

Victaulic® StrenghThin™ 100 System Style E485 Rigid Coupling for Stainless Steel Pipe - Taiwan Only



1.0 PRODUCT DESCRIPTION

Available Sizes

- 2 – 8"/DN50 – DN200

Pipe Material

- Designed exclusively for use on 304/304L or 316/316L stainless steel pipe per CNS6331.

Maximum Working Pressure

- Accommodates pressures ranging from full vacuum (29.9 in Hg/760 mm Hg) up to 300 psi/2100 kPa/21 bar.
- Working pressure dependent on wall thickness and size of pipe (see section 5.0 for Performance).

Operating Temperature Range

- Dependent on gasket selection from section 3.0.

Function

- Provides a rigid pipe joint.
- Joins CNS6331 stainless steel pipe and Victaulic StrenghThin™ 100 fittings, valves and accessories.
- If system flexibility is required, it can be obtained via two (2) E494G Adapter Nipples connected with one (1) Victaulic flexible OGS coupling.

Pipe Preparation

- Exclusively for use with fittings, valves, accessories and pipe which feature ends formed with the Victaulic StrenghThin™ 100 groove profile (see section 7.0 for Reference Materials).

NOTE

- Coatings applied to the interior surfaces, including bolt pad mating surfaces, of Victaulic grooved and bolted plain end couplings should not exceed 0.010"/0.25 mm.

2.0 CERTIFICATION/LISTINGS



Product designed and manufactured under Victaulic's Quality Management System, as certified by LPCB in accordance with ISO-9001. Refer to section 3.0 for potable water certifications of specific gasket materials.

NOTE

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

System No.		Location	
Submitted By		Date	

Spec Section		Paragraph	
Approved		Date	

3.0 SPECIFICATIONS - MATERIAL

Housing: Stainless steel conforming to ASTM A351 Grade CF8M or Grade CF8.

Gasket: (specify choice¹)

Grade "EHP" EPDM

EHP (Red and Green stripe color code). Temperature range -30°F to +250°F/-34°C to +120°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 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 petroleum products, hydrocarbons, air with oil vapors, and vegetable and mineral oils within the specified temperature range; Not compliant for hot dry air over +140°F/+60°C and water over +150°F/+66°C. NOT COMPATIBLE FOR USE WITH HOT WATER SERVICES OR STEAM SERVICES.

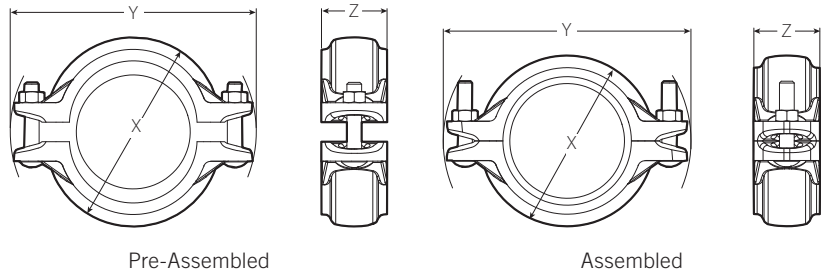
¹ Services listed are General Service Guidelines only. It should be noted that there are services for which these gaskets are not compatible. Reference should always be made to the latest [Victaulic Seal Selection Guide](#) for specific gasket service guidelines and for a listing of services which are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

Bolts/Nuts: 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.

Washers: Plain Type "A" per ASME B18.21.1, 316 stainless steel.

4.0 DIMENSIONS

Style E485 Rigid Coupling for Stainless Steel Pipe



Size		Pipe End Separation	Bolt/Nut		Dimensions						Weight
Nominal inches DN	Actual Outside Diameter inches mm	Allowable inches mm	Qty.	Size mm	Pre-Assembled Condition (Installation-Ready™)			Assembled Condition			Approximate (Each) lb kg
					X inches mm	Y inches mm	Z inches mm	X inches mm	Y inches mm	Z inches mm	
2 DN50	2.375 60.3	0.25 6.4	2	M10 x 64	5.58 142	3.78 96	2.27 58	5.66 144	3.31 84	2.27 58	2.4 1.1
DN65	3.000 76.1	0.25 6.4	2	M10 x 64	6.51 165	4.59 117	2.28 58	6.53 166	3.97 101	2.28 58	3.1 1.4
3 DN80	3.500 88.9	0.25 6.4	2	M10 x 64	6.95 177	5.09 129	2.26 57	7.01 178	4.48 114	2.26 57	3.1 1.4
4 DN100	4.500 114.3	0.25 6.4	2	M10 x 64	8.38 213	6.37 162	2.26 57	8.25 210	5.76 146	2.26 57	4.5 2.0
DN125	5.500 139.7	0.25 6.4	2	M12 x 83	9.62 244	7.53 191	2.29 58	9.60 244	6.96 177	2.29 58	6.0 2.7
150A ³	6.500 165.2	0.25 6.4	2	M12 x 83	10.73 273	8.46 215	2.28 58	10.58 269	8.02 204	2.28 58	7.6 3.5
200A ³	216.3	0.36 9.1	2	M16 x 102	13.70 348	11.23 285	2.92 74	13.50 343	10.31 262	2.92 74	13.8 6.3

³ Japanese Industrial Standard (JIS) size

NOTE

- The allowable pipe end separation dimension shown is for system layout purposes only. Style E497 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 E485 Rigid Coupling for Stainless Steel Pipe

Nominal Size inches DN	Actual Outside Diameter inches mm	Maximum Joint Working Pressure			
		16 Bar/232 psi		21 Bar/300 psi	
		Nominal Pipe Wall Thickness inches mm	Maximum Permissible End Load lb N	Nominal Pipe Wall Thickness inches mm	Maximum Permissible End Load lb N
2 DN50	2.375 60.3	0.064 1.6	1028 4574	0.109 2.8	1329 5914
DN65	3.000 76.1	0.082 2.1	1640 7298	0.117 3.0	2121 9437
3 DN80	3.500 88.9	0.082 2.1	2232 9933	0.117 3.0	2886 12844
4 DN100	4.500 114.3	0.082 2.1	3690 16420	0.117 3.0	4771 21232
DN125	5.500 139.7	0.109 2.8	5512 24528	0.133 3.4	7127 31717
150A ³	6.500 165.2	0.109 2.8	7698 34258	0.133 3.4	9955 44299
200A ³	216.3	0.109 2.8	13211 58789	0.156 4.0	17084 76024

³ Japanese Industrial Standard (JIS) size

NOTES

- Working Pressure and End Load are total, from all internal and external loads, based on stainless steel pipe, roll grooved with Victaulic rolls in accordance with Victaulic specifications. Roll sets for grooving the Victaulic patented StengThin™ 100 groove profile must be used. Contact Victaulic for performance on other pipe and for more information pertaining to tools. See [Submittal 17.01](#): Victaulic Pipe Preparation for Use on Stainless Steel Pipe With Victaulic Products for more information on preparing stainless steel pipe for use with Victaulic products. See [Submittal 25.13](#): StengThin™ 100 Roll Groove Specifications.
- WARNING: FOR ONE-TIME FIELD TEST ONLY, the Maximum Joint Working Pressure may be increased to 1½ 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.

7.0 REFERENCE MATERIALS

[05.01: Victaulic Gasket/Seal Selection Guide](#)

[17.01: Victaulic Pipe Preparation for 304/316 Stainless Steel Pipe](#)

[25.13: Victaulic StrengThin™ 100 Groove Specifications](#)

[31.02: Victaulic StrengThin™ 100 Rigid Coupling for Stainless Steel Pipe: Style E497](#)

[31.04: Victaulic StrengThin™ 100 Fittings for Stainless Steel Pipe](#)

[I-E485: Victaulic Style E485 Field Installation 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 [I-100 Victaulic Field Installation Handbook](#) or the 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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