## TF Full Cone Flow Rates and Dimensions

**Full Cone, 60° (NN), 90° (FCN or FFCN), 120° (FC or FFC), 150° and 170° Spray Angles, 1/8" to 4" Pipe Sizes**

### Dimensions are approximate. Check with BETE for critical dimension applications.

<table>
<thead>
<tr>
<th>Male Pipe Size</th>
<th>Nozzle Number</th>
<th>Available Spray Angles</th>
<th>K Factor</th>
<th>Gallons Per Minute @ PSI</th>
<th>PSI</th>
<th>10</th>
<th>20</th>
<th>30</th>
<th>40</th>
<th>50</th>
<th>60</th>
<th>80</th>
<th>100</th>
<th>200</th>
<th>400</th>
<th>60°</th>
<th>90°</th>
<th>120°</th>
<th>150°</th>
<th>170°</th>
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<tbody>
<tr>
<td>1/8</td>
<td>TF6</td>
<td>60° 90° 120° 150° 170°</td>
<td>0.221</td>
<td>0.495 0.70 0.99 1.21 1.40 1.57 1.71</td>
<td>1.98 2.21 3.13 4.43</td>
<td>0.99</td>
<td>0.95</td>
<td>0.78</td>
<td>0.66</td>
<td>0.56</td>
<td>0.44</td>
<td>0.35</td>
<td>0.28</td>
<td>0.22</td>
<td>0.19</td>
<td>0.16</td>
<td>0.13</td>
<td>0.11</td>
<td>0.09</td>
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<td></td>
<td>TF6</td>
<td></td>
<td>0.411</td>
<td>0.919 1.30 1.84 2.25 2.60 2.91 3.18</td>
<td>3.68 4.11 5.34 6.98</td>
<td>1.00</td>
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<td>0.88</td>
<td>0.79</td>
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<td>60° 90° 120° 150° 170°</td>
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<td>1.98 2.21 3.13 4.43</td>
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<td>0.39</td>
<td>0.38</td>
</tr>
</tbody>
</table>

### Flow Rate (GPM) = K √ PSI

*Differences are for bar stock, cast sizes may vary. **60° nozzles slightly longer, consult BETE.  Three turn nozzles*

Standard Materials: Brass, 316 Stainless Steel, PVC, Polypropylene, Cobalt Alloy 6, and PTFE (Poly, not available for TF6 thru TF10).

Spray angle performance varies with pressure. Contact BETE for specific data on critical applications.

[www.BETE.com](http://www.BETE.com)
Wide Range of Flows and Angles

**DESIGN FEATURES**
- The original spiral nozzle invented by BETE and continuously improved!
- High energy efficiency
- One-piece/no internal parts
- Clog-resistant performance
- High discharge velocity
- Male connection standard; female connection available by special order

**SPRAY CHARACTERISTICS**
- Wide range of flow rates and spray angles
- Fine atomization

Spray patterns: Hollow Cone
For Full Cone, see page 20

Spray angles: 50° to 180°
Flow rates: 0.5 to 3320 gpm
(Higher flow rates available)

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**TF Hollow Cone Flow Rates and Dimensions**
Hollow Cone, 50° (N), 60° (V), 90° (M), 120° (W), and 180° (XW) Spray Angles, 1/4" to 4" Pipe Sizes

**Flow Rate (GPM) = K √PSI**

**Dimensions are approximate. Check with BETE for critical dimension applications.**