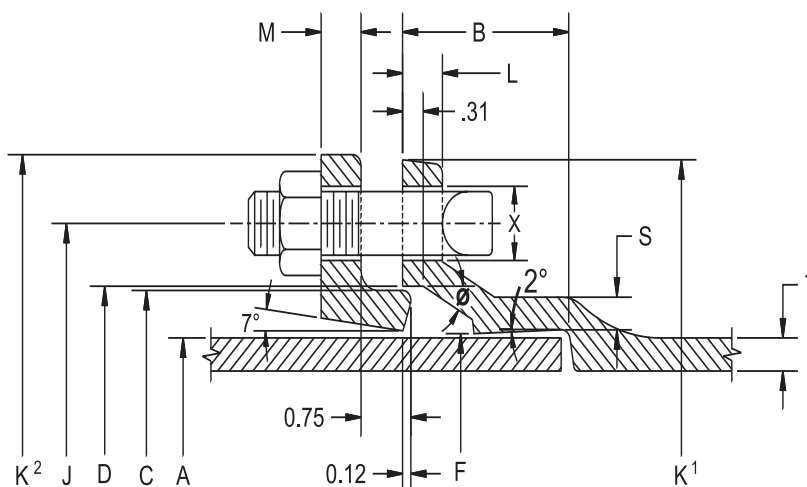


### SAMPLE SPECIFICATIONS

Mechanical Joint watermain fittings with accessories, 3" through 48" shall be manufactured from Ductile Iron in accordance with and meet all applicable terms and provisions of standards ANSI/AWWA C153/A21.53 ANSI/AWWA C111/A21.11 (current revisions). Ductile Iron Mechanical Joint Fittings 3" through 24" shall be rated for 350 PSI working pressure. 30" through 48" shall be rated for 250 psi working pressure. All coated fittings meet requirements of NSF-61.

NOTE - EXCEPTIONS: Mechanical Joint Fittings with flanged branches are rated for water pressure of 250 PSI.

NOTE: Fittings are CEMENT LINED and seal coated in accordance with ANSI/AWWA C104/A21.4; also available double cement-lined, bare or epoxy coated.

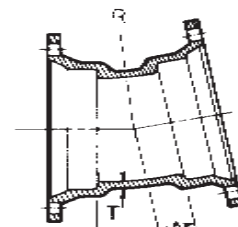
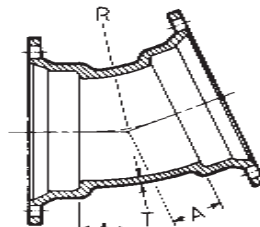
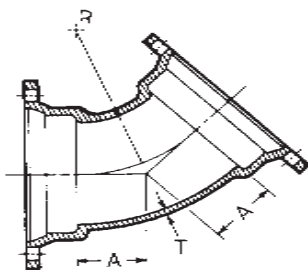
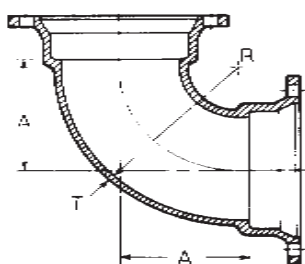


JOINT DIMENSIONS IN INCHES

BOLTS

| Size | A Dia. | B    | C Dia. | D Dia. | F Dia. | J Dia. | K <sup>1</sup> Dia. | K <sup>2</sup> Dia. | L    | M    | S    | T   | X     | Size        | No. |
|------|--------|------|--------|--------|--------|--------|---------------------|---------------------|------|------|------|-----|-------|-------------|-----|
| 3    | 3.96   | 2.50 | 4.84   | 4.94   | 4.06   | 6.19   | 7.62                | 7.69                | .58  | .62  | .39  | .33 | 3/4   | 5/8x3       | 4   |
| 4    | 4.80   | 2.50 | 5.92   | 6.02   | 4.90   | 7.50   | 9.06                | 9.12                | .60  | .75  | .39  | .34 | 7/8   | 3/4x3 1/2   | 4   |
| 6    | 6.90   | 2.50 | 8.02   | 8.12   | 7.00   | 9.50   | 11.06               | 11.12               | .63  | .88  | .43  | .36 | 7/8   | 3/4x3 1/2   | 6   |
| 8    | 9.05   | 2.50 | 10.17  | 10.27  | 9.15   | 11.75  | 13.31               | 13.37               | .66  | 1.00 | .45  | .38 | 7/8   | 3/4x3 1/2   | 6   |
| 10   | 11.10  | 2.50 | 12.22  | 12.34  | 11.20  | 14.00  | 15.62               | 15.62               | .70  | 1.00 | .47  | .40 | 7/8   | 3/4x3 1/2   | 8   |
| 12   | 13.20  | 2.50 | 14.32  | 14.44  | 13.30  | 16.25  | 17.88               | 17.88               | .73  | 1.00 | .49  | .42 | 7/8   | 3/4x3 1/2   | 8   |
| 14   | 15.30  | 3.50 | 16.40  | 16.54  | 15.44  | 18.75  | 20.31               | 20.25               | .79  | 1.25 | .56  | .47 | 7/8   | 3/4x4       | 10  |
| 16   | 17.40  | 3.50 | 18.50  | 18.64  | 17.54  | 21.00  | 22.56               | 22.50               | .85  | 1.31 | .57  | .50 | 7/8   | 3/4x4       | 12  |
| 18   | 19.50  | 3.50 | 20.60  | 20.74  | 19.64  | 23.25  | 24.83               | 24.75               | 1.00 | 1.38 | .68  | .54 | 7/8   | 3/4x4       | 12  |
| 20   | 21.60  | 3.50 | 22.70  | 22.84  | 21.74  | 25.50  | 27.08               | 27.00               | 1.02 | 1.44 | .69  | .57 | 7/8   | 3/4x4       | 14  |
| 24   | 25.80  | 3.50 | 26.90  | 27.04  | 25.94  | 30.00  | 31.58               | 31.50               | 1.02 | 1.56 | .75  | .61 | 7/8   | 3/4x4 1/2   | 16  |
| 30   | 32.00  | 4.00 | 33.29  | 33.46  | 32.17  | 36.88  | 39.12               | 39.12               | 1.31 | 2.00 | .82  | .66 | 1 1/8 | 1x5 1/2     | 20  |
| 36   | 38.30  | 4.00 | 39.59  | 39.76  | 38.47  | 43.75  | 46.00               | 46.00               | 1.45 | 2.00 | 1.00 | .74 | 1 1/8 | 1x5 1/2     | 24  |
| 42   | 44.50  | 4.00 | 45.79  | 45.96  | 44.67  | 50.62  | 53.12               | 53.12               | 1.45 | 2.00 | 1.25 | .82 | 1 3/8 | 1 1/4x6 1/2 | 28  |
| 48   | 50.80  | 4.00 | 52.09  | 52.26  | 50.97  | 57.50  | 60.00               | 60.00               | 1.45 | 2.00 | 1.35 | .90 | 1 3/8 | 1 1/4x6 1/2 | 32  |

### BENDS



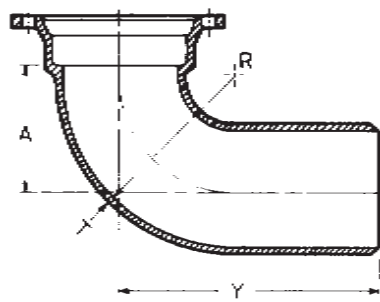
| 90° Bends (1/4) |            |       |       |        | 45° Bends (1/8) |       |        | 22½° Bends (1/16) |       |        | 11¼° (1/32) |       |        |
|-----------------|------------|-------|-------|--------|-----------------|-------|--------|-------------------|-------|--------|-------------|-------|--------|
| Size            | Dimensions |       |       |        | Dimensions      |       |        | Dimensions        |       |        | Dimensions  |       |        |
|                 | T          | A     | R     | Weight | A               | R     | Weight | A                 | R     | Weight | A           | R     | Weight |
| 3               | .34        | 3.5   | 2.5   | 19     | 2.00            | 2.41  | 17     | 1.50              | 2.51  | 15     | 1.25        | 2.53  | 16     |
| 4               | .35        | 4.0   | 3.0   | 26     | 2.50            | 3.56  | 22     | 1.75              | 3.81  | 20     | 1.50        | 5.12  | 20     |
| 6               | .37        | 6.5   | 6.0   | 49     | 3.50            | 7.25  | 39     | 2.25              | 6.35  | 31     | 1.50        | 5.12  | 29     |
| 8               | .39        | 7.5   | 7.0   | 64     | 4.00            | 8.44  | 56     | 2.85              | 11.80 | 50     | 2.06        | 15.80 | 45     |
| 10              | .41        | 9.5   | 9.0   | 102    | 5.01            | 10.88 | 78     | 3.35              | 14.35 | 66     | 2.32        | 18.36 | 59     |
| 12              | .43        | 10.5  | 10.0  | 129    | 5.98            | 13.25 | 102    | 3.86              | 16.90 | 87     | 2.56        | 20.90 | 82     |
| 14              | .51        | 12.0  | 11.5  | 214    | 5.50            | 12.06 | 155    | 3.93              | 17.25 | 142    | 2.59        | 21.25 | 136    |
| 16              | .52        | 13.0  | 12.5  | 273    | 5.98            | 13.25 | 204    | 3.98              | 17.50 | 178    | 2.62        | 21.50 | 157    |
| 18              | .59        | 15.5  | 14.0  | 411    | 6.50            | 12.36 | 292    | 7.50              | 30.19 | 286    | 3.00        | 60.84 | 283    |
| 20              | .60        | 17.0  | 15.5  | 519    | 7.00            | 13.59 | 372    | 8.50              | 35.19 | 376    | 3.50        | 71.07 | 374    |
| 24              | .62        | 17.0  | 15.5  | 721    | 7.50            | 14.89 | 490    | 9.00              | 37.69 | 512    | 3.50        | 76.12 | 487    |
| 30              | .66        | 21.50 | 19.0  | 930    | 10.50           | 9.31  | 716    | 6.75              | 21.36 | 665    | 4.75        | 22.84 | 600    |
| 36              | .74        | 24.50 | 22.0  | 1450   | 11.50           | 21.73 | 1110   | 7.75              | 26.39 | 960    | 5.00        | 25.38 | 820    |
| 42              | .82        | 29.25 | 26.7  | 2205   | 14.00           | 27.76 | 1610   | 9.00              | 32.68 | 1350   | 6.00        | 35.54 | 1180   |
| 48              | .90        | 33.25 | 30.75 | 2990   | 15.00           | 30.17 | 2090   | 10.00             | 27.70 | 1760   | 6.50        | 40.61 | 1475   |

# Tyler/Union

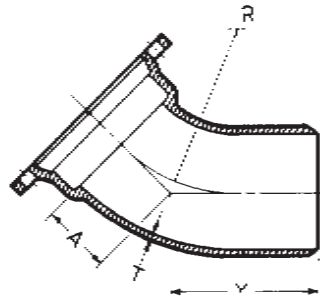
## MECHANICAL JOINT C153 DUCTILE IRON COMPACT FITTINGS

Sizes 3" thru 12" UL Listed For Fire Main Equipment

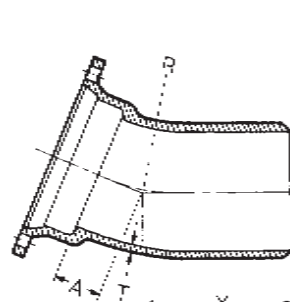
### BENDS



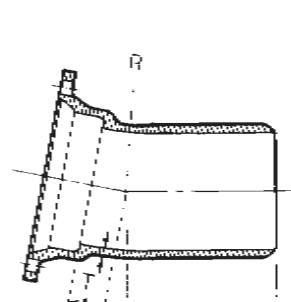
**90° Bend MJ x PE (1/4)**



**45° Bend MJ x PE (1/8)**

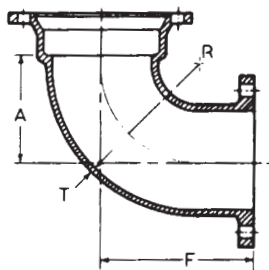


**22 1/2° Bend MJ x PE (1/16)**

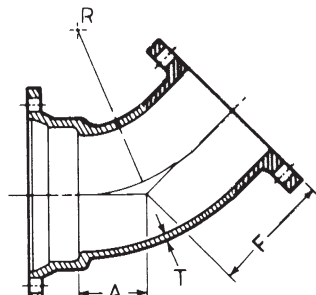


**11 1/4° Bend MJ x PE (1/32)**

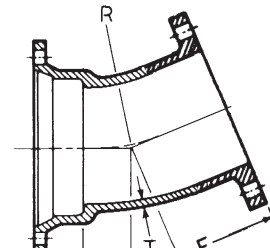
| Size | T   | Dimensions |      |      |     | Weight | Dimensions |       |     |      | Weight | Dimensions |     |      |       | Weight | Dimensions |   |   |  | Weight |
|------|-----|------------|------|------|-----|--------|------------|-------|-----|------|--------|------------|-----|------|-------|--------|------------|---|---|--|--------|
|      |     | A          | Y    | R    |     |        | A          | Y     | R   |      |        | A          | Y   | R    |       |        | A          | Y | R |  |        |
| 3    | .34 | 3.5        | 9.0  | 2.5  | 18  | 2.0    | 7.5        | 2.41  | 17  | 1.50 | 7.00   | 2.51       | 19  | 1.25 | 6.75  | 7.62   | 15         |   |   |  |        |
| 4    | .35 | 4.0        | 9.5  | 3.0  | 26  | 2.5    | 8.0        | 3.56  | 22  | 1.75 | 7.25   | 3.81       | 20  | 1.50 | 7.00  | 5.12   | 20         |   |   |  |        |
| 6    | .37 | 6.0        | 11.5 | 5.0  | 45  | 3.2    | 8.7        | 5.49  | 38  | 2.25 | 7.75   | 6.35       | 33  | 1.50 | 7.00  | 5.12   | 32         |   |   |  |        |
| 8    | .39 | 7.5        | 13.0 | 7.0  | 64  | 4.0    | 9.5        | 8.44  | 55  | 2.84 | 8.34   | 11.80      | 51  | 2.05 | 7.55  | 15.80  | 44         |   |   |  |        |
| 10   | .41 | 9.5        | 15.0 | 9.0  | 108 | 5.0    | 10.5       | 10.88 | 78  | 3.35 | 8.85   | 14.35      | 66  | 2.31 | 7.81  | 18.36  | 60         |   |   |  |        |
| 12   | .43 | 9.0        | 14.4 | 6.0  | 114 | 6.0    | 11.5       | 13.25 | 104 | 3.50 | 9.00   | 12.70      | 89  | 2.56 | 8.06  | 20.90  | 79         |   |   |  |        |
| 14   | .51 | 12.0       | 20.0 | 11.5 | 219 | 5.5    | 13.4       | 10.85 | 165 | 3.93 | 11.93  | 17.25      | 152 | 2.59 | 10.59 | 21.25  | 137        |   |   |  |        |
| 16   | .52 | 13.0       | 21.0 | 12.5 | 254 | 6.0    | 14.0       | 13.25 | 206 | 3.98 | 11.98  | 17.50      | 181 | 2.62 | 10.62 | 21.50  | 161        |   |   |  |        |
| 24   | .62 | 17.0       | 25.0 | 15.5 | 710 | 7.5    | 16.6       | 14.69 | 460 | 9.00 | 17.66  | 37.69      | 455 | 9.00 | 26.12 | 12.00  | 475        |   |   |  |        |
| 30   | .68 | 21.5       | 30.5 | --   | 865 | 10.5   | 19.5       | --    | 715 | 6.75 | 15.75  | --         | 600 | --   | --    | --     | --         |   |   |  |        |



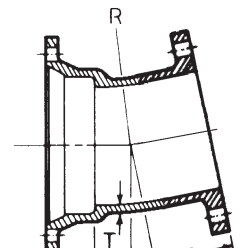
**90° Bend MJ x Flange  
(1/4)**



**45° Bend MJ x Flange  
(1/8)**



**22 1/2° Bend MJ x Flange  
(1/16)**



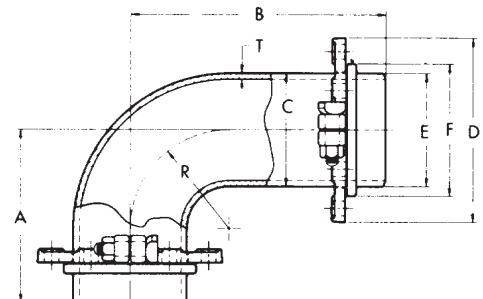
**11 1/4° Bend MJ x Flange  
(1/32)**

| Size | T   | Dimensions |      |      |     | Weight | Dimensions |     |     |      | Weight | Dimensions |     |      |       | Weight | Dimensions |     |     |    | Weight |
|------|-----|------------|------|------|-----|--------|------------|-----|-----|------|--------|------------|-----|------|-------|--------|------------|-----|-----|----|--------|
|      |     | A          | R    | F    |     |        | A          | R   | F   |      |        | A          | R   | F    |       |        | A          | R   | F   |    |        |
| 3    | .34 | 3.5        | 2.5  | 5.5  | 21  | ...    | ...        | ..  | ..  | ...  | ...    | ..         | ..  | ...  | ...   | ..     | ..         | ... | ... | .. | ..     |
| 4    | .35 | 4.0        | 3.0  | 6.5  | 28  | 2.50   | 3.56       | 4.0 | 34  | 1.75 | 3.81   | 4.0        | 34  | 1.50 | 5.12  | 4.0    | 19         |     |     |    |        |
| 6    | .37 | 6.0        | 5.0  | 8.0  | 45  | 3.25   | 5.49       | 5.0 | 57  | 2.25 | 5.35   | 5.0        | 57  | 1.50 | 5.12  | 5.0    | 30         |     |     |    |        |
| 8    | .39 | 7.5        | 7.0  | 9.0  | 73  | 4.25   | 7.93       | 5.5 | 83  | 2.50 | 7.62   | 5.5        | 83  | 1.75 | 7.70  | 5.5    | 50         |     |     |    |        |
| 10   | .41 | 9.5        | 9.0  | 11.0 | 113 | 5.00   | 9.76       | 6.5 | 122 | 3.00 | 10.16  | 6.5        | 122 | 2.00 | 10.25 | 6.5    | 75         |     |     |    |        |
| 12   | .43 | 10.5       | 10.0 | 12.0 | 141 | 6.00   | 12.19      | 7.5 | 159 | 3.50 | 12.70  | 7.5        | 159 | 2.25 | 12.82 | 7.5    | 88         |     |     |    |        |
| 14   | .51 | 12.0       | 11.5 | 14.0 | 217 | 5.50   | 10.85      | 8.5 | 207 |      |        |            |     |      |       |        |            |     |     |    |        |
| 16   | .52 | 13.0       | 12.5 | 15.0 | 280 | 6.00   | 12.02      | 9.5 | 290 |      |        |            |     |      |       |        |            |     |     |    |        |

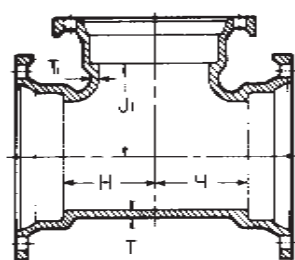
### 90° Swivel x Swivel Hydrant Ell

| Size | T   | Dimensions |      |      |      |      |      |     |    |
|------|-----|------------|------|------|------|------|------|-----|----|
|      |     | A          | B    | C    | D    | E    | F    | R   |    |
| 6    | .37 | 10.5       | 15.5 | 6.90 | 11.2 | 6.81 | 7.98 | 6.0 | 74 |

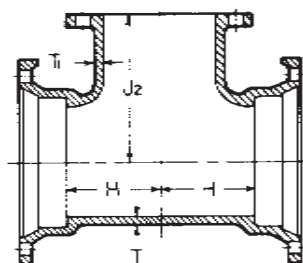
\* Weight includes two swivel glands.



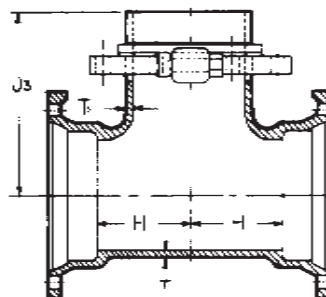
### TEES



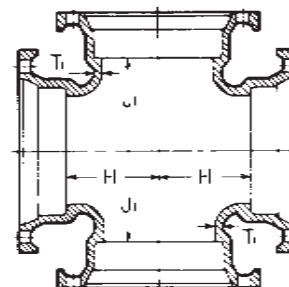
**MJ Tee**



**MJ x FE Tee**



**MJ x Swivel Tee**

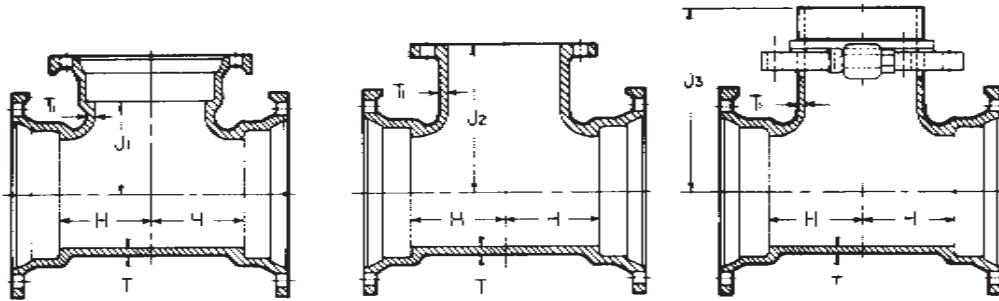


**Cross**

| Size  | Dimensions |                |      |                |                | J <sup>3</sup> | MJ  | MJxFE | Weights |       |
|-------|------------|----------------|------|----------------|----------------|----------------|-----|-------|---------|-------|
|       | T          | T <sup>1</sup> | H    | J <sup>1</sup> | J <sup>2</sup> |                |     |       | †MJxS   | Cross |
| 3     | .34        | .34            | 3.5  | 3.50           | 5.5            | ...            | 26  | 29    | ...     | 31    |
| 4x3   | .35        | .34            | 3.5  | 4.00           | 6.5            | ...            | 35  | 34    | ...     | 39    |
| 4     | .35        | .35            | 4.0  | 4.00           | 6.5            | ...            | 36  | 39    | ...     | 45    |
| 6x3   | .37        | .34            | 4.0  | 4.00           | 6.5            | ...            | 51  | 54    | ...     | ...   |
| 6x4   | .37        | .35            | 4.0  | 5.00           | 8.0            | ...            | 52  | 57    | ...     | 62    |
| 6     | .37        | .37            | 5.0  | 5.00           | 8.0            | 10.50          | 66  | 68    | 77      | 79    |
| 8x3   | .39        | .34            | 4.0  | 6.50           | 9.0            | ...            | 56  | ...   | ...     | ...   |
| 8x4   | .39        | .35            | 4.5  | 6.50           | 9.0            | ...            | 72  | 82    | ...     | 84    |
| 8x6   | .39        | .37            | 5.5  | 6.50           | 9.0            | 11.50          | 79  | 81    | 105     | 98    |
| 8     | .39        | .39            | 6.5  | 6.50           | 9.0            | 11.50          | 90  | 101   | 116     | 112   |
| 10x3  | .41        | .34            | 4.0  | 7.50           | 11.0           | ...            | 80  | ...   | ...     | ...   |
| 10x4  | .41        | .35            | 4.5  | 7.50           | 11.0           | ...            | 82  | 92    | ...     | 98    |
| 10x6  | .41        | .37            | 5.5  | 7.50           | 11.0           | 13.00          | 99  | 116   | 114     | 121   |
| 10x8  | .41        | .39            | 6.5  | 7.50           | 11.0           | 13.00          | 116 | 128   | 138     | 135   |
| 10    | .41        | .41            | 7.5  | 7.50           | 11.0           | ...            | 132 | 144   | ...     | 156   |
| 12x3  | .43        | .34            | 4.0  | 8.75           | 12.0           | ...            | 99  | ...   | ...     | ...   |
| 12x4  | .43        | .35            | 4.5  | 8.75           | 12.0           | ...            | 108 | 118   | ...     | 119   |
| 12x6  | .43        | .37            | 5.5  | 8.75           | 12.0           | 14.25          | 119 | 133   | 132     | 138   |
| 12x8  | .43        | .39            | 6.5  | 8.75           | 12.0           | 14.25          | 126 | 146   | 149     | 149   |
| 12x10 | .43        | .41            | 7.5  | 8.75           | 12.0           | ...            | 159 | 174   | ...     | 187   |
| 12    | .43        | .43            | 8.75 | 8.75           | 12.0           | ...            | 171 | 198   | ...     | 202   |
| 14x6  | .51        | .44            | 6.5  | 10.50          | 14.0           | 16.00          | 183 | 205   | 211     | 210   |
| 14x8  | .51        | .45            | 7.5  | 10.50          | 14.0           | ...            | 211 | ...   | ...     | 231   |
| 14x10 | .51        | .46            | 8.5  | 10.50          | 14.0           | ...            | 229 | 244   | ...     | 255   |
| 14x12 | .51        | .47            | 9.5  | 10.50          | 14.0           | ...            | 245 | 284   | ...     | 269   |
| 14    | .51        | .51            | 10.5 | 10.50          | 14.0           | ...            | 281 | 291   | ...     | 299   |
| 16x6  | .52        | .45            | 6.5  | 11.50          | 15.0           | 17.00          | 222 | 230   | 243     | 250   |
| 16x8  | .52        | .46            | 7.5  | 11.50          | 15.0           | ...            | 245 | 248   | ...     | 264   |
| 16x10 | .52        | .47            | 8.5  | 11.50          | 15.0           | ...            | 265 | 287   | ...     | 286   |
| 16x12 | .52        | .48            | 9.5  | 11.50          | 15.0           | ...            | 277 | 312   | ...     | 312   |
| 16x14 | .52        | .51            | 10.5 | 11.50          | 15.0           | ...            | 317 | 348   | ...     | ...   |
| 16    | .52        | .52            | 11.5 | 11.50          | 15.0           | ...            | 337 | 324   | ...     | 457   |
| 30    | .66        | .66            | 22.0 | 22.00          | ...            | ...            | ... | ...   | ...     | 1840  |
| 36    | .74        | .74            | 26.0 | 26.0           | ...            | ...            | ... | ...   | ...     | 2655  |

† Weights include swivel gland

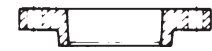
### TEES (Continued)



| MJ Tee |     |                | MJ x FE Tee |                                             |      |                | MJ x Swivel Tee |                  |       |
|--------|-----|----------------|-------------|---------------------------------------------|------|----------------|-----------------|------------------|-------|
| Size   | T   | T <sup>1</sup> | H           | Dimensions<br>J <sup>1</sup> J <sup>2</sup> |      | J <sup>3</sup> | MJ              | Weights<br>MJxFE | †MJxS |
| 18x6   | .59 | .44            | 6.5         | 14.5                                        | 15.5 | 18.0           | 275             | 261              | 279   |
| 18x8   | .59 | .45            | 7.5         | 14.5                                        | ...  | ...            | 280             | 351              | ...   |
| 18x10  | .59 | .47            | 8.5         | 12.5                                        | ...  | ...            | 286             | ...              | ...   |
| 18x12  | .59 | .49            | 9.5         | 12.5                                        | ...  | ...            | 372             | ...              | ...   |
| 18x14  | .59 | .56            | 10.5        | 12.5                                        | ...  | ...            | 415             | ...              | ...   |
| 18x16  | .59 | .57            | 11.5        | 12.5                                        | ...  | ...            | 445             | ...              | ...   |
| 18     | .59 | .59            | 13.0        | 12.5                                        | ...  | ...            | 490             | ...              | ...   |
| 20x6   | .60 | .44            | 7.0         | 16.0                                        | 17.0 | 19.5           | 335             | 362              | 358   |
| 20x8   | .60 | .45            | 8.0         | 14.0                                        | ...  | ...            | 390             | ...              | ...   |
| 20x10  | .60 | .47            | 9.0         | 14.0                                        | ...  | ...            | 417             | ...              | ...   |
| 20x12  | .60 | .49            | 10.0        | 14.0                                        | ...  | ...            | 460             | ...              | ...   |
| 20x14  | .60 | .56            | 11.0        | 14.0                                        | ...  | ...            | 475             | ...              | ...   |
| 20x16  | .60 | .57            | 12.0        | 14.0                                        | ...  | ...            | 530             | ...              | ...   |
| 20x18  | .60 | .59            | 13.0        | 14.0                                        | ...  | ...            | 560             | ...              | ...   |
| 20     | .60 | .60            | 14.0        | 14.0                                        | ...  | ...            | 605             | ...              | ...   |
| 24x6   | .62 | .44            | 7.0         | 18.0                                        | 19.0 | 21.5           | 465             | 451              | 457   |
| 24x8   | .62 | .45            | 8.0         | 16.0                                        | ...  | ...            | 475             | ...              | ...   |
| 24x10  | .62 | .47            | 9.0         | 16.0                                        | ...  | ...            | 516             | ...              | ...   |
| 24x12  | .62 | .49            | 10.0        | 18.0                                        | ...  | ...            | 549             | 580              | ...   |
| 24x14  | .62 | .56            | 11.0        | 16.0                                        | ...  | ...            | 585             | ...              | ...   |
| 24x16  | .62 | .57            | 12.0        | 19.5                                        | ...  | ...            | 625             | 744              | ...   |
| 24x18  | .62 | .59            | 13.0        | 16.0                                        | ...  | ...            | 675             | ...              | ...   |
| 24x20  | .62 | .60            | 15.0        | 17.0                                        | ...  | ...            | 740             | ...              | ...   |
| 24     | .62 | .62            | 17.0        | 17.0                                        | ...  | ...            | 844             | ...              | ...   |
| 30x6   | .66 | .36            | 7.00        | 20.0                                        | ...  | ...            | 700             | ...              | ...   |
| 30x8   | .66 | .38            | 8.50        | 20.0                                        | ...  | ...            | 739             | ...              | ...   |
| 30x12  | .66 | .42            | 10.0        | 20.0                                        | ...  | ...            | 739             | ...              | ...   |
| 30x16  | .66 | .50            | 12.5        | 20.0                                        | ...  | ...            | 959             | ...              | ...   |
| 30x20  | .66 | .57            | 15.0        | 20.0                                        | ...  | ...            | 995             | ...              | ...   |
| 30x24  | .66 | .61            | 16.0        | 20.0                                        | ...  | ...            | 1160            | ...              | ...   |
| 30     | .66 | .66            | 20.0        | 20.0                                        | ...  | ...            | 1323            | ...              | ...   |
| 36x16  | .74 | .50            | 12.5        | 23.5                                        | ...  | ...            | 1350            | ...              | ...   |
| 36x24  | .74 | .61            | 16.0        | 23.5                                        | ...  | ...            | 1498            | ...              | ...   |
| 36x30  | .74 | .66            | 20.0        | 23.5                                        | ...  | ...            | 1555            | ...              | ...   |
| 36     | .74 | .74            | 23.5        | 23.5                                        | ...  | ...            | 1900            | ...              | ...   |
| 42     | .82 | .82            | 30.0        | 30.0                                        | ...  | ...            | 3175            | ...              | ...   |

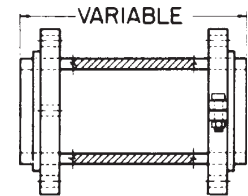
† Weights include swivel gland.

### MJ GLANDS



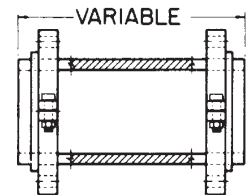
| Glands |        |      |        |
|--------|--------|------|--------|
| Size   | Weight | Size | Weight |
| 3      | 3      | 12   | 10     |
| 4      | 4      | 14   | 17     |
| 6      | 5      | 16   | 21     |
| 8      | 6      | 18   | 22     |
| 10     | 9      | 20   | 32     |
|        |        | 24   | 37     |

Swivel Glands, page 19-20  
Retainer Glands, page 7



### Swivel x Solid Adapter with Swivel Gland

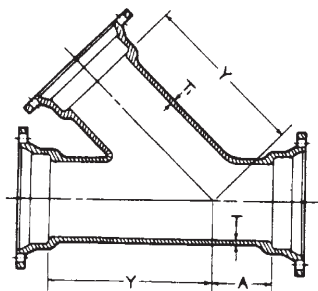
| Size by<br>Laying Length | Wall<br>Thickness | Weight |
|--------------------------|-------------------|--------|
| 6x13                     | .37               | 52     |
| 6x18                     | .37               | 65     |
| 6x24                     | .37               | 69     |
| 8x12                     | .39               | 52     |



### Swivel x Swivel Adapter

| Size by<br>Laying Length | Wall<br>Thickness | Weight |
|--------------------------|-------------------|--------|
| 6x12                     | .37               | 28     |
| 6x18                     | .37               | 49     |
| 6x24                     | .37               | 52     |

### WYES



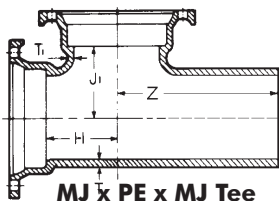
\*Wyes

| Size   | A   | Dimensions<br>Y | T   | T'  | Weights |
|--------|-----|-----------------|-----|-----|---------|
| 3      | 2.5 | 7.5             | .34 | .34 | 36      |
| 4x3    | 2.0 | 8.5             | .35 | .34 | 39      |
| 4      | 2.5 | 8.5             | .35 | .35 | 45      |
| 6x4    | 1.5 | 11.0            | .37 | .35 | 67      |
| 6      | 3.0 | 13.0            | .37 | .37 | 85      |
| 8x4    | 0.5 | 13.0            | .39 | .35 | 86      |
| 8x6    | 2.0 | 14.5            | .39 | .37 | 109     |
| 8      | 3.5 | 16.0            | .39 | .39 | 117     |
| 10x4   | 0.0 | 15.0            | .41 | .35 | 112     |
| 10x6   | 1.0 | 16.0            | .41 | .37 | 129     |
| 10x8   | 2.5 | 17.0            | .41 | .39 | 162     |
| 10     | 3.5 | 19.0            | .41 | .41 | 199     |
| 12x4   | 0.0 | 16.5            | .43 | .35 | 141     |
| 12x6   | 1.5 | 18.5            | .43 | .37 | 170     |
| 12x8   | 1.5 | 18.5            | .43 | .39 | 177     |
| 12x10  | 3.0 | 20.0            | .43 | .41 | 216     |
| 12     | 4.5 | 22.5            | .43 | .43 | 269     |
| †14    | 6.0 | 25.0            | .51 | .51 | 476     |
| 16x6   | 0.0 | 21.0            | .52 | .45 | 300     |
| 16x8   | 0.5 | 22.5            | .52 | .46 | 349     |
| †16x12 | 3.5 | 25.0            | .52 | .48 | 471     |
| †16    | 6.5 | 28.0            | .52 | .52 | 635     |

\* Not included in AWWA C153.

† Rated at 250 psi.

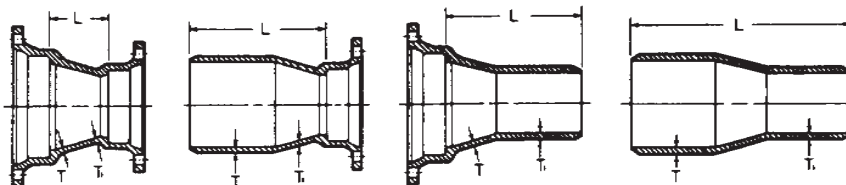
MJ x FE Flange Dimensions are on inside front cover.



MJ x PE x MJ Tee

| Size | T   | T'  | Dimensions<br>H | J'  | Z    | Weights |
|------|-----|-----|-----------------|-----|------|---------|
| 6    | .37 | .37 | 5.0             | 5.0 | 11.5 | 57      |
| 8x6  | .39 | .37 | 5.5             | 6.5 | 11.5 | 79      |
| 8    | .39 | .39 | 6.5             | 6.5 | 12.5 | 83      |
| 10   | .41 | .41 | 7.5             | 7.5 | 13.0 | 133     |

### REDUCERS



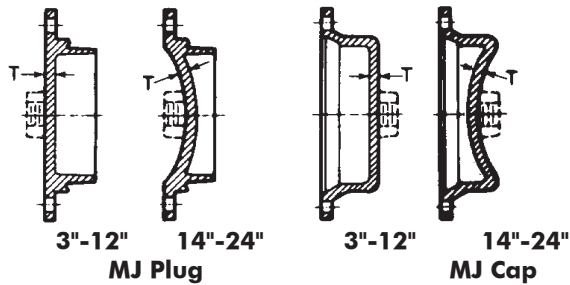
| MJ x MJ |     |     | MJSEBxPE |            | MJLEBxPE |         |      | PE x PE |     |     |
|---------|-----|-----|----------|------------|----------|---------|------|---------|-----|-----|
|         |     |     |          | Dimensions |          |         |      |         |     |     |
| Size    | T   | T¹  | MJ<br>L  | SEB<br>L   | LEB<br>L | PE<br>L | MJ   | Weights |     | PE  |
|         |     |     |          |            |          |         |      | SEB     | LEB |     |
| 4x3     | .35 | .34 | 3.0      | 8.5        | 8.5      | 14.0    | 18   | 17      | 17  | 18  |
| 6x3     | .37 | .34 | 5.0      | 10.5       | 10.5     | 16.0    | 28   | 25      | 27  | 20  |
| 6x4     | .37 | .35 | 4.0      | 9.5        | 9.5      | 15.0    | 28   | 26      | 27  | 26  |
| 8x4     | .39 | .35 | 5.0      | 10.5       | 10.5     | 16.0    | 36   | 34      | 36  | 33  |
| 8x6     | .39 | .37 | 4.0      | 9.5        | 9.5      | 15.0    | 39   | 38      | 39  | 30  |
| 10x4    | .41 | .35 | 7.0      | 12.5       | 12.5     | 18.0    | 53   | 46      | 51  | ... |
| 10x6    | .41 | .37 | 5.0      | 10.5       | 10.5     | 16.0    | 59   | 48      | 52  | 49  |
| 10x8    | .41 | .39 | 4.0      | 9.5        | 9.5      | 15.0    | 54   | 52      | 52  | 47  |
| 12x4    | .43 | .35 | 9.0      | 14.5       | 14.5     | 20.0    | 67   | 61      | 68  | 60  |
| 12x6    | .43 | .37 | 7.0      | 12.5       | 12.5     | 18.0    | 64   | 58      | 66  | 54  |
| 12x8    | .43 | .39 | 5.0      | 10.5       | 10.5     | 16.0    | 57   | 62      | 65  | 60  |
| 12x10   | .43 | .41 | 4.0      | 9.5        | 9.5      | 15.0    | 63   | 61      | 65  | 57  |
| 14x6    | .51 | .44 | 9.0      | 17.0       | 14.5     | 22.5    | 104  | 107     | 112 | ... |
| 14x8    | .51 | .45 | 7.0      | 15.0       | 12.5     | 20.5    | 104  | 107     | 108 | ... |
| 14x10   | .51 | .46 | 5.0      | 13.0       | 10.5     | 18.5    | 100  | 102     | 100 | ... |
| 14x12   | .51 | .47 | 4.0      | 12.0       | 9.5      | 17.5    | 100  | 101     | 100 | 100 |
| 16x6    | .52 | .45 | 11.0     | 19.0       | 16.5     | 24.5    | 132  | 131     | 141 | 128 |
| 16x8    | .52 | .46 | 9.0      | 17.0       | 14.5     | 22.5    | 136  | 128     | 136 | 136 |
| 16x10   | .52 | .47 | 7.0      | 15.0       | 12.5     | 20.5    | 128  | 124     | 128 | 123 |
| 16x12   | .52 | .48 | 5.0      | 13.0       | 10.5     | 18.5    | 120  | 123     | 119 | 113 |
| 16x14   | .52 | .51 | 4.0      | 12.0       | 12.0     | 20.0    | 140  | 139     | 138 | 133 |
| 18x8    | .59 | .45 | 14.0     | 22.0       | 19.5     | 27.5    | 201  | 180     | 195 | ... |
| 18x10   | .59 | .47 | 12.0     | 20.0       | 17.5     | 25.5    | 196  | 180     | 185 | ... |
| 18x12   | .59 | .49 | 10.0     | 18.0       | 15.5     | 23.5    | 175  | 170     | 190 | ... |
| 18x14   | .59 | .56 | 8.0      | 16.0       | 16.0     | 24.0    | 180  | 181     | 200 | ... |
| 18x16   | .59 | .57 | 7.0      | 15.0       | 15.0     | 23.0    | 194  | 180     | 190 | ... |
| 20x10   | .60 | .47 | 14.0     | 22.0       | 19.4     | 27.5    | 225  | 210     | 210 | ... |
| 20x12   | .60 | .49 | 12.0     | 20.0       | 17.5     | 25.5    | 214  | 208     | 210 | ... |
| 20x14   | .60 | .56 | 10.0     | 18.0       | 17.8     | 26.0    | 208  | 198     | 205 | ... |
| 20x16   | .60 | .57 | 8.0      | 16.0       | 15.8     | 24.0    | 225  | 215     | 222 | ... |
| 20x18   | .60 | .59 | 7.0      | 15.0       | 15.0     | 23.0    | 233  | 220     | ... | ... |
| 24x12   | .62 | .49 | 16.0     | 24.0       | 21.4     | 29.5    | 320  | 302     | 300 | ... |
| 24x14   | .62 | .56 | 14.0     | 22.0       | 21.8     | 30.0    | 314  | 325     | 322 | ... |
| 24x16   | .62 | .57 | 12.0     | 20.0       | 19.8     | 28.0    | 325  | 319     | 340 | ... |
| 24x18   | .62 | .59 | 10.0     | 18.0       | 18.0     | 26.0    | 325  | 310     | ... | ... |
| 24x20   | .62 | .60 | 8.0      | 16.0       | 16.0     | 24.0    | 315  | 305     | ... | ... |
| 30x16   | .66 | .50 | 30.0     | 39.0       | ...      | ...     | 475  | 565     | ... | ... |
| 30x18   | .66 | .54 | 28.0     | 37.0       | ...      | ...     | 495  | 590     | ... | ... |
| 30x20   | .66 | .57 | 24.0     | 33.0       | ...      | ...     | 525  | 560     | ... | ... |
| 30x24   | .66 | .61 | 10.0     | 24.5       | ...      | ...     | 478  | 495     | ... | ... |
| 36x16   | .74 | .50 | ...      | ...        | ...      | ...     | ...  | 890     | ... | ... |
| 36x20   | .74 | .57 | ...      | 45.0       | ...      | ...     | ...  | 874     | ... | ... |
| 36x24   | .74 | .61 | 19.0     | 33.0       | ...      | ...     | 770  | 746     | ... | ... |
| 36x30   | .74 | .66 | ...      | 24.5       | ...      | ...     | ...  | 725     | ... | ... |
| 42x30   | .82 | .66 | 20.0     | ...        | ...      | ...     | 1185 | ...     | ... | ... |
| 48x30   | .90 | .66 | 40.0     | ...        | ...      | ...     | 1505 | ...     | ... | ... |

# Tyler/Union

## MECHANICAL JOINT C153 DUCTILE IRON COMPACT FITTINGS

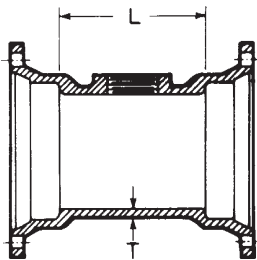
Sizes 3" thru 12" UL Listed For Fire Main Equipment

### SOLID & TAPPED PLUGS & CAPS



| Size | Dimensions |   | Max. Tap | Weights |      |
|------|------------|---|----------|---------|------|
|      | T          |   |          | Plugs   | Caps |
| 3    | .46        | 2 |          | 9       | 8    |
| 4    | .46        | 2 |          | 9       | 10   |
| 6    | .46        | 2 |          | 18      | 18   |
| 8    | .46        | 2 |          | 25      | 26   |
| 10   | .56        | 2 |          | 36      | 32   |
| 12   | .56        | 2 |          | 47      | 46   |
| 14   | .62        | 2 |          | 76      | 85   |
| 16   | .62        | 2 |          | 98      | 94   |
| 18   | .65        | 2 |          | 138     | 121  |
| 20   | .66        | 2 |          | 158     | 149  |
| 24   | .68        | 2 |          | 223     | 210  |
| 30   | .66        | 2 |          | 355     | 345  |
| 36   | .74        | 2 |          | 688     | 626  |

### TAPPED TEE

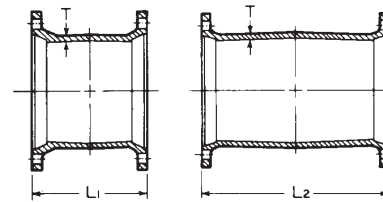


MJ x FE Flange  
Dimensions are  
on inside front  
cover.

#### MJ Tapped Tee (2" Tap)

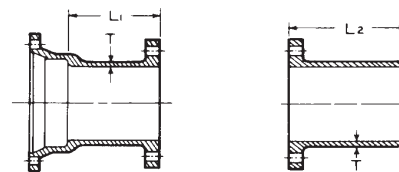
| Size | Dimensions |   | Max. Tap | Weights |
|------|------------|---|----------|---------|
|      | T          | L |          |         |
| 3    | .34        | 6 | 2        | 19      |
| 4    | .35        | 6 | 2        | 23      |
| 6    | .37        | 6 | 2        | 35      |
| 8    | .39        | 6 | 2        | 54      |
| 10   | .41        | 6 | 2        | 68      |
| 12   | .43        | 6 | 2        | 88      |
| 16   | .52        | 6 | 2        | 164     |

### SOLID SLEEVES



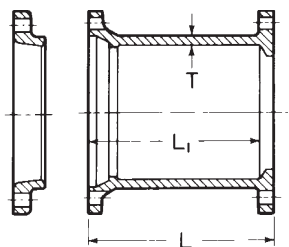
| Size | T   | Dimensions     |                | Weights |      |
|------|-----|----------------|----------------|---------|------|
|      |     | L <sup>1</sup> | L <sup>2</sup> | Short   | Long |
| 3    | .34 | 7.5            | 12             | 13      | 22   |
| 4    | .35 | 7.5            | 12             | 19      | 25   |
| 6    | .37 | 7.5            | 12             | 28      | 39   |
| 8    | .39 | 7.5            | 12             | 38      | 55   |
| 10   | .41 | 7.5            | 12             | 48      | 68   |
| 12   | .43 | 7.5            | 12             | 62      | 81   |
| 14   | .56 | 9.5            | 15             | 116     | 146  |
| 16   | .57 | 9.5            | 15             | 138     | 174  |
| 18   | .68 | 9.5            | 15             | 160     | 230  |
| 20   | .69 | 9.5            | 15             | 212     | 269  |
| 24   | .75 | 9.5            | 15             | 272     | 380  |
| 30   | .66 | 15.0           | 15             | 500     | ...  |
| 30   | .66 | ...            | 24             | ...     | 640  |
| 36   | .74 | 15.0           | 15             | 725     | ...  |
| 36   | .74 | ...            | 24             | ...     | 925  |
| 42   | .82 | ...            | 24             | ...     | 1146 |
| 48   | .90 | ...            | 24             | ...     | 1455 |

### ADAPTERS



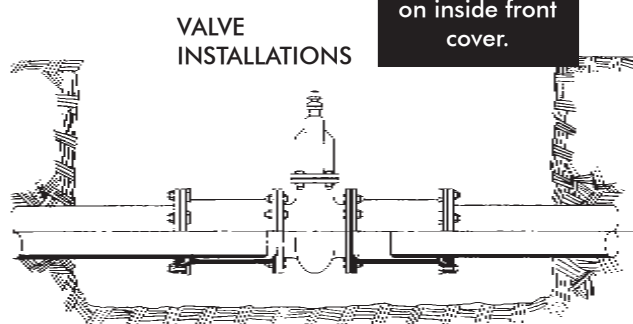
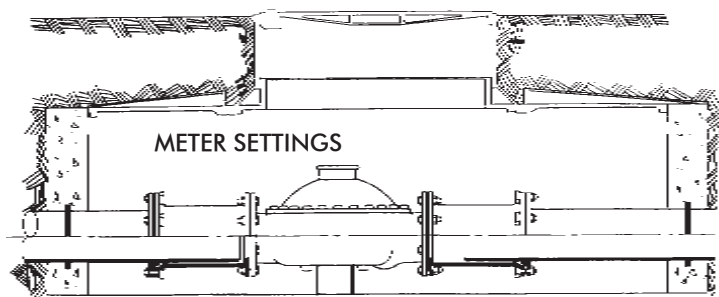
| Size | T   | Dimensions     |                | Weights |       |
|------|-----|----------------|----------------|---------|-------|
|      |     | L <sup>1</sup> | L <sup>2</sup> | MJxFE   | FExPE |
| 3    | .34 | 6              | 12             | 18      | ...   |
| 4    | .35 | 6              | 12             | 26      | 23    |
| 6    | .37 | 6              | 12             | 36      | 35    |
| 8    | .39 | 6              | 12             | 50      | 50    |
| 10   | .41 | 6              | 12             | 60      | 69    |
| 12   | .43 | 6              | 12             | 88      | 88    |
| 14   | .51 | 6              | 12             | 127     | ...   |
| 16   | .52 | 6              | 12             | 155     | 149   |
| 20   | .60 | 6              | ...            | 275     | ...   |
| 30   | .66 | 8              | ...            | 470     | ...   |
| 36   | .74 | 8              | ...            | 750     | ...   |

### DUAL PURPOSE CUTTING-IN SLEEVE



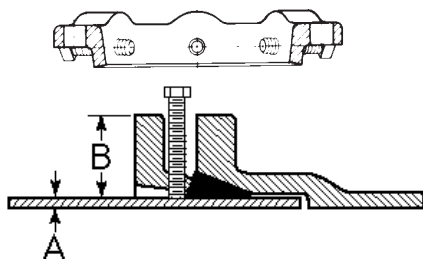
Flanged ends are faced and drilled per ANSI/AWWA C110/A21.10. Mechanical joint ends are designed to receive both standard and oversize gray or ductile iron pipe as shown above.

### TYPICAL CUTTING-IN SLEEVE INSTALLATIONS



MJ x FE Flange  
Dimensions are  
on inside front  
cover.

### \*RETAINER GLAND ASSEMBLY



See Installations Instructions..... Page 50

| Size | Pressure Rating, psi | Gland O.D. B | Pipe O.D. A | D.I. Pipe Wall Class | No of Set Screws | Size of Set Screws | Gland Weight | Weight w/Access. |
|------|----------------------|--------------|-------------|----------------------|------------------|--------------------|--------------|------------------|
| 3    | 350                  | 7.69         | 3.96        | 50-56                | 4                | 5/8x2              | 5            | 7                |
| 4    | 350                  | 9.12         | 4.80        | 50-56                | 4                | 5/8x2              | 6            | 13               |
| 6    | 350                  | 11.12        | 6.90        | 50-56                | 6                | 5/8x2              | 11           | 20               |
| 8    | 250                  | 13.37        | 9.05        | 50-56                | 9                | 5/8x2              | 13           | 25               |
| 10   | 250                  | 15.62        | 11.10       | 50-56                | 12               | 5/8x2              | 18           | 33               |
| 12   | 150                  | 17.88        | 13.20       | 50-56                | 16               | 5/8x2              | 23           | 38               |
| 14   | 250                  | 20.25        | 15.30       | 53-56                | 20               | 5/8x2 1/2          | 44           | 55               |
| 16   | 200                  | 22.50        | 17.40       | 53-56                | 24               | 5/8x2 1/2          | 51           | 64               |
| 18   | 200                  | 24.75        | 19.50       | 53-56                | 24               | 5/8x2 1/2          | 62           | 72               |
| 20   | 200                  | 27.00        | 21.60       | 53-56                | 28               | 5/8x3              | 73           | 91               |
| 24   | 150                  | 31.50        | 25.80       | 53-56                | 32               | 5/8x3              | 93           | 118              |

\* Not included in AWWA C110

### Pipe Wall Thickness:

Sizes 3"-12" are recommended for ductile iron pipe class 50 thru 56. Sizes 14" thru 24" are recommended for ductile iron pipe class 53 thru 56.

### DUCTILE IRON RETAINER GLANDS

Mechanical Joint Retainer Glands are designed to provide a method for restraining mechanical joint pipe and fittings and other standardized mechanical joints against possible joint separation, rupture or blow-out caused by internal water pressure.

The set screws are square-headed with Type C knurled cup points, and are shipped already assembled in the Glands. They are manufactured of 4140 grade alloy steel, and are heat treated to a Rock-wall "C" 45/53 case hardness. Tee-head bolts and gaskets are not included, but may be ordered separately. Recommended torque for set screws is 75 foot pounds, and set screws on opposite sides of the glands should be tightened alternately.

Tee-head bolt hole size and spacing are equal to MJ Glands as shown in AWWA C-111. Standard mechanical Joint gaskets as shown in C-111 should be used.