

AGS Vic-Ring® Systems



STYLE W07- Rigid Coupling

The patented 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 a patented 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 PATENTED



24 – 48"/600 – 1200 MM SIZES PATENTED



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

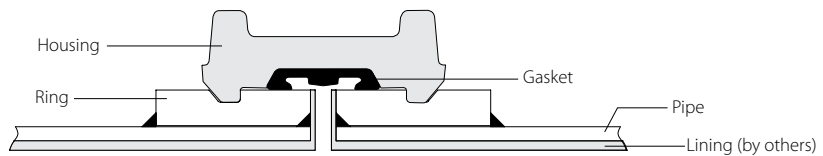
Spec Sect _____ Para _____
Approved _____
Date _____



AGS Vic-Ring® Systems

STYLE W07- Rigid Coupling

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 $+230^{\circ}\text{F}$ / -34°C to $+110^{\circ}\text{C}$.

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 $+86^{\circ}\text{F}/+30^{\circ}\text{C}$ and hot $+180^{\circ}\text{F}/+82^{\circ}\text{C}$ potable water service. NOT RECOMMENDED FOR PETROLEUM SERVICES.

- **Grade “T” FlushSeal nitrile**

Nitrile (Orange color code). Temperature range -20°F to $+180^{\circ}\text{F}$ / -29°C to $+82^{\circ}\text{C}$.

Recommended for petroleum products, air with oil vapors, vegetable and mineral oils within the specified temperature range. Not recommended for hot water services over $+150^{\circ}\text{F}/+66^{\circ}\text{C}$ or for hot dry air over $+140^{\circ}\text{F}/+60^{\circ}\text{C}$.

- **Grade “L” FlushSeal silicone**

Silicone (Red color code). Temperature range -30°F to $+350^{\circ}\text{F}$ / -34°C to $+177^{\circ}\text{C}$.

Recommended for dry heat, air without hydrocarbons to $+350^{\circ}\text{F}/+177^{\circ}\text{C}$ 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.

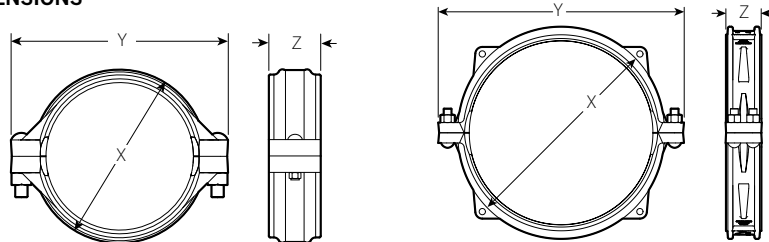
Nuts: Plated carbon steel, heavy hex conforming to ASTM A-563, Grade B.

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

AGS Vic-Ring® Systems

STYLE W07- Rigid Coupling

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					X	Y	Z	
12	14.000	350	53900	0.25	2 – 1 x 5 ½	15.88	20.63	4.75	49.0
300	355.6	2500	239757	6.4		403	524	121	22.2
14	16.000	350	70400	0.25	2 – 1 x 5 ½	18.13	23.50	4.75	61.0
350	406.4	2500	313155	6.4		460	597	121	27.7
16	18.000	350	89100	0.25	2 – 1 x 5 ½	20.25	25.50	4.75	71.0
400	457.0	2500	396335	6.4		514	648	121	32.2
18	20.000	350	109950	0.25	2 – 1 ½ x 5 ½	22.50	27.13	4.75	82.0
450	508.0	2500	489304	6.4		572	689	121	37.2
20	22.000	350	133046	0.25	2 – 1 ½ x 6	24.75	29.25	4.75	99.0
500	558.8	2500	592055	6.4		628	743	121	44.9
22	24.000	350	158336	0.25	2 – 1 ½ x 5 ½	26.63	32.38	4.75	116.0
550	610.0	2500	704275	6.4		677	822	121	52.6
24	26.000	300	159279	0.38	4 – 1 ½ x 6	30.13	35.25	5.75	205.0
600	660.4	2065	708508	9.6		765	895	146	93.0
26	28.000	300	184726	0.38	4 – 1 ½ x 6	32.25	37.25	5.75	220.0
650	711.2	2065	821702	9.6		819	945	146	99.8
28	30.000	300	212058	0.38	4 – 1 ¼ x 7	33.88	39.63	5.75	227.0
700	762.0	2065	943281	9.6		863	1007	146	103.0
30	32.000	300	241274	0.38	4 – 1 ¼ x 7	36.13	41.75	5.75	242.0
750	812.8	2065	1073240	9.6		918	1060	146	109.8
32	34.000	300	272375	0.38	4 – 1 ¼ x 7	38.25	43.75	5.75	255.0
800	865	2065	1212070	9.6		972	1111	146	115.7
34	36.000	300	340235	0.38	4 – 1 ¼ x 7	40.25	45.75	5.75	268.0
850	914.4	2065	1513365	9.6		1022	1161	146	121.6
36	38.000	300	305363	0.38	4 – 1 ¼ x 7	41.25	48.00	5.75	298.0
900	965.2	2065	1358322	9.6		1048	1219	146	135.0
38	40.000	300	376991	0.44	4 – 1 ½ x 8	44.00	50.50	6.50	340.0
950	1016.0	2065	1676940	11.1		1117	1283	165	154.2
40	42.000	300	415632	0.44	4 – 1 ½ x 8	46.00	52.50	6.50	360.0
1000	1066.8	2065	1848823	11.1		1168	1334	165	163.3
42	44.000	232	352763	0.44	4 – 1 ½ x 8	48.00	54.50	6.50	390.0
1050	1150	1600	1569795	11.1		1219	1384	165	176.9
44	46.000	232	385561	0.44	4 – 1 ½ x 8	50.25	56.50	6.50	415.0
1100	1168.4	1600	1715746	11.1		1277	1435	165	188.2
46	48.000	232	419820	0.44	4 – 1 ½ x 8	52.25	58.50	6.50	425.0
1150	1219.2	1600	1868199	11.1		1328	1485	165	192.8
48	50.000	232	455530	0.44	4 – 1 ½ x 8	53.63	60.88	10.00	500.0
1200	1270.0	1600	2026298	11.1		1362	1546	254	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.

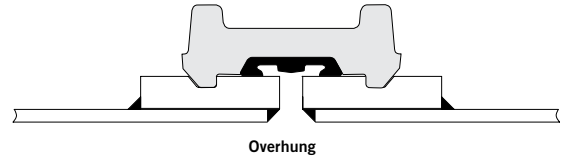
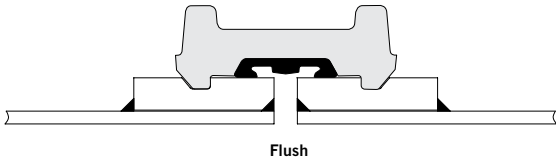
NOTE: The Style W07 AGS Vic-Ring system is available for pipe sizes ranging from 12 - 48"/300 - 1200 mm. The coupling used to join these pipe sizes will always be the next largest size (ex: 12"/300 mm pipe requires the use of a 14"/350 mm coupling). The larger size is needed to allow for the extra outside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

AGS Vic-Ring® Systems

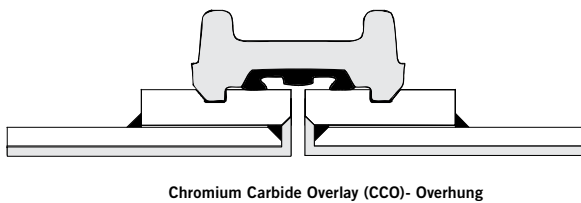
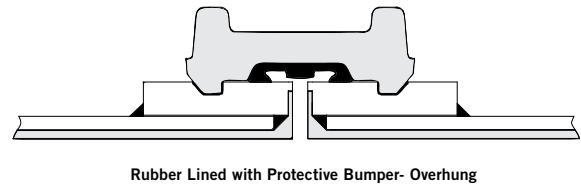
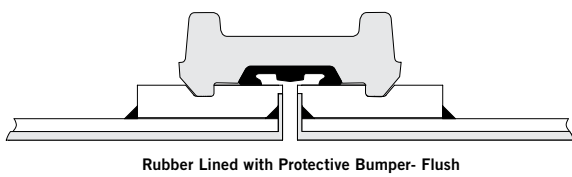
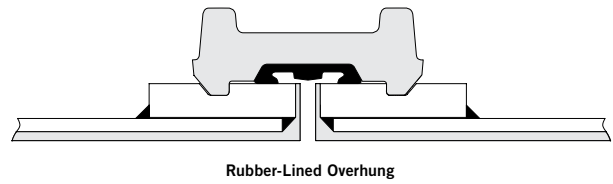
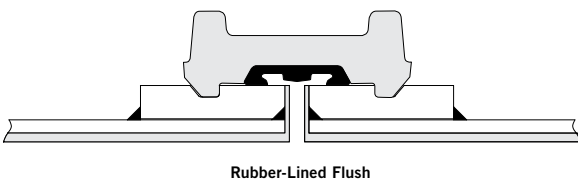
STYLE W07- Rigid Coupling

LINING OPTIONS

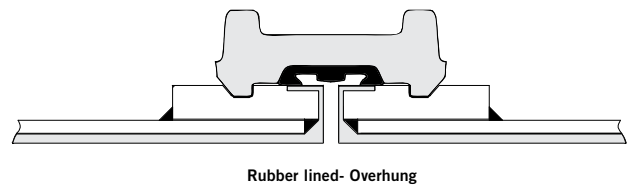
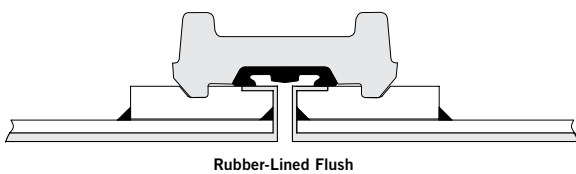
UNLINED SERVICES*



ABRASION SERVICES



ABRASION AND CORROSION SERVICES

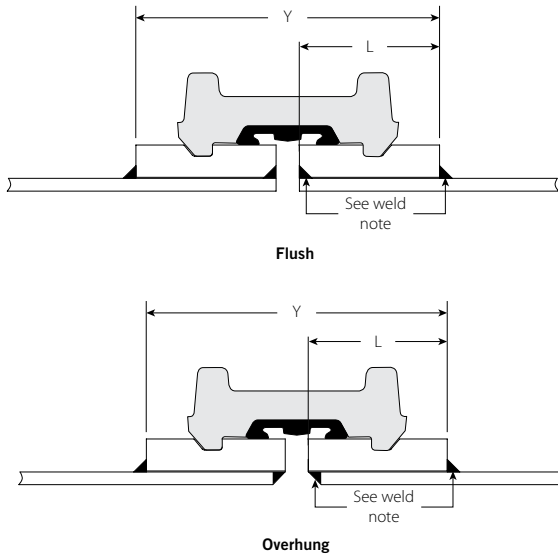


*Suitable for use on abrasive and non-abrasive services

AGS Vic-Ring® Systems

STYLE W07- Rigid Coupling

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

Weld Note: Minimum recommended weld size is 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 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.

AGS Vic-Ring® Systems

STYLE W07- Rigid Coupling

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

16.11 6284 REV E UPDATED 04/2013

VICTAULIC IS A REGISTERED TRADEMARK OF VICTAULIC COMPANY. © 2013 VICTAULIC COMPANY. ALL RIGHTS RESERVED.