

# Victaulic® Extended Life (XL) Elbows and Couplings 1½ and 3D



Style XL77  
Fitting-to-Pipe Coupling



XL Fittings



Style XL79  
Fitting-to-Fitting Coupling

## Product Description

### 1½D and 3D XL Elbows

Victaulic Extended Life (XL) 90° and 45° long radius elbows are supplied with enhanced internal design that allows for ¼"/6.4 mm of additional rubber lining thickness that can extend the life of abrasive systems by up to 3 times longer than current designs. While offering the additional protection the fittings maintain standard ID (Inside Diameter) to provide uninterrupted full flow capabilities without restrictions. Additionally this design reduces the gap between pipe ends for pipe-to-fitting and fitting-to-fitting connections to reduce leading edge wear and extend the life of the fitting. Available in sizes from 3 – 12"/ 80 – 300 mm XL fittings are rated to the working pressures listed for the Style XL77 and XL79 flexible couplings.

### Style XL77 and Style XL79 Flexible Couplings

To join XL fittings to standard pipe and components Victaulic provides transition couplings. Two couplings are provided; the Style XL77 to transition from XL fittings to our original groove system (OGS) or the Style XL79 for direct connections of two XL fittings. The pressure rating for these couplings conforms to the pressure ratings for the Style 77 flexible coupling.

#### Job/Owner

System No.	
Location	

#### Contractor

Submitted By	
Date	

## Material Specifications

### Fitting:

Ductile iron conforming to ASTM A-536, grade 65-45-12.

### Fitting Coating:

Black enamel.

### Coupling:

Ductile iron conforming to ASTM A-536, grade 65-45-12.

### Housing Coating:

**Style XL77:** Black enamel.

**Style XL79:** Red enamel.

### Gasket: (specify choice<sup>1</sup>)

#### Standard: **Grade "T" Nitrile**

Nitrile (Orange stripe color code). Temperature range 20°F to +180°F/29°C to +82°C. May be specified for petroleum products, air with oil vapors, vegetable and mineral oils within the specified temperature range. Not compatible for hot water services over +150°F/+66°C or for hot dry air over +140°F/+60°C.

#### Optional: **Grade "E" EPDM**

EPDM (Green stripe color code). Temperature range -30°F to +230°F/-34°C to +110°C. May be specified for cold and 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 PETROLEUM SERVICES.

<sup>1</sup> 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 Gasket Selection Guide](#) for specific gasket service guidelines and for a listing of services which are not compatible.

#### Engineer

Spec Section	
Paragraph	
Approved	
Date	

**Material Specifications (continued)**

**Bolts/Nuts:**

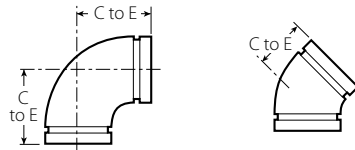
For groove dimensions for rubber lining reference [publication 25.03](#).

Heat-treated plated carbon steel, trackhead meeting the physical and chemical requirements of ASTM A-449 and physical requirements of ASTM A-183

**Dimensions**

**XL Long Radius**

Steel Elbows- 1½D



No. XL100

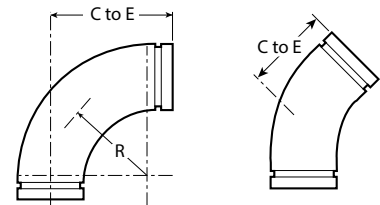
No. XL110

Nominal Size inches mm	XL Fitting Outside Dia. inches mm	No. XL100 90° Elbow		No. XL110 45° Elbow	
		C to E <sup>2</sup> inches mm	Approx. Weight Each lbs. kg	C to E <sup>2</sup> inches mm	Approx. Weight Each lbs. kg
3 80	4.000 101.6	5.88 149	7.0 3.2	3.38 86	5.0 2.3
4 100	5.000 127.0	7.50 191	12.5 5.7	4.00 102	7.0 3.2
5 125	6.063 154.0	9.25 235	21.5 9.8	4.88 124	13.0 5.9
6 150	7.125 181.0	10.75 273	29.0 13.2	5.50 140	18.5 8.4
8 200	9.125 231.8	14.25 362	66.0 29.0	7.25 184	35.0 15.9
10 250	11.250 285.8	15.00 381	92.0 41.7	6.25 159	42.0 19.1
12 300	13.250 336.6	18.00 457	135.0 61.2	7.50 191	67.0 30.4

<sup>2</sup> C to E dimensions does not include 1/8"/3.3 mm of rubber lining on the face of the fitting.

**XL Long Radius**

Steel Elbows - 3D



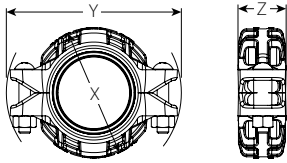
No. XL100

No. XL110

Nominal Size inches mm	XL Fitting Outside Dia. inches mm	No. XL100 90° Elbow			No. XL110 45° Elbow	
		C to E <sup>3</sup> inches mm	R- Dia. to Radius Ratio	Approx. Weight Each lbs. kg	C to E <sup>3</sup> inches mm	Approx. Weight Each lbs. kg
3 80	4.000 101.6	13.00 330	3.79	14.5 6.6	7.75 197	11.0 5.0
4 100	5.000 127.0	16.00 407	3.60	16.0 7.3	9.00 229	16.0 7.3
5 125	6.063 154.0	20.00 508	3.68	52.0 23.6	11.25 286	33.0 15.0
6 150	7.125 181.0	24.00 610	3.70	88.0 39.9	13.50 343	50.0 22.7
8 200	9.125 231.8	32.00 813	3.77	129.0 58.5	18.00 457	84.0 38.1
10 250	11.250 285.8	40.00 1016	3.81	231.5 105.0	22.50 572	152.0 69.0
12 300	13.250 336.6	48.00 1219	3.84	331.0 150.1	27.00 686	214.0 97.1

<sup>3</sup> C to E dimensions does not include 1/8"/3.3 mm of rubber lining on the face of the fitting.

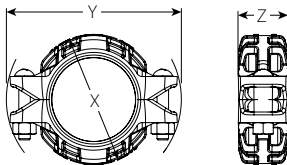
**Style XL77** For Pipe to Fitting Connections



Nominal Size	Pipe Side	Fitting Side	Maximum Working Pressure	Maximum End Load	Allow. Pipe End Separation <sup>4</sup>	Deflection from Centerline		Bolt/Nut No. – Size	Dimensions			Approx. Weight Each
	Actual Outside Dia.	XL Fitting Outside Dia.							X	Y	Z	
inches mm	inches mm	inches mm	psi kPa	lbs. N	inches mm	per Clpg. Deg.	Pipe inches/feet mm/m	inches	inches mm	inches mm	inches mm	lbs. kg
3 80	3.500 88.9	4.000 101.6	1000 6900	9620 46810	0 - 0.06 0 - 1.6	1° - 2'	0.22 18	2 - ½ × 2 ¾	5.63 143	7.63 194	2.13 54	5.2 2.4
4 100	4.500 114.3	5.000 127.0	1000 6900	15900 70755	0 - 0.13 0 - 3.2	1° - 36'	0.34 28	2 - ⅝ × 3 ¼	7.13 181	9.38 238	2.25 57	8.4 3.8
5 125	5.563 141.3	6.063 154.0	1000 6900	24300 108135	0 - 0.13 0 - 3.2	1° - 18'	0.27 23	2 - ¾ × 4 ¼	8.13 207	11.25 286	2.25 57	12.2 5.5
6 150	6.625 168.3	7.125 181.0	1000 6900	34470 153390	0 - 0.13 0 - 3.2	1° - 5'	0.23 18	2 - ¾ × 4 ¼	9.25 235	12.38 315	2.25 57	13.2 6.0
8 200	8.625 219.1	9.125 231.8	500 3450	31088 138286	0 - 0.13 0 - 3.2	0° - 50'	0.18 14	2 - ⅞ × 5	11.50 292	15.38 391	2.63 67	23.8 10.8
10 250	10.750 273.0	11.250 285.8	500 3450	45800 203729	0 - 0.13 0 - 3.2	0° - 40'	0.14 12	2 - 1 × 6	14.13 359	17.88 454	2.88 73	35.1 15.9
12 300	12.750 323.9	13.250 336.6	500 3450	63750 283574	0 - 0.13 0 - 3.2	0° - 34'	0.12 9	2 - 1 × 6 ½	16.13 410	19.88 505	2.88 73	40.6 18.4

<sup>4</sup> Pipe end separation figure prior to rubber lining of pipe and fittings. For pipe to pipe connections the gap will be 0.25"/6.4 mm

**Style XL79** For Fitting to Fitting Connections



Nominal Size	XL Fitting Outside Dia.	Maximum Working Pressure	Maximum End Load	Bolt/Nut No. – Size	Dimensions			Approx. Weight Each
					X	Y	Z	
inches mm	inches mm	psi kPa	lbs. N	inches	inches mm	inches mm	inches mm	lbs. kg
3 80	4.000 101.6	1000 6900	9620 46810	2 - ½ × 2 ¾	5.63 143	7.63 194	2.13 54	5.4 2.5
4 100	5.000 127.0	1000 6900	15900 70755	2 - ⅝ × 3 ¼	7.13 181	9.38 238	2.38 60	8.5 3.9
5 125	6.063 154.0	1000 6900	24300 108135	2 - ¾ × 4 ¼	8.13 207	11.25 286	2.38 60	12.3 5.6
6 150	7.125 181.0	1000 6900	34470 153390	2 - ¾ × 4 ¼	9.25 235	12.38 315	2.38 60	13.3 6.0
8 200	9.125 231.8	500 3450	31088 138286	2 - ⅞ × 5	11.50 292	15.38 391	2.75 70	24.6 11.2
10 250	11.250 285.8	500 3450	45800 203729	2 - 1 × 6	14.13 359	17.88 454	3.00 76	35.9 16.3
12 300	13.250 336.6	500 3450	63750 283574	2 - 1 × 6 ½	16.13 410	19.88 505	3.00 76	41.7 18.9

**Installation**  
Reference should always be made to the [I-100 Victaulic Field Installation Handbook](#) for the product you are installing. Handbooks 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.

**Trademarks**  
Victaulic® is a registered trademark of Victaulic Company.