HPS III-MH The versatile multi tip solution

Direct side gating without cold slug
Compact valve gating
Side gating with open flow channel
No matter if the application requires a solution for efficient side gating or for compact valve gating of parts – with the HPS III-MH product line EWIKON provides a powerful and versatile multi tip concept for injection moulders and mould makers. All nozzle versions offer a unique ease of maintenance. Especially the patent pending version for direct side gating has set new standards here and is successfully used in many demanding applications in the medical and packaging industry. The results: reduced cycle times, enhanced productivity and cost-efficient mould design.

The user-friendly concept
Fields of application

- **Side gating**
  - Part geometries without possibility of standard gating, for example long slim tube shaped parts such as syringes, pipettes or sample bulbs in the medical industry.
  - Side gating on visible surfaces. De-moulding mostly takes place in a 90° angle to the gating direction. The shear action is used to achieve a good gating point quality.
  - Multi point internal gating of rotation-symmetric parts, for example in spouts of screw caps in the packaging industry.

- **Compact valve gating**
  - Multi point gating of parts, gating on horizontal surfaces close to vertical part contours, for example onto handle plates of syringes or flanges of analysis tubes.

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The benchmark for direct side gating

Its patent pending tip exchange technology makes the HPS III-MH nozzle the most maintenance-friendly solution for direct side gating worldwide. Depending on shot weight and application several versions are available. The tip inserts are installed from the parting line of the mould in the last assembly step after the nozzle body has been installed. Thus, they can be exchanged easily without having to dismantle the mould. Since only standard mould inserts are required a cost-efficient and compact mould design can be realised. Alternatively a linear or radial arrangement of parts is possible.
Easy replacement of tip inserts

1. Remove clamping cover
2. Pull tip insert out of mould insert for replacement

Product features + Benefits

- Direct gating on part surface, no cold slug
- Fully balanced flow channel layout in the nozzle body
- Even temperature profile
- Requires only standard mould inserts resulting in enhanced mould stability, easy cooling and reduced mould costs
- Utmost ease of maintenance, easy replacement of tip inserts from the parting line, minimised downtimes
Valve gating

The HPS III-MH valve gate technology features a lateral melt feed*. The gate is positioned in demoulding direction (0°). A special characteristic is the position of the valve pin guides and seals in the cooled mould insert. This ensures leakproof operation of the system. The concept allows ultra compact valve gating with a minimum distance between cavities of only 6 mm. Furthermore, gating points can be positioned in hard-to-reach areas such as horizontal surfaces close to vertical walls, for example onto handle plates of syringes or flanges of analysis tubes.

* patent pending; 10716535.9

Ultra-compact valve gating
The combined valve pin guides and seals are installed in the cooled standard mould insert. This guarantees a leakage-free operation. Special heat conductive elements embrace the valve pin contactless near the gate and ensure a homogeneous temperature profile in the gate area. The valve pin guide and seal is positioned close to the gate leaving a free valve pin length of only 5 mm.

Product features + Benefits

- Valve gate technology with synchronous plate actuation. Simultaneous opening and closing of all valve pins
- Fully balanced flow channel layout in the nozzle body
- Standard mould inserts
- Available for linear and radial version
- Valve pin guides and seals installed in the cooled mould insert for leakproof operation
Gating options

**90° gating**

**60° gating**

*Advantage:*
The gating point can be positioned closer to the core location of the cavity when moulding slim, thin-walled tubular parts for the medical industry. Thus, core deflection by the melt pressure, which leads to uneven wall thickness, can be reduced or completely eliminated.

**0° gating**

**NV**

**0° valve gating**

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**Suitable materials***

<table>
<thead>
<tr>
<th></th>
<th>PE</th>
<th>PP</th>
<th>POM</th>
</tr>
</thead>
<tbody>
<tr>
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<td>PA</td>
</tr>
<tr>
<td>PET</td>
<td></td>
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<td>PC</td>
</tr>
</tbody>
</table>

*(*) Only materials without fillers to be used for valve gating (gating option NV)*
**Nozzle versions**

**HPS III-MH100**
- Maximum processing temperature 350 °C
- Maximum shot weight per gate:
  - low viscosity materials: 10 g
  - high viscosity materials: 2 g
- Available gating options: 90° 60° 0° NV

**HPS III-MH111**
- Maximum processing temperature 350 °C
- Maximum shot weight per gate:
  - low viscosity materials: 10 g
  - high viscosity materials: 2 g
- Verfügbare Anspritzoptionen: 90° 60°

**HPS III-MH112 / 122**
- Maximum processing temperature 350 °C
- Maximum shot weight per gate:
  - low viscosity materials: 10 g
  - high viscosity materials: 2 g
- Available gating options: 90° 60° 0°

**HPS III-MH200**
- Maximum processing temperature 350 °C
- Maximum shot weight per gate:
  - low viscosity materials: 40 g
  - high viscosity materials: 8 g
- Available gating options: 90° 60° NV on request

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Linear version HPS III-MHL 100  
Radial version HPS III-MHR 100

for use with adapter nozzle

Radial version HPS III-MHR 111

Radial version HPS III-MHR 112 / 122

Radial version HPS III-MHR 111

Radial version HPS III-MHR 112 / 122
The basic version for side gating

- **Product features + Benefits**
  - Open flow channel, Ø 3.5 mm, quick colour changes
  - Available with 1 to 4 tips as system nozzle or single tip
  - Standard installation or front installation
  - Maximum total shot weights (approx.):
    - 10 g (high viscosity materials)
    - 30 g (low viscosity materials)
  - Maximum processing temperature 300 °C

- **Suitable materials**

<table>
<thead>
<tr>
<th>PE</th>
<th>PP</th>
<th>POM (CP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABS</td>
<td>PS</td>
<td>PMMA</td>
</tr>
<tr>
<td>TPE</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(*) without fillers

The HPS III-MH basic side gating solution for use in standard mould inserts. Due to the open flow channel layout quick colour changes are possible.

- 90° angle, open
  - Standard configuration for processing of PE, PP and POM (copolymer)

- 90° angle with additional heated tip behind the gate
  - For optimised gate opening when processing ABS, PS, PMMA and TPE

- 90° angle, open, with angled inserts
  - Allows to position the gate close to the bottom of the mould insert. Suitable for processing of PE, PP and POM (copolymer)
## HPS III-MH nozzle for direct side gating

### HPS III-MH100
- **HPS III-MH100** linear version
- Dimensions and tip versions for single tip and system nozzle
- Assembly examples for single tip and system nozzle
- Details of gating geometries for all versions

### HPS III-MH110
- **HPS III-MH110** radial version
- Dimensions and tip versions for single tip and system nozzle
- Assembly examples for single tip and system nozzle
- Details of gating geometries for all versions

### HPS III-MH111
- Overview
- **HPS III-MH111** radial version for use with adapter nozzle
  - Dimensions, tip versions, installation
  - Details of gating geometries for all versions

### HPS III-MH112
- Overview
- **HPS III-MH112** radial version for use with adapter nozzle
  - Dimensions, tip versions, installation
  - Details of gating geometries for all versions

### Adapter nozzle for HPS III-MH systems
- Adapter nozzle for use as single tip, locating ring
- Adapter nozzle for use as system nozzle, assembly examples

### HPS III-MH122
- **HPS III-MH122** radial version for use as system nozzle directly under the manifold
  - Dimensions, tip versions, installation
  - Details of gating geometries for all versions
  - Assembly example

### HPS III-MH200
- **HPS III-MH200** linear version
  - Abmessungen und Spitzenvarianten für Einzel- und Systemdüse
  - Einbaubspiele für Einzel- und Systemdüse
  - Details der Anspritzgeometrien für alle Versionen
- **HPS III-MHR200** Radialversion
  - Dimensions and tip versions for single tip and system nozzle
  - Assembly examples for single tip and system nozzle
  - Details of gating geometries for all versions

## HPS III-MH1 nozzle for side gating with open flow channel

- System nozzle for standard installation
- System nozzle for front installation
- Assembly examples (system nozzle for standard installation)
- Single tip
- Locating rings for single tip
### HPS III-MHL100 linear version
Single tip and system nozzle

#### Dimensions and tip versions

<table>
<thead>
<tr>
<th>Version</th>
<th>System nozzle</th>
<th>Single tip</th>
</tr>
</thead>
<tbody>
<tr>
<td>Machine radius (Dim. R)</td>
<td>--</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15</td>
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<tr>
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<td>15.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>40</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1/2&quot; (13.2)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3/4&quot; (19.5)</td>
</tr>
<tr>
<td>Dim. T</td>
<td>--</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2</td>
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<tr>
<td></td>
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<td>0.8</td>
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<tr>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.8</td>
</tr>
<tr>
<td>Locating ring</td>
<td>--</td>
<td>Item number 50456... Diameter .100 / .110 / .125 / .160 / .175</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Width of nozzle block (Dim. B)</th>
<th>42</th>
<th>62</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of tips</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Distance between cavities (Dim. S1, Dim. S2)</td>
<td>S1=16 or S1=28</td>
<td>S1=30 or S1=48</td>
</tr>
<tr>
<td>Nozzle length (Dim. G) (1)</td>
<td>129, 138, 148, 168</td>
<td></td>
</tr>
</tbody>
</table>

**Positions of bars**
- A (on nozzle side with tips)
- B (on nozzle side without tips)

#### Tip versions

<table>
<thead>
<tr>
<th>Tip versions</th>
<th>90°</th>
<th>60°</th>
<th>0°</th>
<th>NV (valve gate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distance between cavity rows (Dim. Y)</td>
<td>60</td>
<td>60</td>
<td>56</td>
<td>56</td>
</tr>
<tr>
<td>Dim. X</td>
<td>60</td>
<td>63</td>
<td>63.4</td>
<td>64</td>
</tr>
</tbody>
</table>

**Recommended gate diameters**
- 0.5 - 1.2
- 0.6 - 1.0
- 0.5 - 1.2
- 0.8 - 1.2

(1) Other nozzle lengths available on request

### Item numbers:

- **System nozzle:** MHL95...
- **Single tip:** MHL93...

*Each nozzle will be configured individually to suit your application requirements. Please contact us!*
ATTENTION!
The injection unit contact pressure must not exceed 30 KN.
HPS III-MHL100 linear version
Assembly example for single tip, 4-drop, width of nozzle block 42, position of bars B

ATTENTION!
The injection unit contact pressure must not exceed 30 KN
HPS III-MHL**100** linear version

Assembly example for system nozzle, 4-drop, width of nozzle block 42, position of bars A
HPS III-MHL100 linear version

Assembly example for system nozzle, 4-drop, width of nozzle block 42, position of bars B
HPS III-MHL\textbf{100} linear version

Cable exit positions for power and thermocouple, width of nozzle block 42

Position of bars A

Position of bars B

0°

90°
HPS III-MHL100 linear version
Assembly example for system nozzle, 8-drop, width of nozzle block 62, position of bars A

Technical data
HPS III-MHL100 linear version
Assembly example for system nozzle, 8-drop, width of nozzle block 62, position of bars B

Protective cover (not included)
HPS III-MHL100 linear version

Cable exit positions for power and thermocouple, width of nozzle block 62

Position of bars A

Position of bars B

Technical data
HPS III-MHL100 linear version
Details of gating geometries

Enlarging ØD results in a different gate contour
19426 = Valve pin guide and seal
(please also see page 7)

B = Distance sleeve, if required.
Not included in delivery.
### Dimensions and tip versions

<table>
<thead>
<tr>
<th>Version</th>
<th>System nozzle</th>
<th>Single tip</th>
</tr>
</thead>
<tbody>
<tr>
<td>Machine radius (Dim. R)</td>
<td>--</td>
<td>0</td>
</tr>
<tr>
<td>Dim. T</td>
<td>--</td>
<td>0</td>
</tr>
<tr>
<td>Locating ring</td>
<td>--</td>
<td></td>
</tr>
</tbody>
</table>

| Number of tips (1)             | 2, 4, 8       |
| Nozzle length (Dim. G) (2)     | 105           | 114        | 144 |
| Height of nozzle holder        | 15            | 15 - 24    | 15 - 54 |
for system nozzle (Dim. N)       |

<table>
<thead>
<tr>
<th>Tip versions</th>
<th>90°</th>
<th>60°</th>
<th>0°</th>
<th>NV (valve gate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pitch diameter (Dim. Y)</td>
<td>58</td>
<td>58</td>
<td>54</td>
<td>54</td>
</tr>
<tr>
<td>Dim. X</td>
<td>60</td>
<td>63</td>
<td>63.4</td>
<td>64</td>
</tr>
<tr>
<td>Recommended gate diameters</td>
<td>0.5 - 1.2</td>
<td>0.6 - 1.0</td>
<td>0.5 - 1.2</td>
<td>0.8 - 1.2</td>
</tr>
</tbody>
</table>

(1) Other number of tips available on request
(2) Other nozzle lengths available on request

### Item numbers:

System nozzle: **MHR100-V01-95...**

Single tip: **MHR100-V01-93...**

Each nozzle will be configured individually to suit your application requirements. Please contact us!
ATTENTION!
The injection unit contact pressure must not exceed 30 KN
HPS III-MHR100 radial version
Assembly example for single tip

From dimension X the installation is identical to the system nozzle installation (see right page)

ATTENTION!
The injection unit contact pressure must not exceed 30 KN

Technical data

ATTENTION!
The injection unit contact pressure must not exceed 30 KN
HPS III-MHR100 radial version
Assembly example for system nozzle
HPS III-MHR100 radial version
Details of gating geometries

Enlarging ØD results in a different gate contour
19426 = Valve pin guide and seal
(please also see page 7)

B = Distance sleeve, if required.
Not included in delivery.
HPS III-MHR 111 radial version

Overview

1. HPS III-MHR 111 radial version
   for use with adapter nozzle

2. Adapter nozzle 93309-U01...
   for use as single tip

3. Adapter nozzle 95308-U01...
   Standard installation for use as system nozzle

4. Adapter nozzle 95309-U01...
   Front installation for use as system nozzle
HPS III-MHR111 radial version
for use with adapter nozzle

Dimensions and tip versions

<table>
<thead>
<tr>
<th>Number of tips</th>
<th>2, 4, 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Version</td>
<td></td>
</tr>
<tr>
<td>With adapter nozzle as single tip</td>
<td>With adapter nozzle as system nozzle for standard installation</td>
</tr>
<tr>
<td>Nozzle length (Dim. G) (1)</td>
<td>181</td>
</tr>
<tr>
<td>Height of nozzle holder (Dim. N)</td>
<td>55</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tip versions</th>
<th>90°</th>
<th>60°</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pitch diameter (Dim. Y)</td>
<td>58</td>
<td>58</td>
</tr>
<tr>
<td>Dim. X</td>
<td>60</td>
<td>63</td>
</tr>
<tr>
<td>Recommended gate diameters</td>
<td>0.5 - 1.2</td>
<td>0.6 - 1.0</td>
</tr>
</tbody>
</table>

(1) Other nozzle lengths available on request

Item numbers:
For use with adapter nozzle as system nozzle: MHR111-95...
For use with adapter nozzle as single tip: MHR111-93...
Each nozzle will be configured individually to suit your application requirements. Please contact us!
HPS III-MHR111 radial version
Installation
HPS III-MHR111 radial version
Details of gating geometries

Enlarging ØD results in a different gate contour
HPS III-MHR112 radial version

Overview

1. HPS III-MHR112 radial version
   for use with adapter nozzle

2. Adapter nozzle 93309-U01...
   for use as single tip

3. Adapter nozzle 95308-U01...
   Standard installation for use as system nozzle

4. Adapter nozzle 95309-U01...
   Front installation for use as system nozzle
HPS III-MHR112 radial version

for use with adapter nozzle

### Dimensions and tip versions

<table>
<thead>
<tr>
<th>Number of tips</th>
<th>1, 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Version</strong></td>
<td></td>
</tr>
<tr>
<td>With adapter nozzle as single tip</td>
<td>With adapter nozzle as system nozzle for standard installation</td>
</tr>
<tr>
<td><strong>Tip versions</strong></td>
<td>90°</td>
</tr>
<tr>
<td><strong>Pitch diameter (Dim. Y)</strong></td>
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<tr>
<td><strong>Dim. X</strong></td>
<td>60</td>
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<tr>
<td>Recommended gate diameters</td>
<td>0.5 - 1.2</td>
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</table>

(1) Other nozzle lengths available on request

---

**Item numbers:**

For use with adapter nozzle as system nozzle: **MHR112-95...**

For use with adapter nozzle as single tip: **MHR112-93...**

Each nozzle will be configured individually to suit your application requirements. Please contact us!
HPS III-MHR112 radial version
Installation

Technical data
HPS III-MHR112 radial version
Details of gating geometries

Enlarging ØD results in a different gate contour
Adapter nozzle 93309-U01...
for use as single tip

<table>
<thead>
<tr>
<th>Dim. X</th>
<th>HPS III-MHR 111 Results in Dim. G</th>
<th>HPS III-MHR 112 Results in Dim. G</th>
</tr>
</thead>
<tbody>
<tr>
<td>52</td>
<td>-</td>
<td>178</td>
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<tr>
<td>72</td>
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<td>92</td>
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<td>238</td>
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<tr>
<td>132</td>
<td>241</td>
<td>258</td>
</tr>
<tr>
<td>152</td>
<td>-</td>
<td>278</td>
</tr>
</tbody>
</table>

Ordering example:

93309-U01.072-040
ATTENTION!
The injection unit contact pressure must not exceed 50 KN
Adapter nozzle 93309-U01...
Locating ring / Assembly note

Locating ring 51005 . . .

Plate thickness 36 mm

1 Screws:
   4 x DIN 912, M8 x 30-12.9, 45 Nm lubricated

<table>
<thead>
<tr>
<th>Item number</th>
<th>Ø A</th>
<th>Ø C</th>
</tr>
</thead>
<tbody>
<tr>
<td>51005.100</td>
<td>117</td>
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<tr>
<td>51005.000</td>
<td>118</td>
<td>101.34</td>
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<tr>
<td>51005.110</td>
<td>127</td>
<td>109.80</td>
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<tr>
<td>51005.125</td>
<td>142</td>
<td>124.80</td>
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<tr>
<td>51005.160</td>
<td>177</td>
<td>158.80</td>
</tr>
<tr>
<td>51005.175</td>
<td>192</td>
<td>174.80</td>
</tr>
</tbody>
</table>
Adapter nozzle 95308-U01...
Standard installation for use as system nozzle

<table>
<thead>
<tr>
<th>Dim. X</th>
<th>HPS III-MHR 111</th>
<th>HPS III-MHR 112</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Results in Dim. G</td>
<td>Results in Dim. G</td>
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<tr>
<td>52</td>
<td>-</td>
<td>153</td>
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<tr>
<td>72</td>
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<td>173</td>
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<td>92</td>
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<td>193</td>
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<td>112</td>
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<tr>
<td>152</td>
<td>-</td>
<td>253</td>
</tr>
<tr>
<td>172</td>
<td>-</td>
<td>273</td>
</tr>
</tbody>
</table>

Ordering example:

95308-U01.072
Adapter nozzle 95308-U01...

Installation

Technical data

ISO 2338–A
4m6x12

Example
MHR112
# Adapter nozzle 95309-U01...

Front installation for use as system nozzle

<table>
<thead>
<tr>
<th>Dim. X</th>
<th>HPS III-MHR 111</th>
<th>HPS III-MHR 112</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Results in Dim. G</td>
<td>Results in Dim. G</td>
</tr>
<tr>
<td>52</td>
<td>-</td>
<td>173</td>
</tr>
<tr>
<td>72</td>
<td>176</td>
<td>193</td>
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<tr>
<td>92</td>
<td>196</td>
<td>213</td>
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<td>112</td>
<td>216</td>
<td>233</td>
</tr>
<tr>
<td>132</td>
<td>236</td>
<td>253</td>
</tr>
<tr>
<td>152</td>
<td>-</td>
<td>273</td>
</tr>
</tbody>
</table>

**Ordering example:**

95309-U01.072
Adapter nozzle 95308-U01... / 95309-U01...

Assembly examples
HPS III-MHR122 radial version
for use as system nozzle directly under the manifold

Technical data

Dimensions and tip versions

<table>
<thead>
<tr>
<th>Number of tips</th>
<th>1, 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Version</td>
<td>System nozzle for standard installation</td>
</tr>
<tr>
<td>Nozzle length (Dim. G)(^{(1)})</td>
<td>90</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tip versions</th>
<th>90°</th>
<th>60°</th>
<th>0°</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pitch diameter (Dim. Y)</td>
<td>50</td>
<td>50</td>
<td>46</td>
</tr>
<tr>
<td>Dim. X</td>
<td>60</td>
<td>63</td>
<td>63.4</td>
</tr>
<tr>
<td>Recommended gate diameters</td>
<td>0.5 - 1.2</td>
<td>0.6 - 1.0</td>
<td>0.5 - 1.2</td>
</tr>
</tbody>
</table>

(1) Other nozzle lengths available on request

Item number:
System nozzle: MHR122-95...

Each nozzle will be configured individually to suit your application requirements. Please contact us!
HPS III-MHR122 radial version
Installation
HPS III-MHR122 radial version
Details of gating geometries

Enlarging ØD results in a different gate contour
HPS III-MHR122 radial version
Assembly example
HPS III-MHL200 linear version
Single tip and system nozzle

**Dimensions and tip versions**

<table>
<thead>
<tr>
<th>Version</th>
<th>System nozzle</th>
<th>Single tip</th>
</tr>
</thead>
<tbody>
<tr>
<td>Machine radius (Dim. R)</td>
<td>--</td>
<td>0 15 15.5</td>
</tr>
<tr>
<td>Dim. T</td>
<td>--</td>
<td>0 2 2 0.8 2 1.8</td>
</tr>
<tr>
<td>Locating ring</td>
<td>--</td>
<td>Item number 50456... Diameter .100 / .110 / .125 / .160 / .175</td>
</tr>
</tbody>
</table>

- **Width of nozzle block (Dim. B)**: 62
- **Number of tips**: 4
- **Distance between cavities (Dim. S1)**: S1=42
- **Nozzle length (Dim. G)**: 129, 138, 148, 168
- **Positions of bars**: A (on nozzle side with tips) B (on nozzle side without tips)

<table>
<thead>
<tr>
<th>Tip versions</th>
<th>90°</th>
<th>60°</th>
<th>0°</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distance between cavity rows (Dim. Y)</td>
<td>62 62 58</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dim. X</td>
<td>60 64.5 65</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recommended gate diameters</td>
<td>0.8 - 1.5 0.8 - 1.5 0.8 - 1.5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(1) Other nozzle lengths available on request

**Item numbers:**

- System nozzle: MHL200-95...
- Single tip: MHL200-93...

Each nozzle will be configured individually to suit your application requirements. Please contact us!
ATTENTION!
The injection unit contact pressure must not exceed 30 KN
**HPS III-MHL200 linear version**

Assembly example for single tip, 4-drop, width of nozzle block 62, position of bars B

**ATTENTION!**
The injection unit contact pressure must not exceed 30 KN
HPS III-MHL\textbf{200} linear version

Assembly example for system nozzle, 4-drop, width of nozzle block 62, position of bars A

\begin{itemize}
  \item[\textbf{H}]
  Protective cover (not included)
  \item[\textbf{K}]
  Example for nozzle arrangement with position of bars A, cable exit position $0^\circ$
\end{itemize}
HPS III-MHL200 linear version

Assembly example for system nozzle, 4-drop, width of nozzle block 62, position of bars B

Protective cover (not included)
HPS III-MHL200 linear version

Cable exit positions for power and thermocouple, width of nozzle block 62
Details of gating geometries

Enlarging ØD results in a different gate contour
HPS III-MHL200 linear version
Details of gating geometries
### HPS III-MHR200 radial version

**Single tip and system nozzle**

#### Dimensions and tip versions

<table>
<thead>
<tr>
<th>Version</th>
<th>System nozzle</th>
<th>Single tip</th>
</tr>
</thead>
<tbody>
<tr>
<td>Machine radius (Dim. R)</td>
<td>--</td>
<td>0 15 15.5 40 1/2&quot; (13.2) 3/4&quot; (19.5)</td>
</tr>
<tr>
<td>Dim. T</td>
<td>--</td>
<td>0 2 2 0.8 2 1.8</td>
</tr>
<tr>
<td>Locating ring</td>
<td>--</td>
<td>Item number 50456... Diameter .100 / .110 / .125 / .160 / .175</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of tips</th>
<th>1, 2, 4</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Nozzle length (Dim. G) (1)</th>
<th>105</th>
<th>114</th>
<th>144</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height of nozzle holder for system nozzle (Dim. N)</td>
<td>15</td>
<td>15 - 24</td>
<td>15 - 54</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tip versions</th>
<th>90°</th>
<th>60°</th>
<th>0°</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pitch diameter (Dim. Y)</td>
<td>60</td>
<td>60</td>
<td>56</td>
</tr>
<tr>
<td>Dim. X</td>
<td>60</td>
<td>64.5</td>
<td>65</td>
</tr>
</tbody>
</table>

| Recommended gate diameters | 0.8 - 1.5 | 0.8 - 1.5 | 0.8 - 1.5 |

(1) Other nozzle lengths available on request

---

### Item numbers:

- **System nozzle**: MHR200-V01-95...

- **Single tip**: MHR200-V01-93...

Each nozzle will be configured individually to suit your application requirements. Please contact us!
ATTENTION!
The injection unit contact pressure must not exceed 30 KN
HPS III-MHR200 radial version

Assembly example for single tip

From dimension X
the installation is identical
to the system nozzle
installation (see right page)

ATTENTION!
The injection unit
contact pressure
must not exceed 30 KN
HPS III-MHR 200 radial version
Assembly example for system nozzle
HPS III-MHR200 radial version
Details of gating geometries

Enlarging ØD results in a different gate contour
HPS III-MHR200 radial version
Details of gating geometries
HPS III-MH1 system nozzle
for side gating with open flow channel,
dimensions and item numbers

Version for standard installation

<table>
<thead>
<tr>
<th>Version 95 _ _ _ 06-3. _ _ _ -E1</th>
<th>Version 95 _ _ _ 06-3. _ _ _ -E2</th>
<th>Version 95 _ _ _ 06-3. _ _ _ -B</th>
</tr>
</thead>
<tbody>
<tr>
<td>90° standard gating</td>
<td>90° gating with angled inserts</td>
<td>90° standard gating with tip</td>
</tr>
<tr>
<td></td>
<td></td>
<td>behind the gate</td>
</tr>
</tbody>
</table>

Pitch diameter (Dim. YY) | Dim. X | Possible number of gates |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>22 mm*</td>
<td>50 mm</td>
<td>•</td>
</tr>
<tr>
<td></td>
<td>90 mm</td>
<td>•</td>
</tr>
<tr>
<td></td>
<td>130 mm</td>
<td>•</td>
</tr>
</tbody>
</table>

* other pitch diameters on request
** not for version E2

Ordering example:
Nozzle 95 _ _ _ 06-3. _ _ _ - _

95042206-3.050-E1 — Gating version
Dim. X
Pitch Ø (Dim. YY)
Number of tips
Nozzle body
Version for front installation

**Version 95 _ _ _ _ 06-4. _ _ _ -E1**
90° standard gating

**Version 95 _ _ _ _ 06-4. _ _ _ -E2**
90° gating with angled inserts

**Version 95 _ _ _ _ 06-4. _ _ _ -B**
90° standard gating with tip behind the gate

---

**Pitch diameter (Dim. YY) | Dim. X | Possible number of gates**
---|---|---
22 mm* | 30 mm | 1 2 3 4
70 mm | ** | **
110 mm | ** | **

* other pitch diameters on request
** not for version E2

---

**Ordering example:**
Nozzle 95 _ _ _ _ 06-4. _ _ _ _

95042206-4.030-E1 — Gating version

- Dim. X
- Pitch Ø (Dim. YY)
- Number of tips
- Nozzle body

---

HIGH PERFORMANCE SYSTEMS
HPS III-MH1 system nozzle
for side gating with open flow channel,
assembly examples

Assembly example for gating version E1, standard installation, 2 gates

1 Lock against rotation
Locating pin Ø 3mm, M6x8,
either on the right or left side
Assembly example for gating version E2, standard installation, 2 gates

1. Lock against rotation
Locating pin Ø 3mm, M6x8, either on the right or left side
HPS III-MH1 single tip

for side gating with open flow channel, dimensions and item numbers

### Technical data

#### Version 93 _ _ _ _ 06-3. _ _ _ -E1
90° standard gating

#### Version 93 _ _ _ _ 06-3. _ _ _ -E2
90° gating with angled inserts

#### Version 93 _ _ _ _ 06-3. _ _ _ -B
90° standard gating with tip behind the gate

<table>
<thead>
<tr>
<th>Pitch diameter (Dim. YY)</th>
<th>Dim. X</th>
<th>Possible number of gates</th>
</tr>
</thead>
<tbody>
<tr>
<td>22 mm*</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>50 mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>90 mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>130 mm</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* other pitch diameters on request
** not for version E2

#### Machine radius R | Dim. T

<table>
<thead>
<tr>
<th></th>
<th>Dim. T</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>40</td>
<td>1</td>
</tr>
<tr>
<td>1/2 &quot; (13.2)</td>
<td>2</td>
</tr>
<tr>
<td>3/4&quot; (19.5)</td>
<td>2</td>
</tr>
</tbody>
</table>

#### Ordering example:
Nozzle 93 _ _ _ _06-3._ _ _ _

93042206-3.050-E1-040

- **Gating version**
  - R
- **Dim. X**
- **Pitch Ø (Dim. YY)**
- **Number of tips**
- **Nozzle body**
Locating rings for 93___06-3___

For plate thickness 27 mm

Pos 1: 6 x DIN912-M8x35-12.9
45 Nm lubricated

<table>
<thead>
<tr>
<th>Item number</th>
<th>ØA</th>
<th>ØC</th>
</tr>
</thead>
<tbody>
<tr>
<td>50727.100</td>
<td>117</td>
<td>99.8</td>
</tr>
<tr>
<td>50727.000</td>
<td>118</td>
<td>101.34</td>
</tr>
<tr>
<td>50727.110</td>
<td>127</td>
<td>109.8</td>
</tr>
<tr>
<td>50727.125</td>
<td>142</td>
<td>124.8</td>
</tr>
<tr>
<td>50727.175</td>
<td>192</td>
<td>174.8</td>
</tr>
</tbody>
</table>

For plate thickness 36 mm

Pos 1: 6 x DIN912-M8x35-12.9
45 Nm lubricated

<table>
<thead>
<tr>
<th>Item number</th>
<th>ØA</th>
<th>ØC</th>
</tr>
</thead>
<tbody>
<tr>
<td>50736.100</td>
<td>117</td>
<td>99.8</td>
</tr>
<tr>
<td>50736.000</td>
<td>118</td>
<td>101.34</td>
</tr>
<tr>
<td>50736.110</td>
<td>127</td>
<td>109.8</td>
</tr>
<tr>
<td>50736.125</td>
<td>142</td>
<td>124.8</td>
</tr>
<tr>
<td>50736.175</td>
<td>192</td>
<td>174.8</td>
</tr>
</tbody>
</table>

HIGH PERFORMANCE SYSTEMS