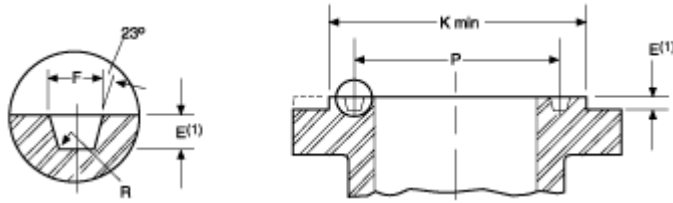


## DIMENSIONS OF RING JOINT FACINGS- ASME B16.5



|     |              |              |           | Nominal Pipe Size                                   |              |                                             |               |                  |                   | Groove Dimensions |        |                     | Diameter of Raised Portion K |                            |              |               |               |       |        |
|-----|--------------|--------------|-----------|-----------------------------------------------------|--------------|---------------------------------------------|---------------|------------------|-------------------|-------------------|--------|---------------------|------------------------------|----------------------------|--------------|---------------|---------------|-------|--------|
|     | 150<br>lb/sq | 300<br>lb/sq | 400 lb/sq | 600<br>lb/sq                                        | 900<br>lb/sq | 1500<br>lb/sq                               | 2500<br>lb/sq | Groove<br>Number | Pitch<br>Diameter | Depth             | Width  | Radius at<br>Bottom | 150<br>lb/sq                 | 300<br>400<br>600<br>lb/sq | 900<br>lb/sq | 1500<br>lb/sq | 2500<br>lb/sq |       |        |
|     |              |              |           | Use Class 600 in NPS 1/2 to NPS 3 1/2 for class 400 |              | Use Class 900<br>in NPS 2 1/2 for class 900 |               |                  |                   | P                 | E      | F                   | R                            |                            |              |               |               |       |        |
| in. |              | 1/2          | 1/2       |                                                     |              |                                             |               | R11              | 1.344             | 0.219             | 0.281  | 0.03                |                              | 2.00                       |              |               |               |       |        |
| mm  |              |              |           |                                                     |              |                                             |               |                  | 34.138            | 5.563             | 7.137  | 0.76                |                              | 50.80                      |              |               |               |       |        |
| in. |              |              |           |                                                     | 1/2          |                                             |               | R12              | 1.562             | 0.250             | 0.344  | 0.03                |                              |                            |              | 2.38          |               |       |        |
| mm  |              |              |           |                                                     |              |                                             |               |                  | 39.675            | 6.350             | 8.738  | 0.76                |                              |                            |              | 60.45         |               |       |        |
| in. |              | 3/4          | 3/4       |                                                     |              |                                             |               | 1/2              | R13               | 1.688             | 0.250  | 0.344               | 0.03                         |                            | 2.50         |               |               | 2.56  |        |
| mm  |              |              |           |                                                     |              |                                             |               |                  |                   | 42.875            | 6.350  | 8.738               | 0.76                         |                            | 63.50        |               |               | 65.02 |        |
| in. |              |              |           |                                                     | 3/4          |                                             |               |                  | R14               | 1.750             | 0.250  | 0.344               | 0.03                         |                            |              |               | 2.62          |       |        |
| mm  |              |              |           |                                                     |              |                                             |               |                  |                   | 44.450            | 6.350  | 8.738               | 0.76                         |                            |              |               | 66.55         |       |        |
| in. | 1            |              |           |                                                     |              |                                             |               |                  | R15               | 1.875             | 0.250  | 0.344               | 0.03                         | 2.50                       |              |               |               |       |        |
| mm  |              |              |           |                                                     |              |                                             |               |                  |                   | 47.625            | 6.350  | 8.738               | 0.76                         | 63.50                      |              |               |               |       |        |
| in. |              | 1            | 1         |                                                     |              |                                             | 1             |                  | 3/4               | R16               | 2.000  | 0.250               | 0.344                        | 0.03                       |              | 2.75          |               | 2.81  | 2.88   |
| mm  |              |              |           |                                                     |              |                                             |               |                  | 50.800            | 6.350             | 8.738  | 0.76                |                              | 69.85                      |              | 71.37         | 73.15         |       |        |
| in. | 1<br>1/4     |              |           | Use Class 600 in NPS 1/2 to NPS 3 1/2 for class 400 |              | Use Class 900<br>in NPS 2 1/2 for class 900 |               | R17              | 2.250             | 0.250             | 0.344  | 0.03                | 2.88                         |                            |              |               |               |       |        |
| mm  |              |              |           |                                                     |              |                                             |               |                  |                   | 57.150            | 6.350  | 8.738               | 0.76                         | 73.15                      |              |               |               |       |        |
| in. |              | 1 1/4        | 1 1/4     |                                                     | 1 1/4        |                                             |               | 1                | R18               | 2.375             | 0.250  | 0.344               | 0.03                         |                            | 3.12         |               | 3.19          | 3.25  |        |
| mm  |              |              |           |                                                     |              |                                             |               |                  |                   | 60.325            | 6.350  | 8.738               | 0.76                         |                            | 79.25        |               | 81.03         | 82.55 |        |
| in. | 1<br>1/2     |              |           |                                                     |              |                                             |               |                  |                   | R19               | 2.562  | 0.250               | 0.344                        | 0.03                       | 3.25         |               |               |       |        |
| mm  |              |              |           |                                                     |              |                                             |               |                  |                   |                   | 65.075 | 6.350               | 8.738                        | 0.76                       | 82.55        |               |               |       |        |
| in. |              | 1 1/2        | 1 1/2     |                                                     |              |                                             | 1 1/2         |                  |                   | R20               | 2.688  | 0.250               | 0.344                        | 0.03                       |              | 3.56          |               | 3.62  |        |
| mm  |              |              |           |                                                     |              |                                             |               |                  |                   |                   | 68.275 | 6.350               | 8.738                        | 0.76                       |              | 90.42         |               | 91.95 |        |
| in. |              |              |           |                                                     |              |                                             |               |                  | 1 1/4             | R21               | 2.844  | 0.312               | 0.469                        | 0.03                       |              |               |               |       | 4.00   |
| mm  |              |              |           |                                                     |              |                                             |               |                  |                   |                   | 72.238 | 7.925               | 11.913                       | 0.76                       |              |               |               |       | 101.60 |
| in. | 2            |              |           |                                                     |              |                                             |               |                  |                   | R22               | 3.250  | 0.250               | 0.344                        | 0.03                       | 4.00         |               |               |       |        |
| mm  |              |              |           |                                                     |              |                                             |               |                  |                   |                   | 82.550 | 6.350               | 8.738                        | 0.76                       | 101.60       |               |               |       |        |
| in. |              | 2            | 2         |                                                     |              |                                             | 1 1/2         | R23              | 3.250             | 0.312             | 0.469  | 0.03                |                              | 4.25                       |              |               | 4.50          |       |        |

|                |                  |                  |                  |                   |                  |               |               |                      |                       |                   |                 |                        |                |                              |                |                |                |  |
|----------------|------------------|------------------|------------------|-------------------|------------------|---------------|---------------|----------------------|-----------------------|-------------------|-----------------|------------------------|----------------|------------------------------|----------------|----------------|----------------|--|
| mm<br>.        |                  |                  |                  |                   |                  |               |               |                      | 82.550                | 7.925             | 11.913          | 0.76                   |                | 107.95                       |                |                | 114.30         |  |
| in.<br>mm<br>. |                  |                  |                  |                   | 2                |               |               | R24                  | 3.750<br>95.250       | 0.312<br>7.925    | 0.469<br>11.913 | 0.03<br>0.76           |                |                              |                | 4.88<br>123.95 |                |  |
| in.<br>mm<br>. | 2<br>1/2         |                  |                  |                   |                  |               |               | R25                  | 4.000<br>101.600      | 0.250<br>6.350    | 0.344<br>8.738  | 0.03<br>0.76           | 4.75<br>120.65 |                              |                |                |                |  |
| in.<br>mm<br>. |                  | 2 1/2            | 2 1/2            |                   |                  |               | 2             | R26                  | 4.000<br>101.600      | 0.312<br>7.925    | 0.469<br>11.913 | 0.03<br>0.76           |                | 5.00<br>127.00               |                |                | 5.25<br>133.35 |  |
| in.<br>mm<br>. |                  |                  |                  |                   | 2 1/2            |               |               | R27                  | 4.250<br>107.950      | 0.312<br>7.925    | 0.469<br>11.913 | 0.03<br>0.76           |                |                              |                | 5.38<br>136.65 |                |  |
| in.<br>mm<br>. |                  |                  |                  |                   |                  |               | 2 1/2         | R28                  | 4.375<br>111.125      | 0.375<br>9.525    | 0.531<br>13.487 | 0.06<br>1.52           |                |                              |                |                | 5.88<br>149.35 |  |
|                |                  |                  |                  | Nominal Pipe Size |                  |               |               |                      |                       | Groove Dimensions |                 |                        |                | Diameter of Raised Portion K |                |                |                |  |
|                | 150<br>lb/s<br>q | 300<br>lb/s<br>q | 400<br>lb/s<br>q | 600<br>lb/s<br>q  | 900<br>lb/s<br>q | 1500<br>lb/sq | 2500<br>lb/sq | Groove<br>Numbe<br>r | Pitch<br>Diamete<br>r | Dept<br>h         | Widt<br>h       | Radius<br>at<br>Bottom | 150<br>lb/sq   | 300<br>400<br>600            | 900<br>lb/sq   | 1500<br>lb/sq  | 2500<br>lb/sq  |  |
|                |                  |                  |                  |                   |                  |               |               |                      | P                     | E                 | F               | R                      |                | lb/sq                        |                |                |                |  |
| in.<br>mm<br>. | 3                |                  |                  |                   |                  |               |               | R29                  | 4.500<br>114.300      | 0.250<br>6.350    | 0.344<br>8.738  | 0.03<br>0.76           | 5.25<br>133.35 |                              |                |                |                |  |
| in.<br>mm<br>. |                  | (2)              |                  | (2)               |                  |               |               | R30                  | 4.625<br>117.475      | 0.312<br>7.925    | 0.469<br>11.913 | 0.03<br>0.76           |                |                              |                |                |                |  |
| in.<br>mm<br>. |                  | 3 (2)            |                  | 3 (2)             | 3                |               |               | R31                  | 4.875<br>123.825      | 0.312<br>7.925    | 0.469<br>11.913 | 0.03<br>0.76           |                | 5.75<br>146.05               | 6.12<br>155.45 |                |                |  |
| in.<br>mm<br>. |                  |                  |                  |                   |                  |               | 3             | R32                  | 5.000<br>127.000      | 0.375<br>9.525    | 0.531<br>13.487 | 0.06<br>1.52           |                |                              |                |                | 6.62<br>168.15 |  |
| in.<br>mm<br>. | 3 1/2            |                  |                  |                   |                  |               |               | R33                  | 5.188<br>131.775      | 0.250<br>6.350    | 0.344<br>8.738  | 0.03<br>0.76           | 6.06<br>153.92 |                              |                |                |                |  |
| in.<br>mm<br>. |                  | 3 1/2            |                  | 3 1/2             |                  |               |               | R34                  | 5.188<br>131.775      | 0.312<br>7.925    | 0.469<br>11.913 | 0.03<br>0.76           |                | 6.25<br>158.75               |                |                |                |  |
| in.<br>mm<br>. |                  |                  |                  |                   |                  | 3             |               | R35                  | 5.375<br>136.525      | 0.312<br>7.925    | 0.469<br>11.913 | 0.03<br>0.76           |                |                              |                | 6.62<br>168.15 |                |  |
| in.<br>mm<br>. | 4                |                  |                  |                   |                  |               |               | R36                  | 5.875<br>149.225      | 0.250<br>6.350    | 0.344<br>8.738  | 0.03<br>0.76           | 6.75<br>171.45 |                              |                |                |                |  |
| in.<br>mm<br>. |                  | 4                | 4                | 4                 | 4                |               |               | R37                  | 5.875<br>149.225      | 0.312<br>7.925    | 0.469<br>11.913 | 0.03<br>0.76           |                | 6.88<br>174.75               | 7.12<br>180.85 |                |                |  |
| in.<br>mm<br>. |                  |                  |                  |                   |                  |               | 4             | R38                  | 6.188<br>157.175      | 0.438<br>11.125   | 0.656<br>16.662 | 0.06<br>1.52           |                |                              |                |                | 8.00<br>203.20 |  |

|     |    |    |    |    |    |    |    |     |         |        |        |      |        |        |        |        |        |
|-----|----|----|----|----|----|----|----|-----|---------|--------|--------|------|--------|--------|--------|--------|--------|
| in. |    |    |    |    |    | 4  |    | R39 | 6.375   | 0.312  | 0.469  | 0.03 |        |        |        | 7.62   |        |
| mm  |    |    |    |    |    |    |    |     | 161.925 | 7.925  | 11.913 | 0.76 |        |        |        | 193.55 |        |
| in. | 5  |    |    |    |    |    |    | R40 | 6.750   | 0.250  | 0.344  | 0.03 | 7.62   |        |        |        |        |
| mm  |    |    |    |    |    |    |    |     | 171.450 | 6.350  | 8.738  | 0.76 | 193.55 |        |        |        |        |
| in. |    | 5  | 5  | 5  | 5  |    |    | R41 | 7.125   | 0.312  | 0.469  | 0.03 |        | 8.25   | 8.50   |        |        |
| mm  |    |    |    |    |    |    |    |     | 180.975 | 7.925  | 11.913 | 0.76 |        | 209.55 | 215.90 |        |        |
| in. |    |    |    |    |    |    | 5  | R42 | 7.500   | 0.500  | 0.781  | 0.06 |        |        |        |        | 9.50   |
| mm  |    |    |    |    |    |    |    |     | 190.500 | 12.700 | 19.837 | 1.52 |        |        |        |        | 241.30 |
| in. | 6  |    |    |    |    |    |    | R43 | 7.625   | 0.250  | 0.344  | 0.03 | 8.62   |        |        |        |        |
| mm  |    |    |    |    |    |    |    |     | 193.675 | 6.350  | 8.738  | 0.76 | 218.95 |        |        |        |        |
| in. |    |    |    |    |    | 5  |    | R44 | 7.625   | 0.312  | 0.469  | 0.03 |        |        |        | 9.00   |        |
| mm  |    |    |    |    |    |    |    |     | 193.675 | 7.925  | 11.913 | 0.76 |        |        |        | 228.60 |        |
| in. |    | 6  | 6  | 6  | 6  |    |    | R45 | 8.312   | 0.312  | 0.469  | 0.03 |        | 9.50   | 9.50   |        |        |
| mm  |    |    |    |    |    |    |    |     | 211.125 | 7.925  | 11.913 | 0.76 |        | 241.30 | 241.30 |        |        |
| in. |    |    |    |    |    | 6  |    | R46 | 8.312   | 0.375  | 0.531  | 0.06 |        |        |        | 9.75   |        |
| mm  |    |    |    |    |    |    |    |     | 211.125 | 9.525  | 13.487 | 1.52 |        |        |        | 247.65 |        |
| in. |    |    |    |    |    |    | 6  | R47 | 9.000   | 0.500  | 0.781  | 0.06 |        |        |        |        | 11.00  |
| mm  |    |    |    |    |    |    |    |     | 228.60  | 12.70  | 19.84  | 1.5  |        |        |        |        | 279.4  |
| in. | 8  |    |    |    |    |    |    | R48 | 9.750   | 0.250  | 0.344  | 0.03 | 10.75  |        |        |        |        |
| mm  |    |    |    |    |    |    |    |     | 247.65  | 6.35   | 8.74   | 0.8  | 273.1  |        |        |        |        |
| in. |    | 8  | 8  | 8  | 8  |    |    | R49 | 10.625  | 0.312  | 0.469  | 0.03 |        | 11.88  | 12.12  |        |        |
| mm  |    |    |    |    |    |    |    |     | 269.88  | 7.92   | 11.91  | 0.8  |        | 301.8  | 307.8  |        |        |
| in. |    |    |    |    |    | 8  |    | R50 | 10.625  | 0.438  | 0.656  | 0.06 |        |        |        | 12.50  |        |
| mm  |    |    |    |    |    |    |    |     | 269.88  | 11.13  | 16.66  | 1.5  |        |        |        | 317.5  |        |
| in. |    |    |    |    |    |    | 8  | R51 | 11.000  | 0.562  | 0.906  | 0.06 |        |        |        |        | 13.38  |
| mm  |    |    |    |    |    |    |    |     | 279.40  | 14.27  | 23.01  | 1.5  |        |        |        |        | 339.9  |
| in. | 10 |    |    |    |    |    |    | R52 | 12.000  | 0.250  | 0.344  | 0.03 | 13.00  |        |        |        |        |
| mm  |    |    |    |    |    |    |    |     | 304.80  | 6.35   | 8.74   | 0.8  | 330.2  |        |        |        |        |
| in. |    | 10 | 10 | 10 | 10 |    |    | R53 | 12.750  | 0.312  | 0.469  | 0.03 |        | 14.00  | 14.25  |        |        |
| mm  |    |    |    |    |    |    |    |     | 323.85  | 7.92   | 11.91  | 0.8  |        | 355.6  | 362.0  |        |        |
| in. |    |    |    |    |    | 10 |    | R54 | 12.750  | 0.438  | 0.656  | 0.06 |        |        |        | 14.62  |        |
| mm  |    |    |    |    |    |    |    |     | 323.85  | 11.13  | 16.66  | 1.5  |        |        |        | 371.3  |        |
| in. |    |    |    |    |    |    | 10 | R55 | 13.500  | 0.688  | 1.188  | 0.09 |        |        |        |        | 16.75  |
| mm  |    |    |    |    |    |    |    |     | 342.90  | 17.48  | 30.18  | 2.3  |        |        |        |        | 425.5  |