Non-clogging nozzle design with a very stable spray angle, particularly even liquid distribution and large free cross sections.

Applications:
Cleaning and washing processes, surface spraying, container cleaning, foam precipitation, degassing of liquids.

Series 490/491 represents a new generation within the axial-flow full cone nozzles product group. These nozzles were developed using state-of-the-art design and simulation methods (CFD).

Conversion formula for the above series: \( \dot{V}_2 = \dot{V}_1 \times \left( \frac{p_2}{p_1} \right)^{0.4} \) (≤ 10 bar)

### Code | Dimensions [mm] | Hex/Flats
--- | --- | ---
CA | 1/8 BSPT 18.0 6.5 10.0 11 | 
CC | 1/4 BSPT 22.0 10.0 13.0 14 | 
CE | 3/8 BSPT 24.5 10.0 16.0 17 | 
CG | 1/2 BSPT 32.5 13.0 21.0 22 | 
AK | 3/4 BSPP 42.0 15.0 22.0 27 | 
AM | 1 BSPP 56.0 17.0 40.0 35 | 

Subject to technical modifications. Please enquire about the exact dimensions if the installation situation is critical.

Materials on request
### Axial-flow full cone nozzles
#### Series 490/491

<table>
<thead>
<tr>
<th>Spray angle</th>
<th>Ordering no.</th>
<th>Code</th>
<th>B</th>
<th>E</th>
<th>( V ) [l/min]</th>
<th>( p ) [bar]</th>
</tr>
</thead>
<tbody>
<tr>
<td>60°</td>
<td>490.644</td>
<td>CE</td>
<td>2.30</td>
<td>2.30</td>
<td>60.00</td>
<td>11.00</td>
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<tr>
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<td>490.646</td>
<td>CE</td>
<td>2.75</td>
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<td>11.00</td>
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<td>CE</td>
<td>3.20</td>
<td>3.20</td>
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<td>11.00</td>
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<tr>
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<td>4.20</td>
<td>4.20</td>
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<td>11.00</td>
</tr>
</tbody>
</table>

### Conversion formula for the above series:

\[ \dot{V}_2 = \dot{V}_1 \cdot \left( \frac{p_2}{p_1} \right)^{0.4} \]

\( (\leq 10 \text{ bar}) \)

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B = bore diameter  
E = narrowest free cross section  
V = flow rate  
p = pressure

Materials on request

Conversion for the above series:  
\[ \dot{V}_2 = \dot{V}_1 \cdot \left( \frac{p_2}{p_1} \right)^{0.4} \]  
\((\leq 10 \text{ bar})\)