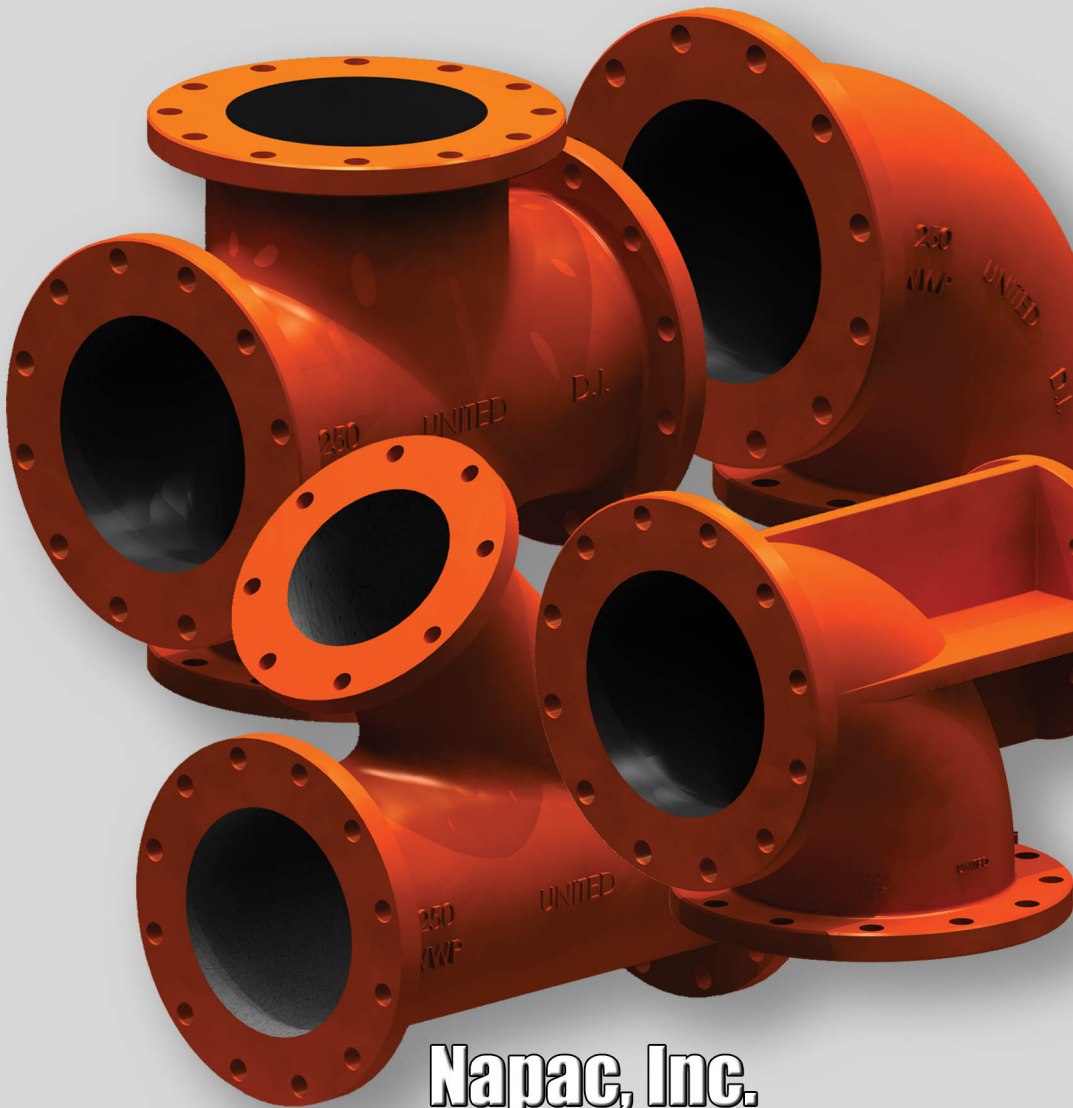




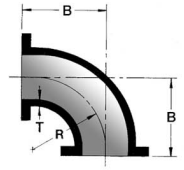
Flanged Fittings

AWWA C110
ANSI A21.10

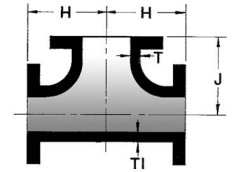


Napac, Inc.

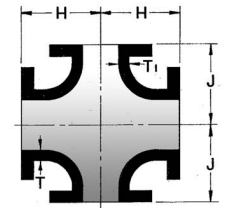
Bends



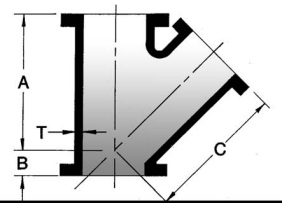
Tees



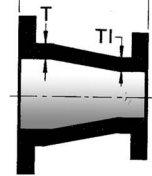
Crosses



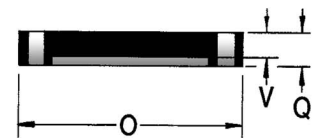
Laterals



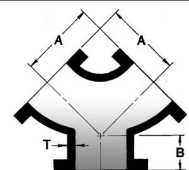
Reducers



Flanges



True Wyes



WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

UNITED BRAND FITTINGS

Our dedication to the mechanical piping industry has given us the opportunity to provide you with a quality comprehensive line of ductile iron flanged fittings exceeding competitive brands.

Manufactured from high strength ductile iron, our flanged fitting series are available in 3”~48” sizes in a variety of elbows, tees, crosses, laterals, reducers, and blind flanges. All are manufactured in strict accordance with AWWA C110, ANSI A21.10.

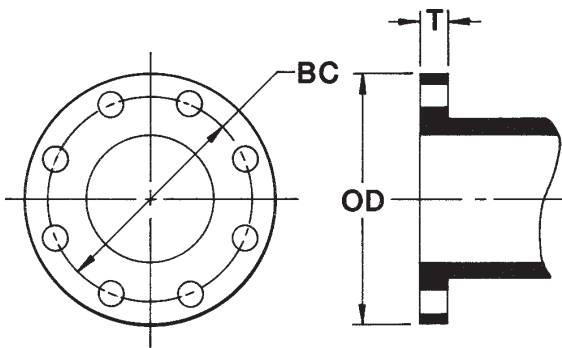
Material: Ductile Iron, ASTM A536

Flange: Faced and drilled in accordance with ANSI B16.1 Class 125

Lining: The standard lining is cement mortar with bitumen overlay in accordance with AWWA C104, ANSI A21.4. Other optional linings such as fusion bonded epoxy, glass etc., are also available.

Coating: The standard coating is a red color, zinc rich primer. Other optional coatings are also available.

Flange Details - Class 125 (ANSI B16.1)



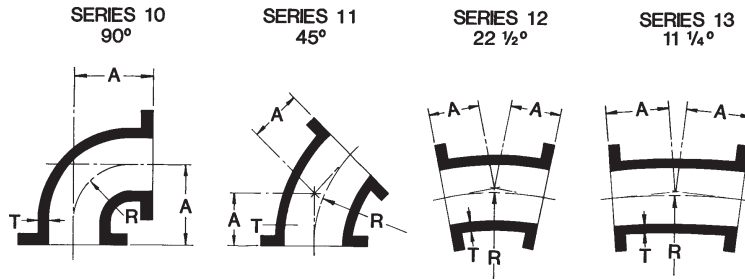
| Size | O.D. | B.C. | T | Bolt Hole Dia. | Bolt Dia. & Length | No. of Bolts |
|-------|-------|-------|---------|----------------|--------------------|--------------|
| 2 | 6.00 | 4.75 | 5/8 | 3/4 | 5/8 x 2 1/2 | 4 |
| 2 1/2 | 7.00 | 5.50 | 11/16 | 3/4 | 5/8 x 2 1/2 | 4 |
| 3 | 7.50 | 6.00 | 3/4 | 3/4 | 5/8 x 2 1/2 | 4 |
| 4 | 9.00 | 7.50 | 15/16 | 3/4 | 5/8 x 3 | 8 |
| 5 | 10.00 | 8.50 | 15/16 | 7/8 | 3/4 x 3 1/2 | 8 |
| 6 | 11.00 | 9.50 | 1 | 7/8 | 3/4 x 3 1/2 | 8 |
| 8 | 13.50 | 11.75 | 1 1/8 | 7/8 | 3/4 x 3 1/2 | 8 |
| 10 | 16.00 | 14.25 | 1 3/16 | 1 | 7/8 x 4 | 12 |
| 12 | 19.00 | 17.00 | 1 1/4 | 1 | 7/8 x 4 | 12 |
| 14 | 21.00 | 18.75 | 1 3/8 | 1 1/8 | 1 x 4 1/2 | 12 |
| 16 | 23.50 | 21.25 | 1 7/16 | 1 1/8 | 1 x 4 1/2 | 16 |
| 18 | 25.00 | 22.75 | 1 9/16 | 1 1/4 | 1 1/8 x 5 | 16 |
| 20 | 27.50 | 25.00 | 1 11/16 | 1 1/4 | 1 1/8 x 5 | 20 |
| 24 | 32.00 | 29.50 | 1 7/8 | 1 3/8 | 1 1/4 x 5 1/2 | 20 |
| 30 | 38.75 | 36.00 | 2 1/8 | 1 3/8 | 1 1/4 x 6 1/4 | 28 |
| 36 | 46.00 | 42.75 | 2 3/8 | 1 5/8 | 1 1/2 x 7 | 32 |
| 42 | 53.00 | 49.50 | 2 5/8 | 1 5/8 | 1 1/2 x 7 1/2 | 36 |
| 48 | 59.50 | 56.00 | 2 3/4 | 1 5/8 | 1 1/2 x 7 3/4 | 44 |

All dimensional data in inches.

UNITED DUCTILE IRON CLASS 250 FLANGED FITTINGS

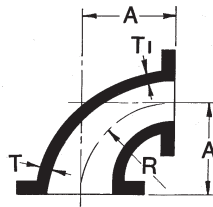
Bends

AWWA C110, ANSI A21.10



| Size | 90° Bend | | | | 45° Bend | | | | 22 1/2° Bend | | | | 11 1/4° Bend | | | | T |
|------|--------------|------|------|------|--------------|------|-------|------|--------------|------|--------|------|--------------|------|--------|------|------|
| | Part No. | A | R | Wgt. | Part No. | A | R | Wgt. | Part No. | A | R | Wgt. | Part No. | A | R | Wgt. | |
| 3 | W-10F-0303-D | 5.5 | 4.0 | 25 | W-11F-0303-D | 3.0 | 3.62 | 20 | W-12F-0303-D | 3.0 | 7.56 | 20 | W-13F-0303-D | 3.0 | 15.25 | 20 | .48 |
| 4 | W-10F-0404-D | 6.5 | 4.5 | 45 | W-11F-0404-D | 4.0 | 4.81 | 40 | W-12F-0404-D | 4.0 | 10.06 | 40 | W-13F-0404-D | 4.0 | 20.31 | 40 | .52 |
| 6 | W-10F-0606-D | 8.0 | 6.0 | 65 | W-11F-0606-D | 5.0 | 7.25 | 55 | W-12F-0606-D | 5.0 | 15.06 | 55 | W-13F-0606-D | 5.0 | 30.50 | 55 | .55 |
| 8 | W-10F-0808-D | 9.0 | 7.0 | 105 | W-11F-0808-D | 5.5 | 8.44 | 90 | W-12F-0808-D | 5.5 | 17.62 | 90 | W-13F-0808-D | 5.5 | 35.50 | 90 | .60 |
| 10 | W-10F-1010-D | 11.0 | 9.0 | 165 | W-11F-1010-D | 6.5 | 10.88 | 130 | W-12F-1010-D | 6.5 | 22.62 | 135 | W-13F-1010-D | 6.5 | 45.69 | 135 | .68 |
| 12 | W-10F-1212-D | 12.0 | 10.0 | 235 | W-11F-1212-D | 7.5 | 13.25 | 195 | W-12F-1212-D | 7.5 | 27.62 | 205 | W-13F-1212-D | 7.5 | 55.81 | 205 | .75 |
| 14 | W-10F-1414-D | 14.0 | 11.5 | 290 | W-11F-1414-D | 7.5 | 12.06 | 220 | W-12F-1414-D | 7.5 | 25.12 | 225 | W-13F-1414-D | 7.5 | 50.75 | 225 | .66 |
| 16 | W-10F-1616-D | 15.0 | 12.5 | 370 | W-11F-1616-D | 8.0 | 13.25 | 280 | W-12F-1616-D | 8.0 | 27.62 | 285 | W-13F-1616-D | 8.0 | 55.81 | 285 | .70 |
| 18 | W-10F-1818-D | 16.5 | 14.0 | 450 | W-11F-1818-D | 8.5 | 14.50 | 325 | W-12F-1818-D | 8.5 | 30.19 | 335 | W-13F-1818-D | 8.5 | 60.94 | 335 | .75 |
| 20 | W-10F-2020-D | 18.0 | 15.5 | 580 | W-11F-2020-D | 9.5 | 16.88 | 430 | W-12F-2020-D | 9.5 | 35.19 | 435 | W-13F-2020-D | 9.5 | 71.06 | 435 | .80 |
| 24 | W-10F-2424-D | 22.0 | 18.5 | 900 | W-11F-2424-D | 11.0 | 18.12 | 630 | W-12F-2424-D | 11.0 | 37.69 | 640 | W-13F-2424-D | 11.0 | 76.12 | 645 | .89 |
| 30 | W-10F-3030-D | 25.0 | 21.5 | 1430 | W-11F-3030-D | 15.0 | 27.75 | 1120 | W-12F-3030-D | 15.0 | 57.81 | 1135 | W-13F-3030-D | 15.0 | 116.75 | 1150 | 1.03 |
| 36 | W-10F-3636-D | 28.0 | 24.5 | 2135 | W-11F-3636-D | 18.0 | 35.00 | 1755 | W-12F-3636-D | 18.0 | 72.88 | 1790 | W-13F-3636-D | 18.0 | 147.25 | 1805 | 1.15 |
| 42 | W-10F-4242-D | 31.0 | 27.5 | 3055 | W-11F-4242-D | 21.0 | 42.25 | 2600 | W-12F-4242-D | 21.0 | 88.00 | 2665 | W-13F-4242-D | 21.0 | 177.69 | 2680 | 1.28 |
| 48 | W-10F-4848-D | 34.0 | 30.5 | 4095 | W-11F-4848-D | 24.0 | 49.50 | 3580 | W-12F-4848-D | 24.0 | 103.06 | 3665 | W-13F-4848-D | 24.0 | 208.12 | 3695 | 1.42 |

90° Reducing Bends



| Size | Part No. | A | R | T | T1 | Wgt. |
|---------|--------------|------|------|-----|-----|------|
| 4 x 3 | W-10F-0403-D | 6.5 | 4.5 | .52 | .48 | 33 |
| 6 x 3 | W-10F-0603-D | 8.0 | 6.0 | .55 | .48 | 45 |
| 6 x 4 | W-10F-0604-D | 8.0 | 6.0 | .55 | .52 | 55 |
| 8 x 4 | W-10F-0804-D | 9.0 | 7.0 | .60 | .52 | 75 |
| 8 x 6 | W-10F-0806-D | 9.0 | 7.0 | .60 | .55 | 85 |
| 10 x 4 | W-10F-1004-D | 11.0 | 9.0 | .68 | .52 | 110 |
| 10 x 6 | W-10F-1006-D | 11.0 | 9.0 | .68 | .55 | 135 |
| 10 x 8 | W-10F-1008-D | 11.0 | 9.0 | .68 | .60 | 150 |
| 12 x 4 | W-10F-1204-D | 12.0 | 10.0 | .75 | .52 | 140 |
| 12 x 6 | W-10F-1206-D | 12.0 | 10.0 | .75 | .55 | 160 |
| 12 x 8 | W-10F-1208-D | 12.0 | 10.0 | .75 | .60 | 180 |
| 12 x 10 | W-10F-1210-D | 12.0 | 10.0 | .75 | .68 | 210 |
| 14 x 6 | W-10F-1406-D | 14.0 | 11.5 | .66 | .55 | 144 |
| 14 x 8 | W-10F-1408-D | 14.0 | 11.5 | .66 | .60 | 200 |
| 14 x 10 | W-10F-1410-D | 14.0 | 11.5 | .66 | .68 | 245 |
| 14 x 12 | W-10F-1412-D | 14.0 | 11.5 | .66 | .75 | 270 |
| 16 x 6 | W-10F-1606-D | 15.0 | 12.5 | .70 | .55 | 220 |
| 16 x 8 | W-10F-1608-D | 15.0 | 12.5 | .70 | .60 | 240 |
| 16 x 10 | W-10F-1610-D | 15.0 | 12.5 | .70 | .68 | 280 |
| 16 x 12 | W-10F-1612-D | 15.0 | 12.5 | .70 | .75 | 310 |
| 16 x 14 | W-10F-1614-D | 15.0 | 12.5 | .70 | .66 | 330 |
| 18 x 6 | W-10F-1806-D | 16.5 | 14.0 | .75 | .70 | 260 |
| 18 x 8 | W-10F-1808-D | 16.5 | 14.0 | .75 | .60 | 280 |
| 18 x 10 | W-10F-1810-D | 16.5 | 14.0 | .75 | .68 | 320 |
| 18 x 12 | W-10F-1812-D | 16.5 | 14.0 | .75 | .75 | 350 |
| 18 x 14 | W-10F-1814-D | 16.5 | 14.0 | .75 | .66 | 370 |
| 18 x 16 | W-10F-1816-D | 16.5 | 14.0 | .75 | .70 | 410 |

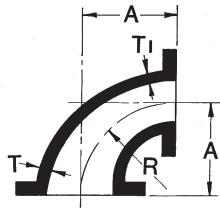
| Size | Part No. | A | R | T | T1 | Wgt. |
|---------|--------------|------|------|------|-----|------|
| 20 x 6 | W-10F-2006-D | 18.0 | 15.5 | .80 | .55 | 320 |
| 20 x 8 | W-10F-2008-D | 18.0 | 15.5 | .80 | .60 | 345 |
| 20 x 10 | W-10F-2010-D | 18.0 | 15.5 | 1.03 | .68 | 385 |
| 20 x 12 | W-10F-2012-D | 18.0 | 15.5 | .80 | .75 | 415 |
| 20 x 14 | W-10F-2014-D | 18.0 | 15.5 | .80 | .66 | 435 |
| 20 x 16 | W-10F-2016-D | 18.0 | 15.5 | .80 | .70 | 475 |
| 20 x 18 | W-10F-2018-D | 18.0 | 15.5 | .80 | .75 | 515 |
| 24 x 6 | W-10F-2406-D | 22.0 | 18.5 | .89 | .55 | 480 |
| 24 x 8 | W-10F-2408-D | 22.0 | 18.5 | .89 | .60 | 505 |
| 24 x 10 | W-10F-2410-D | 22.0 | 18.5 | .89 | .68 | 545 |
| 24 x 12 | W-10F-2412-D | 22.0 | 18.5 | .89 | .75 | 575 |
| 24 x 14 | W-10F-2414-D | 22.0 | 18.5 | .89 | .66 | 595 |
| 24 x 16 | W-10F-2416-D | 22.0 | 18.5 | .89 | .70 | 635 |
| 24 x 18 | W-10F-2418-D | 22.0 | 18.5 | .89 | .75 | 675 |
| 24 x 20 | W-10F-2420-D | 22.0 | 18.5 | .89 | .80 | 740 |
| 30 x 12 | W-10F-3012-D | 25.0 | 21.5 | 1.03 | .75 | 840 |
| 30 x 14 | W-10F-3014-D | 25.0 | 21.5 | 1.37 | .82 | 860 |
| 30 x 16 | W-10F-3016-D | 25.0 | 21.5 | 1.03 | .70 | 900 |
| 30 x 18 | W-10F-3018-D | 25.0 | 21.5 | 1.03 | .75 | 940 |
| 30 x 20 | W-10F-3020-D | 25.0 | 21.5 | 1.03 | .80 | 1005 |
| 30 x 24 | W-10F-3024-D | 25.0 | 21.5 | 1.03 | .89 | 1165 |
| 36 x 12 | W-10F-3612-D | 28.0 | 24.5 | 1.15 | .75 | 1195 |
| 36 x 14 | W-10F-3614-D | 28.0 | 24.5 | 1.15 | .66 | 1215 |
| 36 x 16 | W-10F-3616-D | 28.0 | 24.5 | 1.15 | .70 | 1255 |
| 36 x 18 | W-10F-3618-D | 28.0 | 24.5 | 1.15 | .75 | 1295 |
| 36 x 20 | W-10F-3620-D | 28.0 | 24.5 | 1.15 | .80 | 1360 |
| 36 x 24 | W-10F-3624-D | 28.0 | 24.5 | 1.15 | .89 | 1520 |

UNITED DUCTILE IRON CLASS 250 FLANGED FITTINGS

AWWA C110, ANSI A21.10

90° Reducing Bends (cont.)

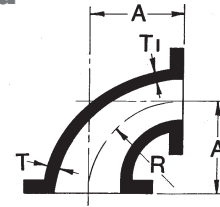
SERIES 10



| Size | Part No. | A | R | T | T1 | Wgt. |
|---------|--------------|------|------|------|------|------|
| 36 x 30 | W-10F-3630-D | 28.0 | 24.5 | 1.15 | 1.03 | 1785 |
| 42 x 12 | W-10F-4212-D | 31.0 | 27.5 | 1.28 | .75 | 1655 |
| 42 x 14 | W-10F-4214-D | 31.0 | 27.5 | 1.28 | .66 | 1675 |
| 42 x 16 | W-10F-4216-D | 31.0 | 27.5 | 1.28 | .70 | 1715 |
| 42 x 18 | W-10F-4218-D | 31.0 | 27.5 | 1.28 | .75 | 1755 |
| 42 x 20 | W-10F-4220-D | 31.0 | 27.5 | 1.28 | .80 | 1820 |
| 42 x 24 | W-10F-4224-D | 31.0 | 27.5 | 1.28 | .89 | 1980 |
| 42 x 30 | W-10F-4230-D | 31.0 | 27.5 | 1.28 | 1.03 | 2245 |
| 42 x 36 | W-10F-4236-D | 31.0 | 27.5 | 1.28 | 1.15 | 2800 |
| 48 x 12 | W-10F-4812-D | 34.0 | 30.5 | 1.42 | .75 | 2178 |
| 48 x 14 | W-10F-4814-D | 34.0 | 30.5 | 1.42 | .66 | 2195 |
| 48 x 16 | W-10F-4816-D | 34.0 | 30.5 | 1.42 | .70 | 2235 |
| 48 x 18 | W-10F-4818-D | 34.0 | 30.5 | 1.42 | .75 | 2275 |
| 48 x 20 | W-10F-4820-D | 34.0 | 30.5 | 1.42 | .80 | 2340 |
| 48 x 24 | W-10F-4824-D | 34.0 | 30.5 | 1.42 | .89 | 2500 |
| 48 x 30 | W-10F-4830-D | 34.0 | 30.5 | 1.42 | 1.03 | 2765 |
| 48 x 36 | W-10F-4836-D | 34.0 | 30.5 | 1.42 | 1.15 | 3115 |
| 48 x 42 | W-10F-4842-D | 34.0 | 30.5 | 1.42 | 1.28 | 3580 |

90° Long Radius Reducing Bend

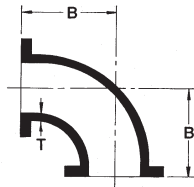
SERIES 15R



| Size | Part No. | A | R | T | T1 | Wgt. |
|---------|--------------|------|------|------|------|------|
| 4 x 3 | W-15F-0403-D | 9.0 | 9.0 | .52 | .48 | 38 |
| 6 x 3 | W-15F-0603-D | 11.5 | 9.5 | .55 | .48 | 55 |
| 6 x 4 | W-15F-0604-D | 11.5 | 9.5 | .55 | .52 | 87 |
| 8 x 4 | W-15F-0804-D | 14.0 | 12.0 | .60 | .52 | 95 |
| 8 x 6 | W-15F-0806-D | 14.0 | 12.0 | .60 | .55 | 110 |
| 10 x 4 | W-15F-1004-D | 16.5 | 14.5 | .68 | .52 | 135 |
| 10 x 6 | W-15F-1006-D | 16.5 | 14.5 | .68 | .55 | 150 |
| 10 x 8 | W-15F-1008-D | 16.5 | 14.5 | .68 | .60 | 175 |
| 12 x 4 | W-15F-1204-D | 19.0 | 17.0 | .75 | .52 | 190 |
| 12 x 6 | W-15F-1206-D | 19.0 | 17.0 | .75 | .55 | 205 |
| 12 x 8 | W-15F-1208-D | 19.0 | 17.0 | .75 | .60 | 235 |
| 12 x 10 | W-15F-1210-D | 19.0 | 17.0 | .75 | .68 | 250 |
| 14 x 8 | W-15F-1408-D | 21.5 | 19.0 | .66 | .60 | 285 |
| 14 x 10 | W-15F-1410-D | 21.5 | 19.0 | .66 | .68 | 325 |
| 14 x 12 | W-15F-1412-D | 21.5 | 19.0 | .66 | .75 | 370 |
| 16 x 8 | W-15F-1608-D | 24.0 | 21.5 | .70 | .60 | 395 |
| 16 x 10 | W-15F-1610D | 24.0 | 21.5 | .70 | .68 | 420 |
| 16 x 12 | W-15F-1612-D | 24.0 | 21.5 | .70 | .75 | 445 |
| 16 x 14 | W-15F-1614-D | 24.0 | 21.5 | .70 | .66 | 460 |
| 18 x 10 | W-15F-1810-D | 26.5 | 24.0 | .75 | .68 | 465 |
| 18 x 12 | W-15F-1812-D | 26.5 | 24.0 | .75 | .75 | 585 |
| 18 x 14 | W-15F-1814-D | 26.5 | 24.0 | .75 | .66 | 535 |
| 18 x 16 | W-15F-1816-D | 26.5 | 24.0 | .75 | .70 | 585 |
| 20 x 10 | W-15F-2010-D | 29.0 | 26.5 | .80 | .68 | 640 |
| 20 x 12 | W-15F-2012-D | 29.0 | 26.5 | .80 | .75 | 630 |
| 20 x 14 | W-15F-2014-D | 29.0 | 26.5 | .80 | .66 | 770 |
| 20 x 16 | W-15F-2016-D | 29.0 | 26.5 | .80 | .70 | 695 |
| 20 x 18 | W-15F-2018-D | 29.0 | 26.5 | .80 | .75 | 905 |
| 24 x 12 | W-15F-2412-D | 34.0 | 30.5 | .89 | .75 | 855 |
| 24 x 14 | W-15F-2414-D | 34.0 | 30.5 | .89 | .66 | 875 |
| 24 x 16 | W-15F-2416-D | 34.0 | 30.5 | .89 | .70 | 940 |
| 24 x 18 | W-15F-2418-D | 34.0 | 30.5 | .89 | .75 | 1230 |
| 24 x 20 | W-15F-2420-D | 34.0 | 30.5 | .89 | .80 | 1080 |
| 30 x 16 | W-15F-3016-D | 41.5 | 38.0 | 1.03 | .70 | 1400 |
| 30 x 20 | W-15F-3020-D | 41.5 | 38.0 | 1.03 | .80 | 1575 |
| 30 x 24 | W-15F-3024-D | 41.5 | 38.0 | 1.03 | .89 | 2230 |
| 36 x 20 | W-15F-3620-D | 49.0 | 45.5 | 1.15 | .80 | 2835 |
| 36 x 24 | W-15F-3624-D | 49.0 | 45.5 | 1.15 | .89 | 3140 |
| 36 x 30 | W-15F-3630-D | 49.0 | 45.5 | 1.15 | 1.03 | 3675 |
| 42 x 30 | W-15F-4230-D | 56.5 | 53.0 | 1.28 | 1.03 | 4905 |
| 42 x 36 | W-15F-4236-D | 56.5 | 56.5 | 1.28 | 1.15 | 5270 |
| 48 x 30 | W-15F-4830-D | 64.0 | 60.5 | 1.42 | 1.03 | 6305 |
| 48 x 36 | W-15F-4836-D | 64.0 | 60.5 | 1.42 | 1.15 | 7145 |
| 48 x 42 | W-15F-4842-D | 64.0 | 60.5 | 1.42 | 1.28 | 8065 |

90° Long Radius Bend

SERIES 15

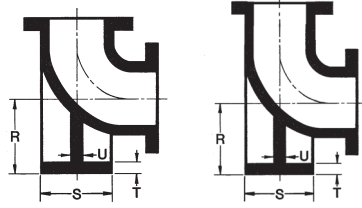


| Size | Part No. | B | T | Wgt. |
|------|--------------|------|------|------|
| 3 | W-15F-0303-D | 7.75 | .48 | 30 |
| 4 | W-15F-0404-D | 9.0 | .52 | 50 |
| 6 | W-15F-0606-D | 11.5 | .55 | 80 |
| 8 | W-15F-0808-D | 14.0 | .60 | 140 |
| 10 | W-15F-1010-D | 16.5 | .68 | 215 |
| 12 | W-15F-1212-D | 19.0 | .75 | 325 |
| 14 | W-15F-1414-D | 21.5 | .66 | 385 |
| 16 | W-15F-1616-D | 24.0 | .70 | 505 |
| 18 | W-15F-1818-D | 26.5 | .75 | 630 |
| 20 | W-15F-2020-D | 29.0 | .80 | 810 |
| 24 | W-15F-2424-D | 34.0 | .89 | 1240 |
| 30 | W-15F-3030-D | 41.5 | 1.03 | 2105 |
| 36 | W-15F-3636-D | 49.0 | 1.15 | 3285 |
| 42 | W-15F-4242-D | 56.5 | 1.28 | 4865 |
| 48 | W-15F-4848-D | 64.0 | 1.42 | 6790 |

UNITED DUCTILE IRON CLASS 250 FLANGED FITTINGS

Base Bend & Long Radius Base Bend

SERIES 16 (Standard), SERIES 21 (Long Radius)

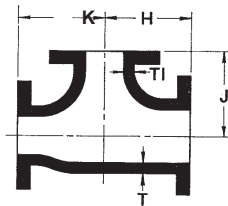


| Size | Part No. (Standard) | Part No. (Long Radius) | R | S (dia.) | T | U | Wgt. (Std.) | Wgt. (Long) |
|------|---------------------|------------------------|-------|----------|------|------|-------------|-------------|
| 3 | W-16F-0303-D | W-21F-0303-D | 4.88 | 5.0 | .56 | .50 | 35 | 42 |
| 4 | W-16F-0404-D | W-21F-0404-D | 5.50 | 6.0 | .62 | .50 | 55 | 65 |
| 6 | W-16F-0606-D | W-21F-0606-D | 7.00 | 7.0 | .69 | .62 | 85 | 110 |
| 8 | W-16F-0808-D | W-21F-0808-D | 8.38 | 9.0 | .94 | .88 | 145 | 195 |
| 10 | W-16F-1010-D | W-21F-1010-D | 9.75 | 9.0 | .94 | .88 | 210 | 280 |
| 12 | W-16F-1212-D | W-21F-1212-D | 11.25 | 11.0 | 1.00 | 1.00 | 300 | 420 |
| 14 | W-16F-1414-D | W-21F-1414-D | 12.50 | 11.0 | 1.00 | 1.00 | 360 | 490 |
| 16 | W-16F-1616-D | W-21F-1616-D | 13.75 | 11.0 | 1.00 | 1.00 | 445 | 615 |
| 18 | W-16F-1818-D | W-21F-1818-D | 15.00 | 13.5 | 1.12 | 1.12 | 565 | 800 |
| 20 | W-16F-2020-D | W-21F-2020-D | 16.00 | 13.5 | 1.12 | 1.12 | 700 | 985 |
| 24 | W-16F-2424-D | W-21F-2424-D | 18.50 | 13.5 | 1.12 | 1.12 | 1035 | 1430 |
| 30 | W-16F-3030-D | W-21F-3030-D | 23.00 | 16.0 | 1.19 | 1.15 | 1625 | 2400 |
| 36 | W-16F-3636-D | W-21F-3636-D | 26.00 | 19.0 | 1.25 | 1.15 | 2385 | 3680 |
| 42 | W-16F-4242-D | W-21F-4242-D | 30.00 | 23.5 | 1.44 | 1.28 | 3485 | 5515 |
| 48 | W-16F-4848-D | W-21F-4848-D | 34.00 | 25.0 | 1.56 | 1.42 | 4810 | 7635 |

Reducing Tee

(on run and/or branch)

SERIES 26



| Size | Part No. | H | K | J | T | T1 | Wgt. |
|--------------|----------------|------|------|------|-----|-----|------|
| 4 x 3 x 4 | W-26F-040304-D | 8.0 | 8.0 | 8.0 | .52 | .52 | 60 |
| 6 x 4 x 4 | W-26F-060404-D | 8.0 | 8.0 | 8.0 | .55 | .60 | 90 |
| 6 x 4 x 6 | W-26F-060406-D | 8.0 | 8.0 | 8.0 | .55 | .52 | 95 |
| 8 x 4 x 8 | W-26F-080408-D | 9.0 | 9.0 | 9.0 | .60 | .52 | 140 |
| 8 x 6 x 4 | W-26F-080604-D | 9.0 | 9.0 | 9.0 | .60 | .55 | 125 |
| 8 x 6 x 6 | W-26F-080606-D | 9.0 | 9.0 | 9.0 | .60 | .55 | 145 |
| 8 x 6 x 8 | W-26F-080608-D | 9.0 | 9.0 | 9.0 | .60 | .55 | 180 |
| 10 x 8 x 8 | W-26F-100808-D | 11.0 | 11.0 | 11.0 | .80 | .55 | 232 |
| 10 x 8 x 10 | W-26F-100810-D | 11.0 | 11.0 | 11.0 | .80 | .60 | 262 |
| 10 x 10 x 12 | W-26F-101012-D | 12.0 | 12.0 | 12.0 | .87 | .80 | 380 |
| 12 x 8 x 8 | W-26F-120808-D | 12.0 | 12.0 | 12.0 | .81 | .62 | 298 |
| 12 x 10 x 10 | W-26F-121010-D | 12.0 | 12.0 | 12.0 | .81 | .75 | 340 |
| 12 x 10 x 12 | W-26F-121012-D | 12.0 | 12.0 | 12.0 | .81 | .75 | 365 |

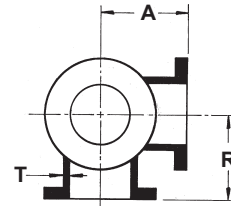
Other sizes available upon request.

90° Side Outlet Bend

AWWA C110, ANSI A21.10

Bend

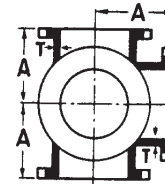
SERIES 18



| Size | Part No. | A | R | T | Wgt. |
|------|--------------|------|------|------|------|
| 4 | W-18F-0404-D | 6.5 | 6.5 | .50 | 60 |
| 6 | W-18F-0606-D | 8.0 | 8.0 | .56 | 95 |
| 8 | W-18F-0808-D | 9.0 | 9.0 | .62 | 150 |
| 10 | W-18F-1010-D | 11.0 | 11.0 | .75 | 235 |
| 12 | W-18F-1212-D | 12.0 | 12.0 | .81 | 335 |
| 14 | W-18F-1414-D | 14.0 | 14.0 | .66 | 406 |
| 16 | W-18F-1616-D | 15.0 | 15.0 | .70 | 595 |
| 18 | W-18F-1818-D | 16.5 | 16.5 | .75 | 730 |
| 20 | W-18F-2020-D | 18.0 | 18.0 | .80 | 936 |
| 24 | W-18F-2424-D | 22.0 | 22.0 | .89 | 1480 |
| 30 | W-18F-3030-D | 25.0 | 25.0 | 1.03 | 2300 |
| 36 | W-18F-3636-D | 28.0 | 28.0 | 1.15 | 2700 |
| 42 | W-18F-4242-D | 31.0 | 31.0 | 1.28 | 3600 |
| 48 | W-18F-4848-D | 34.0 | 34.0 | 1.42 | 5125 |

Side Outlet Tee

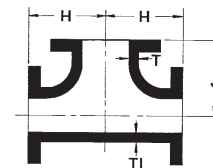
SERIES 19



| Size | Part No. | A | T | Wgt. |
|------|--------------|------|-----|------|
| 3 | W-19F-0303-D | 5.5 | .37 | 50 |
| 4 | W-19F-0404-D | 6.5 | .50 | 80 |
| 6 | W-19F-0606-D | 8.0 | .56 | 135 |
| 8 | W-19F-0808-D | 9.0 | .62 | 210 |
| 10 | W-19F-1010-D | 11.0 | .68 | 330 |
| 12 | W-19F-1212-D | 12.0 | .75 | 470 |
| 14 | W-19F-1414-D | 14.0 | .66 | 650 |
| 16 | W-19F-1616-D | 15.0 | .70 | 850 |
| 18 | W-19F-1818-D | 16.5 | .75 | 1040 |
| 20 | W-19F-2020-D | 18.0 | .80 | 1330 |
| 24 | W-19F-2424-D | 22.0 | .89 | 2080 |

Bullhead Tee

SERIES 27



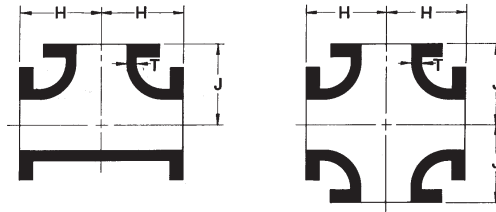
| Size | Part No. | H | J | T | T1 | Wgt. |
|--------------|----------------|------|------|-----|-----|------|
| 4 x 4 x 6 | W-27F-040406-D | 8.0 | 8.0 | .52 | .55 | 88 |
| 6 x 6 x 8 | W-27F-060608-D | 9.0 | 9.0 | .55 | .60 | 142 |
| 8 x 8 x 10 | W-27F-080810-D | 11.0 | 11.0 | .60 | .68 | 240 |
| 10 x 10 x 12 | W-27F-101012-D | 12.0 | 12.0 | .80 | .87 | 340 |

UNITED DUCTILE IRON CLASS 250 FLANGED FITTINGS

AWWA C110, ANSI A21.10

Tees & Crosses

SERIES 20 (Tee), SERIES 35 (Cross)



| Size | Part No. | | H | J | T | T1 | Wgt. | |
|---------|--------------|--------------|------|------|-----|-----|------|-------|
| | Tee | Cross | | | | | Tee | Cross |
| 3 | W-20F-0303-D | W-35F-0303-D | 5.5 | 5.5 | .48 | .48 | 40 | 50 |
| 4 | W-20F-0404-D | W-35F-0404-D | 6.5 | 6.5 | .52 | .52 | 65 | 80 |
| 4 x 3 | W-20F-0403-D | W-35F-0403-D | 6.5 | 6.5 | .52 | .48 | 60 | 70 |
| 6 | W-20F-0606-D | W-35F-0606-D | 8.0 | 8.0 | .55 | .55 | 95 | 120 |
| 6 x 3 | W-20F-0603-D | W-35F-0603-D | 8.0 | 8.0 | .55 | .48 | 85 | 95 |
| 6 x 4 | W-20F-0604-D | W-35F-0604-D | 8.0 | 8.0 | .55 | .52 | 90 | 110 |
| 8 | W-20F-0808-D | W-35F-0808-D | 9.0 | 9.0 | .60 | .60 | 155 | 195 |
| 8 x 4 | W-20F-0804-D | W-35F-0804-D | 9.0 | 9.0 | .60 | .52 | 140 | 155 |
| 8 x 6 | W-20F-0806-D | W-35F-0806-D | 9.0 | 9.0 | .60 | .55 | 145 | 165 |
| 10 | W-20F-1010-D | W-35F-1010-D | 11.0 | 11.0 | .80 | .80 | 270 | 330 |
| 10 x 4 | W-20F-1004-D | W-35F-1004-D | 11.0 | 11.0 | .68 | .52 | 205 | 220 |
| 10 x 6 | W-20F-1006-D | W-35F-1006-D | 11.0 | 11.0 | .68 | .55 | 215 | 240 |
| 10 x 8 | W-20F-1008-D | W-35F-1008-D | 11.0 | 11.0 | .68 | .60 | 225 | 265 |
| 12 | W-20F-1212-D | W-35F-1212-D | 12.0 | 12.0 | .87 | .87 | 385 | 460 |
| 12 x 4 | W-20F-1204-D | W-35F-1204-D | 12.0 | 12.0 | .75 | .52 | 290 | 310 |
| 12 x 6 | W-20F-1206-D | W-35F-1206-D | 12.0 | 12.0 | .75 | .55 | 295 | 320 |
| 12 x 8 | W-20F-1208-D | W-35F-1208-D | 12.0 | 12.0 | .75 | .60 | 310 | 345 |
| 12 x 10 | W-20F-1210-D | W-35F-1210-D | 12.0 | 12.0 | .87 | .80 | 360 | 345 |
| 14 | W-20F-1414-D | W-35F-1414-D | 14.0 | 14.0 | .66 | .75 | 435 | 530 |
| 14 x 6 | W-20F-1406-D | W-35F-1406-D | 14.0 | 14.0 | .66 | .55 | 375 | 400 |
| 14 x 8 | W-20F-1408-D | W-35F-1408-D | 14.0 | 14.0 | .66 | .60 | 390 | 425 |
| 14 x 10 | W-20F-1410-D | W-35F-1410-D | 14.0 | 14.0 | .66 | .68 | 400 | 460 |
| 14 x 12 | W-20F-1412-D | W-35F-1412-D | 14.0 | 14.0 | .66 | .75 | 425 | 505 |
| 16 | W-20F-1616-D | W-35F-1616-D | 15.0 | 15.0 | .70 | .70 | 550 | 665 |
| 16 x 6 | W-20F-1606-D | W-35F-1606-D | 15.0 | 15.0 | .70 | .55 | 465 | 490 |
| 16 x 8 | W-20F-1608-D | W-35F-1608-D | 15.0 | 15.0 | .70 | .60 | 475 | 520 |
| 16 x 10 | W-20F-1610-D | W-35F-1610-D | 15.0 | 15.0 | .70 | .68 | 495 | 555 |
| 16 x 12 | W-20F-1612-D | W-35F-1612-D | 15.0 | 15.0 | .70 | .75 | 520 | 605 |
| 16 x 14 | W-20F-1614-D | W-35F-1614-D | 15.0 | 15.0 | .70 | .66 | 530 | 620 |
| 18 | W-20F-1818-D | W-35F-1818-D | 16.5 | 16.5 | .75 | .75 | 665 | 795 |
| 18 x 6 | W-20F-1806-D | W-35F-1806-D | 13.0 | 15.5 | .75 | .55 | 480 | 505 |
| 18 x 8 | W-20F-1808-D | W-35F-1808-D | 13.0 | 15.5 | .75 | .60 | 495 | 535 |
| 18 x 10 | W-20F-1810-D | W-35F-1810-D | 13.0 | 15.5 | .75 | .68 | 510 | 560 |
| 18 x 12 | W-20F-1812-D | W-35F-1812-D | 13.0 | 15.5 | .75 | .75 | 535 | 610 |
| 18 x 14 | W-20F-1814-D | W-35F-1814-D | 16.5 | 16.5 | .75 | .66 | 630 | 720 |
| 18 x 16 | W-20F-1816-D | W-35F-1816-D | 16.5 | 16.5 | .75 | .70 | 650 | 765 |
| 20 | W-20F-2020-D | W-35F-2020-D | 18.0 | 18.0 | .80 | .80 | 855 | 1016 |
| 20 x 6 | W-20F-2006-D | W-35F-2006-D | 14.0 | 17.0 | .80 | .55 | 610 | 635 |
| 20 x 8 | W-20F-2008-D | W-35F-2008-D | 14.0 | 17.0 | .80 | .60 | 620 | 665 |
| 20 x 10 | W-20F-2010-D | W-35F-2010-D | 14.0 | 17.0 | .80 | .68 | 635 | 685 |
| 20 x 12 | W-20F-2012-D | W-35F-2012-D | 14.0 | 17.0 | .80 | .75 | 660 | 735 |
| 20 x 14 | W-20F-2014-D | W-35F-2014-D | 14.0 | 17.0 | .80 | .66 | 665 | 745 |
| 20 x 16 | W-20F-2016-D | W-35F-2016-D | 18.0 | 18.0 | .80 | .70 | 810 | 915 |

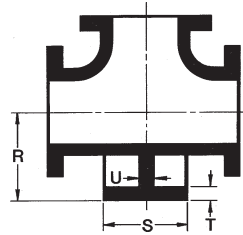
| Size | Part No. | | H | J | T | T1 | Wgt. | |
|---------|--------------|--------------|------|------|------|------|------|-------|
| | Tee | Cross | | | | | Tee | Cross |
| 20 x 18 | W-20F-2018-D | W-35F-2018-D | 18.0 | 18.0 | .80 | 0.75 | 820 | 945 |
| 24 | W-20F-2424-D | W-35F-2424-D | 22.0 | 22.0 | .89 | 0.89 | 1330 | 1570 |
| 24 x 6 | W-20F-2406-D | W-35F-2406-D | 15.0 | 19.0 | .89 | 0.55 | 845 | 875 |
| 24 x 8 | W-20F-2408-D | W-35F-2408-D | 15.0 | 19.0 | .89 | 0.60 | 860 | 895 |
| 24 x 10 | W-20F-2410-D | W-35F-2410-D | 15.0 | 19.0 | .89 | 0.68 | 880 | 930 |
| 24 x 12 | W-20F-2412-D | W-35F-2412-D | 15.0 | 19.0 | .89 | 0.75 | 890 | 960 |
| 24 x 14 | W-20F-2414-D | W-35F-2414-D | 15.0 | 19.0 | .89 | 0.66 | 900 | 975 |
| 24 x 16 | W-20F-2416-D | W-35F-2416-D | 15.0 | 19.0 | .89 | 0.70 | 915 | 1010 |
| 24 x 18 | W-20F-2418-D | W-35F-2418-D | 22.0 | 22.0 | .89 | 0.75 | 1220 | 1365 |
| 24 x 20 | W-20F-2420-D | W-35F-2420-D | 22.0 | 22.0 | .89 | 0.80 | 1255 | 1430 |
| 30 | W-20F-3030-D | W-35F-3030-D | 25.0 | 25.0 | 1.03 | 1.03 | 2150 | 2500 |
| 30 x 12 | W-20F-3012-D | W-35F-3012-D | 18.0 | 23.0 | 1.03 | 0.75 | 1450 | 1565 |
| 30 x 14 | W-20F-3014-D | W-35F-3014-D | 18.0 | 23.0 | 1.03 | 0.66 | 1480 | 1570 |
| 30 x 16 | W-20F-3016-D | W-35F-3016-D | 18.0 | 23.0 | 1.03 | 0.70 | 1505 | 1605 |
| 30 x 18 | W-20F-3018-D | W-35F-3018-D | 18.0 | 23.0 | 1.03 | 0.75 | 1515 | 1615 |
| 30 x 20 | W-20F-3020-D | W-35F-3020-D | 18.0 | 23.0 | 1.03 | 0.80 | 1540 | 1670 |
| 30 x 24 | W-20F-3024-D | W-35F-3024-D | 25.0 | 25.0 | 1.03 | 0.89 | 2025 | 2245 |
| 36 | W-20F-3636-D | W-35F-3636-D | 28.0 | 28.0 | 1.15 | 1.15 | 3160 | 3620 |
| 36 x 12 | W-20F-3612-D | W-35F-3612-D | 20.0 | 26.0 | 1.15 | 0.75 | 2170 | 2240 |
| 36 x 14 | W-20F-3614-D | W-35F-3614-D | 20.0 | 26.0 | 1.15 | 0.66 | 2175 | 2240 |
| 36 x 16 | W-20F-3616-D | W-35F-3616-D | 20.0 | 26.0 | 1.15 | 0.70 | 2185 | 2270 |
| 36 x 18 | W-20F-3618-D | W-35F-3618-D | 20.0 | 26.0 | 1.15 | 0.75 | 2190 | 2280 |
| 36 x 20 | W-20F-3620-D | W-35F-3620-D | 20.0 | 26.0 | 1.15 | 0.80 | 2210 | 2325 |
| 36 x 24 | W-20F-3624-D | W-35F-3624-D | 20.0 | 26.0 | 1.15 | 0.89 | 2255 | 2405 |
| 36 x 30 | W-20F-3630-D | W-35F-3630-D | 28.0 | 28.0 | 1.15 | 1.03 | 3000 | 3300 |
| 42 | W-20F-4242-D | W-35F-4242-D | 31.0 | 31.0 | 1.78 | 1.78 | 4470 | 5065 |
| 42 x 12 | W-20F-4212-D | W-35F-4212-D | 23.0 | 30.0 | 1.28 | 0.75 | 3165 | 3240 |
| 42 x 14 | W-20F-4214-D | W-35F-4214-D | 23.0 | 30.0 | 1.28 | 0.66 | 3170 | 3240 |
| 42 x 16 | W-20F-4216-D | W-35F-4216-D | 23.0 | 30.0 | 1.28 | 0.70 | 3180 | 3270 |
| 42 x 18 | W-20F-4218-D | W-35F-4218-D | 23.0 | 30.0 | 1.28 | 0.75 | 3180 | 3275 |
| 42 x 20 | W-20F-4220-D | W-35F-4220-D | 23.0 | 30.0 | 1.28 | 0.80 | 3205 | 3320 |
| 42 x 24 | W-20F-4224-D | W-35F-4224-D | 23.0 | 30.0 | 1.28 | 0.89 | 3245 | 3395 |
| 42 x 30 | W-20F-4230-D | W-35F-4230-D | 31.0 | 31.0 | 1.28 | 1.03 | 4125 | 4375 |
| 42 x 36 | W-20F-4236-D | W-35F-4236-D | 31.0 | 31.0 | 1.28 | 1.15 | 4265 | 4655 |
| 48 | W-20F-4848-D | W-35F-4848-D | 34.0 | 34.0 | 1.96 | 1.96 | 5900 | 6570 |
| 48 x 12 | W-20F-4812-D | W-35F-4812-D | 26.0 | 34.0 | 1.42 | 0.75 | 4315 | 4390 |
| 48 x 14 | W-20F-4814-D | W-35F-4814-D | 26.0 | 34.0 | 1.42 | 0.66 | 4315 | 4385 |
| 48 x 16 | W-20F-4816-D | W-35F-4816-D | 26.0 | 34.0 | 1.42 | 0.70 | 4330 | 4415 |
| 48 x 18 | W-20F-4818-D | W-35F-4818-D | 26.0 | 34.0 | 1.42 | 0.75 | 4330 | 4420 |
| 48 x 20 | W-20F-4820-D | W-35F-4820-D | 26.0 | 34.0 | 1.42 | 0.80 | 4350 | 4460 |
| 48 x 24 | W-20F-4824-D | W-35F-4824-D | 26.0 | 34.0 | 1.42 | 0.89 | 4385 | 4535 |
| 48 x 30 | W-20F-4830-D | W-35F-4830-D | 26.0 | 34.0 | 1.42 | 1.03 | 4455 | 4670 |
| 48 x 36 | W-20F-4836-D | W-35F-4836-D | 34.0 | 34.0 | 1.42 | 1.15 | 5555 | 5880 |
| 48 x 42 | W-20F-4842-D | W-35F-4842-D | 34.0 | 34.0 | 1.42 | 1.42 | 5720 | 6215 |

UNITED DUCTILE IRON CLASS 250 FLANGED FITTINGS

AWWA C110, ANSI A21.10

Base Tee

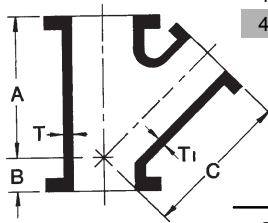
SERIES 17



| Size | Part No. | R | S (dia.) | T | U | Wgt. |
|------|--------------|-------|----------|------|------|------|
| 3 | W-17F-0303-D | 4.88 | 5.0 | .56 | .50 | 45 |
| 4 | W-17F-0404-D | 5.50 | 6.0 | .62 | .50 | 75 |
| 6 | W-17F-0606-D | 7.00 | 7.0 | .69 | .62 | 110 |
| 8 | W-17F-0808-D | 8.38 | 9.0 | .94 | .88 | 185 |
| 10 | W-17F-1010-D | 9.75 | 9.0 | .94 | .88 | 300 |
| 12 | W-17F-1212-D | 11.25 | 11.0 | 1.00 | 1.00 | 430 |
| 14 | W-17F-1414-D | 12.50 | 11.0 | 1.00 | 1.00 | 485 |
| 16 | W-17F-1616-D | 13.75 | 11.0 | 1.00 | 1.00 | 600 |
| 18 | W-17F-1818-D | 15.00 | 13.5 | 1.12 | 1.12 | 740 |
| 20 | W-17F-2020-D | 16.00 | 13.5 | 1.12 | 1.12 | 930 |
| 24 | W-17F-2424-D | 18.50 | 13.5 | 1.12 | 1.12 | 1410 |
| 30 | W-17F-3030-D | 23.00 | 16.0 | 1.19 | 1.15 | 2270 |
| 36 | W-17F-3636-D | 26.00 | 19.0 | 1.25 | 1.15 | 3320 |
| 42 | W-17F-4242-D | 30.00 | 23.5 | 1.44 | 1.28 | 4740 |
| 48 | W-17F-4848-D | 34.00 | 25.0 | 1.56 | 1.42 | 8235 |

45° Lateral

SERIES 30



| Size | Part No. | A | B | C | T | T1 | Wgt. |
|---------|--------------|------|-----|------|-----|-----|------|
| 3 | W-30F-0303-D | 10.0 | 3.0 | 10.0 | .48 | .48 | 45 |
| 4 | W-30F-0404-D | 12.0 | 3.0 | 12.0 | .52 | .52 | 75 |
| 4 x 3 | W-30F-0403-D | 12.0 | 3.0 | 12.0 | .52 | .48 | 65 |
| 6 | W-30F-0606-D | 14.5 | 3.5 | 14.5 | .55 | .55 | 120 |
| 6 x 3 | W-30F-0603-D | 14.5 | 3.5 | 14.5 | .55 | .48 | 100 |
| 6 x 4 | W-30F-0604-D | 14.5 | 3.5 | 14.5 | .55 | .52 | 105 |
| 8 | W-30F-0808-D | 17.5 | 4.5 | 17.5 | .60 | .60 | 200 |
| 8 x 4 | W-30F-0804-D | 17.5 | 4.5 | 17.5 | .60 | .52 | 165 |
| 8 x 6 | W-30F-0806-D | 17.5 | 4.5 | 17.5 | .60 | .55 | 175 |
| 10 | W-30F-1010-D | 20.5 | 5.0 | 20.5 | .80 | .80 | 336 |
| 10 x 4 | W-30F-1004-D | 20.5 | 5.0 | 20.5 | .68 | .52 | 235 |
| 10 x 6 | W-30F-1006-D | 20.5 | 5.0 | 20.5 | .68 | .55 | 250 |
| 10 x 8 | W-30F-1008-D | 20.5 | 5.0 | 20.5 | .68 | .60 | 270 |
| 12 | W-30F-1212-D | 24.5 | 5.5 | 24.5 | .87 | .87 | 515 |
| 12 x 4 | W-30F-1204-D | 24.5 | 5.5 | 24.5 | .75 | .52 | 350 |
| 12 x 6 | W-30F-1206-D | 24.5 | 5.5 | 24.5 | .75 | .55 | 365 |
| 12 x 8 | W-30F-1208-D | 24.5 | 5.5 | 24.5 | .75 | .60 | 390 |
| 12 x 10 | W-30F-1210-D | 24.5 | 5.5 | 24.5 | .87 | .80 | 470 |
| 14 | W-30F-1414-D | 27.0 | 6.0 | 27.0 | .66 | .66 | 605 |
| 14 x 6 | W-30F-1406-D | 27.0 | 6.0 | 27.0 | .66 | .55 | 475 |
| 14 x 8 | W-30F-1408-D | 27.0 | 6.0 | 27.0 | .66 | .60 | 500 |
| 14 x 10 | W-30F-1410-D | 27.0 | 6.0 | 27.0 | .66 | .68 | 525 |
| 14 x 12 | W-30F-1412-D | 27.0 | 6.0 | 27.0 | .66 | .75 | 570 |
| 16 | W-30F-1616-D | 30.0 | 6.5 | 30.0 | .70 | .70 | 805 |
| 16 x 6 | W-30F-1606-D | 30.0 | 6.5 | 30.0 | .70 | .55 | 620 |
| 16 x 8 | W-30F-1608-D | 30.0 | 6.5 | 30.0 | .70 | .60 | 645 |
| 16 x 10 | W-30F-1610-D | 30.0 | 6.5 | 30.0 | .70 | .68 | 675 |
| 16 x 12 | W-30F-1612-D | 30.0 | 6.5 | 30.0 | .70 | .75 | 715 |
| 16 x 14 | W-30F-1614-D | 30.0 | 6.5 | 30.0 | .70 | .66 | 755 |
| 18 | W-30F-1818-D | 32.0 | 7.0 | 32.0 | .75 | .75 | 980 |
| 18 x 6 | W-30F-1806-D | 32.0 | 7.0 | 32.0 | .75 | .55 | 765 |
| 18 x 8 | W-30F-1808-D | 32.0 | 7.0 | 32.0 | .75 | .60 | 780 |
| 18 x 10 | W-30F-1810-D | 32.0 | 7.0 | 32.0 | .75 | .68 | 810 |
| 18 x 12 | W-30F-1812-D | 32.0 | 7.0 | 32.0 | .75 | .75 | 850 |
| 18 x 14 | W-30F-1814-D | 32.0 | 7.0 | 32.0 | .75 | .66 | 885 |
| 18 x 16 | W-30F-1816-D | 32.0 | 7.0 | 32.0 | .75 | .70 | 905 |
| 20 | W-30F-2020-D | 35.0 | 8.0 | 35.0 | .80 | .80 | 1265 |
| 20 x 8 | W-30F-2008-D | 35.0 | 8.0 | 35.0 | .80 | .60 | 995 |
| 20 x 10 | W-30F-2010-D | 35.0 | 8.0 | 35.0 | .80 | .68 | 1025 |
| 20 x 12 | W-30F-2012-D | 35.0 | 8.0 | 35.0 | .80 | .75 | 1055 |
| 20 x 14 | W-30F-2014-D | 35.0 | 8.0 | 35.0 | .80 | .66 | 1110 |
| 20 x 16 | W-30F-2016-D | 35.0 | 8.0 | 35.0 | .80 | .70 | 1150 |

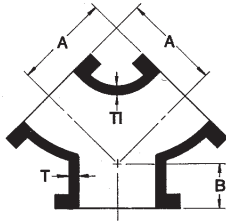
| Size | Part No. | A | B | C | T | T1 | Wgt. |
|---------|--------------|------|------|------|------|------|------|
| 20 x 18 | W-30F-2018-D | 35.0 | 8.0 | 35.0 | .80 | .75 | 1200 |
| 24 | W-30F-2424-D | 40.5 | 9.0 | 40.5 | .89 | .89 | 1905 |
| 24 x 8 | W-30F-2408-D | 40.5 | 9.0 | 40.5 | .89 | .60 | 1470 |
| 24 x 10 | W-30F-2410-D | 40.5 | 9.0 | 40.5 | .89 | .68 | 1505 |
| 24 x 12 | W-30F-2412-D | 40.5 | 9.0 | 40.5 | .89 | .75 | 1550 |
| 24 x 14 | W-30F-2414-D | 40.5 | 9.0 | 40.5 | .89 | .66 | 1590 |
| 24 x 16 | W-30F-2416-D | 40.5 | 9.0 | 40.5 | .89 | .70 | 1640 |
| 24 x 18 | W-30F-2418-D | 40.5 | 9.0 | 40.5 | .89 | .75 | 1665 |
| 24 x 20 | W-30F-2420-D | 40.5 | 9.0 | 40.5 | .89 | .80 | 1750 |
| 30 | W-30F-3030-D | 49.0 | 10.0 | 49.0 | 1.03 | 1.03 | 3225 |
| 30 x 12 | W-30F-3012-D | 49.0 | 10.0 | 49.0 | 1.03 | .75 | 2545 |
| 30 x 14 | W-30F-3014-D | 49.0 | 10.0 | 49.0 | 1.03 | .66 | 2590 |
| 30 x 16 | W-30F-3016-D | 49.0 | 10.0 | 49.0 | 1.03 | .70 | 2645 |
| 30 x 18 | W-30F-3018-D | 49.0 | 10.0 | 49.0 | 1.03 | .75 | 2690 |
| 30 x 20 | W-30F-3020-D | 49.0 | 10.0 | 49.0 | 1.03 | .80 | 2780 |
| 30 x 24 | W-30F-3024-D | 49.0 | 10.0 | 49.0 | 1.03 | .89 | 2915 |
| 36 | W-30F-3636-D | 60.0 | 19.5 | 60.0 | 1.15 | 1.15 | 5740 |
| 36 x 12 | W-30F-3612-D | 60.0 | 19.5 | 60.0 | 1.15 | .75 | 4490 |
| 36 x 14 | W-30F-3614-D | 60.0 | 19.5 | 60.0 | 1.15 | .66 | 4545 |
| 36 x 16 | W-30F-3616-D | 60.0 | 19.5 | 60.0 | 1.15 | .70 | 4610 |
| 36 x 18 | W-30F-3618-D | 60.0 | 19.5 | 60.0 | 1.15 | .75 | 4670 |
| 36 x 20 | W-30F-3620-D | 60.0 | 19.5 | 60.0 | 1.15 | .80 | 4750 |
| 36 x 24 | W-30F-3624-D | 60.0 | 19.5 | 60.0 | 1.15 | .89 | 4920 |
| 36 x 30 | W-30F-3630-D | 60.0 | 19.5 | 60.0 | 1.15 | 1.03 | 5255 |
| 42 | W-30F-4242-D | 68.5 | 21.0 | 68.5 | 1.28 | 1.28 | 6820 |
| 42 x 12 | W-30F-4212-D | 68.5 | 21.0 | 68.5 | 1.28 | .75 | 4585 |
| 42 x 14 | W-30F-4214-D | 68.5 | 21.0 | 68.5 | 1.28 | .66 | 4615 |
| 42 x 16 | W-30F-4216-D | 68.5 | 21.0 | 68.5 | 1.28 | .70 | 4675 |
| 42 x 18 | W-30F-4218-D | 68.5 | 21.0 | 68.5 | 1.28 | .75 | 4740 |
| 42 x 20 | W-30F-4220-D | 68.5 | 21.0 | 68.5 | 1.28 | .80 | 4835 |
| 42 x 24 | W-30F-4224-D | 68.5 | 21.0 | 68.5 | 1.28 | .89 | 5050 |
| 42 x 30 | W-30F-4230-D | 68.5 | 21.0 | 68.5 | 1.28 | 1.03 | 5490 |
| 42 x 36 | W-30F-4236-D | 68.5 | 21.0 | 68.5 | 1.28 | 1.15 | 6325 |
| 48 | W-30F-4848-D | 77.0 | 22.5 | 77.0 | 1.42 | 1.42 | 7380 |
| 48 x 12 | W-30F-4812-D | 77.0 | 22.5 | 77.0 | 1.42 | .75 | 5090 |
| 48 x 14 | W-30F-4814-D | 77.0 | 22.5 | 77.0 | 1.42 | .66 | 5120 |
| 48 x 16 | W-30F-4816-D | 77.0 | 22.5 | 77.0 | 1.42 | .70 | 5190 |
| 48 x 18 | W-30F-4818-D | 77.0 | 22.5 | 77.0 | 1.42 | .75 | 5250 |
| 48 x 20 | W-30F-4820-D | 77.0 | 22.5 | 77.0 | 1.42 | .80 | 5340 |
| 48 x 24 | W-30F-4824-D | 77.0 | 22.5 | 77.0 | 1.42 | .89 | 5555 |
| 48 x 30 | W-30F-4830-D | 77.0 | 22.5 | 77.0 | 1.42 | 1.03 | 5995 |
| 48 x 36 | W-30F-4836-D | 77.0 | 22.5 | 77.0 | 1.42 | 1.15 | 5830 |
| 48 x 42 | W-30F-4842-D | 77.0 | 22.5 | 77.0 | 1.42 | 1.28 | 7125 |

UNITED DUCTILE IRON CLASS 250 FLANGED FITTINGS

AWWA C110, ANSI A21.10

True Wyes

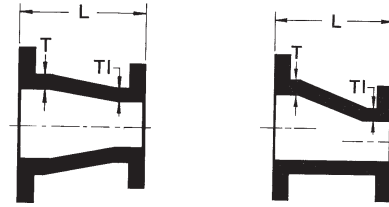
SERIES 32



| Size | Part No. | A | B | T | T1 | Wgt. |
|---------|--------------|------|-----|-----|-----|------|
| 3 | W-32F-0303-D | 5.5 | 3.0 | .48 | - | 30 |
| 4 x 3 | W-32F-0403-D | 5.5 | 3.0 | .52 | .48 | 35 |
| 4 | W-32F-0404-D | 6.5 | 3.0 | .52 | - | 50 |
| 6 x 4 | W-32F-0604-D | 8.0 | 3.5 | .55 | .52 | 60 |
| 6 | W-32F-0606-D | 8.0 | 3.5 | .55 | - | 80 |
| 8 x 4 | W-32F-0804-D | 8.0 | 3.5 | .55 | .52 | 85 |
| 8 x 6 | W-32F-0806-D | 9.0 | 4.5 | .60 | .55 | 100 |
| 8 | W-32F-0808-D | 9.0 | 4.5 | .60 | - | 125 |
| 10 x 4 | W-32F-1004-D | 11.0 | 5.0 | .68 | .52 | 110 |
| 10 x 6 | W-32F-1006-D | 11.0 | 5.0 | .68 | .55 | 140 |
| 10 x 8 | W-32F-1008-D | 11.0 | 5.0 | .68 | .60 | 155 |
| 10 | W-32F-1010-D | 11.0 | 5.0 | .68 | - | 185 |
| 12 x 4 | W-32F-1204-D | 12.0 | 5.5 | .95 | .52 | 145 |
| 12 x 6 | W-32F-1206-D | 12.0 | 5.5 | .75 | .55 | 160 |
| 12 x 8 | W-32F-1208-D | 12.0 | 5.5 | .75 | .60 | 210 |
| 12 x 10 | W-32F-1210-D | 12.0 | 5.5 | .75 | .66 | 240 |
| 12 | W-32F-1212-D | 12.0 | 5.5 | .75 | - | 265 |
| 14 | W-32F-1414-D | 14.0 | 6.0 | .66 | - | 415 |
| 16 | W-32F-1616-D | 15.0 | 6.5 | .70 | - | 520 |
| 18 | W-32F-1818-D | 16.5 | 7.0 | .75 | - | 630 |
| 20 | W-32F-2020-D | 18.0 | 8.0 | .80 | - | 780 |
| 24 | W-32F-2424-D | 22.0 | 9.0 | .89 | - | 1250 |

Concentric & Eccentric Reducers

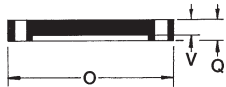
SERIES 50 & 51



| Size | Part No. (Concentric) | Part No. (Eccentric) | L | T | T1 | Wgt. |
|---------|-----------------------|----------------------|----|------|------|------|
| 4 x 3 | W-50F-0403-D | W-51F-0403-D | 7 | .52 | .48 | 30 |
| 6 x 3 | W-50F-0603-D | W-51F-0603-D | 9 | .55 | .48 | 40 |
| 6 x 4 | W-50F-0604-D | W-51F-0604-D | 9 | .55 | .52 | 45 |
| 8 x 4 | W-50F-0804-D | W-51F-0804-D | 11 | .60 | .52 | 65 |
| 8 x 6 | W-50F-0806-D | W-51F-0806-D | 11 | .60 | .55 | 75 |
| 10 x 4 | W-50F-1004-D | W-51F-1004-D | 12 | .68 | .52 | 85 |
| 10 x 6 | W-50F-1006-D | W-51F-1006-D | 12 | .68 | .55 | 90 |
| 10 x 8 | W-50F-1008-D | W-51F-1008-D | 12 | .68 | .60 | 110 |
| 12 x 4 | W-50F-1204-D | W-51F-1204-D | 14 | .75 | .52 | 120 |
| 12 x 6 | W-50F-1206-D | W-51F-1206-D | 14 | .75 | .55 | 130 |
| 12 x 8 | W-50F-1208-D | W-51F-1208-D | 14 | .75 | .60 | 145 |
| 12 x 10 | W-50F-1210-D | W-51F-1210-D | 14 | .75 | .68 | 170 |
| 14 x 6 | W-50F-1406-D | W-51F-1406-D | 16 | .66 | .55 | 155 |
| 14 x 8 | W-50F-1408-D | W-51F-1408-D | 16 | .66 | .60 | 175 |
| 14 x 10 | W-50F-1410-D | W-51F-1410-D | 16 | .66 | .68 | 190 |
| 14 x 12 | W-50F-1412-D | W-51F-1412-D | 16 | .66 | .75 | 220 |
| 16 x 6 | W-50F-1606-D | W-51F-1606-D | 18 | .70 | .55 | 190 |
| 16 x 8 | W-50F-1608-D | W-51F-1608-D | 18 | .70 | .60 | 210 |
| 16 x 10 | W-50F-1610-D | W-51F-1610-D | 18 | .70 | .68 | 235 |
| 16 x 12 | W-50F-1612-D | W-51F-1612-D | 18 | .70 | .75 | 265 |
| 16 x 14 | W-50F-1614-D | W-51F-1614-D | 18 | .70 | .66 | 280 |
| 18 x 8 | W-50F-1808-D | W-51F-1808-D | 19 | .75 | .60 | 240 |
| 18 x 10 | W-50F-1810-D | W-51F-1810-D | 19 | .75 | .68 | 265 |
| 18 x 12 | W-50F-1812-D | W-51F-1812-D | 19 | .75 | .75 | 295 |
| 18 x 14 | W-50F-1814-D | W-51F-1814-D | 19 | .75 | .66 | 310 |
| 18 x 16 | W-50F-1816-D | W-51F-1816-D | 19 | .75 | .70 | 340 |
| 20 x 10 | W-50F-2010-D | W-51F-2010-D | 20 | .80 | .68 | 310 |
| 20 x 12 | W-50F-2012-D | W-51F-2012-D | 20 | .80 | .75 | 345 |
| 20 x 14 | W-50F-2014-D | W-51F-2014-D | 20 | .80 | .66 | 355 |
| 20 x 16 | W-50F-2016-D | W-51F-2016-D | 20 | .80 | .70 | 390 |
| 20 x 18 | W-50F-2018-D | W-51F-2018-D | 20 | .80 | .75 | 550 |
| 24 x 12 | W-50F-2412-D | W-51F-2412-D | 24 | .89 | .75 | 355 |
| 24 x 14 | W-50F-2414-D | W-51F-2414-D | 24 | .89 | .66 | 490 |
| 24 x 16 | W-50F-2416-D | W-51F-2416-D | 24 | .89 | .70 | 525 |
| 24 x 18 | W-50F-2418-D | W-51F-2418-D | 24 | .89 | .75 | 550 |
| 24 x 20 | W-50F-2420-D | W-51F-2420-D | 24 | .89 | .80 | 590 |
| 30 x 18 | W-50F-3018-D | W-51F-3018-D | 30 | 1.03 | .75 | 810 |
| 30 x 20 | W-50F-3020-D | W-51F-3020-D | 30 | 1.03 | .80 | 870 |
| 30 x 24 | W-50F-3024-D | W-51F-3024-D | 30 | 1.03 | .89 | 970 |
| 36 x 20 | W-50F-3620-D | W-51F-3620-D | 36 | 1.15 | .80 | 1230 |
| 36 x 24 | W-50F-3624-D | W-51F-3624-D | 36 | 1.15 | .89 | 1345 |
| 36 x 30 | W-50F-3630-D | W-51F-3630-D | 36 | 1.15 | 1.03 | 1555 |
| 42 x 24 | W-50F-4224-D | W-51F-4224-D | 42 | 1.28 | .89 | 1820 |
| 42 x 30 | W-50F-4230-D | W-51F-4230-D | 42 | 1.28 | 1.03 | 2060 |
| 42 x 36 | W-50F-4236-D | W-51F-4236-D | 42 | 1.28 | 1.15 | 2345 |
| 48 x 30 | W-50F-4830-D | W-51F-4830-D | 48 | 1.42 | 1.03 | 2625 |
| 48 x 36 | W-50F-4836-D | W-51F-4836-D | 48 | 1.42 | 1.15 | 2950 |
| 48 x 42 | W-50F-4842-D | W-51F-4842-D | 48 | 1.42 | 1.28 | 3320 |

Blind Flange

SERIES 60



3" - 10"



12" - 48"

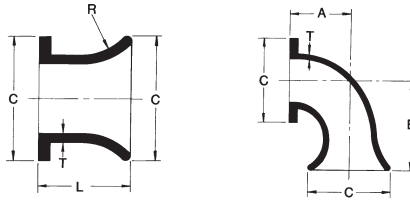
| Size | Part No. | O | Q | V | Wgt. |
|------|--------------|-------|------|------|------|
| 3 | W-60F-0303-D | 7.50 | .75 | .69 | 9 |
| 4 | W-60F-0404-D | 9.00 | .94 | .88 | 16 |
| 6 | W-60F-0606-D | 11.00 | 1.00 | .94 | 25 |
| 8 | W-60F-0808-D | 13.50 | 1.12 | 1.06 | 42 |
| 10 | W-60F-1010-D | 16.00 | 1.19 | 1.12 | 83 |
| 12 | W-60F-1212-D | 19.00 | 1.25 | .81 | 85 |
| 14 | W-60F-1414-D | 21.00 | 1.38 | .88 | 120 |
| 16 | W-60F-1616-D | 23.50 | 1.44 | 1.00 | 145 |
| 18 | W-60F-1818-D | 25.00 | 1.56 | 1.06 | 185 |
| 20 | W-60F-2020-D | 27.50 | 1.69 | 1.12 | 245 |
| 24 | W-60F-2424-D | 32.00 | 1.88 | 1.25 | 370 |
| 30 | W-60F-3030-D | 38.75 | 2.12 | 1.44 | 500 |
| 36 | W-60F-3636-D | 46.00 | 2.38 | 1.62 | 790 |
| 42 | W-60F-4242-D | 53.00 | 2.62 | 1.81 | 1175 |
| 48 | W-60F-4848-D | 59.50 | 2.75 | 2.00 | 1595 |

UNITED DUCTILE IRON CLASS 250 FLANGED FITTINGS

Manufacturers' Standard
Non-Pressure Fittings

Flare Fittings

SERIES 58 (Straight), SERIES 69 (Standard) &
SERIES 70 (Long Radius)



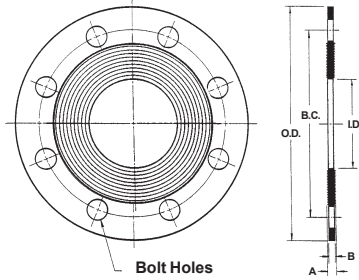
| Size | Part No. (Straight) | Part No. (Standard) | Part No. (Long Radius) | T | C | Straight Flare | | | 90° Standard Flare | | | Long Radius Flare | | |
|------|------------------------|------------------------|---------------------------|------|-------|----------------|----|------|--------------------|------|------|-------------------|-------|------|
| | | | | | | L | R | Wgt. | A | B | Wgt. | A | B | Wgt. |
| 3 | W-58F-0303-D | W-69F-0303-D | W-70F-0303-D | 0.40 | 7.50 | 8 | 6 | 20 | 5.5 | 11 | 25 | 7.75 | 13.25 | 30 |
| 4 | W-58F-0404-D | W-69F-0404-D | W-70F-0404-D | 0.40 | 9.00 | 8 | 6 | 30 | 6.5 | 12 | 40 | 9.00 | 14.50 | 50 |
| 6 | W-58F-0606-D | W-69F-0606-D | W-70F-0606-D | 0.45 | 11.00 | 8 | 6 | 40 | 8 | 12 | 70 | 11.50 | 15.50 | 85 |
| 8 | W-58F-0808-D | W-69F-0808-D | W-70F-0808-D | 0.53 | 13.50 | 10 | 8 | 70 | 9 | 14 | 110 | 14.00 | 19.00 | 145 |
| 10 | W-58F-1010-D | W-69F-1010-D | W-70F-1010-D | 0.55 | 16.00 | 10 | 10 | 95 | 11 | 17 | 175 | 16.50 | 22.50 | 225 |
| 12 | W-58F-1212-D | W-69F-1212-D | W-70F-1212-D | 0.60 | 19.00 | 12 | 12 | 155 | 12 | 18 | 245 | 19.00 | 25.00 | 330 |
| 14 | W-58F-1414-D | W-69F-1414-D | W-70F-1414-D | 0.65 | 21.00 | 12 | 14 | 185 | 14 | 20 | 340 | 21.50 | 27.50 | 440 |
| 16 | W-58F-1616-D | W-69F-1616-D | W-70F-1616-D | 0.70 | 23.50 | 16 | 16 | 240 | 15 | 21 | 460 | 24.00 | 30.00 | 620 |
| 18 | W-58F-1818-D | W-69F-1818-D | W-70F-1818-D | 0.75 | 25.00 | 16 | 18 | 275 | 16.5 | 22.5 | 560 | 26.50 | 32.50 | 800 |
| 20 | W-58F-2020-D | W-69F-2020-D | W-70F-2020-D | 0.80 | 27.50 | 18 | 20 | 355 | 18 | 24 | 700 | 29.00 | 35.00 | 1000 |
| 24 | W-58F-2424-D | W-69F-2424-D | W-70F-2424-D | 0.90 | 32.00 | 18 | 24 | 480 | 22 | 28 | 1100 | 34.00 | 40.00 | 1400 |
| 30 | W-58F-3030-D | W-69F-3030-D | W-70F-3030-D | 1.07 | 38.75 | 24 | 30 | 1100 | 25 | 32 | 1840 | 41.50 | 48.50 | 2190 |
| 36 | W-58F-3636-D | W-69F-3636-D | W-70F-3636-D | 1.19 | 46.00 | 24 | 36 | 1480 | 28 | 35 | 2700 | 49.00 | 56.00 | 3485 |
| 42 | W-58F-4242-D | W-69F-4242-D | W-70F-4242-D | 1.32 | 53.00 | 30 | 42 | 1900 | 31 | 38 | 3250 | 56.50 | 63.50 | 5150 |
| 48 | W-58F-4848-D | W-69F-4848-D | W-70F-4848-D | 1.44 | 59.50 | 30 | 48 | 2350 | 34 | 41 | 4215 | 64.00 | 71.00 | 6725 |

UNITED DUCTILE IRON CLASS 250 FLANGED FITTINGS

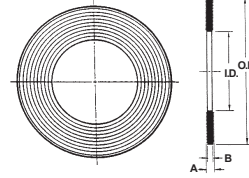
SEAL-TITE FLANGE GASKET

Low Torque!

Full Face Flange Gasket



Ring Type Flange Gasket



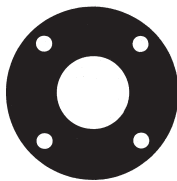
Serrated Face!

Material: SBR

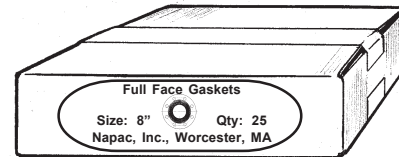
| Nominal Size | Part No. (Full Face) | Part No. (Ring) | ID | OD (Full Face) | OD (Ring) | A | B | BC (Full Face) | Box Quantity (Full Face) | Box Quantity (Ring) |
|--------------|----------------------|-----------------|-------|----------------|-----------|------|-----|----------------|--------------------------|---------------------|
| 2 | FFG-050-150 | RG-050-100 | 2.15 | 6.00 | 3.90 | 5/32 | 1/8 | 4.75 | 25 | 25 |
| 2 1/2 | FFG-065-175 | RG-065-120 | 2.73 | 7.00 | 4.70 | 5/32 | 1/8 | 5.50 | 25 | 25 |
| 3 | FFG-080-188 | RG-080-132 | 3.20 | 7.50 | 5.15 | 5/32 | 1/8 | 6.00 | 25 | 25 |
| 4 | FFG-100-210 | RG-100-162 | 3.98 | 9.00 | 6.30 | 5/32 | 1/8 | 7.50 | 25 | 25 |
| 5 | FFG-125-250 | RG-125-194 | 5.07 | 10.00 | 7.60 | 5/32 | 1/8 | 8.50 | 25 | 25 |
| 6 | FFG-150-275 | RG-150-218 | 6.01 | 11.00 | 8.50 | 5/32 | 1/8 | 9.50 | 25 | 25 |
| 8 | FFG-200-340 | RG-200-272 | 8.11 | 13.50 | 10.60 | 5/32 | 1/8 | 11.75 | 25 | 25 |
| 10 | FFG-250-400 | RG-250-328 | 10.06 | 16.00 | 12.80 | 5/32 | 1/8 | 14.25 | 25 | 25 |
| 12 | FFG-300-475 | RG-300-378 | 12.09 | 19.00 | 14.75 | 5/32 | 1/8 | 17.00 | 10 | 10 |
| 14 | FFG-350-525 | RG-350-445 | 14.12 | 21.00 | 17.15 | 5/32 | 1/8 | 18.75 | 10 | 10 |
| 16 | FFG-400-588 | RG-400-510 | 16.19 | 23.50 | 19.90 | 5/32 | 1/8 | 21.25 | 10 | 10 |
| 18 | FFG-450-625 | RG-450-542 | 18.25 | 25.00 | 21.15 | 5/32 | 1/8 | 22.75 | 10 | 10 |
| 20 | FFG-500-688 | RG-500-606 | 20.28 | 27.50 | 23.60 | 5/32 | 1/8 | 25.00 | 10 | 10 |
| 24 | FFG-600-800 | RG-600-717 | 24.34 | 32.00 | 27.95 | 5/32 | 1/8 | 29.50 | 10 | 10 |
| 30 | FFG-750-985 | - | 30.98 | 38.75 | - | 5/32 | 1/8 | 36.00 | 5 | - |
| 36 | FFG-900-1165 | - | 37.14 | 46.00 | - | 5/32 | 1/8 | 42.75 | 5 | - |

FLAT FLANGE GASKET

Full Face



Ring Type



Material: Red Rubber & Non-Asbestos

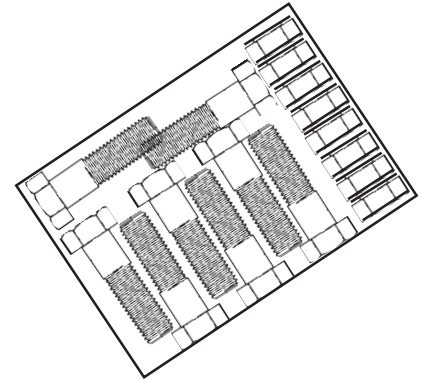
| Nominal Size | Part No. (Full Face) | Part No. (Ring) | OD (Full Face) | OD (Ring) | Thickness | Bolt Circle (Full Face) | Box Quantity (Full Face) | Box Quantity (Ring) |
|--------------|----------------------|-----------------|----------------|-----------|-----------|-------------------------|--------------------------|---------------------|
| 1 | FFF-025-100 | FRG-025-066 | 4.25 | 2.63 | 1/8 | 3.12 | 50 | 50 |
| 1-1/2 | FFF-038-125 | FRG-038-085 | 5.00 | 3.38 | 1/8 | 3.88 | 25 | 50 |
| 2 | FFF-050-150 | FRG-050-100 | 6.00 | 3.90 | 1/8 | 4.75 | 25 | 50 |
| 2-1/2 | FFF-065-175 | FRG-065-120 | 7.00 | 4.70 | 1/8 | 5.50 | 25 | 25 |
| 3 | FFF-080-188 | FRG-080-132 | 7.50 | 5.15 | 1/8 | 6.00 | 25 | 25 |
| 4 | FFF-100-210 | FRG-100-162 | 9.00 | 6.30 | 1/8 | 7.50 | 25 | 25 |
| 5 | FFF-125-250 | FRG-125-194 | 10.00 | 7.60 | 1/8 | 8.50 | 25 | 25 |
| 6 | FFF-150-275 | FRG-150-218 | 11.00 | 8.50 | 1/8 | 9.50 | 25 | 25 |
| 8 | FFF-200-340 | FRG-200-272 | 13.50 | 10.60 | 1/8 | 11.75 | 25 | 25 |
| 10 | FFF-250-400 | FRG-250-328 | 16.00 | 12.80 | 1/8 | 14.25 | 25 | 25 |
| 12 | FFF-300-475 | FRG-300-378 | 19.00 | 14.75 | 1/8 | 17.00 | 10 | 10 |
| 14 | FFF-350-525 | FRG-350-445 | 21.00 | 17.15 | 1/8 | 18.75 | 10 | 10 |
| 16 | FFF-400-588 | FRG-400-510 | 23.50 | 19.90 | 1/8 | 21.25 | 10 | 10 |
| 18 | FFF-450-625 | FRG-450-542 | 25.00 | 21.15 | 1/8 | 22.75 | 10 | 10 |
| 20 | FFF-500-688 | FRG-500-606 | 27.50 | 23.60 | 1/8 | 25.00 | 10 | 10 |
| 24 | FFF-600-800 | FRG-600-717 | 32.00 | 27.95 | 1/8 | 29.50 | 10 | 10 |
| 30 | FFF-750-985 | FRG-750-869 | 38.75 | 34.75 | 1/8 | 36.00 | 5 | 5 |
| 36 | FFF-900-1165 | FRG-900-1031 | 46.00 | 41.25 | 1/8 | 42.75 | 5 | 5 |

UNITED DUCTILE IRON CLASS 250 FLANGED FITTINGS

Bolt and Nut Packs for Class 125/150 Flanges

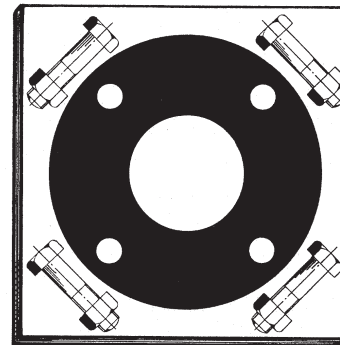
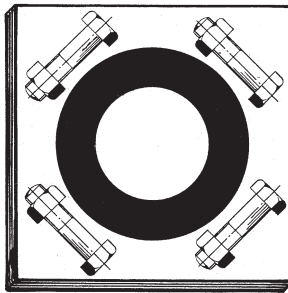
Heavy Hex Head Bolts (ANSI B18.2.1/ASTM-A307 Grade B)
Heavy Hex Nuts (ANSI B18.2.2/ASTM-A563 Grade A)

| Part No. | Class 125/150 Flange Size | Bolt Diameter and Length | No. of Bolts per Flange | No. of Bolts per Poly Bag | Master Box (Qty. of Sets) |
|----------|---------------------------|--------------------------|-------------------------|-----------------------------|---------------------------|
| FBZ02 | 1" | 1/2" x 2" | 4 | 4 | 64 |
| | 1-1/4" | | | | |
| FBZ03 | 2" | 5/8" x 2-1/2" | 4 | 4 | 20 |
| | 2 1/2" | | | | |
| FBZ04 | 3" | 5/8" x 3" | 8 | 8 | 16 |
| | 4" | | | | |
| FBZ08 | 5" | 3/4" x 3-1/2" | 8 | 8 | 8 |
| | 6" | | | | |
| FBZ12 | 8" | 7/8" x 4" | 12 | 12 | 4 |
| | 10" | | | | |
| | 12" | | | | |
| | | | No. of Bolts per Box | No. of Boxes for one Flange | |
| FBZ14 | 14" | 1" x 4-1/2" | 12 | 12 | 1 |
| FBZ16 | 16" | 1" x 4-1/2" | 16 | 16 | 1 |
| FBZ18 | 18" | 1-1/8" x 5" | 16 | 16 | 1 |
| FBZ20 | 20" | 1-1/8" x 5" | 20 | 20 | 1 |
| FBZ24 | 24" | 1-1/4" x 5-1/2" | 20 | 20 | 1 |
| FBZ30 | 30" | 1-1/4" x 6-1/2" | 28 | 14 | 2 Boxes |
| FBZ36 | 36" | 1-1/2" x 7" | 32 | 8 | 4 Boxes |
| FBZ42 | 42" | 1-1/2" x 7-1/2" | 36 | 9 | 4 Boxes |
| FBZ48 | 48" | 1-1/2" x 8" | 44 | 11 | 4 Boxes |

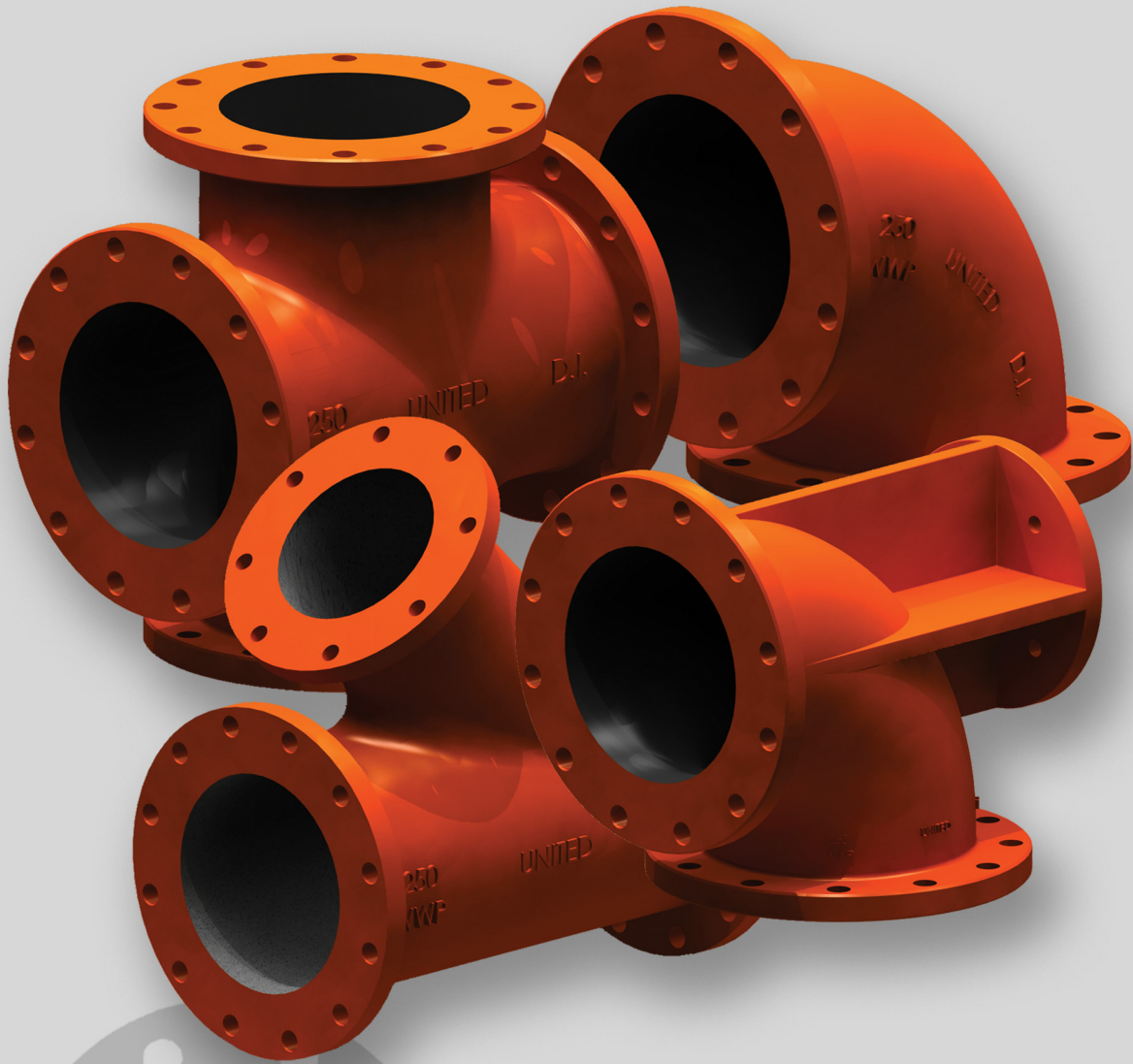


Available-plain, zinc plated, hot dipped galvanized, type 304 and 316 stainless steel and fluoropolymer coated.

Flange Accessory Packs



| Class 125/150 Flange Size | 1/8" Full Face Seal-Tite (Serrated) | 1/8" Ring Type Seal-Tite (Serrated) | 1/8" Full Face Red Rubber | 1/8" Ring Type Red Rubber | 1/8" Full Face Non-Asbestos | 1/8" Ring Type Non-Asbestos |
|---------------------------|-------------------------------------|-------------------------------------|---------------------------|---------------------------|-----------------------------|-----------------------------|
| 2 | FBR-020-* | RBP-020-* | FRP-020-* | RRP-020-* | FNP-020-* | RNP-020-* |
| 2 1/2 | FBR-025- | RBP-025- | FRP-025- | RRP-025- | FNP-025- | RNP-025- |
| 3 | FBR-030- | RBP-030- | FRP-030- | RRP-030- | FNP-030- | RNP-030- |
| 4 | FBR-040- | RBP-040- | FRP-040- | RRP-040- | FNP-040- | RNP-040- |
| 5 | FBR-050- | RBP-050- | FRP-050- | RRP-050- | FNP-050- | RNP-050- |
| 6 | FBR-060- | RBP-060- | FRP-060- | RRP-060- | FNP-060- | RNP-060- |
| 8 | FBR-080- | RBP-080- | FRP-080- | RRP-080- | FNP-080- | RNP-080- |
| 10 | FBR-100- | RBP-100- | FRP-100- | RRP-100- | FNP-100- | RNP-100- |
| 12 | FBR-120- | RBP-120- | FRP-120- | RRP-120- | FNP-120- | RNP-120- |
| 14 | FBR-140- | RBP-140- | FRP-140- | RRP-140- | FNP-140- | RNP-140- |
| 16 | FBR-160- | RBP-160- | FRP-160- | RRP-160- | FNP-160- | RNP-160- |
| 18 | FBR-180- | RBP-180- | FRP-180- | RRP-180- | FNP-180- | RNP-180- |
| 20 | FBR-200- | RBP-200- | FRP-200- | RRP-200- | FNP-200- | RNP-200- |
| 24 | FBR-240- | RBP-240- | FRP-240- | RRP-240- | FNP-240- | RNP-240- |



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