Thrust pad selection

Inlet bushing

*min. 10° For a specific application, please consult Synventive
Nozzle Lengths

Illustrations simplified, schematically drawn and not to scale. All dimensions in mm.

<table>
<thead>
<tr>
<th>L (mm)</th>
<th>Heater zone power (Watt)</th>
<th>L (mm)</th>
<th>Heater zone power (Watt)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Power 1</td>
<td></td>
<td>Power 1</td>
</tr>
<tr>
<td>One control area (thermocouple) Standard lengths</td>
<td>One control area (thermocouple) Custom lengths</td>
<td></td>
<td></td>
</tr>
<tr>
<td>60</td>
<td>125 W</td>
<td>&gt;60-80</td>
<td>125 W</td>
</tr>
<tr>
<td>70</td>
<td>125 W</td>
<td>&gt;80-&lt;100</td>
<td>139 W</td>
</tr>
<tr>
<td>80</td>
<td>139 W</td>
<td>&gt;100-&lt;120</td>
<td>159 W</td>
</tr>
<tr>
<td>90</td>
<td>139 W</td>
<td>&gt;120-&lt;140</td>
<td>179 W</td>
</tr>
<tr>
<td>100</td>
<td>159 W</td>
<td>&gt;140-&lt;180</td>
<td>199 W</td>
</tr>
<tr>
<td>110</td>
<td>159 W</td>
<td>&gt;180-&lt;200</td>
<td>239 W</td>
</tr>
<tr>
<td>120</td>
<td>179 W</td>
<td>&gt;200-220</td>
<td>259 W</td>
</tr>
<tr>
<td>130</td>
<td>179 W</td>
<td></td>
<td></td>
</tr>
<tr>
<td>140</td>
<td>199 W</td>
<td></td>
<td></td>
</tr>
<tr>
<td>160</td>
<td>199 W</td>
<td></td>
<td></td>
</tr>
<tr>
<td>180</td>
<td>219 W</td>
<td></td>
<td></td>
</tr>
<tr>
<td>200</td>
<td>239 W</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Available Actuators

PNC3008B
PNC4508B
(pneumatic)

PNC3008B Ø31
PNC4508B Ø66

Pressure range:
6 - 12 bar (87 - 174 psi)
Min/Max Close Forces:
424 N / 848 N

Available features:
♦ Position Sensor
♦ SynCool®

PNC4508B
Pressure range:
6 - 12 bar (87 - 174 psi)
Min/Max Close Forces:
954 N / 1908 N

PB4008
(pneumatic)

Pressure range:
6 - 12 bar (87 - 174 psi)
Min/Max Close Forces:
754 N / 1508 N

Available features:
♦ Position Sensor
♦ SynCool®

HB2508
(hydraulic)

Pressure range:
40 - 60 bar (600 - 870 psi)
Min/Max Close Forces:
1963 N / 2945 N

Available features:
♦ Position Sensor
♦ SynCool®

Electric actuators are also available for the 06E nozzle.
See the actuator catalog CAT-03-0001_EN-REV##
# Nozzle Tip Styles

Illustrations simplified, schematically drawn and not to scale. All dimensions in mm.  
- H = Gate orifice diameter, F = Tip extension, Dt = Tip Diameter, Mod = Modifiable

<table>
<thead>
<tr>
<th>Tip Style</th>
<th>Description</th>
<th>Dt = Ø6</th>
<th>F = 0, 6, Mod</th>
<th>H = 1.6</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>VSP</strong></td>
<td>Valve Gate - Straight Pin - Plunged Through</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tip Style</th>
<th>Description</th>
<th>Dt = Ø6</th>
<th>F = 0, 6, Mod</th>
<th>H = 1.2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>VTP</strong></td>
<td>Valve Gate - Tapered Pin - Plunged Through</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tip Style</th>
<th>Description</th>
<th>Dt = Ø6</th>
<th>H = 0.8</th>
<th>H = 1.2</th>
<th>H = 1.6</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>VSW</strong></td>
<td>Valve Gate - Straight Pin - Blind</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tip Style</th>
<th>Description</th>
<th>Dt = Ø9</th>
<th>H = 1.2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>VTW</strong></td>
<td>Valve Gate - Tapered Pin - Blind</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>

- **Preferred**  
- **Available**  
- **Not Available**

Master Language is English  
CAT-10-0010_EN-REV10  
For a specific application, please consult Synventive  
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### Nozzle Tip Styles

<table>
<thead>
<tr>
<th>Tip Style</th>
<th>Description</th>
<th>Dt = Ø6</th>
<th>F = 0, 6, Mod</th>
<th>H = 0.8</th>
<th>H = 1.2</th>
<th>H = 1.6</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TTP</strong></td>
<td>Thermal Gate – Torpedo - Plunged Through</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TTW</strong></td>
<td>Thermal Gate – Torpedo - Blind</td>
<td>Dt = Ø9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TFP</strong></td>
<td>Thermal Gate – Full Flow - Plunged Through</td>
<td>Dt = Ø6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TTK</strong></td>
<td>Thermal Gate – Torpedo - K</td>
<td>Dt = Ø6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard</td>
<td>(cold runner applications, semi crystalline materials)</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TPK</strong></td>
<td>Thermal Gate – Full Flow - K</td>
<td>Dt = Ø6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard</td>
<td>(cold runner applications)</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Illustrations simplified, schematically drawn and not to scale. All dimensions in mm.

H = Gate orifice diameter, F = Tip extension, Dt = Tip Diameter, Mod = Modifiable.

Master Language is English

For a specific application, please consult Synventive
## Wear Inserts

Illustrations simplified, schematically drawn and not to scale. All dimensions in mm.  
H = Gate orifice diameter, F = Tip extension, Dt = Tip Diameter, Mod = Modifiable

<table>
<thead>
<tr>
<th>Part</th>
<th>Description</th>
<th>F = 0, 6, Mod</th>
</tr>
</thead>
<tbody>
<tr>
<td>WI-VTW</td>
<td>Wear Insert</td>
<td>☒</td>
</tr>
<tr>
<td></td>
<td></td>
<td>☑</td>
</tr>
<tr>
<td></td>
<td></td>
<td>☒</td>
</tr>
<tr>
<td>WI-VSW</td>
<td>Wear Insert</td>
<td>☑</td>
</tr>
<tr>
<td></td>
<td></td>
<td>☑</td>
</tr>
<tr>
<td></td>
<td></td>
<td>☑</td>
</tr>
<tr>
<td>WI-TTW</td>
<td>Wear Insert (without Dimple)</td>
<td>☑</td>
</tr>
<tr>
<td></td>
<td></td>
<td>☑</td>
</tr>
<tr>
<td></td>
<td></td>
<td>☑</td>
</tr>
<tr>
<td></td>
<td>Wear Insert (with Dimple)</td>
<td>☑</td>
</tr>
<tr>
<td></td>
<td></td>
<td>☑</td>
</tr>
<tr>
<td></td>
<td></td>
<td>☑</td>
</tr>
</tbody>
</table>

Preferred: ☑  Available: ☑  Not Available: ☒
Nozzle Tip Cutout Dimensions

VSP, VTP, TTP, TFP, TPK, TTK - Nozzle tip cutout dimensions

Illustrations simplified, schematically drawn and not to scale. All dimensions in mm. Dimensions for reference only. Reference system drawing for complete dimensions prior to machining gate detail in mold.

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>VSP</td>
<td>100°</td>
<td>1.2</td>
<td>7.1</td>
</tr>
<tr>
<td>VTP</td>
<td>120°</td>
<td>3.2</td>
<td>7.24</td>
</tr>
</tbody>
</table>
VSW - Nozzle tip cutout dimensions

1. At the area of the nozzle gate replaceable, hardened (52 +2/-1 HRC) inserts are recommended by Synventive.
2. Radius/chamfer at the front of the valve pin shall not be removed.
3. Synventive recommends that the gate area geometry is manufactured by grinding and not EDM with a surface quality of $\sqrt{Ra0.4}$.
4. To avoid a deformation at the gate the space to move freely has to be checked at hot condition.
VTW - Nozzle tip cutout dimensions

1. At the area of the nozzle gate replaceable, hardened (52 +2/-1 HRC) inserts are recommended by Synventive.
2. Radius/chamfer at the front of the valve pin shall not be removed.
3. Synventive recommends that the gate area geometry is manufactured by grinding and not EDM with a surface quality of $Ra_{0.4}$.
4. To avoid a deformation at the gate the space to move freely has to be checked at hot condition.
TTW - Nozzle tip cutout dimensions

1. At the area of the nozzle gate replaceable, hardened (52 +2/-1HRC) inserts are recommended by Synventive.
2. Synventive recommends that the gate area geometry is manufactured by grinding and not EDM with a surface quality of $\sqrt{Ra0.8}$
WI-VTW, WI-VSW, WI-TTW - Wear insert cutout dimensions

Illustrations simplified, schematically drawn and not to scale. All dimensions in mm.
Dimensions for reference only. Reference system drawing for complete dimensions prior to machining gate detail in mold.

Wear Insert Cutout Dimensions