

# Expansion Joint Coupling

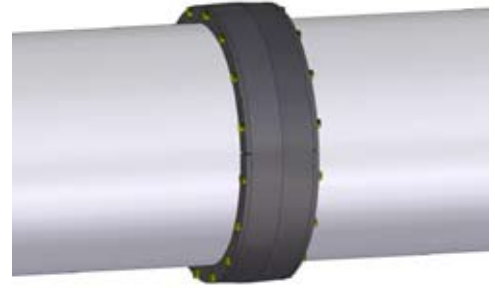
## STYLE 152A

Large diameter pulverized coal/limestone coupling with 4 degrees of deflection capability. Can be utilized for expansion and contraction or rotation, or a combination of deflection, expansion, contraction, and rotation. Also useful in coupling pipe to ceramic lined elbows or equipment often involving differing pipe and fitting outside diameters.

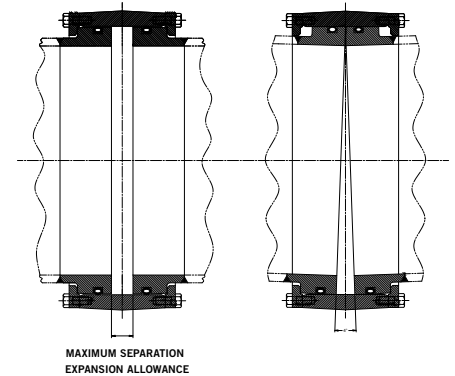
The Style 152A coupling is designed to be used in industrial applications such as new or retrofit coal-fired electric generation facilities and bridges that require a coupling with this level of angular deflection and/or expansion/contraction capability.

Pipe ends only need to be separated 5/8"/16mm to replace seals.

Optional anti-rotation kit available. Contact Victaulic for details.



PATENT PENDING



### 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:** Polyphenylene sulfide blend (PPS) heat fused, prime and top coats

**End Rings:** Ductile iron

**End Ring Coating:** Black enamel

**Gasket/Seal:** Silicone Grade "L" recommended for dry heat, air without hydrocarbons. Temperature range -30° to +350°F/-34° to +177°C. Color: Light grey.

**Vic-Rings:** Carbon steel

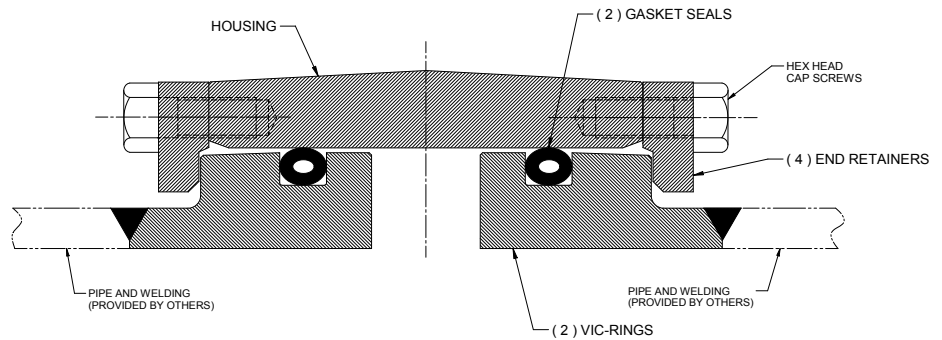
**Bolts/Nuts:** Heat-treated plated carbon steel, SAE Grade 8, yellow zinc electro-plated

<b>JOB/OWNER</b>	<b>CONTRACTOR</b>	<b>ENGINEER</b>
System No. _____	Submitted By _____	Spec Sect _____ Para _____
Location _____	Date _____	Approved _____
		Date _____

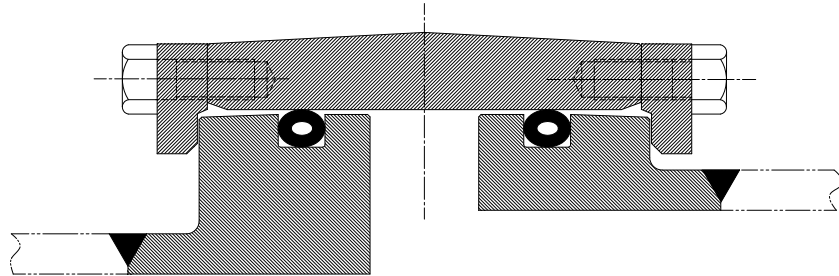
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## STYLE 152A

### NOMENCLATURE



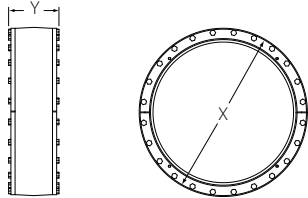
Can be ordered with Vic-rings that permit joining of pipe and fittings each with a different outside diameter. See illustration below.



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## STYLE 152A

### DIMENSIONS



TYPICAL FOR ALL SIZES

Size		Max. Work Pressure*	Max. End Load*	Expansion Allow.	Bolt Size and Length	Bolts	Deflection from Centerline †		Dimensions – Inches/mm		Approx. Wgt. Each
Nominal Size Inches mm	Actual Out. Dia. Inches mm	PSI kPa	Lbs. N	Inches mm	Inches	No.	Per Coupling Degrees	Pipe In/Ft. mm/m	X	Y	Lbs. kg
10 250	10.750 273.0	50 345	7366 32779	.920 23.4	½ – 13 x 1 ½	28	4°	.838 69.8	14.25 362	6.94 176	117 53.1
12 300	12.750 323.9	50 345	9968 44358	1.04 26.4	½ – 13 x 1 ½	32	4°	.838 69.8	16.25 413	7.06 179	133 60.3
14 350	14.000 355.6	50 345	11793 52479	1.10 27.9	½ – 13 x 1 ½	32	4°	.838 69.8	17.50 445	7.19 183	147 66.7
16 400	16.000 406.4	50 345	15033 66990	1.23 31.2	½ – 13 x 1 ½	36	4°	.838 69.8	19.50 495	7.25 184	168 76.2
18 450	18.000 457.2	50 345	18665 83060	1.35 34.3	½ – 13 x 1 ½	40	4°	.838 69.8	21.50 546	7.38 187	190 86.2
480	480	50 345	20428 90905	1.41 35.8	½ – 13 x 1 ½	40	4°	.838 69.8	22.31 567	7.44 189	203 92.1
20 500	20.000 508.0	50 345	22691 100975	1.48 37.6	½ – 13 x 1 ½	44	4°	.838 69.8	23.50 597	7.50 191	213 96.7
530	530	50 345	25406 113020	1.55 39.4	½ – 13 x 1 ½	44	4°	.838 69.8	24.75 628	7.57 192	225 102.1
22 550	22.000 559.0	50 345	27109 120635	1.60 40.6	½ – 13 x 1 ½	48	4°	.838 69.8	25.50 648	7.62 194	236 107.0
580	580	50 345	29153 129679	1.65 41.9	½ – 13 x 1 ½	48	4°	.838 69.8	26.38 670	7.70 196	245 111.2
24 600	24.000 609.6	50 345	31919 142040	1.72 43.7	½ – 13 x 1 ½	52	4°	.838 69.8	27.50 698	7.75 197	257 116.6
630	630	50 345	34031 151377	1.79 45.5	½ – 13 x 1 ½	52	4°	.838 69.8	28.31 719	7.82 199	268 121.6
26 660	26.000 660.4	50 345	37122 165200	1.85 47.0	½ – 13 x 1 ½	56	4°	.838 69.8	29.50 749	7.88 200	281 127.5
680	680	50 345	39871 177375	1.92 48.8	½ – 13 x 1 ½	56	4°	.838 69.8	30.50 775	7.94 201	293 132.9
28 700	28.000 711.2	50 345	42718 190100	1.98 50.3	½ – 13 x 1 ½	60	4°	.838 69.8	31.50 800	8.00 203	305 138.3
30 760	30.000 762.0	50 345	48707 216750	2.10 53.3	½ – 13 x 1 ½	64	4°	.838 69.8	33.50 851	8.12 206	329 149.2

\* Working Pressure and End Load are total from all internal and external loads.

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

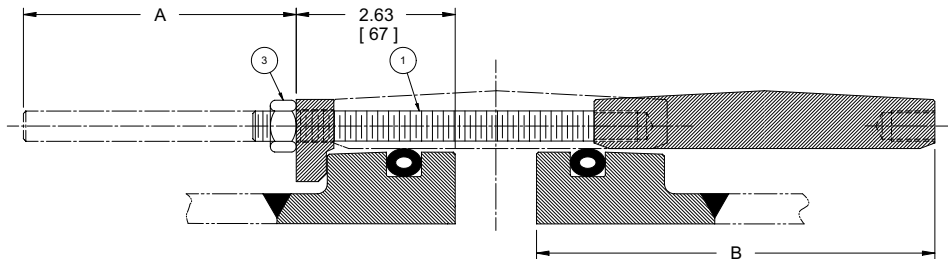
† Allowable Pipe End Separation and Deflection figures show the maximum nominal range of movement available at each joint.

# Expansion Joint Coupling

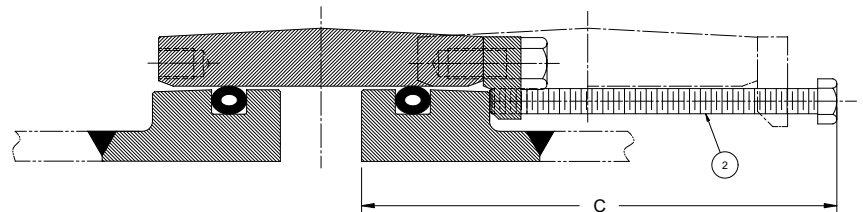
STYLE 152A

**DIMENSIONS – ASSEMBLY/DIS-ASSEMBLY**

Size		Dimensions – Inches/mm		
Nominal Size Inches mm	Actual Out. Dia. Inches mm	A	B	C
10	10.750	6.50	6.13	8.88
250	273.0	165	156	226
12	12.750	6.50	6.25	8.88
300	323.9	165	159	226
14	14.000	6.50	6.38	8.88
350	355.6	165	162	226
16	16.000	6.50	6.50	8.88
400	406.4	165	165	226
18	18.000	6.50	6.63	8.88
450	457.2	165	168	226
480	480	7.00	6.75	8.88
		178	171	226
20	20.000	7.00	6.75	8.88
500	508.0	178	171	226
530	530	7.00	6.88	8.88
		178	175	226
22	22.000	7.00	6.88	8.88
550	559.0	178	175	226
580	580	7.00	6.88	8.88
		178	175	226
24	24.00	7.00	7.00	8.88
600	609.6	178	178	226
630	630	7.00	7.00	8.88
		178	178	226
26	26.000	7.50	7.13	8.88
660	660.4	190	181	226
680	680	7.50	7.13	8.88
		190	181	226
28	28.000	7.50	7.25	8.88
700	711.2	190	184	226
30	30.000	7.50	7.38	8.88
760	762.0	190	187	226



EXPANSION JOINT COUPLING FIELD ASSEMBLY CLEARANCE REQUIREMENTS



EXPANSION JOINT COUPLING FIELD DIS-ASSEMBLY CLEARANCE REQUIREMENTS

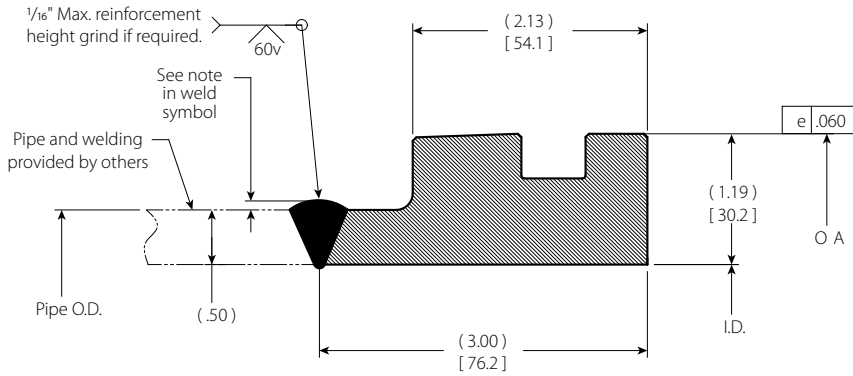
**Installation Kit Hardware (appropriate size Complete hardware Kit Provided with Each coupling Order)**

Bill of Material			Quantity/Size/Length						
Item	Description	Qty	10-12"	Qty	14-18"	Qty	480mm-24"	Qty	630mm-30"
1	Threaded Rod, 1/2" – 13UNC	4	6-1/2" Lg 165mm	6	6-1/2" Lg 165mm	6	7" Lg 178mm	6	7-1/2" Lg 191mm
2	Hex Head Bolt, fully threaded 3/8" – 16UNC	4	6" Lg 152mm	4	6" Lg 152mm	4	6" Lg 152mm	4	6" Lg 152mm
3	Hex Nut, 1/2" – 13UNC	4	-	6	-	6	-	6	-

# Expansion Joint Coupling

## STYLE 152A

### VIC-RING WELD DETAIL



Vic-Ring Weld Detail

Size		Dimensions	
Nominal Size Inches mm	Actual Outside Dia. Inches mm	I.D.† Inches mm	A Inches mm
10 250	10.750 273.0	9.75 247.7	12.13 308.1
12 300	12.750 323.9	11.75 298.5	14.13 358.9
14 350	14.000 355.6	13.00 330.2	15.38 390.7
16 400	16.000 406.4	15.00 381.0	17.38 441.5
18 450	18.000 457.2	17.00 431.8	19.38 492.3
480	480	17.90 454.7	20.28 515.1
20 500	20.000 508.0	19.00 482.6	21.38 543.1
530	530	19.87 504.7	22.25 565.2
22 550	22.000 559.0	21.00 533.4	23.38 593.9
580	580	21.84 554.8	24.22 615.2
24 600	24.000 609.6	23.00 584.2	25.38 644.7
630	630	23.80 604.5	26.18 665.0
26 660	26.000 660.4	25.00 635.0	27.38 695.5
680	680	25.77 654.6	28.15 715.0
28 700	28.000 711.2	27.00 685.8	29.38 746.3
30 760	30.000 762.0	29.00 736.6	31.38 797.1

† ID dimension is for 1/2" wall thickness pipe only and will change based on the actual pipe wall thickness. Contact Victaulic for details.

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## STYLE 152A

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**WARRANTY**

Refer to the Warranty section of the current Price List or contact Victaulic for details.

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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.

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**INSTALLATION**

Refer to publication I-152A for complete installation instructions.

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For complete contact information, visit [www.victaulic.com](http://www.victaulic.com)

09.15 4223 REV H UPDATED 8/2009

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