

# HDPE Pipe Joining System





## The System

The fast, easy, and economical way to mechanically join HDPE pipe.

- Fast, easy bolted connection
- Faster installation
- Easy to remove and rotate pipe for increased pipe life
- Reduced weight and assembly compared to flanges
- Eliminates butt fusing
- Reduces downtime
- A union at every joint
- No special tools required



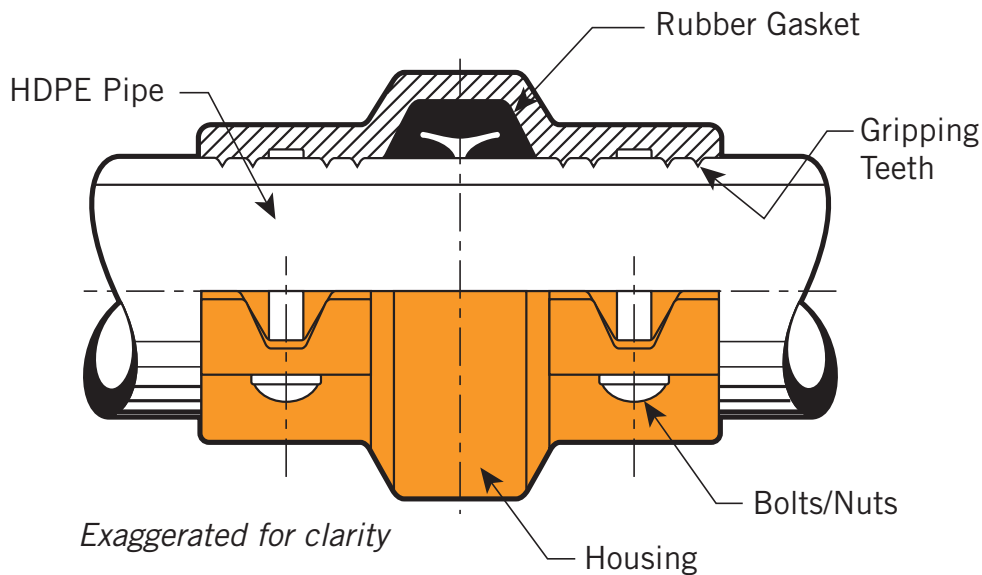
The Victaulic method for mechanically joining pipe has been used successfully for over 80 years simplifying design, installation, and operation of piping systems. It combines the advantages of fast installation, design integrity and reliable operation. Disassembly is just as fast, facilitating rapid pipe rotation to reduce your downtime.

The Victaulic HDPE system is unique in that the HDPE-to-grooved transition allows easy incorporation of standard IPS (steel, stainless or others) fittings and valves directly to HDPE pipe. The flange adapter allows direct mechanical inclusion of flanged components or direct pump connection. Mechanical-T® outlets provide a fast, easy, mid-pipe bolted reducing outlet.

The Victaulic system permits more accurate estimates and assures on-time modification and future retrofit. Maintenance and operation are easier. Unique mechanical features permit a wide variety of applications for most HDPE piping systems.

The Victaulic HDPE pipe joining system is available from our stocking distributors worldwide. Over 200 factory-trained piping specialists provide on-site assistance backed by our Application and Product Engineering Support team all as close as your phone.

## The Victaulic system for HDPE pipe

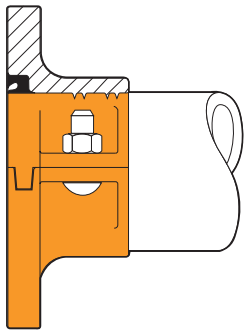


**Housing** – Durable ductile iron body for rugged service conditions. Integral gripping teeth provide direct connection to the pipe. Dipped enamel finish is standard. Specialty coatings are optionally available to protect housings from external corrosion in aggressive environments. The ductile iron body conforms to ASTM A-536.

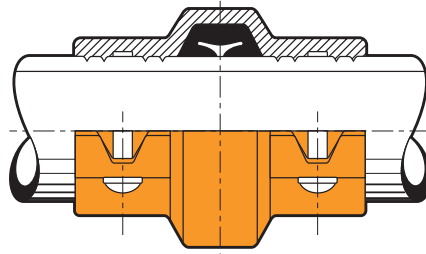
**Gasket** – Elastomer gasket with triple seal design provides a leak free seal for a wide variety of services. The Grade “E” gasket, UL Classified to ANSI/NSF 61 for potable water, is ideal for water services. (Always refer to pipe manufacturer’s data for temperature and pressure ratings.) A Grade “T” gasket suited for petroleum services or air with oil vapors is also available upon request.

**Bolts/Nuts** – Zinc plated carbon steel bolts and nuts are supplied standard with HDPE couplings. Stainless steel nuts are optionally available to protect against external corrosion in aggressive environments. The four bolt assembly of most Victaulic HDPE products speeds installation versus heat fusion butt welding or the multiple bolts required for flanged connections. Bolts have a minimum tensile strength of 110,000 psi.

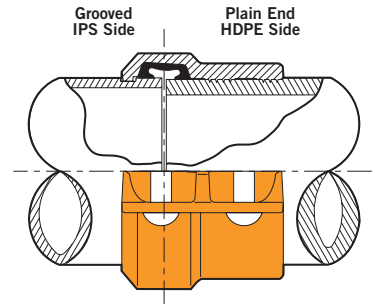
## Victaulic offers an integrated product line for mechanically joining HDPE pipe



**STYLE 994 HDPE FLANGE**



**STYLE 995 HDPE COUPLING**



**STYLE 997 TRANSITION COUPLING**

*Illustrations are exaggerated for clarity*

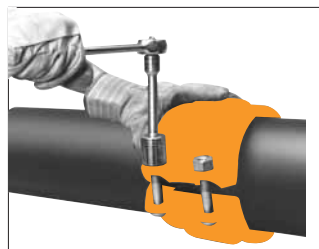
The Victaulic system – a series of mechanical couplings, flange adapters, HDPE-to-metal transition couplings, outlets and fittings – is the fastest and easiest way to join HDPE pipe. Products are designed to mechanically join HDPE (high density polyethylene pipe conforming to ASTM D-2447, D-3000, D-3035 or F-714, at ambient temperatures) pipe of wall thicknesses from SDR 32.5 to 7.3 (depending on size and pipe material). Victaulic HDPE couplings and fittings have integral rows of teeth which grip the HDPE pipe. This eliminates heat fusion or special adapters.

Style 994, 995 and 997 HDPE couplings are Factory Mutual Approved for underground water supply for fire protection systems. These products are rated for FM Approved KWH, Drisco Series 1000, and Plexco blue/red stripe HDPE pipe, SDR 11 and 9. Contact Victaulic for details.



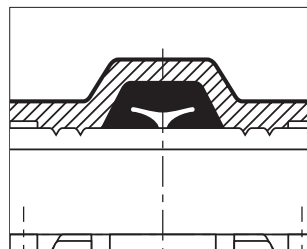
### **IT'S FAST**

Just align the marked pipe ends, slide on the pressure-responsive gasket, and place both sections of the coupling over the pipe ends.



### **IT'S EASY**

No threading, grooving or fusing. Housings have tongue-and-recess mating for proper alignment of the coupling. Track head bolts allow tightening with one wrench.



### **IT'S RUGGED**

Housings are cast of durable ductile iron. Sharp gripping teeth in each half of the housing secure the pipe.



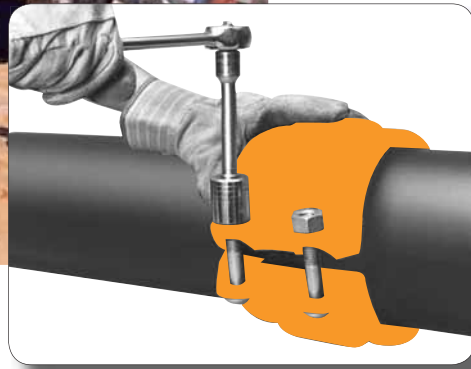
### **IT'S RELIABLE**

Victaulic has laboratory and field tested HDPE products and has found that the working pressure of the coupling meets or exceeds that of the pipe itself.

## The Victaulic system for joining HDPE pipe vs. traditional methods



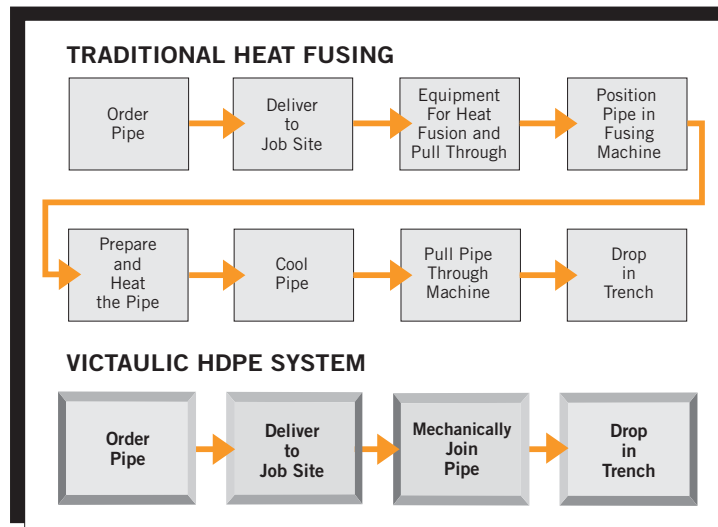
Expensive equipment and higher labor costs are involved when joining HDPE pipe using traditional butt welding methods.



The Victaulic HDPE system simplifies installation by using standard tools that do not require remote power feeds.

## Victaulic system for joining high density polyethylene pipe vs. traditional heat fusing

Now, more than ever, time equals money. Since work is a process, the fastest way to save money is to reduce the number of steps. Here is an example of how Victaulic can save you time and money.



## Fast, Easy, Rugged and Reliable

### Products for Plain End HDPE Pipe

Victaulic HDPE (high density polyethylene/polybutylene) products are designed to mechanically join HDPE pipe conforming to ASTM D-2447, D-3000, D-3035 or F-714, at ambient temperatures and of wall thicknesses from SDR 32.5 to 7.3.

Victaulic Metric HDPE (high density polyethylene/polybutylene) products are designed to mechanically join HDPE conforming to ISO 161/1, AS 1159 and DIN 8074 dimensional specifications pipe of wall thicknesses from SDR 32.5 to 7.3.

Victaulic HDPE products have integral rows of gripping teeth in each side of the housing which bite into HDPE pipe around the entire circumference. Victaulic HDPE products are **NOT** intended for use on PVC pipe. Victaulic lubricant is **NOT** recommended for use with HDPE pipe. See installation instructions for proper lubricant.

HDPE pipe brands tested by Victaulic indicate that the working pressure of Victaulic HDPE products are dictated by the working pressure of the pipe. The pipe manufacturers listing is dependent upon wall thicknesses, pipe composition and temperature. Pipe tolerances shown in the charts are at +73.4°F/+23°C for pipe with SDR of 20 or lower.

### Pipe Size/Tolerances

Size		Dimensions – In./mm	
Nominal Size Inches/mm	Actual Outside Dia. Inches/mm	Outside Diameter Tol.*	Max. Out of Round Tol.*
2	2.375	± 0.016	± 0.040
50	60.3	± 0.406	± 1.016
3	3.500	± 0.016	± 0.040
80	88.9	± 0.406	± 1.016
4	4.500	± 0.020	± 0.040
100	114.3	± 0.508	± 1.016
5	5.563	± 0.025	± 0.050
125	141.3	± 0.635	± 1.270
6	6.625	± 0.030	± 0.050
150	168.3	± 0.762	± 1.270
8	8.625	± 0.039	± 0.075
200	219.1	± 0.990	± 1.905

Size		Dimensions – In./mm	
Nominal Size Inches/mm	Actual Outside Dia. Inches/mm	Outside Diameter Tol.*	Max. Out of Round Tol.*
10	10.750	± 0.048	± 0.075
250	273.0	± 1.219	± 1.905
12	12.750	± 0.057	± 0.075
300	323.9	± 1.448	± 1.905
14 †	14.000	± 0.063	± 0.075
350 †	355.6	± 1.600	± 1.905
16	16.000	± 0.072	§
400	406.4	± 1.830	§
18	18.000	± 0.081	§
450	457.0	± 2.060	§
20	20.000	± 0.090	§
500	508.0	± 2.290	§

\* At ambient temperatures. † Contact Victaulic for special bolt/nut requirements.  
§ See pipe manufacturer for out of round tolerance.

### Pipe Size/Tolerances – Metric Sizes Only

Pipe O.D. - mm	
Min. O.D.	Max. O.D.*
90	90.9
110	111.0
140	141.3
160	161.5
200	201.8
225	227.1
250	252.3

Pipe O.D. - mm	
Min. O.D.	Max. O.D.*
280	282.6
315	317.9
355	358.2
400	403.6
450	453.8
500	504.0

**CAUTION**

Pipe outside diameter must be within tolerances shown for each individual size and style and is subject to the specific standards for acceptability listed.

Failure to follow these instructions could result in personal injury, property damage, improper installation, joint leakage or joint failure.

\*Tolerances at ambient temperatures for pipe with SDR of 20 or lower.

## Couplings

### Couplings for joining HDPE Pipe

#### HDPE Coupling

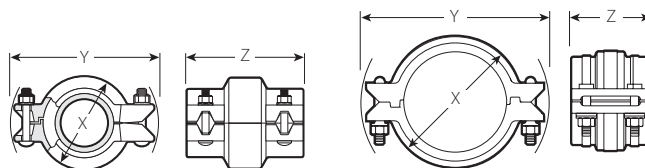
##### STYLE 995

Request Publication 19.02



- Sharp gripping teeth on both housing sides grip into outside diameter of HDPE pipe
- Design permits direct joining without fusing equipment
- Available in sizes 2 – 20" (50 – 500mm)

Size		Coupling Dimensions			Bolt/Nut No. – Size	Approx. Wgt. Each
Nominal Size Inches/mm	Actual Outside Dia. Inches/mm	X Inches/ mm	Y Inches/ mm	Z Inches/ mm	Inches	Lbs./ kg
2 50	2.375 60.3	3.69 94	5.94 151	3.63 92	2 – 1/2 X 2 1/2	3.5 1.6
3 80	3.500 88.9	4.63 118	7.00 178	4.56 116	4 – 1/2 X 2 3/4	7.7 3.5
4 100	4.500 114.3	5.88 149	8.13 207	5.81 148	4 – 1/2 X 2 3/4	11.6 5.3
5 125	5.563 141.3	6.94 176	9.88 251	5.88 149	4 – 5/8 X 3 1/4	15.0 6.8
6 150	6.625 168.3	8.00 203	10.88 276	5.88 149	4 – 5/8 X 3 1/4	16.4 7.4
8 200	8.625 219.1	10.19 259	13.25 377	6.00 152	4 – 5/8 X 3 1/4	24.9 11.3
10 250	10.750 273.0	12.38 314	15.88 403	6.50 165	4 – 3/4 X 5	37.4 17.0
12 300	12.750 323.9	14.38 365	18.00 457	7.00 178	4 – 7/8 X 5	49.0 22.2
14 350	14.000 355.6	16.25 413	19.88 505	8.58 218	4 – 1 X 7 5/8	81.0 36.7
16 400	16.000 406.4	18.30 465	23.88 607	9.00 229	4 – 1 X 7 5/8	100.0 45.5
18 450	18.000 457.0	20.30 516	25.63 651	9.50 241	4 – 1 X 7 5/8	127.0 57.7
20 500	20.000 508.0	22.30 566	27.44 697	10.00 254	4 – 1 X 7 5/8	142.0 64.5



3 – 12" (80 – 300mm) SIZES  
(2"/50mm HAS ONE BOLT PER SIDE)

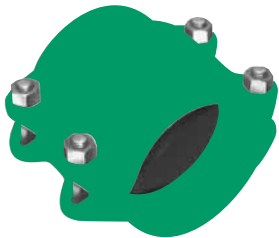
14 – 20" (350 – 500mm) SIZES



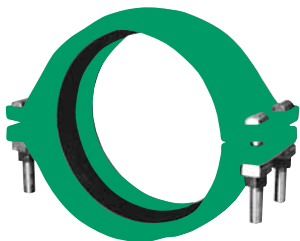
## Metric Coupling

### STYLE 995

Request Publication 19.05



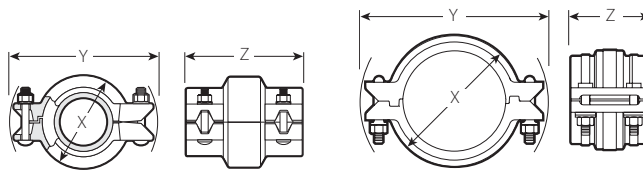
90 - 315 MM SIZES



355 - 500 MM SIZES

Nominal Pipe O.D. - mm		Coupling Dimensions - mm			Bolt/Nut No. - Size	Bolt/Nut No. - Size	Approx. Wgt. Each
Min. O.D.	Max. O.D.	X	Y	Z	Millimeters	Inches	kg
90	90.9	118	178	116	M12 X 70 Lg.	0.50 X 2.75 Lg.	3.4
110	111.0	145	202	146	M12 X 70 Lg.	0.50 X 2.75 Lg.	5.3
140	141.3	176	250	149	M16 X 83 Lg.	0.62 X 3.25 Lg.	6.8
160	161.5	195	268	149	M16 X 83 Lg.	0.62 X 3.25 Lg.	7.3
200	201.8	259	336	152	M16 X 83 Lg.	0.62 X 3.25 Lg.	9.7
225	227.1	265	345	152	M16 X 83 Lg.	0.62 X 3.25 Lg.	10.9
250	252.3	314	402	165	M20 X 127 Lg.	0.75 X 5.00 Lg.	17.0
280	282.6	321	408	165	M20 X 127 Lg.	0.75 X 5.00 Lg.	17.6
315	317.9	356	448	178	M22 X 127 Lg.	0.88 X 5.00 Lg.	20.7
355	358.2	414	525	218	M24 X 178 Lg.	1.00 X 7.00 Lg. §	36.7
400	403.6	465	605	229	M24 X 178 Lg.	1.00 X 7.00 Lg. §	45.5
450	453.8	516	650	241	M24 X 178 Lg.	1.00 X 7.00 Lg. §	57.7
500	504.0	566	699	254	M24 X 178 Lg.	1.00 X 7.00 Lg. §	64.5

\*Tolerances at ambient temperatures for pipe with SDR of 20 or lower,  
 § Supplied with T-bolts and rocker washers (patent pending),



90 - 315 MM SIZES

355 - 500 MM SIZES

- Sharp gripping teeth on both housing sides grip into outside diameter of HDPE pipe
- Design permits direct joining without fusing equipment
- Available in sizes (90 – 500mm)

# Couplings

## HDPE Transition Coupling

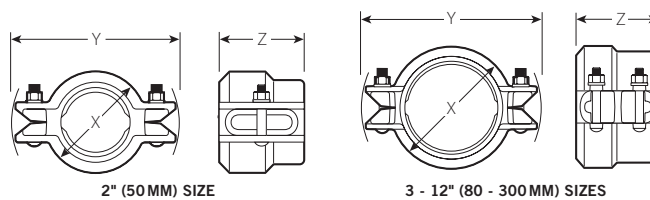
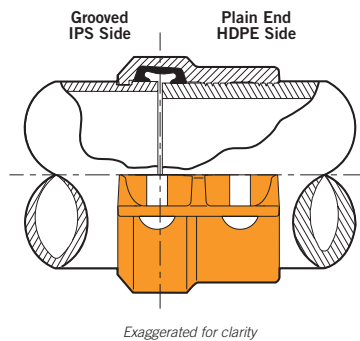
### STYLE 997

Request Publication 19.03



- Fastest and easiest way to join plain end HDPE pipe to grooved IPS pipe, valves and fittings
- Designed for use with HDPE with pipe wall thickness from SDR 32.5 to 7.3
- Grooved side has conventional key section to engage standard roll or cut grooved IPS pipe of same size as mating HDPE pipe
- Available in sizes 2 – 12" (50 – 300mm)

Size		Coupling Dimensions			Bolt/Nut No. – Size	Approx. Wgt. Each
Nominal Size Inches/mm	Actual Outside Dia. Inches/mm	X Inches/ mm	Y Inches/ mm	Z Inches/ mm	Inches	Lbs./ kg
2 50	2.375 60.3	3.31 84	5.44 138	2.78 71	2 – 3/8 X 2	3.0 1.4
3 80	3.500 88.9	4.38 111	6.99 178	3.20 81	4 – 1/2 X 2 3/4	6.6 3.0
4 100	4.500 114.3	5.68 144	8.25 210	3.90 99	4 – 1/2 X 2 3/4	8.7 4.0
5 125	5.563 141.3	6.75 172	9.81 249	3.97 101	4 – 5/8 X 3 1/4	11.5 5.2
6 150	6.625 168.3	7.84 199	11.25 286	4.00 102	4 – 5/8 X 3 1/4	14.8 6.7
8 200	8.625 219.1	10.18 259	13.96 355	4.16 106	4 – 5/8 X 3 1/4	21.7 9.8
10 250	10.750 273.0	12.63 321	16.81 427	4.56 116	4 – 7/8 X 5 1/2	34.3 15.6
12 300	12.750 323.9	14.58 370	18.76 477	4.85 123	4 – 7/8 X 5 1/2	37.5 17.0



# HDPE Flange Adapter

## STYLE 994

Request Publication 19.04



- Permits direct connection of ANSI Class 125 and 150 flanged components into HDPE systems
- Available in sizes 4, 6 and 8" (100, 150 and 200mm) piping systems

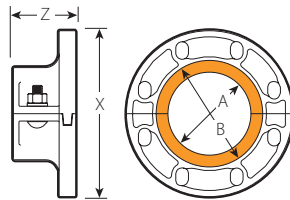
Size		Draw	Flange	Dimensions – Inches/millimeters				Approx. Wgt. Each
Nominal Size Inches/mm	Actual Outside Dia. Inches/mm	Bolt/Nut No. – Size Inches ‡	Bolt/Nut No. – Size Inches ‡	X	Z	Sealing Surface*		Lbs./kg
						A - Min.	B - Max.	
4 100	4.500 114.3	2 – 5/8 X 1 3/4	8 – 5/8 X 3	9.00 229	3.38 86	4.50 114	5.78 147	12.5 5.7
6 150	6.625 168.3	2 – 3/4 X 2 1/4	8 – 3/4 X 3 1/2	11.00 279	4.00 102	6.63 168	7.97 202	17.3 7.8
8 200	8.625 219.1	2 – 3/4 X 2 1/4	8 – 3/4 X 3 1/2	13.50 343	4.50 114	8.63 220	10.00 254	30.8 14.0

§ Supplied with Style 994 Vic-Flange Adapter.

† Total bolts required, to be supplied by installer.

‡ Bolt sizes for conventional flange-to-flange connection. Larger bolts required when Vic-Flange adapter is utilized with wafer-type valves.

\* Minimum/maximum sealing surface on mating flange must be available for proper gasket seating. Entire area must be flat. Heavy serrated (phonograph record) finishes are not acceptable. When used with rubber seated wafer butterfly valves, a flat metal adapter plate is needed.



## Outlets for HDPE Pipe

### Style 920/920N Mechanical-T® Bolted Branch Outlet

Victaulic Mechanical-T Outlet provides a direct branch connection at any location a hole can be cut in pipe. The hole is cut oversize to receive a “holefinder” locating collar which secures the outlet in position permanently. A pressure responsive gasket seals on the pipe O.D.

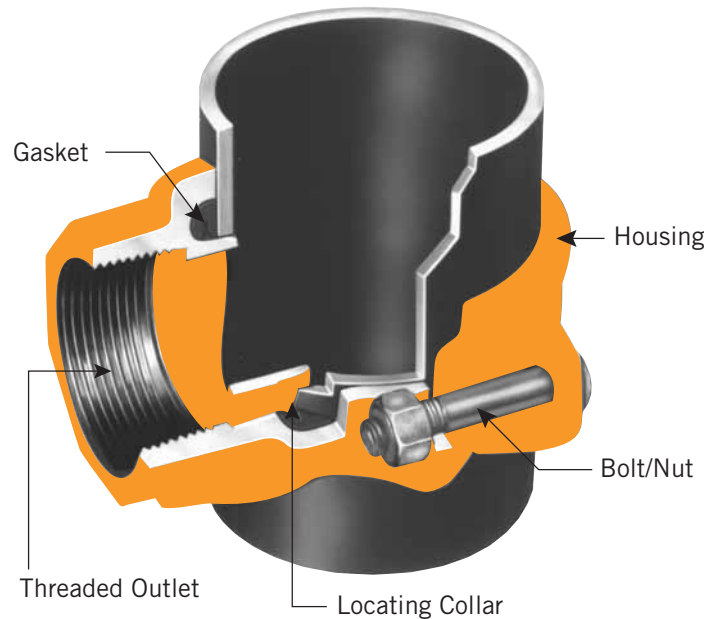
Cross-type connections can be achieved by utilizing two upper housings of the same style and size, with the same or differing branch size connections. NOTE: Style 920 and Style 920N housings **cannot** be mated to achieve a cross connection.

Style 920 and Style 920N Mechanical-T outlets are available with grooved or female threaded outlets. Specify choice on order. Units are supplied painted with plated bolts. Galvanized housings are available, supplied with plated bolts.

All sizes of Style 920 and 920N are rated at 500 psi/ 3450kPa working pressure on steel pipe. They may also be used on high density polyethylene or polybutylene (HDPE) pipe. Pressure ratings on HDPE are dependent on the pipe rating. Contact Victaulic for ratings on other pipe. **Style 920 and 920N are not recommended for use on PVC plastic pipe.**

Standard piping practices dictate that the Mechanical-T Styles 920 and 920N must be installed so that the main and branch connections are a true 90° angle when permanently attached to the pipeline surface.

Request 11.02 for submittal.



## Mechanical-T Bolted Branch Outlet

### STYLE 920/920N GROOVED OUTLET/FEMALE THD. OUTLET

Request Publication 11.02



STYLES 920 AND 920N  
WITH GROOVED OUTLET

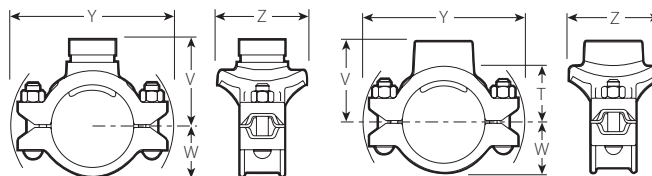


STYLES 920 AND 920N  
WITH FEMALE THREADED OUTLET

- Provides a direct branch connection at any location where a hole can be cut in the pipe
- A pressure responsive gasket provides the seal
- Request Publication 11.03 for Mechanical-T cross assemblies
- Pressure rated up to 500 psi/3450 kPa on steel pipe; also available for use with HDPE pipe
- Sizes from 2 × ½" / 50 × 15 mm through 8 × 4" / 200 × 100 mm

Size	Style No.	Max. Work Pressure	Dimensions							Approx. Weight Each		
			Run × Branch Nominal Size Inches mm	920 or 920N	psi kPa	Hole Diameter +0.13 -0.00	T** Inches mm	V † # Thd. Inches mm	V † Grv. Inches mm	W Inches mm	Y Inches mm	Z Inches mm
2 50 ×	½ (a) 15	920N	500 3450	1.50 38.1	2.00 51	2.53 64	—	1.63 41	4.91 125	2.50 64	3.1 1.5	—
	¾ (a) 20	920N	500 3450	1.50 38.1	1.97 50	2.53 64	—	1.63 41	4.91 125	2.75 70	3.1 1.5	—
	1 (a) 25	920N	500 3450	1.50 38.1	1.81 46	2.53 64	—	1.63 41	4.91 125	2.75 70	3.0 1.4	—
	1 ¼ (a) † 32	920N	500 3450	1.75 44.5	2.04 52	2.75 70	3.00 76	1.63 41	4.91 125	3.00 76	3.5 1.7	3.2 1.5
	1 ½ (a) † 40	920N	500 3450	1.75 44.5	2.03 52	2.75 70	3.12 79	1.63 41	4.91 125	3.25 83	3.6 1.7	3.2 1.5
2 ½ 65 ×	½ (a) 15	920N	500 3450	1.50 38.1	2.21 56	2.74 70	—	1.82 46	5.14 131	2.75 70	3.0 1.4	—
	¾ (a) 20	920N	500 3450	1.50 38.1	2.18 55	2.74 70	—	1.82 46	5.14 131	2.75 70	3.0 1.4	—
	1 (a) 25	920N	500 3450	1.50 38.1	2.06 52	2.74 70	—	1.82 46	5.14 131	2.75 70	2.9 1.4	—
	1 ¼ † (a) 32	920N	500 3450	1.75 44.5	2.29 58	3.00 76	3.25 83	1.82 46	5.14 131	3.00 76	3.5 1.7	3.2 1.5
	1 ½ † (a) 40	920N	500 3450	2.00 50.8	2.27 58	3.00 76	3.25 83	1.82 46	5.14 131	3.25 83	3.6 1.7	3.3 1.6
76.1 ×	½ (a) 15	920	300 2065	1.50 38.1	2.22 56	2.75 70	—	2.25 57	6.50 165	3.18 81	3.9 1.8	—
	¾ (a) 20	920	300 2065	1.50 38.1	2.19 56	2.75 70	—	2.25 57	6.50 165	3.18 81	3.9 1.8	—
	1 (a) 25	920	300 2065	1.50 38.1	2.07 53	2.75 70	—	2.25 57	6.50 165	3.18 81	3.8 1.7	—
	1 ¼ (a) 32	920	500 3450	1.75 44.5	2.25 57	3.00 76	3.25 83	1.92 49	5.67 144	3.00 76	3.5 1.6	3.2 1.5
	1 ½ (a) 40	920	500 3450	2.00 50.8	2.25 57	3.00 76	3.25 83	1.92 49	5.67 144	3.25 83	3.5 1.6	3.3 1.5
3 80 ×	½ (a) 15	920N	500 3450	1.50 38.1	2.53 64	3.06 78	—	2.29 58	5.75 146	2.75 70	3.4 1.6	—
	¾ (a) 20	920N	500 3450	1.50 38.1	2.50 64	3.06 78	—	2.29 58	5.75 146	2.75 70	3.4 1.6	—
	1 (a) 25	920N	500 3450	1.50 38.1	2.37 60	3.06 78	—	2.29 58	5.75 146	2.75 70	3.3 1.6	—
	1 ¼ (a) † 32 (b)	920N	500 3450	1.75 44.5	2.54 65	3.25 83	3.56 90	2.29 58	5.75 146	3.00 76	3.8 1.8	3.7 1.8
	1 ½ (a) † 40 (b)	920N	500 3450	2.00 50.8	2.77 70	3.50 89	3.56 90	2.29 58	5.75 146	3.25 83	4.1 1.9	3.8 1.8
4 100 ×	2 (a) 50	920N	500 3450	2.50 63.5	2.74 70	3.50 89	3.56 90	2.29 58	5.75 146	3.88 99	4.9 2.3	4.6 2.1
	½ (a) 15	920N	500 3450	1.50 38.1	3.03 77	3.56 90	—	2.69 68	6.69 170	2.75 70	3.7 1.8	—
	¾ (a) 20	920N	500 3450	1.50 38.1	3.00 76	3.56 90	—	2.69 68	6.69 170	2.75 70	3.7 1.8	—

TABLE CONTINUED ON PG. 12



STYLES 920 AND 920N  
WITH GROOVED OUTLET

STYLES 920 AND 920N  
WITH FEMALE THREADED OUTLET

#### IMPORTANT NOTES:

Style 920 and Style 920N housings cannot be mated to one another to achieve cross-connections.

# Hole Cut Piping

## Mechanical-T Bolted Branch Outlet

### STYLE 920/920N GROOVED OUTLET/FEMALE THD. OUTLET

Request Publication 11.02



STYLES 920 AND 920N  
WITH GROOVED OUTLET

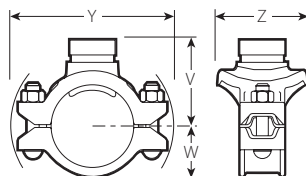


STYLES 920 AND 920N  
WITH FEMALE THREADED OUTLET

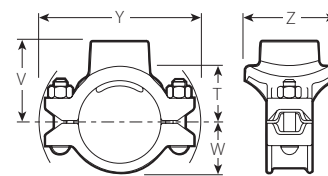
- Provides a direct branch connection at any location where a hole can be cut in the pipe
- A pressure responsive gasket provides the seal
- Request Publication 11.03 for Mechanical-T cross assemblies
- Pressure rated up to 500 psi/3450 kPa on steel pipe; also available for use with HDPE pipe
- Sizes from 2 × ½" / 50 × 15 mm through 8 × 4" / 200 × 100 mm

Size	Style No.	Max. Work Pressure	Dimensions							Approx. Weight Each		
			Run × Branch Nominal Size Inches mm	920 or 920N	psi kPa	Hole Diameter +0.13 -0.00	T** Inches mm	V † # Thd. Inches mm	V † Grv. Inches mm	W Inches mm	Y Inches mm	Z Inches mm
4 100	1 (a) 25	920N	500 3450	1.50 38.1	2.88 73	3.56 90	—	2.69 68	6.69 170	2.75 70	3.6 1.8	—
		1 ¼ (a) † 32	920N	500 3450	1.75 44.5	3.07 78	3.78 96	4.00 102	2.69 68	6.69 170	3.00 76	4.0 1.9
	1 ½ (a) † 40	920N	500 3450	2.00 50.8	3.28 83	4.00 102	4.00 102	2.69 68	6.69 170	3.25 83	4.2 2.0	3.9 1.9
	2 (a) † 50	920N	500 3450	2.50 63.5	3.24 82	4.00 102	4.00 102	2.69 68	6.69 170	3.88 99	5.0 2.3	4.6 2.1
	2 ½ (a) † 65	920	500 3450	2.75 69.9	3.06 78	4.00 102	4.00 102	2.69 68	7.25 184	4.63 118	5.8 2.6	5.0 2.3
	76.1mm	920	500 3450	2.75 69.9	—	—	4.00 102	2.69 68	7.25 184	4.63 118	—	6.4 2.9
	3 (a) † 80	920	500 3450	3.50 88.9	3.50 89	4.50 114	4.13 105	2.69 68	7.25 184	5.25 133	8.4 3.8	6.4 2.9
108.1	1 ¼ (a) 32	920N	500 3450	1.75 44.5	3.06 78	3.78 96	—	2.63 67	7.25 184	3.13 80	5.0 2.3	—
		1 ½ (a) 40	920N	500 3450	2.00 50.8	3.28 83	4.00 102	—	2.63 67	7.25 184	3.38 86	5.0 2.3
	2 (a) 50	920N	500 3450	2.50 63.5	3.24 82	4.00 102	—	2.63 67	7.25 184	4.00 102	5.6 2.5	—
	2 ½ (a) 65	920	500 3450	2.75 69.9	3.06 78	4.00 102	—	2.63 67	7.25 184	4.41 112	5.6 2.5	—
	3 (a) 80	920	500 3450	3.50 88.9	—	—	4.00 102	2.63 67	7.25 184	5.00 127	—	6.5 3.0
5 125	1 ½ (a) † 40	920	500 3450	2.00 50.8	4.06 103	4.75 121	4.75 121	3.25 83	8.38 213	3.75 95	7.4 3.4	7.6 3.4
		2 (a) † 50	920	500 3450	2.50 63.5	4.06 103	4.75 121	4.75 121	3.25 83	8.38 213	4.38 111	8.2 3.7
	2 ½ (a) † 65	920	500 3450	2.75 69.9	3.81 97	4.75 121	4.75 121	3.25 83	8.38 213	4.63 118	8.3 3.8	7.9 3.6
	76.1 (a)(b)	920	500 3450	2.75 69.9	3.81 97	4.75 121	—	3.25 83	8.38 213	5.38 137	—	—
	3 (a) † 80	920	500 3450	3.50 88.9	4.00 102	5.00 127	4.63 118	3.25 83	8.38 213	5.38 137	8.4 3.8	8.8 4.0
139.7	1 ½ † 40	920	500 3450	2.00 50.8	4.06 103	4.75 121	—	3.25 83	8.38 213	3.75 95	7.4 3.4	—
		2 † 50	920	500 3450	2.50 63.5	4.06 103	4.75 121	—	3.25 83	8.38 213	4.38 111	8.3 3.7
	76.1 (a)(b)	920	500 3450	3.50 88.9	—	—	4.63 118	3.25 83	8.38 213	5.38 137	—	8.8 4.0
159.0	1 ½ (a) 40	920N	500 3450	2.00 50.8	4.41 112	5.13 130	—	3.63 92	9.25 235	3.38 86	7.8 3.5	—
		2 (a) 50	920N	500 3450	2.50 63.5	4.37 111	5.13 130	—	3.63 92	9.25 235	4.00 102	8.0 3.6

TABLE CONTINUED ON PG. 13



STYLES 920 AND 920N  
WITH GROOVED OUTLET



STYLES 920 AND 920N  
WITH FEMALE THREADED OUTLET

#### IMPORTANT NOTES:

Style 920 and Style 920N housings cannot be mated to one another to achieve cross-connections.

## Mechanical-T Bolted Branch Outlet

### STYLE 920/920N GROOVED OUTLET/FEMALE THD. OUTLET

Request Publication 11.02



STYLES 920 AND 920N  
WITH GROOVED OUTLET



STYLES 920 AND 920N  
WITH FEMALE THREADED OUTLET

- Provides a direct branch connection at any location where a hole can be cut in the pipe
- A pressure responsive gasket provides the seal
- Request Publication 11.03 for Mechanical-T cross assemblies
- Pressure rated up to 500 psi/3450 kPa on steel pipe; also available for use with HDPE pipe
- Sizes from 2 × ½"/50 × 15 mm through 8 × 4"/200 × 100 mm

Size	Style No.	Max. Work Pressure	Dimensions							Approx. Weight Each	
			Run × Branch Nominal Size Inches mm	920 or 920N	psi kPa	Hole Diameter +0.13 -0.00	T** Inches mm	V † # Thd. Inches mm	V † Grv. Inches mm	W Inches mm	Y Inches mm
159.0 × 2½ (a) † 65	920	500 3450	2.75 69.9	4.56 116	5.50 140	—	3.63 92	9.25 235	4.75 121	8.6 3.9	—
	920	500 3450	4.50 114.3	—	—	5.38 137	3.63 92	9.25 235	6.25 159	—	10.0 4.5
165.1 × 1½ (a) † 40	920	500 3450	2.00 50.8	4.44 113	5.13 130	5.13 130	3.69 94	9.38 238	3.75 95	7.9 3.6	6.9 3.1
	920	500 3450	2.50 63.5	4.44 113	5.13 130	5.13 130	3.63 92	9.38 238	4.38 111	8.0 3.6	7.0 3.2
	920	500 3450	2.75 69.9	4.19 106	5.13 130	5.13 130	3.69 94	9.38 238	4.63 118	8.6 3.9	7.6 3.4
	920	500 3450	2.75 69.9	4.08 104	5.13 130	5.21 132	3.69 94	9.38 238	5.38 137	8.6 3.9	7.6 3.4
	920	500 3450	3.50 88.9	4.50 114	5.50 140	5.13 130	3.69 94	9.38 238	5.38 137	10.2 4.6	8.4 3.8
	920	500 3450	4.50 114.3	4.50 114	5.75 146	5.38 137	3.63 92	9.38 238	6.25 159	10.5 4.8	8.4 3.8
6 150 × 1¼ 32 (b)	920N	500 3450	1.75 44.5	—	—	5.13 130	3.79 96	9.13 232	3.25 83	—	4.8 2.2
	920N	500 3450	2.00 50.8	4.40 112	5.13 130	5.13 130	3.79 96	9.13 232	3.25 83	5.4 2.4	5.1 3.3
	920N	500 3450	2.50 63.5	4.37 111	5.13 130	5.13 130	3.79 96	9.13 232	3.88 99	6.0 2.7	5.6 2.5
	920	500 3450	2.75 69.9	4.19 106	5.13 130	5.13 130	3.69 94	9.38 238	4.63 118	8.3 3.8	7.6 3.4
	920	500 3450	2.75 69.9	—	—	5.21 132	3.69 94	9.38 238	5.38 137	—	8.4 3.8
	920	500 3450	3.50 88.9	4.50 114	5.50 140	5.13 130	3.69 94	9.38 238	5.38 137	9.9 4.5	8.4 3.8
	920	500 3450	4.50 114.3	4.50 114	5.75 146	5.38 137	3.69 94	9.38 238	6.25 159	10.1 4.6	10.1 4.6
8 200 × 2 (a) 50	920	500 3450	2.75 69.9	5.19 132	6.25 159	—	4.88 124	12.00 305	4.50 114	11.6 5.3	—
	920	500 3450	2.75 69.9	5.19 132	6.25 159	6.25 159	4.88 124	12.25 311	4.50 114	11.6 5.3	11.6 5.3
	920	500 3450	2.75 69.9	5.19 132	6.25 159	—	4.88 124	12.00 305	5.38 137	—	—
	920	500 3450	3.50 88.9	5.50 140	6.50 165	6.25 159	4.88 124	12.00 305	5.38 137	12.6 5.7	11.6 5.3
	920	500 3450	4.50 114.3	5.31 135	6.75 171	6.38 162	4.88 124	12.00 305	6.25 159	15.3 6.9	12.5 5.7

\*\* Center of run to engaged pipe end, female threaded outlet only (dimensions approximate).

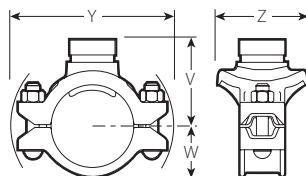
† Available with grooved or female threaded outlet. Specify choice on order.

‡ Center of run to end of fitting.

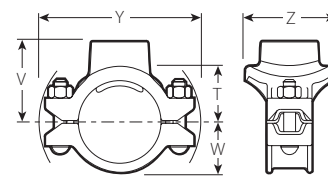
# Female threaded outlets are available to NPT and BSPT specifications.

(a) British Standard female pipe threaded outlet is available as listed. Specify "BSPT" clearly on order.

(b) For 76.1 mm threaded outlet, specify 2½" BSPT clearly on order



STYLES 920 AND 920N  
WITH GROOVED OUTLET



STYLES 920 AND 920N  
WITH FEMALE THREADED OUTLET

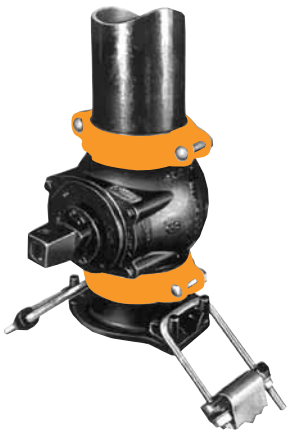
#### IMPORTANT NOTES:

Style 920 and Style 920N housings cannot be mated to one another to achieve cross-connections.

## Hole Cut Piping

### Mechanical-T Spigot Assembly

STYLE 926



The Victaulic mine tailings spigot assembly is a combination of the Style 926 Mechanical-T outlet or fitting coupled to the Series 365 Vic-Plug™ valve on either steel, cast iron, or HDPE outlet piping. The Mechanical-T outlet has a 6"/150 mm outlet that mounts directly onto steel, plastic or cement asbestos pipe with outside diameters from 22 – 26"/559.0 – 660.0 mm (including 20"/508.0 mm) ID cement asbestos pipe and 24 – 26"/610.0 – 660.0 mm ID steel or plastic pipe. For other outlet sizes contact Victaulic.

Specially designed for semi-solid and solids piping, the Vic-Plug valve with its circular port design assures smooth, efficient flow. The eccentric plug valve rests out of the flow path when the valve is in the full open position. The Grade "T" nitrile coated plug and welded-in nickel seat provide leak-tight sealing up to 175 psi/ 1200 kPa. Self-lubricating stainless steel bearings prevent binding. Protective o-rings guard against media and grit intrusion into the bearing area.

The Style 926 Mechanical-T outlet is mounted on the pipe with a reusable spigot strap and U-bolts which are constructed from corrosion resistant stainless steel. All other hardware on the assembly is zinc electroplated. For protection against harsh environments epoxy coating is available. The assembly is fully rated to a working pressure of 150 psi/1035 kPa. Assembly is made easy using standard Victaulic couplings and adapters.

To accept the Mechanical-T spigot, a 7"/178 mm diameter hole is required in the main pipeline. To ease handling and installation/assembly, components are shipped separately. Style 926 is recommended for applications where excessive bending loads will not occur.

### Component Parts



SERIES 365 VIC-PLUG™  
SEE 23.06



STYLE 307  
TRANSITION COUPLING  
SEE 23.03



STYLE 341 VIC-FLANGE  
SEE 23.04



STYLE 997  
TRANSITION COUPLING  
SEE 19.03



STYLE 31 COUPLING  
SEE 23.02



STYLE 994 FLANGE  
SEE 19.04

### Weight

Style No.	Weight Lbs.
<b>6" Spigot Assembly (HDPE pipe)</b>	
S/926 Mechanical-T	45.0
S/31 Coupling	9.4
S/365 Vic-Plug	70.0
S/997 Transition Coupling	14.8
<b>Total Assembly</b>	<b>139.2</b>

Style No.	Weight Lbs.
<b>6" Spigot Assembly (Steel pipe)</b>	
S/926 Mechanical-T	45.0
S/31 Coupling	9.4
S/365 Vic-Plug	70.0
S/307 Transition Coupling	9.0
<b>Total Assembly</b>	<b>133.4</b>



## Product Information

### 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

Orange enamel; metric sizes green enamel

- **Optional:** Zinc electroplated
- **Optional:** Hot dip galvanized
- **Optional:** Other coatings available. Contact Victaulic for details

**Gasket:** (specify choice\*)

#### Grade “E” EPDM

EPDM (Green color code). Temperature range  $-30^{\circ}\text{F}$  to  $+230^{\circ}\text{F}$ / $-34^{\circ}\text{C}$  to  $+110^{\circ}\text{C}$ . Recommended 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 ANSI/NSF 61 for cold  $+86^{\circ}\text{F}/+30^{\circ}\text{C}$  and hot  $+180^{\circ}\text{F}/+82^{\circ}\text{C}$  potable water service. NOT RECOMMENDED FOR PETROLEUM SERVICES.

#### Grade “T” nitrile

Nitrile (Orange color code). Temperature range  $-20^{\circ}\text{F}$  to  $+180^{\circ}\text{F}$ / $-29^{\circ}\text{C}$  to  $+82^{\circ}\text{C}$ . Recommended for petroleum products, air with oil vapors, vegetable and mineral oils within the specified temperature range. Not recommended for hot water services over  $+150^{\circ}\text{F}/+66^{\circ}\text{C}$  or for hot dry air over  $+140^{\circ}\text{F}/+60^{\circ}\text{C}$ .

**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.

### Gasket Selection

GASKET SELECTION MUST ALWAYS BE SPECIFIED ON YOUR ORDER				
Grade	Temp. Rating	Compound	Color Code	*General Service Recommendations
<b>E</b>	$-30^{\circ}\text{F}$ to $+230^{\circ}\text{F}$ $-34^{\circ}\text{C}$ to $+110^{\circ}\text{C}$	EPDM	Green Stripe	Recommended 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 ANSI/NSF 61 for cold $+86^{\circ}\text{F}/+30^{\circ}\text{C}$ and hot $+180^{\circ}\text{F}/+82^{\circ}\text{C}$ potable water service. NOT RECOMMENDED FOR PETROLEUM SERVICES.
<b>T</b>	$-20^{\circ}\text{F}$ to $+180^{\circ}\text{F}$ $-29^{\circ}\text{C}$ to $+82^{\circ}\text{C}$	Nitrile	Orange Stripe	Recommended for petroleum products, hydrocarbons, air with oil vapors, vegetable and mineral oils within the specified temperature range; not recommended for hot dry air over $+140^{\circ}\text{F}/+60^{\circ}\text{C}$ and water over $+150^{\circ}\text{F}/+66^{\circ}\text{C}$ . NOT RECOMMENDED FOR HOT WATER SERVICES.

ALWAYS CHECK GASKET SUPPLIED TO BE CERTAIN IT IS SUITED FOR THE SERVICE INTENDED. REFER TO VICTAULIC GASKET SELECTION GUIDE (05.01). ALWAYS LUBRICATE GASKET FOR PROPER COUPLING ASSEMBLY.

\*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.

**Gasket compatibility only. Plastic pipes are designed to have a specific rating at a temperature of  $+73^{\circ}\text{F}/+23^{\circ}\text{C}$ . Any variation of the temperature will have an effect on the static pressure rating of the pipe, thus, as the temperature increases, the pressure rating will decrease. Contact the pipe manufacturer for temperature and pressure limitations of their pipe.**

#### ⚠ WARNING



- Depressurize and drain the piping system before attempting to install, remove or adjust any Victaulic piping products. Failure to follow this instruction could result in serious personal injury and/or property damage.

#### ⚠ CAUTION

- DO NOT use Victaulic lubricant, hydrocarbon-based oils, greases, or soap-based solutions to lubricate the gaskets. These solutions may react with the pipe material. Contact the polyethylene pipe manufacturer for lubricant compatibility requirements.
- A compatible lubricant must be used to prevent the gasket from pinching/tearing during installation. Failure to follow this instruction could cause joint leakage, resulting in property damage.

## Products

### Other Victaulic products

#### Flexible Couplings



STYLE 78



STYLE 77

- Excellent for noise absorption and where expansion, contraction, and deflection is required
- Style 78 rated to 500 psi/3450 kPa, Style 77 to 1000 psi/6900 kPa

Request 06.04 for Style 77 and 06.09 for Style 78

#### Rigid Couplings



- Weld-like rigidity for equipment connections and similar services
- Style 07 rated to 750 psi/5175 kPa
- Style 307 Transition rated to 500 psi/3450 kPa

Request 06.02 for Style 07 and 23.03 for Style 307

#### Long Radius Elbows



- 1 1/2D, 3D, 5D and 6D elbows available
- Linings available to handle abrasive services
- Available pre-grooved from 2 - 12"/50 - 300 mm

Request 07.01 for details

#### Vic-Flange Adapters



- ANSI Class 125/150 bolt hole pattern for 2 - 24"/50 - 600 mm piping
- Style 741 rated to 300 psi/2065 kPa

Request 06.06 for details

#### Vic-Strainer



SERIES 730



SERIES 732

- Series 730 "T" type for sizes from 2 - 12"/50 - 300 mm for pressures up to 300 psi/2065 kPa
- Series 732 "Y" strainer for sizes from 2 - 12"/50 - 300 mm for pressures up to 300 psi/2065 kPa

Request 09.02 for Style 730 and 09.03 for Style 732

#### Butterfly Valves



VIC-300



SERIES 700

- Vic-300 MasterSeal valve for 2 - 12"/50 - 300 mm for pressures to 300 psi/2065 kPa
- Available with lever, gear, or remote actuation
- Series 700 rated to 200 psi/1375 kPa

Request 08.20 for Vic-300 and 08.05 for Series 700

#### Ball Valves



- Standard port valve for piping systems from 1 1/2 - 6"/40 - 150 mm
- For pressures up to 600 psi/4130 kPa (WOG)

Request 08.13 for details

#### Series 700 Butterfly Valves



- Available from 1 1/2 - 6"/40 - 150 mm sizes for pressures to 200 psi/1380 kPa
- Aluminum bronze disc excellent for abrasive services
- Can be used for dead end service

Request 08.05 for details

## Hole Cutting Tools



HCT908



VHCT

- Can be used in vertical or horizontal position
- Special pilot drill automatically removes coupon
- Manual feed assembly provides uniform pressure for maximum cutting efficiency

## Roll Groovers



SHOP GROOVER



MANUAL GROOVER



FIELD GROOVER

- Remove no metal from pipe
- Grooves a wide range of pipe sizes and schedules
- Fast and easy, no chips or oils
- Portable job-site, shop production, and manual groovers available

## Cut Groovers



GEAR DRIVE CUT GROOVER



CUT GROOVER

- Removes less metal than threading
- Built-in stops assure proper groove dimensions
- Operates with most available drive sources
- Portable for job-site or fab-shop use

## Pressfit System

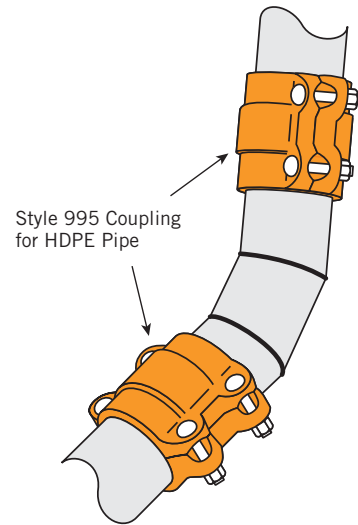


- Portable tool specifically designed for installing Pressfit System products

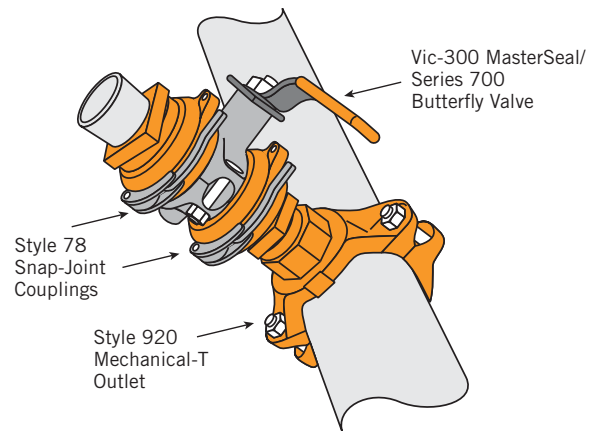
## HDPE Product Applications



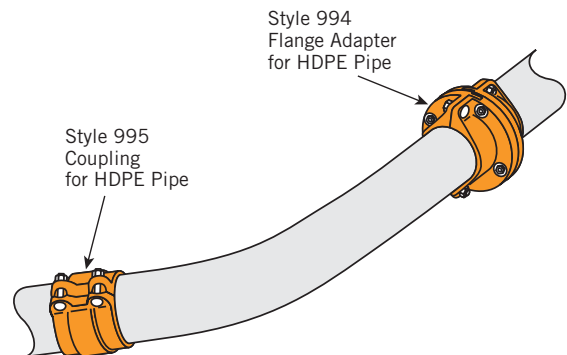
*Faster installation for equipment hook-ups.*

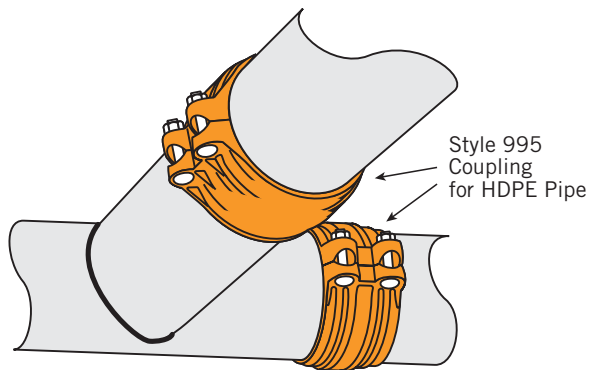


*Victaulic system offers products and tools for simple, efficient outlets.*

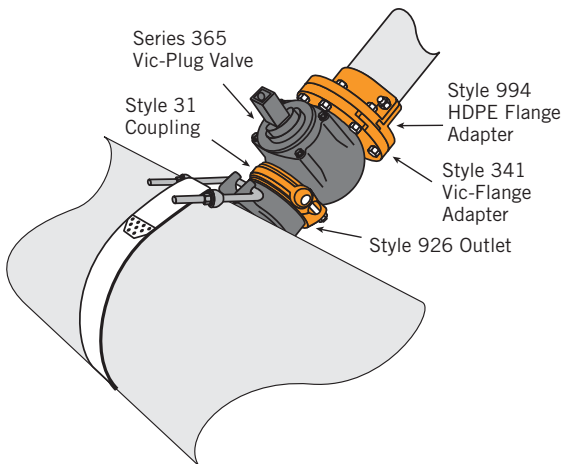


*Excellent for abrasive in-plant services minimizes downtime while allowing pipe to be rotated and re-used.*

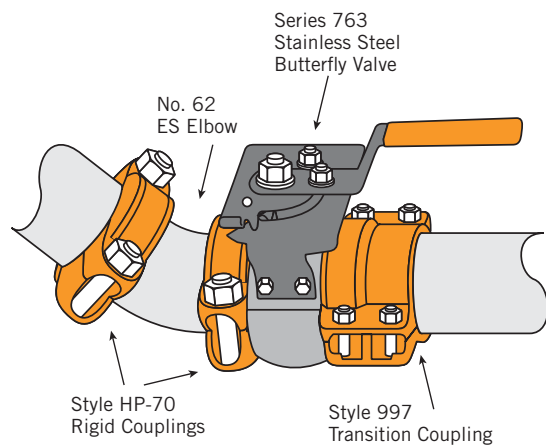




Use of HDPE for in-plant services allows pipe rotation and re-use for additional cost savings.



Mining spigot assemblies are cost effective connections for tailing lines.



HDPE transition coupling provides a direct connection from HDPE to grooved IPS pipe, valves and fittings.

For the most up-to-date information on all Victaulic products please visit [www.victaulic.com](http://www.victaulic.com)



**VICTAULIC GLOBAL LOCATIONS**

**WORLD HEADQUARTERS**

P.O. Box 31  
Easton, PA 18044-0031 USA  
4901 Kesslersville Road  
Easton, PA 18040 USA  
1-800-PICK-VIC  
(1-800-742-5842)  
1-610-559-3300  
1-610-250-8817 (fax)  
pickvic@victaulic.com

**UNITED STATES**

P.O. Box 31  
Easton, PA 18044-0031  
1-610-559-3300  
1-610-250-8817 (fax)  
victaulic@victaulic.com

[www.victaulic.com](http://www.victaulic.com)

**CANADA**

123 Newkirk Road  
Richmond Hill, ON L4C 3G5  
905-884-7444  
905-884-9774 (fax)  
viccanada@victaulic.com

**EUROPE**

Prijkelstraat 36  
9810 Nazareth, Belgium  
32-9-381-15-00  
32-9-380-44-38 (fax)  
viceuro@victaulic.be

**UK**

Unit 14  
Arlington Business Park  
Whittle Way, Stevenage  
Hertfordshire SG1 2BD  
44 (0) 1438741100  
44 (0) 1438313883 (fax)  
viceuro@victaulic.be

**CENTRAL AND SOUTH AMERICA**

P.O. Box 31  
Easton, PA 18044-0031 USA  
4901 Kesslersville Road  
Easton, PA 18040 USA  
1-610-559-3300  
1-610-559-3608 (fax)  
vical@victaulic.com

**ASIA-PACIFIC**

Room 707  
No. 600 Min Sheng Road  
Pudong, Shanghai  
200135 China  
86-21-58855151  
86-21-58851298 (fax)  
vicap@victaulic.com

**MIDDLE EAST**

P.O. Box 17683  
Unit XB 8  
Jebel Ali Free Zone  
Dubai  
United Arab Emirates  
971-4-883-88-70  
971-4-883-88-60 (fax)

