06.22

Composite Flexible Coupling

STYLE 171

The Style 171 flexible coupling featuring Victaulic installation-ready technology is an engineered composite coupling for use where corrosive conditions exist. The coupling's unique design eliminates loose parts and provides substantial gains in productivity. The coupling is recommended for service from full vacuum (29.9 in Hg/760mm Hg) up to 150 psi/1034 kPa, depending on pipe material and pipe wall thickness. This coupling is rated for use within an operating temperature range of (+33°F/+1°C to +130°F/+54°C).

The Style 171 coupling is for standard roll and/or cut grooved PVC, and cut grooved HDPE pipe in $1\frac{1}{2}$ "/40mm – 4"/100mm sizes. For stainless steel and FRP applications contact Victaulic.



PATENT PENDING

MATERIAL SPECIFICATIONS

Housing: Injection molded engineered composite.

Gasket:

• Grade "E2" EPDM

(Double green stripe color code). UL classified in accordance with ANSI/NSF 61 for cold +86°F/+30°C potable water service. NOT RECOMMENDED FOR PETROLEUM 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: ASTM F-593 Group 2 (316 stainless steel) track bolts with special anti-galling coating and ASTM F-594 (316 stainless steel) flange nuts.

JOB/OWNER	CONTRACTOR	ENGINEER
System No	Submitted By	Spec Sect Para
Location	Date	Approved
		Date

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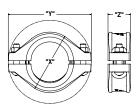


GROOVED COUPLINGS - COMPOSITE 06.22

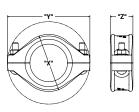
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DIMENSIONS



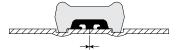
STYLE 171 PRE-ASSEMBLED (INSTALLATION-READY CONDITION)

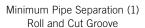


STYLE 171 JOINT ASSEMBLED

Pipe End Sep. Inches Size mm		Bolt/Nut No. – Size	Dimensions – Inches/mm					Aprx. Wgt. Ea.				
Nominal Size	Actual Outside Diameter					Pre-assembled (Installation-ready condition)			Joint Assembled			
Inches mm	Inches mm	(1) Min	(2) Max	(3) Max	Inches	х	Y	z	Х	Υ	z	Lbs. kg
1½ 40	1.900 48.3	0.00	0.06 1.6	0.06 1.6	3/ ₈ - 16 x 21/ ₄	3.73 95	5.19 132	1.91 48	3.31 84	5.24 133	1.91 48	0.79 0.36
2 50	2.375 60.3	0.00	0.06 1.6	0.06 1.6	3/ ₈ - 16 x 21/ ₂	4.28 109	5.84 148	1.93 49	3.86 98	6.09 155	1.93 49	0.93 0.42
2½ 65	2.875 73.0	0.00	0.06 1.6	0.06 1.6	3/ ₈ - 16 x 21/ ₂	4.87 124	6.25 159	1.92 49	4.37 111	6.50 165	1.92 49	1.04 0.47
3 80	3.500 88.9	0.00	0.06 1.6	0.06 1.6	½ - 13 x 2¾	5.68 144	7.46 189	2.01 51	5.09 129	7.58 193	2.01 51	1.55 0.70
4 100	4.500 114.3	0.00	0.13 3.2	0.13 3.2	½ - 13 x 3	6.86 174	8.74 222	2.13 54	6.08 154	8.78 223	2.13 54	1.64 0.74

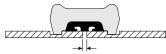
(2 & 3) Maximum pipe end separation to be used for determining overall piping system movement for roll (2) or cut (3) groove pipe. For design and installation purposes, the minimum and maximum pipe end separations shall be reduced to the values as indicated in the table below. These design and installation considerations include thermal growth, settlement, installation misalignment and offsets. See illustrations below.







Maximum Pipe Separation (2) Roll Groove



Maximum Pipe Separation (3) Cut Groove

Exaggerated for clarity

DESIGN AND INSTALLATION

The amount of linear movement and angular deflection to be used for design and installation consideration for each coupling is illustrated below.

	Design and Installation Values						
Size Range	Roll Groove and Cut Grooved Pipe						
	Linear Movement †	Angular Deflection †					
Inches/mm	Inches/mm	Per Cplg. Deg.	Pipe In/Ft mm/m				
1½	0.06	1.010	0.38				
40	1.6	1.81°	32				
2	0.06	4.520	0.32				
50	1.6	1.52°	26				
21/2	0.06	1.250	0.26				
65	1.6	1.25°	22				
3	0.06	1.020	0.22				
80	1.6	1.03°	18				
4	0.13	1.500	0.34				
100	3.2	1.60°	28				

[†] Victaulic recommends for design and installation purposes, these values should be reduced by 50% for $1\frac{1}{2} - 3\frac{n}{40} - 80$ mm sizes; 25% for $4\frac{n}{100}$ mm and larger sizes.

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PERFORMANCE

ANSI STANDARD

Size			Schedule 40 - PVC		SDR11 - HDPE			
Nominal Inches Actual mm	Actual Outside Diameter Inches mm	Wall Thick. Inches mm	Max. ¹ Joint Work. Press. psi/kPa	Max. ¹ Permis. End Load Lbs./N	Wall Thick. Inches mm	Max. ² Joint Work. Press. psi/kPa	Max. ² Permis. End Load Lbs./N	
1½ 40	1.900 48.3	0.145 3.7	150 1034	425 1892	_	_	-	
2 50	2.375 60.3	0.154 3.9	150 1034	665 2956	0.216 5.5	150 1034	665 2956	
2½ 65	2.875 73.0	0.203 5.2	150 1034	974 4332	_	_	_	
3 80	3.500 88.9	0.216 5.5	150 1034	1443 6420	0.318 8.1	+	+	
4 100	4.500 114.3	0.237 6.0	150 1034	2386 10612	0.409 10.4	+	+	

WARNING: Depressurize and drain the piping system before attempting to install, remove or adjust any Victaulic piping products.

INSTALLATION

Reference should always be made to the I-171 Victaulic Field Installation Instructions for the product you are installing. Instructions 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.



¹ Working Pressure and End Load are total, from all internal and external loads, based on Schedule 40 PVC plastic pipe conforming to ASTM D1785, Type 1, Grade 1 - PVC 1120, at operating temperature of +75°F/+24°C maximum, roll and/or cut grooved in accordance with Victaulic specifications. Contact Victaulic for performance on other pipe.

² Working Pressure and End Load are total, from all internal and external loads, based on HDPE plastic pipe conforming to ASTM F714 and ASTM D3035 - SDR11, at operating temperature of +75°F/+24°C maximum, cut grooved in accordance with Victaulic specifications. Contact Victaulic for performance on other pipe.

 $⁺ For \ 3"/80mm - 4"/100mm \ max \ joint \ working \ pressure \ and \ max \ permissable \ end \ load \ contact \ Victaulic.$