# Quadrosphere Topworks Dimensions, Inches & Millimeters - Table 1

<table>
<thead>
<tr>
<th>SIZE (NPS)</th>
<th>PRESS. CLASS ASME</th>
<th>A STEM DIA</th>
<th>B KEY WIDTH</th>
<th>C KEY HEIGHT</th>
<th>D FLANGE HOLE DIA.</th>
<th>H STEM HEIGHT</th>
<th>T FLANGE THICKNESS</th>
<th>ISO 5211 BOLT CIRCLE</th>
<th>PARALLEL PIN Ø (TYP 2)</th>
<th>SIZE (DN)</th>
</tr>
</thead>
<tbody>
<tr>
<td>150</td>
<td>22</td>
<td>0.67</td>
<td>0.24</td>
<td>0.24</td>
<td>0.47</td>
<td>1.57</td>
<td>0.59</td>
<td>0.15</td>
<td>F10</td>
<td>N/A</td>
</tr>
<tr>
<td>300</td>
<td>22</td>
<td>0.67</td>
<td>0.24</td>
<td>0.24</td>
<td>0.47</td>
<td>1.57</td>
<td>0.59</td>
<td>0.15</td>
<td>F10</td>
<td>N/A</td>
</tr>
<tr>
<td>600</td>
<td>25</td>
<td>0.98</td>
<td>0.31</td>
<td>0.28</td>
<td>0.55</td>
<td>1.57</td>
<td>0.59</td>
<td>0.15</td>
<td>F10</td>
<td>N/A</td>
</tr>
<tr>
<td>900</td>
<td>25</td>
<td>0.98</td>
<td>0.31</td>
<td>0.28</td>
<td>0.55</td>
<td>1.57</td>
<td>0.59</td>
<td>0.15</td>
<td>F10</td>
<td>N/A</td>
</tr>
<tr>
<td>1500</td>
<td>25</td>
<td>0.98</td>
<td>0.31</td>
<td>0.28</td>
<td>0.55</td>
<td>1.57</td>
<td>0.59</td>
<td>0.15</td>
<td>F10</td>
<td>N/A</td>
</tr>
<tr>
<td>2500</td>
<td>35</td>
<td>1.38</td>
<td>0.39</td>
<td>0.31</td>
<td>0.71</td>
<td>2.16</td>
<td>0.79</td>
<td>0.20</td>
<td>F14</td>
<td>N/A</td>
</tr>
<tr>
<td>150</td>
<td>30</td>
<td>1.18</td>
<td>0.31</td>
<td>0.28</td>
<td>0.55</td>
<td>1.57</td>
<td>0.59</td>
<td>0.15</td>
<td>F12</td>
<td>N/A</td>
</tr>
<tr>
<td>300</td>
<td>30</td>
<td>1.18</td>
<td>0.31</td>
<td>0.28</td>
<td>0.55</td>
<td>1.57</td>
<td>0.59</td>
<td>0.15</td>
<td>F12</td>
<td>N/A</td>
</tr>
<tr>
<td>600</td>
<td>35</td>
<td>1.38</td>
<td>0.39</td>
<td>0.31</td>
<td>0.71</td>
<td>2.16</td>
<td>0.79</td>
<td>0.20</td>
<td>F14</td>
<td>N/A</td>
</tr>
<tr>
<td>900</td>
<td>35</td>
<td>1.38</td>
<td>0.39</td>
<td>0.31</td>
<td>0.71</td>
<td>2.16</td>
<td>0.79</td>
<td>0.20</td>
<td>F14</td>
<td>N/A</td>
</tr>
<tr>
<td>1500</td>
<td>35</td>
<td>1.38</td>
<td>0.39</td>
<td>0.31</td>
<td>0.71</td>
<td>2.16</td>
<td>0.79</td>
<td>0.20</td>
<td>F14</td>
<td>N/A</td>
</tr>
<tr>
<td>2500</td>
<td>40</td>
<td>1.57</td>
<td>0.47</td>
<td>0.39</td>
<td>0.71</td>
<td>2.20</td>
<td>0.91</td>
<td>0.23</td>
<td>F16</td>
<td>N/A</td>
</tr>
<tr>
<td>150</td>
<td>30</td>
<td>1.18</td>
<td>0.31</td>
<td>0.28</td>
<td>0.55</td>
<td>1.57</td>
<td>0.59</td>
<td>0.15</td>
<td>F12</td>
<td>N/A</td>
</tr>
<tr>
<td>300</td>
<td>30</td>
<td>1.18</td>
<td>0.31</td>
<td>0.28</td>
<td>0.55</td>
<td>1.57</td>
<td>0.59</td>
<td>0.15</td>
<td>F12</td>
<td>N/A</td>
</tr>
<tr>
<td>600</td>
<td>40</td>
<td>1.57</td>
<td>0.47</td>
<td>0.39</td>
<td>0.71</td>
<td>2.20</td>
<td>0.91</td>
<td>0.23</td>
<td>F16</td>
<td>N/A</td>
</tr>
<tr>
<td>900</td>
<td>40</td>
<td>1.57</td>
<td>0.47</td>
<td>0.39</td>
<td>0.71</td>
<td>2.20</td>
<td>0.91</td>
<td>0.23</td>
<td>F16</td>
<td>N/A</td>
</tr>
<tr>
<td>1500</td>
<td>40</td>
<td>1.57</td>
<td>0.47</td>
<td>0.39</td>
<td>0.71</td>
<td>2.20</td>
<td>0.91</td>
<td>0.23</td>
<td>F16</td>
<td>N/A</td>
</tr>
<tr>
<td>2500</td>
<td>55</td>
<td>2.16</td>
<td>0.63</td>
<td>0.39</td>
<td>0.87</td>
<td>3.18</td>
<td>0.79</td>
<td>0.20</td>
<td>F16</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**NOTES:**
1. Dimensions are based upon nominal bore of ball and apply to FULL PORT sizes from 2.0 NPS (DN50) to 4.0 NPS (DN100).
2. All topworks mounting flanges comply with ISO 5211 as it relates to dimensional standards.
3. Custom mounting topworks are available. Contact Val-Matic for additional information.
4. Additional materials and design configurations are available. Please contact Val-Matic for additional assistance and/or information.

**QUADROSPHERE ADAPTOR FLANGE ISO5211**

**DATE** 11-30-15

**Dwg. No.** SS-3301 Sheet 1 of 4
**QUADROSPHERE TOPWORKS DIMENSIONS, INCHES & MILLIMETERS - TABLE 2**

<table>
<thead>
<tr>
<th>PRESS. CLASS ASME</th>
<th>A STEM DIA</th>
<th>B KEY WIDTH</th>
<th>C KEY HEIGHT</th>
<th>D FLANGE HOLE DIA.</th>
<th>E PIN HOLE DIA</th>
<th>F PIN HEIGHT OVERT</th>
<th>H STEM HEIGHT</th>
<th>T FLANGE THICKNESS</th>
<th>ISO 5211 BOLT CIRCLE</th>
<th>PARALLEL PIN Ø (TYP 2)</th>
<th>SIZE (DN)</th>
</tr>
</thead>
<tbody>
<tr>
<td>150</td>
<td>1.57</td>
<td>0.47</td>
<td>0.31</td>
<td>0.71</td>
<td>25</td>
<td>9.5</td>
<td>2.36</td>
<td>0.79</td>
<td>20</td>
<td>F14</td>
<td>0.63</td>
</tr>
<tr>
<td>300</td>
<td>1.57</td>
<td>0.47</td>
<td>0.31</td>
<td>0.71</td>
<td>25</td>
<td>9.5</td>
<td>2.36</td>
<td>0.79</td>
<td>20</td>
<td>F14</td>
<td>0.63</td>
</tr>
<tr>
<td>600</td>
<td>1.77</td>
<td>0.55</td>
<td>0.35</td>
<td>0.87</td>
<td>25</td>
<td>9.5</td>
<td>2.56</td>
<td>0.79</td>
<td>20</td>
<td>F16</td>
<td>0.63</td>
</tr>
<tr>
<td>900</td>
<td>1.77</td>
<td>0.55</td>
<td>0.35</td>
<td>0.87</td>
<td>25</td>
<td>9.5</td>
<td>2.56</td>
<td>0.79</td>
<td>20</td>
<td>F16</td>
<td>0.63</td>
</tr>
<tr>
<td>1500</td>
<td>2.36</td>
<td>0.71</td>
<td>0.43</td>
<td>0.87</td>
<td>25</td>
<td>9.5</td>
<td>3.15</td>
<td>0.79</td>
<td>20</td>
<td>F16</td>
<td>0.63</td>
</tr>
<tr>
<td>2500</td>
<td>2.36</td>
<td>0.71</td>
<td>0.43</td>
<td>0.87</td>
<td>25</td>
<td>9.5</td>
<td>3.15</td>
<td>0.79</td>
<td>20</td>
<td>F16</td>
<td>0.63</td>
</tr>
<tr>
<td>150</td>
<td>1.77</td>
<td>0.55</td>
<td>0.35</td>
<td>0.87</td>
<td>25</td>
<td>9.5</td>
<td>2.56</td>
<td>0.79</td>
<td>20</td>
<td>F16</td>
<td>0.63</td>
</tr>
<tr>
<td>300</td>
<td>1.77</td>
<td>0.55</td>
<td>0.35</td>
<td>0.87</td>
<td>25</td>
<td>9.5</td>
<td>2.56</td>
<td>0.79</td>
<td>20</td>
<td>F16</td>
<td>0.63</td>
</tr>
<tr>
<td>600</td>
<td>2.36</td>
<td>0.71</td>
<td>0.43</td>
<td>0.87</td>
<td>25</td>
<td>9.5</td>
<td>3.15</td>
<td>0.79</td>
<td>20</td>
<td>F16</td>
<td>0.63</td>
</tr>
<tr>
<td>900</td>
<td>2.36</td>
<td>0.71</td>
<td>0.43</td>
<td>0.87</td>
<td>25</td>
<td>9.5</td>
<td>3.15</td>
<td>0.79</td>
<td>20</td>
<td>F16</td>
<td>0.63</td>
</tr>
<tr>
<td>1500</td>
<td>2.95</td>
<td>0.79</td>
<td>0.47</td>
<td>0.71</td>
<td>25</td>
<td>9.5</td>
<td>3.94</td>
<td>0.91</td>
<td>23</td>
<td>F25</td>
<td>0.63</td>
</tr>
<tr>
<td>2500</td>
<td>3.15</td>
<td>0.87</td>
<td>0.55</td>
<td>0.71</td>
<td>25</td>
<td>9.5</td>
<td>4.33</td>
<td>0.91</td>
<td>23</td>
<td>F25</td>
<td>0.63</td>
</tr>
<tr>
<td>150</td>
<td>2.17</td>
<td>0.63</td>
<td>0.39</td>
<td>0.87</td>
<td>25</td>
<td>9.5</td>
<td>3.15</td>
<td>0.79</td>
<td>20</td>
<td>F16</td>
<td>0.63</td>
</tr>
<tr>
<td>300</td>
<td>2.17</td>
<td>0.63</td>
<td>0.39</td>
<td>0.87</td>
<td>25</td>
<td>9.5</td>
<td>3.15</td>
<td>0.79</td>
<td>20</td>
<td>F16</td>
<td>0.63</td>
</tr>
<tr>
<td>600</td>
<td>2.36</td>
<td>0.71</td>
<td>0.43</td>
<td>0.87</td>
<td>25</td>
<td>9.5</td>
<td>3.15</td>
<td>0.79</td>
<td>20</td>
<td>F16</td>
<td>0.63</td>
</tr>
<tr>
<td>900</td>
<td>2.95</td>
<td>0.79</td>
<td>0.47</td>
<td>0.71</td>
<td>25</td>
<td>9.5</td>
<td>3.94</td>
<td>0.91</td>
<td>23</td>
<td>F25</td>
<td>0.63</td>
</tr>
<tr>
<td>1500</td>
<td>3.15</td>
<td>0.87</td>
<td>0.55</td>
<td>0.71</td>
<td>25</td>
<td>9.5</td>
<td>4.33</td>
<td>0.91</td>
<td>23</td>
<td>F25</td>
<td>0.63</td>
</tr>
<tr>
<td>2500</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>25</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

**NOTES:**
1. Dimensions are based upon nominal bore of ball and apply to FULL PORT sizes from 6.0 NPS (DN150) to 10.0 NPS (DN250).
2. All topworks mounting flanges comply with ISO 5211 as it relates to dimensional standards.
3. Custom mounting topworks are available. Contact Val-Matic for additional information.
4. Additional materials and design configurations are available. Please contact Val-Matic for additional assistance and/or information.
QUADROSPHERE ADAPTOR FLANGE ISO5211

**QUADROSPHERE TOPWORKS DIMENSIONS, INCHES & MILLIMETERS - TABLE 2**

<table>
<thead>
<tr>
<th>SIZE (DN)</th>
<th>A STEM DIA</th>
<th>B KEY WIDTH</th>
<th>C KEY HEIGHT</th>
<th>D FLANGE HOLE DIA.</th>
<th>E PIN LENGTH</th>
<th>F PIN WIDTH</th>
<th>H STEM HEIGHT</th>
<th>T FLANGE THICKNESS</th>
<th>ISO 5211 BOLT CIRCLE</th>
<th>PARALLEL PIN Ø (TYP 2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 300</td>
<td>150</td>
<td>2.36</td>
<td>0.71</td>
<td>0.43</td>
<td>0.87</td>
<td>25</td>
<td>9.5</td>
<td>3.15</td>
<td>0.79</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>300</td>
<td>2.36</td>
<td>0.71</td>
<td>0.43</td>
<td>0.87</td>
<td>25</td>
<td>9.5</td>
<td>3.15</td>
<td>0.79</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>600</td>
<td>2.95</td>
<td>0.79</td>
<td>0.67</td>
<td>0.71</td>
<td>25</td>
<td>9.5</td>
<td>3.94</td>
<td>0.91</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>900</td>
<td>3.15</td>
<td>0.87</td>
<td>0.55</td>
<td>0.71</td>
<td>25</td>
<td>9.5</td>
<td>4.33</td>
<td>0.91</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>1500</td>
<td>4.13</td>
<td>1.10</td>
<td>0.63</td>
<td>0.87</td>
<td>30</td>
<td>8</td>
<td>5.12</td>
<td>1.18</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>2500</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>14 350</td>
<td>150</td>
<td>2.95</td>
<td>0.79</td>
<td>0.47</td>
<td>0.71</td>
<td>25</td>
<td>9.5</td>
<td>3.94</td>
<td>0.91</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>300</td>
<td>2.95</td>
<td>0.79</td>
<td>0.47</td>
<td>0.71</td>
<td>25</td>
<td>9.5</td>
<td>3.94</td>
<td>0.91</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>600</td>
<td>3.54</td>
<td>0.98</td>
<td>0.55</td>
<td>0.71</td>
<td>25</td>
<td>9.5</td>
<td>4.53</td>
<td>1.10</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>900</td>
<td>4.13</td>
<td>1.10</td>
<td>0.63</td>
<td>0.87</td>
<td>30</td>
<td>8</td>
<td>5.12</td>
<td>1.18</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>1500</td>
<td>4.53</td>
<td>1.26</td>
<td>0.71</td>
<td>1.26</td>
<td>30</td>
<td>8</td>
<td>5.59</td>
<td>1.38</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>2500</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>16 400</td>
<td>150</td>
<td>2.95</td>
<td>0.79</td>
<td>0.47</td>
<td>0.71</td>
<td>25</td>
<td>9.5</td>
<td>3.94</td>
<td>0.91</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>300</td>
<td>2.95</td>
<td>0.79</td>
<td>0.47</td>
<td>0.71</td>
<td>25</td>
<td>9.5</td>
<td>3.94</td>
<td>0.91</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>600</td>
<td>3.54</td>
<td>0.98</td>
<td>0.55</td>
<td>0.71</td>
<td>25</td>
<td>9.5</td>
<td>4.53</td>
<td>1.10</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>900</td>
<td>4.13</td>
<td>1.10</td>
<td>0.63</td>
<td>0.87</td>
<td>30</td>
<td>8</td>
<td>5.12</td>
<td>1.18</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>1500</td>
<td>4.53</td>
<td>1.26</td>
<td>0.71</td>
<td>1.26</td>
<td>30</td>
<td>8</td>
<td>5.59</td>
<td>1.38</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>2500</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

**NOTES:**
1. Dimensions are based upon nominal bore of ball and apply to FULL PORT sizes from 12.0 NPS (DN300) to 16.0 NPS (DN1400).
2. All topworks mounting flanges comply with ISO 5211 as it relates to dimensional standards.
3. Custom mounting topworks are available. Contact Val-Matic for additional information.
4. Additional materials and design configurations are available. Please contact Val-Matic for additional assistance and/or information.
### QUADROSPHERE TOPWORKS DIMENSIONS, INCHES & MILLIMETERS - TABLE 4

<table>
<thead>
<tr>
<th>SIZE (NPS)</th>
<th>PRESS. CLASS ASME</th>
<th>A STEM DIA. (IN)</th>
<th>B KEY WIDTH (IN)</th>
<th>C KEY HEIGHT (IN)</th>
<th>D DOUBLE KEY DIA. (IN)</th>
<th>E FLANGE HOLE DIA. (IN)</th>
<th>F PIN LENGTH (IN)</th>
<th>G PIN HEIGHT (IN)</th>
<th>H STEM HEIGHT (IN)</th>
<th>T FLANGE THICKNESS (IN)</th>
<th>ISO 5211 BOLT CIRCLE F (IN)</th>
<th>PARALLEL PIN Ø (IN)</th>
<th>SIZE (DN)</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>150</td>
<td>3.54</td>
<td>0.98</td>
<td>0.55</td>
<td>3.94</td>
<td>0.71</td>
<td>25</td>
<td>9.5</td>
<td>4.53</td>
<td>115</td>
<td>1.10</td>
<td>28</td>
<td>F25</td>
</tr>
<tr>
<td>20</td>
<td>150</td>
<td>3.54</td>
<td>0.98</td>
<td>0.55</td>
<td>3.94</td>
<td>0.71</td>
<td>25</td>
<td>9.5</td>
<td>4.53</td>
<td>115</td>
<td>1.10</td>
<td>28</td>
<td>F25</td>
</tr>
<tr>
<td>24</td>
<td>150</td>
<td>3.54</td>
<td>0.98</td>
<td>0.55</td>
<td>3.94</td>
<td>0.71</td>
<td>25</td>
<td>9.5</td>
<td>4.53</td>
<td>115</td>
<td>1.10</td>
<td>28</td>
<td>F25</td>
</tr>
</tbody>
</table>

**NOTES:**

1. Dimensions are based upon nominal bore of ball and apply to FULL PORT sizes from 18.0 NPS (DN450) to 24.0 NPS (DN600).
2. All topworks mounting flanges comply with ISO 5211 as it relates to dimensional standards.
3. Custom mounting topworks are available. Contact Val-Matic for additional information.
4. Additional materials and design configurations are available. Please contact Val-Matic for additional assistance and/or information.

**REV 9-13-19**