External turning toolholders code key

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<th>Insert shape</th>
<th>Insert clearance angle</th>
<th>Cutting direction</th>
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<td>C</td>
<td>B</td>
<td>L (Left hand)</td>
</tr>
<tr>
<td>P</td>
<td>D</td>
<td>C</td>
<td>R (Right hand)</td>
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<td>K</td>
<td>D</td>
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<tr>
<td>S</td>
<td>R</td>
<td>E</td>
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<tr>
<td>C</td>
<td>S</td>
<td>N (Neutral)</td>
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<tr>
<td></td>
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<table>
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<tr>
<th>Tool holder style</th>
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<tbody>
<tr>
<td>A</td>
</tr>
<tr>
<td>----</td>
</tr>
<tr>
<td><img src="image1.png" alt="Image" /></td>
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<tr>
<td>J</td>
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<td>R</td>
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**Tool holder height and width**

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<th>h</th>
<th>NO.</th>
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**Insert I.C size**

- 2 = 0.250"
- 3 = 0.375"
- 4 = 0.500"
- 5 = 0.625"
- 6 = 0.750"
- 7 = 0.875"
- 8 = 1.000"

**Tool Length**

- J = 3-1/2"
- A = 4"
- B = 4-1/2"
- C = 5"
- D = 6"
- E = 7"
- F = 8"
### Applicable toolholders to CN □ □ D-type clamping

<table>
<thead>
<tr>
<th>Type</th>
<th>Dimension (inch)</th>
<th>Applicable inserts</th>
<th>Clamping screw</th>
<th>Shim</th>
<th>Wrench</th>
<th>Clamp</th>
<th>Shim screw</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCLNR/L 10-3A</td>
<td>0.625 0.625 4.00 0.625 0.75 0.945</td>
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<td></td>
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<tr>
<td>DCLNR/L 12-3C</td>
<td>0.75 0.75 5.00 0.75 1.00 0.945</td>
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<tr>
<td>DCLNR/L 16-3D</td>
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<tr>
<td>DCLNR/L 12-4C</td>
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<tr>
<td>DCLNR/L 16-4D</td>
<td>1.00 1.00 6.00 1.00 1.25 1.102</td>
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<tr>
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### Applicable toolholders to DDJNR/L 93°

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<thead>
<tr>
<th>Type</th>
<th>Dimension (inch)</th>
<th>Applicable inserts</th>
<th>Clamping screw</th>
<th>Shim</th>
<th>Wrench</th>
<th>Clamp</th>
<th>Shim screw</th>
<th>Spring</th>
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<tr>
<td>DDJNR/L 12-3C</td>
<td>0.75 0.75 5.00</td>
<td>33</td>
<td>CM5×22C</td>
<td>D11BM</td>
<td>WH30L</td>
<td>C1RA</td>
<td>SM5×8.65XA1</td>
<td>SPR6</td>
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<tr>
<td>DDJNR/L 16-3D</td>
<td>1.00 1.00 6.00</td>
<td>43</td>
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<td>D15BM</td>
<td>WH40L</td>
<td>C2RA</td>
<td>SM6×10XA1</td>
<td>SPR4</td>
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### Applicable toolholders to DSBNR/L 75°

<table>
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<th>Type</th>
<th>Dimension (inch)</th>
<th>Applicable inserts</th>
<th>Clamping screw</th>
<th>Shim</th>
<th>Wrench</th>
<th>Clamp</th>
<th>Shim screw</th>
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</thead>
<tbody>
<tr>
<td>DSBNR/L 10-3A</td>
<td>0.625 0.625 4.00</td>
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<td>0.75 0.75 5.00</td>
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<td>C1RA</td>
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<td>1.00 1.00 6.00</td>
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<td>C2RA</td>
<td>SM6×10XA1</td>
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</tr>
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<td>DSBNR/L 20-5E</td>
<td>1.25 1.25 7.00</td>
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### External turning toolholders

#### Applicable toolholders to **TN □ □** (91°)

**DTGNR/L**

<table>
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<tr>
<th>Type</th>
<th>Dimension (inch)</th>
<th>Applicable inserts</th>
<th>Clamping screw</th>
<th>Shim</th>
<th>Wrench</th>
<th>Clamp</th>
<th>Shim screw</th>
<th>Spring</th>
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<tbody>
<tr>
<td></td>
<td>a</td>
<td>b</td>
<td>L</td>
<td>h</td>
<td>s</td>
<td>e</td>
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<tr>
<td>DTGNR/L 10-3A</td>
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<td>0.625</td>
<td>4.00</td>
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#### Applicable toolholders to **VN □ □** (72°30’)

**DVVNN**

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<th>Type</th>
<th>Dimension (inch)</th>
<th>Applicable inserts</th>
<th>Clamping screw</th>
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<th>Wrench</th>
<th>Clamp</th>
<th>Shim screw</th>
<th>Spring</th>
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<tbody>
<tr>
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<td>a</td>
<td>b</td>
<td>L</td>
<td>h</td>
<td>s</td>
<td>e</td>
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<td>0.492</td>
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### Applicable toolholders to VN  
![Diagram](image)

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<th>Clamping screw</th>
<th>Shim</th>
<th>Wrench</th>
<th>Clamp</th>
<th>Shim screw</th>
<th>Spring</th>
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<tbody>
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<td>DVJNR/L 12-3C</td>
<td>0.75 0.75 5.00 0.75 1.00 1.614</td>
<td>VN □□ 33 □□ CM5×22C</td>
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<td>WH30L</td>
<td>C6RA</td>
<td>SM5×8.65XA1</td>
<td>SPR6</td>
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<tr>
<td>DVJNR/L 16-3D</td>
<td>1.00 1.00 6.00 1.00 1.25 1.614</td>
<td>VN □□ 33 □□ CM5×22C</td>
<td>V16BM</td>
<td>WH30L</td>
<td>C6RA</td>
<td>SM5×8.65XA1</td>
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### Applicable toolholders to WN  
![Diagram](image)

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<th>Shim</th>
<th>Wrench</th>
<th>Clamp</th>
<th>Shim screw</th>
<th>Spring</th>
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<tbody>
<tr>
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<td>0.625 0.625 4.00 0.625 0.75 0.945</td>
<td>WN □□ 33 □□ CM5×22C</td>
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<td>WH30L</td>
<td>C1RA</td>
<td>SM5×8.65XA1</td>
<td>SPR6</td>
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<tr>
<td>DWLNR/L 12-3C</td>
<td>0.75 0.75 5.00 0.75 1.00 0.945</td>
<td>WN □□ 33 □□ CM5×22C</td>
<td>W06BM</td>
<td>WH30L</td>
<td>C1RA</td>
<td>SM5×8.65XA1</td>
<td>SPR6</td>
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<td>DWLNR/L 16-3D</td>
<td>1.00 1.00 6.00 1.00 1.25 0.945</td>
<td>WN □□ 43 □□ CM6×25C</td>
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<td>WH40L</td>
<td>C2RA</td>
<td>SM6×10XA1</td>
<td>SPR4</td>
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<tr>
<td>DWLNR/L 16-4D</td>
<td>1.00 1.00 6.00 1.00 1.25 1.22</td>
<td>WN □□ 43 □□ CM6×25C</td>
<td>W08BM</td>
<td>WH40L</td>
<td>C2RA</td>
<td>SM6×10XA1</td>
<td>SPR4</td>
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<tr>
<td>DWLNR/L 85-4E</td>
<td>1.25 1.00 7.00 1.25 1.25 1.22</td>
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<td>WH40L</td>
<td>C2RA</td>
<td>SM6×10XA1</td>
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### Applicable toolholders to **CN** □□ M-Mulit clamp

**MCLNR/L**

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<th>Dimension (inch)</th>
<th>Applicable inserts</th>
<th>Clamping screw</th>
<th>Shim</th>
<th>Wrench</th>
<th>Clamp</th>
<th>Clamping stud</th>
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<tbody>
<tr>
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<td>a</td>
<td>b</td>
<td>L</td>
<td>h</td>
<td>s</td>
<td>e</td>
<td></td>
</tr>
<tr>
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<td>0.75</td>
<td>5.00</td>
<td>0.75</td>
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<td>MCLNR/L 16-4D</td>
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<td>1.00</td>
<td>6.00</td>
<td>1.00</td>
<td>1.25</td>
<td>1.25</td>
<td>CN□□43□□</td>
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<td>MCLNR/L 85-4E</td>
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<td>1.00</td>
<td>7.00</td>
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### Applicable toolholders to **DN** □□ M-Mulit clamp

**MDJNR/L**

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<th>Type</th>
<th>Dimension (inch)</th>
<th>Applicable inserts</th>
<th>Clamping screw</th>
<th>Shim</th>
<th>Wrench</th>
<th>Clamp</th>
<th>Clamping stud</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>a</td>
<td>b</td>
<td>L</td>
<td>h</td>
<td>s</td>
<td>e</td>
<td></td>
</tr>
<tr>
<td>MDJNR/L 12-3C</td>
<td>0.75</td>
<td>0.75</td>
<td>5.00</td>
<td>0.75</td>
<td>1.00</td>
<td>1.25</td>
<td>DM6×25</td>
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<td>1.00</td>
<td>6.00</td>
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<td>1.25</td>
<td>1.25</td>
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<td>DM6×30</td>
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<td>DM6×25</td>
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<td>7.00</td>
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<td>1.50</td>
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<td>0.75</td>
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100
### External turning toolholders

#### Applicable toolholders to **TN**

**MTJNR/L 93°**

<table>
<thead>
<tr>
<th>Type</th>
<th>Dimension (inch)</th>
<th>Applicable inserts</th>
<th>Clamping screw</th>
<th>Shim</th>
<th>Wrench</th>
<th>Clamp</th>
<th>Clamping stud</th>
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</thead>
<tbody>
<tr>
<td>MTJNR/L 12-3C</td>
<td>a 0.75, b 0.75, L 5.00, h 0.75, s 1.00, e 1.25</td>
<td>TN 33 □□ □□ □□ □□ □□</td>
<td>DM6×25</td>
<td>T16BM</td>
<td>WH20L</td>
<td>C1RD</td>
<td>TM5×13</td>
</tr>
<tr>
<td>MTJNR/L 16-3D</td>
<td>a 1.00, b 1.00, L 6.00, h 1.00, s 1.25, e 1.25</td>
<td>TN 33 □□ □□ □□ □□ □□</td>
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<td>WH30L</td>
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<tr>
<td>MTJNR/L 85-3E</td>
<td>a 1.25, b 1.00, L 7.00, h 1.25, s 1.25, e 1.25</td>
<td>TN 33 □□ □□ □□ □□ □□</td>
<td>DM6×30</td>
<td>C1RD</td>
<td>TM5×13</td>
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<tr>
<td>MTJNR/L 16-4D</td>
<td>a 1.00, b 1.00, L 6.00, h 1.00, s 1.25, e 1.42</td>
<td>TN 43 □□ □□ □□ □□ □□</td>
<td>DM6×30</td>
<td>WH30L</td>
<td>WH30L</td>
<td>C2RD</td>
<td>TM6×17</td>
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<td>MTJNR/L 85-4E</td>
<td>a 1.25, b 1.00, L 7.00, h 1.25, s 1.25, e 1.42</td>
<td>TN 43 □□ □□ □□ □□ □□</td>
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<td>WH30L</td>
<td>WH30L</td>
<td>C2RD</td>
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#### Applicable toolholders to **TN - Z**

**MTJNR/L - Z 93°**

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<th>Dimension (inch)</th>
<th>Applicable inserts</th>
<th>Clamping screw</th>
<th>Shim</th>
<th>Wrench</th>
<th>Clamp</th>
<th>Clamping stud</th>
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<tbody>
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<td>MTJNR/L 12-3C-Z</td>
<td>a 0.75, b 0.75, L 5.00, h 0.75, s 1.00, e 1.25</td>
<td>TN 33 □□ □□ □□ □□ □□</td>
<td>DM6×25</td>
<td>T16BM</td>
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<td>C1RD</td>
<td>TM5×13</td>
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<td>a 1.00, b 1.00, L 6.00, h 1.00, s 1.25, e 1.25</td>
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<td>WH30L</td>
<td>WH30L</td>
<td>C2RD</td>
<td>TM6×17</td>
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<td>TN 33 □□ □□ □□ □□ □□</td>
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<td>a 1.00, b 1.00, L 6.00, h 1.00, s 1.25, e 1.42</td>
<td>TN 43 □□ □□ □□ □□ □□</td>
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### Applicable toolholders to VN □□

**MVJNR/L**

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<th>Wrench</th>
<th>Clamp</th>
<th>Clamping stud</th>
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<td>0.75 0.75 5.00 0.75 1.00 1.77</td>
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<td>DM6×25</td>
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<td>VN □□ 33 □□</td>
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<td>V16BM</td>
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### Applicable toolholders to WN □□

**MWLNR/L**

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<th>Shim</th>
<th>Wrench</th>
<th>Clamp</th>
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<td>DM6×25</td>
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<td>W08BM</td>
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### Applicable toolholders to **CC** □□ **S-Screw clamp**

**SCLCR/L**

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<th>Screw</th>
<th>Shim</th>
<th>Shim screw</th>
<th>Wrench</th>
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<td>SCLCR/L 05-2J</td>
<td>a 0.3125, b 0.3125, L 2.36, h 0.3125, s 0.39, e 0.39</td>
<td>SCLCR/L 05-2J</td>
<td>CC 2(1.5) □□</td>
<td>160M2.5×6.5</td>
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<tr>
<td>SCLCR/L 09-2J</td>
<td>a 0.375, b 0.375, L 2.75, h 0.375, s 0.47, e 0.39</td>
<td>SCLCR/L 09-2J</td>
<td>CC □□</td>
<td>160M2.5×6.5</td>
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</tr>
<tr>
<td>SCLCR/L 08-3J</td>
<td>a 0.50, b 0.50, L 3.50, h 0.50, s 0.63, e 0.63</td>
<td>SCLCR/L 08-3J</td>
<td>CC □□</td>
<td>160M3.5×8</td>
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</tr>
<tr>
<td>SCLCR/L 10-3A</td>
<td>a 0.625, b 0.625, L 4.00, h 0.625, s 0.79, e 0.63</td>
<td>SCLCR/L 10-3A</td>
<td>CC □□</td>
<td>160M3.5×8</td>
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<tr>
<td>SCLCR/L 16-4C</td>
<td>a 0.75, b 0.75, L 5.00, h 0.75, s 1.00, e 1.00</td>
<td>SCLCR/L 16-4C</td>
<td>CC □□</td>
<td>160M4×11X</td>
<td>C12BS</td>
<td>SM6×10XA</td>
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<tr>
<td>SCLCR/L 16-4D</td>
<td>a 1.00, b 1.00, L 7.00, h 1.00, s 1.00, e 1.02</td>
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### Applicable toolholders to **DC** □□ **S-Screw clamp**

**SDJCR/L**

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<th>Screw</th>
<th>Shim</th>
<th>Shim screw</th>
<th>Wrench</th>
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<tbody>
<tr>
<td>SDJCR/L 06-2J</td>
<td>a 0.375, b 0.375, L 2.75, h 0.375, s 0.47, e 0.60</td>
<td>SDJCR/L 06-2J</td>
<td>DC 2(1.5) □□</td>
<td>160M2.5×6.5</td>
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</tr>
<tr>
<td>SDJCR/L 08-2J</td>
<td>a 0.50, b 0.50, L 3.50, h 0.50, s 0.63, e 0.60</td>
<td>SDJCR/L 08-2J</td>
<td>DC □□</td>
<td>160M2.5×6.5</td>
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</tr>
<tr>
<td>SDJCR/L 10-2A</td>
<td>a 0.625, b 0.625, L 4.00, h 0.625, s 0.79, e 0.71</td>
<td>SDJCR/L 10-2A</td>
<td>DC □□</td>
<td>160M2.5×6.5</td>
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</tr>
<tr>
<td>SDJCR/L 10-3A</td>
<td>a 0.625, b 0.625, L 4.00, h 0.625, s 0.79, e 0.95</td>
<td>SDJCR/L 10-3A</td>
<td>DC □□</td>
<td>160M2.5×6.5</td>
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<tr>
<td>SDJCR/L 12-3C</td>
<td>a 0.75, b 0.75, L 5.00, h 0.75, s 1.00, e 0.95</td>
<td>SDJCR/L 12-3C</td>
<td>DC □□</td>
<td>160M2.5×6.5</td>
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<tr>
<td>SDJCR/L 12-3D</td>
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<td>DC □□</td>
<td>160M3.5×12</td>
<td>D11BS</td>
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### Applicable toolholders to VB\[\square \square\] S-Screw clamp

#### SVJBR/L

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<th>Type</th>
<th>Dimension (inch)</th>
<th>Applicable inserts</th>
<th>Screw</th>
<th>Shim</th>
<th>Shim screw</th>
<th>Wrench</th>
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<tbody>
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<td>b=0.50</td>
<td>L=3.50</td>
<td>h=0.50</td>
<td>s=0.63</td>
<td>e=1.06</td>
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<tr>
<td>SVJBR/L 10-2A</td>
<td>a=0.625</td>
<td>b=0.625</td>
<td>L=4.00</td>
<td>h=0.625</td>
<td>s=0.79</td>
<td>e=1.06</td>
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<td>e=1.06</td>
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<td>b=1.00</td>
<td>L=6.00</td>
<td>h=1.00</td>
<td>s=1.25</td>
<td>e=1.06</td>
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#### Applicable toolholders to VB\[\square \square\] S-Screw clamp

#### SVVBN

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<th>Dimension (inch)</th>
<th>Applicable inserts</th>
<th>Screw</th>
<th>Shim</th>
<th>Shim screw</th>
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104
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<th>Shim screw</th>
<th>Wrench</th>
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### External turning toolholders

#### STGCR/L

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<th>Type</th>
<th>Dimension (inch)</th>
<th>Applicable inserts</th>
<th>Screw</th>
<th>Shim</th>
<th>Shim screw</th>
<th>Wrench</th>
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<td>2.36</td>
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<th>Shim</th>
<th>Shim screw</th>
<th>Wrench</th>
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<td>0.3125</td>
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<td>0.375</td>
<td>2.36</td>
<td>0.375</td>
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<td>0.43</td>
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<td>6.00</td>
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</table>

R-type shown

Applicable toolholders to **TC**

S-Screw clamp

---

**STGCR/L 05-1.8J**

- a: 0.3125
- b: 0.3125
- L: 2.36
- h: 0.3125
- s: 0.39
- e: 0.43

- Screw: TC□□1.8(1.5)□□
- Shim: 160M2.2×5.5
- Wrench: WT06P

**STGCR/L 06-1.8J**

- a: 0.375
- b: 0.375
- L: 2.36
- h: 0.375
- s: 0.47
- e: 0.43

- Screw: TC□□1.8(1.5)□□
- Shim: 160M2.2×5.5
- Wrench: WT06P

**STGCR/L 08-2J**

- a: 0.50
- b: 0.50
- L: 3.50
- h: 0.50
- s: 0.63
- e: 0.55

- Screw: TC□□2(1.5)□□
- Shim: 160M2.5×6.5
- Wrench: WT07P

**STGCR/L 10-2A**

- a: 0.625
- b: 0.625
- L: 4.00
- h: 0.625
- s: 0.79
- e: 0.63

- Screw: TC□□2(1.5)□□
- Shim: 160M2.5×6.5
- Wrench: WT07P

**STGCR/L 12-3C**

- a: 0.75
- b: 0.75
- L: 5.00
- h: 0.75
- s: 1.00
- e: 0.83

- Screw: TC□□3(2.5)□□
- Shim: 160M3.5×12
- Wrench: WT15P

**STGCR/L 16-3D**

- a: 1.00
- b: 1.00
- L: 6.00
- h: 1.00
- s: 1.25
- e: 0.83

- Screw: TC□□3(2.5)□□
- Shim: 160M3.5×12
- Wrench: WT15P

---

**S-Screw clamp**

**R-type shown**
Internal turning tools
### Boring Bars code key

<table>
<thead>
<tr>
<th>Insert mounting method</th>
<th>Boring bars style</th>
<th>Insert clearance angle</th>
<th>Cutting direction</th>
<th>Insert I.C size</th>
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<tbody>
<tr>
<td>P-Lever Clamp</td>
<td>K</td>
<td>B</td>
<td>L-Left hand</td>
<td>Number of 1/8”of inserted circle</td>
</tr>
<tr>
<td>M-multi Clamp</td>
<td>F</td>
<td>C</td>
<td></td>
<td>2 = 0.250”</td>
</tr>
<tr>
<td>S-Screw Clamp</td>
<td>U</td>
<td>D</td>
<td></td>
<td>3 = 0.375”</td>
</tr>
<tr>
<td>C-Top Clamp</td>
<td>L</td>
<td>E</td>
<td></td>
<td>4 = 0.500”</td>
</tr>
<tr>
<td></td>
<td>Q</td>
<td>N</td>
<td></td>
<td>5 = 0.625”</td>
</tr>
</tbody>
</table>

- **Boring bars type**
  - Steel with cooling hole: A
  - Carbide: C
  - Carbide with cooling hole: E
  - Steel: S

- **Boring bars diameter**
  - Round shanks: shown in 1/16” increments
  - 04 = 0.250”
  - 05 = 0.3125”
  - 06 = 0.375”
  - 08 = 0.500”
  - 10 = 0.625”
  - 12 = 0.750”
  - 16 = 1.000”
  - 20 = 1.250”
  - 24 = 1.500”
  - 32 = 2.000”
  - 40 = 2.500”

- **Boring bars length**
  - H = 4”
  - J = 4.5”
  - K = 5”
  - M = 6”
  - Q = 7”
  - R = 8”
  - S = 10”
  - T = 12”
  - U = 14”
  - V = 16”
  - Y = 20”

- **Insert shape**
  - C
  - D
  - K
  - R
  - S
  - T
  - V
  - W

- **Boring Bars code key**

```
S 16 T - S C L C R - 3
```
### Applicable Boring bars to CN□□

**PCLNR/L**

<table>
<thead>
<tr>
<th>Type</th>
<th>Dimension (inch)</th>
<th>Applicable inserts</th>
<th>Screw</th>
<th>Wrench</th>
<th>Lever</th>
<th>Shim</th>
<th>Shim pin</th>
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<tbody>
<tr>
<td>S16Q-PCLNR/L-3</td>
<td>1.26 1.00 0.906 7 0.669 -10° 1.378</td>
<td>CN□□□□32□□</td>
<td>LEM5x9B</td>
<td>WH20L</td>
<td>L3C</td>
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<tr>
<td>S16T-PCLNR/L-3</td>
<td>1.26 1.00 0.906 12 0.669 -10° 1.378</td>
<td>CN□□□□32□□</td>
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<td>WH25L</td>
<td>L4A</td>
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<tr>
<td>S16T-PCLNR/L-4</td>
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<td>WH25L</td>
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<tr>
<td>A16R-PCLNR/L-4</td>
<td>1.26 1.00 0.945 8 0.669 -12° 1.575</td>
<td>CN□□□□43□□</td>
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<td>WH25L</td>
<td>L4A</td>
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### Applicable Boring bars to DN□□

**PDUNR/L**

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<th>Type</th>
<th>Dimension (inch)</th>
<th>Applicable inserts</th>
<th>Screw</th>
<th>Wrench</th>
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## Applicable toolholders to **SN**

**PSKNR/L**

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<th>Dimension (inch)</th>
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<th>Wrench</th>
<th>Lever</th>
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<th>Shim pin</th>
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<td>h</td>
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<td>s</td>
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## Applicable Boring bars to **TN**

**PTFNR/L**

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<th>Wrench</th>
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### Applicable toolholders to WN□□

**PWLNRL/L**

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<td>s</td>
<td>θ</td>
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### Applicable Boring bars to CC□□

#### SCLCR/L

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<td>θ</td>
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<tr>
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<td>0.500</td>
<td>0.433</td>
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</tr>
<tr>
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<td>0.500</td>
<td>0.433</td>
<td>6</td>
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<td>-10°</td>
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<td>0.750</td>
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<td>0.906</td>
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<td>-6°</td>
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<tr>
<td>S16Q-SCLCR/L-3</td>
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<td>1.000</td>
<td>0.906</td>
<td>12</td>
<td>0.669</td>
<td>-6°</td>
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<tr>
<td>S16Q-SCLCR/L-4</td>
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<td>S16T-SCLCR/L-4</td>
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<td>0.906</td>
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<td>-13°</td>
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<td>0.453</td>
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<td>0.354</td>
<td>-10°</td>
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<td>6</td>
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<tr>
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<td>0.750</td>
<td>0.748</td>
<td>7</td>
<td>0.512</td>
<td>-8°</td>
</tr>
<tr>
<td>A16R-SCLCR/L-3</td>
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<td>1.000</td>
<td>0.945</td>
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*Note: Screw, Wrench, Shim, Shim screw correspond to the respective values in the table.*
### Applicable Boring bars to DC□□

**SDUCR/L**

<table>
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<tr>
<th>Type</th>
<th>Dimension (inch)</th>
<th>Applicable inserts</th>
<th>Screw</th>
<th>Wrench</th>
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<tr>
<td></td>
<td>D</td>
<td>d</td>
<td>h</td>
<td>L</td>
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<td>0.591</td>
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<tr>
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### Applicable Boring bars to TC

#### STFCR/L

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<th>Wrench</th>
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<th>Shim screw</th>
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<td>d</td>
<td>h</td>
<td>L</td>
<td>s</td>
<td>θ</td>
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<td>0.500</td>
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<td>0.591</td>
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<td>-10°</td>
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### Recommended cutting parameters for general turning

#### ISO Materials

<table>
<thead>
<tr>
<th>Materials</th>
<th>Hardness HB</th>
<th>CVD Coating</th>
<th>PVD Coating</th>
<th>Cermet</th>
<th>Coated cermet</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISO</td>
<td></td>
<td>YBC151</td>
<td>YBC251</td>
<td>YBC152</td>
<td>YBC252</td>
</tr>
<tr>
<td>Carbon</td>
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<td>1400-650</td>
<td>1400-600</td>
<td>1650-900</td>
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<tr>
<td></td>
<td>C=0.35%</td>
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<td>1300-600</td>
<td>1500-800</td>
</tr>
<tr>
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<td>C=0.60%</td>
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<td>1200-500</td>
<td>1300-700</td>
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<td>1100-550</td>
<td>1200-500</td>
<td>1300-600</td>
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<td>750-300</td>
<td>700-300</td>
<td>900-500</td>
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<td>600-230</td>
<td>850-500</td>
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<td>550-230</td>
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<td>High alloy</td>
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#### Feeding speed (inch/rev)

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<th>Coated cermet</th>
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</thead>
<tbody>
<tr>
<td>YBC151</td>
<td>YBC251</td>
<td>YBC152</td>
<td>YBC252</td>
</tr>
<tr>
<td>0.004-0.024</td>
<td>0.004-0.024</td>
<td>0.004-0.024</td>
<td>0.004-0.024</td>
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<td>0.024</td>
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#### Cutting speed (SFPM)

<table>
<thead>
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<th>CVD Coating</th>
<th>PVD Coating</th>
<th>Cermet</th>
<th>Coated cermet</th>
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<tbody>
<tr>
<td>YBC151</td>
<td>YBC251</td>
<td>YBC152</td>
<td>YBC252</td>
</tr>
<tr>
<td>125</td>
<td>1400-650</td>
<td>1400-600</td>
<td>1650-900</td>
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<td>150</td>
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<td>200</td>
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<td>1200-500</td>
<td>1300-700</td>
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<table>
<thead>
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<th>Materials</th>
<th>Hardness HB</th>
<th>CVD Coating</th>
<th>PVD Coating</th>
<th>Cermet</th>
<th>Coated cermet</th>
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<td>650-360</td>
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<td>900-550</td>
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<td>Martensite</td>
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<td>700-400</td>
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### Recommended cutting parameters for general turning

<table>
<thead>
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<th>ISO</th>
<th>Materials</th>
<th>Hardness HB</th>
<th>CVD Coating</th>
<th>Cermet</th>
<th>Coated cermet</th>
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## Frequent problems of turning and solutions

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<thead>
<tr>
<th>Common problem</th>
<th>Cause</th>
<th>Solutions</th>
<th>Tool material</th>
<th>Cutting conditions</th>
<th>Tool shape</th>
<th>Machine clamping system</th>
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</thead>
<tbody>
<tr>
<td>Over abrasion on nose</td>
<td>Abrasion intensified on flank</td>
<td>Harder materials</td>
<td>Cutting speed</td>
<td>Feed rate</td>
<td>Cutting depth</td>
<td>Change chipbreaker of inserts</td>
</tr>
<tr>
<td>Bad precision during machining</td>
<td>Abrasion intensified on flank</td>
<td>Harder materials</td>
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