# Pneumatic Impact Pin Selection Guide

<table>
<thead>
<tr>
<th>PIN STYLE</th>
<th>CONE ANGLES</th>
<th>MATERIALS*</th>
<th>LENGTH</th>
<th>MAJOR DIAMETER</th>
<th>MINOR DIAMETER</th>
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<tbody>
<tr>
<td>10MP</td>
<td>30°, 45°</td>
<td>Carbide</td>
<td>0.62” 16mm</td>
<td>0.09” 2.3mm</td>
<td>0.04” 1.0mm</td>
</tr>
<tr>
<td>25S</td>
<td>22°, 30°, 45°, 60°</td>
<td>Carbide, Powdered Metal</td>
<td>1.8” 45mm</td>
<td>0.19” 4.8mm</td>
<td>0.09” 2.4mm</td>
</tr>
<tr>
<td>25L</td>
<td>22.5°, 30°, 45°, 60°</td>
<td>Carbide, Powdered Metal</td>
<td>2.2” 55mm</td>
<td>0.19” 4.7mm</td>
<td>0.09” 2.4mm</td>
</tr>
<tr>
<td>25XL</td>
<td>22.5°, 30°, 45°, 60°</td>
<td>Carbide, Powdered Metal</td>
<td>2.5” 64mm</td>
<td>0.19” 4.7mm</td>
<td>0.09” 2.4mm</td>
</tr>
<tr>
<td>25XLE</td>
<td>30°, 45°</td>
<td>Carbide</td>
<td>1.8” 46mm</td>
<td>0.16” 4.0mm</td>
<td>0.09” 2.4mm</td>
</tr>
<tr>
<td>101</td>
<td>30°, 45°, 60°</td>
<td>Carbide, Powdered Metal</td>
<td>3.9” 99mm</td>
<td>0.31” 7.9mm</td>
<td>0.15” 3.9mm</td>
</tr>
<tr>
<td>150S</td>
<td>30°, 45°, 60°</td>
<td>Powdered Metal, Carbide-Tipped</td>
<td>2.75” 70mm</td>
<td>0.62” 15.7mm</td>
<td>0.37” 9.5mm</td>
</tr>
<tr>
<td>150SA</td>
<td>30°, 45°</td>
<td>Carbide-Tipped</td>
<td>2.75” 70mm</td>
<td>0.62” 15.7mm</td>
<td>0.37” 9.5mm</td>
</tr>
<tr>
<td>150</td>
<td>30°, 45°</td>
<td>Powdered Metal, Carbide-Tipped</td>
<td>5.25” 133.4mm</td>
<td>0.62” 15.7mm</td>
<td>0.37” 9.5mm</td>
</tr>
<tr>
<td>4500E</td>
<td>30°, 45°</td>
<td>Steel Armature with Carbide Marking Pin</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Carbide = Tungsten Carbide Hardness approximately 92 Rockwell A, Powdered Metal Hardness 63 – 65 Rockwell C.  
**Varies with material hardness, cone angle and marking head utilized.
### Pneumatic Impact Pin Selection Guide

#### MARKERS

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<tr>
<th>Markers</th>
<th>Applications</th>
<th>Nominal Stroke Length</th>
<th>Typical Max Depth of Mark**</th>
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</thead>
<tbody>
<tr>
<td>TMP1700, TMM4200, TMM5400</td>
<td>Great for high resolution graphics and 2-D codes with multi-pixel cells. Pneumatically driven. Light marking in plastic or soft metals. Extremely fast marking, especially in multi-pin markers.</td>
<td>0.14” 3.5mm</td>
<td>0.001 – 0.003” 0.02mm</td>
</tr>
<tr>
<td>TMP4210, TMM5400, TMM3200, TMM4200, TMM4215, TMM4250</td>
<td>Very fast, limited penetration marking. For marking small characters on relatively smooth surfaces. Pneumatically driven.</td>
<td>0.38” 9.6mm</td>
<td>0.0025 – 0.011” 0.06 – 0.28mm</td>
</tr>
<tr>
<td>TMP6100, TMM5100, TMP1700, TMM3200, TMM7200</td>
<td>Fast, limited penetration marking. For marking small characters on relatively smooth surfaces. Pneumatically driven.</td>
<td>0.50” 12.7mm</td>
<td>0.0025 – 0.016” 0.06 – 0.40mm</td>
</tr>
<tr>
<td>TMP6100, TMM5100, TMM7200, TMM1700, TMM3200, DPP2000</td>
<td>Similar to 25L. Extra length for recessed or hard to reach marking surfaces. Pneumatically driven.</td>
<td>0.50” 12.7mm</td>
<td>0.0025 – 0.016” 0.06 – 0.40mm</td>
</tr>
<tr>
<td>TMP1700, TMM3200, TMP6100, Benchmark® 200, Benchmark®320 Benchmark® 460</td>
<td>Fast, limited penetration marking. For marking small characters on relatively smooth surfaces. Electrically driven.</td>
<td>0.15” 3.8mm</td>
<td>0.0025 – 0.011” 0.06 – 0.28mm</td>
</tr>
<tr>
<td>TMM5100, TMM7200</td>
<td>For deep marks, large dots and characters, and/or rough surfaces. Pneumatically driven.</td>
<td>0.75” 19mm</td>
<td>0.006 – 0.022” 0.15 – 0.56mm</td>
</tr>
<tr>
<td>TMP6100, TMM5100, TMM7200, TMP1700</td>
<td>Similar to 101. High speed marking. Pneumatically driven.</td>
<td>0.25” 6.35mm</td>
<td>0.006 – 0.022” 0.15 – 0.56mm</td>
</tr>
<tr>
<td>TMP6100, TMM3200, TMM4200, TMM4215, TMM4210, TMM4250, TMM7200, TMM1700</td>
<td>Similar to 150S.</td>
<td>0.75” 19mm</td>
<td>0.006 – 0.022” 0.15 – 0.56mm</td>
</tr>
<tr>
<td>TMM7200, TMP7000</td>
<td>Very heavy duty, deep penetration, large character marking; and/or very rough surfaces such as castings and mill surfaces. Pneumatically driven.</td>
<td>1.00” 25.4mm</td>
<td>0.020 – 0.030” 0.51 – 0.76mm</td>
</tr>
</tbody>
</table>

**Nominal Stroke Lengths:**

- 0.14” 3.5mm
- 0.38” 9.6mm
- 0.50” 12.7mm
- 0.75” 19mm
- 1.00” 25.4mm

**Typical Maximum Depth of Mark:**

- 0.001 – 0.003” 0.02mm
- 0.0025 – 0.011” 0.06 – 0.28mm
- 0.0025 – 0.016” 0.06 – 0.40mm
- 0.006 – 0.022” 0.15 – 0.56mm
- 0.020 – 0.030” 0.51 – 0.76mm