

انواع اتصالات دنده ای و جوشی (FITTING) در سایزهای مختلف از ۱/۲" تا ۷۲" منطبق بر استانداردهای ASTM/ASME/ ANSI/ DIN ... در رده و آلیاژهای مختلف و نیز اتصالات فورج شده و چدنی همراه با گواهی نامه (Certificate)

## FITTINGS

**Kind Of Material:** Carbon Steel (C.S), Stainless Steel (S.S), Low/ High Alloy Steel (A.S), Special Material ( Monel, Inconel, Hast alloy,...)

**Size Ranges:** 1/2" - 72"

**Type:** Elbow (45/90) long / short Radius

Tee equal/ Reducing, Cross Equal / Reducing

Reducer Concentric / Eccentric

Lap Joint Stub Ends

Cap, Coupling

Union, Hex Nipple & etc ...

**Thickness:** sch5s - sch

**Pressure Rating:** Class 3000, 6000 and 9000

**Material Standard:** ASTM A234 (WPB, WPC, WP1, WP5, ...), ASTM A 860(WPHY 42, 46, 52, ...)

ASTM A420 (WPL3, WPL6), ASTM A403 (WP304H, WP316H, ...), etc...

**Dimension standard:**

ANSI/ASME (B16.9, B16.28, MSS-SP-43, MSS-SP-75, ...),

DIN (2605, 2615, 2616, 2617, 28011, ...), BS (1460, ...), etc...

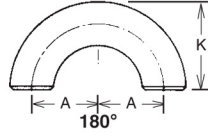
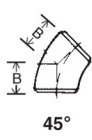
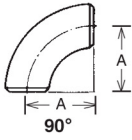
End Connection: Threaded (THD), socket weld (SW), butt weld (BW)

ارائه خدمات مشاوره ای در زمینه انتخاب تجهیزات مورد نیاز پروژه های صنعتی

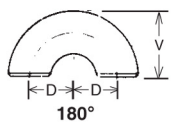
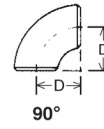


# CARBON STEEL BUTTWELDING FITTINGS TO ASME B16.9, B16.28 & BS.1640

B16.9  
LONG RADIUS WELDING ELBOWS, RETURN BENDS & CAPS

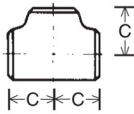


B16.28  
SHORT RADIUS WELDING ELBOWS  
& RETURN BENDS

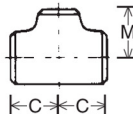


| Nom. Size<br>DN | PIPE<br>OD<br>mm | WALL THICKNESS — MILLIMETRES (mm) |         |         |          |                            |         |        |                           |          |          |          |          |           | A    | B    | K    | D    | V    | E.<br>Std. Wt.<br>&<br>Ex. Stg. | Nom. Size<br>DN |
|-----------------|------------------|-----------------------------------|---------|---------|----------|----------------------------|---------|--------|---------------------------|----------|----------|----------|----------|-----------|------|------|------|------|------|---------------------------------|-----------------|
|                 |                  | Sch. 10                           | Sch. 20 | Sch. 30 | Std. Wt. | Sch. 40                    | Sch. 60 | X Stg. | Sch. 80                   | Sch. 100 | Sch. 120 | Sch. 140 | Sch. 160 | X.X. Stg. |      |      |      |      |      |                                 |                 |
| 15              | 21.3             | —                                 | —       | —       | 2.77     | ↑<br>SAME AS STD. WT.<br>↓ | —       | 3.73   | ↑<br>SAME AS X. STG.<br>↓ | —        | —        | —        | 4.78     | 7.47      | 38   | 16   | 47.5 | —    | —    | 25.4                            | 15              |
| 20              | 26.7             | —                                 | —       | —       | 2.87     |                            | —       | 3.91   |                           | —        | —        | —        | 5.56     | 7.82      | 38   | 19   | 43   | 19   | 33   | 25.4                            | 20              |
| 25              | 33.4             | —                                 | —       | —       | 3.38     |                            | —       | 4.55   |                           | —        | —        | —        | 6.35     | 9.09      | 38   | 22   | 55.5 | 25.4 | 41   | 38.1                            | 25              |
| 32              | 42.2             | —                                 | —       | —       | 3.56     |                            | —       | 4.85   |                           | —        | —        | —        | 6.35     | 9.70      | 47.5 | 25.4 | 70   | 32   | 52   | 38.1                            | 32              |
| 40              | 48.3             | —                                 | —       | —       | 3.68     |                            | —       | 5.08   |                           | —        | —        | —        | 7.14     | 10.15     | 57   | 29   | 82.5 | 38   | 62   | 38.1                            | 40              |
| 50              | 60.3             | —                                 | —       | —       | 3.91     |                            | —       | 5.54   |                           | —        | —        | —        | 8.74     | 11.07     | 76   | 35   | 106  | 51   | 81   | 38.1                            | 50              |
| 65              | 73.0             | —                                 | —       | —       | 5.16     |                            | —       | 7.01   |                           | —        | —        | —        | 9.53     | 14.02     | 95   | 44.5 | 132  | 63.5 | 100  | 38.1                            | 65              |
| 80              | 88.9             | —                                 | —       | —       | 5.49     |                            | —       | 7.62   |                           | —        | —        | —        | 11.13    | 15.24     | 114  | 51   | 159  | 76   | 121  | 50.8                            | 80              |
| 90              | 101.6            | —                                 | —       | —       | 5.74     |                            | —       | 8.08   |                           | —        | —        | —        | —        | 16.15     | 133  | 57   | 184  | 89   | 140  | 63.5                            | 90              |
| 100             | 114.3            | —                                 | —       | —       | 6.02     |                            | —       | 8.56   |                           | —        | 11.13    | —        | 13.49    | 17.12     | 152  | 63.5 | 210  | 102  | 159  | 63.5                            | 100             |
| 125             | 141.3            | —                                 | —       | —       | 6.55     |                            | —       | 9.53   |                           | —        | 12.70    | —        | 15.88    | 19.05     | 190  | 79   | 262  | 127  | 197  | 76.2                            | 125             |
| 150             | 168.3            | —                                 | —       | —       | 7.11     |                            | —       | 10.97  |                           | —        | 14.27    | —        | 18.26    | 21.95     | 229  | 95   | 313  | 152  | 237  | 88.9                            | 150             |
| 200             | 219.1            | —                                 | 6.35    | 7.04    | 8.18     |                            | 10.31   | 12.70  |                           | 15.09    | 18.26    | 20.62    | 23.01    | 22.23     | 305  | 127  | 414  | 203  | 313  | 102                             | 200             |
| 250             | 273.1            | —                                 | 6.35    | 7.80    | 9.27     |                            | 12.70   | 12.70  | 15.09                     | 18.26    | 21.44    | 25.40    | 28.58    | 25.40     | 381  | 159  | 517  | 254  | 390  | 127                             | 250             |
| 300             | 323.9            | —                                 | 6.35    | 8.38    | 9.53     | 10.31                      | 14.27   | 12.70  | 17.48                     | 21.44    | 25.40    | 28.58    | 33.32    | 25.40     | 457  | 190  | 619  | 305  | 467  | 152                             | 300             |
| 350             | 355.6            | 6.35                              | 7.92    | 9.53    | 9.53     | 11.13                      | 15.09   | 12.70  | 19.05                     | 23.83    | 27.79    | 31.75    | 35.71    | —         | 533  | 222  | 711  | 356  | 533  | 165                             | 350             |
| 400             | 406.4            | 6.35                              | 7.92    | 9.53    | 9.53     | 12.70                      | 16.66   | 12.70  | 21.44                     | 26.19    | 30.96    | 36.53    | 40.49    | —         | 610  | 254  | 813  | 406  | 610  | 178                             | 400             |
| 450             | 457              | 6.35                              | 7.92    | 11.13   | 9.53     | 14.27                      | 19.05   | 12.70  | 23.83                     | 29.36    | 34.93    | 39.67    | 45.24    | —         | 686  | 286  | 914  | 457  | 686  | 203                             | 450             |
| 500             | 508              | 6.35                              | 9.53    | 12.70   | 9.53     | 15.09                      | 20.62   | 12.70  | 26.19                     | 32.54    | 38.10    | 44.45    | 50.01    | —         | 762  | 318  | 1016 | 508  | 762  | 229                             | 500             |
| 600             | 610              | 6.35                              | 9.53    | 14.27   | 9.53     | 17.48                      | 24.61   | 12.70  | 30.96                     | 38.89    | 46.02    | 52.37    | 59.54    | —         | 914  | 381  | 1219 | 610  | 914  | 267                             | 600             |
| 750             | 762              | 7.92                              | 12.70   | 15.88   | 9.53     | —                          | —       | 12.70  | —                         | —        | —        | —        | —        | —         | 1143 | 470  | 1524 | 762  | 1143 | 267                             | 750             |
| 900             | 914              | 7.92                              | 12.70   | 15.88   | 9.53     | 19.05                      | —       | 12.70  | —                         | —        | —        | —        | —        | —         | 1372 | 565  | —    | 914  | 1372 | 267                             | 900             |

STRAIGHT TEES (B16.9)



REDUCING TEES (B16.9)



CONCENTRIC & ECCENTRIC REDUCERS (B16.9)



| NOMINAL SIZE<br>DN |           | C    | M    | H    | NOMINAL SIZE<br>DN |           | C   | M    | H   | NOMINAL SIZE<br>DN                             |           | C   | M   | H   |
|--------------------|-----------|------|------|------|--------------------|-----------|-----|------|-----|------------------------------------------------|-----------|-----|-----|-----|
| Large End          | Small End |      |      |      | Large End          | Small End |     |      |     | Large End                                      | Small End |     |     |     |
| 20                 | 20        | 28.6 | —    | —    | 100                | 100       | 105 | —    | —   | 400                                            | 400       | 305 | —   | —   |
| 15                 | 15        | 28.6 | 28.6 | 38.1 |                    | 90        | 105 | 102  | 102 |                                                | 350       | 305 | 305 | 356 |
| 25                 | 25        | 38.1 | —    | —    |                    | 80        | 105 | 98.4 | 102 |                                                | 300       | 305 | 295 | 356 |
| 20                 | 20        | 38.1 | 38.1 | 50.8 |                    | 65        | 105 | 95.3 | 102 |                                                | 250       | 305 | 283 | 356 |
| 15                 | 15        | 38.1 | 38.1 | 50.8 |                    | 50        | 105 | 88.9 | 102 |                                                | 200       | 305 | 273 | 356 |
| 32                 | 32        | 47.6 | —    | —    | 125                | 125       | 124 | —    | —   | 450                                            | 450       | 343 | —   | —   |
| 25                 | 25        | 47.6 | 47.6 | 50.8 |                    | 100       | 124 | 117  | 127 |                                                | 400       | 343 | 330 | 381 |
| 20                 | 20        | 47.6 | 47.6 | 50.8 |                    | 90        | 124 | 114  | 127 |                                                | 350       | 343 | 330 | 381 |
| 15                 | 15        | 47.6 | 47.6 | 50.8 |                    | 80        | 124 | 111  | 127 |                                                | 300       | 343 | 321 | 381 |
| 40                 | 40        | 57.2 | —    | —    |                    | 65        | 124 | 108  | 127 |                                                | 250       | 343 | 308 | 381 |
| 32                 | 32        | 57.2 | 57.2 | 63.5 | 150                | 150       | 143 | —    | —   | 500                                            | 500       | 381 | —   | —   |
| 25                 | 25        | 57.2 | 57.2 | 63.5 |                    | 125       | 143 | 137  | 140 |                                                | 450       | 381 | 368 | 508 |
| 20                 | 20        | 57.2 | 57.2 | 63.5 |                    | 100       | 143 | 130  | 140 |                                                | 400       | 381 | 356 | 508 |
| 15                 | 15        | 57.2 | 57.2 | 63.5 |                    | 90        | 143 | 127  | 140 |                                                | 350       | 381 | 356 | 508 |
| 50                 | 50        | 63.5 | 60.3 | 76.2 |                    | 80        | 143 | 124  | 140 |                                                | 300       | 381 | 346 | 508 |
| 65                 | 65        | 76.2 | —    | —    | 200                | 200       | 178 | —    | —   | 600                                            | 600       | 432 | —   | —   |
| 50                 | 50        | 76.2 | 69.9 | 88.9 |                    | 150       | 178 | 168  | 152 |                                                | 500       | 432 | 432 | 508 |
| 40                 | 40        | 76.2 | 66.7 | 88.9 |                    | 125       | 178 | 162  | 152 |                                                | 450       | 432 | 419 | 508 |
| 32                 | 32        | 76.2 | 63.5 | 88.9 |                    | 100       | 178 | 155  | 152 |                                                | 400       | 432 | 406 | 508 |
| 25                 | 25        | 76.2 | 57.2 | 88.9 |                    | 80        | 178 | 152  | 152 |                                                | 350       | 432 | 406 | 508 |
| 80                 | 80        | 85.7 | —    | —    | 250                | 250       | 216 | —    | —   | 750                                            | 750       | 559 | —   | —   |
| 65                 | 65        | 85.7 | 82.6 | 88.9 |                    | 200       | 216 | 203  | 178 |                                                | 600       | 559 | 533 | 610 |
| 50                 | 50        | 85.7 | 76.2 | 88.9 |                    | 150       | 216 | 194  | 178 |                                                | 500       | 559 | 508 | 610 |
| 40                 | 40        | 85.7 | 73.0 | 88.9 |                    | 125       | 216 | 191  | 178 |                                                | 450       | 559 | 495 | 610 |
| 32                 | 32        | 85.7 | 69.9 | 88.9 |                    | 100       | 216 | 184  | 178 |                                                | 400       | 559 | 483 | 610 |
| 90                 | 90        | 95.3 | —    | —    | 300                | 300       | 254 | —    | —   | 900                                            | 900       | 673 | —   | —   |
| 80                 | 80        | 95.3 | 92.1 | 102  |                    | 250       | 254 | 241  | 203 |                                                | 750       | 673 | 635 | 610 |
| 65                 | 65        | 95.3 | 88.9 | 102  |                    | 200       | 254 | 229  | 203 |                                                | 600       | 673 | 610 | 610 |
| 50                 | 50        | 95.3 | 82.6 | 102  |                    | 150       | 254 | 219  | 203 |                                                | 500       | 673 | 584 | 610 |
| 40                 | 40        | 95.3 | 79.4 | 102  |                    | 100       | 254 | 210  | 203 |                                                | 450       | 673 | 572 | 610 |
| 350                | 350       | 279  | —    | —    | 350                | 350       | 279 | —    | —   | NOTE: All dimensions are in millimetres — (mm) |           |     |     |     |
| 300                | 300       | 279  | 270  | 330  |                    | 250       | 279 | 257  | 330 |                                                |           |     |     |     |
| 250                | 250       | 279  | 248  | 330  |                    | 200       | 279 | 248  | 330 |                                                |           |     |     |     |
| 200                | 200       | 279  | 238  | 330  |                    | 150       | 279 | 238  | 330 |                                                |           |     |     |     |
| 150                | 150       | 279  | 238  | 330  |                    | 100       | 279 | 238  | 330 |                                                |           |     |     |     |

