

AGS Rigid Coupling

Style W07



14 – 24"/350 – 600 MM SIZES
PATENTED



26 – 50"/660 – 1250 MM SIZES
PATENTED

Approvals/Listings:



Product Description:

The patented Style W07 AGS (Advanced Groove System) coupling is comprised of two housings and is the first flat pad, metal-to-metal, rigid coupling to be offered within this size range. Its unique wedge-shaped key profile increases allowable pipe end separation, resulting 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.

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

Style W07 AGS couplings provide rigidity for valve connections, machinery rooms, and long straight runs. Support and hanging requirements correspond to ASME B31.1 Power Piping Code and ASME B31.9 Building Services Code. Please refer to Victaulic publication [26.01](#) for complete pipe support information.

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.

Style W07 AGS rigid couplings can also be used on abrasive/slurry services in combination with an AGS Vic-Ring. See publication [16.11](#).

Job/Owner

System No.	
Location	

Contractor

Submitted By	
Date	

Material Specifications:

Housing:

Ductile iron conforming to ASTM A-536, grade 65-45-12.

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

Housing Coating: (specify choice)

Standard: Orange enamel

Optional: Hot dipped galvanized and others

Coupling Gasket: (specify choice¹)

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" 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.

¹ 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.

Engineer

Spec Section	
Paragraph	
Approved	
Date	

Material Specifications continued:

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.

For 26 – 50"/650 – 1250 mm sizes

Washers:

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



WARNING

When grooving pipe for use with AGS products, Victaulic roll grooving tools must be equipped with AGS roll sets (RW for steel or RWX for stainless steel).

Victaulic AGS products MUST NOT be installed on pipe that is prepared with original-type grooving roll sets.

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.

To ensure proper pipe end preparation refer to publication [25.09](#) for AGS (Advanced Groove System) roll groove pipe specifications.

When preparing pipe for AGS products, please contact Victaulic for groove specifications for AGS groove dimensions.

Dimensions:

Nominal Size	Actual Outside Diameter	Maximum Working Pressure ¹			Max. End Load*	Allow. Pipe End Sep.#	Bolt/Nut	Dimensions			Approx. Weight Each
		Std.Wall	Light Wall ‡	Extra Heavy				X	Y	Z	
inches mm	inches mm	psi kPa	psi kPa	¾"/19.4 mm	Lbs. N	inches mm	(No.) size inches	inches mm	inches mm	inches mm	lbs. kg
14 350	14.000 355.6	350 2500	350 2500	350 2500	55800 248310	0.25 6.4	(2) 1 × 5½	15.88 403	20.63 524	4.75 121	49.0 22.2
16 400	16.000 406.4	350 2500	350 2500	350 2500	72885 324338	0.25 6.4	(2) 1 × 5½	18.13 460	23.50 597	4.75 121	61.0 27.7
18 450	18.000 457.0	350 2500	350 2500	350 2500	92245 410490	0.25 6.4	(2) 1 × 5½	20.25 514	25.50 648	4.75 121	71.0 32.2
20 500	20.000 508.0	350 2500	350 2500	350 2500	113880 506766	0.25 6.4	(2) 1½ × 5½	22.50 570	27.13 689	4.75 121	82.0 37.2
22 550	22.000 559.0	350 2500	350 2500	350 2500	114000 507080	0.25 6.4	(2) 1½ × 6	24.75 629	29.38 746	4.75 121	110.0 49.9
24 600	24.000 610.0	350 2500	225 1600	350 2500	163990 729756	0.25 6.4	(2) 1½ × 5½	26.63 677	32.38 822	4.75 121	116.0 52.6
26 650	26.000 660.4	300 2065	300 2065	300 2065	159279 708508	0.38 9.6	(4) 1½ × 6	30.13 765	35.25 895	5.75 146	205.0 93.0
28 700	28.000 711.2	300 2065	300 2065	300 2065	184726 821702	0.38 9.6	(4) 1½ × 6	32.25 819	37.25 945	5.75 146	220.0 99.8
30 750	30.000 762.0	300 2065	300 2065	300 2065	212058 943281	0.38 9.6	(4) 1¾ × 7	33.88 863	39.63 1007	5.75 146	227.0 103.0
32 800	32.000 812.8	300 2065	300 2065	300 2065	241274 1073240	0.38 9.6	(4) 1¾ × 7	36.13 917	41.75 1060	5.75 146	242.0 109.8
34 850	34.000 864.0	300 2065	300 2065	300 2065	305363 1358322	0.38 9.6	(4) 1¾ × 7	38.25 972	43.75 1161	5.75 146	255.0 115.7
36 900	36.000 914.4	300 2065	300 2065	300 2065	305363 1358322	0.38 9.6	(4) 1¾ × 7	40.25 1022	45.75 1161	5.75 146	268.0 121.6
38 950	38.000 965.0	300 2065	300 2065	300 2065	340235 1513365	0.38 9.6	(4) 1¾ × 7	41.25 1048	48.00 1219	6.50 165	304.0 138.2
40 1000	40.000 1016.0	300 2065	300 2065	300 2065	376991 1676940	0.44 11.1	(4) 1½ × 8	44.00 1117	50.50 1283	6.50 165	340.0 154.2

1 Working Pressure and End Load are total, from all internal and external loads, based on standard weight (ANSI) steel pipe, AGS roll grooved in accordance with Victaulic® specifications. Contact Victaulic for performance on other pipe.

Note: Actual maximum working pressure is 363 psi/2500 kPa for 14 – 20"/350 – 500 mm on light wall; 232 psi/1600 kPa for 24"/600 mm on light wall; 363 psi/2500 kPa for 14 – 24"/350 – 500 mm on standard wall.

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

‡ Light Wall for 14"/350 mm = 0.22"/5.6 mm; 16 – 24"/400 – 600 mm = 0.25"/6.35 mm; 26 – 50"/650 – 1250 mm = 0.312"/7.9 mm

For field installation only on roll grooved pipe. 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: Style W07 AGS couplings must not be used to join PVC pipe.

NOTE: The Style W07 coupling in 14 – 50"/350 – 1250 mm sizes cannot be used on wall thicknesses greater than 0.75"/19.4 mm.

NOTE: The outside diameter of roll grooved pipe shall not vary more than the limits of API 5L end tolerance. The maximum allowable tolerance from square cut ends is 0.125"/3.18 mm measured from a true square line.

NOTE: Style W07 couplings in sizes from 14 – 24"/350 – 600 mm can be installed on thin wall/Schedule 10S stainless steel piping systems with pressures not exceeding 150 psi/1035 kPa.

Dimensions:

Nominal Size	Actual Outside Diameter	Maximum Working Pressure ¹			Max. End Load*	Allow. Pipe End Sep.#	Bolt/Nut	Dimensions			Approx. Weight Each
		Std. Wall	Light Wall ‡	Extra Heavy				X	Y	Z	
inches mm	inches mm	psi kPa	psi kPa	¾"/19.4 mm	Lbs. N	inches mm	(No.) size inches	inches mm	inches mm	inches mm	lbs. kg
42 1050	42.000 1066.8	300 2065	300 2065	300 2065	415632 1848823	0.44 11.1	(4) 1½ × 8	46.00 1168	54.50 1384	6.50 165	360.0 163.3
44 1100	44.000 1117.6	232 1600	232 1600	232 1600	352763 1569168	0.44 11.1	(4) 1½ × 8	48.00 1219	54.50 1384	6.50 165	390.0 177.0
46 1150	46.000 1168.4	232 1600	232 1600	232 1600	385561 1715746	0.44 11.1	(4) 1½ × 8	50.25 1277	56.50 1435	6.50 165	415.0 188.2
48 1200	48.000 1219.2	232 1600	232 1600	232 1600	419820 1868199	0.44 11.1	(4) 1½ × 8	52.25 1328	58.50 1485	6.50 165	425.0 192.8
50 1250	50.000 1270.0	232 1600	232 1600	232 1600	455530 2026298	0.44 11.1	(4) 1½ × 8	53.63 1362	60.88 1546	10.00 254	500.0 227.0

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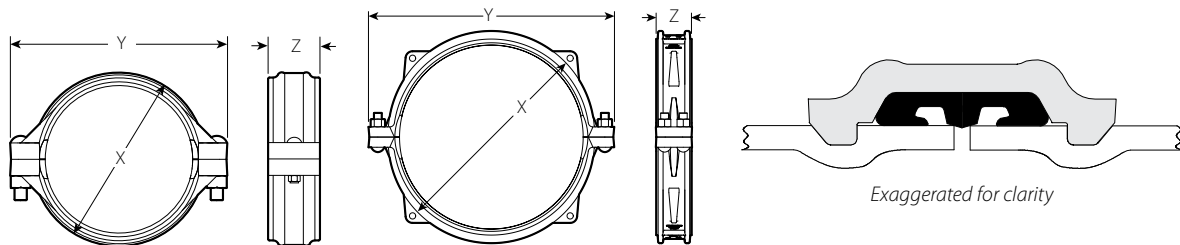
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NOTE: Style W07 couplings in sizes from 14 – 24"/350 – 600 mm can be installed on thin wall/Schedule 10S stainless steel piping systems with pressures not exceeding 150 psi/1035 kPa.



TYPICAL 14 – 24"/350 – 600 mm

TYPICAL 26 – 50"/650 – 1250 mm

Nominal Size inches mm	Recommended Toque ft. lbs. N•m
14, 16, 18 350, 400, 450	250 340
20, 22, 24, 26, 28 500, 550, 600, 660, 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 [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.

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.

Trademarks

Victaulic and Zero-Flex are registered trademarks of Victaulic Company.