



Product information

CL 200

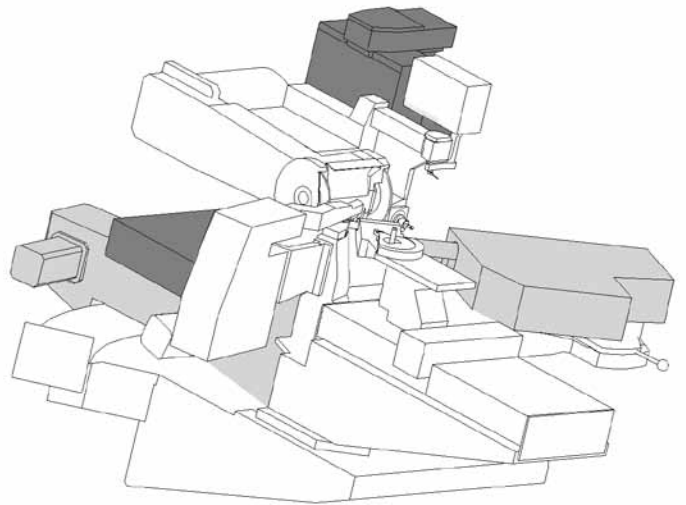
Sharpening machine of TC-tipped circular saws
on hook and clearance surface

CL 200

The idea: Unique machining possibilities in only one clamping - especially for sharpening shops.

Maximum flexibility and accuracy for more productivity – these are the requirements of sharpening shops and filing rooms in saw mills using modern machine concepts. With the new CL 200, VOLLMER now provides this target group the possibilities for which the market has been waiting for a long time.

The secret of this unique solution: The complete machining hook angle, clearance angle, top and blade body in one single clamping – perfectly combined with other numerous VOLLMER conveniences such as the integrated measuring probe.



With 5-CNC controlled axes all common tooth shapes can be processed in one pass.



The CL 200 working area.



Automatic data collection by means of the measuring probe.



Saw stop for the precise positioning of the saw blade.

The machine construction: Guarantee of high stability, low space requirements and optimum operability.

The complete unit of the CL 200 is built compactly and ruggedly in one central block – supplemented by a cost-optimized machine stand that features modern design and high ergonomics. This guarantees excellent grinding results in addition to outstanding operability and easy access to control cabinet, coolant pump, pneumatic or fire fighting devices, and other units that need maintenance work.

The technology: Innovations make it possible to achieve high grinding performance and perfect results.

In order to allow machining of hook surface, clearance surface and tool body in one clamping, the CL 200 is provided with the perfect technology:

1. Complete CNC control

From feed over the grinding path, infeed, and hook and clearance angle adjustment, up to bevel grinding, the CL 200 is completely CNC controlled. Thus all tooth shapes can be machined in one pass and tooth pitch and missing teeth can be detected with the feed pawl.

2. Highly flexible use of grinding wheels

The highly flexible application of the grinding wheels can be configured depending on the application. The relief grinding of the saw blade body, as well as the reduction of the chip thickness limiter, takes place automatically.

3. Saw blade support with height adjustment

Due to a height-adjustable saw blade support, even saws with a hoop ring can be machined without difficulty.

4. High grinding wheel clearance

The advantages: maximum flexibility, few or no restrictions with flexible tooth shapes and negative rake faces on large saws, and higher machining lengths when grinding the clearance surface.

5. Preparation for the fixed installation of a hollow face grinding spindle

On demand: Additional installation of a hollow face grinding unit for up to 60,000 rpm. Hollow face grinding with automatic misalignment.



Hook surface processing with combi grinding wheel.



Clearance surface processing with combi grinding wheel.

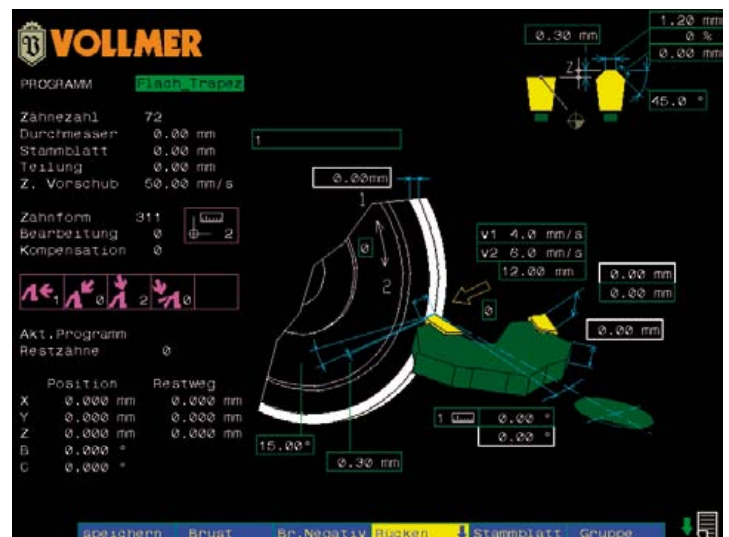


Tool body processing with CBN grinding wheel.

The handling: Easy, safe and efficient due to VOLLMER's useful innovations.

The CL 200 proves its outstanding class with its measuring probe that is integrated by default: All data related to the saw is measured automatically. Among other benefits, this provides for short tooling time, high dimensional accuracy of the work pieces, as well as automatic detection and grinding of tooth sequences, newly-replaced or missing teeth.

To control the device, the users can rely on the familiar windows-based VOLLMER operating interface, on which all important data for the machining is stored or can be easily programmed. The ideal supplement for this approved method is a novel tool management system that retrieves the prepared grinding wheel configurations from stored data records when necessary. And another innovation is the grinding wheel compensation that eliminates the need for all empirical values of grinding wheel wear with immediate effect – the measuring probe measures now the wear automatically.



The additional performances: Even more security for high productivity and smooth process flow.

The frequency converter already included in the basic machine improves the CL 200 once more: The optimum rotation speed can be set depending on the work piece, and can be adjusted up to perfection to different grinding wheel diameters. The results are high stock removal rates combined with best possible surfaces.

Additional security for overall production is given by the functions for the collection of operational and machine data that are already implemented in the control. This not only allows for the analysis of utilized capacity and productivity, but also for the storage of work piece data.



Clearance surface processing with left spindle nose.



Hook surface processing with right spindle nose.



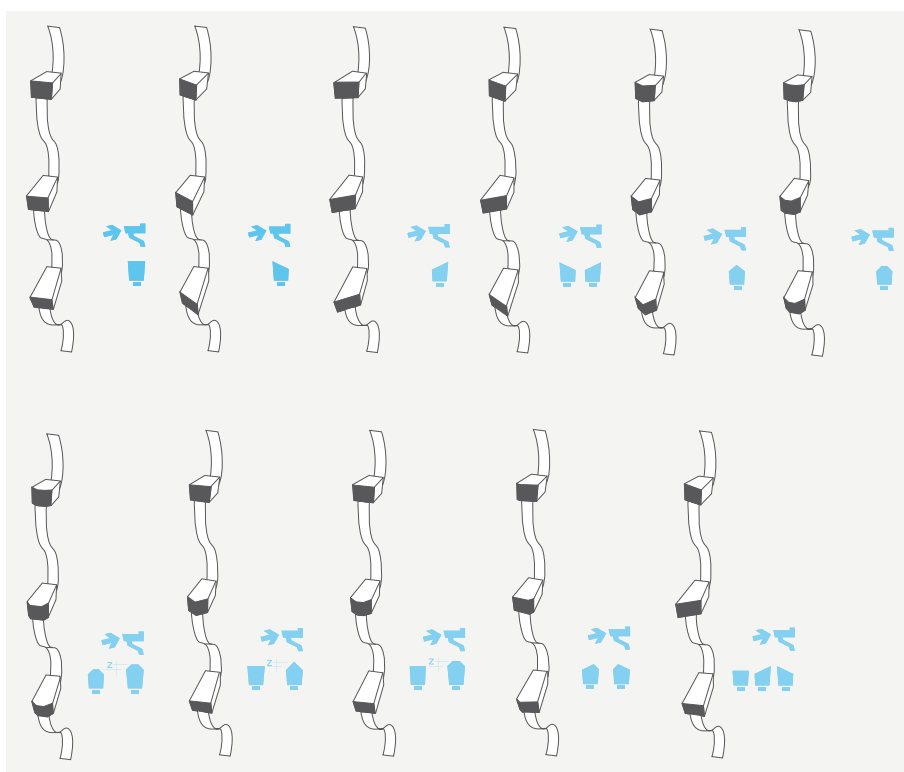
Option: Hollow face grinding

The concept: Maximum productivity thanks to flexibility, versatility and high grade of automation

With the possibility of completely machining circular saw blades within the diameter range of 80 to 840mm in only one pass on the hook and clearance surface as well as on the blade body, the CL 200 offers its user high process stability as well as high accuracy and short tooling and machining times.

What makes this possible is the perfect combination of innovations and approved VOLLMER components, which make the CL 200 the ideal product for sharpening shops: automatic measurement of the complete tooth geometry, cam-controlled feeding, manually adjustable saw carrier, possibility of grinding with emulsion or oil, flexible tool management, and perfect preparation for additional options..

Several different tooth shapes in one cycle (Further tooth shapes are in preparation)

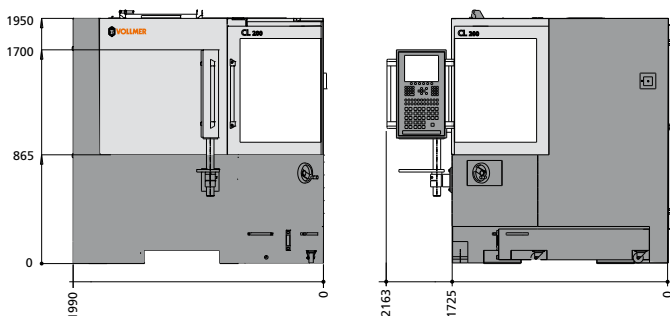


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Technical data at a glance:

- Circular sawblade
 - Outside diameter from 80 to 840 mm
 - Bore diameter from 10 mm
 - Blade thickness < 8 mm
 - Tooth pitch from 6 to 120 mm
 - Cutting edge length < 20 mm
 - Hook angle from -30° to 30°
 - Hollow face hook angle from -10° to 25°
 - Clearance angle from 0 to 30°
- Grinding wheel
 - Grinding wheel Ø for face grinding from 140 to 155 mm
 - Grinding wheel Ø for top grinding from 120 to 155 mm
 - Grinding pin Ø for hollow face grinding from 5 to 8 mm
 - Bore diameter 32 mm
 - Peripheral speed variable from 2.400 to 5.000 U/min
- Grinding speed 0,5 to 20 mm/s
- Working speed 12 Z/min
- Coolant pump power 50 l/min
- Coolant container capacity 150 l
- Total connected load ca. 5 kVA
- Compressed air connection 6 bar
- Weight ca. 2.600 kg

Dimensions



The highlights

With the CL 200, VOLLMER presents a unique machine concept that was specially developed for sharpening shops.

- Machining of hook and clearance surface, as well as tool body, in one single clamping.
- Highly flexible machine with compact design.
- Enormously high productivity and short tooling times.
- High diameter range: from 80 to 840mm.
- High-quality surface.
- Measuring probe integrated by default.
- Automatic grinding length detection.
- Optional: Built-in hollow face grinding unit with up to 60,000 rpm.
- Automatic detection of newly-replaced and missing teeth.
- Automatic blade body machining.
- Frequency converter already included in basic machine.
- VOLLMER operational philosophy with windows-based control.
- Integrated collection of operating and machining data.