**SUMIBORON ENDMILLS**

**Mold Finish Master BNBP Type**

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### High Speed, High Precision SUMIBORON Mill for Pre-Hardened/Hardened Steel

#### Features & Benefits

- Longer tool life in high speed, high precision machining of pre-hardened and hardened steel (~HRC70.)
- Uses SUMIBORON BN350 for excellent chipping resistance.
- High precision radial cutting edge profile accuracy of ±0.0002 in. (0.005mm.)
- Excellent surface finish with a polishing process that is greatly reduced compared to solid carbide endmills.

#### Recommended Running Conditions

**Ball nose Radius (in)** | **STAVAX, NAK80, SKD61 (~52HRC)** | **SDK11 (~62HRC)** | **SKH (~70HRC)** |
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>RPM</td>
<td>Feedrate mm/tooth (ipt)</td>
<td>D.O.C.</td>
<td>RPM</td>
</tr>
<tr>
<td>R0.2 (.008)</td>
<td>20,000–50,000</td>
<td>.02 (.0008)</td>
<td>.03 (.001)</td>
</tr>
<tr>
<td>R0.3 (.012)</td>
<td>20,000–50,000</td>
<td>.02 (.0008)</td>
<td>.03 (.001)</td>
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<tr>
<td>R0.5 (.020)</td>
<td>20,000–50,000</td>
<td>.03 (.001)</td>
<td>.05 (.002)</td>
</tr>
<tr>
<td>R0.75 (.030)</td>
<td>20,000–50,000</td>
<td>.04 (.002)</td>
<td>.08 (.003)</td>
</tr>
<tr>
<td>R1.0 (.040)</td>
<td>20,000–50,000</td>
<td>.05 (.002)</td>
<td>.1 (.004)</td>
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**NOTES:**
- For stable machining, a more rigid machine is recommended.
- Air blow or oil mist coolant is recommended.
- Shorten overhang as much as possible.

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**BNBP Endmill Availability - METRIC**

- BNBP 2 R030-015
- BNBP 2 R020-0126
- BNBP 2 R010-0056

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**BNBP Performance**

- Comparison of flank wear during high speed machining
- Wear amount at the ballnose tip
- Machined surface