

CUTTING



MOUNTING



POLISHING



MICROSCOPY AND HARDNESS



EVO 500

THE HIGH-CAPACITY, HIGH-TECH CUTTING MACHINE



A cutting machine
dedicated to large parts.
High-power, part detection,
integrated force sensor...
EVO 500 lives up to your ambitions.



A STRONG WORLDWIDE PRESENCE THROUGH SUBSIDIARIES AND MORE THAN 35 DISTRIBUTORS



FUNCTIONS

REF. 50800

Width
1660mm

Depth
1815mm

Height (hood closed)
1955mm

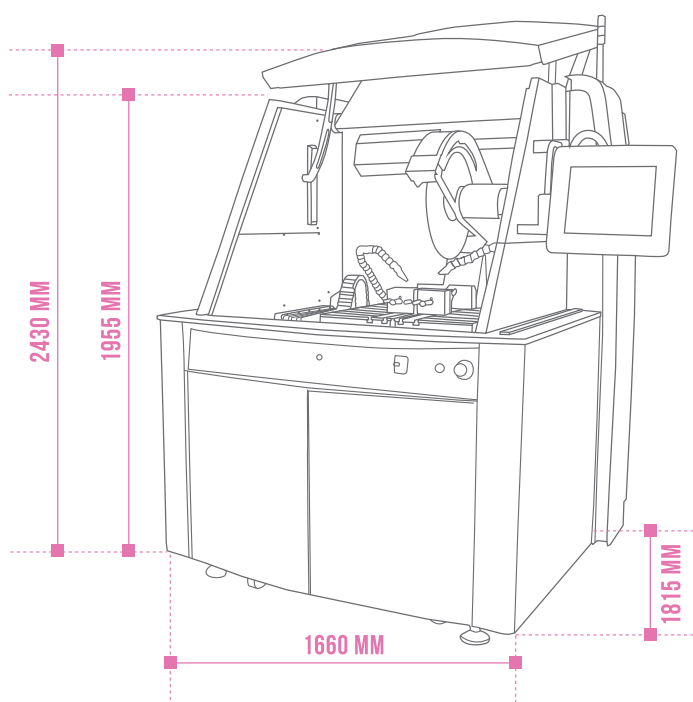
Height (hood open)
2430mm

Weight
1100kg

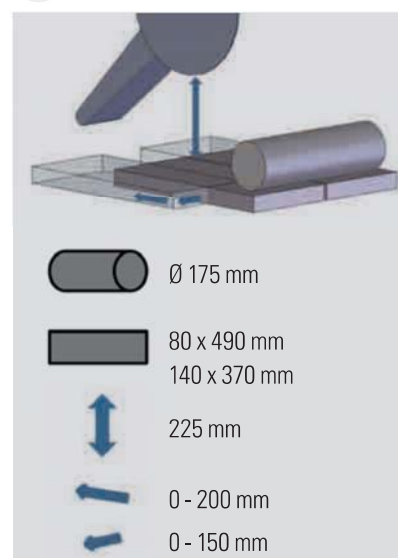
Conformity
EC

EVO 500 cutting machine

Ideal for **very large samples** (up to 240mm high and over 200kg), EVO 500 comes with **exceptional motor capacity** and an **automatic cleaning** system. The top-of-the-line EVO 500 comes standard with the most recent technology advances.



CUTTING ENVELOPE*



* This illustration of the cutting envelope of the EVO 400 is to show the maximum theoretical capacity only. The actual capacity in practice will depend on the sample geometry and its physical properties.

OPERATIONS

POWERFUL

Equipped with a very **powerful motor**, EVO 500 has a series of regulators that make cutting easier. Disc cutting speed remains constant. The frequency controller boosts the power of the motor, allowing tougher materials to be cut. Its **exceptional cooling capacities** mean high cutting speed without the risk of burns. Lubrication is delivered via two directional nozzles and numerous lubrication points in the grinder housing.

ERGONOMIC

EVO 500 is equipped with a **motorized hood**, leaving sufficient working space for parts to be loaded by lifting. The transparent cover and interior LED lighting provide great visibility. EVO 500 also has a **cutting wheel locking system**, meaning discs can be changed quickly and easily.

INTUITIVE

EVO 500 is intuitive with its **multilingual color touchscreen interface**.

PRECISE

The motor controlling the 3 axes (X, Y and Z), which is standard on EVO 500, allows precise positioning. The positioning of parts to be cut is quick and optimized, thanks to the positioning laser. **Dual lubrication system**.

FEATURE-PACKED

EVO 500 has innovations as standard, such as its **part-detection system** and an integrated force sensor. Axis **speed adjusts to the cutting stresses**.

EASY MAINTENANCE

Maintenance and cleaning of the EVO 500 are made easy by its **automatic cleaning system** that kicks in when the hood is down. A wash-shower is also included for manual cleaning with the hood up. The touchscreen has one USB sockets for maintenance operations.

OPERATOR SAFETY

Both of the operator's hands are needed with the hood up to move the motorized axes to ensure safety.

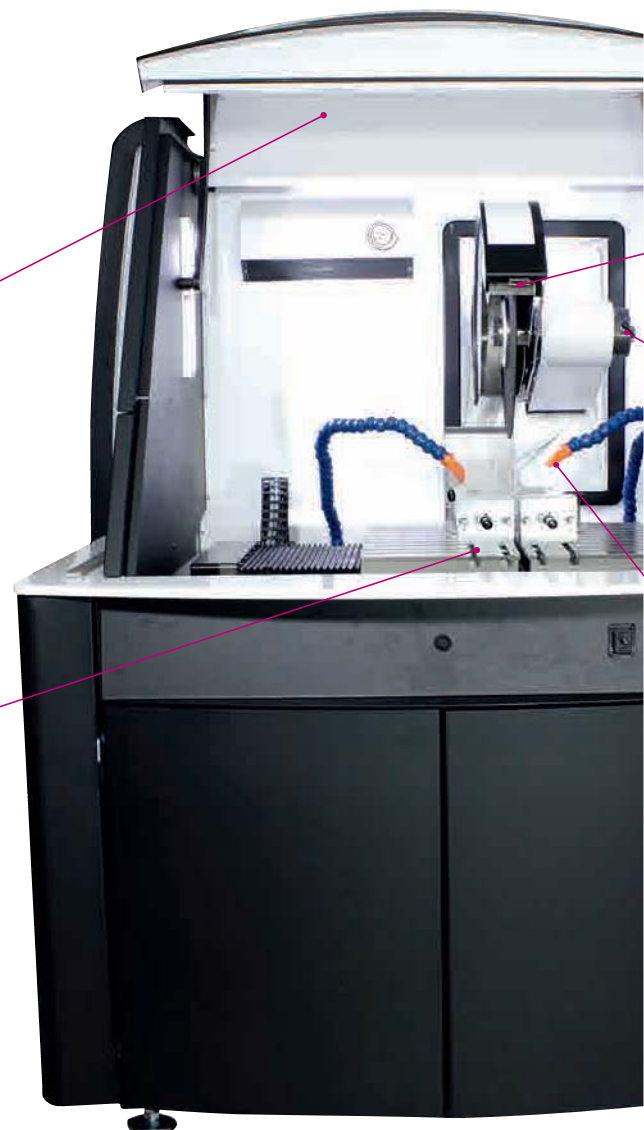
600 X 600MM TABLE

Equipped with a 600 x 600mm table, motorized on axes X and Y, it can cope with large parts weighing up to 200kg. The T-slotted multipurpose deck (12mm) can adapt to all clamping systems available on the market.

CLEANING NOZZLE



600 X 600MM TABLE



CUTTING MODES

ASSISTED

In this mode, the user directly controls the selected cutting axis (Y or Z) using the joystick. It's manual but effort-free.

AUTOMATIC

The machine automatically cuts according to parameters entered by the operator using the touchscreen. During cutting, these parameters can be changed. Thanks to the motorized transversal deck, the user can programme the machine to cut sections of fixed or variable thickness in series, taking the grinder thickness into account.

PROGRAMMABLE

The user cuts according to pre-programmed parameters, secured by password.

Depending on the geometry of the part, it is possible to combine the Z and then Y axis or Y and then Z so as to increase cutting capacity. This functionality can be used manually or automatically.

SETTINGS

PULSED

In automatic and programmable modes, during difficult cutting operations, it is possible to use the pulsed regulation on Y or Z axis. This improves part and disc cooling.

AUTOMATIC FEED

In the 3 cutting modes, and if necessary, the automatic feed regulator limits the speed of movement of the motorized axes when cutting stresses are too great. This regulation protects the consumable and optimizes the surface condition of the cut.



POSITIONING LASER



CUTTING WHEEL LOCKING SYSTEM



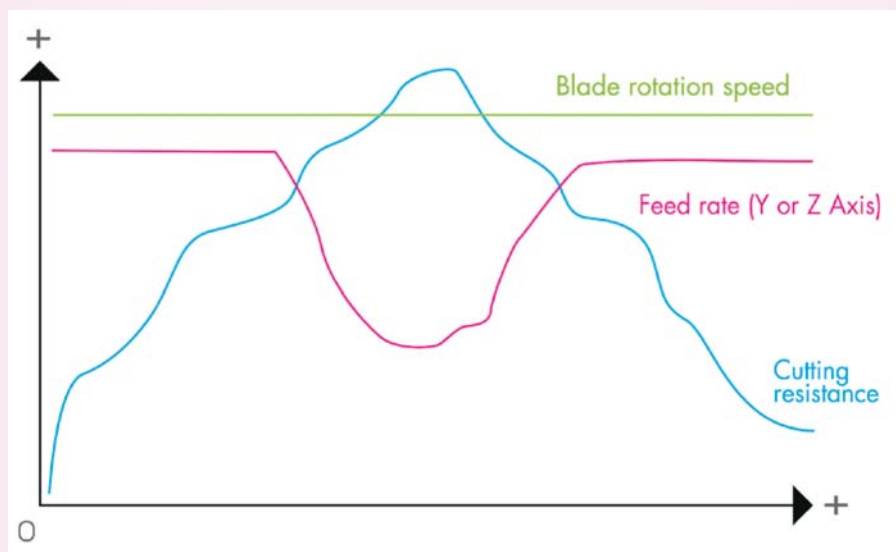
LUBRICATION NOZZLES



Dual lubrication system

OPERATIONS

SIMULATION OF A CUTTING CYCLE



The feeding rate of the axis adjust to cutting stresses.

CHARACTERISTICS

HOOD	
Type	Metal frames & PETG - Motorized opening and closing
Safety	Locked during motor rotation
Fumes extraction outlet	76mm
MOTORIZATION-POWER SUPPLY	
Power	11000W / 21000W (inverter)
Power supply	380V / 3 phases / 50 Hz
Control of the motor	Frequency inverter
CUT-OFF WHEELS	
Type of cut-off wheels	Resin bonded and metal bonded
Wheel diameter	Up to 500mm
Rotational speed	1,000 to 3,000
Arbor size	32mm
CONTROL	
Interface	Color touchscreen
Security Access	Can be activated
Programmability	Up to 100 password-protected programs
Communication interface / Machine control	CANOPEN
CUTTING	
Cutting method	Assisted, automatic, programed, by impulse
Work piece feed	Y axis table feed and Z axis wheel feed
Feed rate	From 0.01mm/sec to 3mm/sec
Cutting control	Feed speed according to the motor load. Movement of the arm according to the motor load. Feed of the table and movement of the arm according to the contact force cut off wheel / workpiece to cut. Rotation speed of the cut off wheel
Axis Y travel	200mm*
Axis X travel	150mm*
Axis Z travel	400mm
Serial cutting	2 modes: Y Axis cut and Z Axis cut
Dimensions tables	Left table: 295 x 600mm-Right table: 295 x 600mm*
Laser to locate the cut	Yes
Distance between cut-off wheel and table	225mm
Table type	Treated Aluminum table with interchangeable stainless steel "T" slot plates
Holders	Slotted T table (12mm) accepting all clamping systems available on the market
LUBRICATION - COOLING	
Pump and tank	External - 300L
Type of lubrication	By Pump
Position of lubrication / Cooling	2 ports in the wheel guard. 2 alignable nozzles mounted on the wheel assembly
Filter	Washable 200 µm fabric filter
Automatic fi lling	Yes with control of levels
ERGONOMICS	
Internal lighting	LED
Spray nozzle for cleaning	Integrated
Automatic cleaning cycle	Yes
CONFORMITY	
Conformity	EC

* Customizable tables and stroke lengths

ACCESSORIES

Vices and Holders

50510

Left and right quick clamping vices
Height 70mm

50911

Left and right quick clamping vices
Height 90mm

50906

Left and right quick clamping vices
Height 45mm

50905

Left quick clamping vice
Height 45mm

50909

Right quick clamping vice
Height 45mm

50617

Chain clamp

50613

Box of Kopal holders

50616

Kopal holding

50902

Left and right screw clamping vices
Height 45mm

50901

Left screw clamping vice
Height 45mm

50903

Right screw clamping vice
Height 45mm

Other accessories

50370

Kit of V positioning supports



REF. 50510 - 50911



REF. 50906



REF. 50905



REF. 50909



REF. 50617



REF. 50613



REF. 50616



REF. 50902



REF. 50901



REF. 50903



REF. 50370

CONSUMABLES

RESINOID CUT-OFF WHEELS

REF.	DESIGNATION	DIAMETER	HARDNESS	MATERIALS
01038	Ref. A abrasive Al ₂ O ₃ (ferrous materials)	Ø 450 x 3.5 x 32mm	100 - 350 Hv	Low carbon, mild and extra mild and treated steels with medium cross-sections
01062		Ø 500 x 3 x 32mm		
01036	Ref. A0 abrasive Al ₂ O ₃ (ferrous materials)	Ø 450 x 3.5 x 32mm	300 - 500 Hv	Treated steels, stainless steels, refractory metals, alloyed cast irons
01063		Ø 500 x 3 x 32mm		
01037	Ref. MNF abrasive SiC (non ferrous materials)	Ø 450 x 3.5 x 32mm	30 - 350 Hv	Aluminium, copper and alloys, non ferrous metals, titanium and alloys
01066		Ø 500 x 3 x 32mm		
01048	Ref. T abrasive SiC (non ferrous materials)	Ø 450 x 3 x 32mm	50 - 400 Hv	Titanium, titanium alloys, non ferrous metals
01065		Ø 500 x 3 x 32mm		

OTHER PRESI EQUIPMENT...

CUTTING



Mecatome ST 310

MOUNTING



Poly'Vac

POLISHING



Mecatech 334

HARDNESS TESTING



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CONSUMABLES



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FIND OUT MORE AT

WWW.PRESI.COM

38320 Brié et Angonnes - Grenoble - France.

Tel. 33 (0)4 76 72 00 21. Fax 33 (0)4 76 72 05 84. E-mail: presi@presi.com

