AGS Rigid Coupling with AGS Vic-Ring

STYLE W89 - Rigid Coupling

Style W89 AGS (Advanced Groove Systems) couplings for AGS Vic-Ring systems are designed with ductile iron housings for higher pressure piping systems.

The wedge-shaped coupling housing keys fully engage the patented AGS grooves on the ring to provide a rigid joint. To achieve this rigidity, it is necessary to torque the nuts to the values shown in the torque requirements table on page 4.

Style W89 AGS is used on valve connections and other joints where rigidity is required. The couplings are galvanized and provided with plated bolts and nuts and FlushSeal gaskets for a variety of services. Please specify gasket grade when ordering. Refer to publication 05.01 for gasket services ratings.

Style W89 AGS couplings on Vic-Rings are designed for pressures up to 700 psi/4850 kPa on standard wall carbon steel or heavier pipe for 12 – 14"/300 – 350 mm systems, and up to 580 psi/4000 kPa for 16 – 22"/400 – 550 mm piping systems and fit pipe that meet API 5L pipe end dimensions. AGS Vic-Rings can be manufactured to meet most pipe specifications. Contact Victaulic for details.

NOTE: Couplings used for AGS Vic-Ring systems are one size larger than the pipe.

PATENT PENDING

WARNING

⚠ WARNING

- **Victaulic AGS couplings MUST ONLY be installed on AGS Vic-Ring systems provided by Victaulic.**

Failure to follow these instructions will cause grooves that are not within Victaulic AGS specifications, resulting in joint failure, serious personal injury, and property damage.

JOB/OWNER	CONTRACTOR	ENGINEER
System No. _____	Submitted By _____	Spec Sect _____ Para _____
Location _____	Date _____	Approved _____
		Date _____

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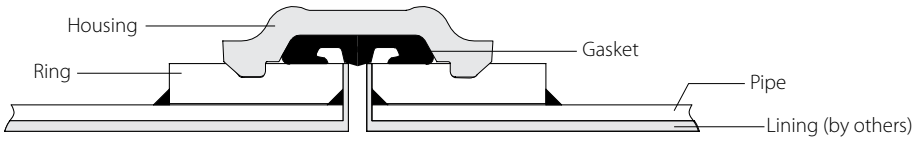
MATERIAL SPECIFICATIONS



Housing: Ductile iron conforming to ASTM A-536, grade 65-45-12. Ductile iron conforming to ASTM A-395, grade 65-45-15, is available upon special request.

Housing Coating: Hot dipped galvanized
- **Optional:** Orange enamel and others

Ring: Carbon steel conforming to ASTM A 105N

Coupling Gasket:
*Services listed are General Service Recommendations only. It should be noted that there are services for which these gaskets are not recommended. Reference should always be made to the latest Victaulic Gasket Selection Guide (05.01) for specific gasket service recommendations and for a listing of services which are not recommended.

- **Grade "E" EPDM**
  EPDM (Green color code). Temperature range –30°F to +230°F/–34°C to +110°C. Recommended for cold and hot water service within the specified temperature range plus a variety of dilute acids, oil-free air and many chemical services. UL Classified to ANSI/NSF 61 for cold +86°F/+30°C and hot +180°F/+82°C potable water service. NOT RECOMMENDED FOR PETROLEUM SERVICES.

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

- **Grade "L" silicone**
  Silicone (Red color code). Temperature range –30°F to +350°F/–34° C to +177° C. Recommended for dry heat, air without hydrocarbons to +350°F/+177°C and certain chemical services.

Bolts/Nuts: Heat-treated plated carbon steel, trackhead meeting the physical and chemical requirements of ASTM A-449 and physical requirements of ASTM A-183 zinc electroplated to ASTM B-633
- **Optional:** Stainless Steel
- **Optional:** Galvanized

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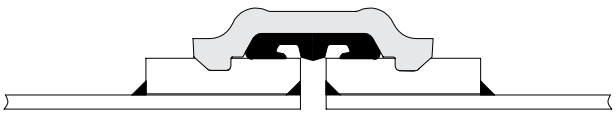
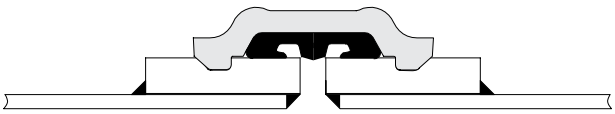
LINING OPTIONS†

UNLINED SERVICES*

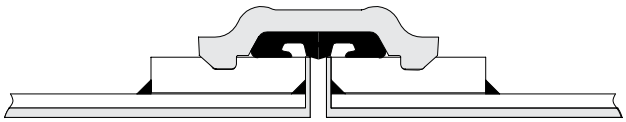


Flush

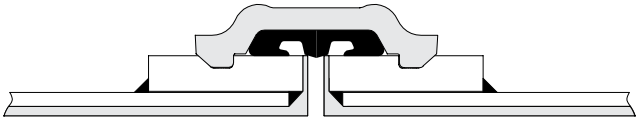


Overhung

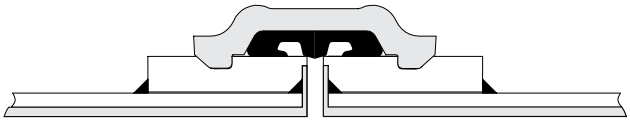
ABRASION SERVICES



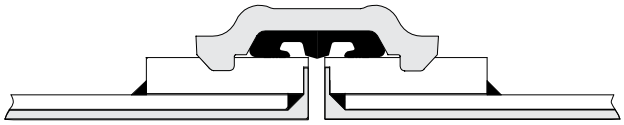
Rubber-Lined Flush



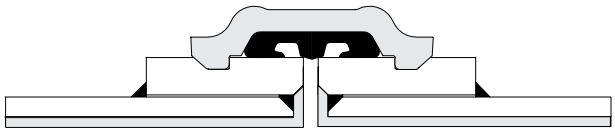
Rubber-Lined Overhung



Rubber Lined with Protective Bumper- Flush

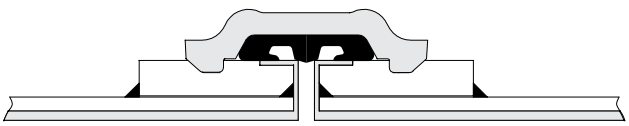


Rubber Lined with Protective Bumper- Overhung

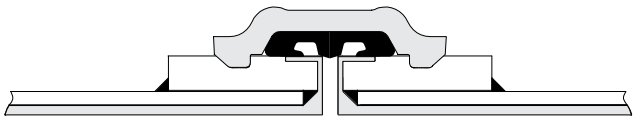


Chromium Carbide Overlay (CCO)- Overhung

ABRASION AND CORROSION SERVICES



Rubber-Lined Flush



Rubber lined- Overhung

*Suitable for use on abrasive and non-abrasive services
† Lining supplied by others.

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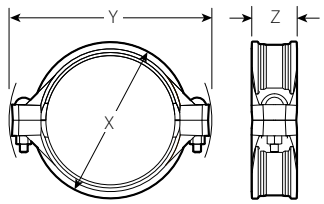
DIMENSIONS

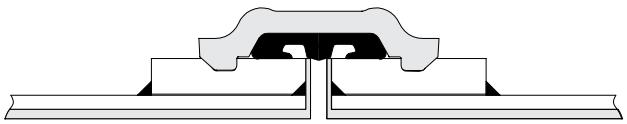


TYPICAL 14 – 24"/350 – 600 MM

Size	Allow. Pipe End Sep. #	Bolt/Nut No.–Size @	Nut Torque	Dimensions – Inches/mm			Approx. Wgt. Each
Nominal Size Inches mm	Inches mm	Inches mm	ft-lbs N•m	X	Y	Z	Lbs. kg
14 350	0.25 6 .4	2 – 1 ⅛ x 5 ½	375 500	16.50 419	21.38 543	4.81 122	65.0 29 .5
16 400	0.25 6 .4	2 – 1 ⅛ x 5 ½	375 500	18.88 480	23.50 597	4.81 122	80.0 36 .4
18 450	0.25 6 .4	2 – 1 ⅛ x 5 ½	375 500	21.00 533	25.63 651	4.81 122	93.0 42 .3
20 500	0.25 6 .4	2 – 1 ⅛ x 5 ½	375 500	23.75 603	27.63 702	4.81 122	114.0 51 .8
22 550	0.25 6 .4	2 – 1 ⅛ x 6	375 500	24.72 628	29.82 757	4.75 121	110.0 49.9
24 600	0.25 6.4	2 – 1 ⅛ x 5 ½	375 500	30.00 762	32.00 813	4.81 122	150.0 68.0

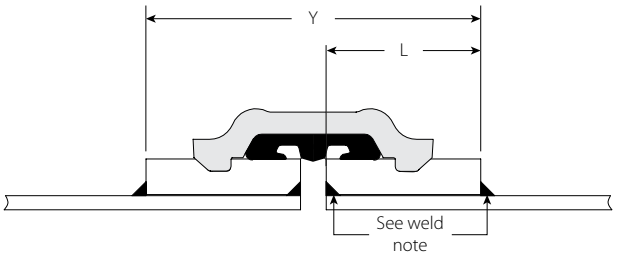
For field installation only. Style W89 couplings are essentially rigid and do not permit expansion/contraction.

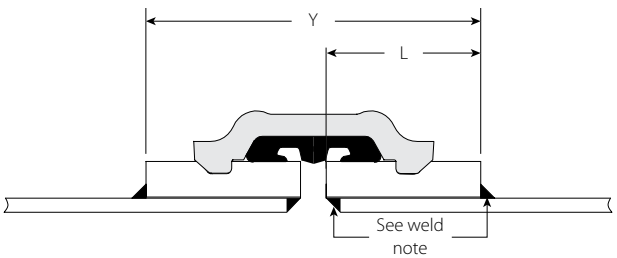
@ Metric thread size bolts are available (color coded gold) for all coupling sizes upon request. Contact Victaulic for details.



Exaggerated for clarity

SERVICE OPTIONS





Size		Style W89 Couplings		
Nominal Pipe Size Inches mm	Coupling/Ring Size Inches mm	L* Inches mm	Y* Inches mm	Ring Weight Lbs./Kg.
12 300	14.00 355.6	2.88 73.2	6.00 152.7	18.0 8.2
14 350	16.00 406.4	2.88 73.2	6.00 152.7	35.0 15.9
16 400	18.00 457.0	2.88 73.2	6.00 152.7	40.0 18.1
18 450	20.00 508.0	2.88 73.2	6.00 152.7	44.0 20.0
20 500	22.00 558.8	2.88 73.2	6.00 152.7	49.0 22.2
22 550	24.00 610.0	2.88 73.2	6.00 152.7	56.0 25.4

Weld Note: Recommended weld size is ⅜"/9.7 mm for 14"/350 mm and larger standard pipe. The minimum recommended weld size is ¼"/6.4mm

* Flush and Overhung rubber lined with protective bumper and Un-lined systems "L" dimension is 3.00"/76.1 and "Y" dimension is 6.25"/158.8 mm

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PERFORMANCE

Size	Rings on Standard Weight Pipe		
Nominal Coupling Size Inches mm	Max. Joint Working Pressure psi kPa	Maximum Permissible End Load Lbs. N	Nominal Wall Thickness Inches mm
14 350	700 4830	107760 479340	0.375 9.5
16 400	700 4830	140740 626040	0.375 9.5
18 450	580 4000	147590 656520	0.375 9.5
20 500	580 4000	182210 810510	0.375 9.5
22 550	580 4000	220365 980232	0.375 9.5
24 600	580 4000	262385 1167146	0.375 9.5

* Working Pressure and End Load are total, from all internal and external loads, based on AGS Vic-Rings welded to standard weight carbon steel pipe using recommended minimum pipe weld sizes. Contact Victaulic for performance on other pipe.

WARNING: FOR ONE TIME FIELD TEST ONLY, the Maximum Joint Working Pressure may be increased to 1½ times the figures shown.

WARRANTY

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

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 for the product you are installing. Handbooks are included with each shipment of Victaulic products for complete installation and assembly data, and are available in PDF format on our website at www.victaulic.com.