

# BS 3293 : 1960

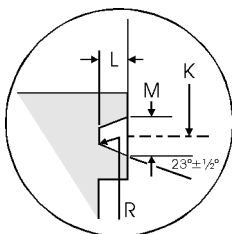
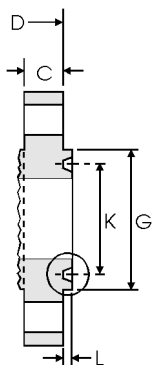
British Standard BS 3293 : 1960 - Carbon Steel Pipe Flanges (over 24 inches nominal size) for the Petroleum Industry, covers Class 150 lb to 600 lb weld neck and slip on flanges.

## Dimensions and Tolerances

Tolerances on flange dimensions (BS 3293 : 1960)

| Dimension                                                      |                                                      | Tolerance      |                |
|----------------------------------------------------------------|------------------------------------------------------|----------------|----------------|
|                                                                |                                                      | in             | mm             |
| Weld Neck and Slip On Flanges (pages 8-56 to 8-59)             | G (raised face diameter)                             | $\pm 1/64$     | $\pm 0.40$     |
|                                                                | C (flange thickness)                                 | $+3/16, -0$    | $+4.76, -0$    |
|                                                                | D (overall length)                                   | $\pm 1/8$      | $\pm 3.18$     |
|                                                                | E (outside diameter at welding end of weld neck hub) | $+5/32, -1/32$ | $+3.97, -0.79$ |
|                                                                | B (inside diameter of weld neck flange)              | $+1/8, -1/16$  | $+3.18, -1.59$ |
|                                                                | B (inside diameter of slip on flange)                | $+1/16, -0$    | $+1.59, -0$    |
| Ring Joint Facing on Weld Neck and Slip On Flanges (see below) | L (depth of groove)                                  | $+1/64, -0$    | $+0.40, -0$    |
|                                                                | M (width of groove)                                  | $\pm 0.008$    | $\pm 0.20$     |
|                                                                | K (pitch diameter of groove)                         | $\pm 0.005$    | $\pm 0.13$     |

## Ring Joint Facings - BS 3293



### Note

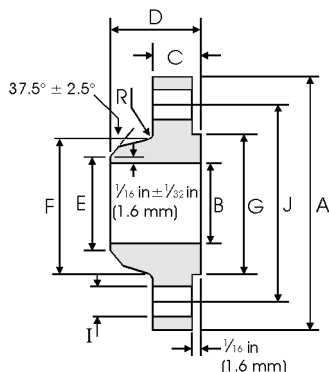
- Values for minimum flange thickness, C, and overall length, D, are detailed in the flange tables.
- For ring joint tolerances see above.
- $R = 1/16$  in (0.40 mm) max, corner radius at bottom of groove.

## Ring joint facing dimensions - BS 3293

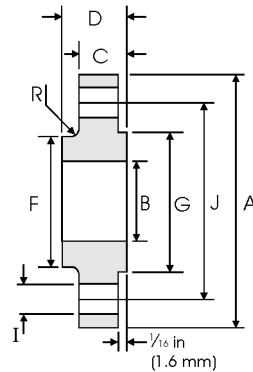
| Class (lb)              |     |     |     | Groove/Ring<br>Number | Raised<br>Face                                                                      | Groove                                                                              |                                                                                     |                                                                                     |                                                                                     | Weight          |                 |            |
|-------------------------|-----|-----|-----|-----------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------------|-----------------|------------|
| 150                     | 300 | 400 | 600 |                       |  |  |  |  |  | kg/piece        |                 |            |
| Nominal Pipe Size (NPS) |     |     |     |                       | Face<br>Diameter<br>min                                                             | Pitch<br>Diameter                                                                   | Depth                                                                               | Width                                                                               | Class<br>300 lb                                                                     | Class<br>400 lb | Class<br>600 lb |            |
|                         |     |     |     |                       | in<br>mm                                                                            | in<br>mm                                                                            | in<br>mm                                                                            | in<br>mm                                                                            | WNF<br>Slip on                                                                      | WNF<br>Slip on  | WNF<br>Slip on  |            |
|                         | 26  | 26  | 26  |                       | R93                                                                                 | 31 <sup>7</sup> / <sub>8</sub><br>809.6                                             | 29 <sup>1</sup> / <sub>2</sub><br>749.3                                             | 1 <sup>1</sup> / <sub>2</sub><br>12.7                                               | 25 <sup>3</sup> / <sub>32</sub><br>19.8                                             | 298<br>270      | 349<br>304      | 446<br>417 |
|                         | 28  | 28  | 28  | R94                   | 33 <sup>7</sup> / <sub>8</sub><br>860.4                                             | 31 <sup>1</sup> / <sub>2</sub><br>800.1                                             | 1 <sup>1</sup> / <sub>2</sub><br>12.7                                               | 25 <sup>3</sup> / <sub>32</sub><br>19.8                                             | 360<br>333                                                                          | 409<br>364      | 518<br>482      |            |
|                         | 30  | 30  | 30  | R95                   | 36 <sup>1</sup> / <sub>8</sub><br>917.6                                             | 33 <sup>3</sup> / <sub>4</sub><br>857.2                                             | 1 <sup>1</sup> / <sub>2</sub><br>12.7                                               | 25 <sup>3</sup> / <sub>32</sub><br>19.8                                             | 412<br>376                                                                          | 465<br>419      | 570<br>537      |            |
|                         | 32  | 32  | 32  | R96                   | 38 <sup>3</sup> / <sub>4</sub><br>984.2                                             | 36<br>914.4                                                                         | 9 <sup>1</sup> / <sub>16</sub><br>14.3                                              | 29 <sup>3</sup> / <sub>32</sub><br>23.0                                             | 465<br>425                                                                          | 539<br>482      | 697<br>622      |            |
|                         | 34  | 34  | 34  | R97                   | 40 <sup>3</sup> / <sub>4</sub><br>1035.0                                            | 38<br>965.2                                                                         | 9 <sup>1</sup> / <sub>16</sub><br>14.3                                              | 29 <sup>3</sup> / <sub>32</sub><br>23.0                                             | 536<br>492                                                                          | 608<br>540      | 735<br>670      |            |
|                         | 36  | 36  | 36  | R98                   | 43<br>1092.2                                                                        | 40 <sup>1</sup> / <sub>4</sub><br>1022.3                                            | 9 <sup>1</sup> / <sub>16</sub><br>14.3                                              | 29 <sup>3</sup> / <sub>32</sub><br>23.0                                             | 595<br>548                                                                          | 689<br>621      | 800<br>764      |            |

### Note

- Weights are based on manufacturer's data and are approximate.



Weld Neck



Slip On

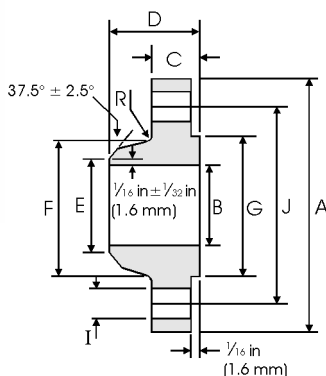
## Class 150 lb

| Pipe              | Flange Data                              |                                          |                                         |                                          |                                         | Hub Data                   |                                          | Raised Face                              | Drilling Data   |                                       |                                          | Radius                                  | Weight      |
|-------------------|------------------------------------------|------------------------------------------|-----------------------------------------|------------------------------------------|-----------------------------------------|----------------------------|------------------------------------------|------------------------------------------|-----------------|---------------------------------------|------------------------------------------|-----------------------------------------|-------------|
| Nominal Pipe Size | A                                        | B                                        | C                                       | D                                        |                                         | E                          | F                                        | G                                        | H               | I                                     | J                                        | R                                       |             |
|                   | Overall Diameter                         | Slip on Inside Diameter                  | Flange Thickness                        | WNF Overall Length                       | Slip on Overall Length                  | WNF Diameter at Weld Bevel | WNF / Slip on Hub Diameter               | Face Diameter                            | Number of Holes | Bolt Hole Diam.                       | Diameter of Circle of Holes              | Fillet                                  | kg/ piece   |
|                   | in mm                                    | in mm                                    | in mm                                   | in mm                                    | in mm                                   | in mm                      | in mm                                    | in mm                                    |                 | in mm                                 | in mm                                    | in mm                                   | WNF Slip On |
| 26                | 34 <sup>1</sup> / <sub>4</sub><br>869.9  | 26 <sup>1</sup> / <sub>4</sub><br>666.7  | 2<br>50.8                               | 5<br>127.0                               | 3 <sup>3</sup> / <sub>8</sub><br>85.7   | 26<br>660.4                | 28 <sup>1</sup> / <sub>2</sub><br>723.9  | 29 <sup>1</sup> / <sub>4</sub><br>742.9  | 24              | 1 <sup>3</sup> / <sub>8</sub><br>34.9 | 31 <sup>3</sup> / <sub>4</sub><br>806.4  | 1 <sup>1</sup> / <sub>4</sub><br>6.35   | 118<br>107  |
| 28                | 36 <sup>1</sup> / <sub>2</sub><br>927.1  | 28 <sup>1</sup> / <sub>4</sub><br>717.6  | 2 <sup>1</sup> / <sub>16</sub><br>52.4  | 5 <sup>1</sup> / <sub>16</sub><br>128.6  | 3 <sup>7</sup> / <sub>16</sub><br>87.3  | 28<br>711.2                | 30 <sup>3</sup> / <sub>4</sub><br>781.0  | 31 <sup>1</sup> / <sub>4</sub><br>793.7  | 28              | 1 <sup>3</sup> / <sub>8</sub><br>34.9 | 34<br>863.6                              | 1 <sup>1</sup> / <sub>4</sub><br>6.35   | 134<br>122  |
| 30                | 38 <sup>3</sup> / <sub>4</sub><br>984.2  | 30 <sup>1</sup> / <sub>4</sub><br>768.3  | 2 <sup>1</sup> / <sub>8</sub><br>54.0   | 5 <sup>1</sup> / <sub>8</sub><br>130.2   | 3 <sup>1</sup> / <sub>2</sub><br>88.9   | 30<br>762.0                | 32 <sup>3</sup> / <sub>4</sub><br>831.8  | 33 <sup>3</sup> / <sub>4</sub><br>857.2  | 28              | 1 <sup>3</sup> / <sub>8</sub><br>34.9 | 36<br>914.4                              | 1 <sup>1</sup> / <sub>4</sub><br>6.35   | 153<br>138  |
| 32                | 41 <sup>3</sup> / <sub>4</sub><br>1060.4 | 32 <sup>1</sup> / <sub>4</sub><br>819.1  | 2 <sup>1</sup> / <sub>4</sub><br>57.1   | 5 <sup>1</sup> / <sub>4</sub><br>133.3   | 3 <sup>5</sup> / <sub>8</sub><br>92.1   | 32<br>812.8                | 35<br>889.0                              | 35 <sup>3</sup> / <sub>4</sub><br>908.0  | 28              | 1 <sup>5</sup> / <sub>8</sub><br>41.3 | 38 <sup>1</sup> / <sub>2</sub><br>977.9  | 5 <sup>1</sup> / <sub>16</sub><br>7.94  | 190<br>170  |
| 34                | 43 <sup>3</sup> / <sub>4</sub><br>1111.2 | 34 <sup>1</sup> / <sub>4</sub><br>869.9  | 2 <sup>5</sup> / <sub>16</sub><br>58.7  | 5 <sup>5</sup> / <sub>16</sub><br>134.9  | 3 <sup>11</sup> / <sub>16</sub><br>93.7 | 34<br>863.6                | 37<br>939.8                              | 37 <sup>3</sup> / <sub>4</sub><br>958.8  | 32              | 1 <sup>5</sup> / <sub>8</sub><br>41.3 | 40 <sup>1</sup> / <sub>2</sub><br>1028.7 | 5 <sup>1</sup> / <sub>16</sub><br>7.94  | 212<br>184  |
| 36                | 46<br>1168.4                             | 36 <sup>1</sup> / <sub>4</sub><br>920.7  | 2 <sup>3</sup> / <sub>8</sub><br>60.3   | 5 <sup>3</sup> / <sub>8</sub><br>136.5   | 3 <sup>3</sup> / <sub>4</sub><br>95.2   | 36<br>914.4                | 39 <sup>1</sup> / <sub>4</sub><br>996.9  | 40 <sup>1</sup> / <sub>4</sub><br>1022.3 | 32              | 1 <sup>5</sup> / <sub>8</sub><br>41.3 | 42 <sup>3</sup> / <sub>4</sub><br>1085.8 | 5 <sup>1</sup> / <sub>16</sub><br>7.94  | 242<br>211  |
| 38                | 48 <sup>3</sup> / <sub>4</sub><br>1238.2 | 38 <sup>1</sup> / <sub>4</sub><br>971.5  | 2 <sup>3</sup> / <sub>8</sub><br>60.3   | 5 <sup>3</sup> / <sub>8</sub><br>136.5   | 3 <sup>3</sup> / <sub>4</sub><br>95.2   | 38<br>965.2                | 41 <sup>3</sup> / <sub>4</sub><br>1060.4 | 42 <sup>1</sup> / <sub>4</sub><br>1073.1 | 32              | 1 <sup>5</sup> / <sub>8</sub><br>41.3 | 45 <sup>1</sup> / <sub>4</sub><br>1149.3 | 3 <sup>3</sup> / <sub>8</sub><br>9.53   | 284<br>249  |
| 40                | 50 <sup>3</sup> / <sub>4</sub><br>1289.0 | 40 <sup>1</sup> / <sub>4</sub><br>1022.3 | 2 <sup>1</sup> / <sub>2</sub><br>63.5   | 5 <sup>1</sup> / <sub>2</sub><br>139.7   | 3 <sup>7</sup> / <sub>8</sub><br>98.4   | 40<br>1016.0               | 43 <sup>3</sup> / <sub>4</sub><br>1111.2 | 44 <sup>1</sup> / <sub>4</sub><br>1123.9 | 36              | 1 <sup>5</sup> / <sub>8</sub><br>41.3 | 47 <sup>1</sup> / <sub>4</sub><br>1200.1 | 3 <sup>3</sup> / <sub>8</sub><br>9.53   | 311<br>272  |
| 42                | 53<br>1346.2                             | 42 <sup>1</sup> / <sub>4</sub><br>1073.2 | 2 <sup>5</sup> / <sub>8</sub><br>66.7   | 5 <sup>5</sup> / <sub>8</sub><br>142.9   | 4<br>101.6                              | 42<br>1066.8               | 46<br>1168.4                             | 47<br>1193.8                             | 36              | 1 <sup>5</sup> / <sub>8</sub><br>41.3 | 49 <sup>1</sup> / <sub>2</sub><br>1257.3 | 3 <sup>3</sup> / <sub>8</sub><br>9.53   | 358<br>313  |
| 44                | 55 <sup>1</sup> / <sub>4</sub><br>1403.3 | 44 <sup>1</sup> / <sub>4</sub><br>1123.9 | 2 <sup>5</sup> / <sub>8</sub><br>66.7   | 5 <sup>5</sup> / <sub>8</sub><br>142.9   | 4<br>101.6                              | 44<br>1117.6               | 48<br>1219.2                             | 49<br>1244.6                             | 40              | 1 <sup>5</sup> / <sub>8</sub><br>41.3 | 51 <sup>3</sup> / <sub>4</sub><br>1314.4 | 7 <sup>1</sup> / <sub>16</sub><br>11.11 | 376<br>331  |
| 46                | 57 <sup>1</sup> / <sub>4</sub><br>1454.2 | 46 <sup>1</sup> / <sub>4</sub><br>1174.7 | 2 <sup>11</sup> / <sub>16</sub><br>68.3 | 5 <sup>11</sup> / <sub>16</sub><br>144.5 | 4 <sup>1</sup> / <sub>16</sub><br>103.2 | 46<br>1168.4               | 50<br>1270.0                             | 51<br>1295.4                             | 40              | 1 <sup>5</sup> / <sub>8</sub><br>41.3 | 53 <sup>3</sup> / <sub>4</sub><br>1365.2 | 7 <sup>1</sup> / <sub>16</sub><br>11.11 | 399<br>349  |
| 48                | 59 <sup>1</sup> / <sub>2</sub><br>1511.1 | 48 <sup>1</sup> / <sub>4</sub><br>1225.5 | 2 <sup>3</sup> / <sub>4</sub><br>69.9   | 5 <sup>3</sup> / <sub>4</sub><br>146.1   | 4 <sup>1</sup> / <sub>8</sub><br>104.8  | 48<br>1219.2               | 52 <sup>1</sup> / <sub>4</sub><br>1327.2 | 53 <sup>1</sup> / <sub>2</sub><br>1358.9 | 44              | 1 <sup>5</sup> / <sub>8</sub><br>41.3 | 56<br>1422.4                             | 7 <sup>1</sup> / <sub>16</sub><br>11.11 | 440<br>381  |

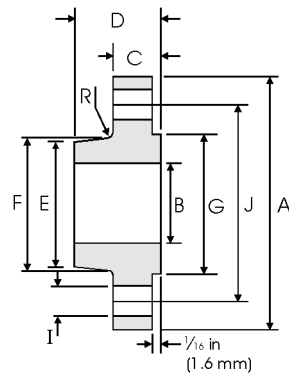
### Notes

- For weld neck flanges, dimension B is to be specified by the purchaser. It corresponds to the pipe inside diameter.
- For slip on flanges, the hub may be cylindrical or have a draft of  $\leq 7^\circ$  on the outside surface.
- WNF = Weld Neck Flange.
- Weights are based on manufacturer's data and are approximate.

## Weld Neck and Slip On Flanges - BS 3293



Weld Neck



Slip On

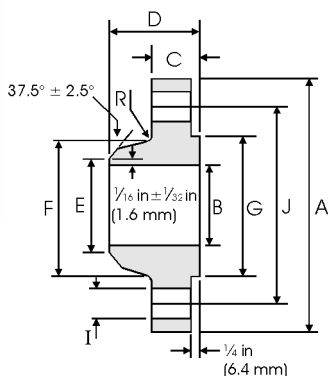
### Class 300 lb

| Pipe              | Flange Data                              |                                         |                                        |                                        | Hub Data                                 |                                          |                                           | Raised Face                              | Drilling Data   |                                       |                                          | Radius                                | Weight                                                                              |
|-------------------|------------------------------------------|-----------------------------------------|----------------------------------------|----------------------------------------|------------------------------------------|------------------------------------------|-------------------------------------------|------------------------------------------|-----------------|---------------------------------------|------------------------------------------|---------------------------------------|-------------------------------------------------------------------------------------|
| Nominal Pipe Size | A                                        | B                                       | C                                      | D                                      | E                                        |                                          | F                                         | G                                        | H               | I                                     | J                                        | R                                     |  |
|                   | Overall Diameter                         | Slip on Inside Diameter                 | Flange Thickness                       | WNF / Slip on Overall Length           | WNF Diam. at Weld Bevel                  | Slip on Hub Diam. at Small End           | Hub Diameter                              | Face Diameter                            | Number of Holes | Bolt Hole Diam.                       | Diameter of Circle of Holes              | Fillet                                | kg/ piece                                                                           |
|                   | in<br>mm                                 | in<br>mm                                | in<br>mm                               | in<br>mm                               | in<br>mm                                 | in<br>mm                                 | in<br>mm                                  | in<br>mm                                 |                 | in<br>mm                              | in<br>mm                                 | in<br>mm                              | WNF Slip On                                                                         |
| 26                | 38 <sup>1</sup> / <sub>4</sub><br>971.5  | 26 <sup>1</sup> / <sub>4</sub><br>666.7 | 3 <sup>1</sup> / <sub>8</sub><br>79.4  | 7 <sup>1</sup> / <sub>4</sub><br>184.1 | 26 <sup>1</sup> / <sub>4</sub><br>666.7  | 27 <sup>1</sup> / <sub>16</sub><br>687.4 | 28 <sup>3</sup> / <sub>8</sub><br>720.7   | 29 <sup>1</sup> / <sub>2</sub><br>749.3  | 28              | 1 <sup>3</sup> / <sub>4</sub><br>44.4 | 34 <sup>1</sup> / <sub>2</sub><br>876.3  | <sup>3</sup> / <sub>8</sub><br>9.53   | 279<br>251                                                                          |
| 28                | 40 <sup>3</sup> / <sub>4</sub><br>1035.0 | 28 <sup>1</sup> / <sub>4</sub><br>717.6 | 3 <sup>3</sup> / <sub>8</sub><br>85.7  | 7 <sup>3</sup> / <sub>4</sub><br>196.8 | 28 <sup>1</sup> / <sub>4</sub><br>717.5  | 29 <sup>1</sup> / <sub>8</sub><br>739.7  | 30 <sup>1</sup> / <sub>2</sub><br>774.7   | 31 <sup>1</sup> / <sub>2</sub><br>800.1  | 28              | 1 <sup>3</sup> / <sub>4</sub><br>44.4 | 37<br>939.8                              | <sup>7</sup> / <sub>16</sub><br>11.11 | 340<br>313                                                                          |
| 30                | 43<br>1092.2                             | 30 <sup>1</sup> / <sub>4</sub><br>768.3 | 3 <sup>5</sup> / <sub>8</sub><br>92.1  | 8 <sup>1</sup> / <sub>4</sub><br>209.5 | 30 <sup>1</sup> / <sub>4</sub><br>768.3  | 31 <sup>3</sup> / <sub>16</sub><br>792.2 | 32 <sup>9</sup> / <sub>16</sub><br>827.2  | 33 <sup>3</sup> / <sub>4</sub><br>857.2  | 28              | 1 <sup>7</sup> / <sub>8</sub><br>47.6 | 39 <sup>1</sup> / <sub>4</sub><br>996.9  | <sup>7</sup> / <sub>16</sub><br>11.11 | 390<br>354                                                                          |
| 32                | 45 <sup>1</sup> / <sub>4</sub><br>1149.3 | 32 <sup>1</sup> / <sub>4</sub><br>819.1 | 3 <sup>7</sup> / <sub>8</sub><br>98.4  | 8 <sup>3</sup> / <sub>4</sub><br>222.2 | 32 <sup>1</sup> / <sub>4</sub><br>819.1  | 33 <sup>1</sup> / <sub>4</sub><br>844.6  | 34 <sup>11</sup> / <sub>16</sub><br>881.1 | 36<br>914.4                              | 28              | 2<br>50.8                             | 41 <sup>1</sup> / <sub>2</sub><br>1054.1 | <sup>7</sup> / <sub>16</sub><br>11.11 | 435<br>395                                                                          |
| 34                | 47 <sup>1</sup> / <sub>2</sub><br>1206.5 | 34 <sup>1</sup> / <sub>4</sub><br>869.9 | 4<br>101.6                             | 9 <sup>1</sup> / <sub>8</sub><br>231.8 | 34 <sup>5</sup> / <sub>16</sub><br>871.5 | 35 <sup>5</sup> / <sub>16</sub><br>896.9 | 36 <sup>7</sup> / <sub>8</sub><br>936.6   | 38<br>965.2                              | 28              | 2<br>50.8                             | 43 <sup>1</sup> / <sub>2</sub><br>1104.9 | <sup>1</sup> / <sub>2</sub><br>12.7   | 504<br>460                                                                          |
| 36                | 50<br>1270.0                             | 36 <sup>1</sup> / <sub>4</sub><br>920.7 | 4 <sup>1</sup> / <sub>8</sub><br>104.8 | 9 <sup>1</sup> / <sub>2</sub><br>241.3 | 36 <sup>5</sup> / <sub>16</sub><br>922.3 | 37 <sup>3</sup> / <sub>8</sub><br>949.3  | 39<br>990.6                               | 40 <sup>1</sup> / <sub>4</sub><br>1022.3 | 32              | 2 <sup>1</sup> / <sub>8</sub><br>54.0 | 46<br>1168.4                             | <sup>1</sup> / <sub>2</sub><br>12.7   | 560<br>513                                                                          |

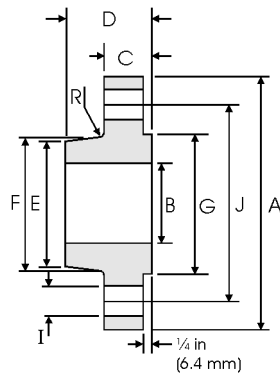
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Weld Neck



Slip On

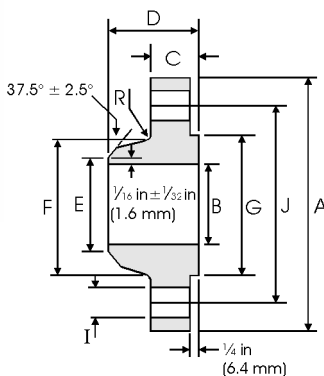
### Class 400 lb

| Pipe              | Flange Data                              |                                         |                                        |                                        | Hub Data                                 |                                          |                                           | Raised Face                              | Drilling Data   |                                       |                                          | Radius                                  | Weight      |
|-------------------|------------------------------------------|-----------------------------------------|----------------------------------------|----------------------------------------|------------------------------------------|------------------------------------------|-------------------------------------------|------------------------------------------|-----------------|---------------------------------------|------------------------------------------|-----------------------------------------|-------------|
| Nominal Pipe Size | A                                        | B                                       | C                                      | D                                      | E                                        | F                                        | G                                         | H                                        | I               | J                                     | R                                        |                                         |             |
|                   | Overall Diameter                         | Slip on Inside Diameter                 | Flange Thickness                       | WNF / Slip on Overall Length           | WNF Diam. at Weld Bevel                  | Slip on Hub Diam. at Small End           | Hub Diameter                              | Face Diameter                            | Number of Holes | Bolt Hole Diam.                       | Diameter of Circle of Holes              | Fillet                                  | kg/ piece   |
|                   | in mm                                    | in mm                                   | in mm                                  | in mm                                  | in mm                                    | in mm                                    | in mm                                     | in mm                                    |                 | in mm                                 | in mm                                    | in mm                                   | WNF Slip On |
| 26                | 38 <sup>1</sup> / <sub>4</sub><br>971.5  | 26 <sup>1</sup> / <sub>4</sub><br>666.7 | 3 <sup>1</sup> / <sub>2</sub><br>88.9  | 7 <sup>5</sup> / <sub>8</sub><br>193.7 | 26 <sup>5</sup> / <sub>16</sub><br>668.3 | 27 <sup>5</sup> / <sub>16</sub><br>693.7 | 28 <sup>5</sup> / <sub>8</sub><br>727.1   | 29 <sup>1</sup> / <sub>2</sub><br>749.3  | 28              | 1 <sup>7</sup> / <sub>8</sub><br>47.6 | 34 <sup>1</sup> / <sub>2</sub><br>876.3  | 7 <sup>1</sup> / <sub>16</sub><br>11.11 | 340<br>295  |
| 28                | 40 <sup>3</sup> / <sub>4</sub><br>1035.0 | 28 <sup>1</sup> / <sub>4</sub><br>717.6 | 3 <sup>3</sup> / <sub>4</sub><br>95.2  | 8 <sup>1</sup> / <sub>8</sub><br>206.4 | 28 <sup>5</sup> / <sub>16</sub><br>719.1 | 29 <sup>3</sup> / <sub>8</sub><br>746.1  | 30 <sup>13</sup> / <sub>16</sub><br>782.6 | 31 <sup>1</sup> / <sub>2</sub><br>800.1  | 28              | 2<br>50.8                             | 37<br>939.8                              | 1 <sup>1</sup> / <sub>2</sub><br>12.7   | 399<br>354  |
| 30                | 43<br>1092.2                             | 30 <sup>1</sup> / <sub>4</sub><br>768.3 | 4<br>101.6                             | 8 <sup>5</sup> / <sub>8</sub><br>219.1 | 30 <sup>5</sup> / <sub>16</sub><br>769.6 | 31 <sup>1</sup> / <sub>2</sub><br>800.1  | 32 <sup>15</sup> / <sub>16</sub><br>836.6 | 33 <sup>3</sup> / <sub>4</sub><br>857.2  | 28              | 2 <sup>1</sup> / <sub>8</sub><br>54.0 | 39 <sup>1</sup> / <sub>4</sub><br>996.9  | 1 <sup>1</sup> / <sub>2</sub><br>12.7   | 454<br>408  |
| 32                | 45 <sup>1</sup> / <sub>4</sub><br>1149.3 | 32 <sup>1</sup> / <sub>4</sub><br>819.1 | 4 <sup>1</sup> / <sub>4</sub><br>107.9 | 9 <sup>1</sup> / <sub>8</sub><br>231.8 | 32 <sup>3</sup> / <sub>8</sub><br>822.3  | 33 <sup>9</sup> / <sub>16</sub><br>852.5 | 35<br>889.0                               | 36<br>914.4                              | 28              | 2 <sup>1</sup> / <sub>8</sub><br>54.0 | 41 <sup>1</sup> / <sub>2</sub><br>1054.1 | 1 <sup>1</sup> / <sub>2</sub><br>12.7   | 522<br>465  |
| 34                | 47 <sup>1</sup> / <sub>2</sub><br>1206.5 | 34 <sup>1</sup> / <sub>4</sub><br>869.9 | 4 <sup>3</sup> / <sub>8</sub><br>111.1 | 9 <sup>1</sup> / <sub>2</sub><br>241.3 | 34 <sup>3</sup> / <sub>8</sub><br>873.1  | 35 <sup>5</sup> / <sub>8</sub><br>904.9  | 37 <sup>3</sup> / <sub>16</sub><br>944.6  | 38<br>965.2                              | 28              | 2 <sup>1</sup> / <sub>8</sub><br>54.0 | 43 <sup>1</sup> / <sub>2</sub><br>1104.9 | 9 <sup>1</sup> / <sub>16</sub><br>14.29 | 590<br>522  |
| 36                | 50<br>1270.0                             | 36 <sup>1</sup> / <sub>4</sub><br>920.8 | 4 <sup>1</sup> / <sub>2</sub><br>114.3 | 9 <sup>7</sup> / <sub>8</sub><br>250.8 | 36 <sup>7</sup> / <sub>16</sub><br>925.5 | 37 <sup>3</sup> / <sub>4</sub><br>958.8  | 39 <sup>7</sup> / <sub>8</sub><br>1012.9  | 40 <sup>1</sup> / <sub>4</sub><br>1022.3 | 32              | 2 <sup>1</sup> / <sub>8</sub><br>54.0 | 46<br>1168.4                             | 9 <sup>1</sup> / <sub>16</sub><br>14.29 | 669<br>601  |

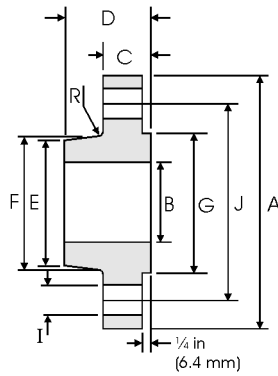
#### Notes

- For weld neck flanges, dimension B is to be specified by the purchaser. It corresponds to the pipe inside diameter.
- For slip on flanges, the hub may be cylindrical or have a draft of  $\leq 7^\circ$  on the outside surface.
- WNF = Weld Neck Flange.
- Weights are based on manufacturer's data and are approximate.

## Weld Neck and Slip On Flanges - BS 3293



Weld Neck



Slip On

### Class 600 lb

| Pipe              | Flange Data                              |                                         |                                        |                                         | Hub Data                                  |                                           |                                           | Raised Face                              | Drilling Data   |                                       |                                          | Radius                                   | Weight                                                                              |
|-------------------|------------------------------------------|-----------------------------------------|----------------------------------------|-----------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|------------------------------------------|-----------------|---------------------------------------|------------------------------------------|------------------------------------------|-------------------------------------------------------------------------------------|
| Nominal Pipe Size | A                                        | B                                       | C                                      | D                                       | E                                         |                                           | F                                         | G                                        | H               | I                                     | J                                        | R                                        |  |
|                   | Overall Diameter                         | Slip on Inside Diameter                 | Flange Thickness                       | WNF / Slip on Overall Length            | WNF Diam. at Weld Bevel                   | Slip on Hub Diam. at Small End            | Hub Diameter                              | Face Diameter                            | Number of Holes | Bolt Hole Diam.                       | Diameter of Circle of Holes              | Fillet                                   | kg/ piece                                                                           |
|                   | in mm                                    | in mm                                   | in mm                                  | in mm                                   | in mm                                     | in mm                                     | in mm                                     | in mm                                    |                 | in mm                                 | in mm                                    | in mm                                    | WNF Slip On                                                                         |
| 26                | 40<br>1016.0                             | 26 <sup>1</sup> / <sub>4</sub><br>666.7 | 4 <sup>1</sup> / <sub>4</sub><br>107.9 | 8 <sup>3</sup> / <sub>4</sub><br>222.2  | 26 <sup>7</sup> / <sub>16</sub><br>671.52 | 27 <sup>13</sup> / <sub>16</sub><br>706.4 | 29 <sup>7</sup> / <sub>16</sub><br>747.7  | 29 <sup>1</sup> / <sub>2</sub><br>749.3  | 28              | 2<br>50.8                             | 36<br>914.4                              | 9 <sup>1</sup> / <sub>16</sub><br>14.29  | 437<br>408                                                                          |
| 28                | 42 <sup>1</sup> / <sub>4</sub><br>1073.1 | 28 <sup>1</sup> / <sub>4</sub><br>717.6 | 4 <sup>3</sup> / <sub>8</sub><br>111.1 | 9 <sup>1</sup> / <sub>4</sub><br>234.9  | 28 <sup>1</sup> / <sub>2</sub><br>723.9   | 29 <sup>15</sup> / <sub>16</sub><br>760.4 | 31 <sup>5</sup> / <sub>8</sub><br>803.3   | 31 <sup>1</sup> / <sub>2</sub><br>800.1  | 28              | 2 <sup>1</sup> / <sub>8</sub><br>54.0 | 38<br>965.2                              | 5 <sup>8</sup> / <sub>16</sub><br>15.88  | 508<br>472                                                                          |
| 30                | 44 <sup>1</sup> / <sub>2</sub><br>1130.3 | 30 <sup>1</sup> / <sub>4</sub><br>768.3 | 4 <sup>1</sup> / <sub>2</sub><br>114.3 | 9 <sup>3</sup> / <sub>4</sub><br>247.6  | 30 <sup>1</sup> / <sub>2</sub><br>774.7   | 32 <sup>1</sup> / <sub>16</sub><br>814.4  | 33 <sup>15</sup> / <sub>16</sub><br>862.0 | 33 <sup>3</sup> / <sub>4</sub><br>857.2  | 28              | 2 <sup>1</sup> / <sub>8</sub><br>54.0 | 40 <sup>1</sup> / <sub>4</sub><br>1022.3 | 11 <sup>1</sup> / <sub>16</sub><br>17.46 | 559<br>526                                                                          |
| 32                | 47<br>1193.8                             | 32 <sup>1</sup> / <sub>4</sub><br>819.1 | 4 <sup>5</sup> / <sub>8</sub><br>117.5 | 10 <sup>1</sup> / <sub>4</sub><br>260.3 | 32 <sup>1</sup> / <sub>2</sub><br>825.5   | 34 <sup>3</sup> / <sub>16</sub><br>868.4  | 36 <sup>1</sup> / <sub>8</sub><br>917.6   | 36<br>914.4                              | 28              | 2 <sup>3</sup> / <sub>8</sub><br>60.3 | 42 <sup>1</sup> / <sub>2</sub><br>1079.5 | 11 <sup>1</sup> / <sub>16</sub><br>17.46 | 680<br>605                                                                          |
| 34                | 49<br>1244.6                             | 34 <sup>1</sup> / <sub>4</sub><br>869.9 | 4 <sup>3</sup> / <sub>4</sub><br>120.6 | 10 <sup>5</sup> / <sub>8</sub><br>269.9 | 34 <sup>9</sup> / <sub>16</sub><br>877.9  | 36 <sup>5</sup> / <sub>16</sub><br>922.3  | 38 <sup>5</sup> / <sub>16</sub><br>973.1  | 38<br>965.2                              | 28              | 2 <sup>3</sup> / <sub>8</sub><br>60.3 | 44 <sup>1</sup> / <sub>2</sub><br>1130.3 | 3 <sup>4</sup> / <sub>16</sub><br>19.05  | 717<br>652                                                                          |
| 36                | 51 <sup>3</sup> / <sub>4</sub><br>1314.4 | 36 <sup>1</sup> / <sub>4</sub><br>920.7 | 4 <sup>7</sup> / <sub>8</sub><br>123.8 | 11 <sup>1</sup> / <sub>8</sub><br>282.6 | 36 <sup>9</sup> / <sub>16</sub><br>928.7  | 38 <sup>7</sup> / <sub>16</sub><br>976.3  | 40 <sup>5</sup> / <sub>8</sub><br>1031.9  | 40 <sup>1</sup> / <sub>4</sub><br>1022.3 | 28              | 2 <sup>5</sup> / <sub>8</sub><br>66.7 | 47<br>1193.8                             | 3 <sup>4</sup> / <sub>16</sub><br>19.05  | 780<br>744                                                                          |

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