Multi-Gate Nozzle
Axial Gating
Gate Options
- Two Gates (2A)
- Three Gates (3A)
- Four Gates (4A)

To order a nozzle assembly, provide the Nozzle Range, Number of Gates + Tip Style,
Nozzle Series, Nozzle Length, Tip Grade, Nut Grade + PCD

Order example:

<table>
<thead>
<tr>
<th>Nozzle Range</th>
<th>Number of Gates + Tip Style</th>
<th>Nozzle Series</th>
<th>Nozzle Length</th>
<th>Tip Grade</th>
<th>Nut Grade + PCD*</th>
</tr>
</thead>
<tbody>
<tr>
<td>BM</td>
<td>2A</td>
<td>27</td>
<td>095</td>
<td>G1</td>
<td>H1</td>
</tr>
</tbody>
</table>

*PCD range 10-22

Nozzle Dimensions

Note
** Indicates dowel position relative to tip.
Mastip Manifold Nozzles

BM Axial Gate

BM27 Series

<table>
<thead>
<tr>
<th>Nozzle Code</th>
<th>Nozzle Code</th>
<th>Nozzle Code</th>
<th>L</th>
<th>E @ ΔT</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Gates</td>
<td>3 Gates</td>
<td>4 Gates</td>
<td></td>
<td>200°C</td>
</tr>
<tr>
<td>BM2A27075G1H1</td>
<td>BM3A27075G1H1</td>
<td>BM4A27075G1H1</td>
<td>75</td>
<td>0.20</td>
</tr>
<tr>
<td>BM2A27095G1H1</td>
<td>BM3A27095G1H1</td>
<td>BM4A27095G1H1</td>
<td>95</td>
<td>0.25</td>
</tr>
<tr>
<td>BM2A27115G1H1</td>
<td>BM3A27115G1H1</td>
<td>BM4A27115G1H1</td>
<td>115</td>
<td>0.30</td>
</tr>
<tr>
<td>BM2A27145G1H1</td>
<td>BM3A27145G1H1</td>
<td>BM4A27145G1H1</td>
<td>145</td>
<td>0.38</td>
</tr>
<tr>
<td>BM2A27175G1H1</td>
<td>BM3A27175G1H1</td>
<td>BM4A27175G1H1</td>
<td>175</td>
<td>0.46</td>
</tr>
<tr>
<td>BM2A27225G1H1</td>
<td>BM3A27225G1H1</td>
<td>BM4A27225G1H1</td>
<td>225</td>
<td>0.59</td>
</tr>
<tr>
<td>BM2A27275G1H1</td>
<td>BM3A27275G1H1</td>
<td>BM4A27275G1H1</td>
<td>275</td>
<td>0.73</td>
</tr>
</tbody>
</table>

BM nozzles to be used in manifold application only

Nozzle Fitment and Gate Dimensions

\[ E = L \times 0.0000132 \times (\text{nozzle temp. } ^\circ\text{C} - \text{mould temp. } ^\circ\text{C}) \]

Note

1. Wire channel to suit mould.
2. Gate cooling is critical for correct operation and gate quality. → See Cooling section in Technical Specifications.
3. Modify gate diameter and land to suit the part. → See Gate Modifications in Technical Specifications.
   - Minimum strength \( \sigma \) of nozzle plate 800MPa.
   - *Ø xx.xx dimensions will be supplied on order with approval drawing.
**Gate Options**
- Two Gates (2A)
- Three Gates (3A)
- Four Gates (4A)

To order a nozzle assembly, provide the Nozzle Range, Number of Gates + Tip Style, Nozzle Series, Nozzle Length, Tip Grade, Nut Grade + PCD

**Order example:**

<table>
<thead>
<tr>
<th>Nozzle Range</th>
<th>Number of Gates</th>
<th>Tip Style</th>
<th>Nozzle Series</th>
<th>Nozzle Length</th>
<th>Tip Grade</th>
<th>Nut Grade + PCD*</th>
</tr>
</thead>
<tbody>
<tr>
<td>SM</td>
<td>2A</td>
<td></td>
<td>27</td>
<td>095</td>
<td>G1</td>
<td>H1</td>
</tr>
</tbody>
</table>

*PCD range 10-22

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**Nozzle Dimensions**

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**Note**
- Before restarting the nozzle remove any plastic residue from nozzle seal face to avoid damaging the nozzle.
- Open to suit machine nozzle size.
- Indicates dowel position relative to tip.
### Mastip Single Nozzles

#### SM Axial Gate

**SM27 Series**

<table>
<thead>
<tr>
<th>Nozzle Code 2 Gates</th>
<th>Nozzle Gates 3 Gates</th>
<th>Nozzle Gates 4 Gates</th>
<th>L</th>
<th>$E@\Delta T = 200^\circ C$</th>
</tr>
</thead>
<tbody>
<tr>
<td>SM2A27075G1H1</td>
<td>SM3A27075G1H1</td>
<td>SM4A27075G1H1</td>
<td>75</td>
<td>0.20</td>
</tr>
<tr>
<td>SM2A27095G1H1</td>
<td>SM3A27095G1H1</td>
<td>SM4A27095G1H1</td>
<td>95</td>
<td>0.25</td>
</tr>
<tr>
<td>SM2A27115G1H1</td>
<td>SM3A27115G1H1</td>
<td>SM4A27115G1H1</td>
<td>115</td>
<td>0.30</td>
</tr>
<tr>
<td>SM2A27145G1H1</td>
<td>SM3A27145G1H1</td>
<td>SM4A27145G1H1</td>
<td>145</td>
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<td>SM2A27175G1H1</td>
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<td>SM4A27225G1H1</td>
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<td>0.59</td>
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<tr>
<td>SM2A27275G1H1</td>
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<td>275</td>
<td>0.73</td>
</tr>
</tbody>
</table>

### Nozzle Fitment and Gate Dimensions

\[ E = L \times 0.0000132 \times (\text{nozzle temp.} \ C - \text{mould temp.} \ C) \]

1. Wire channel to suit mould.
2. Gate cooling is critical for correct operation and gate quality. → See Cooling section in Technical Specifications.
3. Modify gate diameter and land to suit the part. → See Gate Modifications in Technical Specifications.
   - Minimum strength ($\sigma_y$) of nozzle plate 800MPa.
   - Ø xx.xx dimensions will be supplied on order with approval drawing.
**Installation**

**ONE**

Place a small amount of supplied heat resistant nickel based anti-seize grease on the thread of the Nut 6. Fit the Nut 6 over the Tip 7.

**TWO**

Insert the 2 x 2.0mm Dowel Pins 4 into the Packer 2.

**THREE**

Fit the assembled Packer 2 and 2.0mm Dowel Pins 4 into the slots in the Tip 7. Ensure the 2.0mm Dowel Pins 4 are not preventing the Packer 2 from making contact with the Tip 7.
1. **FOUR**

Fit the 2 x Split Rings 5 into the groove in the Tip 7 thereby retaining the Nut 6.

2. **FIVE**

Fit the 2.5mm Dowel Pin 3 into the Packer 2 and Split Rings 5.

3. **SIX**

Align the 2.5mm Dowel Pin 3 with the slot in the Body 1 and insert until the thread of the Nut 6 comes into contact with the Body 1. Screw the Nut 6 into the Body 1. Tighten the Nut 6 to a torque setting of 30Nm.

4. **SEVEN**

Multi-Gate Nozzle Assembly complete. Complete Heater and Thermocouple assembly, see Technical Specifications Guide.
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