

Style 31 Vic-Ring® Coupling

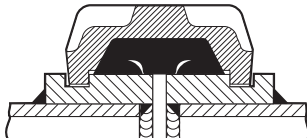
SEE VICTAULIC PUBLICATION 10.01 FOR DETAILS

STYLE 31

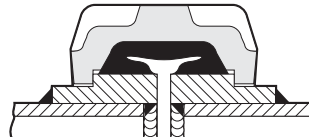
Style 31 couplings are commonly used with Type "D" or "E" Vic-Ring adapters and are designed to provide a strong component for use on ductile iron or steel pipe with applied Vic-Ring adapters. Many sizes may be used on pipe with cast shoulders.

Style 31 sizes 14 - 20" (350 - 500 mm) are cast in four segments to assure concentricity and ease of handling.

Style 31 Vic-Ring couplings are supplied with "M" or "S" FlushSeal® gaskets. All sizes are supplied painted with alkyd phenolic primer and with plated nuts and bolts.



Type "D" with
FlushSeal Gasket



Type "E" with
Standard Gasket

Illustrations are exaggerated for clarity

MATERIAL SPECIFICATIONS

Body: 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: Alkyd phenolic primer

Optional: Hot dipped galvanized and others

Coupling Gasket: (specify choice*)

- **Grade "M" FlushSeal**
Halogenated Butyl (Brown Stripe). Temperature range -20°F to +200°F (-29°C to +93°C). Specially compounded to conform to ductile pipe surfaces. Recommended for 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) potable water service. **NOT RECOMMENDED FOR PETROLEUM SERVICES.**
- **Grade "S" FlushSeal**
Nitrile (Orange Stripe). Temperature range -20°F to +180°F (-29°C to +82°C). Specifically compounded to conform to ductile pipe surfaces. Recommended for petroleum products, air with oil vapors, vegetable and mineral oils within the specified temperature range; except hot air over +140°F (+60°C) and water over +150°F (+66°C). **NOT RECOMMENDED FOR HOT WATER 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.

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.

JOB/OWNER

System No. _____

Location _____

CONTRACTOR

Submitted By _____

Date _____

ENGINEER

Spec Sect _____ Para _____

Approved _____

Date _____

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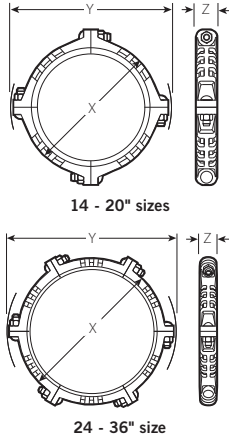
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Style 31 Vic-Ring® Coupling

STYLE 31

DIMENSIONS



Pipe Size		Coupling Dimensions Inches/millimeters			Bolt Dimensions Inches		Approx. Wgt. Each
Nominal Outside Diameter Inches/mm	Actual Outside Diameter Inches/mm	Height X	Width Y	Depth Z	No.	Diameter X Length	Lbs. kg
14 350	14.000 355.6	17.21 437	21.96 558	2.75 70	4	1 X 3 1/2	40.0 18.1
16 400	16.000 406.4	19.92 506	24.50 622	3.50 89	4	1 X 3 1/2	61.0 27.7
18 450	18.000 457.0	22.03 560	26.33 669	3.50 89	4	1 X 3 1/2	73.0 33.1
20 500	20.000 508.0	24.13 613	28.69 729	3.50 89	4	1 1/8 X 4	87.0 39.5
24 600	24.000 610.0	28.31 719	33.06 840	3.50 89	6	1 1/8 X 4	93.0 42.2
30 750	30.000 762.0	35.02 890	39.39 1001	4.38 111	6	1 1/8 X 4	162.0 73.5
36 900	36.000 914.0	41.56 1056	46.04 1169	4.44 113	6	1 1/8 X 4	200.0 90.7

PERFORMANCE

Pipe Size		1	2	3	4	5	6	7	8	8
Nominal Outside Dia. In./mm	Actual Outside Dia. In./mm	Cast Shoulder Outside Dia. In./mm	Applied Vic-Ring Adapter Outside Dia. In./mm	Max. Joint Work. Press. † PSI kPa	Max. Permiss. End Load Lbs. N	§ ‡ Pipe End Sep. Min.-Max. Inches mm	§ ‡ Max. Allow. Pipe End Move. Inches mm	Max. Deflect. from Center Line § ‡		
				Degrees Per Cplg.	Foot/meter of Pipe					
14 350	14.000 355.6	15.300 388.6	15.300 388.6	250 1725	46.035 204763	0 - 5/32	3/32 4.0	0° - 35'	0.12 0.04	
16 400	16.000 406.4	17.400 442.0	17.400 442.0	250 1725	74.660 332087	0 - 1/4	1/4 6.4	0° - 44'	0.16 0.05	
18 450	18.000 457.0	19.500 495.3	19.500 495.3	175 1200	64.275 285895	0 - 1/4	1/4 6.4	0° - 40'	0.14 0.04	
20 500	20.000 508.0	21.600 548.6	21.600 548.6	175 1200	91.600 407437	0 - 1/4	1/4 6.4	0° - 33'	0.12 0.04	
24 600	24.000 610.0	25.800 655.3	25.800 655.3	150 1035	120.600 536430	0 - 3/16	7/16 11.9	0° - 51'	0.17 14.2	
30 750	30.000 762.0	32.000 812.8	32.000 812.8	150 1035	172.800 768615	0 - 3/16	7/16 11.9	0° - 47'	0.15 12.5	
36 900	36.000 914.4	38.300 972.8	38.300 972.8	150 1035	172.815 769030	0 - 3/16	7/16 11.9	0° - 47'	0.15 12.5	

COLUMN 1 - Victaulic couplings are identified by nominal pipe size.

COLUMN 2 - Nominal cast shoulder diameter on pipe of AWWA diameter (as per Fed. Spec. WW-P 421b and ASA A21.6 and A21.8).

COLUMN 3 - Nominal Vic-Ring adapter outside diameter.

COLUMN 4 - Maximum line pressure, including surge, to which the joint may be subjected, depending upon steel pipe wall thickness and properly applied Vic-Ring adapter.

COLUMN 5 - Maximum end load from all internal and/or external forces to which the joint should be subjected under working conditions.

COLUMN 6 - Range of pipe end separation normally available with above couplings.

COLUMN 7 - Maximum linear movement available at joints made with the above couplings, subject to tolerances (Request 26.01). Movement is the difference between minimum and maximum pipe end separation (Request 26.01 and refer to Linear Movement Tolerance on page 2).

COLUMNS 8 & 9 - Maximum allowable deflection of pipe from centerline, subject to tolerances (Request 26.01 and refer to Angular Movement Tolerance on page 2).

† FOR ONE TIME FIELD TEST ONLY, the Maximum Joint Working Pressure (COLUMN 4) may be increased to 1 1/2 times the figures shown.

§ Maximum Pipe (COLUMN 7) will be reduced by Deflection (COLUMNS 8 & 9) and vice versa.

‡ Refer to Design Data for information on tolerances and pipe gap settings.



For complete contact information, visit www.victaulic.com

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