

AGS Vic-Ring Systems

STYLE W07 – Rigid Coupling

The Style W07 AGS (Advanced Groove System) coupling is comprised of two housings and is designed to provide a strong connection for large diameter pressure piping systems. It is the first flat pad, metal-to-metal, rigid coupling to be offered within this size range. Its unique wedge-shaped key profile results in easier initial assembly alignment. The Style W07 AGS coupling in 26 – 50"/650 – 1250 mm sizes, features lifting lugs integrated into the housings to help ease handling during installation.

The Style W07 coupling is mounted onto an external ring utilizing the AGS groove profile. The *Vic-Ring* system provided by Victaulic maintains full pipe wall thickness for slurries, tailings, and a variety of other services.

The Style W07 AGS *Vic-Ring* system is available for pipe sizes ranging from 12 – 48"/300 – 1200 mm. The coupling used to join these pipe sizes will always be the next largest size (ex: 12"/300 mm pipe requires the use of a 14"/350 mm coupling). The larger size is needed to allow for the extra outside pipe diameter the AGS ring adds to the pipe.

Style W07 AGS couplings are rated up to 350 psi/2400 kPa for 14 – 24"/350 – 600 mm piping systems, to 300 psi/2065 kPa for 26 – 42"/650 – 1050 mm, and to 232 psi/1600 kPa for 44 – 50"/1100 – 1250 mm.

Style W07 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.

Flexible couplings for *Vic-Ring* systems are also available. Refer to publication 16.12.



12 – 22"/300 – 550 MM SIZES



24 – 48"/600 – 1200 MM SIZES

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.

Pipe OD Requirements*	
Nominal Pipe Size	Maximum Pipe OD
In. / mm	In. / mm
12 300	12.88 327
14 350	14.14 359
16 400	16.16 410
18 450	18.18 462
20 500	20.20 513
24 600	24.25 616
26 – 48 650 – 1200	Nominal Pipe Size + 0.250"/6.4mm

* For pipe exceeding these values contact Victaulic.

JOB/OWNER

System No. _____

Location _____

CONTRACTOR

Submitted By _____

Date _____

ENGINEER

Spec Sect _____ Para _____

Approved _____

Date _____

www.victaulic.com

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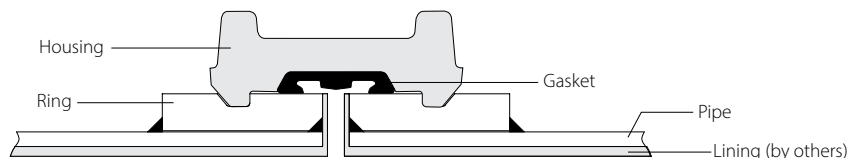


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MATERIAL SPECIFICATIONS



Vic-Rings: Victaulic Type “D” Vic-Rings

- **Material:**

Carbon Steel to ASTM A 105 or equivalent

* Optional: ASTM A105N (Specify at time of order)

Other materials available upon request contact Victaulic for details.

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: Orange enamel.

- Optional: Hot dipped galvanized and others.

Coupling Gasket: (specify choice*)

- **Grade “E” FlushSeal 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 in accordance with 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” FlushSeal 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” FlushSeal 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.

* 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 for specific gasket service recommendations and for a listing of services which are not recommended.

Bolts: Heat-treated plated carbon steel, trackhead meeting the physical and chemical requirements of ASTM A-449 and physical requirements of ASTM A-183.

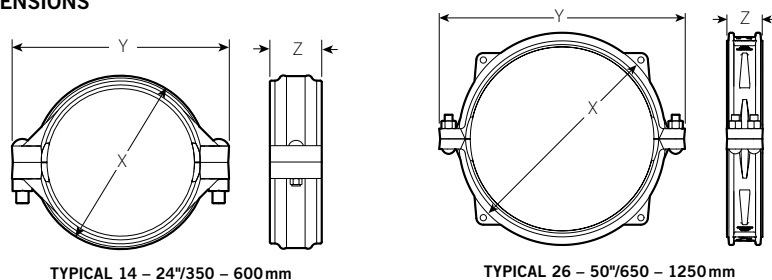
Nuts: Plated carbon steel, heavy hex conforming to ASTM A-563, Grade B.

Washers: Plated carbon steel, flat, SAE high strength conforming to ASTM F-436

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DIMENSIONS



TYPICAL 14 – 24"/350 – 600mm

TYPICAL 26 – 50"/650 – 1250mm

Size		Max. Working Pressure*	Max. End Load*	Allow. Pipe End Sep.	Bolt/Nut No - Size	Dimensions – Inches/mm			Approx. Wgt. Each
Nominal Pipe Size Inches mm	Coupling Size Inches mm	psi/kPa	Lbs./N	Inches mm	Inches	X	Y	Z	Coupling Only Lbs. kg
12 300	14.000 355.6	350 2500	53900 239757	0.25 6.4	2 – 1 x 5 ½	15.88 403	20.63 524	4.75 121	49.0 22.2
14 350	16.000 406.4	350 2500	70400 313155	0.25 6.4	2 – 1 x 5 ½	18.13 460	23.50 597	4.75 121	61.0 27.7
16 400	18.000 457.0	350 2500	89100 396335	0.25 6.4	2 – 1 x 5 ½	20.25 514	25.50 648	4.75 121	71.0 32.2
18 450	20.000 508.0	350 2500	109950 489304	0.25 6.4	2 – 1 ½ x 5 ½	22.50 572	27.13 689	4.75 121	82.0 37.2
20 500	22.000 558.8	350 2500	133046 592055	0.25 6.4	2 – 1 ½ x 6	24.75 628	29.25 743	4.75 121	99.0 44.9
22 550	24.000 610.0	350 2500	158336 704275	0.25 6.4	2 – 1 ½ x 5 ½	26.63 677	32.38 822	4.75 121	116.0 52.6
24 600	26.000 660.4	300 2065	159279 708508	0.38 9.6	4 – 1 ½ x 6	30.13 765	35.25 895	5.75 146	205.0 93.0
26 650	28.000 711.2	300 2065	184726 821702	0.38 9.6	4 – 1 ½ x 6	32.25 819	37.25 945	5.75 146	220.0 99.8
28 700	30.000 762.0	300 2065	212058 943281	0.38 9.6	4 – 1 ¼ x 7	33.88 863	39.63 1007	5.75 146	227.0 103.0
30 750	32.000 812.8	300 2065	241274 1073240	0.38 9.6	4 – 1 ¼ x 7	36.13 918	41.75 1060	5.75 146	242.0 109.8
32 800	34.000 865	300 2065	272375 1212070	0.38 9.6	4 – 1 ¼ x 7	38.25 972	43.75 1111	5.75 146	255.0 115.7
34 850	36.000 914.4	300 2065	340235 1513365	0.38 9.6	4 – 1 ¼ x 7	40.25 1022	45.75 1161	5.75 146	268.0 121.6
36 900	38.000 965.2	300 2065	305363 1358322	0.38 9.6	4 – 1 ¼ x 7	41.25 1048	48.00 1219	5.75 146	298.0 135.0
38 950	40.000 1016.0	300 2065	376991 1676940	0.44 11.1	4 – 1 ½ x 8	44.00 1117	50.50 1283	6.50 165	340.0 154.2
40 1000	42.000 1066.8	300 2065	415632 1848823	0.44 11.1	4 – 1 ½ x 8	46.00 1168	52.50 1334	6.50 165	360.0 163.3
42 1050	44.000 1150	232 1600	352763 1569795	0.44 11.1	4 – 1 ½ x 8	48.00 1219	54.50 1384	6.50 165	390.0 176.9
44 1100	46.000 1168.4	232 1600	385561 1715746	0.44 11.1	4 – 1 ½ x 8	50.25 1277	56.50 1435	6.50 165	415.0 188.2
46 1150	48.000 1219.2	232 1600	419820 1868199	0.44 11.1	4 – 1 ½ x 8	52.25 1328	58.50 1485	6.50 165	425.0 192.8
48 1200	50.000 1270.0	232 1600	455530 2026298	0.44 11.1	4 – 1 ½ x 8	53.63 1362	60.88 1546	10.00 254	500.0 227.0

* **Working Pressure** and **End Load** are total, from all internal and external loads, based on carbon steel, AGS rings installed in accordance with Victaulic® specifications. Contact Victaulic for performance on other ring materials.

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

Style W07 AGS couplings are essentially rigid and do not permit expansion/contraction.

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

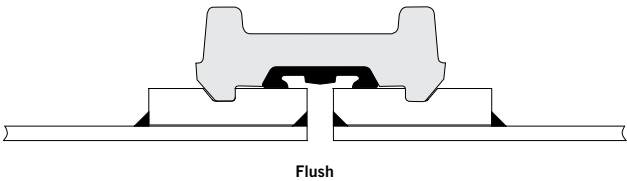
NOTE: The Style W07 AGS Vic-Ring system is available for pipe sizes ranging from 12 - 48"/300 - 1200 mm. The coupling used to join these pipe sizes will always be the next largest size (ex: 12"/300 mm pipe requires the use of a 14"/350 mm coupling). The larger size is needed to allow for the extra outside pipe diameter the AGS ring adds to the pipe.

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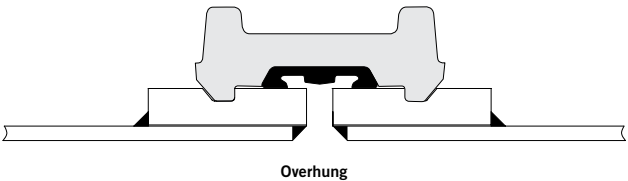
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LINING OPTIONS

UNLINED SERVICES*

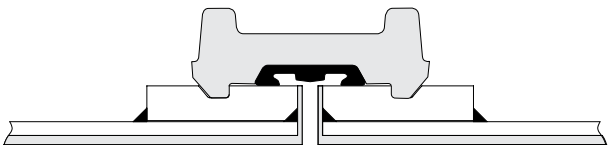


Flush

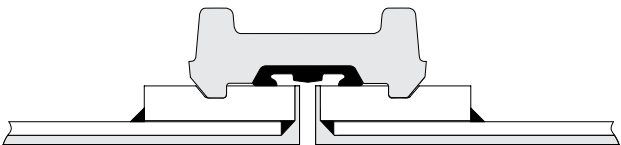


Overhung

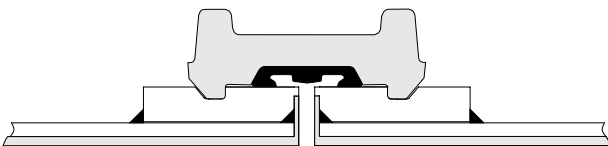
ABRASION SERVICES



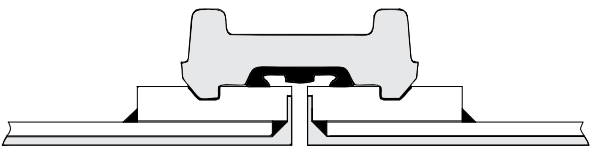
Rubber-Lined Flush



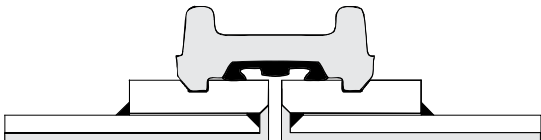
Rubber-Lined Overhung



Rubber Lined with Protective Bumper- Flush

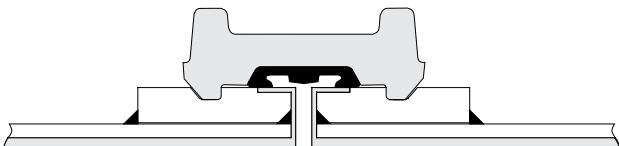


Rubber Lined with Protective Bumper- Overhung

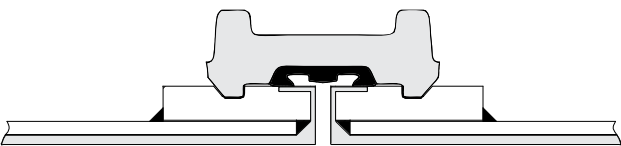


Chromium Carbide Overlay (CCO)- Overhung

ABRASION AND CORROSION SERVICES



Rubber-Lined Flush



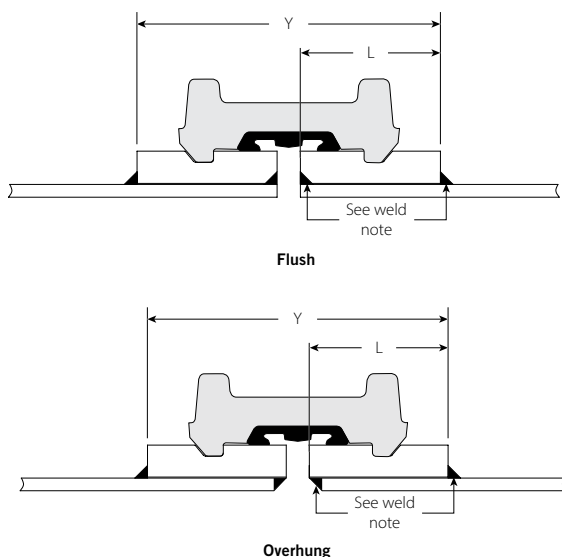
Rubber lined- Overhung

*Suitable for use on abrasive and non-abrasive services

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ALL SERVICE OPTIONS



Size			AGS Vic-Ring		
Nominal Pipe Size In./mm	Coupling Size Inches mm	Ring O.D. Inches mm	L† In./mm	Y† In./mm	Approx. Ring Weight Each Lbs./kg
12 300	14.000 355.6	14.000 355.6	3.00 76.2	6.25 158.8	19.0 8.6
14 350	16.000 406.4	16.000 406.4	3.00 76.2	6.25 158.8	37.0 16.8
16 400	18.000 457.0	18.000 457.0	3.00 76.2	6.25 158.8	41.0 18.6
18 450	20.000 508.0	20.000 508.0	3.00 76.2	6.25 158.8	46.0 20.9
20 500	22.000 558.8	22.000 558.8	3.00 76.2	6.25 158.8	51.0 23.1
22 550	24.000 610.0	24.000 610.0	3.00 76.2	6.25 158.8	56.0 25.4
24 600	26.000 660.4	26.000 660.4	4.00 101.6	8.38 212.9	81.0 36.7
26 650	28.000 711.2	28.000 711.2	4.00 101.6	8.38 212.9	87.0 39.5
28 700	30.000 762.0	30.000 762.0	4.00 101.6	8.38 212.9	94.0 42.6
30 750	32.000 812.8	32.000 812.8	4.00 101.6	8.38 212.9	100.0 48.4
32 800	34.000 865	34.000 865	4.00 101.6	8.38 212.9	106.0 48.1
34 850	36.000 914.4	36.000 914.4	4.00 101.6	8.38 212.9	113.0 51.3
36 900	38.000 965.2	38.000 965.2	4.00 101.6	8.38 212.9	120.0 54.4
38 950	40.000 1016.0	40.000 1016.0	4.25 108.0	8.94 227.1	133.0 60.3
40 1000	42.000 1066.8	42.000 1066.8	4.25 108.0	8.94 227.1	140.0 63.5
42 1050	44.000 1150	44.000 1150	4.25 108.0	8.94 227.1	146.0 66.2
44 1100	46.000 1168.4	46.000 1168.4	4.25 108.0	8.94 227.1	152.0 69.0
46 1150	48.000 1219.2	48.000 1219.2	4.25 108.0	8.94 227.1	160.0 72.6
48 1200	50.000 1270	50.000 1270	4.25 108.0	8.94 227.1	186.0 84.4

Weld Note: Minimum recommended weld size is $\frac{3}{8}$ "/9.7 mm for 14"/350 mm and larger standard and extra heavy pipe. For 12"/300 mm pipe the minimum recommended weld size is $\frac{1}{4}$ "/6.4 mm

† For allowable pipe end separation see dimensional table on page 3.

‡ "L" dimension is from inside face to end of ring for all lined and un-lined configurations.

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TORQUE REQUIREMENTS

Size	Recommended Torque
Nominal Pipe Size Inches mm	ft. lbs. N•m
14, 16, 18 350, 400, 450	250 340
20, 22, 24, 26, 28 500, 550, 600, 650, 700	375 500
30, 32, 34, 36, 38 750, 800, 850, 900, 950	500 680
40, 42, 44, 46, 48, 50 1000, 1050, 1100, 1150, 1200, 1250	600 813

INSTALLATION

Reference should always be made to the Victaulic Field Installation Instructions for the product you are installing. Victaulic Field Installation Instructions 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.

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.

For complete contact information, visit www.victaulic.com

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