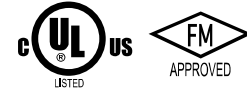


# STANDARD GROOVED FITTINGS

## STYLES 100, 101, 102, 103, 110 & 150

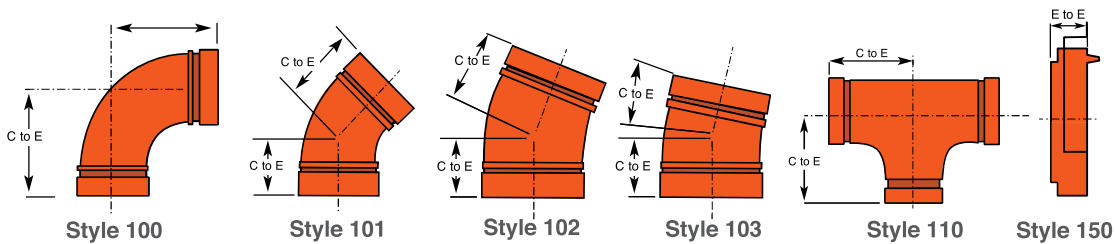


UL Listed Under File No. EX15591

- All fittings are full flow design
- Made of durable, high-strength ductile iron conforming to ASTM A536; every lot is metallurgically tested for compliance
- Available with hot dipped galvanized coating
- Suitable for HVAC, plumbing, & fire protection systems

| FLOW DATA                                                            |              |              |        |     |                          |              |              |        |      |
|----------------------------------------------------------------------|--------------|--------------|--------|-----|--------------------------|--------------|--------------|--------|------|
| Frictional Resistance (Expressed as equivalent Straight Pipe in Ft.) |              |              |        |     |                          |              |              |        |      |
| Nominal<br>Size<br>(In.)                                             | Elbow        |              | Tee    |     | Nominal<br>Size<br>(In.) | Elbow        |              | Tee    |      |
|                                                                      | 90°<br>Elbow | 45°<br>Elbow | Branch | Run |                          | 90°<br>Elbow | 45°<br>Elbow | Branch | Run  |
| 1¼                                                                   | 2,3          | 1,2          | 5,8    | 2,3 | 5                        | 8,4          | 4,2          | 21,0   | 8,4  |
| 1½                                                                   | 2,7          | 1,3          | 6,7    | 2,7 | 6                        | 10,1         | 5,1          | 25,3   | 10,1 |
| 2                                                                    | 3,4          | 1,7          | 8,6    | 3,4 | 8                        | 13,3         | 6,7          | 33,3   | 13,3 |
| 2½                                                                   | 4,1          | 2,1          | 10,3   | 4,1 | 10                       | 16,7         | 8,4          | 41,8   | 16,7 |
| 3                                                                    | 5,1          | 2,6          | 12,8   | 5,2 |                          |              |              |        |      |
| 4                                                                    | 6,7          | 3,4          | 16,8   | 6,7 |                          |              |              |        |      |

Flow data is based upon the pressure drop of Sch. 40 pipe.



| Pipe               |                   | 90° Elbow No. 100 |                        | 45° Elbow No. 101 |                        | 22½° Elbow No. 102 |                        | 11¼° Elbow No. 103 |                        | Equal Tee No. 110 |                        | End Cap No. 150 |                        |
|--------------------|-------------------|-------------------|------------------------|-------------------|------------------------|--------------------|------------------------|--------------------|------------------------|-------------------|------------------------|-----------------|------------------------|
| Nominal Size (In.) | Actual Size (In.) | C to E (In.)      | Approx. Wgt. Ea. (lb.) | C to E (In.)      | Approx. Wgt. Ea. (lb.) | C to E (In.)       | Approx. Wgt. Ea. (lb.) | C to E (In.)       | Approx. Wgt. Ea. (lb.) | C to E (In.)      | Approx. Wgt. Ea. (lb.) | E to E (In.)    | Approx. Wgt. Ea. (lb.) |
| 1¼                 | 1.66              | 2.24              | 0.93                   | 1.73              | 0.70                   | 1.732              | .80                    | 1.38               | 0.55                   | 2.755             | 1.52                   | 0.99            | .33                    |
| 1½                 | 1.9               | 2.755             | 1.17                   | 1.73              | 0.78                   | 1.732              | .84                    | 1.38               | 0.63                   | 2.755             | 1.74                   | 0.99            | .44                    |
| 2                  | 2.375             | 3.257             | 1.77                   | 2                 | 1.20                   | 2                  | 1.14                   | 1.38               | 0.82                   | 3.267             | 2.5                    | 0.99            | .62                    |
| 2½                 | 2.875             | 3.74              | 2.76                   | 2.24              | 1.63                   | 2                  | 1.50                   | 1.5                | 1.22                   | 3.74              | 3.73                   | 0.99            | .86                    |
| 3                  | 3.5               | 4.251             | 3.44                   | 2.52              | 2.38                   | 2.24               | 2.53                   | 1.5                | 1.62                   | 4.251             | 6.24                   | 0.99            | 1.01                   |
| 4                  | 4.5               | 5.0               | 5.32                   | 3                 | 3.84                   | 2.87               | 3.91                   | 1.89               | 2.63                   | 5                 | 8.70                   | 0.99            | 1.42                   |
| 5                  | 5.563             | 5.51              | 8.0                    | 3.28              | 5.74                   | 2.87               | 5.10                   | 2                  | 3.90                   | 5.511             | 12.44                  | 0.99            | 2.80                   |
| 6                  | 6.625             | 6.496             | 14.31                  | 3.51              | 8.11                   | 3.11               | 7.16                   | 2                  | 4.78                   | 6.496             | 18.21                  | 0.99            | 2.0                    |
| 8                  | 8.625             | 8.755             | 21.63                  | 4.25              | 14.27                  | 3.86               | 11.88                  | 2                  | 7.10                   | 7.755             | 33.25                  | 1.181           | 7.31                   |
| 10                 | 10.75             | 9.015             | 37.04                  | 4.76              | 22.00                  | 4.37               | 30.0                   | 2.13               | 14.5                   | 9.015             | 46.35                  | 1.259           | 9.33                   |
| 12                 | 12.75             | 10.0              | 57.25                  | 31.50             | 10.0                   | —                  | —                      | —                  | —                      | 10.0              | 59.50                  | 1.26            | 13.25                  |

**NOTES:** Allowable pipe end separation is for cut groove pipe for roll groove, figures will be one-half of the values listed at time of initial pressurization. - Bolts and Nuts are galvanized. \* - Maximum pressure including surges and maximum end loads from all internal and external forces, to which a joint could be subject under normal working conditions. This rating provides a nominal safety factor of 1.5 times working pressure based on standard weight steel pipe. Maximum working pressure may be subjected to a one time field test of 1.5 times the figures indicated. Refer to installations and groove specifications when assembling any grooved product.

| PROJECT         | APPROVAL STAMP                             |
|-----------------|--------------------------------------------|
| PROJECT:        | <input type="checkbox"/> APPROVED          |
| ADDRESS:        | <input type="checkbox"/> APPROVED AS NOTED |
| ENGINEER:       | <input type="checkbox"/> NOT APPROVED      |
| SUBMITTAL DATA: | REMARKS:                                   |
| NOTES 1:        |                                            |
| NOTES 2:        |                                            |