

Victaulic® Zero-Flex™ Rigid Coupling

Style 07



1.0 PRODUCT DESCRIPTION

Available Sizes:

- 1 – 12"/DN25 – DN300
- For sizes 14 – 24"/DN350 – DN600, 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, 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



104-1a/02



EN 10311
CPR (EU)
No. 305/2011

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.

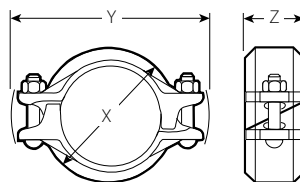
¹ Services listed are General Service Guidelines only. It should be noted that there are services for which these gaskets are not compatible. Reference should always be made to the latest [Victaulic Seal Selection Guide](#) for specific gasket service guidelines and for a listing of services which are 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 1.3	2	$\frac{3}{8}$ x 2 M10 x 51	2.36 60	4.22 108	1.84 46	1.6 0.7
1 ¼ DN32	1.660 42.4	0.05 1.3	2	$\frac{3}{8}$ x 2 M10 x 51	2.69 68	4.62 118	1.84 46	1.6 0.7
1 ½ DN40	1.900 48.3	0.05 1.3	2	$\frac{3}{8}$ x 2 M10 x 51	2.94 74	5.81 148	1.84 46	1.6 0.7
2 DN50	2.375 60.3	0.07 1.8	2	$\frac{1}{2}$ x 2 ½ M12 x 64	3.35 86	5.78 146	1.84 46	2.3 1.0
2 ½	2.875 73.0	0.07 1.8	2	$\frac{1}{2}$ x 2 ¾ M12 x 70	3.88 98	6.38 162	1.84 46	2.6 1.2
DN65	3.000 76.1	0.07 1.8	2	$\frac{1}{2}$ x 2 ¾ M12 x 70	4.21 106	6.61 168	1.84 46	3.6 1.6
3 DN80	3.500 88.9	0.07 1.8	2	$\frac{1}{2}$ x 2 ½ M12 x 64	4.54 116	6.81 172	1.84 46	3.0 1.4
4 DN100	4.500 114.3	0.16 4.1	2	$\frac{1}{2}$ x 2 ¾ M12 x 70	5.81 148	8.21 208	2.07 53	5.3 2.4
	4.250 108.0	0.16 4.1	2	$\frac{1}{2}$ x 2 ¾ M12 x 70	5.56 142	7.98 202	2.07 53	5.2 2.4
	5.250 133.0	0.16 4.1	2	$\frac{5}{8}$ x 3 ¼ M16 x 83	6.69 170	9.60 244	2.07 53	7.4 3.4
DN125	5.500 139.7	0.16 4.1	2	$\frac{5}{8}$ x 3 ¼ M16 x 83	6.94 176	9.82 250	2.07 53	7.6 3.4
5	5.563 141.3	0.16 4.1	2	$\frac{5}{8}$ x 3 ¼ M16 x 83	7.03 178	9.89 252	2.07 53	7.4 3.4
	6.250 159.0	0.16 4.1	2	$\frac{5}{8}$ x 3 ¼ M16 x 83	7.84 200	10.54 268	2.07 53	9.2 4.2
	6.500 165.1	0.16 4.1	2	$\frac{5}{8}$ x 3 ¼ M16 x 83	8.13 206	10.84 276	2.07 53	8.3 3.8
6 DN150	6.625 168.3	0.16 4.1	2	$\frac{5}{8}$ x 3 ¼ M16 x 83	8.26 210	10.83 276	2.07 53	8.3 3.8
200A	216.3	0.19 4.8	2	M20 x 108	10.47 266	13.62 346	2.50 64	14.9 6.8
8 DN200	8.625 219.1	0.19 4.8	2	$\frac{3}{4}$ x 4 ¼ M20 x 108	10.54 268	13.74 348	2.51 64	15.1 6.8
250A	267.4	0.13 3.3	2	M22 x 165	12.64 322	16.97 432	2.56 66	25.06 11.4
10 DN250	10.750 273.0	0.13 3.3	2	$\frac{7}{8}$ x 6 ½ M22 x 2	12.86 326	16.98 432	2.56 66	23.5 10.5
300A	318.5	0.13 3.3	2	M22 x 165	14.65 372	18.90 480	2.56 66	28.1 12.8
12 DN300	12.750 323.9	0.13 3.3	2	$\frac{7}{8}$ x 6 ½ M22 x 165	14.86 378	18.88 480	2.56 66	28.2 13.0
14 – 24 DN350 – DN600	For sizes 14 – 24"/DN350 – DN600, reference publication 20.02: Victaulic Style W07 AGS™ Rigid Coupling . 							

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	1020 4540
1 ¼ DN32	1.660 42.4	750 5171	1620 7206
1 ½ DN40	1.900 48.3	750 5171	2130 9474
2 DN50	2.375 60.3	750 5171	3320 14768
2 ½	2.875 73.0	750 5171	4875 21686
DN65	3.000 76.1	750 5171	5300 23576
3 DN80	3.500 88.9	750 5171	7215 32094
4 DN100	4.500 114.3	750 5171	11925 53046
	4.250 108.0	750 5171	10635 47306
	5.250 133.0	700 4826	15145 67368
DN125	5.500 139.7	700 4826	16625 73952
5	5.563 141.3	750 5171	18225 81068
	6.250 159.0	700 4826	21465 95482
	6.500 165.1	700 4826	23225 103310
6 DN150	6.625 168.3	700 4826	24130 107336
200A	216.3	600 4137	34200 152130
8 DN200	8.625 219.1	600 4137	35000 155688
250A	267.4	500 3447	43500 193498
10 DN250	10.750 273.0	500 3447	45400 201950
300A	318.5	400 2758	49400 219742
12 DN300	12.750 323.9	400 2758	51000 226860
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 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 read and follow the I-ENDCAP, Victaulic End Cap Installation Safety Instructions, which can be downloaded at Victaulic.com.
- Wear safety glasses, hardhat, foot protection, and hearing protection.

Failure to follow these instructions could compromise system integrity or cause system failure, resulting in death or serious personal injury and property damage.

WARNING

- DO NOT use Style 07 Zero-Flex™ Rigid Couplings to join PVC or CPVC pipe.
- When grooving light-wall/thin-wall stainless steel pipe for use with Victaulic Couplings, Victaulic RX roll sets shall be used.
- It is the system designer's responsibility to verify suitability of stainless steel components for use with the intended fluid media within the piping system and external environment.
- The material specifier shall evaluate the effect of chemical composition, pH level, operating temperature, chloride level, oxygen level, and flow rate on stainless steel components to confirm system life will be acceptable for the intended service.
- Always reference Victaulic publication 17.01 for stainless steel pipe end preparation and grooving roll set requirements. Grooving roll sets for stainless steel pipe must be ordered separately.

Failure to follow these instructions could compromise system integrity or cause system failure, resulting in death or serious personal injury and property damage.

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 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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