Circular Saw Machines

CMB circular saw machine series for bar material
High-performance sawing with precision
The stable inclined guide of the saw head ensures a perfect chipping angle and is the guarantor for high cutting accuracy with maximum cutting performance at the same time.

AMADA MACHINE TOOLS circular saw blades
The use of very thin carbide saw blades with a small cutting width guarantees minimal waste with maximum machining performance. Optimum cut faces with almost reflective surfaces and smallest peak-to-valley are produced due to the special tooth geometry.

Wide range of cutting
The CMB circular saws make it possible to machine many materials and forms: solid material, tubes, square material and profiles.

Cleaner and dryer sawing process
The proven minimal quantity lubrication system ensures clean and almost adhesion-free cuts. The combination of the proven AMADA technologies makes reworking unnecessary in many cases.

Easy operation
The practical AMADA CNC technology enables easy operation without the need for machining or programming knowledge.

Maximum tool service life
For reduction of vibrations of the saw blade, the machine is equipped with special saw blade guides which guide the blade on both sides near the tooth engagement. This results in maximum cutting precision and best saw blade lives with low unit costs.
Stable and torsion-resistant
Stable saw head with play-free special gearbox and rotating spindle drive in one torsion-free machine bed are the basis of the rigid cutting precision.

High-precision feeder unit
The material feed using a servo controlled precision gripper feeder with ball screw and linear guides vise most accurate cut-off lengths and maximum repeat accuracy of less than 0.1 mm. In comparison with other feed systems, AMADA is setting particular standards here.

Easy operation
Using a color „touchscreen“ display, it is possible step by step to easily input cut-off lengths and piece counts. By inputting the workpiece shape and the material, the optimum CNC-controlled cutting values are adjusted and monitored.

Electromagnetic braking system
The unique electromagnetic braking system effectively prevents a gearbox overload during entry of the saw blade into the material to be cut.

High speed feeder gripper
The CMB circular saw is equipped with a high speed feeder gripper which significantly reduces the auxiliary times. Using a free lift function, the material surface is protected against damage. The intelligent controller always ensures the optimum position of the feeder gripper and the high repeat accuracy.

Automatic cut and remnant sorter
The head cut length is set via CNC controller and can be selected between 15 and 40 mm. In automatic operation, head cuts and remnants are ejected to the left side while the saw cuts are fed to a provided container on the other side.

45° inclined guide
A reduced cycle time due to the reduced saw head movement.

Automatic bar feed
Automatic material feed using an inclined loading magazine, also for material lengths greater than 6 m, makes unmanned saw operation possible. This is supported by automatic, optical recognition of the workpiece start for head cut function and automatic, electromechanical recognition of the material end in the rear vice.
### DIMENSIONS

<table>
<thead>
<tr>
<th>Model</th>
<th>CMB-75</th>
<th>CMB-100</th>
<th>CMB-150</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width</td>
<td>2131</td>
<td>2413</td>
<td>2390</td>
</tr>
<tr>
<td>Length</td>
<td>7210</td>
<td>7210</td>
<td>7368</td>
</tr>
</tbody>
</table>

### SPECIFICATION

<table>
<thead>
<tr>
<th>Model</th>
<th>CMB-75</th>
<th>CMB-100</th>
<th>CMB-150</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Material</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Automatic operating mode</td>
<td>Round material diameter [mm]</td>
<td>10 – 76.3</td>
<td>25 – 100</td>
</tr>
<tr>
<td></td>
<td>Rectangular material edge length [mm]</td>
<td>10 – 60</td>
<td>25 – 75</td>
</tr>
<tr>
<td></td>
<td>Cut-off length [mm]</td>
<td>10 – 6000</td>
<td>10 – 6000</td>
</tr>
<tr>
<td><strong>Saw blade</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design</td>
<td>Disposable carbide saw blades</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimensions [mm]</td>
<td>285 x 40 x 2</td>
<td>360 x 40 x 2.5 oder 2.6</td>
<td>460 x 50 x 2.7</td>
</tr>
<tr>
<td>No. of teeth</td>
<td>60, 80</td>
<td>60, 80, 100</td>
<td>40, 60, 80, 100</td>
</tr>
<tr>
<td><strong>Parameters</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saw</td>
<td>Cutting speed [m/min]</td>
<td>automatic material-dependent control</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Revolutions [rpm]</td>
<td>56 ~ 225 (inverter-controlled speed control)</td>
<td>56 ~ 210 (inverter-controlled speed control)</td>
</tr>
<tr>
<td></td>
<td>Feed rate [mm/sec]</td>
<td>0 ~ 30 (drive using AC servo motor)</td>
<td></td>
</tr>
<tr>
<td>Drive power</td>
<td>7.5 kW x 4 P</td>
<td>11 kW x 4 P</td>
<td>15 kW x 4 P</td>
</tr>
<tr>
<td>Drive system</td>
<td>AC servo motor + ball screw operated inclined carriage</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Clamping pressure</strong></td>
<td>Horizontal [kN]</td>
<td>15.2 (can be reduced)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vertical [kN]</td>
<td>3.9 (can be reduced)</td>
<td></td>
</tr>
<tr>
<td><strong>Hydraulic pump output [kW]</strong></td>
<td>1.5 kW x 4 P</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Feed system</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feed length [mm]</td>
<td>775</td>
<td>775</td>
<td>775</td>
</tr>
<tr>
<td>Feed rate [m/min]</td>
<td>24</td>
<td>24</td>
<td>18</td>
</tr>
<tr>
<td><strong>Dimensions</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Machine dimensions* [width x length x height] [mm]</td>
<td>1742 x 2035 x 1852</td>
<td>2016 x 2035 x 1872</td>
<td>2100 x 2105 x 1982</td>
</tr>
<tr>
<td>Machine weight [kg]</td>
<td>2200</td>
<td>2500</td>
<td>3300</td>
</tr>
<tr>
<td>Bar magazine (6 m) weight [kg]</td>
<td>490</td>
<td>810</td>
<td>1080</td>
</tr>
<tr>
<td><strong>Accessories</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bar loading magazine</td>
<td>Ø 76.3 x 6 pcs x 6.0 m</td>
<td>Ø 100 x 10 pcs x 6.0 m</td>
<td>Ø 150 mm x 6 pcs x 6.0 m</td>
</tr>
<tr>
<td>Single cut</td>
<td>manual single cut function</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chip conveyor</td>
<td></td>
<td>Scraper conveyor</td>
<td></td>
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</tbody>
</table>

* Dimensions without bar magazine
The tool
for the CMB circular saws

AMADA provides you with the appropriate tool for every application case.

Just like the machines, the circular saw blades are continuously improved and further developed.

By using AMADA tools on AMADA machines, there is always an optimum cutting result.

PRODUCT OVERVIEW

<table>
<thead>
<tr>
<th>TCB-CB</th>
<th>TCB-CR</th>
<th>TCB-TI</th>
<th>TCB-SU</th>
<th>TCB-PT</th>
<th>TCB-TISU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teeth made of carbide</td>
<td>Teeth made of Cermet</td>
<td>Teeth made of carbide + TiN coating</td>
<td>Teeth made of carbide</td>
<td>Teeth made of carbide</td>
<td>Teeth made of carbide + TiN coating</td>
</tr>
<tr>
<td>Universal tool for use with changing material qualities</td>
<td>Tool for unalloyed steels and steels with a carbon content between 0.15% – 0.45%</td>
<td>Tool for alloyed steels with a carbon content &gt; 0.45%, however no stainless or heat-resistant steels</td>
<td>Tool for stainless steel and high-grade steel</td>
<td>Tool specially for tubes and profiles</td>
<td>Tool with particularly high tool life for stainless steels</td>
</tr>
</tbody>
</table>

Available toothings:

<table>
<thead>
<tr>
<th>Diameter [mm]</th>
<th>TCB-CB</th>
<th>TCB-CR</th>
<th>TCB-TI</th>
<th>TCB-SU</th>
<th>TCB-PT</th>
<th>TCB-TISU</th>
</tr>
</thead>
<tbody>
<tr>
<td>285</td>
<td></td>
<td></td>
<td>60 teeth and 80 teeth</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>360</td>
<td></td>
<td></td>
<td>60 teeth, 80 teeth and 100 teeth</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>460</td>
<td></td>
<td></td>
<td>40 teeth, 60 teeth, 80 teeth and 100 teeth</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>