# Stainless Steel Pipe System

FM*

SEE VICTAULIC PUBLICATION 10.01 FOR DETAILS

## PRESSFIT 304™

The Victaulic® Pressfit 304™ System for joining approved Type 304/304L stainless steel pipe provides a fast, easy, clean, reliable means for joining ½"/15 mm, ¾"/20 mm, 1"/25 mm, 1 ½"/40 mm, and 2"/50 mm stainless steel pipe. Pressfit 304 products and Type 304/304L stainless steel pipe are designed for pressure service to 300 psi/2065 kPa or ANSI Class 150 (except steam, according to standard temperature/pressure charts, below) for water, oil, non-combustible gaseous and general chemical services. Refer to o-ring selection data for the intended service. The system requires no flame as with welding; no cutting oil, chips or preparation time as with threading or flanging. Stainless steel pipe is cut to size, inserted into the coupling and the coupling pressed onto the pipe and fitting in seconds.

Victaulic Type 304 stainless steel pipe meets the requirements of ASTM A-312, Grade 304/304L (TP304, UNS designation S30400). **Only approved Pressfit 304 pipe must be used with Pressfit 304 stainless steel products.**

The system meets the hanging requirements of ASME B31.1, B31.3 and B31.9.

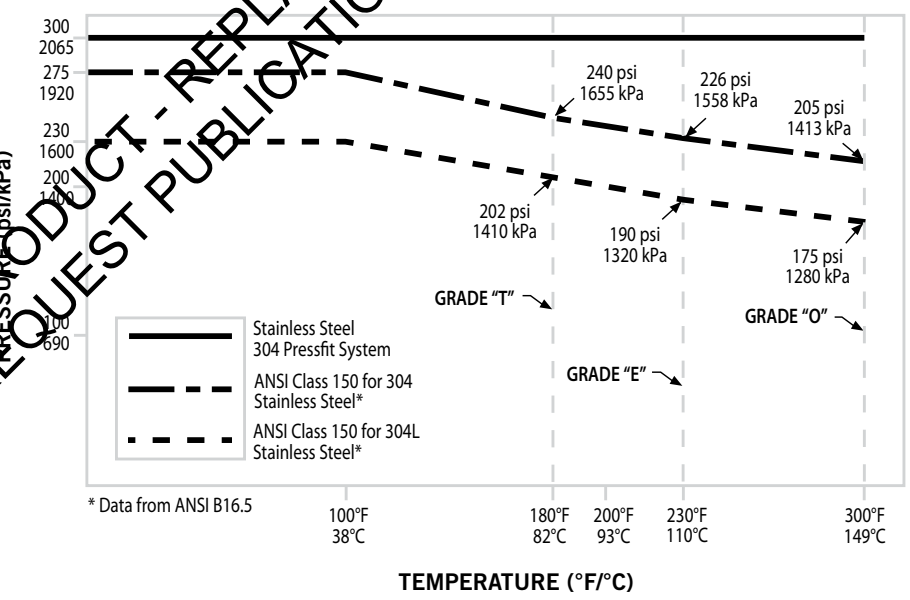
Pressfit 304 couplings, fittings and approved pipe are UL classified in accordance with ANSI/NSF 61 for cold +86°F/+30°C and hot +180°F/+82°C potable water service.

**For product installation instructions, refer to Pressfit Product Assembly Instructions (I-500) and the appropriate Tool Operating and Maintenance Instructions Manual.**

*Style 500 Series Pressfit products are FM Approved as noted below when installed on Victaulic Pressfit 304 Schedule 5 stainless steel pipe only for services up to 175 psi/1205 kPa. See Submittal Publication 18.01 for products Approved for use with Pressfit 316 Schedule 5 stainless steel pipe.



## PERFORMANCE




**JOB/OWNER**

System No. _____

Location _____

**CONTRACTOR**

Submitted By _____

Date _____

**ENGINEER**

Spec Sect _____ Para _____

Approved _____

Date _____

# Stainless Steel Pipe System

**PRESSFIT 304™**

## MATERIAL SPECIFICATIONS

**Housing Body:** Precision cold drawn austenitic stainless steel.

**Threaded Outlets:** Austenitic stainless steel bar conforming to ASTM A-276 or pipe conforming to ASTM A-312.

**Plain End or Grooved End Products:** Austenitic stainless steel pipe conforming to ASTM A-312.

**Flanges for Style 595:** Austenitic stainless steel conforming to ANSI Class 150.

**O-Ring Seals:** (Specify choice on order) O-ring seals shall be molded of synthetic rubber.

- **Grade "E" EPDM**
  EPDM (Green color code). Temperature range –30°F to +230°F/–34°C to +110°C. Recommended for hot water service within the specified temperature range plus a variety of dilute acids, compressed air and many chemical services. Classified in accordance with ANSI/NSF 61 for cold +86°F/+30°C and hot +180°F/+82°C potable water service. NOT RECOMMENDED FOR PETROLEUM SERVICES. NOT RECOMMENDED FOR STEAM SERVICES.

- **Grade "T" nitrile**
  Nitrile (Orange color code). Temperature range –20°F to +180°F/–29°C to +82°C. Recommended for petroleum products, vegetable and mineral oils within the specified temperature range; except hot, dry air over +140°F/+60°C and water over +150°F/+66°C. NOT RECOMMENDED FOR HOT WATER SERVICES.

- **Grade "O" fluoroelastomer**
  Fluoroelastomer (Blue color code). Temperature range +20°F to +300°F/–7°C to +149°C. Recommended for many oxidizing acids, petroleum oils, halogenated hydrocarbons, lubricants, hydraulic fluids, organic liquids and air with hydrocarbons.

* Services listed are General Service Recommendations only. It should be noted that there are services for which these o-rings are not recommended. Reference should always be made to the latest Victaulic Gasket Selection Guide for specific o-ring service recommendations and for a listing of services which are not recommended.



WARNING

**⚠ WARNING**

- **Pressfit 304 products must only be used on services compatible with o-ring and fitting materials.**
- **Incompatible services may result in leakage.**

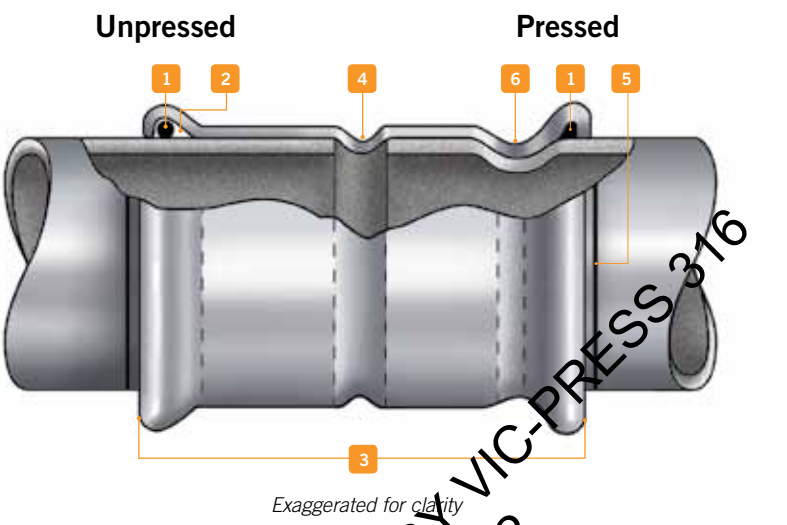
**For services not listed or special services, contact Victaulic for recommendations.**

# Stainless Steel Pipe System

**PRESSFIT 304™**

## PRESSFIT COMPONENTS

1. O-RING
2. O-RING POCKET
3. HOUSING
4. PIPE STOP
5. INSERTION MARK
6. TOOL INDENT



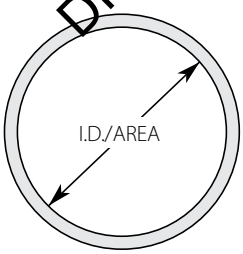

*Exaggerated for clarity*



## FRICTION LOSS

| Size | | Flow Rate | Friction Loss – (psi Per Ft./ kPa/m) C = 120 | | | | |
|---|---|---|---|---|---|---|---|
| | | | | Schedule 10 | | Schedule 40 | |
| Nom. Size Inches mm | Actual Out. Dia. Inches mm | GPM LPM | Sch. 5 | psi/Ft. kPa/m | Higher | psi/Ft. kPa/m | Higher |
| ½ 15 | 0.840 21.3 | 15 56.8 | 0.5000 11.3 | 0.6430 14.6 | 22% | 0.9510 21.5 | 90% |
| ¾ 20 | 1.050 26.7 | 25 94.6 | 0.3713 8.4 | 0.4510 10.2 | 21% | 0.6351 14.4 | 71% |
| 1 25 | 1.315 33.7 | 40 151.4 | 0.2584 5.9 | 0.3773 8.5 | 46% | 0.4691 10.6 | 82% |
| 1½ 40 | 1.900 48.3 | 120 454.2 | 0.2800 6.3 | 0.3592 8.1 | 28% | 0.4445 10.1 | 59% |
| 2 50 | 2.375 60.3 | 150 567.8 | 0.1330 3.0 | 0.1616 3.7 | 22% | 0.1989 4.5 | 50% |

## FLOW AREA




Pressfit 304 stainless steel pipe provides larger flow area and greater capacity frequently permitting pipe downsizing.

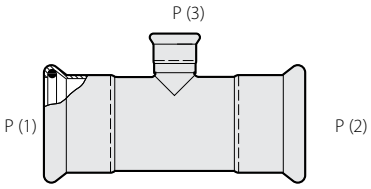
| Size | | Available Flow Area (Sq. Inches/mm2) | | | | |
|---|---|---|---|---|---|---|
| | | | Schedule 10 | | Schedule 40 | |
| Nom. Size Inches mm | Actual Out. Dia. Inches mm | Sch. 5 | Flow Area | Less | Flow Area | Less |
| ½ 15 | 0.840 21.3 | 0.396 255.4 | 0.357 230.3 | 10% | 0.304 196.1 | 23% |
| ¾ 20 | 1.050 26.7 | 0.655 422.5 | 0.614 396.0 | 8% | 0.533 343.8 | 20% |
| 1 25 | 1.315 33.7 | 1.103 711.4 | 0.945 609.5 | 14% | 0.864 557.3 | 22% |
| 1 ½ 40 | 1.900 48.3 | 2.461 1587.3 | 2.222 1433.2 | 10% | 2.036 1313.2 | 17% |
| 2 50 | 2.375 60.3 | 3.960 2554.2 | 3.650 2354.3 | 8% | 3.360 2167.2 | 15% |

# Stainless Steel Pipe System

**PRESSFIT 304™**

## Dimensional Information

Products in the Pressfit 304/316 Systems have unique center-to-end or end-to-end dimensions which incorporate specific, uniform "takeout" dimensions for easy fabrication calculations. Use of threaded products employing special features such as probes, escutcheon cups, etc., should be checked to be certain the thread standard and length of insertion are compatible with fitting dimensions.
Failure to verify dimensional suitability in advance may result in difficulties in assembly

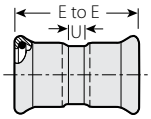



**END TYPE CODE**

P = Pressfit
F = Female Pipe Thread
M = Male Pipe Thread
T = Plain End
L = Flanged
G = Grooved

## Standard Coupling

**STYLE 597** (P × P)



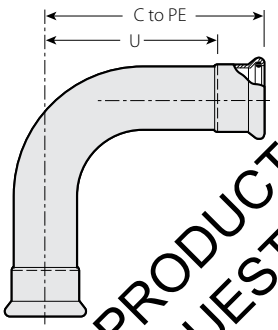

STYLE 597

| Size | | Dimensions – Inches/mm | | Approx. Weight Each |
|---|---|---|---|---|
| Nominal Size Inches mm | Actual Outside Diameter Inches mm | E to E | Takeout | Lbs. kg |
| ½<br>15 | 0.840<br>21.3 | 2.00<br>51 | 0.35<br>9 | 0.1<br>0.1 |
| ¾*<br>20 | 1.050<br>26.7 | [illegible] | 0.28<br>7 | 0.2<br>0.1 |
| 1*<br>25 | 1.315<br>33.7 | 2.44<br>62 | 0.39<br>10 | 0.2<br>0.1 |
| 1 ½*<br>40 | 1.900<br>48.3 | 3.15<br>80 | 0.32<br>8 | 0.5<br>0.2 |
| 2*<br>50 | 2.375<br>60.3 | 3.94<br>100 | 0.33<br>8 | 0.7<br>0.3 |

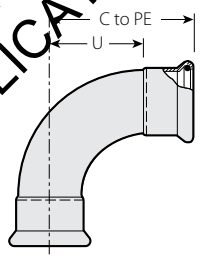
*FM Approved for services up to 175 psi/1205 kPa.

## Elbows

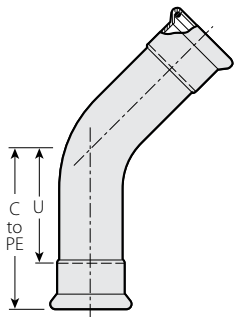
**STYLE 590** 90° Elbow (P × P)
**STYLE 586** Short Tangent 90° Elbow (P × P)
**STYLE 591** 45° Elbow (P × P)




STYLE 590




STYLE 586




STYLE 591

| Size | | Style 590 90° Elbow | | | Style 586 Short Tangent 90° Elbow | | | Style 591 45° Elbow | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Size Inches mm | Actual Outside Diameter Inches mm | C to PE Inches mm | U Takeout Inches mm | Approx. Weight Each Lbs. kg | C to PE Inches mm | U Takeout Inches mm | Approx. Weight Each Lbs. kg | C to PE Inches mm | U Takeout Inches mm | Approx. Weight Each Lbs. kg |
| ½<br>15 | 0.840<br>21.3 | 2.67<br>68 | 1.84<br>47 | 0.3<br>0.1 | — | — | — | 1.65<br>42 | 0.82<br>21 | 0.2<br>0.1 |
| ¾*<br>20 | 1.050<br>26.7 | 3.43<br>87 | 2.48<br>63 | 0.4<br>0.2 | 2.83<br>72 | 1.88<br>48 | 0.3<br>0.2 | 2.44<br>62 | 1.50<br>38 | 0.3<br>0.1 |
| 1*<br>25 | 1.315<br>33.7 | 4.33<br>110 | 3.31<br>84 | 0.6<br>0.3 | 3.36<br>85 | 2.34<br>59 | 0.5<br>0.2 | 3.11<br>79 | 2.09<br>53 | 0.5<br>0.2 |
| 1 ½*<br>40 | 1.900<br>48.3 | 6.73<br>171 | 5.32<br>135 | 1.4<br>0.6 | 4.60<br>117 | 3.19<br>81 | 1.0<br>0.5 | 5.00<br>127 | 3.59<br>91 | 1.3<br>0.6 |
| 2*<br>50 | 2.375<br>60.3 | 8.19<br>208 | 6.38<br>162 | 2.3<br>1.0 | 5.71<br>145 | 3.90<br>99 | 1.5<br>0.7 | 6.02<br>153 | 4.22<br>107 | 2.0<br>0.9 |

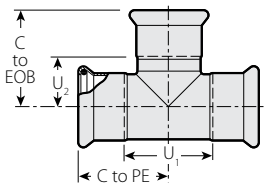
*FM Approved for services up to 175 psi/1205 kPa.

# Stainless Steel Pipe System

**PRESSFIT 304™**

## Tee

**STYLE 592** (P × P × P)



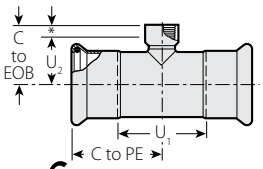

STYLE 592

| Size | | Dimensions – Inches/mm | | | | Approx. Wgt. Each |
|---|---|---|---|---|---|---|
| Nominal Size Inches mm | Actual Outside Dia. Inches mm | C to PE | $U_1$ | C to EOB | $U_2$ | Lbs. kg |
| ½ 15 | 0.840 21.3 | 1.40 36 | 1.04 26 | 1.60 41 | 0.72 18 | 0.2 0.1 |
| ¾* 20 | 1.050 26.7 | 1.89 48 | 1.89 48 | 1.89 48 | 0.95 24 | 0.3 0.1 |
| 1* 25 | 1.315 33.7 | 2.11 54 | 2.17 55 | 2.15 55 | 1.13 29 | 0.4 0.2 |
| 1 ½* 40 | 1.900 48.3 | 2.76 70 | 2.69 68 | 2.80 71 | 1.39 35 | 0.9 0.4 |
| 2* 50 | 2.375 60.3 | 3.39 86 | 3.17 81 | 3.62 92 | 1.81 46 | 1.4 0.6 |

*FM Approved for services up to 175 psi/1205 kPa.

## Tee with Threaded Branch

**STYLE 588** (P × P × F)




STYLE 588

| Size | | | | | Dimensions – Inches/mm | | | | Approx. Wgt. Each |
|---|---|---|---|---|---|---|---|---|---|
| Nominal Size Inches mm | | | | | C to PE | $U_1$ | C to EOB | $U_2$ | Lbs. kg |
| ½ 15 | × | ½ 15 | × | ½ 15 | 1.50 38 | 1.35 34 | 1.50 38 | 0.97 25 | 0.2 0.1 |
| ¾ 20 | × | ¾ 20 | × | ½ 15 | 1.89 48 | 1.89 48 | 1.64 42 | 1.11 28 | 0.3 0.2 |
| | | | | ¾* 20 | 1.89 48 | 1.89 48 | 1.71 43 | 1.16 29 | 0.4 0.2 |
| 1 25 | × | 1 25 | × | ½ 15 | 2.11 54 | 2.17 55 | 1.78 45 | 1.25 32 | 0.4 0.2 |
| | | | | ¾ 20 | 2.11 54 | 2.17 55 | 1.85 47 | 1.30 33 | 0.5 0.2 |
| | | | | 1* 25 | 2.11 54 | 2.17 55 | 2.02 51 | 1.34 34 | 0.6 0.3 |
| 1½* 40 | × | 1½* 40 | × | ½ 15 | 2.76 70 | 2.69 68 | 2.07 53 | 1.54 39 | 0.8 0.4 |
| | | | | ¾* 20 | 2.76 70 | 2.69 68 | 2.14 54 | 1.59 40 | 0.9 0.4 |
| | | | | 1* 25 | 2.76 70 | 2.69 68 | 2.31 59 | 1.63 40 | 0.9 0.4 |
| 2 50 | × | 2 50 | × | ½ 15 | 3.39 86 | 3.16 80 | 2.31 59 | 1.78 45 | 1.2 0.5 |
| | | | | ¾* 20 | 3.39 86 | 3.16 80 | 2.38 60 | 1.83 46 | 1.3 0.6 |
| | | | | 1* 25 | 3.39 86 | 3.16 80 | 2.55 65 | 1.87 48 | 1.3 0.6 |

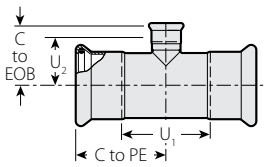
*FM Approved for services up to 175 psi/1205 kPa.

# Stainless Steel Pipe System

**PRESSFIT 304™**

## Tee with Reducing Branch

**STYLE 593** (P × P × P)



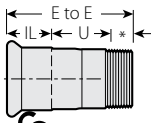

STYLE 593

| Size | | | | | Dimensions – Inches/mm | | | | Approx. Weight Each |
|---|---|---|---|---|---|---|---|---|---|
| Nominal Size Inches mm | | | | | C to PE | $U_1$ | C to EOB | $U_2$ | Lbs. kg |
| ¾ 20 | × | ¾ 20 | × | ½ 15 | 1.90 48 | 1.91 48 | 2.10 53 | 1.27 32 | 0.3 0.1 |
| 1 25 | × | 1 25 | × | ½ 15 | 2.10 53 | 2.15 55 | 2.30 58 | 1.47 37 | 0.3 0.1 |
| | | | | ¾* 20 | 2.11 54 | 2.17 55 | 2.03 52 | 1.09 28 | 0.4 0.2 |
| 1 ½ 40 | × | 1 ½ 40 | × | ½ 15 | 2.76 70 | 2.69 68 | 2.60 66 | 1.77 45 | 0.6 0.3 |
| | | | | ¾* 20 | 2.76 70 | 2.69 68 | 2.32 59 | 1.68 43 | 0.7 0.3 |
| | | | | 1* 25 | 2.76 70 | 2.69 68 | 2.44 62 | 1.42 36 | 0.8 0.4 |
| 2 50 | × | 2 50 | × | ½ 15 | 3.39 86 | 3.17 81 | 2.80 71 | 1.97 50 | 1.2 0.5 |
| | | | | ¾* 20 | 3.39 86 | 3.17 81 | 2.56 65 | 1.62 41 | 1.3 0.6 |
| | | | | 1* 25 | 3.39 86 | 3.17 81 | 2.68 68 | 1.66 42 | 1.1 0.5 |
| | | | | 1 ½* 40 | 3.39 86 | 3.17 81 | 3.03 77 | 1.62 41 | 1.3 0.6 |

*FM Approved for services up to 175 psi/1205 kPa.

## Male Threaded Adapter

**STYLE 596** (P × M)




STYLE 596

| Size | | | Dimensions – Inches/mm | | | Approx. Weight Each |
|---|---|---|---|---|---|---|
| Nominal Size Inches mm | | | E to E | U Thread | IL Insert. Length | Lbs. kg |
| ½ 15 | × | ½ 15 | 3.68 93 | 2.32 59 | 0.83 21 | 0.2 0.1 |
| ¾ 20 | × | ½ 15 | 3.22 82 | 1.75 44 | 0.95 24 | 0.3 0.1 |
| | | ¾* 20 | 3.72 94 | 2.22 56 | 0.95 24 | 0.3 0.1 |
| | | 1* 25 | 3.22 82 | 1.60 41 | 0.95 24 | 0.4 0.2 |
| 1 25 | × | ¾* 20 | 3.34 85 | 1.77 45 | 1.02 26 | 0.4 0.1 |
| | | 1* 25 | 4.02 102 | 2.32 59 | 1.02 26 | 0.4 0.2 |
| 1 ½ 40 | × | ¾* 20 | 3.69 94 | 1.73 44 | 1.42 36 | 0.6 0.3 |
| | | 1 ½* 40 | 4.40 112 | 2.27 58 | 1.42 36 | 0.7 0.3 |
| 2 50 | × | 2* 50 | 5.03 128 | 2.46 62 | 1.81 46 | 1.0 0.5 |

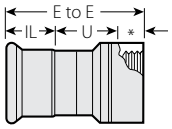
*FM Approved for services up to 175 psi/1205 kPa.

# Stainless Steel Pipe System

**PRESSFIT 304™**

## Female Threaded Adapter

**STYLE 599** (P × F)



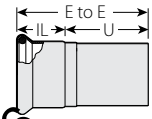

STYLE 599

| Size | | | Dimensions – Inches/mm | | | Approx. Weight Each |
|---|---|---|---|---|---|---|
| Nominal Size Inches mm | | | E to E | U Takeout | IL Insert. Length | Lbs. kg |
| ½ 15 | × | ½ 15 | 2.15 55 | 0.79 20 | 0.83 21 | 0.2 0.1 |
| ¾ 20 | × | ½ 15 | 2.20 56 | 0.71 18 | 0.95 24 | 0.2 0.1 |
| | | ¾* 20 | 2.20 56 | 0.79 20 | 0.95 24 | 0.2 0.1 |
| 1 25 | × | ½ 15 | 2.30 58 | 0.75 19 | 1.02 26 | 0.4 0.2 |
| | | ¾* 20 | 2.30 58 | 0.73 19 | 1.02 26 | 0.3 0.1 |
| | | 1* 25 | 2.40 61 | 0.75 19 | 1.02 26 | 0.4 0.2 |
| 1 ½ 40 | × | 1* 25 | 2.96 75 | 0.92 23 | 1.42 36 | 0.8 0.4 |
| | | 1 ¼* 32 | 2.96 75 | 0.87 22 | 1.42 36 | 0.6 0.3 |
| | | 1 ½* 40 | 2.96 75 | 0.87 22 | 1.42 36 | 0.8 0.4 |
| 2 50 | × | 1 ¼* 32 | 3.75 95 | 1.27 32 | 1.81 46 | 0.9 0.4 |
| | | 1 ½* 40 | 3.75 95 | 1.27 32 | 1.81 46 | 1.1 0.5 |
| | | 2* 50 | 3.75 95 | 1.27 32 | 1.81 46 | 1.0 0.5 |

*FM Approved for services up to 175 psi/1205 kPa.

## Weld Adapter

**STYLE 561** (P × T)

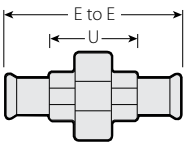



STYLE 561

| Size | | | Dimensions – Inches/mm | | | Approx. Weight Each |
|---|---|---|---|---|---|---|
| Nominal Size Inches mm | | | E to E | U Takeout | IL Insert. Length | Lbs. kg |
| ½ 15 | × | ½ 15 | 3.68 93 | 2.85 72 | 0.83 21 | 0.2 0.1 |
| ¾ 20 | × | ¾ 20 | 3.72 94 | 2.77 70 | 0.95 24 | 0.3 0.1 |
| 1 25 | × | 1 25 | 4.02 102 | 3.00 76 | 1.02 26 | 0.4 0.2 |
| 1 ½ 40 | × | 1 ½ 40 | 4.40 112 | 2.98 76 | 1.42 36 | 0.7 0.3 |
| 2 50 | × | 2 50 | 5.06 128 | 3.22 82 | 1.81 46 | 1.0 0.5 |

## Threaded Union

**STYLE 584** (P × P)




STYLE 584

| Size | | Dimensions – Inches/mm | | Approx. Weight Each |
|---|---|---|---|---|
| Nominal Size Inches mm | Actual Outside Diameter Inches mm | E to E | U Takeout | Lbs. kg |
| ½ 15 | 0.840 21.3 | 7.02 178 | 5.27 134 | 2.80 1.3 |
| ¾* 20 | 1.050 26.7 | 7.14 181 | 5.14 131 | 3.50 1.6 |
| 1* 25 | 1.315 33.7 | 7.26 184 | 5.26 134 | 3.80 1.7 |
| 1 ½* 40 | 1.900 48.3 | 8.44 214 | 5.44 138 | 5.40 2.4 |
| 2* 50 | 2.375 60.3 | 8.38 213 | 4.67 119 | 6.10 2.8 |

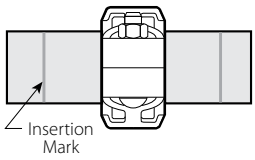
*FM Approved for services up to 175 psi/1205 kPa.

# Stainless Steel Pipe System

**PRESSFIT 304™**

## Grooved End Union

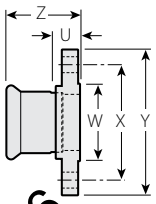
**STYLE 547**
Request Publication 06.02 for Style 77 Flexible Joint
Request Publication 06.04 for Style 07 Rigid Joint
Request Publication 17.03/17.14 for Style 77S/475 Flexible Joints
Request Publication 17.25 for Style 489 Rigid Joints




- Style 547 grooved end union can be formed with two Style 587 transition nipples and a variety of grooved end couplings with varied gaskets to meet service requirements
- Standard ductile iron couplings request Style 77 for flexible joints or Style 07 for rigid joints
- Where external corrosion is a concern request Style 77S/475 for flexible joints or Style 489 for rigid joints

## Flange Adapter

**STYLE 595** (P × L)



STYLE 595

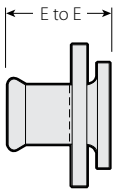
| Size | | Dimensions – Inches/mm | | | | | Approx. Weight Each |
|---|---|---|---|---|---|---|---|
| Nominal Size Inches mm | Actual Out. Dia. Inches mm | U Takeout | W | X | Y | Z | Lbs. kg |
| ½<br>15 | 0.840<br>21.3 | 2.39<br>61 | 1.38<br>35 | 2.38<br>60 | 3.50<br>89 | 3.22<br>82 | 2.3<br>1.1 |
| ¾*<br>20 | 1.050<br>26.7 | 2.27<br>58 | 1.69<br>43 | 2.75<br>70 | 3.88<br>99 | 3.22<br>82 | 1.7<br>0.8 |
| 1*<br>25 | 1.315<br>33.7 | 2.27<br>58 | 2.00<br>51 | 3.12<br>79 | 4.25<br>108 | 3.29<br>84 | 2.2<br>1.0 |
| 1 ½*<br>40 | 1.900<br>48.3 | 2.07<br>53 | 2.88<br>73 | 3.88<br>99 | 5.00<br>127 | 3.48<br>88 | 3.6<br>1.6 |
| 2*<br>50 | 2.375<br>60.3 | 1.80<br>46 | 3.62<br>92 | 4.75<br>121 | 6.00<br>152 | 3.60<br>92 | 5.4<br>2.4 |

*FM Approved for services up to 175 psi/1205 kPa.



## Van Stone Flange Adapter

**STYLE 565** (P × L)



STYLE 565

| Size | | Dimensions | Approx. Weight Each |
|---|---|---|---|
| Nominal Size Inches mm | Actual Outside Diameter Inches mm | E to E Inches mm | Lbs. kg |
| ½<br>15 | 0.840<br>21.3 | 3.12<br>79 | 3.00<br>1.4 |
| ¾*<br>20 | 1.050<br>26.7 | 3.17<br>81 | 3.30<br>1.5 |
| 1*<br>25 | 1.315<br>33.7 | 3.28<br>83 | 3.60<br>1.6 |
| 1 ½*<br>40 | 1.900<br>48.3 | 3.64<br>93 | 5.00<br>2.3 |
| 2*<br>50 | 2.375<br>60.3 | 4.73<br>120 | 5.90<br>2.7 |

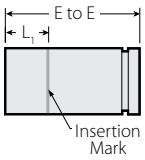
*FM Approved for services up to 175 psi/1205 kPa.

# Stainless Steel Pipe System

**PRESSFIT 304™**

## Transition Nipple

**STYLE 587** (G × T)



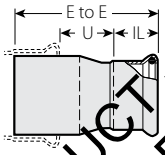

STYLE 587

| Size | | Dimensions – Inches/mm | | Approx. Weight Each |
|---|---|---|---|---|
| Nominal Size Inches mm | Actual Outside Diameter Inches mm | E to E | $L_1$ Minimum | Lbs. kg |
| ¾* 20 | 1.050 26.7 | 4.00 102 | 1.00 25 | 0.2 0.1 |
| 1* 25 | 1.315 33.7 | 4.00 102 | 1.00 25 | 0.3 0.1 |
| 1 ½* 40 | 1.900 48.3 | 4.00 102 | 1.50 38 | 0.4 0.2 |
| 2* 50 | 2.375 60.3 | 4.00 102 | 1.88 48 | 0.5 0.2 |

*FM Approved for services up to 175 psi/1205 kPa.

## Reducer Insert

**STYLE 582** (T × P)



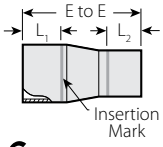

STYLE 582

| Size | | | Dimensions – Inches/mm | | | Approx. Weight Each |
|---|---|---|---|---|---|---|
| Nominal Size Inches mm | | | E to E | U Takeout | IL Insertion Inches | Lbs. kg |
| 1 25 | × | ¾* 20 | 2.95 75 | 0.98 25 | 0.95 24 | 0.2 0.1 |
| 2 50 | × | 1 ½* 40 | 4.33 110 | 1.11 28 | 1.42 36 | 0.6 0.3 |

*FM Approved for services up to 175 psi/1205 kPa.

## Concentric Reducer

**STYLE 594** (T × T)




STYLE 594

| Size | | | Dimensions – Inches/mm | | | Approx. Weight Each |
|---|---|---|---|---|---|---|
| Nominal Size Inches mm | | | E to E | [illegible] Minimum | $L_2$ Minimum | Lbs. kg |
| ¾ 20 | × | ½ 15 | 3.50 89 | 1.00 25 | 0.88 22 | 0.2 0.1 |
| 1 25 | × | ½ 15 | 3.56 90 | 1.03 26 | 0.88 22 | 0.2 0.1 |
| | | ¾* 20 | 3.56 90 | 1.03 26 | 1.00 25 | 0.2 0.1 |
| 1 ½ 40 | × | ½ 15 | 4.25 108 | 1.44 37 | 0.88 22 | 0.3 0.1 |
| | | ¾* 20 | 4.25 108 | 1.44 37 | 1.00 25 | 0.4 0.2 |
| | | 1* 25 | 4.25 108 | 1.44 37 | 1.03 26 | 0.4 0.2 |
| | | 1 ¼* 32 | 4.25 108 | 1.44 37 | 1.25 32 | 0.4 0.2 |
| 2 50 | × | ½ 15 | 5.00 127 | 1.81 46 | 0.88 22 | 0.6 0.3 |
| | | ¾* 20 | 5.00 127 | 1.81 46 | 1.00 25 | 0.6 0.3 |
| | | 1* 25 | 5.00 127 | 1.81 46 | 1.03 26 | 0.6 0.3 |
| | | 1 ½* 40 | 5.00 127 | 1.81 46 | 1.44 37 | 0.7 0.3 |

*FM Approved for services up to 175 psi/1205 kPa.

# Stainless Steel Pipe System

**PRESSFIT 304™**

## Pressfit 304™ Brass Body Ball Valve with Stainless Steel Pressfit Ends

**SERIES 589** (P × P)

Series 589 Ball Valve is a standard port valve with Pressfit ends for fast, easy installation. The valve, with Pressfit ends is designed for service to 300 psi/2065 kPa.

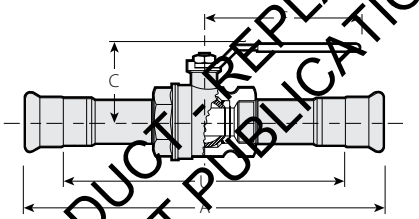
The valve body is constructed from forged brass. The ball is chrome plated brass and seals on TFE seats. A hollow ball design eliminates unnecessary weight while maintaining flow and mechanical strength. TFE seats and washers reduce the friction coefficient which eases valve operation.

The valve with Pressfit ends is designed for service to 300 psi/2065 kPa.

The Pressfit ends are of austenitic stainless steel.

| Size | | Dimensions | | | | Approx. Weight Each | Flow Coefficient@ (Fully Open) $C_V$ Values $K_V$ Values |
|---|---|---|---|---|---|---|---|
| Nominal Size Inches mm | Actual Outside Diameter Inches/mm | A End to End Inches mm | C Inches mm | F Inches mm | U Take-out Inches mm | Lbs. kg | |
| ½<br>15 | 0.840<br>21.3 | 8.49<br>216 | 1.33<br>34 | 3.07<br>78 | 6.84<br>174 | 0.9<br>0.4 | 10<br>8.7 |
| ¾<br>20 | 1.050<br>26.7 | 8.88<br>226 | 1.79<br>46 | 3.78<br>96 | 6.99<br>178 | 1.3<br>0.6 | 25<br>21.6 |
| 1<br>25 | 1.315<br>33.7 | 9.74<br>247 | 1.95<br>50 | 3.78<br>96 | 7.69<br>195 | 1.8<br>0.8 | 37<br>32.0 |
| 1 ½<br>40 | 1.900<br>48.3 | 11.09<br>282 | 2.68<br>68 | 5.43<br>138 | 8.26<br>210 | 3.4<br>1.5 | 87<br>75.3 |
| 2<br>50 | 2.375<br>60.3 | 12.90<br>328 | 2.85<br>72 | 5.43<br>138 | 9.29<br>236 | 4.4<br>2.0 | 110<br>95.2 |

@ $C_V/K_V$ values for flow of water at +60°F/+16°C with valve fully open.



# Stainless Steel Pipe System

**PRESSFIT 304™**

## SERIES 589 MATERIAL SPECIFICATIONS

**Valve Body:** Forged Brass ASTM B-16

**Ball:** Brass ASTM B-16, chrome plated

**Stem:** Brass ASTM B-16, chrome plated

**Seats:** (TFE) Tetrafluoroethylene, rated to +450°F/+232°C.

**Handle:** Carbon steel, zinc plated

**Stem Nut:** Carbon steel, zinc plated

**Stem Washer:** (TFE) Tetrafluoroethylene

**O-ring:** Fluoroelastomer

**Pressfit Ends:** Precision cold drawn austenitic stainless steel.

**O-ring Seals:** (specify choice*) O-ring seals shall be molded of synthetic rubber.

- **Grade "E" EPDM**
  EPDM (Green color code). Temperature range –60°F to +230°F/–34°C to +110°C. Recommended for cold and hot water services within the specified temperature range plus a variety of dilute acids, oil-free air and many chemical services. NOT RECOMMENDED FOR PETROLEUM SERVICES.
- **Grade "T" nitrile**
  Nitrile (Orange color code). Temperature range –20°F to +180°F/–29°C to +82°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°F/+66°C or for hot dry air over +110°F/+60°C.
- **Optional: Grade "O" fluoroelastomer**
  Fluoroelastomer (Blue color code). Temperature range +20°F to +300°F/–7°C to +149°C. Recommended for many oxidizing acids, petroleum oils, halogenated hydrocarbons, lubricants, hydraulic fluids, organic liquids and air with hydrocarbons within the specified temperature range.

* 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.



WARNING

**⚠ WARNING**

- **Pressfit 304 products must only be used on services compatible with o-ring and fitting materials.**
- **Incompatible services may result in leakage.**

**For services not listed or special services, contact Victaulic for recommendations.**

# Stainless Steel Pipe System

**PRESSFIT 304™**

## Pressfit 316™ Type 316 Stainless Steel Ball Valve

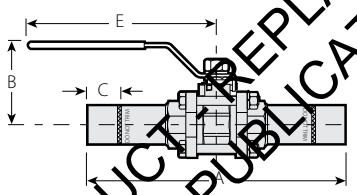
**SERIES 569**

Series 569 Pressfit System Ball Valves feature full stainless steel body and trim, rated for service up to 300 psi/2065 kPa with Pressfit ends and up to 400 psi/2750 kPa with grooved ends, depending upon the joining coupling.

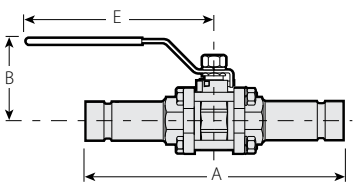
The valves are constructed of rugged Type 316 (CF8M) stainless steel with PTFE seats. The valves feature a blow-out proof stem and self-adjusting floating ball which provides uniform sealing. The full port design minimizes pressure drop for maximum flow efficiency. The three-piece swing-out design permits easy in-line maintenance.

| Size | | Dimensions – Inches/mm | | | | Approx. Weight Each |
|---|---|---|---|---|---|---|
| Nominal Size Inches mm | Actual Outside Diameter Inches mm | A End to End | B | C | E | Lbs. kg |
| ½* 15 | 0.840 21.3 | 7.98 200.0 | 2.36 59.9 | 0.88 22.4 | 5.12 130.0 | 1.5 0.7 |
| ¾ 20 | 1.050 26.7 | 8.57 217.2 | 2.52 64.0 | 1.00 25.4 | 5.12 130.0 | 2.4 1.1 |
| 1 25 | 1.315 33.7 | 8.89 225.8 | 2.80 71.1 | 1.00 25.4 | 6.50 165.1 | 3.6 1.6 |
| 1 ½ 40 | 1.900 48.3 | 11.20 284.5 | 3.39 86.1 | 1.50 38.1 | 7.48 190.0 | 6.9 3.1 |
| 2 50 | 2.375 60.3 | 12.52 318.0 | 3.74 95.0 | 1.88 47.8 | 7.48 190.0 | 9.5 4.3 |

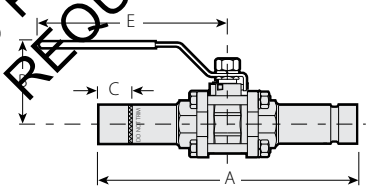
For dimensions and weights with gear operator contact Victaulic.
*½"/15 mm only available in plain end x plain end (P x T).




PLAIN END X PLAIN END




GROOVED X GROOVED




PLAIN END X GROOVED

# Stainless Steel Pipe System

**PRESSFIT 304™**

## SERIES 569 MATERIAL SPECIFICATIONS

**Body:** Stainless steel, CF8M

**Ball:** Stainless steel, CF8M

**Stem:** Stainless steel, Type 316

**Seats:** (PTFE) Polytetrafluoroethylene

**Handle:** Stainless steel, Type 304

**Stem Nut:** Stainless steel, Type 304

**Stem Washer:** Stainless steel, Type 304

**Stem Packing and Thrust Washer:** Tetrafluoroethylene

**Bolt/Nut/Washer:** Stainless steel, Type 304

**Cap:** Stainless steel, CF8M

**Extended Ends:** Schedule 5S Stainless steel, Type 316

**Specify end style:**

- Plain End for Pressfit (T x T)
- Grooved End (G x G)
- Plain End x Grooved End (T x G)



## WARNING

**⚠ WARNING**

- **Pressfit 304 products must only be used on services compatible with o-ring and fitting materials.**
- **Incompatible services may result in leakage.**

**For services not listed or special services, contact Victaulic for recommendations.**

# Stainless Steel Pipe System

**PRESSFIT 304™**

## APPROVED PIPE

For Type 304/304L stainless steel Schedule 5S pipe approved for use with the Victaulic Pressfit 304 System, contact Victaulic or your nearest Pressfit 304 Stainless Steel distributor.

Approved pipe meets the requirements of ASTM A-312, Grade 304/304L and carries the label, **"Pressfit 304™ Pipe Certified for use with Pressfit 304 Products".**

The Pressfit 304 System requires no special preparation of the pipe ends before assembly. Pipe should be square cut (±0.030") and deburred, if required, to prevent damage to the o-ring during assembly.

Pressfit 304 System products are designed only for use on approved Pressfit 304 stainless steel pipe.

**For product installation instructions, refer to Pressfit Product Assembly Instructions (I-500) and the appropriate Tool Operating and Maintenance Instructions Manual.**

| *Pipe – Inches/mm | | | Aprx. Pipe* Weight Per Ft. |
|---|---|---|---|
| Nominal Size | Actual Outside Dia. | Wall Thickness | Lbs kg |
| ½ 15 | 0.840 21.3 | 0.065 1.7 | 0.6 0.3 |
| ¾ 20 | 1.050 26.7 | 0.065 1.7 | 0.7 0.3 |
| 1 25 | 1.315 33.7 | 0.065 1.7 | 0.9 0.4 |
| 1 ½ 40 | 1.900 48.3 | 0.065 1.7 | 1.3 0.6 |
| 2 50 | 2.375 60.3 | 0.065 1.7 | 1.6 0.7 |

*Pipe is supplied in random full lengths (RML) (17 – 24 ft.) which nominally measure 21 ft. Order quantities will be accepted only in 21 ft. random length increments, subject to industry standard ±10% tolerance. Minimum footage requirements must be specified on the order when required.



## WARNING

**WARNING**

**It is the responsibility of designers of piping systems to verify the suitability of Schedule 5S, Type 304 stainless steel pipe for use with the intended fluid media. The fluid's chemical composition, pH level, operating temperature, chloride level, oxygen level and flow rate and their effect on AISI Type 304 stainless steel must be evaluated by the material specifier to confirm system life will be adequate for the intended service.**

**Failure to do so may cause serious personal injury or property damage.**

# Stainless Steel Pipe System

**PRESSFIT 304™**

## PIPE SUPPORT

Piping joined with Pressfit 304 System products, like all other piping systems, requires support to carry the weight of pipes and equipment. As for other methods of joining pipes, the support or hanging method must be such as to eliminate undue stresses on joints, piping and other components. Additionally, the method of support must be such as to allow movement of the pipes where required and to provide drainage, etc., as may be specified by the designer.

The maximum hanger spacing corresponds to ASME B31.1, B31.3 or B31.9 as noted, and should be used in conjunction with Victaulic Pressfit 304 System products on approved Type 304/304L stainless steel pipe.

| Pipe Size | | Suggested Max. Span Between Supports - Feet/meters | | | | | |
|---|---|---|---|---|---|---|---|
| Nominal Size Inches mm | Actual Out. Dia. Inches mm | Water Service | | | Gas/Air Service | | |
| | | B31.1 | B31.3 | B31.9 | B31.1 | B31.3 | B31.9 |
| ½ 15 | 0.840 21.3 | 6 1.8 | 6 1.8 | 7 2.1 | 8 2.4 | 8 2.4 | 7 2.1 |
| ¾ 20 | 1.050 26.7 | 7 2.1 | 7 2.1 | 8 2.4 | 9 2.7 | 9 2.7 | 8 2.4 |
| 1 25 | 1.315 33.7 | 7 2.1 | 7 2.1 | 9 2.7 | 9 2.7 | 9 2.7 | 9 2.7 |
| 1 ½ 40 | 1.900 48.3 | 7 2.1 | 7 2.1 | 9 2.7 | 9 2.7 | 9 2.7 | 13 4.0 |
| 2 50 | 2.375 60.3 | 10 3.1 | 10 3.1 | 13 4.0 | 13 4.0 | 13 4.0 | 15 4.6 |



## Pressfit Tools

PFT505

### PFT505

- The Pressfit System requires a Pressfit tool designed for securing Pressfit products onto pipe
- Jaws are available separately for rental (with rental tool) or purchase
- Pressfit tool is designed for industrial and trade use only

**Capacity:** ½ – 2"/15 – 50 mm IPS Schedule 5 steel and stainless steel pipe

**Power Requirements:** 110 volt, 60 cycle, 6.5 amp

**Accessories:** Pressing jaws in ½"/15 mm, ¾"/20 mm, 1"/25 mm, 1 ½"/40 mm and 2"/50 mm sizes

**Note:** PFT505 and PFT509 components are not interchangeable

PFT509

### PFT509

- The Pressfit System requires a Pressfit tool designed for securing Pressfit products onto pipe
- Tool packages include the actual pressing tool, two (2) batteries and a charger, carrying case, and ½"/15mm, ¾"/20mm, 1"/25mm, and 1 ½"/40mm press jaws
- Jaws are available separately for purchase (as needed for replacements)
- Pressfit tool is designed for industrial and trade use only
- Pressfit tool is battery powered and requires a 12V battery charger

**Capacity:** ½ – 1" and 1 ½"/15 – 25 mm and 40 mm IPS Schedule 5 steel and stainless steel pipe

**Power Requirements:** 110 volt/60 cycle/6.5 amp

**Note:** PFT505 and PFT509 components are not interchangeable

# Stainless Steel Pipe System

**PRESSFIT 304™**

**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.