

AGS Flexible Coupling



STYLE W77

The patent-pending Style W77 AGS (Advanced Groove System) coupling is comprised of two housings and is designed to provide a strong connection for large diameter pressure piping systems. Its unique wedge-shaped key profile increases allowable pipe end separation, resulting in easier initial assembly alignment.

Style W77 AGS couplings are rated up to 350psi/2400 kPa for 14 – 24”/350 – 600mm piping systems. Style W77 AGS couplings provide limited linear and angular pipe movement at the pipe joint that can be used to compensate for thermal growth of piping systems, vibration attenuation, seismic, and other applications requiring flexibility. Support and hanging requirements are defined within Victaulic Design Data Submittal 26.01.

Style W77 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.



PATENT PENDING



WARNING

WARNING

- Victaulic AGS products use a patent-pending groove profile that requires the use of special AGS rolls. AGS products must not be used on pipe that has been grooved using standard grooving rolls.

Failure to use AGS products on AGS grooved pipe could result in serious personal injury, property damage, joint leakage or joint separation.

When preparing pipe for AGS products, please refer to groove specification section 25.09 for AGS groove dimensions.

JOB/OWNER

System No. _____
 Location _____

CONTRACTOR

Submitted By _____
 Date _____

ENGINEER

Spec Sect _____ Para _____
 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: 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” 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/Nuts: Heat-treated plated carbon steel, trackhead meeting the physical and chemical requirements of ASTM A-449 and physical requirements of ASTM A-183.

- **Optional:** Type 316 stainless steel, Grade B-8M, Class 2.

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DIMENSIONS

Size		Max. Working Pressure* psi/kPa		Max. End Load* Lbs./N		Allow. Pipe End Sep.†	Deflect. From CL †		Bolt/Nut No - Size	Dimensions – Inches/mm			Approx. Wgt. Each
Nominal Size Inches mm	Actual Outside Dia. Inches mm	Std. Wall	Light Wall ‡	Std. Wall	Light Wall	Inches mm	Per Cplg. Deg.	Pipe In./Ft. mm/m	Inches	X	Y	Z	Lbs. kg
14 350	14.000 355.6	350 § 2500	350 § 2500	55800 248310	55800 248310	0.13 – 0.31 3.3 – 7.9	0° – 44'	0.15 13	2 - 1 x 5 ½	16.00 406	20.59 523	4.50 114	47.5 21.5
16 400	16.000 406.4	350 § 2500	350 § 2500	72885 324338	72885 324338	0.13 – 0.31 3.3 – 7.9	0° – 38'	0.13 11	2 - 1 x 5 ½	18.18 462	23.51 597	4.50 114	57.8 26.2
18 450	18.000 457.2	350 § 2500	350 § 2500	92245 410490	92245 410490	0.13 – 0.31 3.3 – 7.9	0° – 34'	0.12 10	2 - 1 x 5 ½	20.36 517	25.46 647	4.50 114	65.0 29.5
20 500	20.000 508.0	350 § 2500	350 § 2500	113880 506766	113880 506766	0.13 – 0.31 3.3 – 7.9	0° – 30'	0.10 9	2 - 1 ½ x 5 ½	22.56 573	27.13 689	4.50 114	82.3 37.3
24 600	24.000 609.6	350 § 2500	225 § 1600	163990 729756	104955 467050	0.13 – 0.31 3.3 – 7.9	0° – 25'	0.09 8	2 - 1 ½ x 5 ½	26.88 683	32.31 821	4.50 114	106.8 48.4

* **Working Pressure and End Load** are total, from all internal and external loads, based on minimum nominal wall thicknesses shown within AGS Roll Groove Specifications 25.09, AGS roll grooved in accordance with Victaulic® specifications. Contact Victaulic for performance on other pipe.

§ Pressure ratings have been rounded for global use. Actual maximum working pressure for lightwall in 14 – 20"/350 – 500 mm sizes is 363 psi/2500 kPa; 24"/600 mm is 232 psi/1600 kPa and standard wall 14 – 24"/350 – 500 mm sizes is 363 psi/2500 kPa.

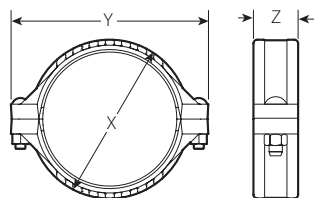
WARNING: FOR ONE TIME FIELD TEST ONLY, the Maximum Joint Working Pressure may be increased to 1 ½ times the figures shown.

‡ Lightwall 14"/350 mm = 0.22"/5.6 mm; 16 – 24"/400 – 600 mm = 0.25"/6.35 mm

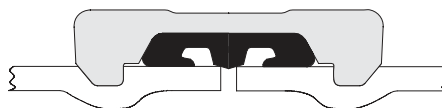
† Allowable Pipe End Separation and Deflection figures show the maximum nominal range of movement available at each joint for AGS roll grooved pipe. These figures are maximums; for design and installation purposes these figures should be reduced by 25%.

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

Style W77 AGS couplings must not be used to join PVC pipe.



TYPICAL 14 – 24"/350 – 600 MM



Exaggerated for clarity

TORQUE REQUIREMENTS

Size		Recommended Torque
Nominal Size Inches mm	Actual Outside Dia. Inches mm	ft. lbs. N•m
14, 16 & 18 350, 400, 450	14.000, 16.000, 18.000 355.6, 406.4 & 457.0	250 340
20 & 24 500, 600	20.000, 24.000 508.0, 610.0	375 500

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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.



WCAS-6VYHAM

For complete contact information, visit www.victaulic.com

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