Multi-Gate Nozzle
Side Gating
Burman BM27 Series

BM Side Gate

Mastip Manifold Nozzles

Gate Options
- One Gate (1S)
- Two Gates (2S)
- Three Gates (3S)
- Four Gates (4S)

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

**Order example:**
- Nozzle Range: BM
- Number of Gates + Tip Styles: 25
- Nozzle Series: 27
- Nozzle Length: 095
- Tip Grade: G1
- Nut Grade + Gate Well Diameter: H1

*Gate Well Diameter range 22.30-26.80

**Nozzle Dimensions**

Note:
** Indicates dowel position relative to tip.
BM27 Series

**Nozzle Fitment and Gate Dimensions**

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

<table>
<thead>
<tr>
<th>Nozzle Code</th>
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<th>Nozzle Code</th>
<th>L</th>
<th>( E\Delta T = 200^\circ\text{C} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Gate</td>
<td>2 Gates</td>
<td>3 Gates</td>
<td>4 Gates</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BM1S27075G1H1</td>
<td>BM2S27075G1H1</td>
<td>BM3S27075G1H1</td>
<td>BM4S27075G1H1</td>
<td>69</td>
<td>0.18</td>
</tr>
<tr>
<td>BM1S27095G1H1</td>
<td>BM2S27095G1H1</td>
<td>BM3S27095G1H1</td>
<td>BM4S27095G1H1</td>
<td>89</td>
<td>0.23</td>
</tr>
<tr>
<td>BM1S27115G1H1</td>
<td>BM2S27115G1H1</td>
<td>BM3S27115G1H1</td>
<td>BM4S27115G1H1</td>
<td>109</td>
<td>0.29</td>
</tr>
<tr>
<td>BM1S27145G1H1</td>
<td>BM2S27145G1H1</td>
<td>BM3S27145G1H1</td>
<td>BM4S27145G1H1</td>
<td>139</td>
<td>0.37</td>
</tr>
<tr>
<td>BM1S27175G1H1</td>
<td>BM2S27175G1H1</td>
<td>BM3S27175G1H1</td>
<td>BM4S27175G1H1</td>
<td>169</td>
<td>0.45</td>
</tr>
<tr>
<td>BM1S27225G1H1</td>
<td>BM2S27225G1H1</td>
<td>BM3S27225G1H1</td>
<td>BM4S27225G1H1</td>
<td>219</td>
<td>0.58</td>
</tr>
<tr>
<td>BM1S27275G1H1</td>
<td>BM2S27275G1H1</td>
<td>BM3S27275G1H1</td>
<td>BM4S27275G1H1</td>
<td>269</td>
<td>0.71</td>
</tr>
</tbody>
</table>

BM nozzles to be used in manifold application only.

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**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. Gate diameter and gate land should not exceed 70% of part wall thickness.
   - Minimum strength (\(\sigma_y\)) of nozzle plate 800MPa.
   - \( \varnothing xx.xx \) dimensions will be supplied on order with approval drawing.
Gate Options

- One Gate (1S)
- Two Gates (2S)
- Three Gates (3S)
- Four Gates (4S)

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

Order example:

<table>
<thead>
<tr>
<th>Nozzle Range</th>
<th>Number of Gates</th>
<th>Tip Styles</th>
<th>Nozzle Series</th>
<th>Nozzle Length</th>
<th>Tip Grade</th>
<th>Nut Grade + Gate Well Diameter*</th>
</tr>
</thead>
<tbody>
<tr>
<td>SM</td>
<td>2S</td>
<td></td>
<td>27</td>
<td>095</td>
<td>G1</td>
<td>H1</td>
</tr>
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*Gate Well Diameter range 22.30-26.80

Nozzle Dimensions

** Indicates dowel position relative to tip.

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 gate well diameter range 22.30-26.80.
Nozzle Fitment and Gate Dimensions

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

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<th>Nozzle Code 4 Gates</th>
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<th>( \Delta T )</th>
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   - Minimum strength (\( \sigma_y \)) of nozzle plate 800MPa.
   - \( \phi xx.xx \) dimensions will be supplied on order with approval drawing.
**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.
INSTALLATION CONT.....

FOUR

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

FIVE

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

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.

SEVEN

Multi-Gate Nozzle Assembly complete. Complete Heater and Thermocouple assembly, see Technical Specifications Guide.
| System Overview | Multi-Gate Nozzle Side Gating |