

# Victaulic® QuickVic™ Rigid Coupling

## Style 107V



2 – 12"/DN50 – DN300

### 1.0 PRODUCT DESCRIPTION

#### Available Size

- 2 – 12"/DN50 – DN300

#### Pipe Material

- Carbon steel; Stainless steel
- For exceptions reference section 6.0 Notifications

#### Maximum Working Pressure

- Accommodates pressures ranging from full vacuum (29.9 in Hg/760 mm Hg) up to 750 psi/5171 kPa
- Working pressure dependent on pipe material, wall thickness and size of pipe

#### Operating Temperature

- Dependent on gasket selection from section 3.0

#### Function

- Joins carbon steel or stainless steel pipe prepared with the Victaulic Original Groove System (OGS) groove profile
- Provides a rigid pipe joint designed to restrict axial or angular movement

#### NOTE

- Applications that require NSF 61-approved products should specify the Victaulic Installation-Ready™ Rigid Coupling Style 807N ([publication 06.28](#))

#### Pipe Preparation

- Cut or roll grooved in accordance with [publication 25.01](#): Victaulic Standard Groove Specifications

#### Codes and Requirements

- Hanger support spacing corresponds to ASME B31.1 Power Piping Code and ASME B31.9 Building Services Piping Code

### 2.0 CERTIFICATION/LISTINGS



EN 10311  
CPR (EU)  
No. 305/2011



BS EN 10311  
CPR (UK)  
2019 No. 465

Product designed and manufactured under the Victaulic Quality Management System, as certified by LPCB in accordance with ISO-9001:2015.

#### NOTE

- See [publication 10.01](#) for Fire Protection Certifications/Listings Reference Guide.

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.

**Housing Coating:**

- Orange coating.
- Optional for Style 107V:** 2 – 4" Mechanically Galvanized per ASTM B695.
- Optional for Style 107V:** 5 – 12" Hot dipped galvanized conforming to ASTM A123.

**Gasket<sup>1</sup>:**

- Grade "EHP" EPDM**  
EHP (Red and Green or Yellow and Green Stripes color code). Temperature range –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 WITH PETROLEUM SERVICES.

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

**NOTES**

- Victaulic reserves the right to substitute equivalent and/or higher grade elastomer products.
- For additional gasket grades reference [publication 06.23](#) for the Style 107N

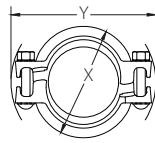
**Bolts/Nuts: (specify choice<sup>2</sup>)**

- 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 Fe/Zn5, finish Type III (imperial) or Type II (metric).
- Optional: 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>

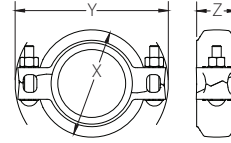
<sup>2</sup> Optional bolts/nuts are available in imperial sizes only.

## 4.0 DIMENSIONS

### Style 107V QuickVic™ Rigid Coupling



Pre-Assembled  
(Installation-Ready™ Condition)



Joint Assembled

Size		Pipe End Separation <sup>3</sup>	Bolt/Nut <sup>4</sup>		Dimensions					Weight
Nominal inches DN	Actual Outside Diameter inches mm	Allowable inches mm	Qty.	Size inches mm	Pre-Assembled (Installation-Ready™ Condition)		Joint Assembled			Approximate (Each) lb kg
					X inches mm	Y inches mm	X inches mm	Y inches mm	Z inches mm	
2 DN50	2.375 60.3	0.15 3.8	2	½ x 2¾ M12 x 70	4.00 102	6.13 156	3.50 89	6.13 156	2.25 57	2.9 1.3
2½	2.875 73.0	0.15 3.8	2	½ x 2¾ M12 x 70	4.63 118	6.75 171	4.13 105	6.75 171	2.38 60	3.3 1.5
3 DN80	3.500 88.9	0.15 3.8	2	½ x 3 M12 x 76	5.25 132	7.38 187	4.75 121	7.50 191	2.38 60	3.7 1.7
4 DN100	4.500 114.3	0.15 3.8	2	½ x 3 M12 x 76	6.63 168	8.75 222	6.00 152	8.75 222	2.38 60	5.0 2.3
5	5.563 141.3	0.15 3.8	2	⅝ x 3⅝ M16 x 92	7.75 197	10.38 264	7.13 181	10.00 254	2.38 60	7.2 3.3
6 DN150	6.625 168.3	0.15 3.8	2	⅝ x 3⅝ M16 x 92	8.88 226	11.38 289	8.13 207	11.25 286	2.38 60	8.1 3.7
8 DN200	8.625 219.1	0.20 5.1	2	¾ x 5 M20 x 127	11.25 286	14.38 365	10.50 267	14.13 359	2.75 70	16.1 7.3
10 DN250	10.750 273.0	0.20 5.1	2	⅞ x 6½ M22 x 165	13.50 343	17.25 438	12.75 324	17.00 432	2.88 73	24.7 11.2
12 DN300	12.750 323.9	0.20 5.1	2	⅞ x 6½ M22 x 165	15.75 400	19.25 489	14.88 378	19.00 483	2.88 73	29.1 13.2

<sup>3</sup> The Allowable Pipe End Separation dimension shown is for system layout purposes only. Style 107V QuickVic™ rigid couplings are considered rigid connections and will not accommodate expansion/contraction or angular movement of the piping system. Contact Victaulic for torsional resistance information.

<sup>4</sup> Contact Victaulic for stainless steel bolt lengths.

## 5.0 PERFORMANCE

### Style 107V QuickVic™ Rigid Coupling

#### ANSI Standard

Size		Schedule 10			Standard Weight (STD)		
Nominal inches DN	Actual Outside Diameter inches mm	Wall Thickness inches mm	Maximum Joint Working Pressure <sup>5</sup> psi kPa	Maximum Permissible End Load <sup>5</sup> lb N	Wall Thickness inches mm	Maximum Joint Working Pressure <sup>5</sup> psi kPa	Maximum Permissible End Load <sup>5</sup> lb N
2 DN50	2.375 60.3	0.109 2.8	750 5171	3323 14781	0.154 3.9	750 5170	3323 14781
2 ½	2.875 73.0	0.120 3.1	600 4135	3895 17325	0.203 5.2	750 5170	4869 21658
3 DN80	3.500 88.9	0.120 3.1	600 4135	5773 25680	0.216 5.5	750 5170	7216 32098
4 DN100	4.500 114.3	0.120 3.1	600 4135	9543 42449	0.237 6.0	750 5170	11928 53058
5	5.563 141.3	0.134 3.4	500 3447	12153 54059	0.258 6.6	750 5171	18229 81087
6 DN150	6.625 168.3	0.134 3.4	500 3450	17236 76670	0.280 7.1	700 4825	24130 107335
8 DN200	8.625 219.1	0.148 3.8	300 2070	17528 77970	0.322 8.2	600 4135	35056 155936
10 DN250	10.750 273.0	0.165 4.2	300 2065	27200 121040	0.365 9.3	500 3450	45400 202030
12 DN300	12.750 323.9	0.180 4.6	300 2065	38300 170380	0.375 9.5	400 2750	51000 226950

<sup>5</sup> Working Pressure and End Load are total, from all internal and external loads, based on ANSI B36.10 sized carbon steel pipe, grooved in accordance with Victaulic specifications. Contact Victaulic for performance on other pipe.

#### NOTES

- WARNING: FOR ONE-TIME FIELD TEST ONLY, the Maximum Joint Working Pressure may be increased to 1 ½ times the figures shown.
- FM approved on Schedule 10 pipe: sizes 2 – 4"/DN50 – DN100 rated to 400 psi/28 bar; size 6"/DN150 rated to 300 psi/21 bar; and sizes 8 – 10"/DN200 – DN250 (0.188" wall thickness) rated to 300 psi/21 bar. FM approved on standard weight pipe: sizes 2 – 4"/DN50 – DN100 rated to 600 psi/41 bar; size 6"/DN150 rated to 500 psi/34 bar; size 8"/DN200 rated to 450 psi/31 bar; and sizes 10 – 12"/DN250 – DN300 rated to 400 psi/28 bar.
- UL listed on Schedule 10 pipe: sizes 2 – 4"/DN50 – DN100 rated to 400 psi/28 bar and sizes 6 – 10"/DN150 – DN250 rated to 300 psi/21 bar. UL listed on standard weight pipe: sizes 2 – 3"/DN50 – DN80 rated to 600 psi/41 bar; size 4"/DN100 rated to 450 psi/31 bar; and sizes 6 – 12"/DN150 – DN300 rated to 400 psi/28 bar.

## 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.
- Always 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 working with an end cap.
- Wear safety glasses, hardhat, and foot protection.

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

### WARNING

- Victaulic RX roll sets must be used when grooving light-wall/thin-wall stainless steel pipe for use with Victaulic Couplings.
- Victaulic RX grooving rolls must be ordered separately. They are identified by a silver color and the designation RX on the front of the roll sets.

Failure to use Victaulic RX roll sets when grooving light-wall/thin-wall stainless steel pipe may cause joint failure, resulting in serious personal injury and/or property damage.

### WARNING

- When assembling Style 107V 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. Always read and follow the installation instructions provided with the product; these instructions can be downloaded at [Victaulic.com](http://Victaulic.com).
- Use only Victaulic End Caps containing the “QV” or “EZ QV” marking on the inside face.
- Always read and follow the I-ENDCAP, Victaulic End Cap Installation Safety Instructions, which can be downloaded at [Victaulic.com](http://Victaulic.com).
- Victaulic recommends the use of Victaulic fittings with Style 107V Couplings.

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

### NOTICE

- Victaulic does not recommend the use of any furnace butt-welded pipe with sizes NPS 2”/DN50 and smaller Victaulic gasketed joint products. This includes, but is not limited to, ASTM A53 Type F pipe.

## 7.0 REFERENCE MATERIALS

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[05.01: Victaulic Seal Selection Guide](#)

[06.15: Victaulic Pressure Ratings and End Loads for Victaulic Couplings on Steel Pipe](#)

[06.23: Victaulic QuickVic™ Rigid Coupling Style 107N](#)

[06.28: Victaulic QuickVic™ Installation-Ready™ Rigid Coupling for Potable Water Applications Style 807N](#)

[07.14 Rev A QuickVic™ Grooved End Fittings](#)

[10.01: Victaulic Fire Protection Certifications/Listings Reference Guide](#)

[17.01: Victaulic Pipe Preparation for Use on Stainless Steel Pipe With Victaulic Products](#)

[17.09: Victaulic Pressure Ratings and End Loads for Victaulic Ductile Iron Grooved Couplings on Stainless Steel Pipe](#)

[25.01: Victaulic Standard Groove Specifications](#)

[26.01: Victaulic Design Data](#)

[29.01: Victaulic Terms and Conditions of Sale](#)

[I-100: Victaulic Field Installation Handbook](#)

[I-107V: Victaulic Installation Instructions – Style 107V QuickVic™ Installation-Ready™ Rigid Coupling](#)

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

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

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### 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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