coatings:
- Hot dipped galvanized

Gasket:
- **Grade "EHP"**
  EHP (Red and copper stripe color code) Temperature range –30°F to +250°F/–34°C to +121°C.Recommended for hot water service within the specified temperature range plus a variety of dilute acids, oil-free air and many chemical services.* UL classified in accordance with ANSI/NSF 61 for cold +86°F/+30°C and hot +180°F/+82°C potable water service. NOT RECOMMENDED FOR PETROLEUM SERVICES.

- **Grade "T" nitrile (Optional)**
  Nitrile (Orange color code). Temperature range –20°F to +180°F/–29°C to +82°C. Recommended for petroleum products, air with oil vapors, vegetable and mineral oils within the specified temperature range. Not recommended for hot water services over +150°F/+66°C or for hot dry air over +140°F/+60°C.

* Services listed are General Service Recommendations only. It should be noted that there are services for which these gaskets are not recommended. Reference should always be made to the latest Victaulic Gasket Selection Guide for specific gasket service recommendations and for a listing of services which are not recommended.

Material Specifications continued on next page

JOB/OWNER
System No. _____
Location _____

CONTRACTOR
Submitted By _____
Date _____

ENGINEER
Spec Sect _____ Para _____
Approved _____
Date _____

QuickVic® Rigid Coupling for Copper

STYLE 607

MATERIAL SPECIFICATIONS continued

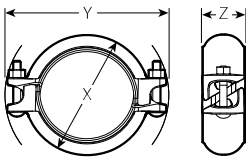
Bolts/Nuts: Heat-treated plated carbon steel, trackhead meeting the physical and chemical requirements of ASTM A-449 and physical requirements of ASTM A-183.

Optional Bolts/Nuts: (Available in imperial size bolts and nuts only.)

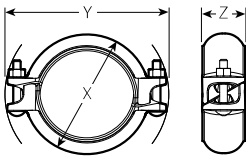
Bolts: Stainless steel, meeting the requirements of ASTM F-593, Group 2 (316 stainless steel), condition CW, with galling resistant coating.

Nuts: ASTM F-594, Group 2 (316 stainless steel), condition CW

DIMENSIONS



STYLE 607 PRE-ASSEMBLED (INSTALLATION-READY CONDITION)



STYLE 607 JOINT ASSEMBLED

Size	Allow. Pipe End Sep. †	@ Bolt/Nut No. – Size	Dimensions – Inches/mm					Aprx. Wgt. Ea.
TUBING Nominal Inches Actual mm	Inches mm	Inches mm	Pre-assembled (Installation-ready condition)		Joint Assembled			Lbs. kg
			X	Y	X	Y	Z	
2 54.0	0.16 4	2 – ⅜ x 2½	3.63 92	5.50 138	3.38 86	5.50 138	2.00 51	1.9 0.9
2½ 66.7	0.16 4	2 – ⅜ x 2½	4.19 106	6.00 152	3.94 100	6.00 152	2.00 51	2.2 1.0
3 79.4	0.16 4	2 – ½ x 3	4.75 121	7.00 178	4.50 114	7.00 178	2.00 51	3.0 1.4
4 104.8	0.16 4	2 – ½ x 3	5.63 143	8.00 203	5.38 137	8.00 203	2.00 51	3.6 1.6
5 130.2	0.16 4	2 – ⅝ x 3 ¼	6.63 1.68	9.63 245	6.38 163	9.63 245	2.00 51	5.2 2.4
6 155.6	0.16 4	2 – ⅝ x 3 ¼	7.75 197	10.63 270	7.50 191	10.63 270	2.00 51	5.8 2.6
8 206.4	0.16 4	2 – ⅝ x 4	9.88 251	12.75 324	9.63 245	12.75 324	2.00 51	7.7 3.5

† The allowable pipe separation dimension shown is for system layout purposes only. Style 607 QuickVic rigid couplings for copper are considered rigid connections and will not accommodate expansion or contraction of the piping system.

@ Number of bolts required equals number of housing segments.

WARNING: Depressurize and drain the piping system before attempting to install, remove or adjust any Victaulic piping products.

QuickVic® Rigid Coupling for Copper

STYLE 607

PERFORMANCE

The Victaulic copper connection system has been thoroughly tested on Types K, L, M and DWV hard drawn copper tubing. Performance ratings also apply to the Victaulic Series 608 butterfly valve, Style 641 Vic-Flange® adapter, and copper fittings connected to the indicated Types of tubing.

TUBING	Type "K" – ASTM B-88				Type "L" – ASTM B-88			
Nominal Inches Actual mm	Wall Thick. Inches mm	Wall Thick. Tolerances Inches mm	Max. * Joint Wk. Press. psi/kPa	Max. * Permis. End Load Lbs./N	Wall Thick. Inches mm	Wall Thick. Tolerances Inches mm	Max. * Joint Wk. Press. psi/kPa	Max. * Permis. End Load Lbs./N
2 54.0	0.083 2.1	± 0.008 ± 0.20	300 2065	1.065 4740	0.070 1.8	± 0.007 ± 0.18	300 2065	1.065 4740
2½ 66.7	0.095 2.4	± 0.010 ± 0.25	300 2065	1.625 7230	0.080 2.0	± 0.008 ± 0.20	300 2065	1.625 7230
3 79.4	0.109 2.8	± 0.011 ± 0.28	300 2065	2.300 10235	0.090 2.3	± 0.009 ± 0.23	300 2065	2.300 10235
4 104.8	0.134 2.8	± 0.013 ± 0.33	300 2065	4.005 17825	0.110 2.8	± 0.011 ± 0.28	300 2065	4.005 17825
5 130.2	0.160 4.1	± 0.016 ± 0.41	300 2065	6.190 27550	0.125 3.2	± 0.012 ± 0.30	300 2065	6.190 27550
6 155.6	0.192 4.9	± 0.019 ± 0.48	300 2065	8.840 39340	0.140 3.6	± 0.014 ± 0.36	300 2065	8.840 39340
8 206.4	0.271 6.9	± 0.027 ± 0.69	300 2065	15.550 69200	0.200 5.1	± 0.020 ± 0.51	300 2065	15.550 69200

TUBING	Type "M" – ASTM B-88				DWV – ASTM B-306			
Nominal Inches Actual mm	Wall Thick. Inches mm	Wall Thick. Tolerances Inches mm	Max. * Joint Wk. Press. psi/kPa	Max. * Permis. End Load Lbs./N	Wall Thick. Inches mm	Wall Thick. Tolerances Inches mm	Max. * Joint Wk. Press. psi/kPa	Max. * Permis. End Load Lbs./N
2 54.0	0.058 1.5	± 0.006 ± 0.15	250 1725	890 3960	0.042 1.1	—	100 690	355 1580
2½ 66.7	0.065 1.7	± 0.006 ± 0.15	250 1725	1.350 6010	—	—	—	—
3 79.4	0.072 1.8	± 0.007 ± 0.187	250 1725	1.415 6300	0.045 1.1	± 0.004 ± 0.10	100 690	765 3405
4 104.8	0.095 2.4	± 0.010 ± 0.25	250 1725	3.340 14865	0.058 1.5	± 0.007 ± 0.18	100 690	1.335 5940
5 130.2	0.109 2.8	± 0.011 ± 0.28	200 1375	4.125 18360	0.072 1.8	± 0.008 ± 0.20	100 690	2.060 9170
6 155.6	0.122 3.2	± 0.012 ± 0.30	200 1375	5.890 26210	0.083 2.1	± 0.008 ± 0.20	100 690	2.945 13105
8 206.4	0.170 4.3	± 0.017 ± 0.43	200 1375	10.370 46100	0.109 2.8	± 0.011 ± 0.28	100 690	5.180 23000

* **Working Pressure** and **End Load** are total, from all internal and external loads, based on hard drawn copper tubing of the weight indicated, roll grooved in accordance with Victaulic specifications. Contact Victaulic for performance on other pipe.

WARNING: FOR ONE TIME FIELD TEST ONLY, the Maximum Joint Working Pressure may be increased to 1½ times the figures shown.

For field installation only. Style 607 is essentially rigid and does not permit expansion/contraction.

@ Number of bolts required equals number of housing segments.

LISTINGS

UL Listed for wet and dry Fire Protection services to 175 psi/1200 kPa on ASTM B-88 Hard Drawn type K, L and M copper tube.

UPC Listed for plumbing systems on ASTM B-88 Hard Drawn type K, L and M copper tube.

QuickVic® Rigid Coupling for Copper

STYLE 607

GENERAL NOTES

When assembling Style 607 QuickVic rigid couplings onto end caps, take additional care to make certain the end cap is fully seated against the gasket end stop. For Style 607 QuickVic rigid couplings, use Victaulic No. 660 end caps containing the "QV" markings on the inside face. Non-Victaulic fittings shall not be used with Style 607 QuickVic rigid couplings.

WARNING: Depressurize and drain the piping system before attempting to install, remove or adjust any Victaulic piping products

INSTALLATION

Reference should be made to the I-600 Victaulic Field Installation Handbook or the I-607 Installation Instructions for complete assembly information. Installation Instructions are included with each shipment and are available in PDF format on our website at www.victaulic.com.

WARRANTY

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

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.