



Victaulic® AGS Rigid Coupling Style W07



14 – 24"/DN350 – DN600 sizes
Patented



26 – 50"/DN650 – DN1250 sizes
Patented

AGS™

1.0 PRODUCT DESCRIPTION

Available Sizes

- 14 – 50"/DN350 – DN1250

Maximum Working Pressure

- 14 – 24"/DN350 – DN600: 350 psi/2400 kPa
- 26 – 42"/DN650 – DN1050: 300 psi/2065 kPa
- 44 – 50"/DN1100 – DN1250: 232 psi/1600 kPa

Application

- For buried applications, project specific details are required. Please contact Victaulic
- Provide rigidity for valve connections, machinery rooms, and long straight runs

Function

- Unique wedge-shaped key profile increases allowable pipe end separation, resulting in easier assembly.
- Style W07 AGS coupling in 26 – 50"/ DN650 – DN1250 sizes, features lifting lugs integrated into the housings to help ease handling during installation.

NOTES

- 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](#).

2.0 CERTIFICATION/LISTINGS



NOTES

- Size 480mm is not UL, NSF and FM approved. Sizes 377mm and 426mm are not UL and NSF approved.
- See [publication 02.06](#) Victaulic Potable Water Approvals ANSI/NSF for potable water approvals if applicable.
- Download [publication 10.01](#) for Fire Protection Certifications/Listings Reference Guide.

ALWAYS REFER TO ANY NOTIFICATIONS AT THE END OF THIS DOCUMENT REGARDING PRODUCT INSTALLATION, MAINTENANCE OR SUPPORT.





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3.0 SPECIFICATIONS – MATERIAL

Housing: Ductile iron conforming to ASTM A536, Grade 65-45-12. Ductile iron conforming to ASTM A395, Grade 65-45-15 available upon special request.

Housing Coating: (specify choice)

- ☐ Standard: Orange enamel.
- ☐ Optional: Hot dipped galvanized and others.
- ☐ Optional: Fusion Bonded Epoxy.

NOTE

- For additional coating options contact Victaulic.

Coupling Gasket: (specify choice¹)

- ☐ **Victaulic Grade “E” FlushSeal™ EPDM**
EPDM (Green stripe color code). Temperature range –30°F to +230°F/–34°C to +110°C. May be specified for 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 +73°F/+23°C and hot +180°F/+82°C potable water service and ANSI/NSF 372. **NOT COMPATIBLE FOR USE WITH PETROLEUM SERVICES OR STEAM SERVICES.**
- ☐ **Victaulic Grade “T” FlushSeal™ Nitrile**
Nitrile (Orange color code). Temperature range –20°F to +180°F/–29°C to +82°C. May be specified for oil related services, including air with oil vapor, this gasket may be specified for temperatures rated up to +180°F/+82°C. For water related services, this gasket may be specified for temperatures rated up to +150°F/+66°C. For oil free, dry air services, this gasket may be specified for temperatures rated up to +140°F/+60°C. **NOT COMPATIBLE FOR USE WITH HOT WATER SERVICES OR STEAM SERVICES.**
- ☐ **Victaulic Grade “L” FlushSeal™ Silicone**
Silicone (Red color code). Temperature range –30°F to +350°F/–34°C to +177°C. May be specified for dry heat, air without hydrocarbons to +350°F/+177°C and certain chemical services.
- ☐ **Others**
For alternate gasket selection, reference [publication 05.01](#): Victaulic Seal Selection Guide – Elastomeric Seal Construction.

¹ Services listed are General Service Guidelines only. It should be noted that there are services for which these gaskets are not compatible. Reference should always be made to the latest [Victaulic Seal Selection Guide](#) for specific gasket service guidelines and for a listing of services which are not compatible.

Bolts/Nuts: (specify choice²)

- ☐ Standard: Carbon steel oval neck track bolts meeting the mechanical property requirements of ASTM A449 (imperial) and ISO 898-1 Class 9.8 (M10-M16) Class 8.8 (M20 and greater). Carbon steel hex nuts meeting the mechanical property requirements of ASTM A563 Grade B (imperial - heavy hex nuts) and ASTM A563M Class 9 (metric - hex nuts). Track bolts and hex nuts are zinc electroplated per ASTM B633 FE/ZN5, finish Type III (imperial) or Type II (metric).
- ☐ Optional: Stainless steel oval neck track bolts or studs meeting the mechanical property requirements of ASTM A193 Grade B8M, Class 2 (316 stainless steel). Stainless steel heavy hex nuts meeting the mechanical property requirements of ASTM A194 Grade 8M (316 stainless steel) with galling reducing coating.

For 26 – 50”/DN650 – DN1250 sizes:

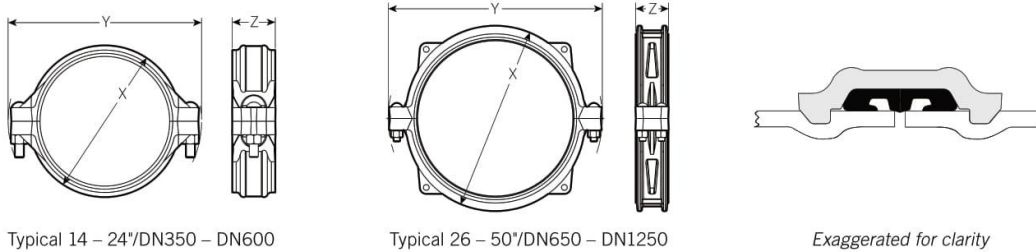
- ☐ Washers: Plated carbon steel, flat. SAE high strength conforming to ASTM F436 or high strength stainless steel.

² Optional bolts/nuts are available in imperial size only.



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4.0 DIMENSIONS



Size		Pipe End Separation	Bolt/Nut		Dimensions			Weight
Nominal inches DN	Actual Outside Diameter inches mm	Allowable inches mm	Qty.	Size inches mm	X inches mm	Y inches mm	Z inches mm	Approximate (Each) lb kg
14 DN350	14.000 355.6	0.25 6.4	2	1 x 5 1/2	15.88 404	20.63 524	4.75 121	49.0 22.2
	14.843 377.0	0.25 6.4	2	M24 x 139.7	16.88 427	21.50 544	4.88 122	51.3 23.3
16 DN400	16.000 406.4	0.25 6.4	2	1 x 5 1/2	18.25 461	23.50 597	4.75 121	61.0 27.7
	16.772 426.0	0.25 6.4	2	M24 x 139.7	19.00 482	23.50 596	4.88 122	63.9 29.0
18 DN450	18.000 457.2	0.25 6.4	2	1 x 5 1/2	20.25 515	25.50 648	4.75 121	71.0 32.2
	18.898 480.0	0.25 6.4	2	M24 x 139.7	21.25 538	25.75 653	4.88 122	74.2 33.7
20 DN500	20.000 508.0	0.25 6.4	2	1 1/8 x 5 1/2	22.50 572	27.13 689	4.75 121	82.0 37.2
	20.866 530.0	0.25 6.4	2	M27 x 139.7	23.50 595	28.25 718	4.75 121	86.0 39.0
22 DN550	22.000 558.8	0.25 6.4	2	1 1/8 x 6	24.75 629	29.38 747	4.75 121	110.0 49.9
24 DN600	24.000 609.6	0.25 6.4	2	1 1/8 x 5 1/2	26.63 677	32.38 823	4.75 121	116.0 52.6
	24.803 630.0	0.25 6.4	2	M27 x 139.7	16.25 411	27.50 699	4.75 121	120.0 54.4
26 DN650	26.000 660.4	0.38 9.7	4	1 1/8 x 6	30.13 766	35.25 896	5.75 147	205.0 93.0
28 DN700	28.000 711.2	0.38 9.7	4	1 1/8 x 6	32.25 820	37.25 947	5.75 147	220.0 99.8
30 DN750	30.000 762.0	0.38 9.7	4	1 1/4 x 7	33.88 861	39.63 1007	5.75 147	227.0 103.0
32 DN800	32.000 812.8	0.38 9.7	4	1 1/4 x 7	36.13 918	41.75 1061	5.75 147	242.0 109.8
34 DN850	34.000 863.6	0.38 9.7	4	1 1/4 x 7	38.25 972	43.75 1112	5.75 147	255.0 115.7
36 DN900	36.000 914.4	0.38 9.7	4	1 1/4 x 7	40.25 1023	45.75 1163	5.75 147	268.0 121.6

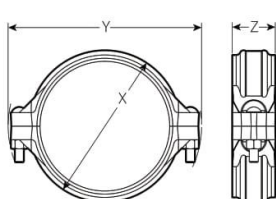
NOTES

- WARNING: FOR ONE TIME FIELD TEST ONLY, the Maximum Joint Working Pressure may be increased to 1 1/2 times the figures shown.
- The allowable pipe end separation dimension shown is for system layout purposes only. Style W07 AGS rigid couplings are considered rigid connections and will not accommodate expansion/contraction or angular movement of the piping system. Contact Victaulic for torsional resistance information.
- The outside diameter, ovality, and surface finish including flat spots and imperfections shall not vary more than the limits of API 5L end tolerance.
- Refer to [publication 25.09](#) for proper groove specifications.
- Style W07 AGS couplings are essentially rigid and do not permit expansion/contraction.
- Additional wall thicknesses available. For performance on additional pipe wall thicknesses contact Victaulic.
- For additional pipe sizes, please contact Victaulic.

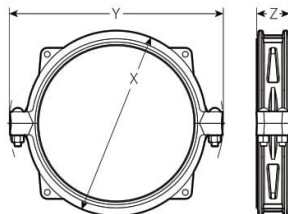


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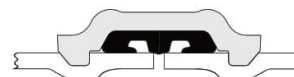
4.0 DIMENSIONS (CONTINUED)



Typical 14 – 24\"/>



Typical 26 – 50\"/>



Exaggerated for clarity

Size		Pipe End Separation	Bolt/Nut		Dimensions			Weight
Nominal inches DN	Actual Outside Diameter inches mm	Allowable inches mm	Qty.	Size inches mm	X inches mm	Y inches mm	Z inches mm	Approximate (Each) lb kg
38 DN950	38.000 965.0	0.38 9.7	4	1 ¼ x 7	41.25 1048	48.00 1220	5.75 147	304.0 137.9
40 DN1000	40.000 1016.0	0.44 11.2	4	1 ½ x 8	44.00 1118	50.50 1283	6.50 166	340.0 154.2
42 DN1050	42.000 1066.8	0.44 11.2	4	1 ½ x 8	46.00 1169	52.50 1334	6.50 166	360.0 163.3
44 DN1100	44.000 1117.6	0.44 11.2	4	1 ½ x 8	48.00 1220	54.50 1385	6.50 166	390.0 176.9
46 DN1150	46.000 1168.4	0.44 11.2	4	1 ½ x 8	50.25 1277	56.50 1436	6.50 166	415.0 188.2
48 DN1200	48.000 1219.2	0.44 11.2	4	1 ½ x 8	52.25 1328	58.50 1486	6.50 166	425.0 192.8
50 DN1250	50.000 1270.0	0.44 11.2	4	1 ½ x 8	53.63 1363	60.88 1547	10.00 254	500.0 226.8

NOTES

- WARNING: FOR ONE TIME FIELD TEST ONLY, the Maximum Joint Working Pressure may be increased to 1½ times the figures shown.
- The outside diameter, ovality, and surface finish including flat spots and imperfections shall not vary more than the limits of API 5L end tolerance.
- Style W07 AGS couplings are essentially rigid and do not permit expansion/contraction.
- Refer to [publication 25.09](#): Victaulic Roll Groove Specifications for proper groove specifications.
- Additional wall thicknesses available. For performance on additional pipe wall thicknesses contact Victaulic.
- For additional pipe sizes, please contact Victaulic.



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5.0 PERFORMANCE

Size	Actual Outside Diameter	Maximum Working Pressure			Performance
		Less Than Std Wt	Std. Wt	XS 1/2 – 3/4" 13 – 19 mm	
Nominal inches DN	inches mm	psi kPa	psi kPa	psi kPa	Maximum End Load lbs N
14 DN350	14.000 355.6	350 2413	350 2413	350 2413	53900 239759
	14.843 377.0	350 2413	350 2413	350 2413	60600 269562
16 DN400	16.000 406.4	350 2413	350 2413	350 2413	70400 313155
	16.772 426.0	350 2413	350 2413	350 2413	77400 344292
18 DN450	18.000 457.2	350 2413	350 2413	350 2413	89100 396337
	18.898 480.0	350 2413	350 2413	350 2413	98200 436815
20 DN500	20.000 508.0	350 2413	350 2413	350 2413	110000 489304
	20.866 530.0	350 2413	350 2413	350 2413	119700 532452
22 DN550	22.000 558.8	350 2413	350 2413	350 2413	133100 592058
24 DN600	24.000 609.6	225 1551	0 0	0 0	101800 452829
		0 0	350 2413	350 2413	158400 704598
	24.803 630.0	225 1551	0 0	0 0	108800 483967
		0 0	350 2413	350 2413	169200 752639
26 DN650	26.000 660.4	300 2068	300 2068	300 2068	159300 708602
28 DN700	28.000 711.2	300 2068	300 2068	300 2068	184800 822031
30 DN750	30.000 762.0	300 2068	300 2068	300 2068	212100 943468
32 DN800	32.000 812.8	300 2068	300 2068	300 2068	241300 1073356
34 DN850	34.000 863.6	300 2068	300 2068	300 2068	272400 1211696
36 DN900	36.000 914.4	300 2068	300 2068	300 2068	305400 1358487
38 DN950	38.000 965.0	300 2068	300 2068	300 2068	340300 1513730
40 DN1000	40.000 1016.0	300 2068	300 2068	300 2068	377000 1676980
42 DN1050	42.000 1066.8	300 2068	300 2068	300 2068	415700 1849126
44 DN1100	44.000 1117.6	232 1600	232 1600	232 1600	352800 1569333
46 DN1150	46.000 1168.4	232 1600	232 1600	232 1600	385600 1715234
48 DN1200	48.000 1219.2	232 1600	232 1600	232 1600	419900 1867808
50 DN1250	50.000 1270.0	232 1600	232 1600	232 1600	455600 2026610

³ End loads are total from all internal and external loads, based on carbon steel pipe, rolled with Victaulic AGS rolls in accordance with [publication 25.09](#): Victaulic AGS Roll Groove Specifications. Contact Victaulic for performance on other pipe.

⁴ Less Than Std Wt for 14"/DN350 = 0.22"/5.6mm; 16 – 24"/DN400 – DN600 = 0.25"/6.35mm; 26 – 50"/DN650 – DN1250 = 0.312"/7.9mm
Less Than Std Wt for 377mm = 0.217"/5.5mm; 426mm = 0.256"/6.5mm; 480mm = 0.256"/6.5mm