

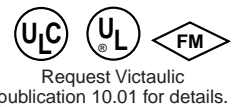
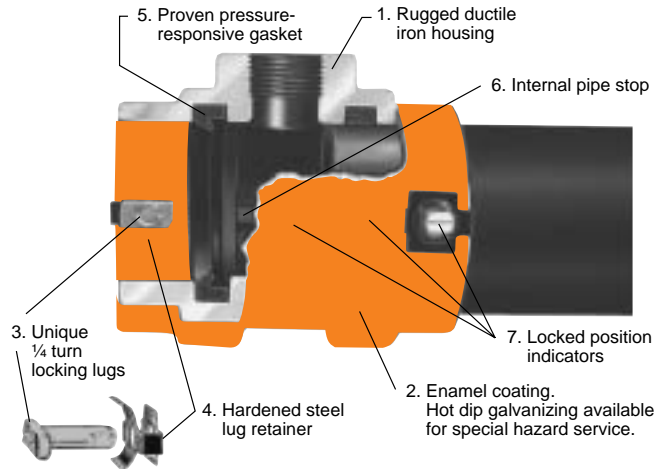
# FIT<sup>®</sup> Piping System

## PRODUCT DESCRIPTION

The FIT<sup>®</sup> (Fast Installation Technique) line of products is designed specifically to join plain end steel pipe without threading or welding (pipe ends must be properly cleaned). The unique locking lug secures pipe to the FIT fittings with just a quarter-turn. Gaskets, located in both ends of the fittings, seal as the pipe is inserted past them and sealing is enhanced by pressure in the line. Silicone gaskets are recommended for fire protection dry systems, all systems operating below 0°F (-18°C). Refer to page 2 for details.

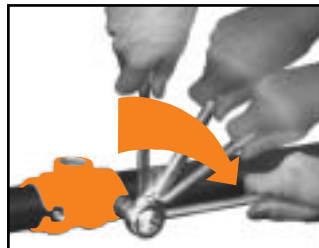
Internal pipe stops provide a uniform take-out dimension. Marking of the pipe indicates correct insertion of the pipe to the stop. Visual locking indicator cast into the housing corresponds to lug markings for visual verification of the lug locked position.

FIT products are UL, ULC and FM rated for 175 psi (1200 kPa) working pressure on Schedule 10/40 steel pipe. They are approved and listed for above ground fire protection systems, automatic sprinkler, open sprinkler and standpipe both wet and dry systems. Hot dip galvanized housings are available and recommended for special hazards, exposed locations and corrosive environments.



### Joins plain end steel pipe

No threading, welding or grooving • Just clean pipe ends, mark pipe, lubricate and assemble



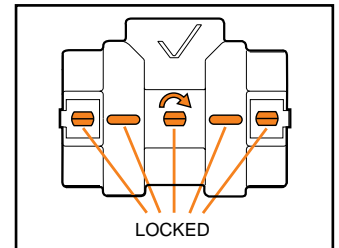
### Fast 1/4-turn assembly

Single handle tool assembly • Joins pipe in tight locations



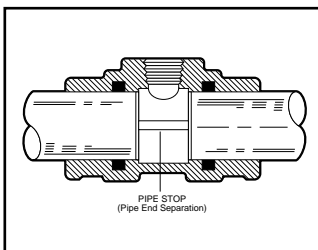
### Positive locking lug engagement

Lug cams on housing forcing teeth to engage pipe wall • Hardened steel teeth bite into pipe



### Visual locking lug indicators

Permits easy visual verification of lug orientation • Alignment indicators on lugs should coincide with those on housing



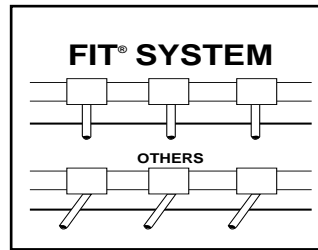
### Uniform take-out dimension

Pipe end separation uniformly spaced by internal pipe stop • Easier pipe fabrication • Assurance of consistent dimensions



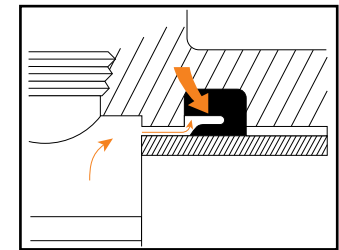
### Allows rotation before locking

Side locking lug design permits easy alignment before locking • Permits repositioning and relocking



### Rigid positioning

No line growth under pressure • Uniform drop nipple, sprig or branch location maintained



### Proven pressure responsive gasket

Gasket seal is enhanced by internal pressure • Gasket concept similar to grooved coupling gasket

VICTAULIC<sup>®</sup> IS AN ISO 9001 CERTIFIED COMPANY

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## GASKET SELECTION

FIT products are available for many piping applications including compressed air, plant cooling water, welder water, chilled water, machine service piping, machine oil piping and solvent lines. Note: Since FIT products are fittings and not couplings, the interior is not fully rubber lined. Therefore, any applications involving substances corrosive to ductile iron, but not corrosive to a coupling gasket, may result in a premature system malfunction. For services not listed or special

services, contact Victaulic for recommendations.

Note: Always lubricate exposed gasket sealing lip to assure proper seating.

Use Victaulic lubricant. Other compatible materials such as silicone and others may be used.

Always specify the proper grade to assure maximum gasket life for the service recommended.

### Standard FIT Gaskets

| Grade | Temp. Range                    | Compound | Color Code   | *General Service Recommendations   |
|-------|--------------------------------|----------|--------------|--|
| E     | 0°F (-18°C) to +230°F (+110°C) | EPDM     | Green Stripe | Recommended for water service within the specified temperature range plus a variety of dilute acids, oil-free air and many chemical services. <i>Not recommended for petroleum services.</i> |

### Special FIT Gaskets

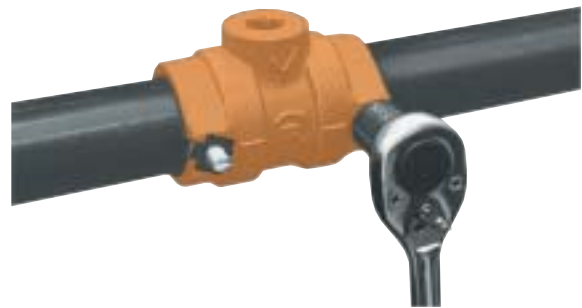
| Grade | Temp. Range                      | Compound | Color Code    | *General Service Recommendations  |
|-------|----------------------------------|----------|---------------|---|
| L     | -30°F (-34°C) to +350°F (+177°C) | Silicone | Red Gasket    | *FIT Products silicone gaskets are recommended for fire protection dry systems, all systems operating below 0°F plus dry heat, air without hydrocarbons, certain chemical services and water to +160°F (+71°C).                       |
| T     | -0°F (-18°C) to +180°F (+82°C)   | Nitrile  | Orange Stripe | Recommended for petroleum products, air with oil vapors, vegetable and mineral oils within the specified temperature range. <i>Not recommended for hot water services over +150°F (+66°C) or for hot dry air over +140°F (+60°C).</i> |

\*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.

## FIT SOCKET

A specially designed socket is available to speed and ease assembly of FIT products. FIT Socket is sized specially for FIT locking lugs. It fits any standard ½" (13 mm) drive socket wrench or breaker bar. Side fins on the socket indicate lug orientation for proper assembly.

FIT Socket is recommended for assembly of FIT products. The steel socket is case hardened for durability. The lug opening is recessed for easy lug entry. Use with a standard socket wrench permits tightening FIT lugs from varied angles or positions.



## PRODUCT DESCRIPTION

The FIT (Fast Installation Technique) line of products is designed to join plain end steel pipe without threading or welding. Pipe must be properly cleaned 1" (33,7 mm) from end to accept FIT products. Unique locking lug secures pipe to FIT fittings with just a quarter turn. Pressure responsive gaskets are located in both ends of the fittings (depending on style configuration). The gaskets seal as the pipe is inserted past them and sealing is

enhanced when the line is pressurized.

Internal pipe stops position the pipe correctly for proper sealing. When using the Victaulic PCT-II pipe cleaning tool, the pipe is cleaned, deburred and marked to indicate correct insertion of the pipe to the stop. Visual locking indicators cast into the housing correspond to lug markings for visual verification of the lug locked position. FIT products are UL, ULC, and FM rated for 175 psi (1200

kPa) working pressure on Schedule 10 through 40 and many specialty light wall steel pipes. FIT products are Approved and Listed for above ground fire protection systems, automatic sprinkler, open sprinkler, standpipe, and both wet and dry systems. Optional Grade "L" (silicone) gasket is recommended for dry pipe systems. Grade "T" (nitrile) gasket is available for compressed air, plant cooling water, welder water, chilled water,

machine service piping, machine oil piping and solvent lines.

FIT products are not fully rubber lined. Therefore services which are corrosive to ductile iron are **NOT** recommended for FIT products.

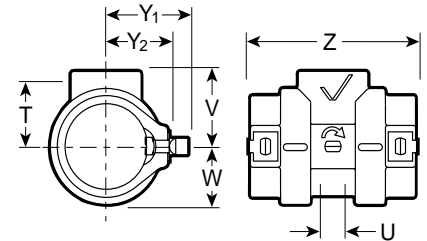
UL Listed and FM Approved in sizes 1 - 2" (33,7 - 60,3 mm) on many specialty pipes (refer to Section 10.01).

## DIMENSIONS

FIT Reducing Tee  
Style 96



Patented

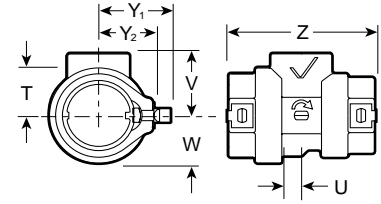


| Nominal Size*<br>Inches<br>mm | Max. Work. Press. †<br>PSI<br>kPa | Dimensions – Inches/millimeters |             |            |            |                |                |             | Approx. Wgt. Each Lbs.<br>kg |
|-------------------------------|-----------------------------------|---------------------------------|-------------|------------|------------|----------------|----------------|-------------|------------------------------|
|                               |                                   | Branch Takeout T **             | Takeout U # | V ‡        | W          | Y <sub>1</sub> | Y <sub>2</sub> | Z           |                              |
| 1 X ½<br>33,7 X 21,3          | 175<br>1200                       | 1.00<br>25                      | 1.06<br>27  | 1.50<br>38 | 1.06<br>27 | 1.88<br>48     | 1.25<br>32     | 4.13<br>105 | 2.0<br>0,9                   |
| X ¾<br>X 26,9                 | 175<br>1200                       | 0.94<br>24                      | 1.06<br>27  | 1.50<br>38 | 1.06<br>27 | 1.88<br>48     | 1.25<br>32     | 4.13<br>105 | 2.0<br>0,9                   |
| X 1<br>X 33,7                 | 175<br>1200                       | 0.81<br>21                      | 1.06<br>27  | 1.50<br>38 | 1.06<br>27 | 1.88<br>48     | 1.25<br>32     | 4.13<br>105 | 2.0<br>0,9                   |
| 1¼ X ½<br>42,4 X 21,3         | 175<br>1200                       | 1.19<br>30                      | 1.06<br>27  | 1.69<br>43 | 1.22<br>31 | 2.03<br>52     | 1.41<br>36     | 4.13<br>105 | 2.3<br>1,0                   |
| X ¾<br>X 26,9                 | 175<br>1200                       | 1.13<br>29                      | 1.06<br>27  | 1.69<br>43 | 1.22<br>31 | 2.03<br>52     | 1.41<br>36     | 4.13<br>105 | 2.1<br>1,0                   |
| X 1<br>X 33,7                 | 175<br>1200                       | 1.00<br>25                      | 1.06<br>27  | 1.69<br>43 | 1.22<br>31 | 2.03<br>52     | 1.41<br>36     | 4.13<br>105 | 2.1<br>1,0                   |
| 1½ X ½<br>48,3 X 21,3         | 175<br>1200                       | 1.31<br>33                      | 1.06<br>27  | 1.81<br>46 | 1.38<br>35 | 2.16<br>55     | 1.53<br>39     | 4.13<br>105 | 2.7<br>1,2                   |
| X ¾<br>X 26,9                 | 175<br>1200                       | 1.25<br>32                      | 1.06<br>27  | 1.81<br>46 | 1.38<br>35 | 2.16<br>55     | 1.53<br>39     | 4.13<br>105 | 2.5<br>1,1                   |
| X 1<br>X 33,7                 | 175<br>1200                       | 1.13<br>29                      | 1.06<br>27  | 1.81<br>46 | 1.38<br>35 | 2.16<br>55     | 1.53<br>39     | 4.13<br>105 | 3.0<br>1,4                   |
| 2 X ½<br>60,3 X 21,3          | 175<br>1200                       | 1.56<br>40                      | 1.06<br>27  | 2.06<br>52 | 1.63<br>41 | 2.38<br>60     | 1.75<br>44     | 4.13<br>105 | 3.3<br>1,5                   |
| X ¾<br>X 26,9                 | 175<br>1200                       | 1.50<br>38                      | 1.06<br>27  | 2.06<br>52 | 1.63<br>41 | 2.38<br>60     | 1.75<br>44     | 4.13<br>105 | 3.1<br>1,4                   |
| X 1<br>X 33,7                 | 175<br>1200                       | 1.38<br>35                      | 1.06<br>27  | 2.06<br>52 | 1.63<br>41 | 2.38<br>60     | 1.75<br>44     | 4.13<br>105 | 3.3<br>1,5                   |

\*, \*\*, †, #, ‡, †, Refer to notes on page 8.

# DIMENSIONS

## FIT Reducing Run and Outlet Tee Style 969

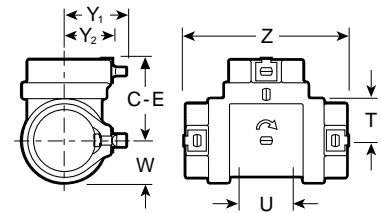


| Nominal Size*<br>Run X Run X Outlet<br>Inches/mm | Max. Work. Press. †<br>PSI<br>kPa | Dimensions – Inches/millimeters |                |      |      |                  |                  |      | Approx. Wgt. Each<br>Lbs./kg |
|--|-----------------------------------|---------------------------------|----------------|------|------|------------------|------------------|------|------------------------------|
|  |                                   | Branch Takeout<br>T **          | Takeout<br>U # | V ‡  | W    | Y <sub>1</sub> @ | Y <sub>2</sub> @ | Z    |                              |
| 1¼ X 1 X ½<br>42,4 X 33,7 X 21,3                 | 175                               | 1.19                            | 1.06           | 1.69 | 1.24 | 2.03             | 1.41             | 4.13 | 2.4                          |
|  | 1200                              | 30                              | 27             | 43   | 31   | 52               | 36               | 105  | 1,1                          |
|  | 175                               | 1.13                            | 1.06           | 1.69 | 1.24 | 2.03             | 1.41             | 4.13 | 2.4                          |
|  | 1200                              | 29                              | 27             | 43   | 31   | 52               | 36               | 105  | 1,1                          |
| 1 X ¾ X ½<br>26,9 X 21,3                         | 175                               | 1.00                            | 1.06           | 1.69 | 1.24 | 2.03             | 1.41             | 4.13 | 2.4                          |
|  | 1200                              | 25                              | 27             | 43   | 31   | 52               | 36               | 105  | 1,1                          |
|  | 175                               | 1.31                            | 1.06           | 1.81 | 1.38 | 2.16             | 1.53             | 4.13 | 2.6                          |
|  | 1200                              | 33                              | 27             | 46   | 35   | 55               | 39               | 105  | 1,2                          |
| 1½ X 1¼ X ½<br>48,3 X 42,4 X 21,3                | 175                               | 1.25                            | 1.06           | 1.81 | 1.38 | 2.16             | 1.53             | 4.13 | 2.6                          |
|  | 1200                              | 32                              | 27             | 46   | 35   | 55               | 39               | 105  | 1,2                          |
|  | 175                               | 1.13                            | 1.06           | 1.81 | 1.38 | 2.16             | 1.53             | 4.13 | 2.6                          |
|  | 1200                              | 29                              | 27             | 46   | 35   | 55               | 39               | 105  | 1,2                          |
| 2 X 1½ X ½<br>60,3 X 48,3 X 21,3                 | 175                               | 1.56                            | 1.06           | 2.06 | 1.63 | 2.38             | 1.75             | 4.13 | 3.1                          |
|  | 1200                              | 40                              | 27             | 52   | 41   | 60               | 44               | 105  | 1,4                          |
|  | 175                               | 1.50                            | 1.06           | 2.06 | 1.63 | 2.38             | 1.75             | 4.13 | 3.1                          |
|  | 1200                              | 38                              | 27             | 52   | 41   | 60               | 44               | 105  | 1,4                          |
| 2 X 1 X ¾<br>60,3 X 26,9                         | 175                               | 1.38                            | 1.06           | 2.06 | 1.63 | 2.38             | 1.75             | 4.13 | 3.1                          |
|  | 1200                              | 35                              | 27             | 52   | 41   | 60               | 44               | 105  | 1,4                          |
|  | 175                               | 1.38                            | 1.06           | 2.06 | 1.63 | 2.38             | 1.75             | 4.13 | 3.1                          |
| 1 X ¾ X ½<br>26,9 X 21,3                         | 175                               | 1.38                            | 1.06           | 2.06 | 1.63 | 2.38             | 1.75             | 4.13 | 3.1                          |
|  | 1200                              | 35                              | 27             | 52   | 41   | 60               | 44               | 105  | 1,4                          |
|  | 175                               | 1.38                            | 1.06           | 2.06 | 1.63 | 2.38             | 1.75             | 4.13 | 3.1                          |
| 1 X ¾ X ½<br>26,9 X 21,3                         | 175                               | 1.38                            | 1.06           | 2.06 | 1.63 | 2.38             | 1.75             | 4.13 | 3.1                          |
|  | 1200                              | 35                              | 27             | 52   | 41   | 60               | 44               | 105  | 1,4                          |
|  | 175                               | 1.38                            | 1.06           | 2.06 | 1.63 | 2.38             | 1.75             | 4.13 | 3.1                          |

\*, \*\*, †, #, ‡, Refer to notes on page 8.

@ These dimensions are for larger end only.

## FIT Straight Tee Style 963

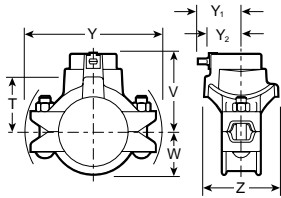


| Nominal Size*<br>Inches/mm | Diameter<br>Inches<br>mm | Max. Work. Press. †<br>PSI/kPa | Dimensions – Inches/millimeters |                        |                |            |                |                |             | Approx. Wgt. Each<br>Lbs./kg |
|----------------------------|--------------------------|--------------------------------|---------------------------------|------------------------|----------------|------------|----------------|----------------|-------------|------------------------------|
|                            |                          |                                | C to E ‡                        | Branch Takeout<br>T ** | Takeout<br>U # | W          | Y <sub>1</sub> | Y <sub>2</sub> | Z           |                              |
| 1<br>25                    | 1.315<br>33,7            | 175<br>1200                    | 2.38<br>60                      | 0.84<br>21             | 1.88<br>48     | 1.06<br>27 | 1.88<br>48     | 1.25<br>32     | 4.75<br>121 | 2.9<br>1,3                   |
| 1¼<br>32                   | 1.660<br>42,4            | 175<br>1200                    | 2.56<br>65                      | 1.03<br>26             | 2.25<br>57     | 1.22<br>31 | 2.03<br>52     | 1.41<br>36     | 5.13<br>130 | 3.4<br>1,5                   |
| 1½<br>40                   | 1.900<br>48,3            | 175<br>1200                    | 2.69<br>68                      | 1.16<br>29             | 2.30<br>58     | 1.41<br>36 | 2.16<br>55     | 1.53<br>39     | 5.38<br>137 | 3.8<br>1,7                   |
| 2<br>50                    | 2.375<br>60,3            | 175<br>1200                    | 2.94<br>75                      | 1.41<br>36             | 2.80<br>71     | 1.63<br>41 | 2.41<br>61     | 1.78<br>45     | 5.88<br>149 | 4.2<br>1,9                   |

\*, \*\*, †, #, ‡, Refer to notes on page 8.

# DIMENSIONS

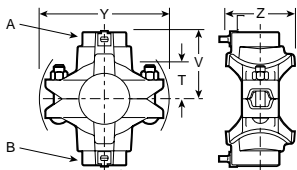
## FIT Outlet/ Mechanical-T Style 929



| Nominal Size*<br>Inches/mm | Max. Work. Press. †<br>PSI/kPa | Dimensions – Inches/millimeters |            |                |             |            |             |                |                |             |            | Aprx. Wgt. Each<br>Lbs./kg |
|----------------------------|--------------------------------|---------------------------------|------------|----------------|-------------|------------|-------------|----------------|----------------|-------------|------------|----------------------------|
|                            |                                | Hole                            |            | Takeout<br>T** | V ‡         | W          | Y           | Y <sub>1</sub> | Y <sub>2</sub> | Z           |            |                            |
|                            |                                | Saw Size                        | Max. Dia.  |                |             |            |             |                |                |             |            |                            |
| 3 X 1 1/4<br>88,9 X 42,4   | 175<br>1200                    | 2.00<br>51                      | 2.13<br>54 | 2.30<br>58     | 3.88<br>99  | 2.13<br>54 | 6.25<br>159 | 2.03<br>52     | 1.41<br>36     | 3.69<br>94  | 4.0<br>1,8 |                            |
| X 1 1/2<br>X 48,3          | 175<br>1200                    | 2.00<br>51                      | 2.13<br>54 | 2.30<br>58     | 3.88<br>99  | 2.13<br>54 | 6.25<br>159 | 2.16<br>55     | 1.53<br>39     | 3.69<br>94  | 5.2<br>2,4 |                            |
| X 2<br>X 60,3              | 175<br>1200                    | 2.50<br>64                      | 2.63<br>67 | 2.30<br>58     | 3.88<br>99  | 2.13<br>54 | 6.25<br>159 | 2.38<br>60     | 1.75<br>44     | 4.13<br>105 | 5.9<br>2,7 |                            |
| 4 X 1 1/4<br>114,3 X 42,4  | 175<br>1200                    | 2.00<br>51                      | 2.13<br>54 | 2.80<br>71     | 4.38<br>111 | 2.69<br>68 | 7.25<br>184 | 2.03<br>52     | 1.41<br>36     | 3.69<br>94  | 5.4<br>2,4 |                            |
| X 1 1/2<br>X 48,3          | 175<br>1200                    | 2.00<br>51                      | 2.13<br>54 | 2.80<br>71     | 4.38<br>111 | 2.69<br>68 | 7.25<br>184 | 2.16<br>55     | 1.53<br>39     | 3.69<br>94  | 5.7<br>2,6 |                            |
| X 2<br>X 60,3              | 175<br>1200                    | 2.50<br>64                      | 2.63<br>67 | 2.80<br>71     | 4.38<br>111 | 2.69<br>68 | 7.25<br>184 | 2.38<br>60     | 1.75<br>44     | 4.38<br>111 | 6.1<br>2,8 |                            |

\* \*\*, †, ‡ Refer to notes on page 8.

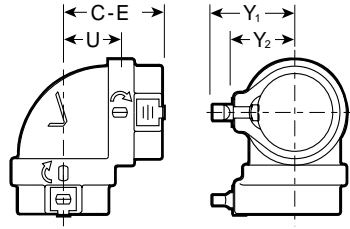
## FIT Cross Style 929



| Run               | Nominal Size<br>Inches/mm    | Max. Work. Press.<br>PSI/<br>kPa | Dimensions – Inches/millimeters |            |              |             |             |             |                    |            |              |             |             |             | Approx. Wgt. Each<br>Lbs./kg |
|-------------------|------------------------------|----------------------------------|---------------------------------|------------|--------------|-------------|-------------|-------------|--------------------|------------|--------------|-------------|-------------|-------------|------------------------------|
|                   |                              |                                  | Branch "A"                      |            |              |             |             |             | Branch "B"         |            |              |             |             |             |                              |
|                   |                              |                                  | Hole Size Diameter              |            | Takeout<br>T | V           | Y           | Z           | Hole Size Diameter |            | Takeout<br>T | V           | Y           | Z           |                              |
| 2 X<br>60,3 X     | 1 1/4 X 1 1/4<br>42,4 X 42,4 | 175<br>1200                      | 1.75<br>45                      | 1.88<br>48 |              |             |             |             | 1.71<br>43         | 3.25<br>83 |              |             |             |             | 5.88<br>149                  |
|                   | 1 1/2 X 1 1/4<br>48,3 X 42,4 | 175<br>1200                      | 1.75<br>45                      | 1.88<br>48 | 1.71<br>43   | 3.25<br>83  | 5.88<br>149 | 3.63<br>92  | 1.75<br>45         | 1.88<br>48 | 1.71<br>43   | 3.25<br>83  | 5.88<br>149 | 3.63<br>92  | 7.0<br>3,2                   |
|                   | 1 1/2 X 1 1/2<br>48,3 X 48,3 | 175<br>1200                      | 1.75<br>45                      | 1.88<br>48 | 1.71<br>43   | 3.25<br>83  | 5.88<br>149 | 3.63<br>92  | 1.75<br>45         | 1.88<br>48 | 1.71<br>43   | 3.25<br>83  | 5.88<br>149 | 3.63<br>92  | 7.0<br>3,2                   |
| 2 1/2 X<br>73,0 X | 1 1/4 X 1 1/4<br>42,4 X 42,4 | 175<br>1200                      | 2.00<br>51                      | 2.13<br>54 | 1.93<br>49   | 3.53<br>89  | 5.88<br>149 | 3.63<br>92  | 2.00<br>51         | 2.13<br>54 | 1.93<br>49   | 3.53<br>89  | 5.88<br>149 | 3.63<br>92  | 7.0<br>3,2                   |
|                   | 1 1/2 X 1 1/4<br>48,3 X 42,4 | 175<br>1200                      | 2.00<br>51                      | 2.13<br>54 | 1.93<br>49   | 3.53<br>89  | 5.88<br>149 | 3.63<br>92  | 2.00<br>51         | 2.13<br>54 | 1.93<br>49   | 3.53<br>89  | 5.88<br>149 | 3.63<br>92  | 7.0<br>3,2                   |
|                   | 1 1/2 X 1 1/2<br>48,3 X 48,3 | 175<br>1200                      | 2.00<br>51                      | 2.13<br>54 | 1.93<br>49   | 3.53<br>89  | 5.88<br>149 | 3.63<br>92  | 2.00<br>51         | 2.13<br>54 | 1.93<br>49   | 3.53<br>89  | 5.88<br>149 | 3.63<br>92  | 7.0<br>3,2                   |
| 3 X<br>88,9 X     | 1 1/4 X 1 1/4<br>42,4 X 42,4 | 175<br>1200                      | 2.00<br>51                      | 2.13<br>54 | 2.30<br>58   | 3.88<br>99  | 6.25<br>159 | 3.69<br>94  | 2.00<br>51         | 2.13<br>54 | 2.30<br>58   | 3.88<br>99  | 6.25<br>159 | 3.69<br>94  | 7.2<br>3,3                   |
|                   | 1 1/2 X 1 1/4<br>48,3 X 42,4 | 175<br>1200                      | 2.00<br>51                      | 2.13<br>54 | 2.30<br>58   | 3.88<br>99  | 6.25<br>159 | 3.69<br>94  | 2.00<br>51         | 2.13<br>54 | 2.30<br>58   | 3.88<br>99  | 6.25<br>159 | 3.69<br>94  | 7.5<br>3,4                   |
|                   | 1 1/2 X 1 1/2<br>48,3 X 48,3 | 175<br>1200                      | 2.00<br>51                      | 2.13<br>54 | 2.30<br>58   | 3.88<br>99  | 6.25<br>159 | 3.69<br>94  | 2.00<br>51         | 2.13<br>54 | 2.30<br>58   | 3.88<br>99  | 6.25<br>159 | 3.69<br>94  | 7.6<br>3,4                   |
|                   | 2 X 1 1/4<br>60,3 X 42,4     | 175<br>1200                      | 2.50<br>64                      | 2.63<br>67 | 2.30<br>58   | 3.88<br>99  | 6.25<br>159 | 4.13<br>105 | 2.00<br>51         | 2.13<br>54 | 2.30<br>58   | 3.88<br>99  | 6.25<br>159 | 3.69<br>94  | 8.0<br>3,6                   |
|                   | 2 X 1 1/2<br>60,3 X 48,3     | 175<br>1200                      | 2.50<br>64                      | 2.63<br>67 | 2.30<br>58   | 3.88<br>99  | 6.25<br>159 | 4.13<br>105 | 2.00<br>51         | 2.13<br>54 | 2.30<br>58   | 3.88<br>99  | 6.25<br>159 | 3.69<br>94  | 8.4<br>3,8                   |
|                   | 2 X 2<br>60,3 X 60,3         | 175<br>1200                      | 2.50<br>64                      | 2.63<br>67 | 2.30<br>58   | 3.88<br>99  | 6.25<br>159 | 4.13<br>105 | 2.50<br>64         | 2.63<br>67 | 2.30<br>58   | 3.88<br>99  | 6.25<br>159 | 4.13<br>105 | 9.2<br>4,2                   |
|                   | 4 X<br>114,3 X               | 1 1/4 X 1 1/4<br>42,4 X 42,4     | 175<br>1200                     | 2.00<br>51 | 2.13<br>54   | 2.80<br>71  | 4.38<br>111 | 7.25<br>184 | 3.69<br>94         | 2.00<br>51 | 2.13<br>54   | 2.80<br>71  | 4.38<br>111 | 7.25<br>184 | 3.69<br>94                   |
|                   | 1 1/2 X 1 1/4<br>48,3 X 42,4 | 175<br>1200                      | 2.00<br>51                      | 2.13<br>54 | 2.80<br>71   | 4.38<br>111 | 7.25<br>184 | 3.69<br>94  | 2.00<br>51         | 2.13<br>54 | 2.80<br>71   | 4.38<br>111 | 7.25<br>184 | 3.69<br>94  | 7.6<br>3,4                   |
|                   | 1 1/2 X 1 1/2<br>48,3 X 48,3 | 175<br>1200                      | 2.00<br>51                      | 2.13<br>54 | 2.80<br>71   | 4.38<br>111 | 7.25<br>184 | 3.69<br>94  | 2.00<br>51         | 2.13<br>54 | 2.80<br>71   | 4.38<br>111 | 7.25<br>184 | 3.69<br>94  | 7.8<br>3,5                   |
|                   | 2 X 1 1/4<br>60,3 X 42,4     | 175<br>1200                      | 2.50<br>64                      | 2.63<br>67 | 2.80<br>71   | 4.38<br>111 | 7.25<br>184 | 4.38<br>111 | 2.00<br>51         | 2.13<br>54 | 2.80<br>71   | 4.38<br>111 | 7.25<br>184 | 3.69<br>94  | 8.2<br>3,7                   |
|                   | 2 X 1 1/2<br>60,3 X 48,3     | 175<br>1200                      | 2.50<br>64                      | 2.63<br>67 | 2.80<br>71   | 4.38<br>111 | 7.25<br>184 | 4.38<br>111 | 2.00<br>51         | 2.13<br>54 | 2.80<br>71   | 4.38<br>111 | 7.25<br>184 | 3.69<br>94  | 8.5<br>3,9                   |
|                   | 2 X 2<br>60,3 X 60,3         | 175<br>1200                      | 2.50<br>64                      | 2.63<br>67 | 2.80<br>71   | 4.38<br>111 | 7.25<br>184 | 4.38<br>111 | 2.50<br>64         | 2.63<br>67 | 2.80<br>71   | 4.38<br>111 | 7.25<br>184 | 4.38<br>111 | 9.2<br>4,2                   |

# DIMENSIONS

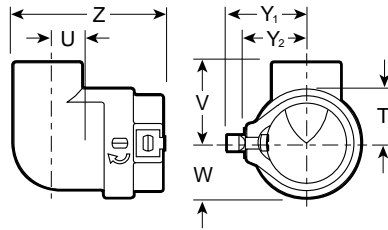
## FIT 90° Elbow Style 961



| Nominal Size*<br>Inches/mm | Diameter<br>Inches<br>mm | Max.<br>Work.<br>Press. †<br>PSI/kPa | Dimensions<br>Inches/millimeters |                 |                |                | Approx.<br>Wgt.<br>Each<br>Lbs./kg |
|----------------------------|--------------------------|--------------------------------------|----------------------------------|-----------------|----------------|----------------|------------------------------------|
|                            |                          |                                      | C to E ‡                         | Takeout<br>U ** | Y <sub>1</sub> | Y <sub>2</sub> |                                    |
| 1<br>25                    | 1.315<br>33,7            | 175<br>1200                          | 2.38<br>60                       | 0.94<br>24      | 1.88<br>48     | 1.25<br>32     | 2.0<br>0,9                         |
| 1¼<br>32                   | 1.660<br>42,4            | 175<br>1200                          | 2.56<br>65                       | 1.13<br>29      | 2.03<br>52     | 1.41<br>36     | 2.4<br>1,1                         |
| 1½<br>40                   | 1.900<br>48,3            | 175<br>1200                          | 2.69<br>68                       | 1.25<br>32      | 2.16<br>55     | 1.53<br>39     | 2.8<br>1,3                         |
| 2<br>50                    | 2.375<br>60,3            | 175<br>1200                          | 2.94<br>75                       | 1.50<br>38      | 2.38<br>60     | 1.75<br>44     | 3.2<br>1,5                         |

\*, \*\*, ‡, #, †, Refer to notes on page 8.

## FIT Reducing Elbow Style 966

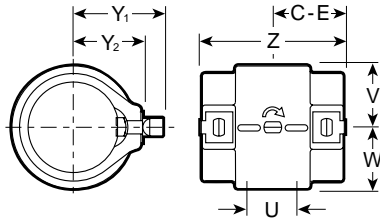


| Nominal<br>Size*<br>Inches/mm | Max.<br>Work.<br>Press. †<br>PSI/kPa | Dimensions – Inches/millimeters |                |               |              |                |                |               | Approx.<br>Wgt.<br>Each<br>Lbs./kg |
|-------------------------------|--------------------------------------|---------------------------------|----------------|---------------|--------------|----------------|----------------|---------------|------------------------------------|
|                               |                                      | Takeout<br>T **                 | Takeout<br>U # | V             | W            | Y <sub>1</sub> | Y <sub>2</sub> | Z             |                                    |
| 1 X ½<br>33,7 X 21,3          | 175<br>1200                          | 0.97<br>25                      | 0.84<br>21     | 1.50<br>38    | 1.09<br>28   | 1.88<br>48     | 1.25<br>32     | 3.25<br>83    | 1.6<br>0,7                         |
| X ¾<br>X 26,9                 | 175<br>1200                          | 0.94<br>23                      | 0.84<br>21     | 1.50<br>38    | 1.09<br>28   | 1.88<br>48     | 1.25<br>32     | 3.25<br>83    | 1.6<br>0,7                         |
| X 1<br>X 33,7                 | 175<br>1200                          | 0.81<br>21                      | 0.84<br>21     | 1.50<br>38    | 1.09<br>28   | 1.88<br>48     | 1.25<br>32     | 3.25<br>83    | 1.6<br>0,7                         |
| 1¼ X ½<br>42,4 X 21,3         | 175<br>1200                          | 1.21<br>31                      | 0.97<br>25     | 1.71<br>43    | 1.22<br>31   | 2.06<br>52     | 1.40<br>36     | 3.44<br>87    | 2.0<br>0,9                         |
| X ¾<br>X 26,9                 | 175<br>1200                          | 1.15<br>29                      | 0.97<br>25     | 1.71<br>43    | 1.22<br>31   | 2.06<br>52     | 1.40<br>36     | 3.44<br>87    | 2.0<br>0,9                         |
| X 1<br>X 33,7                 | 175<br>1200                          | 1.02<br>26                      | 0.97<br>25     | 1.71<br>43    | 1.22<br>31   | 2.06<br>52     | 1.40<br>36     | 3.44<br>87    | 2.0<br>0,9                         |
| 1½ X ½<br>48,3 X 21,3         | 175<br>1200                          | 1.34<br>34                      | 1.41<br>36     | 1.84<br>47    | 1.39<br>35   | 2.25<br>57     | 1.53<br>39     | 3.57<br>91    | 3.0<br>1,4                         |
| X ¾<br>X 26,9                 | 175<br>1200                          | 1.28<br>33                      | 1.41<br>36     | 1.84<br>47    | 1.39<br>35   | 2.25<br>57     | 1.53<br>39     | 3.57<br>91    | 3.0<br>1,4                         |
| X 1<br>X 33,7                 | 175<br>1200                          | 1.16<br>29                      | 1.41<br>36     | 1.84<br>47    | 1.39<br>35   | 2.25<br>57     | 1.53<br>39     | 3.57<br>91    | 3.0<br>1,4                         |
| 2 X ½<br>60,3 X 21,3          | 175<br>1200                          | 1.41<br>36                      | 1.69<br>42,93  | 2.09<br>53,09 | 1.63<br>41,4 | 2.38<br>60,45  | 1.77<br>44,96  | 3.82<br>97,03 | 4.0<br>101,6                       |
| X ¾<br>X 26,9                 | 175<br>1200                          | 1.41<br>36                      | 1.69<br>42,93  | 2.09<br>53,09 | 1.63<br>41,4 | 2.38<br>60,45  | 1.77<br>44,96  | 3.82<br>97,03 | 4.0<br>101,6                       |
| X 1<br>X 33,7                 | 175<br>1200                          | 1.41<br>36                      | 1.69<br>42,93  | 2.09<br>53,09 | 1.63<br>41,4 | 2.38<br>60,45  | 1.77<br>44,96  | 3.82<br>97,03 | 4.0<br>101,6                       |

\*, \*\*, ‡, #, †, Refer to notes on page 8.

## DIMENSIONS

FIT Straight Coupling  
Style 960



| Nominal Size*<br>Inches/mm | Diameter<br>Inches<br>mm | Max. Work Press. †<br>PSI/kPa | Dimensions<br>Inches/millimeters |             |            |            |                |                |            | Approx. Wgt. Each<br>Lbs./kg |
|----------------------------|--------------------------|-------------------------------|----------------------------------|-------------|------------|------------|----------------|----------------|------------|------------------------------|
|                            |                          |                               | C to E ‡                         | Takeout U # | V          | W          | Y <sub>1</sub> | Y <sub>2</sub> | Z          |                              |
| 1<br>25                    | 1.315<br>33,7            | 175<br>1200                   | 1.59<br>41                       | 0.31<br>8   | 1.06<br>27 | 1.06<br>27 | 1.88<br>48     | 1.25<br>32     | 3.19<br>81 | 1.6<br>0,7                   |
| 1¼<br>32                   | 1.660<br>42,4            | 175<br>1200                   | 1.59<br>41                       | 0.31<br>8   | 1.22<br>31 | 1.22<br>31 | 2.03<br>52     | 1.41<br>36     | 3.19<br>81 | 1.8<br>0,8                   |
| 1½<br>40                   | 1.900<br>48,3            | 175<br>1200                   | 1.59<br>41                       | 0.31<br>8   | 1.41<br>36 | 1.41<br>36 | 2.16<br>55     | 1.53<br>39     | 3.19<br>81 | 2.0<br>0,9                   |
| 2<br>50                    | 2,375<br>60,3            | 175<br>1200                   | 1.59<br>41                       | 0.31<br>8   | 1.63<br>41 | 1.63<br>41 | 2.41<br>61     | 1.78<br>45     | 3.19<br>81 | 2.2<br>1,0                   |

\*, \*\*, †, #, ‡, Refer to Notes on page 7.

## PERFORMANCE DATA

| Nominal Size<br>Inches/mm | Diameter<br>inches<br>mm | Commercial Data              |                               |                              |                               | Fire Protection †<br>UL/ULC/FM Approved<br>Schedule 40, 10* |                               |
|---------------------------|--------------------------|------------------------------|-------------------------------|------------------------------|-------------------------------|---|-------------------------------|
|                           |                          | Schedule 10                  |                               | Schedule 40                  |                               | Max. Work. Press.<br>PSI/kPa                                | Max. Perm. End Load<br>Lbs./N |
|                           |                          | Max. Work. Press.<br>PSI/kPa | Max. Perm. End Load<br>Lbs./N | Max. Work. Press.<br>PSI/kPa | Max. Perm. End Load<br>Lbs./N |   |                               |
| 1<br>25                   | 1.315<br>33,7            | 250<br>1725                  | 335<br>1490                   | 350<br>2410                  | 470<br>2090                   | 175<br>1200   | 235<br>1045                   |
| 1¼<br>32                  | 1.660<br>42,4            | 250<br>1725                  | 540<br>2400                   | 350<br>2410                  | 750<br>3337                   | 175<br>1200   | 375<br>1668                   |
| 1½<br>40                  | 1.900<br>48,3            | 250<br>1725                  | 775<br>3448                   | 350<br>2410                  | 1080<br>4806                  | 175<br>1200   | 540<br>2403                   |
| 2<br>50                   | 2,375<br>60,3            | 250<br>1725                  | 110<br>490                    | 350<br>2410                  | 1550<br>6897                  | 175<br>1200   | 775<br>3448                   |

† UL/ULC/FM working pressure based upon 5 to 1 test to rated pressure formula.

\* See Section 10.01 for specialty pipe.

## FLOW DATA

Victaulic FIT (Fast Installation Technique) products have been flow tested and provide flow performance equivalent or superior to comparable threaded components.

## PIPE TOLERANCES

Pipe (Schedule 10 - 40 steel\*) for use with FIT products must conform to the tolerances listed in the chart and must conform to the standards of "Acceptability."

| Nominal Size<br>Inches<br>mm | Inches/millimeters |               |
|------------------------------|--------------------|---------------|
|                              | Max. O.D.          | Min. O.D.     |
| 1<br>25                      | 1.325<br>33,7      | 1.285<br>32,6 |
| 1¼<br>32                     | 1.670<br>42,4      | 1.630<br>41,4 |
| 1½<br>40                     | 1.910<br>48,5      | 1.875<br>47,6 |
| 2<br>50                      | 2.385<br>60,6      | 2.352<br>59,7 |

\*Specialty pipe schedules must meet O.D. tolerances.

# MATERIAL SPECIFICATIONS

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

**Housing Coating:** Orange enamel.

□ **Optional:** Hot dip galvanized steel, Black Guard Coated.

**Retainers:** Hardened 1074 steel, Black Guard Coated.

**Lugs:** Heat treated medium carbon steel

**Bolts (Style 929 only):** Heat treated carbon steel plated to ASTM B-633, track-head, conforming to physical properties of ASTM A-183 minimum tensile 110,000 PSI (758430 kPa).

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

□ **Grade "E" EPDM**

EPDM (Green color code).  
Temperature range -30°F to +230°F (-34°C to +110°C).  
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 +86°F (+30°C) and hot +180°F (+82°C) potable water service. **NOT RECOMMENDED FOR PETROLEUM SERVICES.**

□ **Optional: Grade "L" silicone**

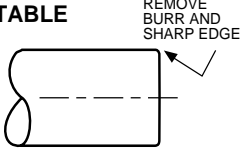
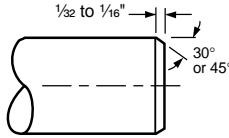
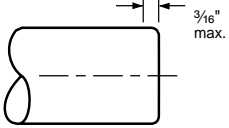
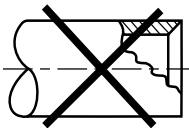
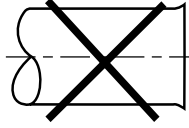
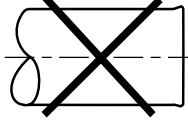
Silicone (Red gasket). Temperature range -30°F to +350°F (-34°C to +177°C). Recommended for dry heat, air without hydrocarbons and certain chemical services within the specified temperature range.

□ **Optional: 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 +140°F (+60°C).

\*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.

# PIPE CONDITION

|  |  |  |
|--|--|--|
| <p><b>ACCEPTABLE</b></p>  <p>Pipe must be square cut. Burrs and sharp edges must be removed from the O.D.</p>   |  <p>Beveled pipe. Bevel should not exceed 1/16".</p>   |  <p>Soft pipe, when roll cut, may be swaged inward. Swaged portion must not exceed 3/16".</p> |
| <p><b>NOT ACCEPTABLE</b></p>  <p>Excessive chamfer on the I.D. will tend to cut the o-ring during assembly.</p> |  <p>Abrasive wheels and saws leave edges that are especially pronounced on one side. Burrs and sharp edges are not acceptable.</p> |  <p>Dull wheel cutters push ridges up at the pipe's O.D., giving an oversized diameter.</p>   |

## NOTES

The following notes are applicable, except where noted, for Victaulic FIT products when Maximum End Load, Working Pressure and Dimensional data are listed.

\* Refer to Pipe Tolerances for engaged pipe data

\*\* Center of run to engaged pipe end (Dimensions approximate)

‡ Center of run to end of fittings

# Take-out dimensions

† UL/ULC/FM working pressure based upon 5 to 1 test to rated pressure formula. Working Pressure and End Load are total, from all internal and external loads, based on steel pipe meeting FIT Pipe Tolerances (see table above) thoroughly cleaned to Victaulic FIT products specifications with all locking lugs in properly locked position.

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

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 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.