

Victaulic® Coupling for Double Grooved Polyethylene Pipe

Style 908



16 – 18" IPS &
400 – 450 mm ISO



20 – 36" IPS &
500 – 900 mm ISO

1.0 PRODUCT DESCRIPTION

Available Sizes

- 16 – 36" IPS
- 400 – 900 mm ISO

Pipe Material

- HDPE pipe conforming to ASTM D3035 and ASTM F714 or ISO 4427-2 (SDR 7 – 21)
- PE-RT pipe conforming to ASTM D3350, cell class PE445574C, ASTM F2619, and ASTM F714 (SDR 7 – 21)
- See Victaulic [publication 36.01](#) for information on cross-linked polyethylene (PE-Xa) pipe.

Maximum Working Pressure

- Meets the pressure rating of the pipe from full vacuum (29" of Hg/760mm Hg) up to full working pressure, in accordance with the specifications and limitations in section 5.0 of this document

Operating Temperature

- Dependent upon pipe manufacturer rating and gasket selection
- Reference section 3.0 for gasket performance options
- Consult pipe manufacturer for pipe material performance limitations

Function

- Joins double grooved polyethylene pipe

Pipe Preparation

- Prepare pipe ends in accordance with [Publication 25.16](#): High Density Polyethylene (HDPE) Cut Groove Specifications.

2.0 CERTIFICATION/LISTINGS



NOTES

- See [Publication 10.01](#): Victaulic Fire Protection Approval Reference Guide for details.
- See [Publication 02.06](#): Victaulic Approvals for Potable Water Products – ANSI/NSF 61 and ANSI/NSF 372 if applicable.
- WaterMark™ certification applies to fusion bonded epoxy-coated couplings with Grade "E" EPDM gaskets. Contact Victaulic for further details.

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



3.0 SPECIFICATIONS – MATERIALS

Housing:

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

Housing Coating: (specify choice)

- ☐ Standard: Orange coating.
- ☐ Optional: Fusion bonded epoxy, galvanized and other coatings are available. Contact Victaulic

Coupling Gasket: (specify choice¹)

☐ Grade "T" 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.

☐ Grade "E" EPDM

EPDM (Green 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 NSF/ANSI/CAN 61 for cold +73°F/+23°C and hot +180°F/+82°C potable water service and NSF/ANSI/CAN 372. NOT COMPATIBLE FOR USE WITH PETROLEUM 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 Gasket Selection Guide](#) for specific gasket service guidelines and for a listing of services which are not compatible.

NOTE

- The maximum temperature ratings shown exceed the temperature ratings for HDPE pipe. Consult individual pipe manufacturers for specific temperature

Hardware:

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 (M10-M16) Class 8.8 (M20 and greater). 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 ZN/FE5, finish Type III (imperial) or Type II (metric), with fluoropolymer top coat. Hardened steel washers conforming to ASTM F436 Type 3 (weathering steel).
- ☐ Optional²: Stainless steel oval neck track bolts meeting the mechanical property requirements of ASTM A193 Class 2, Grade B8M. Stainless steel heavy hex nuts meeting the mechanical property requirements of ASTM A194 Grade 8M Heavy Hex, with galling reducing coating. Stainless steel washers conforming to ASME B18.21.1 and ASTM A666, Type 316, Annealed.

² Optional bolts/nuts available in imperial size only.

Pipe End Stiffener (Optional)

Material: Type 316 stainless steel

Length: 5"/127mm for 16 – 22" IPS & 400 – 500 mm ISO
7"/178mm for 24 – 36" IPS & 560 – 900 mm ISO

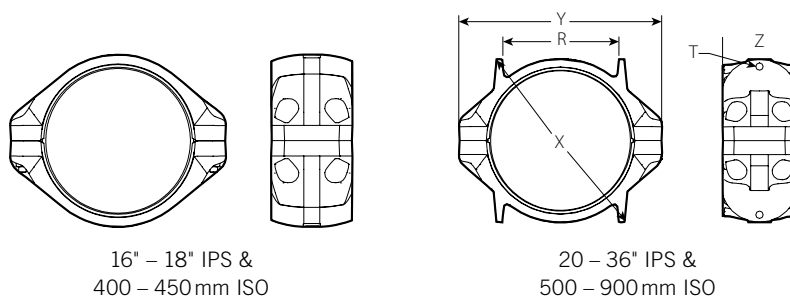
Outside Diameter: OD of stiffener based on pipe size and DR/SDR. Contact Victaulic for details.

NOTE

- Contact Victaulic for alternate materials or lengths.

4.0 DIMENSIONS

Style 908 – IPS Standard

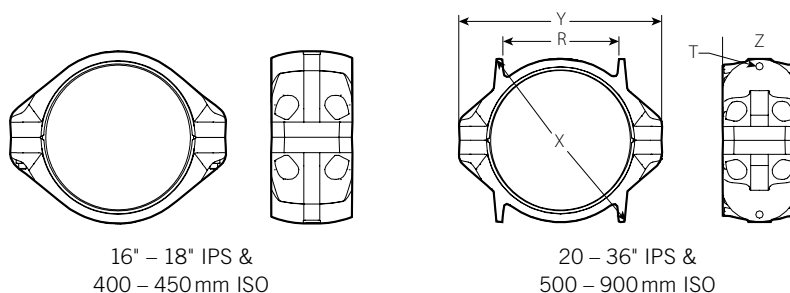


IPS Size		Pipe End Separation ³	Bolt/Nut		Joint Assembled					Weight
Nominal inches	Actual Outside Diameter inches mm	Allowable inches mm	Qty.	Size inches	R inches mm	T (dia.) inches mm	X inches mm	Y inches mm	Z inches mm	Approximate (Each) lb kg
16	16.000 406.4	0.20 5.1	4	$\frac{7}{8} \times 5\frac{1}{2}$	– –	– –	18.14 461	23.32 592	9.50 241	158.0 72.0
18	18.000 457.2	0.20 5.1	4	$\frac{7}{8} \times 5\frac{1}{2}$	– –	– –	20.14 512	25.56 649	9.50 241	178.0 81.0
20	20.000 508.0	0.20 5.1	4	$\frac{7}{8} \times 5\frac{1}{2}$	15.8 400.3	1.0 25.4	27.97 710	27.82 707	10.00 254	247.0 112.0
22	22.000 558.8	0.20 5.1	4	$\frac{7}{8} \times 5\frac{1}{2}$	17.3 438.4	1.0 25.4	30.24 768	29.48 749	10.50 267	277.0 125.6
24	24.000 609.6	0.25 6.4	4	1 x 6	18.0 457.2	1.0 25.4	32.25 819	32.24 819	12.00 305	366.0 166.0
26	26.000 660.4	0.25 6.4	4	1x6	18.0 457.2	1.0 25.4	33.60 853	34.04 865	12.50 318	390 177
28	28.000 711.2	0.25 6.4	4	1 x 6	20.0 508.0	1.0 25.4	36.62 930	36.48 927	13.00 330	455.0 206.4
30	30.000 762.0	0.25 6.4	4	1 $\frac{1}{8}$ x 7	22.0 558.8	1.0 25.4	40.19 1021	39.92 1014	13.50 343	525.0 238.1
32	32.000 812.8	0.25 6.4	4	1 $\frac{1}{8}$ x 7	24.0 609.6	1.0 25.4	40.59 1031	40.70 1034	14.00 356	594.0 269.4
36	36.000 914.4	0.25 6.4	4	1 $\frac{1}{4}$ x 7	22.3 565.4	1.0 25.4	43.81 1113	44.76 1137	15.25 387	726.0 329.3

³ The allowable pipe end separation dimension is for system layout purposes only.

4.1 DIMENSIONS

Style 908 – ISO Standard



ISO Size		Pipe End Separation ³	Bolt/Nut		Joint Assembled					Weight
Nominal mm	Actual Outside Diameter ⁵ mm inches	Allowable mm inches	Qty.	Size ⁴ mm inches	R mm inches	T (dia.) mm inches	X mm inches	Y mm inches	Z mm inches	Approximate (Each) kg lb
400	401.6 15.819	5.10 0.2	4	M22 x 140 7/8 x 5.50	– –	– –	457 18.00	593 23.35	241 9.50	73.0 161.0
450	452 17.797	5.10 0.2	4	M22 x 140 7/8 x 5.50	– –	– –	500 19.69	638 25.11	241 9.50	74.0 164.0
500	502.3 19.774	5.10 0.2	4	M22 x 140 7/8 x 5.50	400.3 15.8	25.4 1.0	705 27.75	707 27.84	254 10.00	116.0 255.0
560	562.5 22.146	5.10 0.2	4	M22 x 140 7/8 x 5.50	438.4 17.3	25.4 1.0	767 30.20	748 29.45	267 10.50	119.0 262.0
630	632.8 24.915	6.40 0.25	4	M24 x 152 1 x 6.00	444.5 17.5	25.4 1.0	826 32.50	819 32.25	305 12.00	165.0 364.0
710	713.2 28.079	6.40 0.25	4	M24 x 152 1 x 6.00	508.0 20.0	25.4 1.0	930 36.63	926 36.50	330 13.00	202.0 445.0
800	803.6 31.638	6.40 0.25	4	M27 x 178 1 1/8 x 7.00	609.6 24.0	25.4 1.0	1030 40.22	1015 40.00	348 13.70	255.0 562.0
900	904.1 35.593	6.40 0.25	4	M30 x 178 1 1/4 x 7.00	565.4 22.3	25.4 1.0	1118 44.00	1124 44.25	387 15.25	320.0 705.0

³ The allowable pipe end separation dimension is for system layout purposes only.

⁴ Metric bolt/nuts standard, with the exception of North American, South America and Australian shipments, where imperial sizes are standard.

⁵ Actual Outside Diameter shown is the average of the minimum OD and the maximum of the given Nominal Pipe Diameter as designated in ISO 4427-2.

5.0 PERFORMANCE

Style 908 – IPS Standard

PE4710	PE4710 Pipe Pressure Rating ⁴					
	DR7 333	DR9 250	DR11 200	DR13.5 160	DR17 125	DR21 100
Nominal Size inches	Maximum Joint Working Pressure					
	psi kPa					
16 – 24	250* 1725*	250 1725	200 1380	160 1100	125 860	100 690
26 – 28	200* 1380*	200* 1380*	160* 1100*	160 1100	125 860	100 690
30	— —	200* 1380*	160* 1100*	138* 952*	125 860	100 690
32	— —	160* 1100*	160* 1100*	138* 952*	125 860	100 690
36	— —	160* 1100*	160* 1100*	138* 952*	125 860	100 690

⁴ HDPE pipe conforming to ASTM D3035 and F714 at 73°F/23°C. Reference plastic pipe manufacture data for derating factors at other temperatures.

* Maximum joint working pressure may be increased to full pipe pressure rating with the use of pipe end stiffeners. Contact Victaulic for details.

NOTE

- Victaulic Coupling gaskets have been demonstrated to seal under full (29" of Hg/760mm Hg) vacuum requirements. Consult specific HDPE pipe manufacturer for their recommended limitations regarding maximum vacuum as well as the effects of temperature and pipe ovality.

5.1 PERFORMANCE

Style 908 – ISO Standard

PE100	PE100 Pipe Pressure Rating ⁵					
	SDR7.4 PN25	SDR9 PN20	SDR11 PN16	SDR13.6 PN12.5	SDR17 PN10	SDR21 PN8
Nominal Size mm	Maximum Joint Working Pressure ⁵					
	Bar kPa psi					
400 – 630	20* 2000* 290*	20 2000 290	16 1600 232	12.5 1250 182	10 1000 145	8 800 116
710	— — —	16* 1600* 232*	12.5* 1250* 182*	12.5 1250 182	10 1000 145	8 800 116
800	— — —	12.5* 1250* 182*	10* 1000* 145*	10* 1000* 145*	10 1000 145	8 800 116
900	— — —	10* 1000* 145*	10* 1000* 145*	10* 1000* 145*	10 1000 145	8 800 116

⁵ HDPE pipe conforming to ISO 4427-2 at 68°F/20°C. Reference plastic pipe manufacture data for derating factors at other temperatures.

* Maximum joint working pressure may be increased to full pipe pressure rating with the use of pipe end stiffeners. Contact Victaulic for details.

NOTE

- Victaulic Coupling gaskets have been demonstrated to seal under full (29" of Hg/760mm Hg) vacuum requirements. Consult specific HDPE pipe manufacturer for their recommended limitations regarding maximum vacuum as well as the effects of temperature and pipe ovality.

5.2 PERFORMANCE

Style 908 – IPS Standard

Allowable Tensile Load (ATL): joints made with Style 908 couplings can sustain tensile loads noted below.

PE4710	PE4710 Pipe Allowable Tensile Load ⁶					
	DR7	DR9	DR11	DR13.5	DR17	DR21
Nominal Size inches	lb N	lb N	lb N	lb N	lb N	lb N
16	100,100	86,700	72,600	60,200	48,600	39,800
	445,267	385,659	322,939	267,782	216,183	177,039
18	132,000	109,800	91,900	76,200	61,500	50,400
	587,165	488,412	408,790	338,953	273,564	224,190
20	165,200	135,500	113,400	94,100	76,000	62,200
	734,846	602,731	504,426	418,576	338,063	276,679
22	201,800	164,000	137,200	113,900	91,900	75,300
	897,651	729,505	610,293	506,650	408,790	334,951
24	242,000	195,200	163,300	135,500	109,400	89,600
	1,076,470	868,289	726,391	602,731	486,633	398,561
26	–	229,000	191,700	159,100	128,400	105,175
	–	1,018,643	852,724	707,712	571,152	467,842
28	–	235,000	210,700	180,079	148,900	121,900
	–	1,045,332	937,240	801,031	662,340	542,238
30	–	254,000	234,400	204,929	170,900	140,000
	–	1,129,848	1,042,663	911,567	760,201	622,751
32	–	–	258,000	231,269	194,500	159,300
	–	–	1,147,641	1,028,734	865,179	708,602
36	–	–	305,400	280,700	246,100	197,100
	–	–	1,358,486	1,248,615	1,094,707	876,745

⁶ Allowable tensile loads shown are for straight pulling for a maximum period of one half hour at ambient temperature (68°F/20°C).

5.3 PERFORMANCE

Style 908 – ISO Standard

Allowable Tensile Load (ATL): joints made with Style 908 couplings can sustain tensile loads noted below.

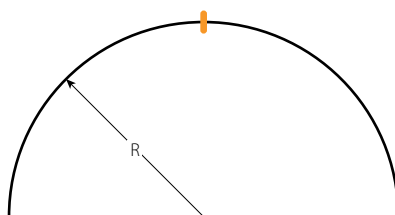
PE100	PE100 Pipe Allowable Tensile Load ⁷					
	SDR7.4	SDR9	SDR11	SDR13.6	SDR17	SDR21
Nominal Size mm	N lb	N lb	N lb	N lb	N lb	N lb
400	446,157	376,763	315,377	259,775	211,290	173,036
	100,300	84,700	70,900	58,400	47,500	38,900
450	564,924	477,292	399,004	329,167	267,337	218,853
	127,000	107,300	89,700	74,000	60,100	49,200
500	–	588,942	492,861	406,121	330,056	270,452
	–	132,400	110,800	91,300	74,200	60,800
560	–	738,846	618,300	509,764	414,127	339,399
	–	166,100	139,000	114,600	93,100	76,300
630	–	907,437	782,887	644,992	524,445	429,253
	–	204,000	176,000	145,000	117,900	96,500
710	–	1,076,469	951,919	796,231	665,899	545,352
	–	242,000	214,000	179,000	149,700	122,600
800	–	1,249,950	1,129,848	987,505	845,607	692,588
	–	281,000	254,000	222,000	190,100	155,700
900	–	–	1,338,914	1,223,261	1,070,242	876,745
	–	–	301,000	275,000	240,600	197,100

⁷ Allowable tensile loads shown are for straight pulling for a maximum period of one half hour at ambient temperature (68°F/20°C).

5.4 PERFORMANCE

Style 908 – IPS Standard

Bend Radius: joints made with Style 908 couplings can sustain a bending radius as recommended by the Plastic Pipe Institute (PPI) in the Handbook of PE Pipe (2nd ed, Chapter 7, Table 4)

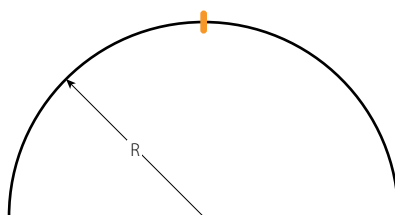


PE4710	PE4710 Pipe Minimum Recommended Bend Radius					
	DR7	DR9	DR11	DR13.5	DR17	DR21
Nominal Size inches	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm
16	320 8128	320 8128	400 10160	400 10160	432 10,973	432 10,973
18	360 9144	360 9144	450 11,430	450 11,430	486 12,344	486 12,344
20	400 10,160	400 10,160	500 12,700	500 12,700	540 13,716	540 13,716
22	440 11,176	440 11,176	550 13,970	550 13,970	594 15,088	594 15,088
24	480 12,192	480 12,192	600 15,240	600 15,240	648 16,459	648 16,459
26	– –	520 13,208	650 16,510	650 16,510	702 17,831	702 17,831
28	– –	560 14,224	700 17,780	700 17,780	756 19,202	756 19,202
30	– –	600 15,240	750 19,050	750 19,050	810 20,574	810 20,574
32	– –	640 16,256	800 20,320	800 20,320	864 21,946	864 21,946
36	– –	720 18,288	900 22,860	900 22,860	972 24,689	972 24,689

5.5 PERFORMANCE

Style 908 – ISO Standard

Bend Radius: joints made with Style 908 couplings can sustain a bending radius as recommended by the Plastic Pipe Institute (PPI) in the Handbook of PE Pipe (2nd ed, Chapter 7, Table 4)



PE100	PE100 Pipe Minimum Recommended Bend Radius					
	SDR7.4	SDR9	SDR11	SDR13.6	SDR17	SDR21
Nominal Size mm	mm inches	mm inches	mm inches	mm inches	mm inches	mm inches
400	8000 315	8000 315	10,000 394	10,000 394	10,800 425	10,800 425
450	9000 354	9000 354	11,250 443	11,250 443	12,150 478	12,150 478
500	10,000 394	10,000 394	12,500 492	12,500 492	13,500 531	13,500 531
560	11,200 441	11,200 441	14,000 551	14,000 551	15,120 595	15,120 595
630	12,600 496	12,600 496	15,750 620	15,750 620	17,010 670	17,010 670
710	14,200 559	14,200 559	17,750 699	17,750 699	19,170 755	19,170 755
800	– –	16,000 630	20,000 787	20,000 787	21,600 850	21,600 850
900	– –	18,000 709	22,500 886	22,500 886	24,300 957	24,300 957

6.0 NOTIFICATIONS

WARNING



- Read and understand all instructions before attempting to install, remove, adjust, or maintain any Victaulic piping products.
- Depressurize and drain the piping system before attempting to install, remove, adjust, or maintain any Victaulic piping 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

[I-900: Victaulic HDPE Products Installation and Assembly Manual](#)

[I-908: Victaulic Style 908 Coupling Installation Manual](#)

[05.01: Victaulic Gasket Selection Guide](#)

[11.07: Victaulic Style 926 Mechanical-T Spigot Outlet](#)

[19.07: Victaulic Style 905 Coupling for HDPE Pipe](#)

[19.10: Victaulic Style 907 Transition Coupling Carbon Steel to HDPE Pipe](#)

[19.11: Victaulic HDPE Plain End Fittings](#)

[19.12: Victaulic Style 904 Flange Adapter for HDPE-to-Flanged Pipe Submittal](#)

[24.06: Victaulic Cut Grooving Tools for HDPE](#)

[25.16: Victaulic High Density Polyethylene \(HDPE\) Cut Groove Specifications](#)

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

[36.01: Victaulic Couplings Performance Data for Cross-Linked Polyethylene \(PEX\) Pipe](#)

[I-ENDCAP: Victaulic End Caps Installation Instructions](#)

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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