Series VH
Hot Runner Manifolds

Illustrations simplified, schematically drawn and not to scale.

For design and application information, see the Synventive Hot Runner Guide.

For a specific application, please consult Synventive.

80 87 80
Product type
Hot runner manifold of series VH which are characterised by the following dimensions:

- **M** Thickness 80 mm
- **M1** Width 87 mm
- **J2** Flow bore Ø max. Ø20 mm

The manifolds can be supplied in standard shapes (I, H, X, Y) and in any realisable customised shape.

Components

Melt flow components
1. Manifold block including heaters, connections and thermocouple
2. Inlet bushing (including heater)

Attached parts and accessories
3. Centre support
4. Dowel
5. Support pad

Major dimensions (mm)

- **A** Manifold cut out, right (above) 22²
- **B** Manifold cut out, left (below) 18
- **Z** Expansion gap 0...0.17²
- **C** Height centre support 20
- **E** Height inlet bushing 25...200
- **De1** Ø of contact inlet bushing Ø50
- **De2** Ø of cut out inlet bushing Ø 60 / Ø95

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1) Hardened insert recommended; is not supplied with the hot runner system.
2) Values of these dimensions depend on the selected nozzle or on the selected material. They can be found in the Synventive Hot Runner Guide.
Inlet bushings which can be combined with hot runner manifolds of series VH:

1. **BC 025 50**
   - short inlet bushing, not heated
   - screwed into manifold

2. **BC ... 50**
   - heated inlet bushing of different heights
   - screwed into manifold

Here you can configure your inlet bushing

1. Complete the inlet bushing description

<table>
<thead>
<tr>
<th>BC</th>
<th>50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part code</td>
<td>Length code</td>
</tr>
</tbody>
</table>

2. Selection of variables

<table>
<thead>
<tr>
<th>E</th>
<th>R</th>
<th>AD</th>
</tr>
</thead>
</table>

Example and explanations

<table>
<thead>
<tr>
<th>Inlet bushing</th>
<th>Position in length chart</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC 100 50</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Length code</th>
<th>E (mm)</th>
<th>De1 (mm)</th>
<th>De2 (mm)</th>
<th>Jib1 (mm)</th>
<th>R (mm)</th>
<th>AD (°)</th>
<th>Heater power (Watt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>025</td>
<td>25</td>
<td>Ø50</td>
<td>Ø60</td>
<td>Ø5...Ø25</td>
<td>max. 40</td>
<td>90 / 120</td>
<td>-</td>
</tr>
<tr>
<td>060</td>
<td>50...59.9</td>
<td>Ø50</td>
<td>Ø95</td>
<td>Ø5...Ø25</td>
<td>max. 40</td>
<td>90 / 120</td>
<td>630</td>
</tr>
<tr>
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<td>60...99.9</td>
<td>Ø50</td>
<td>Ø95</td>
<td>Ø5...Ø25</td>
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<td>500</td>
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<tr>
<td>140</td>
<td>100...139.9</td>
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<tr>
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<td>180...200</td>
<td>Ø50</td>
<td>Ø95</td>
<td>Ø5...Ø25</td>
<td>max. 40</td>
<td>90 / 120</td>
<td>750</td>
</tr>
</tbody>
</table>

Variables for precise part specification from the drawings and tables shown here
Attached parts and accessories for hot runner manifolds of series VH:

1. MCS 46 ...

<table>
<thead>
<tr>
<th>Centre support</th>
<th>Lcs (mm)</th>
<th>B (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCS 46 20</td>
<td>20</td>
<td>max. 20</td>
</tr>
</tbody>
</table>

C (mm)

for nozzle size 16 / 20

2. DIN 6325: 12 m6

→ Dowel

3. MS 30 ...

→ Support pads

Z (mm) (2)

0 ... 0.17

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1. Manifolds in standard shape

Manifolds in standard shape have been designed by implementing the standard cavity and runner layouts which are widely used in practice: I, H, X and Y.

Shown on the right there are several examples for manifolds in standard shape based on the components of series VH. They are designed and made according to the customer’s specification.

Using capital letters to describe the different manifold types does not only refer to the shape of the manifold but also to the runner layout inside the manifold. The number represents the number of nozzles attached to the manifold.

2. Manifolds in customised shape

Manifolds in customised shape are designed and made according to the customer’s specification by using components of the selected manifold series.

Shown on the right there is a manifold in customised shape which has been designed by using components of series VH.

3. Bridge manifolds

Bridge manifolds make it possible to combine several manifolds to one feed system. They are designed and made according to the customer’s specification by using components of the selected manifold series.

Shown on the right there is a bridge manifold which has been designed by using components of series VH.