

# Couplings and Fittings for JIS Pipe

## PRODUCT DESCRIPTION



**Style 005**  
**FireLock™ Rigid Coupling**



**Style 07**  
**Zero-Flex® Rigid Coupling**



**Style 75**  
**Standard Coupling**



**Style 77**  
**Standard Flexible Coupling**



**No. 10**



**No. 11**



**No. 20**

The Victaulic® product line includes dedicated Japanese Industrial Standard Size (J.I.S.) couplings and fittings sizes 200A, 250A and 300A. Couplings and fittings made to U.S. standard sizes are available which are compatible with J.I.S. standards. Contact Victaulic for details.

### Style 005 Couplings

FireLock™ Style 005 rigid coupling has a unique, patented angle-pad design which allows the housings to offset while clamping the grooves. By permitting the housings to slide on the angled bolt pads, rigidity is obtained. The FireLock couplings provide rigidity for valve connections, fire mains and long straight runs. Support and hanging requirements correspond to NFPA 13 Sprinkler Systems. Angle-pad design permits

assembly by removing one nut/bolt and swinging the housing over the gasket. This reduces components to handle during assembly; speeds and eases installation on pipe grooved to Victaulic specifications. Style 005 FireLock couplings are designed and recommended for use ONLY on fire protection systems.

### Style 07 Couplings

The unique angled bolt pad design of Style 07 Zero-Flex® provides positive clamping of the pipe to resist flexural and torsional loads. See page 3 for working pressure ratings. Style 07 couplings provide rigidity for valve connections, machinery rooms, fire mains, and long straight runs. Support and hanging requirements correspond to ANSI B31.1 Power Piping Code, ANSI

B31.9 Building Services Code and NFPA 13 Sprinkler Systems. Angle-pad design permits assembly by removing one nut/bolt and swinging housing over gasket. This feature reduces components to handle during assembly, speeds and eases installation.

### Style 75 Couplings

Style 75 is available where moderate pressures are expected or weight considerations are a factor. Up to 50% lighter in weight than the Style 77, the Style 75 coupling is recommended for service up to 3100 kPa (450 PSI). Housings are cast in two identical pieces. Provided with plated bolts and nuts. Available with U.S. or metric bolts, specify with order. Galvanized housings are also available.

### Style 77 Couplings

Style 77 flexible couplings are designed with cross-ribbed construction to provide a strong component for pressure piping systems. Sizes 200A - 300A (8 - 12") are two-piece housings. This eases handling and installation.

All sizes of both couplings are provided with plated bolts and nuts. Available with U.S. or metric bolts, specify choice on order. Galvanized housings are also available.

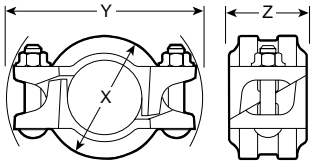
### Grooved End Fittings

Victaulic fittings are made of durable ductile iron and are painted with green enamel. Pressure ratings for fittings conform to the working pressure of the coupling used to join the system (see page 2).

**VICTAULIC® IS AN ISO 9001 CERTIFIED COMPANY**

# DIMENSIONS

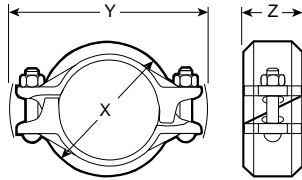
## Style 005



Style 005									
Pipe mm/ <i>Inches</i>		Max. Work Press.* kPa PSI	Max. End Load* N Lbs.	Allow. Pipe End # Sep. mm <i>Inches</i>	@ Bolt/Nut No. - Size mm <i>Inches</i>	Dimensions millimeters/ <i>Inches</i>			Aprx. Wgt. Each kg Lbs.
Nom. Size	JIS O.D.					X	Y	Z	
200A 8	216.3 8.515	2068 300	75988 17084	4.8 0.19	2 - M18 X 110 2 - ¾ X 4¼	264 10.41	34 13.25	64 2.50	5.1 11.3

Refer to notes on page 4.

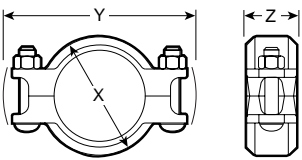
## Style 07



Style 07									
Pipe mm/ <i>Inches</i>		Max. Work Press.* kPa PSI	Max. End Load* N Lbs.	Allow. Pipe End # Sep. mm <i>Inches</i>	@ † Bolt/Nut No. - Size mm <i>Inches</i>	Dimensions millimeters/ <i>Inches</i>			Aprx. Wgt. Each kg Lbs.
Nom. Size	JIS O.D.					X	Y	Z	
200A 8	216.3 8.515	4130 600	152200 34200	4.8 0.19	2 - M20 X 110 2 - ¾ X 4¼	266 10.47	346 13.62	64 2.50	6.8 14.9
250A 10	267.4 10.528	3450 500	193600 43500	3.3 0.13	2 - M22 X 165 2 - 7/8 X 6½	321 12.64	431 16.97	65 2.56	11.3 25.0
300A 12	318.5 12.539	2750 400	219800 49400	3.3 0.13	2 - M22 X 165 2 - 7/8 X 6½	372 14.65	480 18.90	65 2.56	12.8 28.2

Refer to notes on page 4.

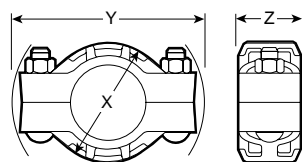
## Style 75



Style 75											
Pipe mm/ <i>Inches</i>		Max. Work Press.* kPa PSI	Max. End Load* N Lbs.	Allow. Pipe End # Sep. mm <i>Inches</i>	Deflect. Fr. C <sub>L</sub> †		@ † Bolt/Nut No. - Size mm <i>Inches</i>	Dimensions millimeters/ <i>Inches</i>			Aprx. Wgt. Each kg Lbs.
Nom. Size	JIS O.D.				Per Cplg. Deg.	Pipe mm/m In./Ft.		X	Y	Z	
200A 8	216.3 8.515	3100 450	113982 25625	0 - 3.2 0 - 0.13	0° - 50°	14 0.18	2 - M20 X 110 2 - ¾ X 4¼	260 10.25	349 13.75	60 2.38	5.6 12.4

Refer to notes on page 4.

## Style 77

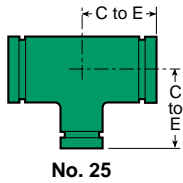
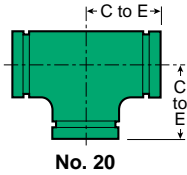
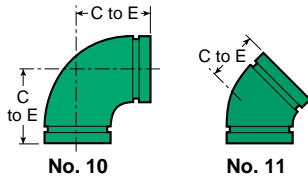


Style 77											
Pipe mm/ <i>Inches</i>		Max. Work Press.* kPa PSI	Max. End Load* N Lbs.	Allow. Pipe End # Sep. mm <i>Inches</i>	Deflect. Fr. C <sub>L</sub> †		@ † Bolt/Nut No. - Size mm <i>Inches</i>	Dimensions millimeters/ <i>Inches</i>			Aprx. Wgt. Each kg Lbs.
Nom. Size	JIS O.D.				Per Cplg. Deg.	Pipe mm/m In./Ft.		X	Y	Z	
200A 8	216.3 8.515	5500 800	202500 45500	0 - 3.2 0 - 0.13	0° - 50°	15 0.18	2 - M22 X 127 2 - 7/8 X 5	275 10.83	374 14.72	62 2.44	9.1 20.1
250A 10	267.4 10.528	5500 800	309700 69600	0 - 3.2 0 - 0.13	0° - 40°	12 0.14	2 - M24 X 152 2 - 1 X 6	326 12.83	433 17.05	65 2.56	12.8 28.3
300A 12	318.5 12.539	5500 800	439600 98800	0 - 3.2 0 - 0.13	0° - 34°	10 0.12	2 - M24 X 165 2 - 1 X 6½	389 15.31	486 19.13	65 2.56	15.5 34.2

Refer to notes on page 4.

# DIMENSIONS

## Fittings



No. 50



Pipe mm/Inches		No. 10 90° Elbow		No. 11 45° Elbow		No. 20 Tee	
Nominal Size	JIS O.D.	C to E mm/Inches	Wgt. Ea. kg/Lbs.	C to E mm/Inches	Wgt. Ea. kg/Lbs.	C to E mm/Inches	Wgt. Ea. kg/Lbs.
200A 8	216.3 8.515	197 7.75	15.9 35.1	108 4.25	9.3 20.4	197 7.75	21.6 47.6
250A 10	267.4 10.528	229 9.00	22.7 50.0	121 4.75	17.0 37.5	229 9.00	33.1 73.0
300A 12	318.5 12.539	254 10.00	33.6 74.0	133 5.25	30.3 66.7	254 10.00	44.9 99.0

No. 25 – JIS Reducing Tee								
Pipe mm/Inches						C to E Run mm/Inches	C to E Branch mm/Inches	Aprx. Wgt. Each kg/Lbs.
Nominal Size		JIS O.D.						
200A 8	X 200A 8	X 165 6.5	216.3 8.515	X 216.3 8.515	X 165.1 6.500	198.1 7.8	198.1 7.8	22.2 49.0
250A 10	X 250A 10	X 200A 8	267.4 10.528	X 267.4 10.528	X 216.3 8.515	228.6 9.0	228.6 9.0	31.8 70.0
300A 12	X 300A 12	X 250A 10	318.5 12.539	X 318.5 12.539	X 267.4 10.528	254.0 10.0	254.0 10.0	50.3 111.0

No. 50 – JIS Concentric Reducer					
Pipe – mm/Inches			E to E mm/Inches	Aprx. Weight Each kg/Lbs.	
Nominal Size	JIS O.D.				
200A 8	X 165 6.5	216.3 8.515	X 165.1 6.500	127.0 5.00	6.8 15.0
250A 10	X 200A 8	267.4 10.528	X 216.3 8.515	152.4 6.00	10.4 23.0
300A 12	X 250A 10	318.5 12.539	X 267.4 10.528	177.8 7.00	18.0 39.0

Couplings and fittings made to U.S. standard sizes are available from 200A - 600A, which are compatible with J.I.S. standards. Contact Victaulic for details

## MATERIAL SPECIFICATIONS

### **Coupling Only:**

**Housing:** Ductile iron conforming to ASTM A-395, grade 65-45-15, and ASTM A-536, grade 65-45-12.

**Housing Coating:** Green enamel paint.

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

#### **Grade "E" EPDM**

EPDM (Green color code). Temperature range -34°C to +110°C (-30°F to +230°F). Recommended 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 +30°C (+86°F)

and hot +82°C (+180°F) potable water service. NOT RECOMMENDED FOR PETROLEUM SERVICES.

#### **Grade "T" nitrile**

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

\*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:** Heat treated carbon steel, zinc electroplated to ASTM B-633 track-head conforming to physical properties of ASTM A-183 minimum tensile 758340 kPa (110,000 PSI).

**Thread Specifications:** (specify choice)

U.S. (silver color)

Metric (gold color)

**Fittings:** Ductile iron conforming to ASTM A-395, grade 65-45-15, and ASTM A-536, grade 65-45-12. Green enamel paint.

## NOTES

The following notes are applicable, except where noted, for Victaulic products when Maximum End Load, Working Pressure, Allowable Pipe End Separation and Deflection from Centerline data are listed.

\* Working Pressure and End Load are total, from all internal and external loads, based on (ANSI) standard weight steel pipe, standard **roll** or **cut** grooved in accordance with Victaulic specifications. Contact Victaulic for performance on other pipe.

WARNING: FOR ONE TIME FIELD TEST ONLY, the Maximum Joint Working Pressure may be increased to 1½ times the figures shown.

† Allowable Pipe End Separation and Deflection figures show the maximum nominal range of movement available at each joint for standard **roll** grooved pipe. Figures for standard **cut** grooved pipe may be doubled. These figures are maximums; for design and installation purposes these figures should be reduced by: 50% for ¾ - 3½" (20 - 90 mm); 25% for 4" (100 mm) and larger.

@ Number of bolts required equals number of housing segments.

# For field installation only. Zero-Flex Style 07 couplings are essentially rigid and do not accommodate expansion/contraction.

‡ Metric thread size bolts (color coded gold) or U.S. thread bolts (color coded silver) are available for all coupling sizes. Specify choice on order.

**WARNING:** Piping systems must always be depressurized and drained before attempting disassembly and removal of any Victaulic piping products.

This product shall be manufactured by Victaulic Company. All products shall 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.