

Victaulic Rigid and Flexible AGS Carbon Steel Long Run Fittings

Nos. WR10/WR13, WR11/WR14 and WR12/WR15

Nos. WR20/WR23, WR21/WR24 and WR22/WR25



20.40



No. WR10



No. WR11



No. WR12

1.0 PRODUCT DESCRIPTION

Available Sizes

- 14 – 24"/DN350 – DN600

Pipe Material

- Standard weight carbon steel pipe

Maximum Working Pressure

- Rigid and Flexible Long Run Fittings: Accommodates pressures ranging from full vacuum (29.9 in Hg/760 mm Hg) up to 350 psi/2413 kPa/24 bar with the Style W07 rigid coupling or the Style W77 flexible coupling

Operating Temperature

- Dependent on gasket selection from section 3.0

Function

- All-in-one assembly reduces installation and handling
- Used in conjunction with Victaulic grooved end products

Pipe Preparation

- Supplied with Victaulic Advanced Groove System (AGS) roll grooved ends

2.0 CERTIFICATION/LISTINGS

Product designed and manufactured under Victaulic's Quality Management System, as certified in accordance with ISO 9001:2008.

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

System No.		Location	
Submitted By		Date	

Spec Section		Paragraph	
Approved		Date	



3.0 SPECIFICATIONS – MATERIAL

Steel: Carbon steel, standard weight, conforming to ASTM A53, Type E, Grade B.

Coupling Housing: Ductile iron conforming to ASTM A536, Grade 65-45-12.

Gasket: (specify choice¹)

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.

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.

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.

Fitting: Ductile iron conforming to ASTM A536, Grade 65-45-12

Coupling Housing and Fitting Coating: (specify choice)

Standard: Orange enamel.

Optional: Hot dipped galvanized conforming to ASTM A153.

Optional: Contact Victaulic with your requirements.

Bolts/Nuts: (specify choice²)

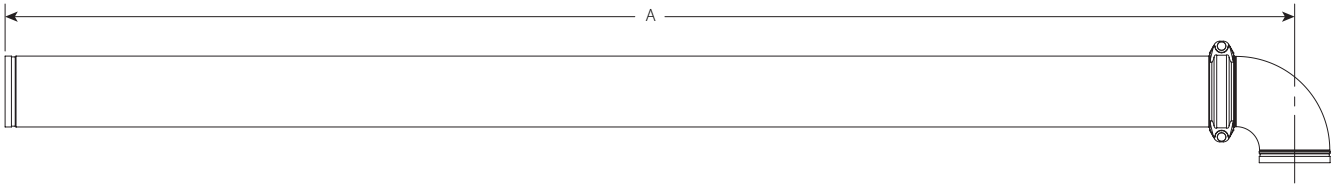
Standard: Carbon steel oval neck track bolts meeting the mechanical property requirements of ASTM A449 (imperial) and ISO 898-1 Class 9.8 (metric). Carbon steel hex nuts meeting the mechanical property requirements of ASTM A563 Grade B (imperial – heavy hex nuts) and ASTM A563M Class 9 (metric – hex 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.²

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

4.0 DIMENSIONS

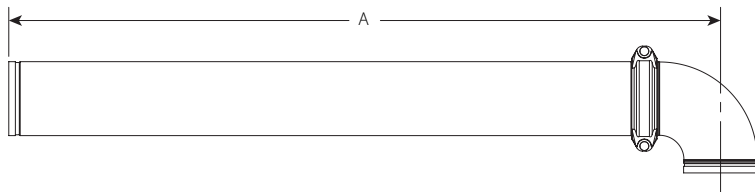
No. WR10 Rigid Long Run Fitting



Size		Dimensions	Weight
Nominal inches DN	Actual Outside Diameter inches mm	A inches mm	Approximate (Each) lb kg
14 DN350	14.000 355.6	254.25 6458	1291.8 585.9
16 DN400	16.000 406.4	256.25 6509	1497.3 679.0
18 DN450	18.000 457.2	258.25 6560	1755.3 796.1
20 DN500	20.000 508.0	260.25 6610	1966.0 891.6
24 DN600	24.000 609.6	264.25 6712	2407.8 1092.0

4.1 DIMENSIONS

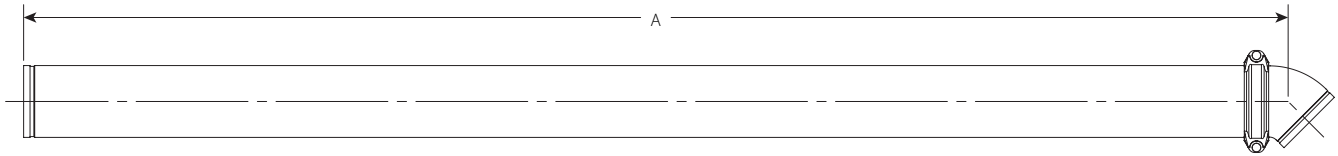
No. WR13 Rigid Long Run Fitting



Size		Dimensions	Weight
Nominal inches DN	Actual Outside Diameter inches mm	A inches mm	Approximate (Each) lb kg
14 DN350	14.000 355.6	134.25 3410	745.8 338.2
16 DN400	16.000 406.4	136.25 3461	871.3 395.1
18 DN450	18.000 457.2	138.25 3512	1049.3 475.9
20 DN500	20.000 508.0	140.25 3562	1180.0 535.1
24 DN600	24.000 609.6	144.25 3664	1541.8 699.2

4.2 DIMENSIONS

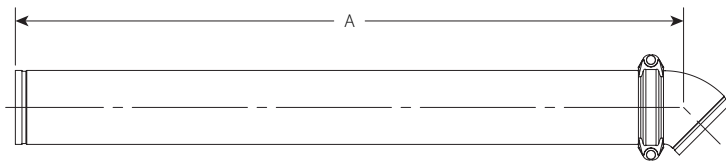
No. WR11 Rigid Long Run Fitting



Size		Dimensions	Weight
Nominal inches DN	Actual Outside Diameter inches mm	A inches mm	Approximate (Each) lb kg
14 DN350	14.000 355.6	246.05 6250	1204.0 546.0
16 DN400	16.000 406.4	246.88 6271	1406.8 638.0
18 DN450	18.000 457.2	247.71 6292	1612.0 731.1
20 DN500	20.000 508.0	248.53 6313	1819.3 825.1
24 DN600	24.000 609.6	250.19 6355	2112.5 958.0

4.3 DIMENSIONS

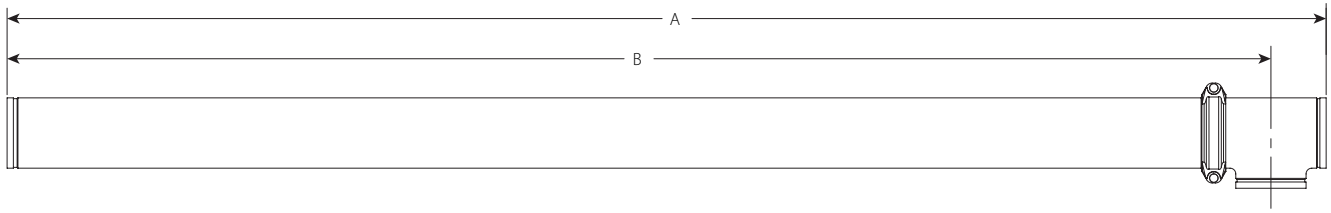
No. WR14 Rigid Long Run Fitting



Size		Dimensions	Weight
Nominal inches DN	Actual Outside Diameter inches mm	A inches mm	Approximate (Each) lb kg
14 DN350	14.000 355.6	126.05 3202	658.0 298.4
16 DN400	16.000 406.4	126.88 3223	780.8 354.1
18 DN450	18.000 457.2	127.71 3244	906.0 410.9
20 DN500	20.000 508.0	128.53 3265	1033.3 468.6
24 DN600	24.000 609.6	130.19 3307	1246.5 565.3

4.4 DIMENSIONS

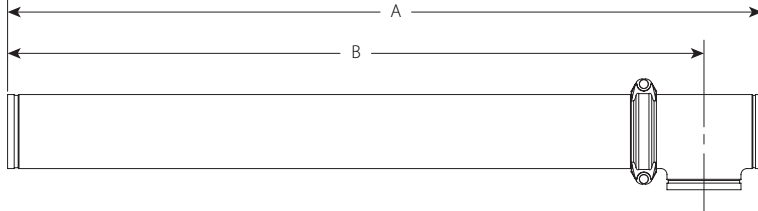
No. WR12 Rigid Long Run Fitting



Size		Dimensions		Weight
Nominal inches DN	Actual Outside Diameter inches mm	A inches mm	B inches mm	Approximate (Each) lb kg
14 DN350	14.000 355.6	262.25 6661	251.25 6382	1243.0 563.7
16 DN400	16.000 406.4	264.25 6712	252.25 6407	1436.0 651.2
18 DN450	18.000 457.2	267.25 6788	253.75 6445	1764.0 800.0
20 DN500	20.000 508.0	270.25 6864	255.25 6483	2004.0 908.8
24 DN600	24.000 609.6	274.25 6966	257.25 6534	2351.7 1066.5

4.5 DIMENSIONS

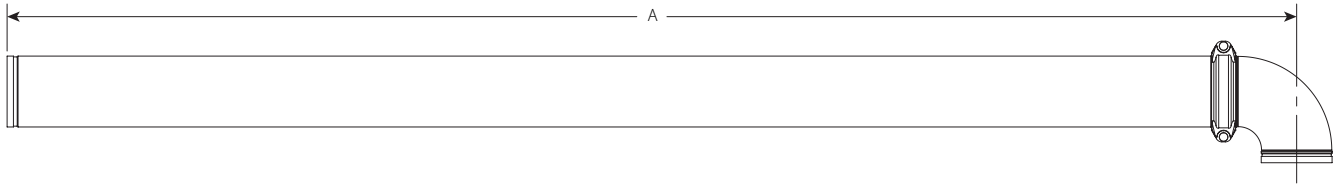
No. WR15 Rigid Long Run Fitting



Size		Dimensions		Weight
Nominal inches DN	Actual Outside Diameter inches mm	A inches mm	B inches mm	Approximate (Each) lb kg
14 DN350	14.000 355.6	142.25 3613	131.25 3334	697.0 316.1
16 DN400	16.000 406.4	144.25 3664	132.25 3359	810.0 367.3
18 DN450	18.000 457.2	147.25 3740	133.75 3397	1058.0 479.8
20 DN500	20.000 508.0	150.25 3816	135.25 3435	1218.0 552.4
24 DN600	24.000 609.6	154.25 3918	137.25 3486	1485.7 673.8

4.6 DIMENSIONS

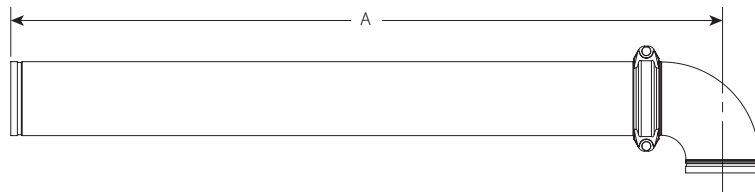
No. WR20 Flexible Long Run Fitting



Size		Dimensions	Weight
Nominal inches DN	Actual Outside Diameter inches mm	A inches mm	Approximate (Each) lb kg
14 DN350	14.000 355.6	254.31 6459	1290.8 585.4
16 DN400	16.000 406.4	256.31 6510	1494.3 677.7
18 DN450	18.000 457.2	258.31 6561	1749.3 793.3
20 DN500	20.000 508.0	260.31 6612	1966.0 891.6
24 DN600	24.000 609.6	264.31 6713	2398.8 1087.9

4.7 DIMENSIONS

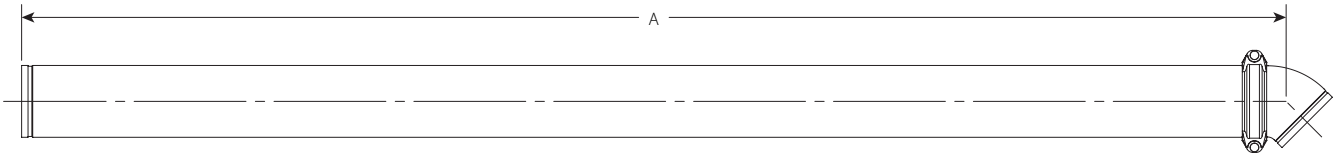
No. WR23 Flexible Long Run Fitting



Size		Dimensions	Weight
Nominal inches DN	Actual Outside Diameter inches mm	A inches mm	Approximate (Each) lb kg
14 DN350	14.000 355.6	134.31 3411	744.8 337.8
16 DN400	16.000 406.4	136.31 3462	868.3 393.8
18 DN450	18.000 457.2	138.31 3513	1043.3 473.2
20 DN500	20.000 508.0	140.31 3564	1180.0 535.1
24 DN600	24.000 609.6	144.31 3665	1532.8 695.1

4.8 DIMENSIONS

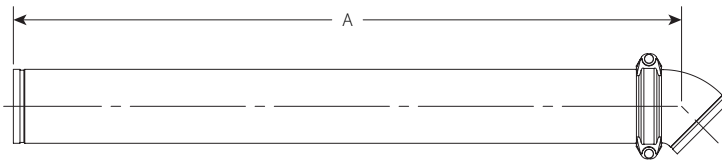
No. WR21 Flexible Long Run Fitting



Size		Dimensions	Weight
Nominal inches DN	Actual Outside Diameter inches mm	A inches mm	Approximate (Each) lb kg
14 DN350	14.000 355.6	246.11 6251	1203.0 545.6
16 DN400	16.000 406.4	246.94 6272	1403.8 636.6
18 DN450	18.000 457.2	247.77 6293	1606.0 728.3
20 DN500	20.000 508.0	248.59 6314	1819.3 825.1
24 DN600	24.000 609.6	250.25 6356	2103.5 954.0

4.9 DIMENSIONS

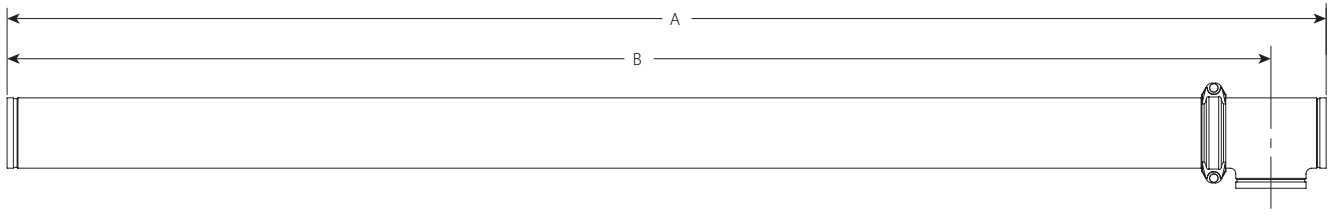
No. WR24 Flexible Long Run Fitting



Size		Dimensions	Weight
Nominal inches DN	Actual Outside Diameter inches mm	A inches mm	Approximate (Each) lb kg
14 DN350	14.000 355.6	126.11 3203	657.0 298.0
16 DN400	16.000 406.4	126.94 3224	777.8 352.7
18 DN450	18.000 457.2	127.77 3245	900.0 408.2
20 DN500	20.000 508.0	128.59 3266	1033.3 468.6
24 DN600	24.000 609.6	130.25 3308	1237.5 561.2

4.10 DIMENSIONS

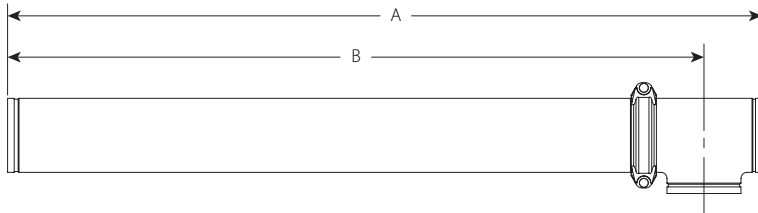
No. WR22 Flexible Long Run Fitting



Size		Dimensions		Weight
Nominal inches DN	Actual Outside Diameter inches mm	A inches mm	B inches mm	Approximate (Each) lb kg
14 DN350	14.000 355.6	262.31 6663	251.31 6383	1242.0 563.3
16 DN400	16.000 406.4	264.31 6713	252.31 6409	1433.0 649.9
18 DN450	18.000 457.2	267.31 6790	253.81 6447	1758.0 797.3
20 DN500	20.000 508.0	270.31 6866	255.31 6485	2004.0 908.8
24 DN600	24.000 609.6	274.31 6967	257.31 6536	2342.7 1062.4

4.11 DIMENSIONS

No. WR25 Flexible Long Run Fitting



Size		Dimensions		Weight
Nominal inches DN	Actual Outside Diameter inches mm	A inches mm	B inches mm	Approximate (Each) lb kg
14 DN350	14.000 355.6	142.31 3615	131.31 3335	696.0 315.6
16 DN400	16.000 406.4	144.31 3665	132.31 3361	807.0 366.0
18 DN450	18.000 457.2	147.31 3742	133.81 3399	1052.0 477.1
20 DN500	20.000 508.0	150.31 3818	135.31 3437	1218.0 552.4
24 DN600	24.000 609.6	154.31 3919	137.31 3488	1476.7 669.7







5.0 PERFORMANCE

For the maximum working pressure of Victaulic couplings, please reference the publications listed in section 7.0.

For the frictional resistance of Victaulic fittings as equivalent feet of straight pipe, please reference [publication 20.05](#): Victaulic AGS Grooved End Fittings.

6.0 NOTIFICATIONS

⚠ WARNING



- **Read and understand all instructions before attempting to install, remove, adjust, or maintain any Victaulic piping products.**
- **Always verify that the piping system has been completely depressurized and drained immediately prior to installation, removal, adjustment, or maintenance of any Victaulic products.**
- **Wear safety glasses, hardhat, and foot protection.**

Failure to follow these instructions could result in death or serious personal injury and property damage.

7.0 REFERENCE MATERIALS

[20.02: Victaulic AGS Rigid Coupling Style W07](#)

[20.03: Victaulic AGS Flexible Coupling Style W77/W77N](#)

[20.05: Victaulic AGS Grooved End Fittings](#)

[29.01: Victaulic Terms and Conditions/Warranty](#)

[I-100: Victaulic Field Installation Handbook](#)

User Responsibility for Product Selection and Suitability

Each user bears final responsibility for making a determination as to the suitability of Victaulic products for a particular end-use application, in accordance with industry standards and project specifications, and the applicable building codes and related regulations as well as Victaulic performance, maintenance, safety, and warning instructions. Nothing in this or any other document, nor any verbal recommendation, advice, or opinion from any Victaulic employee, shall be deemed to alter, vary, supersede, or waive any provision of Victaulic Company's standard conditions of sale, installation guide, or this disclaimer.

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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.

Installation

Reference should always be made to the Victaulic installation handbook or installation instructions of the product you are installing. Handbooks are included with each shipment of Victaulic products, providing 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.

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