

AGS Stainless Steel Rigid Coupling

Style W489



20.17



1.0 PRODUCT DESCRIPTION

Available Sizes

- 14 – 20"/DN350 – DN500

Maximum Working Pressure:

- Accommodates pressures ranging from full vacuum (29.9 in Hg/760 mm Hg) up to 150 psi/ 1034 kPa/ 10 Bar
- Working pressure dependent on material, wall thickness, and size of pipe.

Pipe Preparation

- Exclusively for use with fittings, valves, accessories and pipe which feature ends formed with the Victaulic AGS groove profile (see Section 7.0 for Reference Materials)

Application

- Unique wedge-shaped key profile increases allowable pipe end separation, resulting in easier assembly
- Provide rigidity for valve connections, machinery rooms, and long straight runs

Pipe Material

- Stainless steel
- Carbon steel

NOTES

- Style W489 AGS couplings are provided with FlushSeal™ gaskets for a variety of services. Please specify gasket grade when ordering. Please refer to [publication 05.01](#) for gasket service ratings.
- Style W489 AGS rigid couplings can also be used on abrasive/slurry services in combination with the AGS Vic-Ring. See [publication 16.15](#).
- Style W489 AGS couplings are essentially rigid and do not permit expansion/contraction.

2.0 CERTIFICATION/LISTINGS

NOTE

- 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: CF8M (316 stainless steel) conforming to ASTM A351, A743 and A744.

Coupling Gasket: (specify choice¹)

Grade “E” FlushSeal™ 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” FlushSeal™ 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.**

Grade “L” FlushSeal™ Silicone

Silicone (Red stripe color code). Temperature range –30°F to +350°F/–34°C to +177°C. May be specified for dry heat, air without hydrocarbons to +350°F/+177°C and certain chemical services. **NOT COMPATIBLE FOR USE WITH PETROLEUM SERVICES, 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.

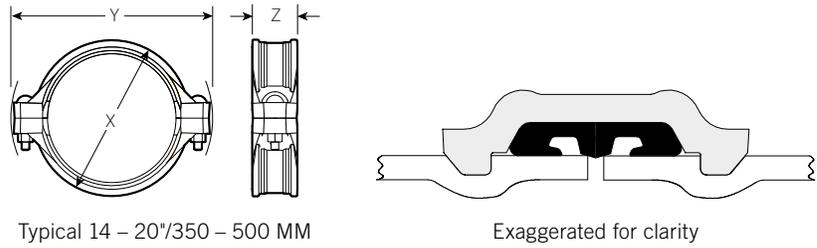
Hardware²:

Stainless steel oval neck track bolts meeting the mechanical property requirements of ASTM A193 Grade B8M, Class 2 (316 stainless steel). Stainless steel heavy hex nuts meeting the mechanical property requirements of ASTM A194 Grade 8M (316 stainless steel), condition CW, with galling reducing coating.

² Bolts/nuts are available in imperial size only

4.0 DIMENSIONS

Style W489



Size		Allowable Pipe End Separation ³	Bolt/Nut Qty.	Bolt/Nut Size inches mm	Nut Torque ft-lbs N.m.	Dimensions			Weight
Nominal Size inches mm	Actual Outside Diameter inches mm					X inches mm	Y inches mm	Z inches mm	Approximate (Each)
									lbs kg
14 DN350	14.000 355.6	0.25 6.4	2	1 1/8 X 5 1/2	375 508	15.63 396	21.38 542	4.75 121	65.0 29.5
16 DN400	16.000 406.4	0.25 6.4	2	1 1/8 X 5 1/2	375 508	18.88 479	23.38 593	4.75 121	80.0 36.3
18 DN450	18.000 457.2	0.25 6.4	2	1 1/8 X 5 1/2	375 508	21.00 531	25.50 648	4.75 121	93.0 42.2
20 DN500	20.000 508.0	0.25 6.4	2	1 1/8 X 5 1/2	375 508	23.75 601	27.50 697	4.75 121	114.0 51.7

³ For field installation only. Style W489 couplings are essentially rigid and do not permit expansion/contraction.

NOTES

- The allowable pipe end separation dimension shown is for system layout purposes only. Style W489 AGS 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.
- The outside diameter, ovality, and surface finish including flat spots and imperfections shall not vary more than the limits of API 5L end tolerance.
- For additional pipe sizes, please contact Victaulic

5.0 PERFORMANCE

Size		Schedule 10S and Heavier		
Nominal inches DN	Actual Outside Diameter Inches mm	Maximum Joint Working Pressure ⁴ psi kPa	Maximum Permissible End Load Lbs. N	Nominal Wall Thickness inches mm
14 DN350	14.00 355.6	150 1034	23091 102714	0.188 4.8
16 DN400	16.00 406.4	150 1034	30159 134154	0.188 4.8
18 DN450	18.00 457.2	150 1034	38170 169789	0.188 4.8
20 DN500	20.00 508.0	150 1034	47124 209618	0.218 5.5

⁴ 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. "RWX" rolls must be used for Schedule 10S. Contact Victaulic for performance on other pipe.

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







- Style W489 Couplings shall be used only on pipe that is grooved to Victaulic Advanced Groove System (AGS) specifications using Victaulic AGS roll sets (RWX specifically for light-wall stainless steel pipe and RW for standard-wall stainless steel pipe) or with AGS Vic-Rings.
- DO NOT attempt to assemble the Style W489 Coupling on pipe that is direct-grooved with Victaulic Original Groove System (OGS) roll sets.

Failure to follow these instructions will cause improper product assembly and joint failure, resulting in death or serious personal injury and property damage.

7.0 REFERENCE MATERIALS

- [02.06: Potable Water Approvals](#)
- [05.01: Seal Selection Guide](#)
- [17.01: Stainless Steel Pipe End Preparation](#)
- [17.05: AGS Grooved End Stainless Steel Fittings Schedule 10S](#)
- [24.01: Pipe Preparation Tool Specifications](#)
- [25.09: Advanced Groove System \(AGS\) Roll Groove Specifications](#)
- [26.01: Grooved Piping System – Design Data](#)
- [29.01: Terms and Conditions/Warranty](#)
- [I-100: Field Installation Handbook](#)
- [I-107: Installation Instructions QuickVic™ Rigid Couplings for Steel Pipe](#)

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.

Warranty

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

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