**Fire Protection**

**DESIGN FEATURES**
- Simplicity of design
- One-piece/no internal parts
- Clog-resistant
- Three standard pipe sizes—1/2", 1" and 1-1/2"
- Male connection
- Factory Mutual, U.S. Coast Guard, and Lloyd's Register approved models

**SPRAY CHARACTERISTICS**
- Two spray cones: an outer, wide angle cone and a narrower inner cone combine to give full cone effect
- **Spray pattern:** Full Cone
- **Spray angles:** 90° and 120° standard
- **Flow rates:** 9.67 to 1720 l/min

**Spray Characteristic**:
- **Flow Rate** \( l/min = K \sqrt{\text{bar}} \)

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

**N Flow Rates and Dimensions**

<table>
<thead>
<tr>
<th>Male Pipe Size</th>
<th>Nozzle Number</th>
<th>K Factor</th>
<th>0.5 bar</th>
<th>1 bar</th>
<th>2 bar</th>
<th>3 bar</th>
<th>5 bar</th>
<th>10 bar</th>
<th>20 bar</th>
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</thead>
<tbody>
<tr>
<td>1/2</td>
<td>N1</td>
<td>13.7</td>
<td>9.67</td>
<td>11.4</td>
<td>13.7</td>
<td>19.3</td>
<td>23.7</td>
<td>30.6</td>
<td>43.2</td>
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<tr>
<td></td>
<td>N2</td>
<td>24.2</td>
<td>17.1</td>
<td>20.2</td>
<td>24.2</td>
<td>34.2</td>
<td>41.8</td>
<td>54.0</td>
<td>76.4</td>
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<td>N3</td>
<td>37.6</td>
<td>26.6</td>
<td>31.5</td>
<td>37.6</td>
<td>53.2</td>
<td>65.1</td>
<td>84.1</td>
<td>119</td>
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<tr>
<td>1</td>
<td>N6</td>
<td>95.7</td>
<td>67.7</td>
<td>80.1</td>
<td>95.7</td>
<td>135</td>
<td>166</td>
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<td>216</td>
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<tr>
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<td>385</td>
<td>545</td>
<td>667</td>
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</tr>
</tbody>
</table>

**Approx. (mm)**
- Orifice Dia.: 63.5
- Free Pass. Dia.: 22.4
- Approximate Dimensions (mm) A: 85, B: 241

**Flow Rate** \( l/min = K \sqrt{\text{bar}} \)

**Standard Nozzle Materials:** Brass and 316 Stainless Steel

Available in nickel aluminum bronze and titanium, plus other materials available on request.

**Standard Cover Materials:** Brass for brass nozzles, 304 Stainless Steel for other nozzle materials

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