NEW!

Ream Roller

*Designed for Super Quick Operation*

We listened to input and experiences shared by our customers, and developed this combined tool to help you achieve a mirror-finish with this reamer and roller.

**Precision ID Finish**

Roller works as a guide to restrict vibration or run-out during operation.

**Quick, One-Pass Operation**

The combination of high speed Reamer and Roller enables short operation time as well as mirror finish.

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**ROLLER**

**Roller Burnishing**

Rollers compress the metal, creating a mirror finish suitable for sliding or sealing surfaces. The compressed metal surface is strong against friction and/or fatigue stress.

**Roller Guide**

Roller works as a guide to restrict vibration during operation, for a stable finish. The roller pass also erases retract-scratches made by the Reamer.

**REAMER**

**Replaceable Reamer**

High speed cutting, with a replaceable, throw-away reamer to reduce running cost. Coolant-through specification.

**Chips Discharging**

Left-helix Reamer and coolant-through flow discharges cutting chips out in a forward direction.

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**Dimensions (mm)**

- **A**
- **B**
- **C**
- **F**
- **G**
- **L**
- **Shank**
### Machining Example

- **Material**: C50/1050
- **Steel Diameter**: 15mm
- **Depth**: 80mm

### Roughness Comparison

<table>
<thead>
<tr>
<th>Reamer only</th>
<th>Reamer and Roller</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rz 9.1 μm</td>
<td>Rz 0.8 μm</td>
</tr>
</tbody>
</table>

### Sequent Machining Results

![Graph showing internal diameter variations across machining holes.](image)

### Operation Time Comparison

- **Honing**: 120 sec
- **Ream Roller**: 28 sec

**Machining Time About 1/4**

### Roundness

- **Ream Roller**: 2.1 μm

### Table: Roughness and Roundness

<table>
<thead>
<tr>
<th>Diameter</th>
<th>Reamer Dia. A</th>
<th>Roller Adjustable Range B</th>
<th>Reamer Length C</th>
<th>Between Reamer &amp; Roller F</th>
<th>Machining Depth G</th>
<th>Shank Dia. I</th>
<th>Total Length L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø15</td>
<td>15</td>
<td>15.0 ~ 15.2</td>
<td>9.5</td>
<td>28.4 ~ 32.8</td>
<td>107 ~ 111</td>
<td>12</td>
<td>218.5</td>
</tr>
<tr>
<td>Ø16</td>
<td>16</td>
<td>16.0 ~ 16.2</td>
<td>10.8</td>
<td>34.5 ~ 37.7</td>
<td>117 ~ 121</td>
<td>16</td>
<td>231.8</td>
</tr>
<tr>
<td>Ø17</td>
<td>17</td>
<td>17.0 ~ 17.2</td>
<td>12.8</td>
<td>34.8 ~ 38.0</td>
<td>117 ~ 123</td>
<td>16</td>
<td>238.8</td>
</tr>
<tr>
<td>Ø18</td>
<td>18</td>
<td>18.0 ~ 18.2</td>
<td></td>
<td>41.7 ~ 44.9</td>
<td>117 ~ 121</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ø19</td>
<td>19</td>
<td>19.0 ~ 19.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ø20</td>
<td>20</td>
<td>20.0 ~ 20.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ø21</td>
<td>21</td>
<td>21.0 ~ 21.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ø22</td>
<td>22</td>
<td>22.0 ~ 22.2</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Ø23</td>
<td>23</td>
<td>23.0 ~ 23.2</td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Ø24</td>
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<td>24.0 ~ 24.2</td>
<td></td>
<td></td>
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