Round insert and toolholder with the exact indexing system
Highly productive round insert with 6 indexes
Suitable for roughing operations of medium to large workpieces
Round insert that guarantees the use of all 6 indexes*  
*in case of \( \text{ap} \leq 2 \text{ mm} \)

- The cavity on the insert’s bottom and the protrusion on the toolholder enable exact indexing!
- Index is possible without taking off the screw!
- Round insert is applicable for roughing at high feed! Max. feed rate: \( f = 1.0 \text{ mm/rev} \)  
  \( (\text{ap} \leq 2 \text{ mm}) \)
- Cutting performance is equal to that of the conventional tool with flat interface between the toolholder and the insert.
- Index numbers are shown on the rake face.

Compatibility with conventional tools

Note: The conventional inserts with flat bottom are NOT applicable for FixRTurn toolholders.
**Chipbreakers**

**6RM type**
Tough and sharp cutting edge for general use

**6RS type**
Sharp cutting edge for low cutting force

**Application range**

- **Workpiece material**: SCM440
- **Cutting speed**: \( V_c = 250 \) m/min
- **Machining**: External turning (continuous)
- **Coolant**: Wet

*For 6-index use, depth of cut should be under 2.0 mm.

**Cutting performance**

**Continuous machining**

- **Insert**: RCMT1204M0-6RM
- **Cutting speed**: \( V_c = 200 \) m/min
- **Feed**: \( f = 0.8 \) mm/rev
- **Depth of cut**: \( a_p = 2.0 \) mm
- **Coolant**: Wet

Wear resistance is as high as that of the conventional tool.

**Interrupted machining**

- **Insert**: RCMT1204M0-6RM
- **Cutting speed**: \( V_c = 150 \) m/min
- **Feed**: \( f = 0.3 \) mm/rev
- **Depth of cut**: \( a_p = 2.0 \) mm
- **Coolant**: Wet

Highly rigid clamping even in interrupted machining.
## Inserts

<table>
<thead>
<tr>
<th>Chipbreaker</th>
<th>Appearance (Cross section)</th>
<th>f - ap</th>
<th>Cat. No</th>
<th>Grades</th>
<th>Dimensions (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low cutting force</td>
<td>6RS</td>
<td>RCMT1204M0-6RS</td>
<td>● ● ●</td>
<td>T9115</td>
<td>12 4.76 5.16 -</td>
</tr>
<tr>
<td>General use</td>
<td>6RM</td>
<td>RCMT1204M0-6RM</td>
<td>● ● ●</td>
<td>T9125</td>
<td>12 4.76 5.16 -</td>
</tr>
</tbody>
</table>

## External toolholders

### SRDCN
External turning and profiling  
S-type (Positive rake, screw-on system)

![Diagram of SRDCN toolholder](image)

<table>
<thead>
<tr>
<th>Cat. No</th>
<th>Stock</th>
<th>Dimensions (mm)</th>
<th>Insert</th>
<th>Parts</th>
<th>Torque (N·m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRDCN2525M12-6F</td>
<td>● 25 25 150 24.1 15 18.5 -</td>
<td>RC<em>1204M0-6</em></td>
<td>CSTB-4</td>
<td>M-1000</td>
<td>T-15F 3.0</td>
</tr>
</tbody>
</table>

### SRGCR/L
External turning and profiling  
S-type (Positive rake, screw-on system)

![Diagram of SRGCR/L toolholder](image)

<table>
<thead>
<tr>
<th>Cat. No</th>
<th>Stock</th>
<th>Dimensions (mm)</th>
<th>Insert</th>
<th>Parts</th>
<th>Torque (N·m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRGCR/L2525M12-6F</td>
<td>● ● 25 25 150 18.6 25 32 -</td>
<td>RC<em>1204M0-6</em></td>
<td>CSTB-4</td>
<td>M-1000</td>
<td>T-15F 3.0</td>
</tr>
</tbody>
</table>

● : Stocked items
### Practical examples

<table>
<thead>
<tr>
<th>Workpiece type</th>
<th>Toolholder</th>
<th>Insert</th>
<th>Grade</th>
<th>Workpiece material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cylinder</td>
<td>SRGCL2525M12-6F</td>
<td>RCMT1204M0-6RM</td>
<td>T9115</td>
<td>SCM435 / 34CrMo4</td>
</tr>
</tbody>
</table>

- **Cutting conditions**
- **Workpiece material**: SCM435 / 34CrMo4
- **Cutting speed**: $V_c$ (m/min) 200
- **Feed**: $f$ (mm/rev) 1.0
- **Depth of cut**: $a_p$ (mm) 1.0
- **Machining**: External turning (continuous)
- **Coolant**: Wet

**Results**

FixRTurn allows all 6 indexes to be used by its easy indexing system and also delivers excellent chip control!