Product information

CM 300
Machine for grinding complete geometries of TCT circular saw blades
The concept.

If we say very precise, we mean exact.

Those who want to produce exact metal cutting saw blades have not only to observe basic parameters such as accuracy of inner saw blade bore, or to apply the appropriate clamping system, but also have to achieve an utmost stable processing and high level of rigidity of the grinding machine.

We were able to meet these demands with the unique machine concept of the CM 300. We obtain maximum accuracy for the top and face grinding of metal cutting saw blades due to the fixed grinding aggregate and the very massive construction. The result: exact surface quality that pays off – cut for cut.
The well-known VOLLMER user interface stands for maximum operating comfort, a fast machine operator learning process, and efficient handling of the machine. A great variety of available tooth shapes offers a high level of flexibility for the production of metal cutting circular saw blades. The comfortable programming of the machine reduces also the set-up times.

Operating, handling and equipment.
Fast and precise.

2 main spindles with up to 3 grinding wheels and the centrally situated measuring system.

Grinding of chip breaker groove.

The measuring probe, which is standard within the machine, takes all relevant parameters such as cutting width, width of saw blade body and hook angle.

Grinding of saw blades with chip guide notch.

Exemplary tooth shapes for chip and clearance surfaces.

All common tooth geometries for wood and metal cutting are integrated in the standard machine.
Technical data at a glance:

- Circular saw blades
  - Outer diameter: 200 to 1440 mm
  - Bore diameter: 16 to 200 mm
  - Blade thickness: up to 15 mm
  - Tooth pitch: 6 to 180 mm
- Clearance surface machining length: up to 40 mm
- Chip surface machining length: up to 25 mm
- Grinding angles
  - Hook angle: -35° to +20°
  - Clearance angle: 0° to 25°
  - Bevel grinding of tooth top: up to 45°
  - Bevel grinding of tooth face: up to 30°
  - Bevel grinding of negative tooth face: up to 30°
- Tooth height difference: any amount
- Grinding wheels
  - Spindle 1
    - Outer diameter: 125 mm
    - Bore diameter: 32 mm
    - Peripheral speed: 1.600 to 5.500 RPM
  - Spindle 2
    - Outer diameter: 80 to 200 mm
    - Bore diameter: 32 mm
    - Peripheral speed: 1.600 to 5.500 RPM
  - Chip breaker
    - Bore diameter: 50 mm
- Coolant tank capacity: approx. 220 l
- Total connected load: approx. 6,4 kVA
- Compressed air connection: 6 to 10 bar
- Weight: approx. 4.920 kg

The highlights:

- Machine for metal cutting circular saw blades that meet the highest demands with regard to precision and cutting edge quality.
- 2 main grinding spindles.
- The grinding aggregate can’t be swiveled, thus high level of rigidity and accuracy.
- The grinding wheels for machining chip breakers, clearance surfaces and chip surfaces are mounted onto powerful main spindles.
- Measuring of the complete tooth geometry.
- The tool management facilitates the flexible use of the grinding wheel spindles.
- Excellent grinding quality with either oil or emulsion as cooling agent.
- Operation control based on Windows XP.
- 9 CNC axes.

Dimensions:

We reserve the right to make design modifications in the interest of technical improvement.