VOLLMER

CX 100

Higher performance and more flexibility in the compact class.

CNC controlled

DESIGN AWARD WINNER 1998
INDUSTRIE FORUM DESIGN HANNOVER

Design Innovationen Essen·Germany
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The CX 100.
Advanced technology.

The new grinding machine in the compact class. Innovative details for your needs: fully CNC-controlled, small construction, faster than other units of comparable quality. The CX 100.

The CX 100's new machine concept ensures precise results when grinding carbide tipped circular saws up to 500 mm diameter.

Four CNC axes control bevel grinding, the grinding wheel feed, the grinding stroke and the tooth feed providing the best basis even for complicated tooth geometries. The optimum coordination of movements and the CNC technology reduce non-productive time. Result: shorter grinding times and higher precision.

The tooth pitch no longer needs to be adjusted. The computer system calculates the tooth pitch after the saw's diameter and number of teeth have been entered. The blade thickness value is not required.

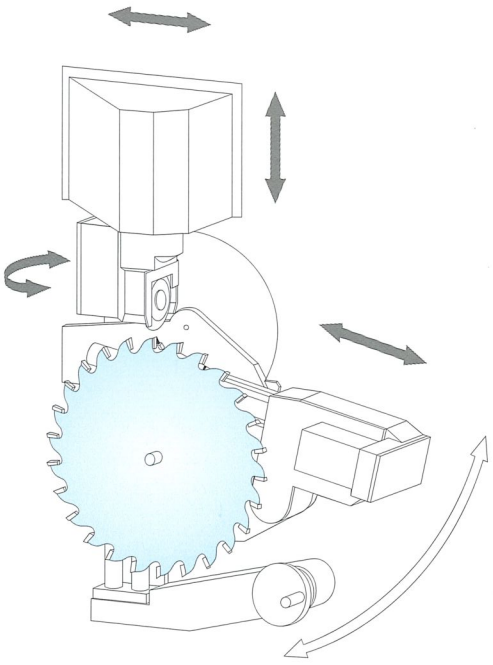
The CX 100 can be recognized immediately by its unique new design, which offers even more benefits. A large window gives high visibility of the object being machined. The circular door can be opened effortlessly, making it easier to work. Even changing saw blades is easy.

The machine compartment is separated from the working area by a protective cover, thereby protecting the motor's mechanical parts against dirt and grime.

The Vollmer PMC-multiprocessor control provides the ideal conditions for most application requirements.

A minimal amount of data needs to be entered at the control panel providing exceptional ease of operation. The operator is assisted by a menu on the LCD color display, which is graphics supported.

The CX 100 has been honored with one of the most prestigious design awards in the world, the IF Product Design Award 1998. Not only has excellent product quality paid off, but so has design.



Four controlled axes provide the basis for a variety of applications.

VOLLMER

Experience
Research
Innovation
Future
Progress
Precision
Speed
Environmental protection
Automation
Economy
Design

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Ease of operation through more intelligent controls.

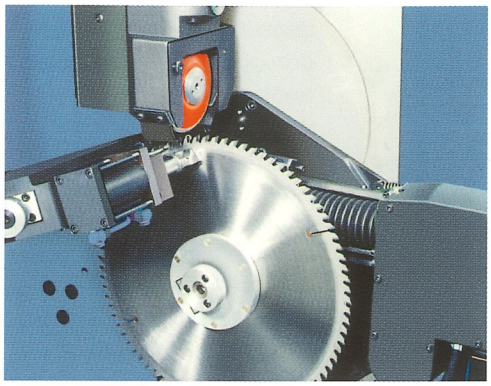
The CX 100 ist proving that intelligent control equals ease of operation. This starts with the control panel, which can be swiveled and adjusted for height and angle. Next, the software was developed so that only minimal data entry is required. The operator is guided through the program via plain text supported by graphics on the LCD color display. Non-productive time is also reduced as a new program can be entered while the current program is running. Values from saw blade drawings can be entered quickly.

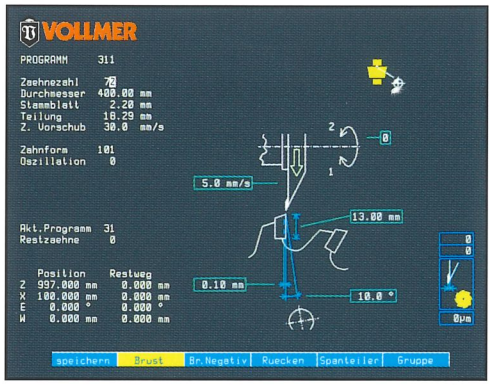
All known tooth geometries for face and top grinding can be accessed via menus. The operator decides the order of the individual working procedures. The basic data, for example, diameter and number of teeth are entered once and stored for later use.

The LCD color display shows the operator important information to enable rapid correction of potential errors.

A Versatile Concept.

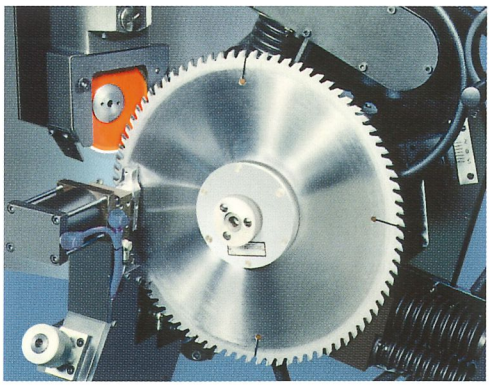
Face grind

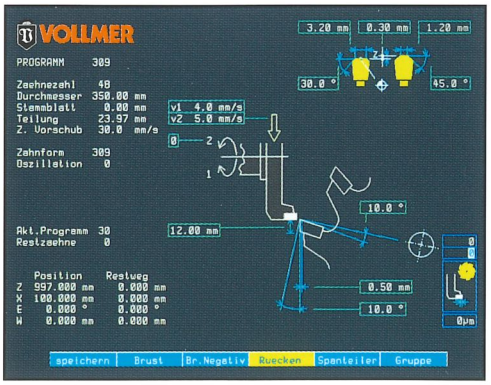




Menu on the LCD color display

Top grind





Menu on the LCD color display

Overview of the most important advantages:

Grinding every tooth shape on the face or top in one cycle.

Exceptionally short grinding times, reduced non-productive time, excellent grinding results.

Four CNC axes control bevel grinding, the grinding wheel feed, the grinding stroke and tooth feed.

Four complicated tooth geometries with different bevel grinding angles and tooth heights.

Outstanding results are guaranteed both with water-based coolant and oil.

Minimal data entered centrally at the control panel.

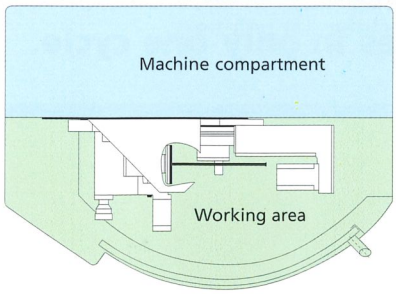
Operator easily guided through program via LCD color display, supported by graphics.

Tooth pitch and blade thickness setting no longer required.

Unique new design, fully enclosed.

Working area is separated from machine compartment by a partition.

State of the art grinding unit concept for high demands.



The new machine concept.

This new machine concept with four controlled axes provides the basis for high precision results. In addition, the industry standard multiprocessor control offers high flexibility.

The CX100 is not only extremely precise, but also very fast. Non-productive work time has been further reduced and cycle times have been shortened via the special grinding unit concept.

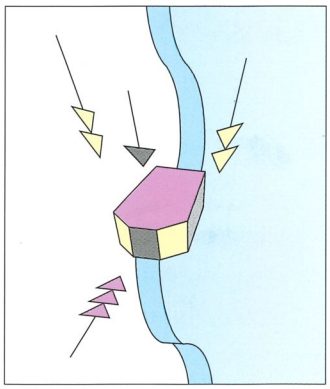
Hard- and software programs for woodworking tooth geometries are included as standard. The range of possible uses can be expanded greatly with additonal hard- and software packages depending on the task at hand. For example, with programs for metal machining, for multiple surface machining on tooth tops or for oscillation grinding.

Even saw blades with differing tooth pitches or group toothing configurations can be ground as standard.

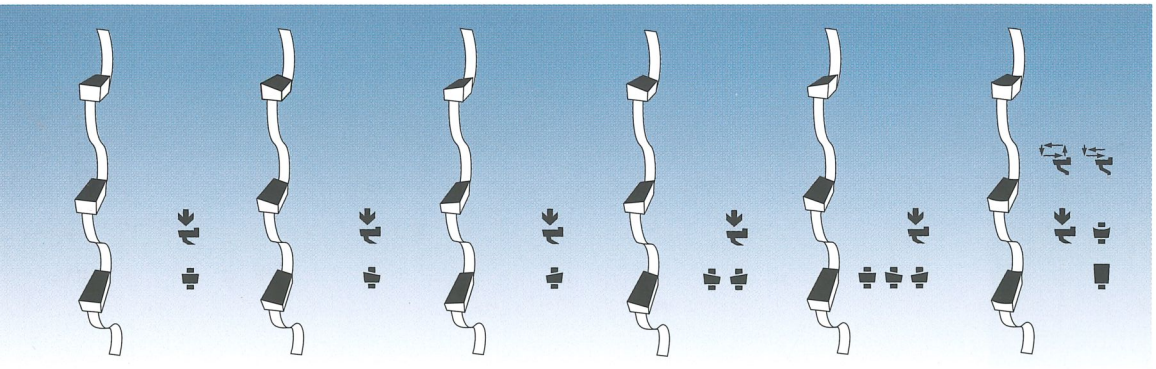
An optional pneumatically actuated feed pawl offers a range of other benefits for saw blades with close tooth pitches, with axial angles or hollow teeth, or when chamfering HSS saw blades.

A saw stop is also offered as an optional extra to facilitate saw blade set-up.

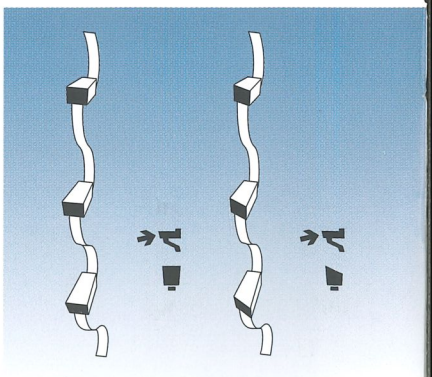
An additional advantage: Different grinding speed and path values can be steplessly entered for each surface to be ground.



Several different tooth shapes in only one cycle.



Wood working face grinding (included as standard)

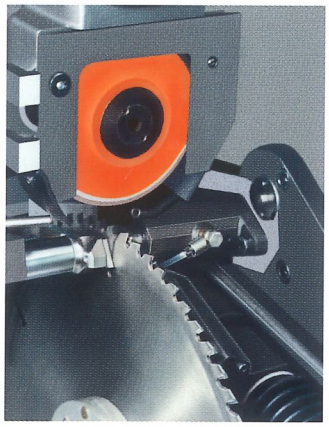


Wood working top grinding (included as standard)

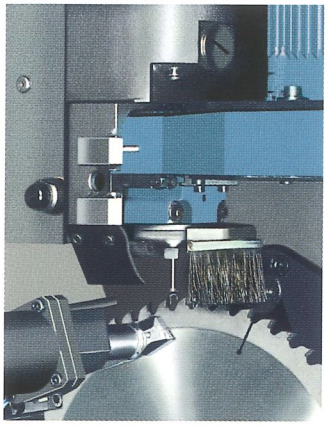
Versatility even in the details.

The CX 100 is versatile and can be used for many grinding applications. Yet another contribution to improving economic operation in the sharpening room.

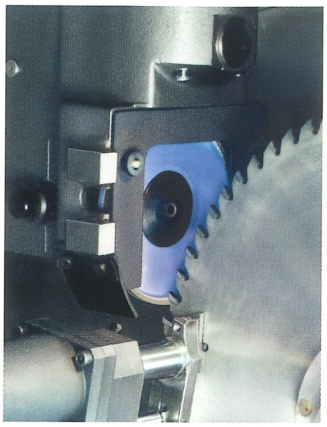
Here are just some of the possibilities.



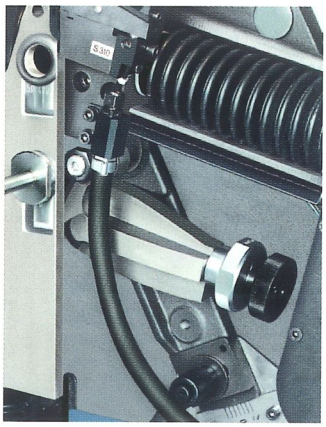
Stable blade clamping eases changing the saw blade.



Exact symmetrical hollow tooth grinding can be achieved with an additional grinding unit.

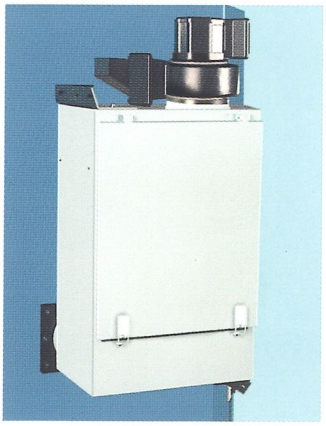


Relief grinding of the blade's structure in one cycle.



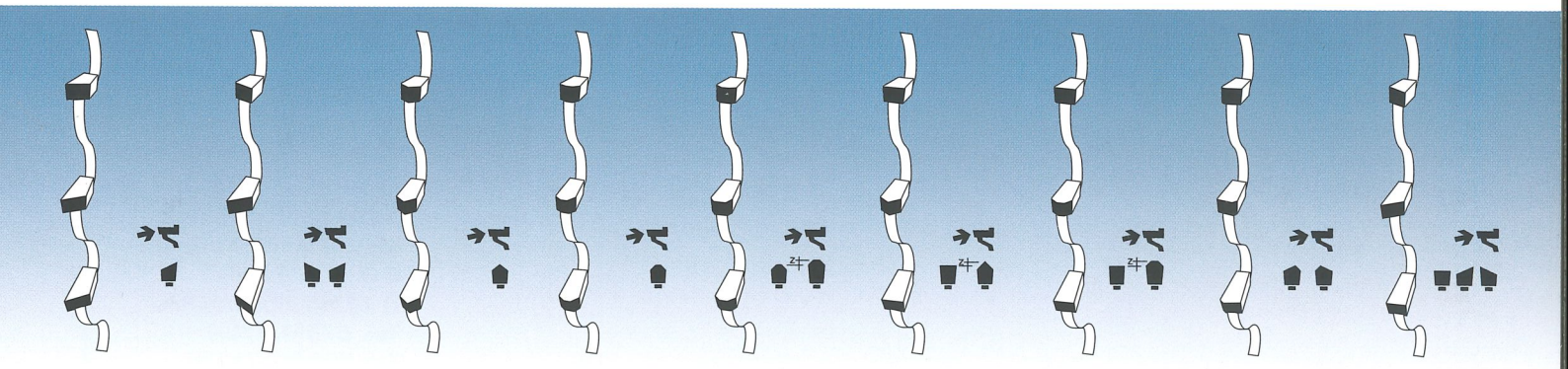
Set of curves with various feed curves for different saw blade diameters.

Manual central lubrication is included as standard.

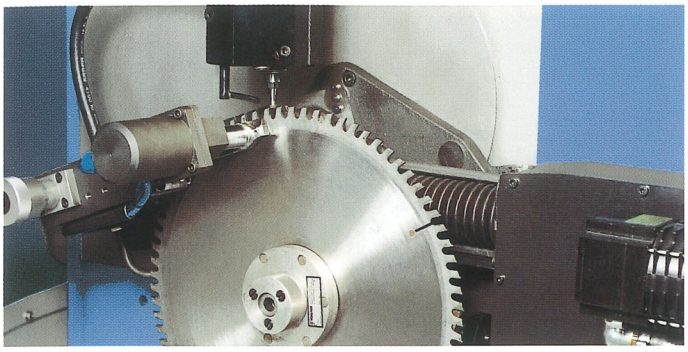


The optional filter system draws out coolant mist.

The N 170 cleaning system is recommended for cleaning the coolant.



The CXH 100,
the specialist for hollow face saw blades.

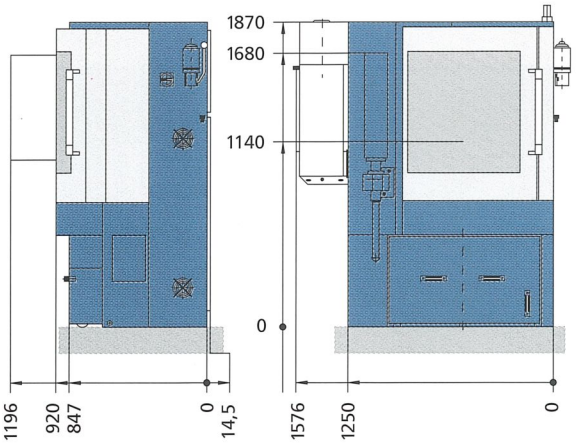


The version CXH 100 with 3 CNC axes was developed especially for hollow face saw blades. Simple setting without the need for re-equipping, configured for continuous operation. Operating at speeds of 55,000 min^{-1}, the high-frequency spindle offers optimum conditions for outstanding grinding results.

The specifications of the CX 100 at a glance:

Circular saws	
Outside diameter	80 to 500 mm
Bore diameter	from 10 mm
Blade thickness	to 5 mm
Tooth pitch	7 to 100 mm
Grinding path	to 24 mm
Hook angle	-30° to + 50°
Clearance angle	6° to 40°
Bevel grinding on tooth top	to 45°
Bevel grinding on tooth face	to 30°
Tooth height difference	as required
Grinding wheel	
Outside diameter	125 mm
Bore diameter	32 mm
Peripheral speed	26 m/s
Grinding speed	0,5 to 20 mm/s
Working speed	to 18 teeth/mn
Coolant container capacity	approx. 85 l
Total connected load	approx. 3 KVA
Weight	approx. 950 kg
Compressed air connection	approx. 6 bar

Dimensions



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