

Victaulic® Zero-Flex™ Rigid Coupling

Style 07



1.0 PRODUCT DESCRIPTION

Available Sizes:

- 1 – 12"/DN25 – DN300
- For sizes 14 – 24"/DN350 – DN600, please reference [publication 20.02](#): Victaulic Style W07 AGS™ Rigid Coupling

Maximum Working Pressure:

- Accommodates pressures ranging from full vacuum (29.9 in Hg/760 mm Hg) up to 750 psi/5171 kPa/52 bar
- Working pressure dependent on material, wall thickness and size of pipe

Application:

- Joins Victaulic Original Groove System (OGS) roll grooved pipe and cut grooved pipe, valves, fittings and accessories
- Provides a rigid pipe joint designed to restrict axial or angular movement. Contact Victaulic for information on torsional resistance.

Pipe Materials:

- Carbon steel
- For use on stainless steel pipe, please reference [publication 17.09](#): Victaulic Grooved Couplings Performance Data for Stainless Steel Pipe.
- For exceptions reference section 6.0 Notifications

Pipe Preparation

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

Code Requirements:

- Support and hanging requirements correspond to ASME B31.1 Power Piping Code, ASME B31.9 Building Services Code and NFPA 13 Sprinkler Systems

2.0 CERTIFICATION/LISTINGS



EN 10311
CPR (EU)
No. 305/2011



BS EN 10311
CPR (UK)
2019 No. 465



NOTES

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

Housing Coating: (specify choice)

Standard: Orange enamel.

Optional: Hot dipped galvanized conforming to ASTM A153.

Optional: Contact Victaulic with your requirements for other coatings.

Gasket: (specify choice¹)

Grade “E” EPDM

EPDM (Green stripe color code). Temperature range –30°F to +230°F/–34°C to +110°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. 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. NOT COMPATIBLE FOR USE WITH PETROLEUM SERVICES OR STEAM SERVICES.

Grade “T” Nitrile

Nitrile (Orange stripe 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

Others

For alternate gasket selection, reference [publication 05.01](#): Victaulic Seal Selection Guide.

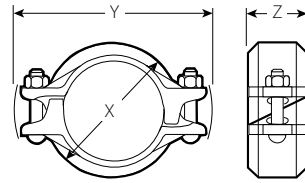
¹ Services listed are General Service Guidelines only. It should be noted that there are services for which these gaskets are not compatible. Reference should always be made to the latest [Victaulic Seal Selection Guide](#) for specific gasket service guidelines and for a listing of services which are not compatible.

Bolts/Nuts:

Carbon steel oval neck track bolts meeting the mechanical property requirements of ASTM A449 (imperial) and ISO 898-1 (metric) Class 9.8 (M10-M16) and 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).

4.0 DIMENSIONS

Style 07 Zero-Flex™ Rigid Coupling




| Size | | Pipe End Separation ² | Bolt/Nut | | Dimensions | | | Weight |
|--------------------------|---|----------------------------------|----------|----------------------|-------------------|-------------------|-------------------|------------------------------------|
| Nominal inches DN | Actual Outside Diameter inches mm | Allowable inches mm | Qty | Size inches mm | X inches mm | Y inches mm | Z inches mm | Approximate (Each) lbs kg |
| 1 DN25 | 1.315 33.7 | 0.05 1.2 | 2 | ⅜ x 2 | 2.36 60 | 4.22 107 | 1.84 47 | 1.6 0.7 |
| 1 ¼ DN32 | 1.660 42.4 | 0.05 1.2 | 2 | ⅜ x 2 | 2.69 68 | 4.62 117 | 1.84 47 | 1.6 0.7 |
| 1 ½ DN40 | 1.900 48.3 | 0.05 1.2 | 2 | ⅜ x 2 | 2.94 75 | 5.81 148 | 1.84 47 | 1.6 0.7 |
| 2 DN50 | 2.375 60.3 | 0.07 1.7 | 2 | ½ x 2 ½ | 3.35 85 | 5.78 147 | 1.84 47 | 2.3 1.0 |
| 2 ½ | 2.875 73.0 | 0.07 1.7 | 2 | ½ x 2 ¾ | 3.88 98 | 6.38 162 | 1.84 47 | 2.6 1.2 |
| DN65 | 3.000 76.1 | 0.07 1.7 | 2 | M12 x 70.0 | 4.21 107 | 6.61 168 | 1.84 47 | 3.6 1.6 |
| 3 DN80 | 3.500 88.9 | 0.07 1.7 | 2 | ½ x 2 ½ | 4.54 115 | 6.81 173 | 1.84 47 | 3.0 1.4 |
| 4 DN100 | 4.500 114.3 | 0.16 4.1 | 2 | ½ x 2 ¾ | 5.81 148 | 8.21 209 | 2.07 53 | 5.3 2.4 |
| | 4.250 108.0 | 0.16 4.1 | 2 | M12 x 70.0 | 5.56 141 | 7.98 203 | 2.07 53 | 5.2 2.4 |
| | 5.250 133.0 | 0.16 4.1 | 2 | M16 x 82.5 | 6.69 170 | 9.60 244 | 2.07 53 | 7.4 3.4 |
| DN125 | 5.500 139.7 | 0.16 4.1 | 2 | M16 x 82.5 | 6.94 176 | 9.82 249 | 2.07 53 | 7.6 3.4 |
| 5 | 5.563 141.3 | 0.16 4.1 | 2 | ⅝ x 3 ¼ | 7.03 179 | 9.89 251 | 2.07 53 | 7.4 3.4 |
| | 6.250 159.0 | 0.16 4.1 | 2 | M16 x 82.5 | 7.84 199 | 10.54 268 | 2.07 53 | 9.2 4.2 |
| | 6.500 165.1 | 0.16 4.1 | 2 | M16 x 82.5 | 8.13 207 | 10.84 275 | 2.07 53 | 8.3 3.8 |
| 6 DN150 | 6.625 168.3 | 0.16 4.1 | 2 | ⅝ x 3 ¼ | 8.26 210 | 10.83 275 | 2.07 53 | 8.3 3.8 |
| 200A | 8.515 216.3 | 0.19 4.8 | 2 | M20 x 110 | 10.47 266 | 13.62 346 | 2.50 64 | 14.9 6.8 |
| 8 DN200 | 8.625 219.1 | 0.19 4.8 | 2 | ¾ x 4 ¼ | 10.54 268 | 13.74 349 | 2.51 64 | 15.1 6.8 |
| 250A | 10.528 267.4 | 0.13 3.3 | 2 | M22 x 165 | 12.64 321 | 16.97 431 | 2.56 65 | 11.3 25.0 |
| 10 DN250 | 10.750 273.0 | 0.13 3.3 | 2 | ⅝ x 6 ½ | 12.86 327 | 16.98 431 | 2.56 65 | 23.5 10.7 |
| 300A | 12.539 318.5 | 0.13 3.3 | 2 | M22 x 165 | 14.65 372 | 18.90 480 | 2.56 65 | 12.8 28.2 |
| 12 DN300 | 12.750 323.9 | 0.13 3.3 | 2 | ⅝ x 6 ½ | 14.86 377 | 18.88 480 | 2.56 65 | 28.2 12.8 |
| 14 – 24 DN350 – DN600 | <p>For sizes 14 – 24"/DN350 – DN600, please reference publication 20.02: Victaulic Style W07 AGS™ Rigid Coupling.</p> <p style="text-align: center;">AGS™</p> | | | | | | | |

² The allowable pipe end separation dimension shown is for system layout purposes only. Style 07 Zero-Flex™ 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.

5.0 PERFORMANCE

Style 07 Zero-Flex™ Rigid Coupling

| Size | | Maximum Working Pressure ³ | Maximum End Load ³ |
|----------------------|--|---------------------------------------|-------------------------------|
| Nominal inches DN | Actual Outside Diameter inches mm | | |
| 1 DN25 | 1.315 33.7 | 750 5171 | 650 2890 |
| 1 ¼ DN32 | 1.660 42.4 | 750 5171 | 1620 7210 |
| 1 ½ DN40 | 1.900 48.3 | 750 5171 | 2130 9480 |
| 2 DN50 | 2.375 60.3 | 750 5171 | 3320 14775 |
| 2 ½ | 2.875 73.0 | 750 5171 | 4875 21695 |
| DN65 | 3.000 76.1 | 750 5171 | 5300 23585 |
| 3 DN80 | 3.500 88.9 | 750 5171 | 7215 32105 |
| 4 DN100 | 4.500 114.3 | 750 5171 | 11925 53065 |
| | 4.250 108.0 | 750 5171 | 10635 47325 |
| | 5.250 133.0 | 700 4826 | 15145 67395 |
| DN125 | 5.500 139.7 | 700 4826 | 16625 73980 |
| 5 | 5.563 141.3 | 750 5171 | 18225 81100 |
| | 6.250 159.0 | 700 4826 | 21465 95520 |
| | 6.500 165.1 | 700 4826 | 23225 103305 |
| 6 DN150 | 6.625 168.3 | 700 4826 | 24130 107380 |
| 200A | 8.515 216.3 | 600 4137 | 34200 152200 |
| 8 DN200 | 8.625 219.1 | 600 4137 | 35000 155750 |
| 250A | 10.528 267.4 | 500 3447 | 43500 193600 |
| 10 DN250 | 10.750 273.0 | 500 3447 | 45400 202030 |
| 300A | 318.5 12.539 | 400 2758 | 49400 219800 |
| 12 DN300 | 12.750 323.9 | 400 2758 | 51000 226950 |
| 14–24 DN350–DN600 | For sizes 14 – 24"/DN350 – DN600, please reference publication 20.02: Victaulic Style W07 AGS™ Rigid Coupling .  | | |

³ 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.

NOTE

- WARNING: FOR ONE TIME FIELD TEST ONLY, the Maximum Joint Working Pressure may be increased to 1 ½ times the figures shown.

6.0 NOTIFICATIONS

WARNING



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

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

WARNING

- Style 07 Zero-Flex™ Rigid Couplings shall not be used to join PVC or CPVC pipe.

Failure to follow this instruction could cause product failure, resulting in death or serious personal injury and property damage.

WARNING

- Victaulic RX roll sets shall be used when grooving light-wall/thin-wall stainless steel pipe for use with Victaulic Couplings.

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

NOTICE

- 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.

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

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

[05.01: Victaulic Seal Selection Guide - Elastomeric Seal Construction](#)

[06.17: Couplings and Fittings for JIS Pipe](#)

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

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

[17.09: Victaulic Ductile Iron Grooved Couplings Performance Data for Stainless Steel Pipe](#)

[20.02: Victaulic AGS Rigid Coupling Style W07](#)

[26.01: Victaulic Design Data](#)

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

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

[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, and the applicable building codes and related regulations 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.

Warranty

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

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