Flat fan nozzle with dovetail alignment
Series 660

Assembly with retaining nut. Self-aligning jet with dovetail design secures correct spray position for optimal strand surface quality and easy maintenance. Standard version with parabolic liquid distribution.

Applications:
Multi nozzle arrangements for strand cooling in foot roller area of slab casters where space is limited. Multi nozzle arrangements in segments for water only secondary cooling in stainless steel slab casters with low water flow rates.

- Standard offset angle 5° built into the nozzle
- 0° offset angle available on request 660.xxx.xx.74

Special nozzle types:
Type + Material No. + Special No
Special No:
00= standard nozzle
74 = flat jet parallel to dovetail
90 = rectangular liquid distribution
96 = flat jet parallel to dovetail + rectangular liquid distribution

Spray angle
Ordering no.
Material no.
Equivalent Orifice diam.
Free passage
Flow Rate (Gallons Per Minute)
Spray Coverage @ 30 psi

20° 660. 301  \( \Phi \) .58 \( \Phi \).47 \( \Phi \).28

30° 660. 302  \( \Phi \).58 \( \Phi \).47 \( \Phi \).28

45° 660. 303  \( \Phi \).58 \( \Phi \).47 \( \Phi \).28

60° 660. 304  \( \Phi \).58 \( \Phi \).47 \( \Phi \).28

75° 660. 145  \( \Phi \).58 \( \Phi \).47 \( \Phi \).28

1) We reserve the right to deliver material 316 SS or 316L SS, if we show the material code 17.

Continued on next page.
### Conversion formula for the above series:

\[ V_2 = V_1 \sqrt{\frac{P_2}{P_1}} \]

### Accessories

- **Nipple**
  - Weight: 0.05 lb.
  - 066.011.17 (316 SS)

- **Retaining nut**
  - Weight: 0.06 lb.
  - 066.200.16 (303 SS)
  - 066.200.17 (316 SS)
  - 066.200.30 (Brass)

### Example type and material number for ordering:

<table>
<thead>
<tr>
<th>Example type</th>
<th>Material no.</th>
<th>Ordering no.</th>
</tr>
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<tbody>
<tr>
<td>660.306.16</td>
<td>16</td>
<td>660.306.16</td>
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</table>

1) We reserve the right to deliver material 316 SS or 316L SS, if we show the material code 17.

### Rectangular liquid distribution:

- For single nozzle arrangement (per roller gap) or wide pitches 660.xxx.xx.90.
- Nipple 066.011.17 (316 SS) and Retaining nut 066.200.xx (303 SS, 316 SS, Brass)

### Rectangular liquid distribution with 0° offset angle:

- Available with:
  - Rectangular liquid distribution for single nozzle arrangement (per roller gap) or wide pitches 660.xxx.xx.90.
  - Rectangular liquid distribution combined with 0° offset angle for single nozzle arrangement (per roller gap) or wide pitches 660.xxx.96 in narrow roller gaps.