

////////// CIRCULAR SAW //

Machine for sharpening tooth faces and tooth tops on carbide-tipped circular saw blades with a diameter of 80 to 650 mm

CP 650



THE ECONOMIC EFFICIENCY OF A NEW GENERATION: THE **CP 650**

FOUR CNC-CONTROLLED AXES FOR ACCURATE
GRINDING OF ALL COMMONLY USED TOOTH
GEOMETRIES IN ONE CYCLE.

USER-FRIENDLY CONTROL SYSTEM WITH NEWLY
DEVELOPED MULTIFUNCTION HANDWHEEL.
AUTOMATIC CENTRAL LUBRICATION FOR REDUCED
MAINTENANCE EFFORT AND A CLEVER MACHINE
CONCEPT FOR FLEXIBLE USE IN A WIDE RANGE
OF APPLICATIONS IN WOOD, ALUMINIUM AND
PLASTIC.

THE RESULT: THE PERFECT COMBINATION OF
PRECISION AND PRODUCTIVITY IN THE MACHINING
OF CARBIDE-TIPPED CIRCULAR SAW BLADES
WITH A DIAMETER OF 80 MM TO 650 MM.

CP 650
NEW BENCHMARK IN
PRICE-PERFORMANCE RATIO

CP 650 – ADVANCED TECHNOLOGY IN A CONCENTRATED FORM



//// 1 COMPACT DESIGN

The space-saving design of the CP 650 enables efficient use of space and ensures ease of start-up

//// 2 LCD COLOUR DISPLAY

Supports the advanced operating concept and ensures optimum user guidance

//// 3 LARGE VIEWING WINDOW

Provides an unobstructed view of the grinding process and the entire operating area at all times

//// 4 FULL ENCLOSURE AS STANDARD

For effective protection against noise, spray and emissions, as well as a characteristic appearance, all in one unit

//// 5 SOLID DESIGN

The stable machine design on the front panel enables the CP 650 to operate without vibration and contributes to the quality of results

//// OPTIMUM AREA SEGREGATION

The electrical compartment, machine compartment and operating area are strictly separated from one another: This protects the mechanics and electrics from contamination, facilitates maintenance work and increases service life



/// THE MACHINE CONCEPT

The CP series is ideally equipped for sharpening carbide-tipped circular saw blades. Offering versatility that leaves nothing to be desired, yet with numerous options.

/// Four CNC-controlled axes for the complete machining of all commonly used tooth geometries in just one cycle – even for saws with axial face angle and group toothing

/// Oscillation grinding as standard – for high material removal rates in just one cycle, e.g. when machining teeth for repair

/// Motor-driven hook and clearance angle adjustment for rapid switchover from face to top grinding

/// Optimum movement coordination for short grinding times and reduced non-productive time

/// Consistently hydraulic-free – extremely low-maintenance

/// Automatic central lubrication included in the basic equipment for reduced maintenance effort



/// MAXIMUM FLEXIBILITY
thanks to four CNC-controlled axes (B1, Z1, X1, V1)



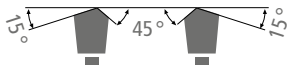
/// TOOTH FACE MACHINING



/// TOOTH TOP MACHINING

/// THE APPLICATION

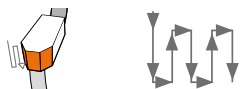
Its high level of functionality makes the CP 650 the first choice in each case for the workshop-oriented sharpening of circular saw blades in wood, aluminium, plastics and metal processing, and it can therefore be universally used in sawmills, sharpening services and the production of small-batch runs.



/// BEVEL GRINDING ANGLE
can be individually chosen



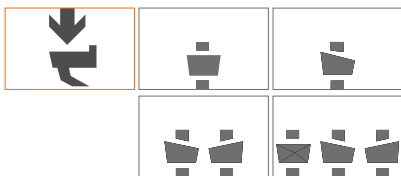
/// GRINDING SPEED
can be steplessly adjusted according to different surface quality



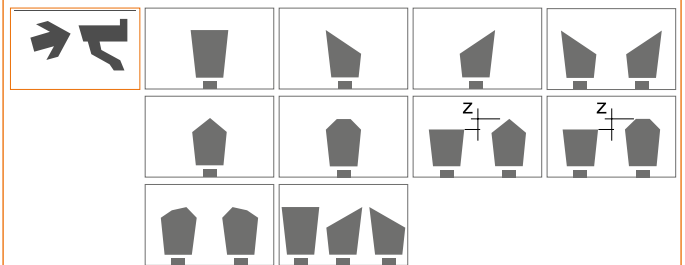
/// OSCILLATION GRINDING PROCESS
achieves outstanding surface finish quality even with high removal rates



/// GROUP TOOTHING
can be machined



/// TOOTH FACE // TOOTH SHAPE EXAMPLES



/// TOOTH TOP // TOOTH SHAPE EXAMPLES



/// MULTIPLE SURFACE PROGRAM
optional



/// THE OPERATING CONCEPT

The modern operation concept with the new multifunction handwheel makes work significantly easier and faster. The axes are selected and controlled by only one module, which is very helpful for avoiding the possibility of incorrect operation. The handwheel is also used as an override potentiometer in order to be able to carry out speed adjustments in automatic mode.

/// Optimised machining times and surface finish quality through variable input of the grinding speeds for various different surfaces

/// No tooth pitch input required thanks to the feed pawl sensor system

/// Automatic adjustment of the hook angle and clearance angle through digital detection avoids adjustment errors

VOLLMER OPERATION PHILOSOPHY – ensures maximum convenience of use



/// 1 CONCISE VOLLMER SYMBOLS
facilitate intuitive programming

/// 2 STORAGE
of up to 4000 programs possible

/// 3 WINDOWS-BASED INTERFACE
with 10-inch LCD colour display and graphical user guidance

/// 4 EASY SET-UP
thanks to innovative multifunction handwheel

/// SPECIFICATIONS

Circular saws

Outside diameter	80–650 mm
Bore diameter	from 10 mm
Blade thickness	≤ 5 mm
Tooth pitch	≤ 100 mm
Hook angle	–10° to +30°
Clearance angle	+5° to 45°

Bevel grinding

on the tooth top	≤ 45°
on the positive tooth face	≤ 15°

Grinding paths

Hook angle	≤ 20 mm
Clearance angle	≤ 24 mm
Grinding shaft drive output	0.7 kW

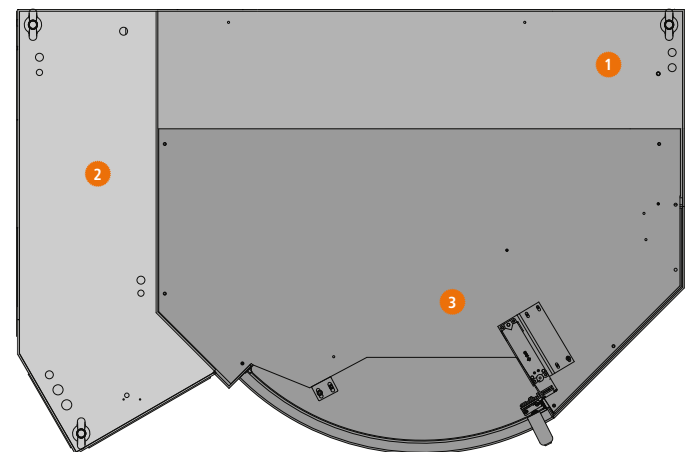
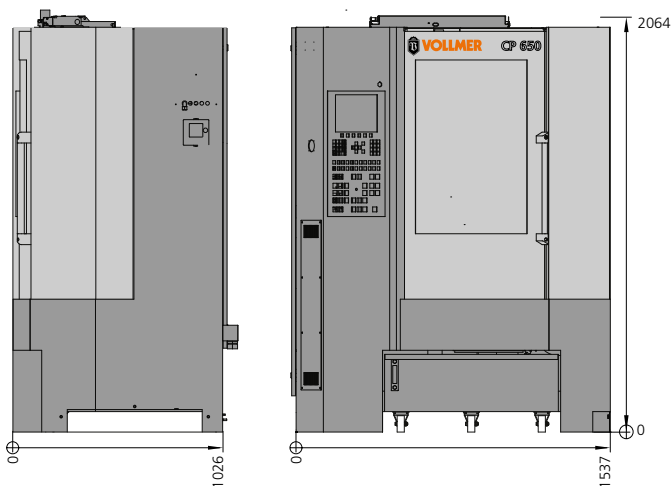
Grinding wheels

Outside diameter	125 mm
Bore diameter	32 mm
Peripheral speed	approx. 27 m/s

Coolant tank capacity	approx. 125 l
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Connected load (without auxiliary equipment)	approx. 2.2 kVA
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Weight	approx. 900 kg
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/// MACHINE DIMENSIONS

/// INTERIOR COMPARTMENTS

- 1 Machine compartment 2 Electrical compartment 3 Operating area

/// SERVICE THAT IS MADE TO MEASURE

With a comprehensive range of helpful and efficient services, VOLLMER is there to provide you with support. From competent advice and the best financing for you, through to an advantageous service contract that allows you to decide now which service costs you will have to pay in the future.

In short: We do everything so that you can concentrate on what's important – your success.

- /// Extensive advice and project planning
- /// Financing and insurance
- /// Training and start-up
- /// Maintenance and service
- /// Original spare parts
- /// Upgrade and software
- /// Purchase and sale of used machines



CP 650 – YOUR ADVANTAGES AT A GLANCE:

- /// **MORE PRODUCTIVITY**
Optimised grinding times, maximum machining precision, exemplary operational convenience.
Your bonus in terms of efficiency and precision.
- /// **INCREASED COST EFFICIENCY**
High performance under extremely equitable conditions.
Manageable investment – high profitability.
- /// **INCREASED FLEXIBILITY**
Four CNC axes. Machines all commonly used tooth geometries in one cycle – including group toothing.
Ready for anything.



For more information
about VOLLMER