# MULTI-TASK MACHINING

## Tooling possibilities

### Products

**Toolholder overview**

**Coromant Capto® multi-functional tools**
- CoroPlex™ MT - milling and turning tool
- CoroPlex™ TT - turning tool
- CoroPlex™ SL mini-turret

**CoroTurn® HP - Coromant Capto® tools for High Pressure coolant**
- T-Max® P - holders for negative basic-shape inserts
- CoroTurn® 107 - holders for positive basic-shape inserts

**Coromant Capto® tools for general turning**
- CoroTurn® RC - holders for negative basic-shape inserts
- CoroTurn® 107 - holders for positive basic-shape inserts

**CoroTurn® TR - Coromant Capto® tools for copy machining**
- CoroTurn® TR - holders for positive basic-shape inserts

### Adapters
- CoroTurn® SL adapter for cutting heads
- CoroTurn® SL70 adapter for cutting heads
- Adapter for shank tool - radial mounting
- Adapter for shank tool - axial mounting
- Mini-turret for shank tool - axial mounting
- Adapter for shank tool - angular mounting
- Boring bar adapter
Multi-Task Machining - tooling possibilities

Coromant Capto® – the connecting link to Multi-Task machining

A tool system for multi-task machines has to transmit satisfactory torque levels, be capable of high spindle speeds, have high bending strength and have high precision couplings for repeatability and accuracy with pre-measurement or when setting outside the machine.

Coromant Capto® has a proven record of fulfilling all the requirements and operational demands in multi-task machines involving stationary and rotating tools. With its broad program of turning, milling and drilling tools, which use the same self-centering tool coupling for a very broad application area, the system has been successfully installed on all types of multi-task machines.

CoroPlex™ – Innovative multi-functional tools

To take full advantage of the more versatile multi-task machine tools and to optimize their efficiency, there is now a demand for running them with dedicated tooling. CoroPlex™ tools are designed for multi-task machining, providing:
- accessibility, stability and higher productivity
- reduced tool changing time
- saved tool pocket in tool magazine
- cost reduction - one tool replaces several.

CoroPlex™ MT – one milling and four turning tools in one

CoroPlex™ MT is a combination of two winning concepts in one – CoroMill® 390 and CoroTurn® 107. It is either applied rotating as an effective tool for milling applications – or indexed in a number of optional positions for stationary turning, external and internal, using two different CoroTurn® 107 inserts. See page A9.

For ordering CoroMill 390 inserts, see chapter D, Milling.

CoroPlex™ TT twin tools – two turning tools in one

The CoroPlex™ TT twin tool is a solution with two turning inserts in one holder, giving the possibility to change operations with just a quick indexing of the tool.

CoroPlex™ SL mini-turret – four turning tools in one

Build your own multi-functional tool by using a Coromant Capto® tool adapter and applying a CoroPlex™ SL mini-turret adapter plate to be combined with four SL cutting heads and blades for turning, threading or grooving operations. See page G6.
Multi-Task Machining - tooling possibilities

Turning tools
For general turning, the T-Max P system with negative inserts and CoroTurn® 107 with positive inserts form the basis for high productivity turning. In parting and grooving, the first choice is the CoroCut® system, while in threading the first choice is the CoroThread® 266 or T-Max U-Lock® system. See pages A3, B14, C9.

Milling tools
In the CoroMill® family there is always a milling cutter to fit your needs perfectly. The CoroMill® family is a multi-purpose milling system for use in applications such as face, shoulder, slot and profile milling. See chapter D, Milling.

Holemaking tools
The drilling and boring program, CoroDrill® and CoroBore®, offers a wide range of high performance holemaking products. Regardless of the hole style – we can offer you the right tool for the best productivity in a wide diameter range. See chapter E, Drilling and F, Boring.

Tool holders and tool adapters
Modern machines and tools put greater demands on toolholders. Low runout is required to achieve long tool life. Hydro-Grip® meets all the demands on a toolholder. Different types of tool adapters are available to help in building a correct tool length. See chapter G, Tooling systems in this catalog and Tooling systems in the main catalog for milling and drilling tools.

Accessories
Sandvik Coromant offers a range of accessory tools for the various coupling sizes, which are strongly recommended for setting important parameters such as spindle orientation, clamping forces, etc. See chapter G, Tooling systems in this catalog and Tooling systems in the main catalog for milling and drilling tools.
MULTI-TASK MACHINING

Multi-functional tools CoroPlex™ MT

CoroPlex™ MT
Multi-functional milling and turning tool

Many optimized tools in one solution dedicated for multi-task machining.

... as a CoroMill® 390 cutter

Shoulder milling

Circular interpolation in helix

... as a CoroTurn® 107 tool

Face and longitudinal turning

Profiling

Internal turning

ISO application areas:

PMKNSH
Multi-functional tools CoroPlex™ MT
for milling and turning in Multi-_task machines

Coolant inlet: Axial through the center

Insert size | Coupling size | Ordering code | Dimensions, mm, inch | Gauge insert | ISO ANSI | nmax

<table>
<thead>
<tr>
<th>Dc (mm)</th>
<th>Dm (mm)</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
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<tbody>
<tr>
<td>11 – –</td>
<td>C5 32</td>
<td>M-32C5-39011C09D07</td>
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<td>1000</td>
</tr>
<tr>
<td>– 09 3/8</td>
<td>35 50 123.3</td>
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<td>15.4</td>
<td>–</td>
<td>0°</td>
<td>R390-11</td>
</tr>
<tr>
<td>– 07 1/4</td>
<td>35 50</td>
<td>123.9</td>
<td>77.4</td>
<td>15.4</td>
<td>–</td>
<td>0°</td>
</tr>
<tr>
<td>11 – –</td>
<td>C6 32</td>
<td>M-32C6-39011C09D07</td>
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<td>1000</td>
</tr>
<tr>
<td>– 09 3/8</td>
<td>35 50 123.3</td>
<td>77.8</td>
<td>15.4</td>
<td>–</td>
<td>0°</td>
<td>R390-11</td>
</tr>
<tr>
<td>– 07 1/4</td>
<td>35 50</td>
<td>123.9</td>
<td>77.4</td>
<td>15.4</td>
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<td>0°</td>
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<tr>
<td>18 – –</td>
<td>C8 40</td>
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<td>30</td>
<td>100</td>
<td>1000</td>
</tr>
<tr>
<td>– 12 1/2</td>
<td>43 80 199.4</td>
<td>89.5</td>
<td>19.0</td>
<td>–</td>
<td>0°</td>
<td>R390-18</td>
</tr>
<tr>
<td>– 11 3/8</td>
<td>43 80</td>
<td>199.9</td>
<td>89.0</td>
<td>19.2</td>
<td>–</td>
<td>0°</td>
</tr>
</tbody>
</table>

1) γ = Rake angle (valid with flat insert).
2) λ = Angle of inclination.
3) nmax (max. rev/min) for holders must also be considered.

Limitation on workpiece diameter

When turning axially and using the CCMT insert, it may happen that the R390 inserts, because of their position in the tool, limit the workpiece diameter. See illustration below.

For ordering CoroMill 390 inserts, see chapter D, Milling.
Multi-functional tools CoroPlex™ MT

One tool for both rotating and stationary use
The CoroMill® 390 inserts are positioned a little ahead of the CoroTurn® inserts – axially as well as radially – to guarantee that turning inserts are not in cut when the tool is applied for rotating. This means that turning of an available blind hole – using the CoroTurn® function of the tool – must be stopped before the CoroMill® 390 inserts get in contact with the bottom face.

Tool length optimized for accessibility in multi-tasking
The tool bodies are extended by 65 mm (2.560 inch) compared with conventional tools to allow freer use of the working positions possible in multi-task machining with no need for extensions. The length and design of the tool bodies are optimized by each Coromant Capto® size to provide best accessibility relative to the most common chuck sizes. Tools are designed with all inserts positioned on the center line of the tool, making them easy to use with the standard program cycles in the machine tools.

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### Spare parts

<table>
<thead>
<tr>
<th>Type/size ISO-code</th>
<th>ANSI-code</th>
<th>Insert screw</th>
<th>Key (Torx Plus)</th>
<th>Torque value</th>
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<td>CCMT 09 ... CCMT 3 (2.5)</td>
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<td>5680 046-02 (15IP)</td>
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</tr>
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<td>CCMT 12 ... CCMT 43 ...</td>
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<td>5680 046-06 (20IP)</td>
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<td>0.7</td>
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<td>5513 020-09</td>
<td>5680 046-02 (15IP)</td>
<td>3.0</td>
<td>2.2</td>
</tr>
<tr>
<td>R390-11 ... R390-11 ...</td>
<td>5513 020-35</td>
<td>5680 046-01 (8IP)</td>
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<td>0.9</td>
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<td>5680 046-02 (15IP)</td>
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### Coromant Capto® cutting units for Multi-Task machining

<table>
<thead>
<tr>
<th>CoroPlex™ TT Twin tool, rigid clamp design</th>
<th>Entering angle (Lead angle)</th>
<th>95° (-5°)</th>
<th>95° (-3°)</th>
<th>95° (-5°)</th>
<th>T-DCMxxDDMxx</th>
<th>T-DCMxxDDMxx</th>
<th>T-DCL_xxDCLxx</th>
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</thead>
<tbody>
<tr>
<td>Insert size, mm (i/C, inch)</td>
<td>T-DCMxxDDMxx</td>
<td>T-DCMxxDDMxx</td>
<td>T-DCMxxDDMxx</td>
<td>T-DCMxxDDMxx</td>
<td>T-DCMxxDDMxx</td>
<td>T-DCMxxDDMxx</td>
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<td>H11</td>
<td>H12</td>
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<table>
<thead>
<tr>
<th>CoroTurn® RC rigid clamp design</th>
<th>Entering angle (Lead angle)</th>
<th>95° (-5°)</th>
<th>95° (-3°)</th>
<th>95° (-5°)</th>
<th>DCMNN</th>
<th>DDMNL</th>
<th>DVMNL</th>
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<td></td>
<td></td>
<td>T-DCMxxDDMxx</td>
<td>T-DCMxxDDMxx</td>
<td>T-DCMxxDDMxx</td>
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<td>Coromant Capto® size</td>
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<td>H12</td>
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<table>
<thead>
<tr>
<th>CoroTurn® HP lever design (T-Max P)</th>
<th>Entering angle (Lead angle)</th>
<th>95° (-5°)</th>
<th>95° (-3°)</th>
<th>95° (-5°)</th>
<th>PCLNR/L</th>
<th>PCMNN</th>
<th>PDJNR/L</th>
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<td>T-DCMxxDDMxx</td>
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<td>H16</td>
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<thead>
<tr>
<th>CoroTurn® HP lever design (T-Max P)</th>
<th>Entering angle (Lead angle)</th>
<th>45° (45°)</th>
<th>93° (-3°)</th>
<th>93° (-3°)</th>
<th>PSSNR/L</th>
<th>PCMN</th>
<th>PDJNR/L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insert size, mm (i/C, inch)</td>
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<td></td>
<td></td>
<td></td>
<td>T-DCMxxDDMxx</td>
<td>T-DCMxxDDMxx</td>
<td>T-DCMxxDDMxx</td>
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<tr>
<td>Coromant Capto® size</td>
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<td></td>
<td></td>
<td>H22</td>
<td>H22</td>
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<th>CoroTurn® HP lever design (T-Max P)</th>
<th>Entering angle (Lead angle)</th>
<th>45° (45°)</th>
<th>93° (-3°)</th>
<th>93° (-3°)</th>
<th>PSSNR/L</th>
<th>PCMN</th>
<th>PDJNR/L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insert size, mm (i/C, inch)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>T-DCMxxDDMxx</td>
<td>T-DCMxxDDMxx</td>
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<td>Coromant Capto® size</td>
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<td></td>
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<td>H22</td>
<td>H22</td>
<td>H23</td>
</tr>
</tbody>
</table>

**Multi-Task machining**

**CoroPlex™ TT Twin tool, rigid clamp design**
- **Entering angle (Lead angle):** 95° (-5°), 93° (-3°), 95° (-5°)
- **Insert size, mm (i/C, inch):** T-DCMxxDDMxx, T-DCMxxDDMxx, T-DCL_xxDCLxx
- **Coromant Capto® size:** C5-C8, C5-C8, C5-C8
- **Page:** H11, H11, H12

**CoroTurn® RC rigid clamp design**
- **Entering angle (Lead angle):** 95° (-5°), 93° (-3°), 95° (-5°)
- **Insert size, mm (i/C, inch):** DCMNN, DDMNL, DVMNL
- **Coromant Capto® size:** C5-C8, C5-C8, C8
- **Page:** H15, H16, H16

**CoroTurn® HP lever design (T-Max P)**
- **Entering angle (Lead angle):** 95° (-5°), 95° (-3°), 95° (-5°)
- **Insert size, mm (i/C, inch):** PCLNR/L, PCMNN, PDJNR/L
- **Coromant Capto® size:** C6, C6-C8, C6
- **Page:** H22, H22, H23
### Coromant Capto® cutting units for Multi-Task machining

<table>
<thead>
<tr>
<th>CoroTurn® 107 screw clamp design</th>
<th>Entering angle (Lead angle)</th>
<th>95° (-5°)</th>
<th>-</th>
<th>95° (-5°)</th>
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<tbody>
<tr>
<td>Insert size, mm (iC, inch)</td>
<td>Coromant Capto® size</td>
<td>SCMCN</td>
<td>SRDCN</td>
<td>SVMBL</td>
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<tr>
<td>12 (1/2)</td>
<td>C6</td>
<td>10-16 (.394-.630)</td>
<td>C6</td>
<td>16 (3/8)</td>
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<tr>
<td>H17</td>
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<td>H17</td>
<td>H18</td>
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<table>
<thead>
<tr>
<th>CoroTurn® HP screw design (CoroTurn® 107)</th>
<th>Entering angle (Lead angle)</th>
<th>50° (40°)</th>
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</thead>
<tbody>
<tr>
<td>Insert size, mm (iC, inch)</td>
<td>Coromant Capto® size</td>
<td>SVMBR/L</td>
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<td>16 (3/8)</td>
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<td>H25</td>
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<table>
<thead>
<tr>
<th>CoroTurn® TR screw clamp design</th>
<th>Entering angle (Lead angle)</th>
<th>93° (-3°)</th>
<th>95° (-5°)</th>
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<td>Insert size, mm (inch)</td>
<td>Coromant Capto® size</td>
<td>D13MCL</td>
<td>V13MBL</td>
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<tr>
<td>13</td>
<td>C5-C6</td>
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<td>C5-C6</td>
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<tr>
<td>H19</td>
<td></td>
<td>H20</td>
<td></td>
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</tbody>
</table>
CoroPlex™ TT twin tool combines two tool holders in one:
- Reduce tool changing time
- Save tool pockets in the tool magazine
- Flexible tool holders with optimized length, stability and coolant solution for multi-task machines
- CoroTurn® RC insert clamping system with wide flexibility
- One holder replaces two - cost reduction.

To apply the twin tool, move the Y-axis the distance $h_1$, so that the insert will cut on the center line of the workpiece.
When working against a sub-spindle, the Y-axis must be offset in the opposite direction in relation to the main spindle.

Flexibility with Multi-Task machining
## Code key for CoroPlex™ TT twin tools

<table>
<thead>
<tr>
<th>1 Coupling size mm, inch</th>
<th>2 Type of tool</th>
<th>3 and 7 Clamping system</th>
<th>4 and 8 Insert shape</th>
</tr>
</thead>
<tbody>
<tr>
<td>C = Coromant Capto®</td>
<td>T = Twin tool</td>
<td>D</td>
<td>C</td>
</tr>
<tr>
<td>D_m = Coupling size</td>
<td></td>
<td>Top and hole clamping (RC)</td>
<td></td>
</tr>
<tr>
<td>C3 D_m = 32 (1.260)</td>
<td></td>
<td>CoroTurn® RC</td>
<td></td>
</tr>
<tr>
<td>C4 D_m = 40 (1.575)</td>
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<tr>
<td>C5 D_m = 50 (1.969)</td>
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<tr>
<td>C6 D_m = 63 (2.480)</td>
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</tr>
<tr>
<td>C8 D_m = 80 (3.150)</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>5 and 9 Holder style</th>
<th>6 and 10 Insert size</th>
<th>11 Hand of tool</th>
<th>12 Tool length, λ</th>
</tr>
</thead>
<tbody>
<tr>
<td>L 95° (-5°)</td>
<td>M 50° (40°)</td>
<td>R Feed</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>L Feed</td>
<td></td>
</tr>
<tr>
<td></td>
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<td>N Feed</td>
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</tr>
</tbody>
</table>

**Coromant Capto®**
Multi-functional tools - CoroPlex™ TT twin tool
CoroTurn® RC rigid clamp design

Coolant inlet: Axial through the center

Left hand style shown

To apply the twin tool, move the Y-axis the distance $h_1$, so that the insert will cut on the center line of the workpiece.

For information about alternative use, see page H9

Main spare parts

<table>
<thead>
<tr>
<th>Insert size</th>
<th>Shim</th>
<th>Shim screw</th>
<th>Key (Torx Plus)</th>
<th>Complete clamp set</th>
<th>Key (Torx Plus)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>12</td>
<td>1/2</td>
<td>5513 020-02</td>
<td>5680 049-01 (15IP)</td>
<td>5680 049-01 (15IP)</td>
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<tr>
<td></td>
<td>16</td>
<td>5/8</td>
<td>5513 020-07</td>
<td>5680 043-14 (20IP)</td>
<td>5680 043-14 (20IP)</td>
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</tbody>
</table>

4) To modify CoroTurn® RC holders for other inserts, see clamp sets on page A359.
### Multi-functional tools - CoroPlex™ TT twin tool

**CoroTurn® RC rigid clamp design**

**Dimensions, mm, inch**

<table>
<thead>
<tr>
<th>Main application</th>
<th>Ordering code</th>
<th>D_t min</th>
<th>D_t</th>
<th>f_s</th>
<th>h_t</th>
<th>h</th>
<th>γ°</th>
<th>λ°</th>
<th>L</th>
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</thead>
<tbody>
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<td>12 1/2</td>
<td>C5-T-DCL12DCL12L30</td>
<td>50</td>
<td>110</td>
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<td>130</td>
<td>50</td>
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<td>110</td>
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<td>115</td>
<td>80</td>
<td>33.0</td>
<td>20</td>
<td>200</td>
<td>50</td>
<td>-6°</td>
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</table>

**Left hand style shown**

1) γ = Rake angle (valid with flat insert).
2) λ = Angle of inclination.
3) Insert tightening torque, Nm.

**Main spare parts**

<table>
<thead>
<tr>
<th>Insert size</th>
<th>Shim</th>
<th>Shim screw</th>
<th>Key (Torx Plus)</th>
<th>Complete clamp set</th>
<th>Key (Torx Plus)</th>
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<tbody>
<tr>
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<td>5322 234-01</td>
<td>5513 020-02</td>
<td>5680 048-01 (15IP)</td>
<td>9412 028-021&lt;sup&gt;4&lt;/sup&gt;</td>
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<tr>
<td>16 5/8</td>
<td>5322 234-03</td>
<td>5513 020-07</td>
<td>5680 043-14 (20IP)</td>
<td>9412 028-031&lt;sup&gt;4&lt;/sup&gt;</td>
<td>5680 043-14 (20IP)</td>
</tr>
</tbody>
</table>

4) To modify CoroTurn® RC holders for other inserts, see clamp sets on page A359.
Spare parts
CoroPlex™ TT with CoroTurn® RC rigid clamp design

<table>
<thead>
<tr>
<th>Twin tool</th>
<th>Shim screw</th>
<th>Shim</th>
<th>For insert thickness (mm)</th>
<th>Key (Torx Plus)</th>
<th>Complete clamp set without hole</th>
<th>Clamp sets for ceramic inserts without hole</th>
<th>Clamp sets for ceramic inserts with hole</th>
</tr>
</thead>
<tbody>
<tr>
<td>C5-T-DCL12DCL12L130</td>
<td>5513 020-02</td>
<td>S322 234-01</td>
<td>4.76 (.187)</td>
<td>5680 049-01 (15IP)</td>
<td>5412 028-021</td>
<td>5412 034-021</td>
<td>5412 032-021</td>
</tr>
<tr>
<td>C6-T-DCL12DCL12L165</td>
<td>5513 020-02</td>
<td>S322 234-02</td>
<td>7.94 (.313)</td>
<td>5680 049-01 (15IP)</td>
<td>5412 028-021</td>
<td>5412 034-021</td>
<td>5412 032-021</td>
</tr>
<tr>
<td>C8-T-DCL16DCL16L200</td>
<td>5513 020-07</td>
<td>S322 234-03</td>
<td>6.35 (.250)</td>
<td>5680 043-14 (20IP)</td>
<td>5412 028-031</td>
<td>5412 034-031</td>
<td>5412 032-031</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Twin tool</th>
<th>Shim screw</th>
<th>Shim</th>
<th>For insert thickness (mm)</th>
<th>Key (Torx Plus)</th>
<th>Complete clamp set without hole</th>
<th>Clamp sets for ceramic inserts without hole</th>
<th>Clamp sets for ceramic inserts with hole</th>
</tr>
</thead>
<tbody>
<tr>
<td>C5-T-DCM12DDM15L115</td>
<td>5513 020-02</td>
<td>S322 234-01</td>
<td>4.76 (.187)</td>
<td>5680 043-14 (20IP)</td>
<td>5412 028-031</td>
<td>5412 034-031</td>
<td>5412 032-031</td>
</tr>
<tr>
<td>C6-T-DCM12DDM15L105</td>
<td>5513 020-02</td>
<td>S322 234-02</td>
<td>7.94 (.313)</td>
<td>5680 043-14 (20IP)</td>
<td>5412 028-031</td>
<td>5412 034-031</td>
<td>5412 032-031</td>
</tr>
<tr>
<td>C6-T-DCM12DDM15L130</td>
<td>5513 020-07</td>
<td>S322 234-03</td>
<td>6.35 (.250)</td>
<td>5680 043-14 (20IP)</td>
<td>5412 028-031</td>
<td>5412 034-031</td>
<td>5412 032-031</td>
</tr>
<tr>
<td>C8-T-DCM16DDM15L150</td>
<td>5513 020-07</td>
<td>S322 234-04</td>
<td>6.35 (.250)</td>
<td>5680 043-14 (20IP)</td>
<td>5412 028-031</td>
<td>5412 034-031</td>
<td>5412 032-031</td>
</tr>
</tbody>
</table>

1) For clamp set parts, see page A359.
2) Optional part delivered to separate order.
CoroPlex™ SL mini-turret for cutting heads and blades with serrated coupling

Axial mounting of heads and blades

Coupling size

<table>
<thead>
<tr>
<th>$d_m$</th>
<th>Ordering code</th>
<th>$D_2$</th>
<th>$D_1$</th>
<th>$d_m$</th>
<th>$d_m$</th>
<th>$l$</th>
<th>$l$</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>570-4-25-40-000-AX</td>
<td>50</td>
<td>1.968</td>
<td>40</td>
<td>1.574</td>
<td>12</td>
<td>0.472</td>
<td>0.3</td>
</tr>
<tr>
<td>32</td>
<td>570-4-32-40-000-AX</td>
<td>58</td>
<td>2.283</td>
<td>40</td>
<td>1.574</td>
<td>15</td>
<td>0.590</td>
<td>0.6</td>
</tr>
</tbody>
</table>

5° radial mounting of heads and blades

Coupling size

<table>
<thead>
<tr>
<th>$d_m$</th>
<th>Ordering code</th>
<th>$b_1$</th>
<th>$b_1$</th>
<th>$b_2$</th>
<th>$b_2$</th>
<th>$d_m$</th>
<th>$d_m$</th>
<th>$l_2$</th>
<th>$l_2$</th>
<th>$l_2$</th>
<th>$l_2$</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>570-4-25-40-050-RA</td>
<td>46</td>
<td>1.811</td>
<td>48.5</td>
<td>1.909</td>
<td>40</td>
<td>1.574</td>
<td>28</td>
<td>1.102</td>
<td>15</td>
<td>0.590</td>
<td>0.4</td>
</tr>
<tr>
<td>32</td>
<td>570-4-32-40-050-RA</td>
<td>46</td>
<td>1.811</td>
<td>49.25</td>
<td>1.939</td>
<td>40</td>
<td>1.574</td>
<td>34.5</td>
<td>1.358</td>
<td>18</td>
<td>0.708</td>
<td>0.5</td>
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Spare parts

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screw Key (mm) O-ring Coolant tube Screw</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>570-4-25-40-000-AX</td>
<td>3212 010-257 174.1-864 (3.0) – 5638 031-01 3212 010-358</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>570-4-32-40-000-AX</td>
<td>3212 010-307 3021 010-040 (4.0) 3671 010-113 5638 031-01 3212 010-358</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>570-4-25-40-050-RA</td>
<td>3212 010-257 174.1-864 (3.0) – 5638 031-01 3212 010-358</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>570-4-32-40-050-RA</td>
<td>3212 010-307 3021 010-040 (4.0) 3671 010-113 5638 031-01 3212 010-358</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Coromant Capto® cutting units
CoroTurn® RC rigid clamp design

Entering angle: 
Lead angle: 

Coolant inlet: Axial through the center
Neutral style

<table>
<thead>
<tr>
<th>Main application</th>
<th>CI</th>
<th>Ordering code</th>
<th>Dimensions, millimeter, inch (mm, in.)</th>
<th>Gauge inserts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>DCMMNN</td>
<td>Dm</td>
<td>Dc</td>
</tr>
<tr>
<td>12 1/2 C5-DCMMNN-00105-12</td>
<td>50</td>
<td>1.968</td>
<td>2.500</td>
<td>110</td>
</tr>
<tr>
<td>16 5/8 C5-DCMMNN-00150-12</td>
<td>80</td>
<td>3.149</td>
<td>115</td>
<td>4.528</td>
</tr>
<tr>
<td>16 5/8 C6-DCMMNN-00115-12</td>
<td>63</td>
<td>2.480</td>
<td>110</td>
<td>4.330</td>
</tr>
<tr>
<td>12 1/2 C6-DCMMNN-00090-12</td>
<td>63</td>
<td>2.480</td>
<td>110</td>
<td>4.330</td>
</tr>
</tbody>
</table>

1) γ = Rake angle (valid with flat insert).
2) λs = Angle of inclination.
3) Insert tightening torque. Nm.
4) Valid in combination with clamping unit R/LC2090.

Insert size

<table>
<thead>
<tr>
<th>CI</th>
<th>iC</th>
<th>Shim</th>
<th>Shim screw</th>
<th>Key (Torx Plus)</th>
<th>Complete clamp set</th>
<th>Key (Torx Plus)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>1/2</td>
<td>5322 234-01</td>
<td>5513 020-02</td>
<td>5680 049-01 (15IP)</td>
<td>5412 028-021</td>
<td>5680 049-01 (15IP)</td>
</tr>
<tr>
<td>16</td>
<td>5/8</td>
<td>5322 234-03</td>
<td>5513 020-07</td>
<td>5680 043-14 (20IP)</td>
<td>5412 028-031</td>
<td>5680 043-14 (20IP)</td>
</tr>
</tbody>
</table>

To modify CoroTurn® RC holders for other inserts, see clamp sets on page A359.

Main spare parts

Coromant Capto® coupling size | Coolant nozzle
--- | ---
C5  | 5691 029-09
C6  | 5691 029-10
C8  | 5691 029-10
Coromant Capto® cutting units
CoroTurn® RC rigid clamp design

Coolant inlet: Axial through the center

Left hand style

<table>
<thead>
<tr>
<th>Main application</th>
<th>C</th>
<th>Ordering code</th>
<th>Dimensions, millimeter, inch (mm, in.)</th>
<th>Gauge inserts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>(D_m) mm</td>
<td>(D_m) in.</td>
<td>(D_g) min. mm.(^4)</td>
</tr>
<tr>
<td>15</td>
<td>1/2</td>
<td>D5-DDMNLL-00115-15</td>
<td>50 1.968</td>
<td>110 4.330</td>
</tr>
<tr>
<td>16</td>
<td>3/8</td>
<td>D6-DDMNLL-00130-15</td>
<td>63 2.480</td>
<td>110 4.330</td>
</tr>
<tr>
<td>16</td>
<td>3/8</td>
<td>C6-DDMNLL-00130-15</td>
<td>63 2.480</td>
<td>110 4.330</td>
</tr>
<tr>
<td>16</td>
<td>3/8</td>
<td>C6-DDMNLL-00130-1504</td>
<td>63 2.480</td>
<td>110 4.330</td>
</tr>
<tr>
<td>16</td>
<td>3/8</td>
<td>C8-DDMNLL-00160-15</td>
<td>80 3.149</td>
<td>120 4.724</td>
</tr>
<tr>
<td>16</td>
<td>3/8</td>
<td>C8-DDMNLL-00160-1504</td>
<td>80 3.149</td>
<td>120 4.724</td>
</tr>
</tbody>
</table>

Dimensions, millimeter, inch (mm, in.) Gauge inserts

Main application

<table>
<thead>
<tr>
<th>Main application</th>
<th>C</th>
<th>Ordering code</th>
<th>Dimensions, millimeter, inch (mm, in.)</th>
<th>Gauge inserts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>(D_m) mm</td>
<td>(D_m) in.</td>
<td>(D_g) min. mm.(^4)</td>
</tr>
<tr>
<td>16</td>
<td>3/8</td>
<td>C8-DVMNL-00160-16</td>
<td>80 3.149</td>
<td>110 4.330</td>
</tr>
</tbody>
</table>

1) \(\gamma\) = Rake angle (valid with flat insert).
2) \(\lambda_s\) = Angle of inclination.
3) Insert tightening torque, Nm.
4) Valid in combination with clamping unit R/LC2090.

Main spare parts

Insert size

<table>
<thead>
<tr>
<th>iC</th>
<th>iC</th>
<th>Shim</th>
<th>Shim screw</th>
<th>Key (Torx Plus)</th>
<th>Complete clamp set</th>
<th>Key (Torx Plus)</th>
</tr>
</thead>
<tbody>
<tr>
<td>T5</td>
<td>1/2</td>
<td>5513 020-02</td>
<td>5513 019-02</td>
<td>5412 028-021(^4)</td>
<td>5600 049-01 (15IP)</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>3/8</td>
<td>5513 020-09</td>
<td>5513 019-09</td>
<td>5412 028-061</td>
<td>5600 049-01 (15IP)</td>
<td></td>
</tr>
</tbody>
</table>

4) \(\lambda_s\) = Angle of inclination.

Coromant Capto® coupling size

<table>
<thead>
<tr>
<th>C5</th>
<th>C6</th>
<th>C8</th>
</tr>
</thead>
<tbody>
<tr>
<td>5691 029-09</td>
<td>5691 029-10</td>
<td>5691 029-10</td>
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</tbody>
</table>

Coolant nozzle

<table>
<thead>
<tr>
<th>A9</th>
<th>A353</th>
<th>G6</th>
<th>A2</th>
<th>J2</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Coromant Capto® cutting units
CoroTurn® 107 screw clamp design

Entering angle: \( \kappa = 50^\circ \) (95°)
Lead angle: 40°

Coolant inlet: Radial through the taper
Neutral style

| Main application | IC | Ordering code | \( D_{m1} \) mm | \( D_{m2} \) mm | \( D_{n1} \) mm | \( D_{n2} \) mm | \( \lambda \) mm | \( \lambda_{s} \) mm | \( \gamma_1 \) | \( \gamma_2 \) | \( \lambda_{s1} \) | ISO | ANSI | Nm
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 | 1/2 | C6-SCMCN-00090-12 | 63 | 2.480 | 100 | 3.937 | 90 | 3.543 | 0° | 0° | 1.4 | CCMT 12 04 08 | CCMT 432 | 3.0

Dimensions, millimeter, inch (mm, in.)

| Main application | IC | Ordering code | \( D_{m1} \) mm | \( D_{m2} \) mm | \( D_{n1} \) mm | \( D_{n2} \) mm | \( \lambda \) mm | \( \lambda_{s} \) mm | \( \gamma_1 \) | \( \gamma_2 \) | \( \lambda_{s1} \) | ISO | ANSI | Nm
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10 | .394 | C6-SRDCN-00100-10 | 63 | 2.480 | 110 | 4.330 | 5 | 0.196 | 100 | 3.937 | 0° | 0° | 1.4 | RCMT 10 T3 M0 | RCMT 10 | 3.0
| 16 | .630 | C6-SRDCN-00100-16 | 63 | 2.480 | 110 | 4.330 | 8 | 0.315 | 100 | 3.937 | 0° | 0° | 1.4 | RCMT 16 06 M0 | RCMT 16 | 6.4

1) \( \gamma \) = Rake angle (valid with flat insert).
2) \( \lambda_{s} \) = Angle of inclination.
3) Insert tightening torque, Nm.
4) Valid in combination with clamping unit R/LC2090.

Main spare parts

<table>
<thead>
<tr>
<th>Insert size</th>
<th>IC</th>
<th>IC</th>
<th>Insert screw</th>
<th>Key (Torx Plus)</th>
<th>Shim</th>
<th>Shim screw</th>
<th>Key (Torx Plus)</th>
<th>Coolant tube</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>1/2</td>
<td>5513 020-18</td>
<td>5680 049-01 (15IP)</td>
<td>5322 232-02</td>
<td>5512 090-03</td>
<td>5680 049-01 (15IP)</td>
<td>5691 045-01</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>.394</td>
<td>5513 020-10</td>
<td>5680 049-01 (15IP)</td>
<td>5322 110-01</td>
<td>5512 090-01</td>
<td>5680 049-01 (15IP)</td>
<td>5691 045-01</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>.630</td>
<td>5513 020-26</td>
<td>5680 043-14 (20IP)</td>
<td>5322 110-03</td>
<td>5512 090-06</td>
<td>5680 043-14 (20IP)</td>
<td>5691 045-01</td>
<td></td>
</tr>
</tbody>
</table>
Coromant Capto® cutting units

CoroTurn® 107 screw clamp design

Enter angles:
- \( \kappa \), 50° (95°)
- Lead angle: 40°

Coolant inlet: Radial through the taper

### Main application

<table>
<thead>
<tr>
<th>Insert size</th>
<th>Ordering code</th>
<th>Dimensions, millimeter, inch (mm, in.)</th>
<th>Gauge inserts</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 3/8</td>
<td>C6-SVMBL-00115-16</td>
<td>( D_m ) min 110, ( D_m ) in. 43.07, ( D_m ) min 110, ( D_m ) in. 43.07, ( f ) mm 0, ( f ) in. 0, ( \gamma ) 1.0, ( \lambda ) 1.0, ISO 107, ANSI 3.0</td>
<td>VBMT 16 04 08, VBMT 332 3.0</td>
</tr>
<tr>
<td>C6-SVMBL-00130-16</td>
<td>63 2.4803, 110 43.07, 0 0, 130 5.1181, 0 0, 1.8</td>
<td>VBMT 16 04 08, VBMT 332 3.0</td>
<td></td>
</tr>
<tr>
<td>C6-SVMBL-33120-16</td>
<td>63 2.4803, 110 43.07, 33 1.299, 120 4.7244, 0 0, 1.9</td>
<td>VBMT 16 04 08, VBMT 332 3.0</td>
<td></td>
</tr>
</tbody>
</table>

1) \( \gamma \) = Rake angle (valid with flat insert).
2) \( \lambda \) = Angle of inclination.
3) Insert tightening torque, Nm.
4) Valid in combination with clamping unit R/LC2090.

### Main spare parts

<table>
<thead>
<tr>
<th>Insert size</th>
<th>Insert screw</th>
<th>Key (Torx Plus)</th>
<th>Shim</th>
<th>Shim screw</th>
<th>Key (Torx Plus)</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 3/8</td>
<td>5513 020-01</td>
<td>5680 049-01 (15IP)</td>
<td>5322 270-01</td>
<td>5512 090-01</td>
<td>5680 049-01 (15IP)</td>
</tr>
</tbody>
</table>
Coromant Capto® cutting units
CoroTurn® TR screw clamp design

Entering angle:
Lead angle:

Coolant inlet: Axial through the center
Left hand style shown

Main application | Ordering code | Dimensions, millimeter, inch (mm, in.) | Gauge inserts | ISO | ANSI | Nm
---|---|---|---|---|---|---
13 TR-C6-D13MCL-00115 | 63 2.480 150 5.905 0 0 130 5.118 0° 0° 1.6 | TR-DC1308 TR-DC1308 3.0 | |
13 TR-C6-D13MCL-00130 | 63 2.480 150 5.905 0 0 130 5.118 0° 0° 1.6 | TR-DC1308 TR-DC1308 3.0 | |

1) γ = Rake angle (valid with flat insert).
2) λ = Angle of inclination.
3) Insert tightening torque, Nm.
4) Valid in combination with clamping unit R/LC2090.

For more information about CoroTurn TR system, see chapter A page A175

Main spare parts

Insert size | Insert screw | Key (Torx Plus) | Torque wrench | Coolant nozzle |
---|---|---|---|---|
13 | 55T3 020-01 | 5680 049-01 (15IP) | 5680 100-06 | 5691 029-02 |
Coromant Capto® cutting units

CoroTurn® TR screw clamp design

Entering angle:
Lead angle:

TR-Cx-V13MBL
κ, 50°
40°

Coolant inlet: Axial through the center

Left hand style shown

Main application | Ordering code | Dimensions, millimeter, inch (mm, in.) | Gauge inserts
--- | --- | --- | ---

| | | D01 min | D02 min | D12 min | f1 | f1 | f2 | f2 | γ | λ | ISO | ANSI | Nm
--- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | ---
13 | TR-C6-V13MBL-00115 | 50 | 1.968 | 150 | 5.905 | 0 | 0 | 115 | 4.527 | 0° | 0° | 0.8 | TR-VB1308 | TR-VB1308 | 2.0
TR-C6-V13MBL-00130 | 63 | 2.480 | 150 | 5.905 | 0 | 0 | 130 | 5.118 | 0° | 0° | 1.6 | TR-VB1308 | TR-VB1308 | 2.0

1) γ = Rake angle (valid with flat insert).
2) λ = Angle of inclination.
3) Insert tightening torque, Nm.
4) Valid in combination with clamping unit R/LC2090.

For more information about CoroTurn TR system, see chapter A page A175

Main spare parts

Insert size | Insert screw | Key (Torx Plus) | Torque wrench
--- | --- | --- | ---
13 | 6513 020-64 | 5680 049-04 (10IP) | 5680 100-05
**CoroTurn® HP**

Coromant Capto tools for High Pressure coolant

**Increased cutting speed for rough to medium machining**

**Chip control in finishing - secure unmanned production**

**When to use**

Any turning machine where both high pressure coolant and Coromant Capto® coupling are available:
- Multi-task machines
- Vertical turning lathes (VTL)
- Turning centers

The characteristic reduced depth of cut and reduced feed rate in finishing operations always leads to challenges for chip control. In automated production, be it high volume mass production or machines with automatic tool changing (multi-task and vertical turning lathes), any chips gathering around the tool will result in costly machine stoppages. This new technology will provide you with total chip control, giving security in unmanned production.

**A directional jet for maximum effect**

The principle of turning with high pressure coolant is to accurately position the jet of coolant through small, sighted nozzles (dia .039 inch) to give a parallel laminar flow. This high velocity jet of coolant creates a hydraulic wedge between the top surface of the insert and the underside of the chip being removed from the component. The coolant jet has three main effects:

1. To provide localized cooling of the insert in the contact zone (A)
2. To force the chip away from the insert face quickly, reducing wear on the insert (B)
3. To help break the chip into smaller pieces and evacuate it from the cutting area

**Fixed coolant nozzle technology**

The high pressure coolant application with CoroTurn HP utilizes carefully developed nozzle technology based on decades of experience. Optimized nozzles give parallel laminar jets of coolant with high velocity accurately directed at the right place on the insert. The precision and character of these jets makes the difference. CoroTurn HP has fixed, pre-directed, high precision nozzles mounted on the tool targeting the right place, at the right angle on the cutting edge. No setting with trials is needed; performance and security is built-in with only normal tool maintenance required.

**Coolant**

**Hydraulic wedge effect**

**Jet nozzles**

**Basic form**

**Plastic deformation**

CoroTurn HP tools for general turning, see page A110.
CoroTurn HP with SL coupling, see page I12.
**CoroTurn® HP cutting units**

**Lever design**

With high pressure coolant

---

**Coolant inlet:** Axial through the center

**Neutral**

**Right hand style shown**

**Main application**

<table>
<thead>
<tr>
<th>iC</th>
<th>Ordering code</th>
<th>Dimensions, mm, inch</th>
<th>Gauge inserts</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>C6-PCLNR/L-45165-12HP</td>
<td>63 110 45.0 165.0 -6 -6 3.5</td>
<td>CNMG 12 04 08 CNMG 432 5.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.480 4.331 1.772 6.496</td>
<td></td>
</tr>
</tbody>
</table>

**Main application**

<table>
<thead>
<tr>
<th>iC</th>
<th>Ordering code</th>
<th>Dimensions, mm, inch</th>
<th>Gauge inserts</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>C6-PCMNN-00115-12HP</td>
<td>63 110 0.0 115.0 -6 -6 1.8</td>
<td>CNMG 12 04 08 CNMG 432 5.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.480 4.331 .000 4.528</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C6-PCMNN-00150-12HP</td>
<td>80 315 0.0 150.0 -6 -6 3.8</td>
<td>CNMG 12 04 08 CNMG 432 5.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.150 12.402 .000 5.906</td>
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</table>

**Insert size**

<table>
<thead>
<tr>
<th>iC</th>
<th>Lever</th>
<th>Screw</th>
<th>Key (mm)</th>
<th>Shim</th>
<th>Nozzle (hole dia mm.)</th>
<th>Plug</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>1/2</td>
<td>174.3-841M</td>
<td>174.3-821</td>
<td>174.1-864 (3.0)</td>
<td>171.31-850M 5691 026-03 (1.0)</td>
<td>3214 010-253</td>
</tr>
</tbody>
</table>
## CoroTurn® HP cutting units

### Lever design

With high pressure coolant

![Diagram of CoroTurn® HP cutting units]

Entering angle:  
\[ \alpha = 93° \]

Lead angle:  
\[ \gamma = -3° \]

Coolant inlet: Axial through the center

<table>
<thead>
<tr>
<th>Main application</th>
<th>( b )</th>
<th>Ordering code</th>
<th>Dimensions, mm, inch</th>
<th>Gauge inserts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15</td>
<td>C6-PDJNR/L-45165-15HP</td>
<td>63, 95, 45.0, 165.0, -6°, -7°, 3.5</td>
<td>DNMG 15 06 08, DNMG 442, 5.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2.480, 3.740, 1.772, 6.496</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Main application</th>
<th>( b )</th>
<th>Ordering code</th>
<th>Dimensions, mm, inch</th>
<th>Gauge inserts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15</td>
<td>C6-PDMNR/L-00130-15HP</td>
<td>63, 0.6, 130.0, -5°, -15°, 2.0</td>
<td>DNMG 15 06 08, DNMG 442, 5.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2.480, .022, 5.118</td>
<td></td>
</tr>
</tbody>
</table>

1) \( \gamma \) = Rake angle (valid with flat insert).
2) \( \lambda_s \) = Angle of inclination.
3) Insert tightening torque, Nm.
4) Valid in combination with clamping unit R/LC2090.

### Main spare parts

<table>
<thead>
<tr>
<th>Insert size</th>
<th>Lever</th>
<th>Screw</th>
<th>Key (mm)</th>
<th>Shim</th>
<th>Nozzle (hole dia mm.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 1/2</td>
<td>174.3-847M</td>
<td>174.3-830</td>
<td>174.1-864 (3.0)</td>
<td>171.35-851M</td>
<td>5591 026-03 (1.0)</td>
</tr>
</tbody>
</table>

N = Neutral, R = Right hand, L = Left hand
**CoroTurn® HP cutting units**

**Lever design**

With high pressure coolant

![Diagram of CoroTurn® HP cutting units](image)

Coolant inlet: Axial through the center

Right hand style shown

<table>
<thead>
<tr>
<th>Main application</th>
<th>i/C</th>
<th>Ordering code</th>
<th>Dimensions, mm, inch</th>
<th>Gauge Inserts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>D_m (mm) h_1 h_2 h_s γ_1 λ_s Nm</td>
<td>ISO</td>
</tr>
<tr>
<td>12</td>
<td>1/2</td>
<td>Cx-PSSNR/L-45156-12HP</td>
<td>63 110 45.0 36.7 156 164.3 -8° 0° 3.38</td>
<td>SNMG 12 04 08</td>
</tr>
</tbody>
</table>

1. γ = Rake angle (valid with flat insert).
2. λ_s = Angle of inclination.
3. Insert tightening torque, Nm.
4. Valid in combination with clamping unit R/LC2090.

**Main spare parts**

<table>
<thead>
<tr>
<th>i/C</th>
<th>Lever</th>
<th>Screw</th>
<th>Key (mm)</th>
<th>Shim</th>
<th>Nozzle (hole dia mm.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>1/2</td>
<td>174.3-841M</td>
<td>174.3-821</td>
<td>174.1-864 [3.6]</td>
<td>174.3-851M</td>
</tr>
</tbody>
</table>

**Main application**

A General Turning
B Parting and Grooving
C Threading
G Tooling systems
H Multi-task machining
I CoroTurn SL
J General information
CoroTurn® HP cutting units

Screw clamp design
With high pressure coolant

Entering angle: \( \kappa = 50^\circ \)
Lead angle: \( \lambda_s = 40^\circ \)

Coolant inlet: Axial through the center

Right hand style shown

<table>
<thead>
<tr>
<th>Main application</th>
<th>( iC )</th>
<th>Ordering code</th>
<th>( D_m )</th>
<th>( D_{ax} )</th>
<th>( f )</th>
<th>( \beta )</th>
<th>( \gamma )</th>
<th>ISO</th>
<th>ANSI</th>
<th>Nm</th>
</tr>
</thead>
<tbody>
<tr>
<td>HP</td>
<td>16</td>
<td>C6-SVMBR/L-00130-16HP</td>
<td>63</td>
<td>145</td>
<td>0</td>
<td>130</td>
<td>0°</td>
<td>1.84</td>
<td>VBM1 014 06</td>
<td>VBM1 014 06</td>
</tr>
</tbody>
</table>

1) \( \gamma \) = Rake angle (valid with flat insert).
2) \( \lambda_s \) = Angle of inclination.
3) Insert tightening torque, Nm.
4) Valid in combination with clamping unit R/LC2090.

Main spare parts

<table>
<thead>
<tr>
<th>Insert size</th>
<th>( iC )</th>
<th>Insert screw (thread)</th>
<th>Key (Torx Plus)</th>
<th>Shim</th>
<th>Shim screw</th>
<th>Key (mm)</th>
<th>Nozzle (hole dia (mm))</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>3/8</td>
<td>5513 020-01 (M3.5)</td>
<td>5680 049-01 (15IP)</td>
<td>5322 270-01</td>
<td>5512 090-01</td>
<td>5680 049-01 (3.5)</td>
<td>5681 026-03 (1.0)</td>
</tr>
</tbody>
</table>
### CoroTurn® SL

**Coromant Capto® adapter**

Coolant inlet: Axial through the center

**Cx-570–RX-045-L1**

<table>
<thead>
<tr>
<th>Coupling size</th>
<th>Ordering code</th>
<th>Dimensions, millimeter, inch (mm, in.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>32</td>
<td>C5-570-32-RX-045-L1</td>
<td>(D_1 ) mm 1.574( D_2 ) 50 (D_3 ) 1.968( f_1 ) 2 ( f_2 ) 0.078 ( l_1 ) 90 ( l_2 ) 3.543 ( l_3 ) 1.1</td>
</tr>
<tr>
<td>32</td>
<td>C6-570-32-RX-045-L1</td>
<td>(D_1 ) 45 1.771( D_2 ) 63 (D_3 ) 2.480( f_1 ) 2 ( f_2 ) 0.078 ( l_1 ) 100 ( l_2 ) 3.937 ( l_3 ) 1.7</td>
</tr>
<tr>
<td>40</td>
<td>C6-570-40-RX-045-L1</td>
<td>(D_1 ) 45 1.771( D_2 ) 63 (D_3 ) 2.480( f_1 ) 2 ( f_2 ) 0.078 ( l_1 ) 100 ( l_2 ) 3.937 ( l_3 ) 1.8</td>
</tr>
<tr>
<td>40</td>
<td>C8-570-40-RX-045-L1</td>
<td>(D_1 ) 50 1.969( D_2 ) 80 (D_3 ) 3.149( f_1 ) 5 ( f_2 ) 0.196 ( l_1 ) 135 ( l_2 ) 5.315 ( l_3 ) 3.7</td>
</tr>
</tbody>
</table>

R = Right hand, L = Left hand

### Main spare parts

<table>
<thead>
<tr>
<th>Coromant Capto®</th>
<th>Screw</th>
<th>Key (mm)</th>
<th>Plug</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cx-570-32-RX-045-L1</td>
<td>3212 010-308</td>
<td>3021 010-040 (4.0)</td>
<td>5643 045-01</td>
</tr>
<tr>
<td>Cx-570-40-RX-045-L1</td>
<td>3212 010-358</td>
<td>3021 010-050 (5.0)</td>
<td>5643 045-01</td>
</tr>
</tbody>
</table>

For complete assortment see page 168.
**CoroTurn® SL70**

Coromant Capto® adapter

**Coolant inlet:** Axial through the center

<table>
<thead>
<tr>
<th>With internal coolant supply</th>
<th>Right hand style shown</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type</strong></td>
<td><strong>Ordering code</strong></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>C6-SL70-RX-045-100</td>
<td>45°</td>
</tr>
<tr>
<td></td>
<td></td>
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</tbody>
</table>

For complete assortment see page I103.
Adapters for shank tools

Radial mounting

Metric version

<table>
<thead>
<tr>
<th>Coupling size</th>
<th>Ordering code</th>
<th>Dimensions</th>
<th>Neutral style shown</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>D₁, D₂₀, b₁₁, b₂₀, h₁₀, h₂₀, l₁, l₂₀</td>
<td></td>
</tr>
<tr>
<td>C5</td>
<td>C5-ASHA-38058-20M</td>
<td>90, 50, 38, 23, 45, 20, 38, 58, 1.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C6-ASHA-8060-20M</td>
<td>90, 63, 38, 23, 45, 20, 40, 60, 1.7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C6-ASHA-45071-25M</td>
<td>110, 63, 45, 30, 55, 25, 45, 71, 2.6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C6-ASHA-50071-32M</td>
<td>130, 63, 50, 65, 32, 45, 71, 3.2</td>
<td></td>
</tr>
<tr>
<td>C8</td>
<td>C8-ASHA-55085-32M</td>
<td>140, 80, 55, 40, 65, 32, 53, 85, 4.6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C10-ASHA-55090-32</td>
<td>145, 100, 55, 40, 65, 32, 58, 90, 5.7</td>
<td></td>
</tr>
</tbody>
</table>

Inch version

<table>
<thead>
<tr>
<th>Coupling size</th>
<th>Ordering code</th>
<th>Dimensions, inch</th>
<th>Neutral style shown</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>D₁, D₂₀, b₁₁, b₂₀, h₁₀, h₂₀, l₁, l₂₀</td>
<td></td>
</tr>
<tr>
<td>C4</td>
<td>C4-ASHA-25046-10U</td>
<td>1.575, .984, .625, 1.180, 1.810, 2.20</td>
<td></td>
</tr>
<tr>
<td>C5</td>
<td>C5-ASHA-30055-12U</td>
<td>1.968, 1.181, .581, .750, 1.380, 2.150, 2.93</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C5-ASHA-38057-12-AM</td>
<td>3.543, 1.968, 1.496, .906, 1.772, .750, 1.457, 2.244, 3.02</td>
<td></td>
</tr>
<tr>
<td>C6</td>
<td>C6-ASHA-38059-12-AM</td>
<td>3.543, 2.480, 1.496, .906, 1.772, .750, 1.575, 2.323, 3.75</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C6-ASHA-38066-12U</td>
<td>5.118, 2.480, 1.496, .906, 1.772, .750, 1.575, 2.340, 5.11</td>
<td></td>
</tr>
<tr>
<td>C8</td>
<td>C8-ASHA-55085-20-AM</td>
<td>5.591, 3.150, 2.165, 1.575, 2.559, 1.250, 2.087, 3.337, 10.14</td>
<td></td>
</tr>
</tbody>
</table>

Warning!
The adapters are designed for automatic tool change.

Make sure that there is no risk of interference in the magazine and tool changing cycle.
Adapters for shank tools

Axial mounting

Coolant inlet: Axial through the center

Metric version

<table>
<thead>
<tr>
<th>Coupling size</th>
<th>Ordering code</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Right hand style</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$D_1$</td>
</tr>
<tr>
<td>C5</td>
<td>C5-ASHR/L-30008-20</td>
<td>90</td>
</tr>
<tr>
<td>C6</td>
<td>C6-ASHR/L-30100-20</td>
<td>90</td>
</tr>
<tr>
<td>C8</td>
<td>C8-ASHR/L-40140-32</td>
<td>110</td>
</tr>
<tr>
<td>C6</td>
<td>C6-ASHS-58115-32</td>
<td>140</td>
</tr>
</tbody>
</table>

R = Right hand, L = Left hand

Inch version

<table>
<thead>
<tr>
<th>Coupling size</th>
<th>Ordering code</th>
<th>Dimensions, inch</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Right hand style</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$D_1$</td>
</tr>
<tr>
<td>C6</td>
<td>C6-ASHR/L-30100-12-A</td>
<td>3.543</td>
</tr>
<tr>
<td>C8</td>
<td>C8-ASHR/L-40140-20-A</td>
<td>4.331</td>
</tr>
<tr>
<td>C5</td>
<td>C5-ASHS-47088-12U</td>
<td>1.968</td>
</tr>
<tr>
<td>C6</td>
<td>C6-ASHS-54090-12U</td>
<td>2.480</td>
</tr>
</tbody>
</table>

R = Right hand, L = Left hand
Adapters for shank tools
Angular mounting

Normal use is a left hand cutting tool in a right hand adapter

![Diagram of adapter](image)

Coolant inlet: Axial through the center

### Metric version

<table>
<thead>
<tr>
<th>Coupling size</th>
<th>Ordering code</th>
<th>( D_1 )</th>
<th>( D_m )</th>
<th>( d_{21} )</th>
<th>( f )</th>
<th>( h_{21} )</th>
<th>( h_{22} )</th>
<th>( l_1 )</th>
<th>( \Delta )</th>
</tr>
</thead>
<tbody>
<tr>
<td>C5</td>
<td>C5-ASHR/L45-36697-20</td>
<td>72</td>
<td>50</td>
<td>30.6</td>
<td>15</td>
<td>20</td>
<td>26</td>
<td>97</td>
<td>1.7</td>
</tr>
<tr>
<td>C6</td>
<td>C6-ASHR/L45-36699-20</td>
<td>72</td>
<td>63</td>
<td>31.5</td>
<td>15</td>
<td>20</td>
<td>28</td>
<td>99</td>
<td>2.2</td>
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<tr>
<td>C8</td>
<td>C8-ASHR/L45-50135-32</td>
<td>140</td>
<td>80</td>
<td>45</td>
<td>17</td>
<td>32</td>
<td>40</td>
<td>135</td>
<td>6.5</td>
</tr>
</tbody>
</table>

### Inch version

<table>
<thead>
<tr>
<th>Coupling size</th>
<th>Ordering code</th>
<th>( D_1 )</th>
<th>( D_m )</th>
<th>( d_{21} )</th>
<th>( f )</th>
<th>( h_{21} )</th>
<th>( h_{22} )</th>
<th>( l_1 )</th>
<th>( \Delta )</th>
</tr>
</thead>
<tbody>
<tr>
<td>C5</td>
<td>C5-ASHR/L45-36697-12-A</td>
<td>2.835</td>
<td>1.968</td>
<td>1.205</td>
<td>.618</td>
<td>.750</td>
<td>1.024</td>
<td>3.791</td>
<td>3.75</td>
</tr>
<tr>
<td>C6</td>
<td>C6-ASHR/L45-36699-12-A</td>
<td>2.835</td>
<td>2.480</td>
<td>1.224</td>
<td>.618</td>
<td>.750</td>
<td>1.102</td>
<td>3.870</td>
<td>4.83</td>
</tr>
<tr>
<td>C8</td>
<td>C8-ASHR/L45-50135-20-A</td>
<td>5.512</td>
<td>3.150</td>
<td>1.772</td>
<td>.677</td>
<td>1.250</td>
<td>1.575</td>
<td>5.307</td>
<td>14.99</td>
</tr>
</tbody>
</table>

\( R = \text{Right hand, } L = \text{Left hand} \)

Adapter for CoroCut® and T-Max Q-Cut® parting blades See page B33
Mini-turret for shank tools
Axial mounting

Coolant inlet: Axial through the center

Metric version

<table>
<thead>
<tr>
<th>Coupling size</th>
<th>Ordering code</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>( D_1 ) ( D_2 ) ( l ) ( \ell_23 ) ( \ell_1 ) ( \ell_2 ) ( \ell_4 )</td>
</tr>
<tr>
<td>C5</td>
<td>C5-ASHR/L3-36123-20</td>
<td>90 50 16 ( \ell_23 ) 123 20 26 3.4</td>
</tr>
<tr>
<td>C6</td>
<td>C6-ASHR/L3-36125-20</td>
<td>90 63 16 ( \ell_23 ) 125 22 28 3.8</td>
</tr>
<tr>
<td>C8</td>
<td>C8-ASHR/L3-45150-32</td>
<td>120 80 20 ( \ell_23 ) 150 30 36 7.5</td>
</tr>
</tbody>
</table>

Inch version

<table>
<thead>
<tr>
<th>Coupling size</th>
<th>Ordering code</th>
<th>Dimensions, inch</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>( D_1 ) ( D_2 ) ( l ) ( \ell_23 ) ( \ell_1 ) ( \ell_2 ) ( \ell_4 )</td>
</tr>
<tr>
<td>C5</td>
<td>C5-ASHR/L3-36123-12-A</td>
<td>3.543 1.968 .614 .750 4.842 .787 1.024 7.85</td>
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<tr>
<td>C6</td>
<td>C6-ASHR/L3-36125-12-A</td>
<td>3.543 2.480 .614 .750 4.921 .866 1.102 8.16</td>
</tr>
<tr>
<td>C8</td>
<td>C8-ASHR/L3-46150-20-A</td>
<td>4.724 3.150 .811 1.250 5.906 1.181 1.417 17.01</td>
</tr>
</tbody>
</table>

**Warning!**
The adapters are designed for automatic tool change.

Make sure that there is no risk of interference in the magazine and tool changing cycle.
## Spare parts

### Radial mounting

<table>
<thead>
<tr>
<th>Screw</th>
<th>NPT</th>
<th>Coolant nozzle</th>
<th>Valve bolt</th>
<th>O-ring</th>
<th>Circlip</th>
</tr>
</thead>
<tbody>
<tr>
<td>C4-ASHA-25046-10U</td>
<td>3214 010-408</td>
<td>1/8</td>
<td>–</td>
<td>5692 029-09</td>
<td>5641 005-79</td>
</tr>
<tr>
<td>C5-ASHA-30055-12U</td>
<td>3214 010-408</td>
<td>1/8</td>
<td>–</td>
<td>5692 029-09</td>
<td>5641 005-79</td>
</tr>
<tr>
<td>C5-ASHA-38057-12-AM</td>
<td>3214 020-461</td>
<td>–</td>
<td>5692 029-09</td>
<td>5641 005-79</td>
<td>3421 105-015</td>
</tr>
<tr>
<td>C6-ASHA-38066-12U</td>
<td>3214 020-411</td>
<td>1/8</td>
<td>–</td>
<td>5692 029-09</td>
<td>5641 005-79</td>
</tr>
</tbody>
</table>

### Axial mounting

<table>
<thead>
<tr>
<th>Screw</th>
<th>NPT</th>
<th>Coolant nozzle</th>
</tr>
</thead>
<tbody>
<tr>
<td>C5-ASHR/L-30098-12-A</td>
<td>3214 020-461</td>
<td>5691 029-10</td>
</tr>
<tr>
<td>C5-ASHR/L-30098-20</td>
<td>3214 020-461</td>
<td>5691 029-10</td>
</tr>
<tr>
<td>C6-ASHR/L-30100-12-A</td>
<td>3214 020-411</td>
<td>–</td>
</tr>
</tbody>
</table>

### Angular mounting

<table>
<thead>
<tr>
<th>Screw</th>
<th>Coolant nozzle</th>
</tr>
</thead>
<tbody>
<tr>
<td>C5-ASHR/L-38130-16-A</td>
<td>5691 029-10</td>
</tr>
<tr>
<td>C5-ASHR/L-38130-20</td>
<td>5691 029-10</td>
</tr>
<tr>
<td>C6-ASHR/L-38130-25</td>
<td>5691 029-10</td>
</tr>
<tr>
<td>C6-ASHR/L-40140-32</td>
<td>5691 029-10</td>
</tr>
<tr>
<td>C6-ASHR/L-50143-32</td>
<td>5691 029-10</td>
</tr>
</tbody>
</table>

## General information

### Multi-task machining

- Coromant Capto® adaptors
- B General Turning, Parting and Grooving
- C Threading
- G Tooling systems
- I CoroTurn® SL
- J General information

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**Spare parts**

1. **Radial mounting**
   - Screw: 3214 010-408
   - NPT: 1/8
   - Coolant nozzle: 5692 029-09
   - Valve bolt: 5641 005-79
   - O-ring: 5692 029-09
   - Circlip: 3421 105-015

2. **Axial mounting**
   - Screw: 3214 020-461
   - NPT: 1/8
   - Coolant nozzle: 5691 029-10

3. **Angular mounting**
   - Screw: 3214 020-461
   - Coolant nozzle: 5691 029-09
Boring bar adapters for Multi-Task machining

Coolant inlet: Axial through the center

Technical information:
C = Coolant goes straight through the center
L = Left coolant nozzle will get coolant
R = Right coolant nozzle will get coolant

For cylindrical sleeves, see page A304.

Spare parts

Valve bolt Screw Coolant nozzle O-ring Circlip

C5-131-00100-25 5692 035-03 5514 012-02 5691 029-09 5641 005-06 3421 105-020
C6-131-00098-25 5692 035-01 5514 012-02 5691 029-09 5641 005-06 3421 105-020
C6-131-00112-40 5692 035-01 5514 012-01 5691 029-10 5641 005-06 3421 105-020
C8-131-00098-25 5692 035-02 5514 012-02 5691 029-09 5641 005-06 3421 105-020
C8-131-00112-40 5692 035-02 5514 012-01 5691 029-10 5641 005-06 3421 105-020

Valve bolt Screw Spring plunger Key Screw

C5-131-00100-25 3214 010-355 5514 064-01 5514 064-01 3021 010-080 3214 010-406
C6-131-00098-25 3214 010-355 (DIN913-M6x6-45H) 5514 064-01 3021 010-080 (DIN911-8) 3214 010-406 (DIN911-8)
C6-131-00112-40 3214 010-355 (DIN913-M6x6-45H) 5514 064-01 3021 010-100 (DIN911-10) 3214 010-406 (DIN911-10)
C8-131-00098-25 3214 010-355 (DIN913-M6x6-45H) 5514 064-01 3021 010-080 (DIN911-8) 3214 010-406 (DIN911-8)
C8-131-00112-40 3214 010-355 (DIN913-M6x6-45H) 5514 064-01 3021 010-100 (DIN911-10) 3214 010-406 (DIN911-10)