### Weld Neck Flanges - ANSI B16.5

**Class 150 lb**

<table>
<thead>
<tr>
<th>Pipe Nominal Size</th>
<th>Flange Data</th>
<th>Hub Data</th>
<th>Raised Face</th>
<th>Drilling Data</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td></td>
<td>Outside Diameter</td>
<td>Overall Diameter</td>
<td>Inside Diameter</td>
<td>Flange Thickness</td>
<td>Overall Length</td>
</tr>
<tr>
<td><strong>Nominal Pipe Size</strong></td>
<td>in</td>
<td>mm</td>
<td>in</td>
<td>mm</td>
<td>in</td>
</tr>
<tr>
<td>1/2</td>
<td>0.840</td>
<td>21.4</td>
<td>3.500</td>
<td>89.0</td>
<td>0.620</td>
</tr>
<tr>
<td>3/4</td>
<td>1.050</td>
<td>26.70</td>
<td>89.60</td>
<td>20.80</td>
<td>12.70</td>
</tr>
<tr>
<td>1</td>
<td>1.315</td>
<td>33.40</td>
<td>108.00</td>
<td>26.70</td>
<td>14.20</td>
</tr>
<tr>
<td>1 1/4</td>
<td>1.660</td>
<td>42.20</td>
<td>117.30</td>
<td>35.10</td>
<td>15.70</td>
</tr>
<tr>
<td>1 1/2</td>
<td>1.900</td>
<td>48.30</td>
<td>127.00</td>
<td>40.90</td>
<td>17.50</td>
</tr>
<tr>
<td>2</td>
<td>2.375</td>
<td>60.30</td>
<td>152.40</td>
<td>52.60</td>
<td>19.10</td>
</tr>
<tr>
<td>2 1/2</td>
<td>2.875</td>
<td>73.00</td>
<td>177.80</td>
<td>62.70</td>
<td>22.40</td>
</tr>
<tr>
<td>3</td>
<td>3.500</td>
<td>89.90</td>
<td>190.50</td>
<td>78.00</td>
<td>23.90</td>
</tr>
<tr>
<td>3 1/2</td>
<td>4.000</td>
<td>101.60</td>
<td>215.90</td>
<td>90.20</td>
<td>23.90</td>
</tr>
<tr>
<td>4</td>
<td>4.500</td>
<td>114.30</td>
<td>228.60</td>
<td>102.4</td>
<td>23.90</td>
</tr>
<tr>
<td>5</td>
<td>5.563</td>
<td>141.30</td>
<td>254.00</td>
<td>128.3</td>
<td>23.90</td>
</tr>
<tr>
<td>6</td>
<td>6.625</td>
<td>168.30</td>
<td>279.40</td>
<td>154.2</td>
<td>25.40</td>
</tr>
<tr>
<td>8</td>
<td>8.625</td>
<td>219.10</td>
<td>342.90</td>
<td>202.7</td>
<td>28.40</td>
</tr>
<tr>
<td>10</td>
<td>10.75</td>
<td>273.00</td>
<td>406.40</td>
<td>254.5</td>
<td>30.20</td>
</tr>
<tr>
<td>12</td>
<td>12.75</td>
<td>323.82</td>
<td>482.82</td>
<td>304.8</td>
<td>34.80</td>
</tr>
<tr>
<td>14</td>
<td>14.00</td>
<td>355.63</td>
<td>533.43</td>
<td>354.8</td>
<td>39.60</td>
</tr>
<tr>
<td>16</td>
<td>16.00</td>
<td>406.40</td>
<td>596.90</td>
<td>406.4</td>
<td>44.00</td>
</tr>
<tr>
<td>18</td>
<td>18.00</td>
<td>457.20</td>
<td>635.00</td>
<td>457.2</td>
<td>50.00</td>
</tr>
<tr>
<td>20</td>
<td>20.00</td>
<td>508.00</td>
<td>698.50</td>
<td>508.0</td>
<td>55.80</td>
</tr>
<tr>
<td>24</td>
<td>24.00</td>
<td>566.00</td>
<td>742.80</td>
<td>609.6</td>
<td>55.80</td>
</tr>
</tbody>
</table>

**Notes:**
- Dimension B corresponds to the pipe inside diameter. Values quoted assume 40S/Standard wall thickness.
- Weights are based on manufacturer’s data and are approximate.
- Flat face flanges may be provided at full thickness, C, or with raised face removed (the latter is nonstandard).
Notes:
- Dimension B corresponds to the pipe inside diameter. Values quoted assume 40S/Standard wall thickness.
- Weights are based on manufacturer's data and are approximate.
- Flat face flanges may be provided at full thickness, C, or with raised face removed (the latter is nonstandard).
### Weld Neck Flanges - ANSI B16.5

#### Class 400 lb

<table>
<thead>
<tr>
<th>Pipe Diameter (in)</th>
<th>Flange Data</th>
<th>Hub Data</th>
<th>Raised Face</th>
<th>Drilling Data</th>
<th>Weight (kg/piece)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2</td>
<td>A: 0.840</td>
<td>B: 21.30</td>
<td>C: 3.750</td>
<td>D: 0.560</td>
<td>E: 2.060</td>
</tr>
<tr>
<td>3/4</td>
<td>1.050</td>
<td>4.620</td>
<td>26.70</td>
<td>1.570</td>
<td>2.250</td>
</tr>
<tr>
<td>1</td>
<td>1.315</td>
<td>4.880</td>
<td>33.40</td>
<td>1.690</td>
<td>2.440</td>
</tr>
<tr>
<td>11/4</td>
<td>1.660</td>
<td>5.250</td>
<td>42.20</td>
<td>1.810</td>
<td>2.620</td>
</tr>
<tr>
<td>11/2</td>
<td>1.900</td>
<td>5.620</td>
<td>48.30</td>
<td>1.850</td>
<td>2.750</td>
</tr>
<tr>
<td>2</td>
<td>2.375</td>
<td>6.500</td>
<td>70.50</td>
<td>2.150</td>
<td>3.000</td>
</tr>
<tr>
<td>21/2</td>
<td>2.875</td>
<td>7.500</td>
<td>90.00</td>
<td>2.450</td>
<td>3.250</td>
</tr>
<tr>
<td>3</td>
<td>3.500</td>
<td>8.250</td>
<td>109.00</td>
<td>2.650</td>
<td>3.500</td>
</tr>
<tr>
<td>31/2</td>
<td>4.000</td>
<td>9.000</td>
<td>128.60</td>
<td>2.850</td>
<td>3.800</td>
</tr>
<tr>
<td>4</td>
<td>4.500</td>
<td>10.00</td>
<td>147.50</td>
<td>3.100</td>
<td>4.050</td>
</tr>
<tr>
<td>5</td>
<td>5.150</td>
<td>11.00</td>
<td>166.40</td>
<td>3.350</td>
<td>4.350</td>
</tr>
<tr>
<td>6</td>
<td>6.255</td>
<td>12.50</td>
<td>185.90</td>
<td>3.700</td>
<td>4.800</td>
</tr>
<tr>
<td>7</td>
<td>8.000</td>
<td>15.00</td>
<td>205.40</td>
<td>4.200</td>
<td>5.500</td>
</tr>
<tr>
<td>8</td>
<td>8.625</td>
<td>18.00</td>
<td>224.90</td>
<td>4.700</td>
<td>6.200</td>
</tr>
<tr>
<td>9</td>
<td>10.75</td>
<td>23.00</td>
<td>244.45</td>
<td>5.600</td>
<td>7.000</td>
</tr>
<tr>
<td>10</td>
<td>12.75</td>
<td>25.50</td>
<td>263.80</td>
<td>6.000</td>
<td>7.500</td>
</tr>
<tr>
<td>12</td>
<td>14.00</td>
<td>30.50</td>
<td>282.70</td>
<td>6.500</td>
<td>8.000</td>
</tr>
<tr>
<td>14</td>
<td>16.00</td>
<td>35.50</td>
<td>301.70</td>
<td>7.000</td>
<td>8.500</td>
</tr>
<tr>
<td>16</td>
<td>18.00</td>
<td>40.50</td>
<td>320.70</td>
<td>7.500</td>
<td>9.000</td>
</tr>
<tr>
<td>18</td>
<td>20.00</td>
<td>45.10</td>
<td>339.70</td>
<td>8.000</td>
<td>9.500</td>
</tr>
<tr>
<td>20</td>
<td>24.00</td>
<td>50.60</td>
<td>358.70</td>
<td>9.000</td>
<td>9.900</td>
</tr>
<tr>
<td>24</td>
<td>36.00</td>
<td>60.96</td>
<td>394.44</td>
<td>11.000</td>
<td>10.900</td>
</tr>
</tbody>
</table>

**Notes:**
- Dimension B corresponds to the pipe inside diameter. Values quoted assume 40S/Standard wall thickness.
- Weights are based on manufacturer’s data and are approximate.
Class 600 lb

<table>
<thead>
<tr>
<th>Pipe Size</th>
<th>Flange Data</th>
<th>Hub Data</th>
<th>Raised Face</th>
<th>Drilling Data</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Pipe Size</td>
<td>Outside Diameter</td>
<td>Overall Diameter</td>
<td>Inside Diameter</td>
<td>Flange Thickness</td>
<td>Overall Length</td>
</tr>
<tr>
<td>1/2</td>
<td>2.250</td>
<td>2.625</td>
<td>2.000</td>
<td>0.840</td>
<td>1.500</td>
</tr>
<tr>
<td>3/4</td>
<td>2.500</td>
<td>2.875</td>
<td>2.000</td>
<td>0.840</td>
<td>1.500</td>
</tr>
<tr>
<td>1</td>
<td>2.750</td>
<td>3.250</td>
<td>2.000</td>
<td>0.840</td>
<td>1.500</td>
</tr>
<tr>
<td>11/4</td>
<td>3.000</td>
<td>3.625</td>
<td>2.000</td>
<td>0.840</td>
<td>1.500</td>
</tr>
<tr>
<td>2</td>
<td>3.250</td>
<td>4.000</td>
<td>2.000</td>
<td>0.840</td>
<td>1.500</td>
</tr>
<tr>
<td>21/2</td>
<td>3.500</td>
<td>4.500</td>
<td>2.000</td>
<td>0.840</td>
<td>1.500</td>
</tr>
<tr>
<td>3</td>
<td>3.750</td>
<td>5.000</td>
<td>2.000</td>
<td>0.840</td>
<td>1.500</td>
</tr>
<tr>
<td>31/2</td>
<td>4.000</td>
<td>5.500</td>
<td>2.000</td>
<td>0.840</td>
<td>1.500</td>
</tr>
<tr>
<td>4</td>
<td>4.250</td>
<td>6.000</td>
<td>2.000</td>
<td>0.840</td>
<td>1.500</td>
</tr>
<tr>
<td>5</td>
<td>4.500</td>
<td>6.500</td>
<td>2.000</td>
<td>0.840</td>
<td>1.500</td>
</tr>
<tr>
<td>6</td>
<td>4.750</td>
<td>7.000</td>
<td>2.000</td>
<td>0.840</td>
<td>1.500</td>
</tr>
<tr>
<td>8</td>
<td>5.250</td>
<td>8.000</td>
<td>2.000</td>
<td>0.840</td>
<td>1.500</td>
</tr>
<tr>
<td>10</td>
<td>5.750</td>
<td>9.000</td>
<td>2.000</td>
<td>0.840</td>
<td>1.500</td>
</tr>
<tr>
<td>12</td>
<td>6.250</td>
<td>10.000</td>
<td>2.000</td>
<td>0.840</td>
<td>1.500</td>
</tr>
<tr>
<td>14</td>
<td>6.750</td>
<td>11.000</td>
<td>2.000</td>
<td>0.840</td>
<td>1.500</td>
</tr>
<tr>
<td>16</td>
<td>7.250</td>
<td>12.000</td>
<td>2.000</td>
<td>0.840</td>
<td>1.500</td>
</tr>
<tr>
<td>18</td>
<td>7.750</td>
<td>13.000</td>
<td>2.000</td>
<td>0.840</td>
<td>1.500</td>
</tr>
<tr>
<td>20</td>
<td>8.250</td>
<td>14.000</td>
<td>2.000</td>
<td>0.840</td>
<td>1.500</td>
</tr>
</tbody>
</table>

Notes:
- Dimension B corresponds to the pipe inside diameter. Values quoted assume 40S/Standard wall thickness.
- Weights are based on manufacturer's data and are approximate.
# Weld Neck Flanges - ANSI B16.5

## Class 900 lb

### Flange Data

| Pipe Nominal Size | A | B | C | D | E | F | G | H | I | J | Drilling Data | Weight |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---------------|--------|
| Outside Diameter in mm | Overall Diameter in mm | Inside Diameter in mm | Flange Thickness min | Overall Length | Flange Diameter at Weld Bevel | Hub Diameter | Face Diameter | Number of Holes | Bolt Hole Diameter in mm | Diameter of Circle of Holes in mm | kg/piece |
| 1/2 | 0.880 | 23.0 | 4.750 | | | | | | | | | |
| 2 | 2.375 | 60.3 | 215.9 | | | | | | | | | |
| 3 | 5.360 | 127.0 | 185.7 | | | | | | | | | |
| 4 | 10.0 | 229.2 | 317.5 | | | | | | | | | |
| 5 | 16.0 | 331.1 | 508.0 | | | | | | | | | |
| 10 | 20.0 | 454.3 | 809.6 | | | | | | | | | |

### Notes
- Dimension B corresponds to the pipe inside diameter. Values quoted assume 40S/Standard wall thickness.
- Weights are based on manufacturer's data and are approximate.
### Weld Neck Flanges - ANSI B16.5

**Class 1500 lb**

<table>
<thead>
<tr>
<th>Pipe Size</th>
<th>Flange Data</th>
<th>Hub Data</th>
<th>Raised Face</th>
<th>Drilling Data</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Pipe Size</td>
<td>Outside Diameter</td>
<td>Overall Diameter</td>
<td>Inside Diameter</td>
<td>Flange Thickness</td>
<td>Overall Length</td>
</tr>
<tr>
<td>in mm</td>
<td>in mm</td>
<td>in mm</td>
<td>in mm</td>
<td>mm</td>
<td>mm</td>
</tr>
<tr>
<td>1/2</td>
<td>0.840</td>
<td>4.750</td>
<td>0.880</td>
<td>2.380</td>
<td>0.840</td>
</tr>
<tr>
<td></td>
<td>21.30</td>
<td>120.6</td>
<td>22.30</td>
<td>60.45</td>
<td>21.30</td>
</tr>
<tr>
<td>3/4</td>
<td>1.050</td>
<td>5.120</td>
<td>1.000</td>
<td>2.750</td>
<td>1.050</td>
</tr>
<tr>
<td></td>
<td>26.70</td>
<td>130.0</td>
<td>25.40</td>
<td>69.85</td>
<td>26.70</td>
</tr>
<tr>
<td>1</td>
<td>1.315</td>
<td>5.880</td>
<td>1.120</td>
<td>2.880</td>
<td>1.320</td>
</tr>
<tr>
<td></td>
<td>33.40</td>
<td>149.3</td>
<td>28.40</td>
<td>73.15</td>
<td>33.50</td>
</tr>
<tr>
<td>1 1/4</td>
<td>1.660</td>
<td>6.250</td>
<td>1.120</td>
<td>2.880</td>
<td>1.660</td>
</tr>
<tr>
<td></td>
<td>42.20</td>
<td>158.7</td>
<td>28.40</td>
<td>73.15</td>
<td>42.20</td>
</tr>
<tr>
<td>1 1/2</td>
<td>1.900</td>
<td>7.000</td>
<td>1.250</td>
<td>3.250</td>
<td>1.900</td>
</tr>
<tr>
<td></td>
<td>48.30</td>
<td>177.8</td>
<td>31.70</td>
<td>82.50</td>
<td>48.30</td>
</tr>
<tr>
<td>2</td>
<td>2.375</td>
<td>8.500</td>
<td>1.500</td>
<td>4.000</td>
<td>2.380</td>
</tr>
<tr>
<td></td>
<td>60.90</td>
<td>215.9</td>
<td>38.10</td>
<td>101.6</td>
<td>60.45</td>
</tr>
<tr>
<td>2 1/2</td>
<td>2.875</td>
<td>9.620</td>
<td>1.620</td>
<td>4.120</td>
<td>2.880</td>
</tr>
<tr>
<td></td>
<td>73.00</td>
<td>244.3</td>
<td>41.10</td>
<td>104.6</td>
<td>73.15</td>
</tr>
<tr>
<td>3</td>
<td>3.500</td>
<td>10.50</td>
<td>1.880</td>
<td>4.620</td>
<td>3.500</td>
</tr>
<tr>
<td></td>
<td>88.90</td>
<td>266.7</td>
<td>47.70</td>
<td>177.3</td>
<td>88.90</td>
</tr>
<tr>
<td>4</td>
<td>4.500</td>
<td>12.25</td>
<td>2.120</td>
<td>4.880</td>
<td>2.120</td>
</tr>
<tr>
<td></td>
<td>114.3</td>
<td>311.1</td>
<td>53.80</td>
<td>123.9</td>
<td>114.3</td>
</tr>
<tr>
<td>5</td>
<td>5.563</td>
<td>14.75</td>
<td>2.880</td>
<td>6.120</td>
<td>5.560</td>
</tr>
<tr>
<td></td>
<td>141.3</td>
<td>374.6</td>
<td>73.15</td>
<td>155.4</td>
<td>141.2</td>
</tr>
<tr>
<td>6</td>
<td>6.625</td>
<td>15.50</td>
<td>3.250</td>
<td>6.750</td>
<td>3.250</td>
</tr>
<tr>
<td></td>
<td>168.3</td>
<td>393.7</td>
<td>82.50</td>
<td>171.4</td>
<td>168.4</td>
</tr>
<tr>
<td>8</td>
<td>8.625</td>
<td>19.00</td>
<td>3.620</td>
<td>8.380</td>
<td>3.620</td>
</tr>
<tr>
<td></td>
<td>219.1</td>
<td>546.2</td>
<td>91.90</td>
<td>212.8</td>
<td>91.90</td>
</tr>
<tr>
<td>10</td>
<td>10.75</td>
<td>23.00</td>
<td>4.250</td>
<td>10.00</td>
<td>4.250</td>
</tr>
<tr>
<td></td>
<td>273.0</td>
<td>684.2</td>
<td>107.9</td>
<td>254.0</td>
<td>168.4</td>
</tr>
<tr>
<td>12</td>
<td>12.75</td>
<td>26.50</td>
<td>4.880</td>
<td>11.12</td>
<td>4.880</td>
</tr>
<tr>
<td></td>
<td>323.8</td>
<td>813.1</td>
<td>123.9</td>
<td>282.4</td>
<td>123.9</td>
</tr>
<tr>
<td>14</td>
<td>14.00</td>
<td>29.50</td>
<td>5.250</td>
<td>11.75</td>
<td>5.250</td>
</tr>
<tr>
<td></td>
<td>356.6</td>
<td>749.3</td>
<td>133.3</td>
<td>298.4</td>
<td>133.3</td>
</tr>
<tr>
<td>16</td>
<td>16.00</td>
<td>32.50</td>
<td>5.750</td>
<td>12.25</td>
<td>5.750</td>
</tr>
<tr>
<td></td>
<td>406.4</td>
<td>825.5</td>
<td>146.0</td>
<td>311.1</td>
<td>146.0</td>
</tr>
<tr>
<td>18</td>
<td>18.00</td>
<td>36.00</td>
<td>6.380</td>
<td>12.88</td>
<td>6.380</td>
</tr>
<tr>
<td></td>
<td>457.2</td>
<td>914.4</td>
<td>162.0</td>
<td>327.1</td>
<td>162.0</td>
</tr>
<tr>
<td>20</td>
<td>20.00</td>
<td>38.75</td>
<td>7.000</td>
<td>14.00</td>
<td>7.000</td>
</tr>
<tr>
<td></td>
<td>508.0</td>
<td>984.2</td>
<td>177.8</td>
<td>356.5</td>
<td>177.8</td>
</tr>
<tr>
<td>24</td>
<td>24.00</td>
<td>46.00</td>
<td>7.800</td>
<td>16.00</td>
<td>7.800</td>
</tr>
</tbody>
</table>

**Notes**
- Dimension B corresponds to the pipe inside diameter. Values quoted assume 40S/Standard wall thickness.
- Weights are based on manufacturer’s data and are approximate.
Class 2500 lb

<table>
<thead>
<tr>
<th>Nominal Pipe Size</th>
<th>Flange Data</th>
<th>Hub Data</th>
<th>Raised Face</th>
<th>Drilling Data</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outside Diameter</td>
<td>Overall Diameter</td>
<td>Inside Diameter</td>
<td>Flange Thickness min</td>
<td>Overall Length</td>
<td>Diameter at Weld Bevel</td>
</tr>
<tr>
<td>in</td>
<td>in</td>
<td>in</td>
<td>in</td>
<td>in</td>
<td>in</td>
</tr>
<tr>
<td>1/2</td>
<td>0.840</td>
<td>5.250</td>
<td></td>
<td>1.190</td>
<td>2.880</td>
</tr>
<tr>
<td>3/4</td>
<td>1.050</td>
<td>5.500</td>
<td></td>
<td>1.250</td>
<td>3.120</td>
</tr>
<tr>
<td>1</td>
<td>2.670</td>
<td>139.7</td>
<td></td>
<td>1.380</td>
<td>3.500</td>
</tr>
<tr>
<td>11/4</td>
<td>1.660</td>
<td>7.250</td>
<td></td>
<td>1.500</td>
<td>3.750</td>
</tr>
<tr>
<td>11/2</td>
<td>1.900</td>
<td>8.000</td>
<td></td>
<td>1.750</td>
<td>4.380</td>
</tr>
<tr>
<td>2</td>
<td>2.375</td>
<td>9.250</td>
<td></td>
<td>2.000</td>
<td>5.000</td>
</tr>
<tr>
<td>21/2</td>
<td>2.875</td>
<td>10.50</td>
<td></td>
<td>2.250</td>
<td>5.620</td>
</tr>
<tr>
<td>3</td>
<td>3.500</td>
<td>12.00</td>
<td></td>
<td>2.620</td>
<td>6.620</td>
</tr>
<tr>
<td>4</td>
<td>6.625</td>
<td>19.00</td>
<td></td>
<td>3.620</td>
<td>9.000</td>
</tr>
<tr>
<td>5</td>
<td>6.625</td>
<td>18.83</td>
<td></td>
<td>4.250</td>
<td>10.75</td>
</tr>
<tr>
<td>6</td>
<td>8.625</td>
<td>21.75</td>
<td></td>
<td>5.000</td>
<td>12.50</td>
</tr>
<tr>
<td>10</td>
<td>10.75</td>
<td>26.50</td>
<td></td>
<td>12.70</td>
<td>31.75</td>
</tr>
<tr>
<td>12</td>
<td>12.75</td>
<td>30.00</td>
<td></td>
<td>18.42</td>
<td>46.36</td>
</tr>
</tbody>
</table>

Notes:
- Dimension B corresponds to the pipe inside diameter. Values quoted assume 40S/Standard wall thickness.
- Weights are based on manufacturer’s data and are approximate.