

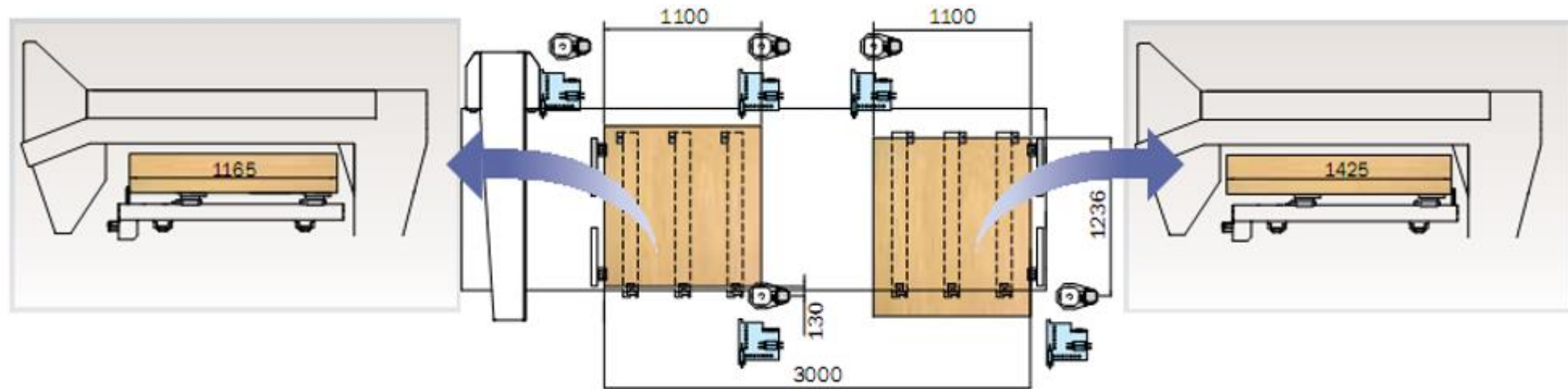
# WINNER 250



# WINNER 250 – X-Y Strokes

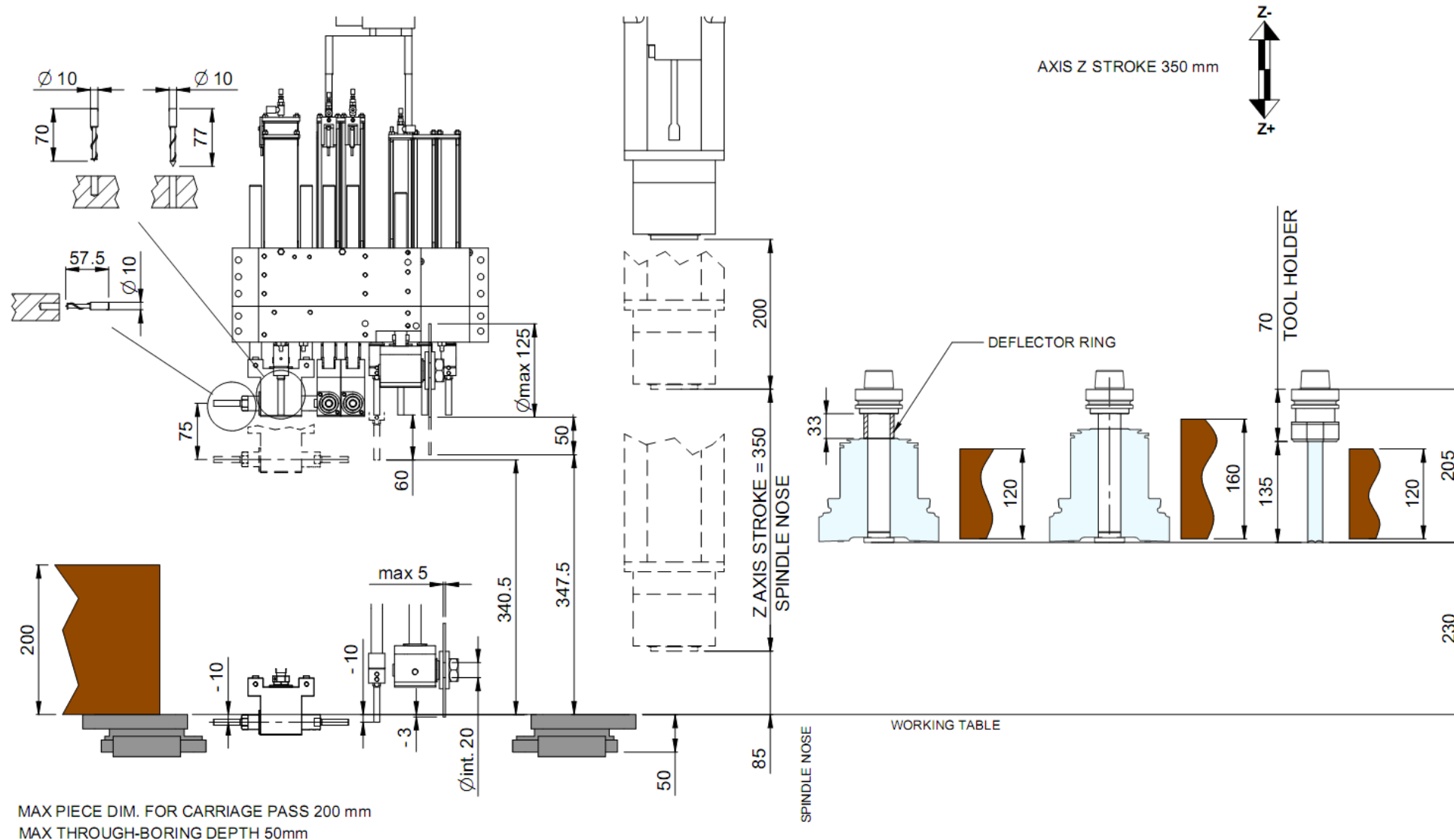
Working Field	Standard	Optional
X	3000	3000
Y	1165	1236 <sup>1</sup>
Z	160 <sup>2</sup>	150 <sup>2</sup>

Axes Stroke	Standard
X	3390
Y	1904
Z	350



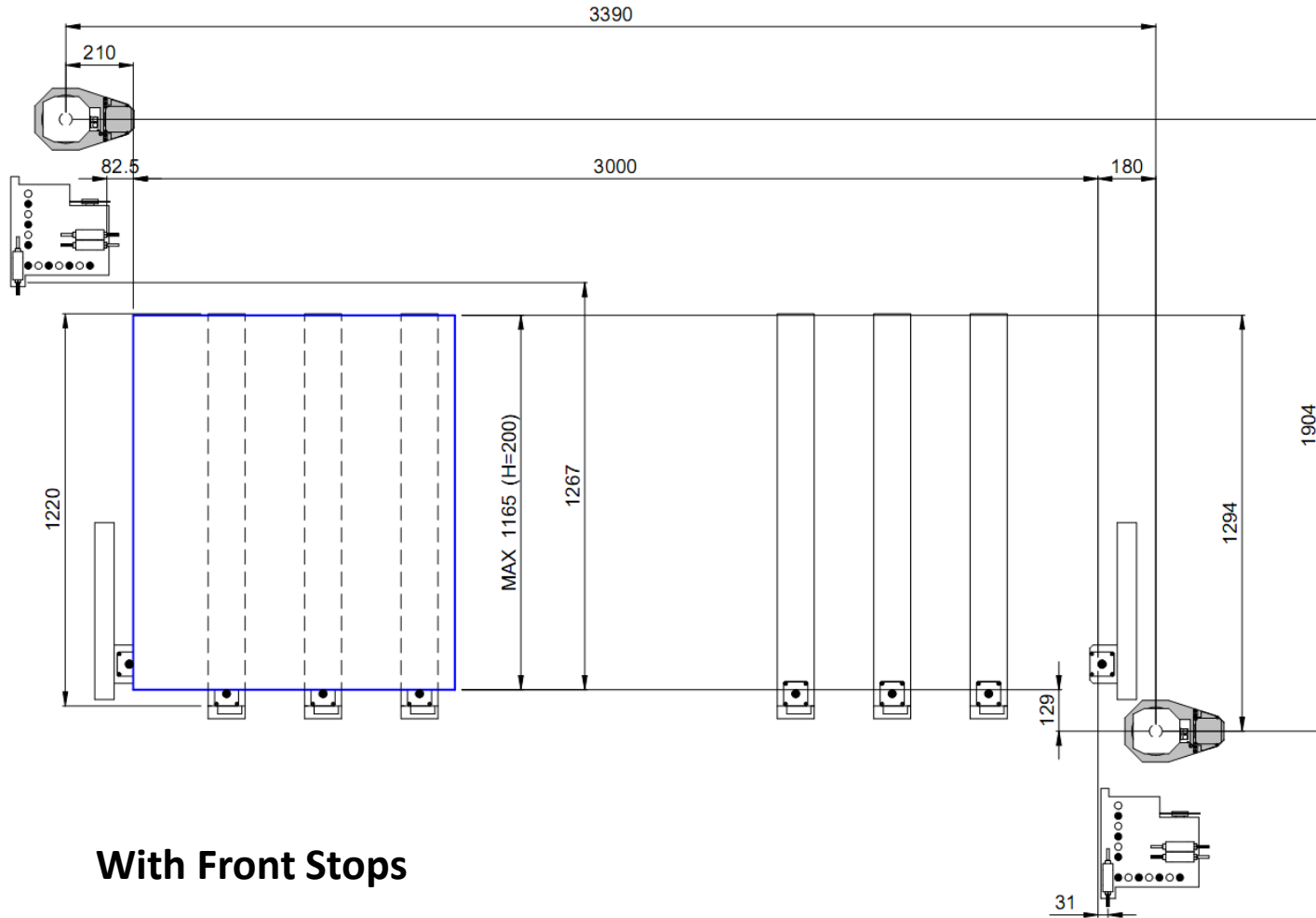
- 1) With rear stops (maximum panel loading 1425 mm)
- 2) Max workpiece height above the vacuum cups 200 mm

# WINNER 250 – Z Stroke

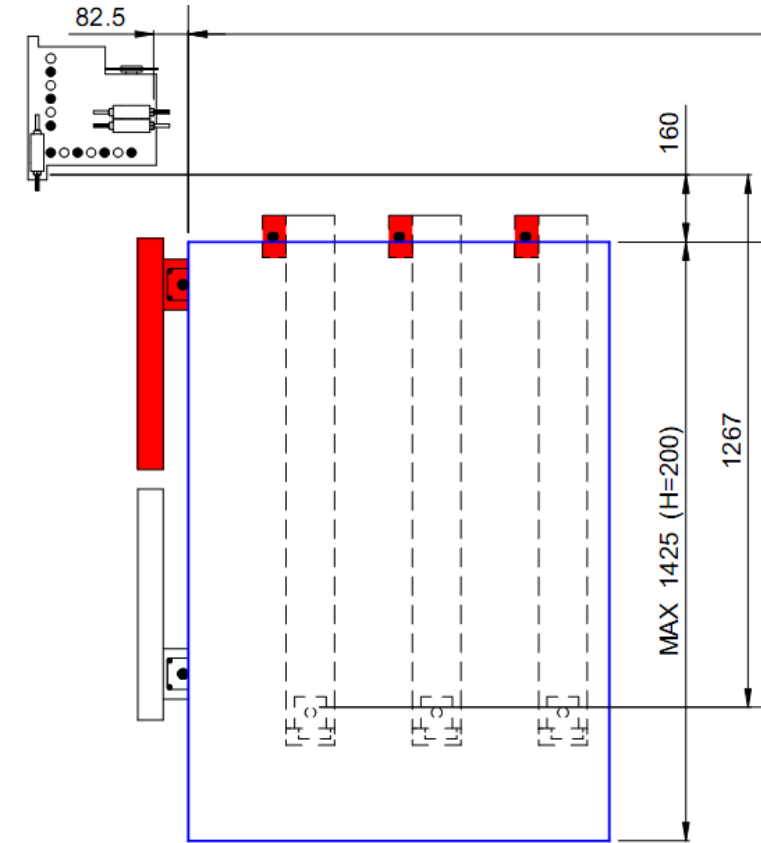


MAX PIECE DIM. FOR CARRIAGE PASS 200 mm  
MAX THROUGH-BORING DEPTH 50mm

# WINNER 250 – Working Area (X-Y)



**With Front Stops**



**With Rear Stops**

# WINNER 250 - Manufacturing



The new structure, designed according to the Finite Element Method (FEM) technology, guarantees both higher precision and higher machining quality. Cantilever structure type (Y Axis) with high rigidity made of welded and ribbed steel.



Workings are always controlled by the operator thanks to the transparent total enclosure protection of the operating unit



NC controlled adjustable height suction hood (std.) and chips conveyors (opt.) to optimise the suction system



Door to access within the perimeter guards for easy maintenance

# WINNER 250 – *Transmission and Movement*

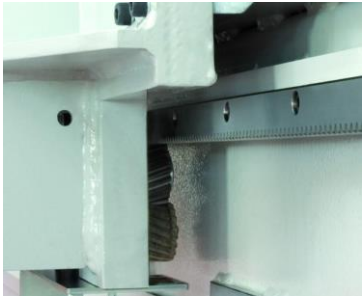
## Transmission

X axis

Y –Z axes

Rack and pinion<sup>1</sup>

Preloaded lead screw



## Motors (A.C. Servo motor)

X Axis

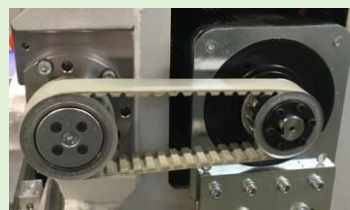
Y axis

Z Axis

1 kW – 4,77 Nm – 2000 rpm

0,5 kW – 2,39 Nm – 2000 rpm

0,5 kW – 2,39 Nm – 2000 rpm



- Smooth, quiet and consistent motion
- Capable of high speeds and acceleration rates
- High dynamic load capability
- Effective full contact sealing

### Remarks

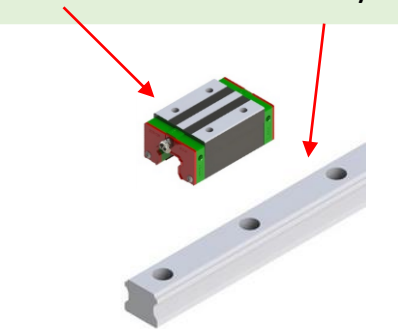
1) Rack with ground and raking teeth made up of hardened and tempered steel; Tempered pinion with ground teeth. The pinion is integral to a planetary gearbox with high precision. One felt pinion is coupled to the steel pinion and is constantly lubricated and apply a lubricating film to the teeth of the rack to guarantee long lasting and precision.

# WINNER 250 – *Transmission and Movement*



## Linear Movement - Heavy Load Ball Type Linear Guideway

X Axis	Y Axis	Z Axis	Blocks - Guideways
N°2 guideways H25 + 4 blocks	N°2 guideways H25 + 4 block	N°2 guideways H25 + 4 blocks	



### (1) Self-aligning capability

By design, the circular-arc groove has contact points at 45 degrees. They can absorb most installation errors due to surface irregularities and provide smooth linear motion through the elastic deformation of rolling elements and the shift of contact points. Self-aligning capability, high accuracy and smooth operation can be obtained with an easy installation.

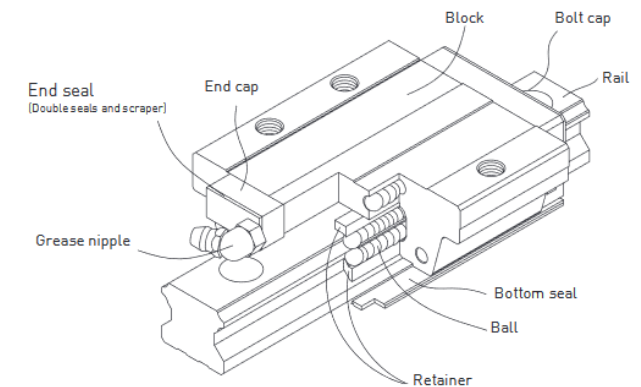
### (2) Interchangeability

Because of precision dimensional control, the dimensional tolerance of guideways can be kept in a reasonable range, which means that any blocks and any rails in a specific series can be used together while maintaining dimensional tolerance. And a retainer is added to prevent the balls from falling out when the blocks are removed from the rail.

### (3) High rigidity in all four directions

Because of the four-row design, the linear guideway has equal load ratings in the radial, reverse radial and lateral directions. Furthermore, the circular-arc groove provides a wide-contact width between the balls and the groove raceway allowing large permissible loads and high rigidity

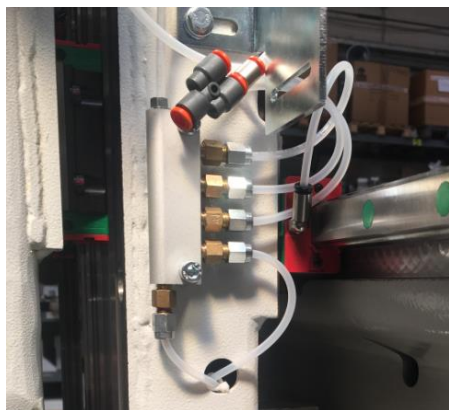
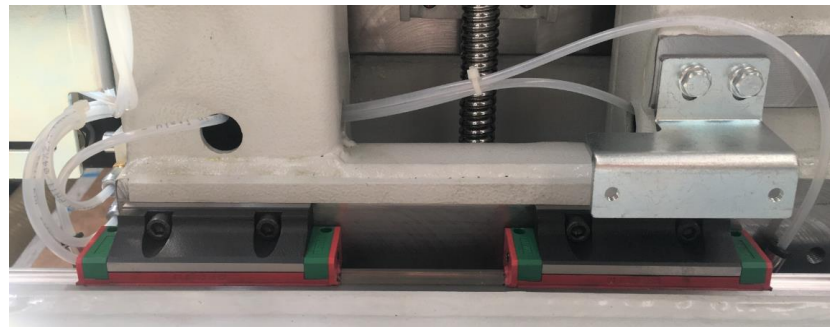
Thus, these linear guideways can achieve a long life with high speed, high accuracy and smooth linear motion



# WINNER 250 – Lubrication

The machine is equipped with a centralized lubrication system which provides the distribution of the lubricant to all the movable parts of the machine, X, Y and Z axis.

The system is controlled by CNC.



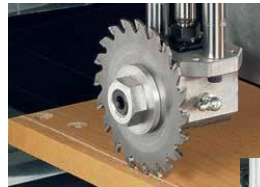
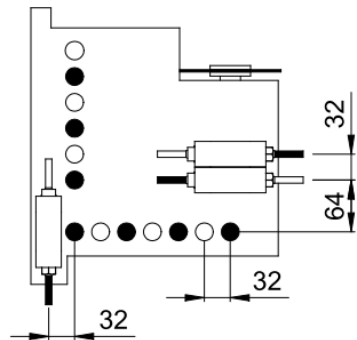
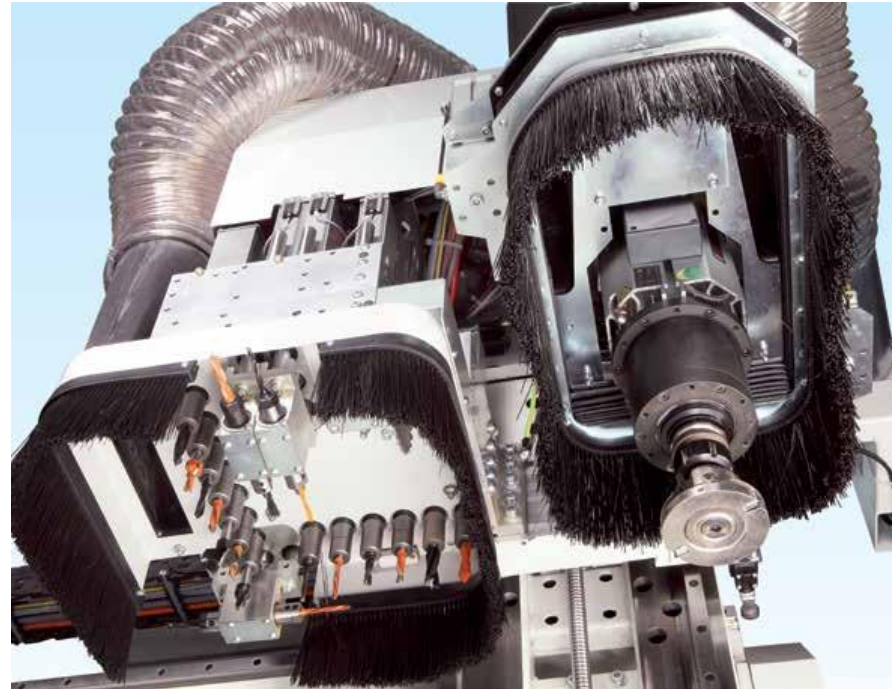


# WINNER 250 - Operating heads

## Drilling head including :

- n.6 Vertical spindles in Y
  - n.7 Vertical spindles in X
  - n.2 double horizontal spindles in X
  - n.1 double horizontal spindles in Y
  - n.1 Saw blade 120 mm oriented in X direction
- Motor: 1,7 kW at 4000 RPM

\*Variable and programmable rotation speed

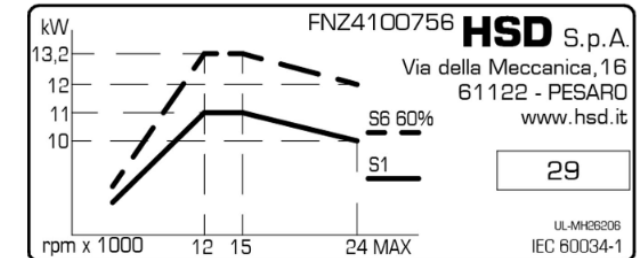


«C» Axis  
Optional



## Electrospindle

- Power : 13,2 kW S6 – 11 kW S1
- Speed : 24.000 rpm
- Type of Cooling : Cooling Fan
- Tool Holder : HSK F 63

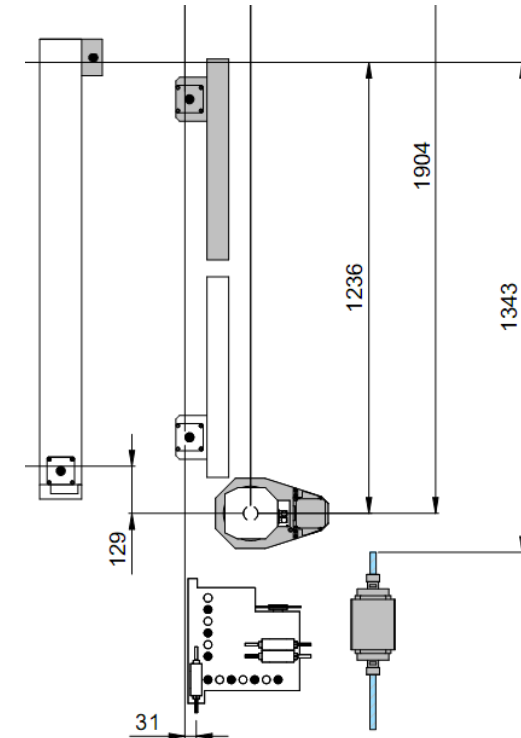
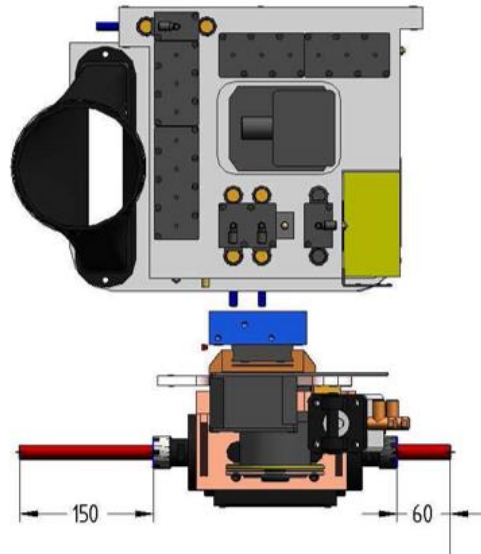
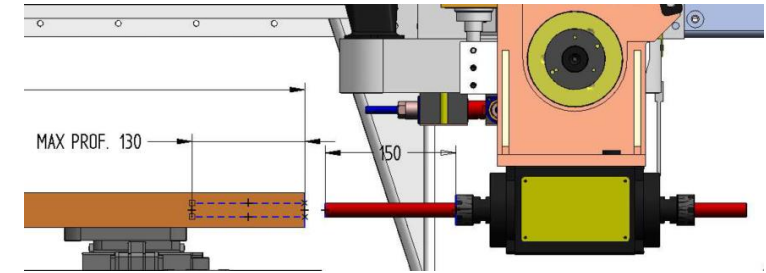
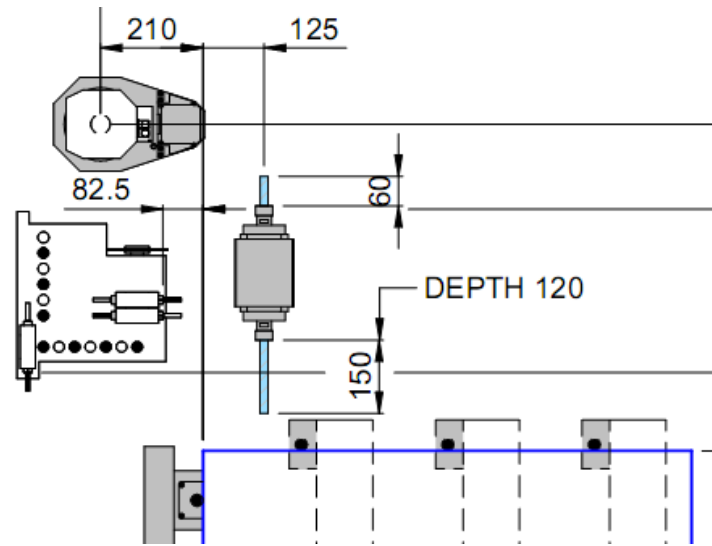


# WINNER 250 – Horizontal tilting routing unit



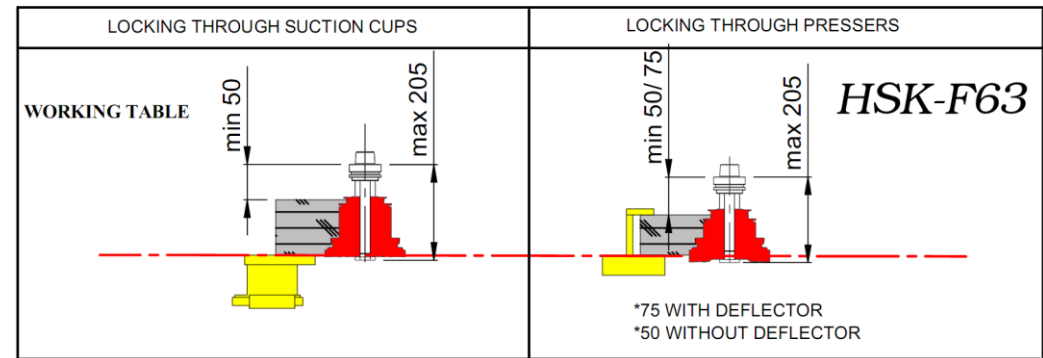
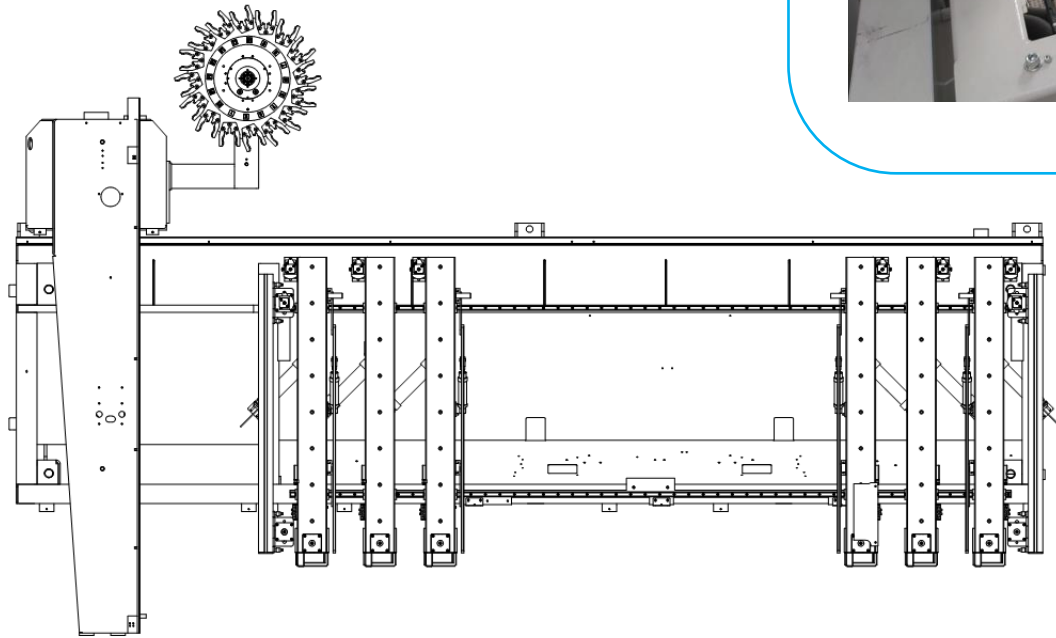
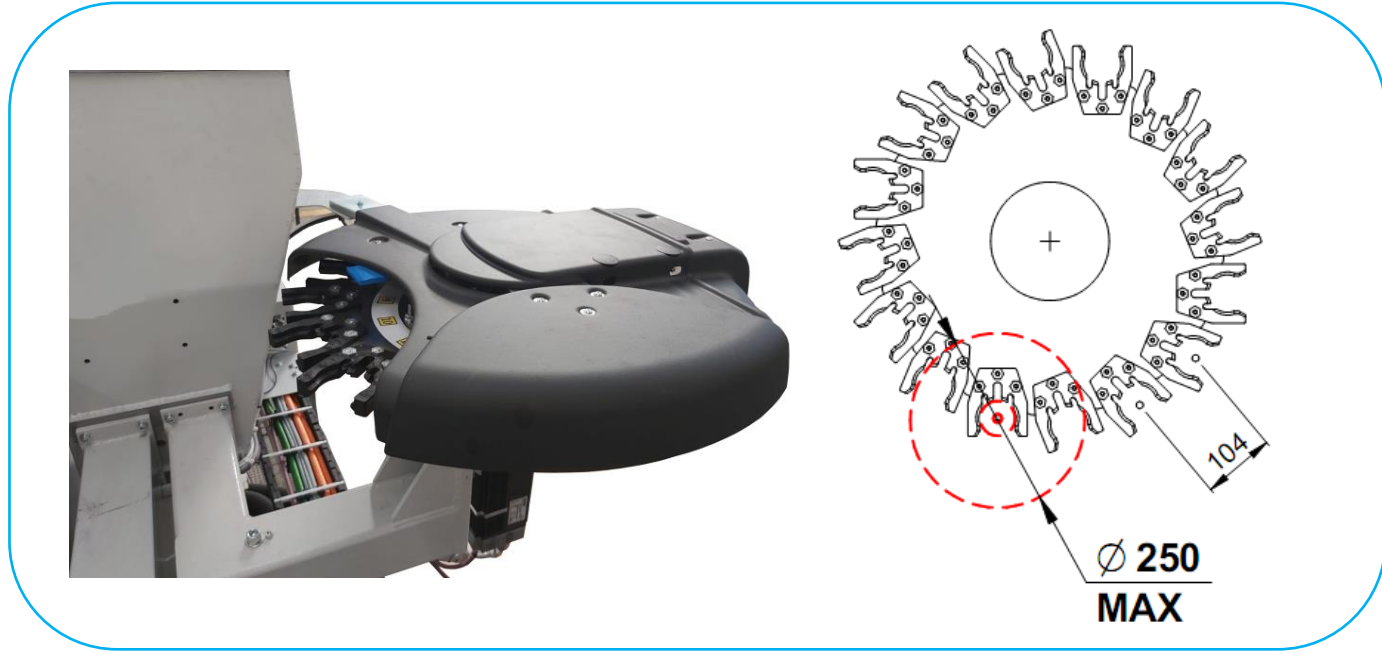
## Tilting Milling Units double exit

- Door lock and hinges machining
- 2,2 kW Ac motor with inverter, 18.000 rpm, air cooled
- ERC 25 collet for tool shank  $\varnothing$  16mm
- Pneumatic Tilting from 0° to -6° or from 0° to +6° controlled by CNC
- Available both with Left or Right rotation

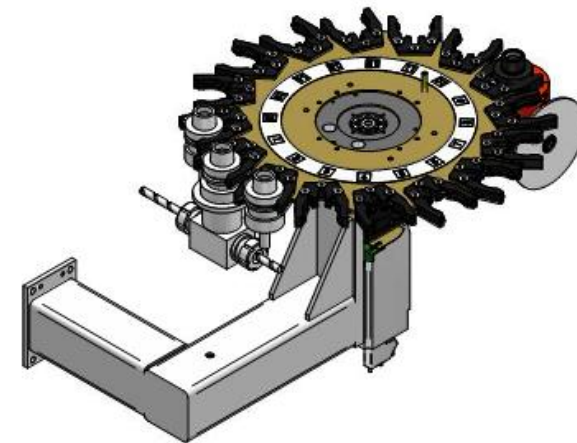
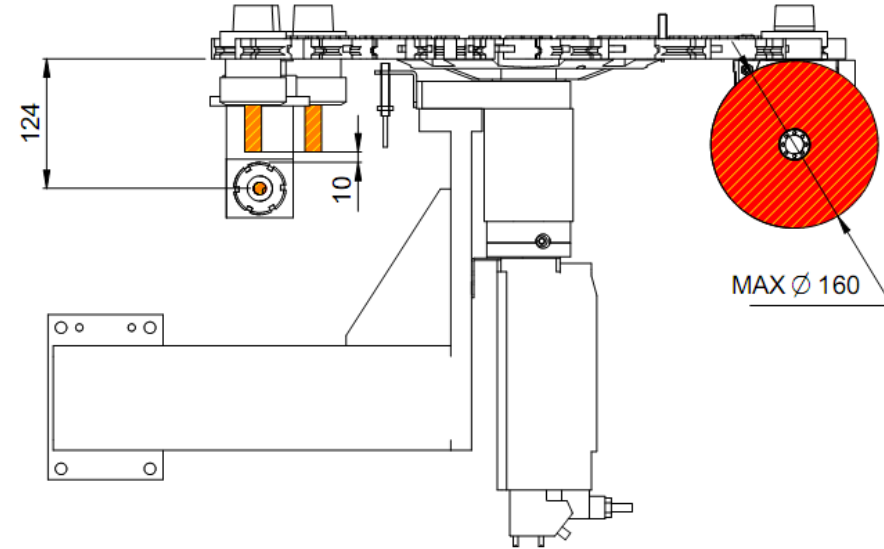
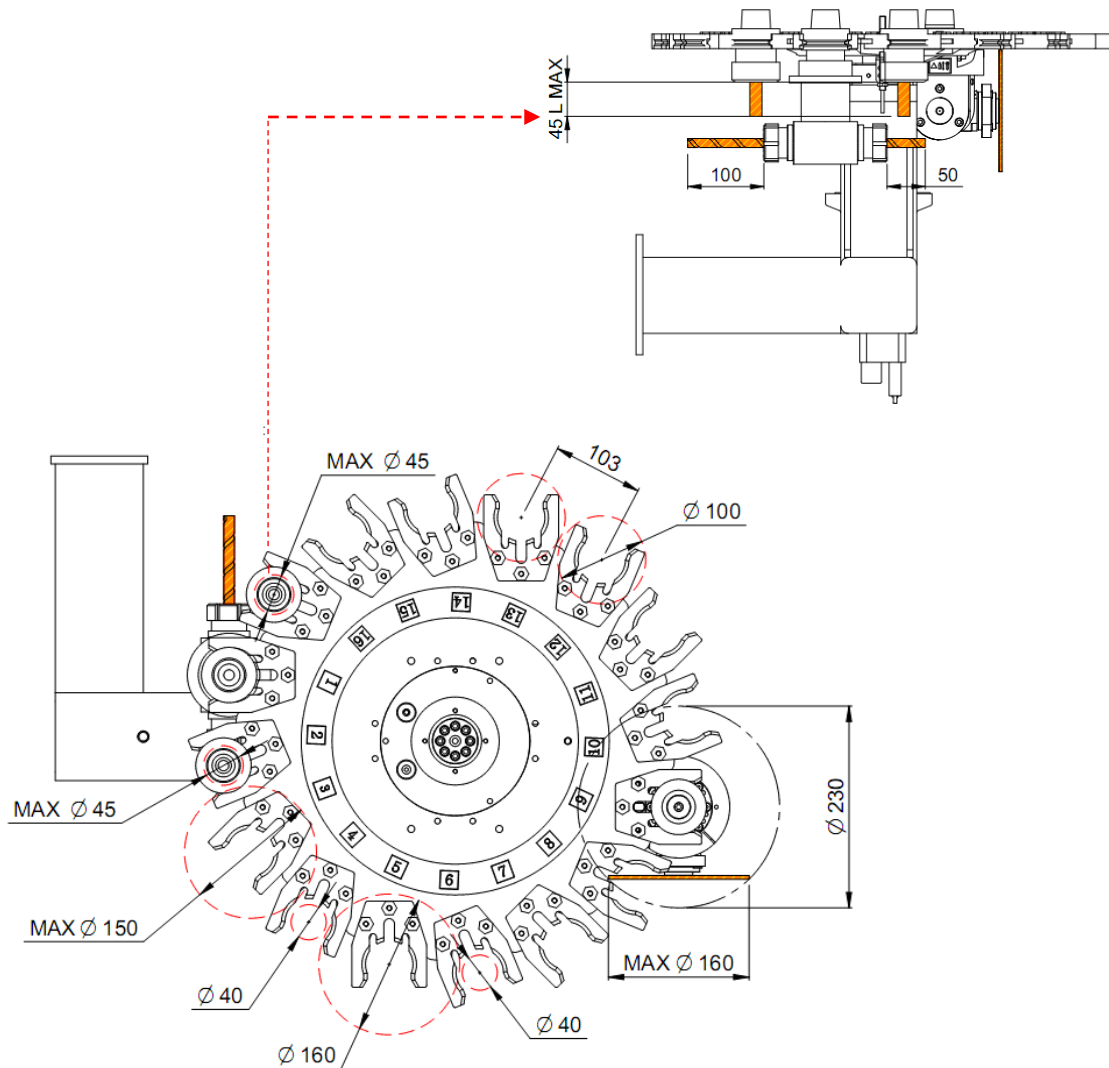


# WINNER 250 – Tool Changer

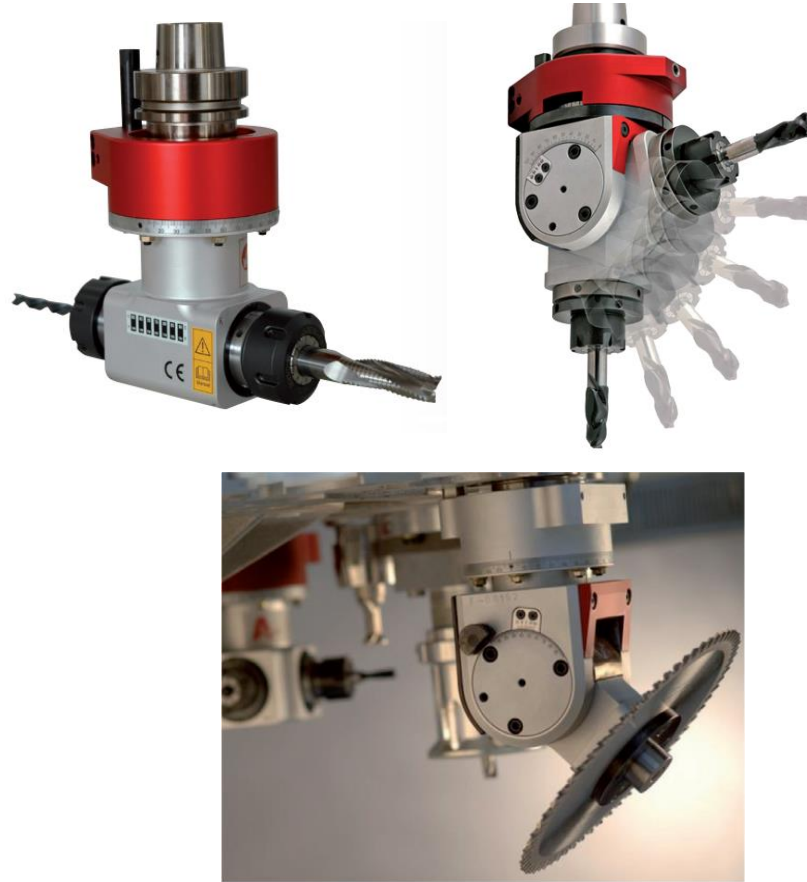
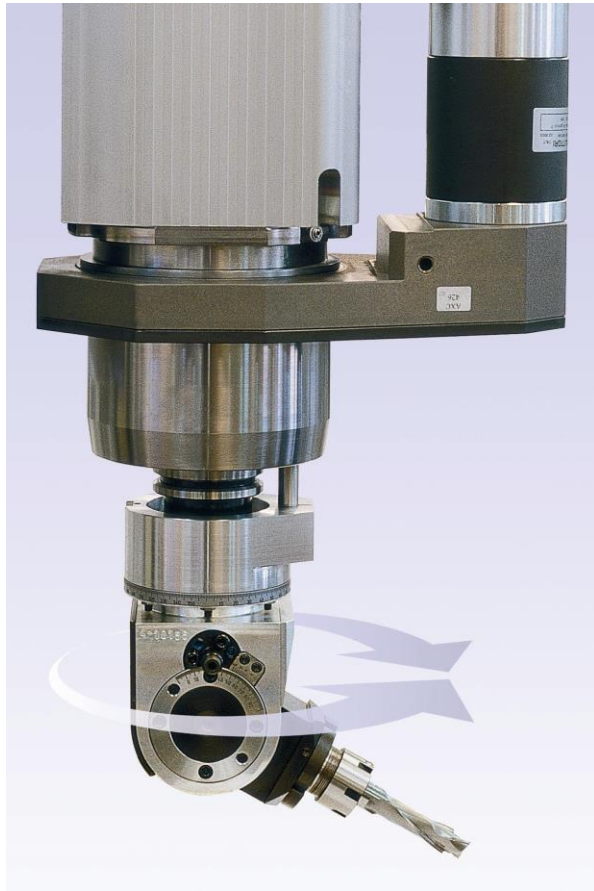
	STD
Type	HSK F63
Nr. positions	16
Max Tool Ø	160 mm
Motore	Brushless
Max tool weight	6 kg (single)
Max weight	45 kg (all)



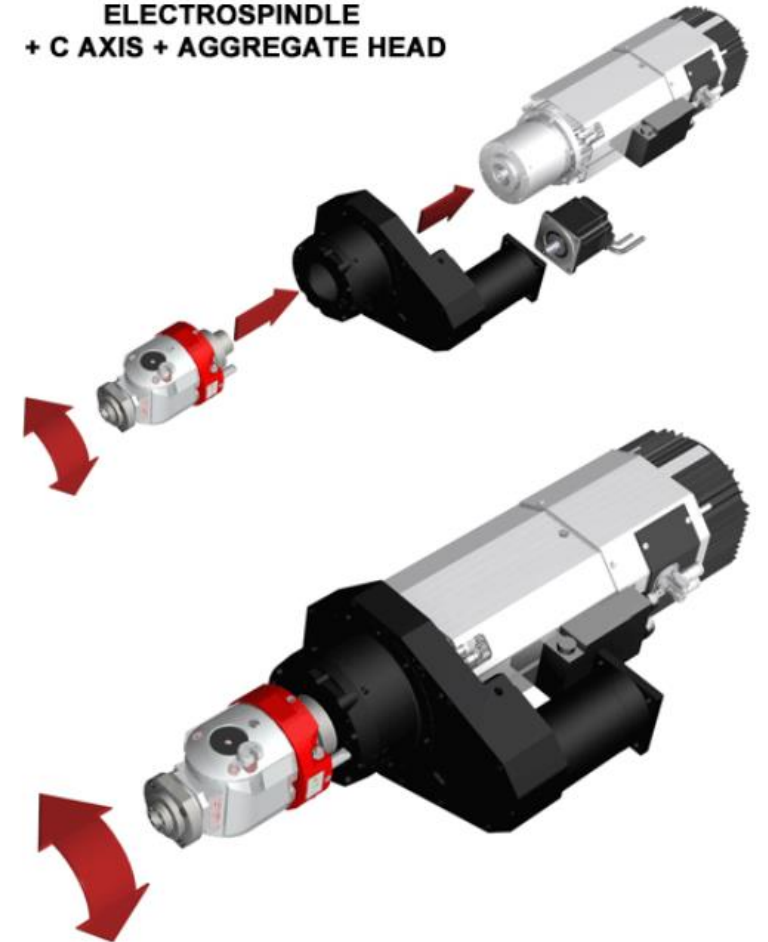
# WINNER 250 – Tool Changer



# WINNER 250 – «C» axis (Optional)



ELECTROSPINDLE  
+ C AXIS + AGGREGATE HEAD



"C" AXIS rotation to fit Indexed heads.  
CNC Controlled rotation with Brushless Motor  
Machine is already pre-arranged for «C»axis installation

# WINNER 250 – Vacuum Table

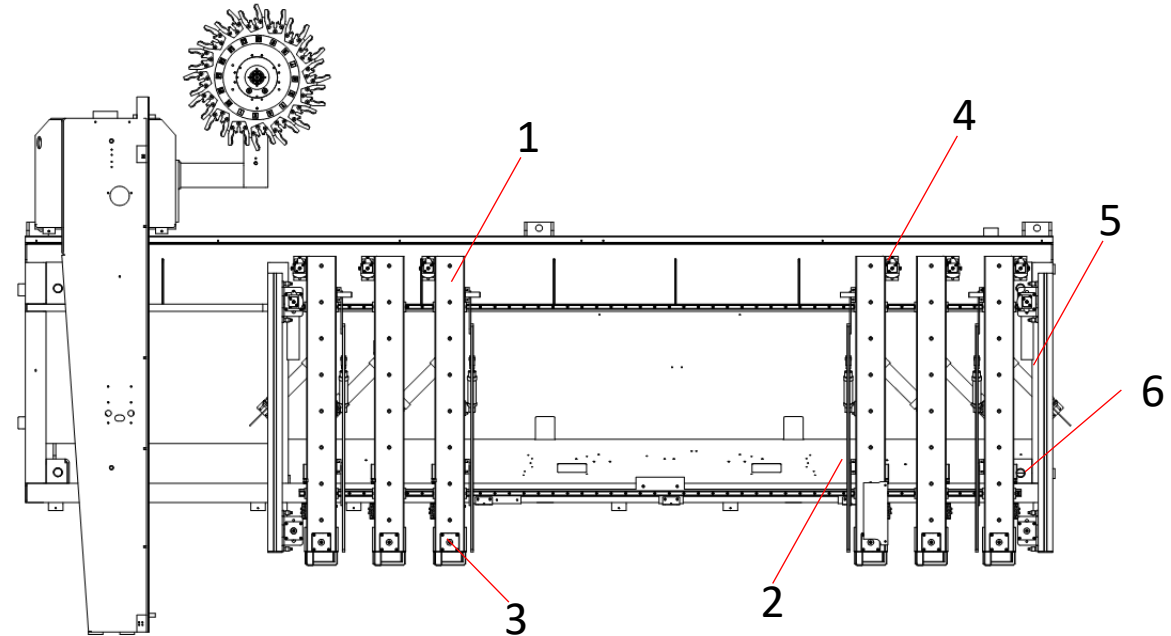
“TUBELESS” TYPE WORKING TABLE versatile, easy and quick setting up.

## Standard Configuration :

- nr. 6 aluminum bars ①
- nr. 4 panel lifting blades (2 for each zone) ②
- Nr. 6 Front reference stops ③
- Nr.6 rear stops ④
- Nr. 1 R/H side reference stop ⑤
- Nr. 1 L/H side reference stop ⑤
- Nr.1 Vacuum pump 100 m<sup>3</sup>/h
- nr.6 rear stops +1 R/H + 1 L/H for veneered panels with overhang
- Kit prearrangement to apply clamping devices for arches ⑥

## Optional :

- Clamping Devices
- 2<sup>nd</sup> Vacuum pump 100 m<sup>3</sup>/h



Working table divided in two zones for “Tandem” Machining : Whilst the machine is working in one zone the operator can load the piece in the other zone

# WINNER 250 – Standard

## SINKING REFERENCE STOPS FOR VENEERED PANELS WITH OVERHANG

nr.6 rear stops +1 R/H + 1 L/H for veneered panels with overhang.

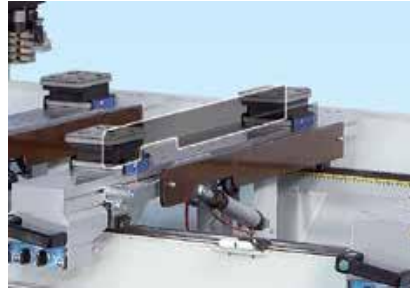
Minimum panel thickness 20 mm



# WINNER 250 – Vacuum Table



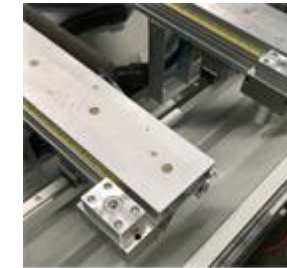
N°6 Aluminum Bars  
The vacuum locking of the cups reduces significantly the setting time of the working table.



N°4 Panel lifting blades for easy positioning of heavy workpieces.



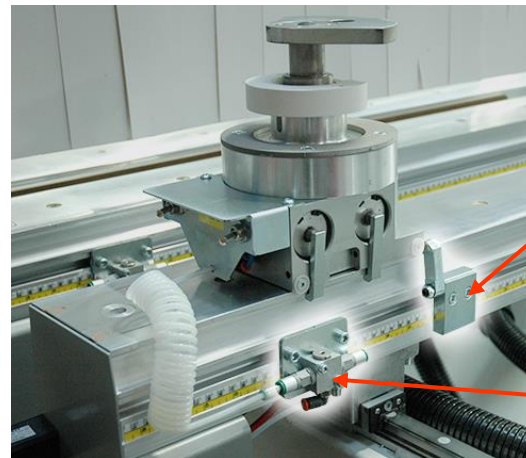
Nr. 1 Rotary Vane vacuum pump, oil-free working, air cooling.  
Nominal suction flow 100 m<sup>3</sup>/h



Rear Stops



Kit for prearrangement of working table with 6 aluminum bars to apply clamping devices for arches and straight components



Reference Point

Pneumatic connection



Suction cups (Optional)

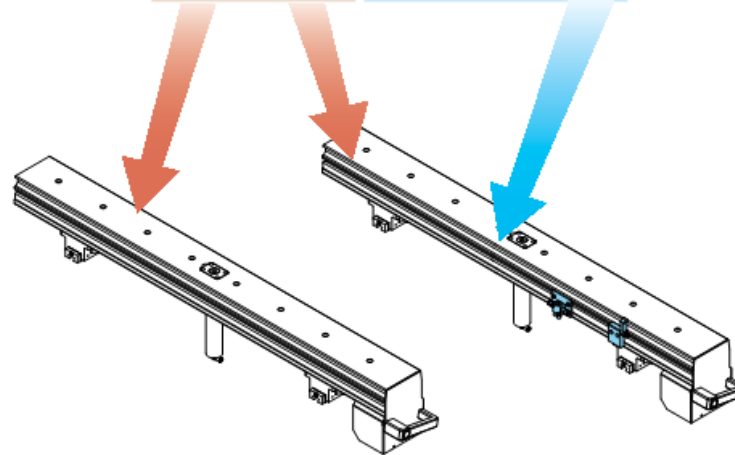
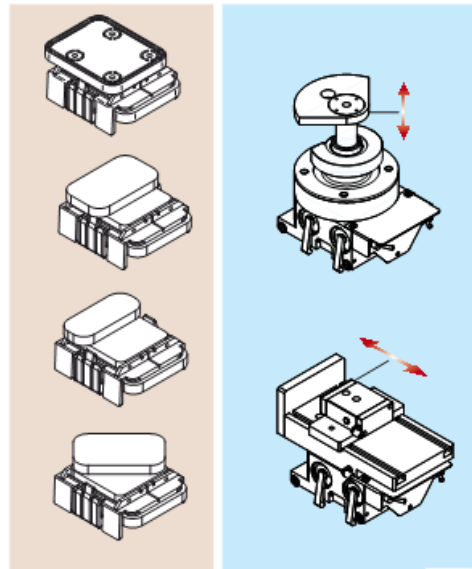


# WINNER 250 – Clamping Devices (Optional)

Wide choice of vacuum cups with different shapes

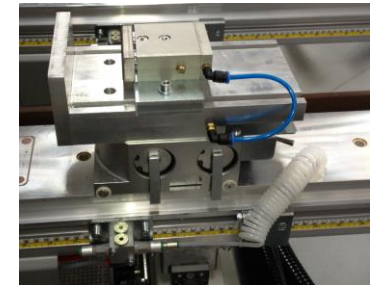
to cope with any customers requirement:

- 114 x 140 x 50 mm with or without valve
- 125 x 75 x 50 mm with or without valve (lengthways or crossway)
- 120 x 50 x 50 mm (lengthways or crossway)

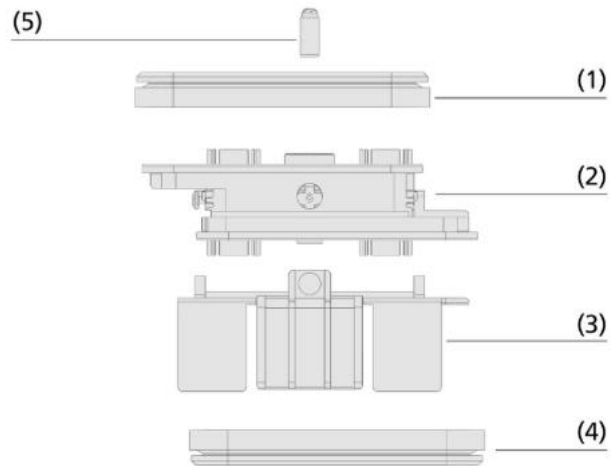


Mechanical clamping systems for solid wood, linear and arched components machining :

- Single movement pneumatic clamps (max workpieces thickness 92 mm – min workpiece thickness 48 mm)
- Horizontal pneumatic clamps



# WINNER 250 – Schmalz K1 Suction Cups



- Upper suction plate (1) for fixing the workpiece
- Sturdy plastic main body (2)
- Guide strip (3) for positioning and mechanical pre-fixing on the console
- Bottom suction plate (4) for fastening the suction cup to the console
- Optional touch valve (5)

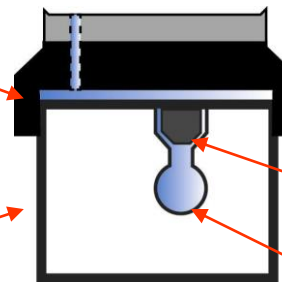
Magnetic Bars

The metallic bars on the lower part of the cup lift the valves allowing the vacuum flow.



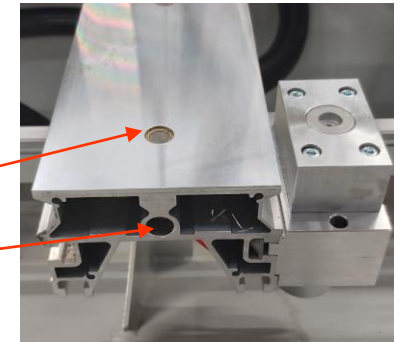
Suction cup

Aluminum perfile



Magnetic valve

Vacuum circuit



# WINNER 250 – ELECTRICAL CABINET



Pendant push button with emergency push button; hold push button; r/h start push button; l/h start push button; override (maching speed regulator). Digital display **(optional)** to visualize data coming from the numeric control for setting up the working table.

Numeric control with PC

- PC, Keyboard, Mouse
- Relevant machine commands
- Monitor : 21" LCD
- Tecnos CNC



# WINNER 250 - *Optionals*

Optional available for the machine :



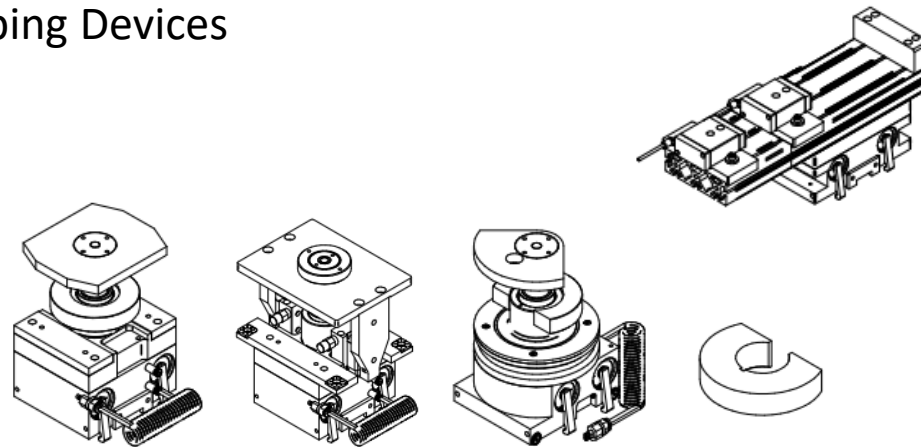
"C" axis rotation to fit indexed heads

Indexed heads



Second 100 m<sup>3</sup>/h vacuum pump

Clamping Devices



# WINNER 250 – Main Partners



Electrospindles



Electric components



Linear Guides



Vacuum pumps



Sensors



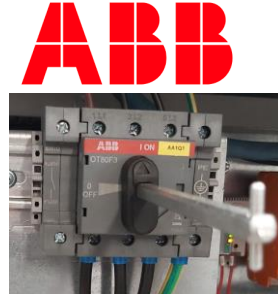
Lubrication systems



Pneumatics



Power Switch



CNC



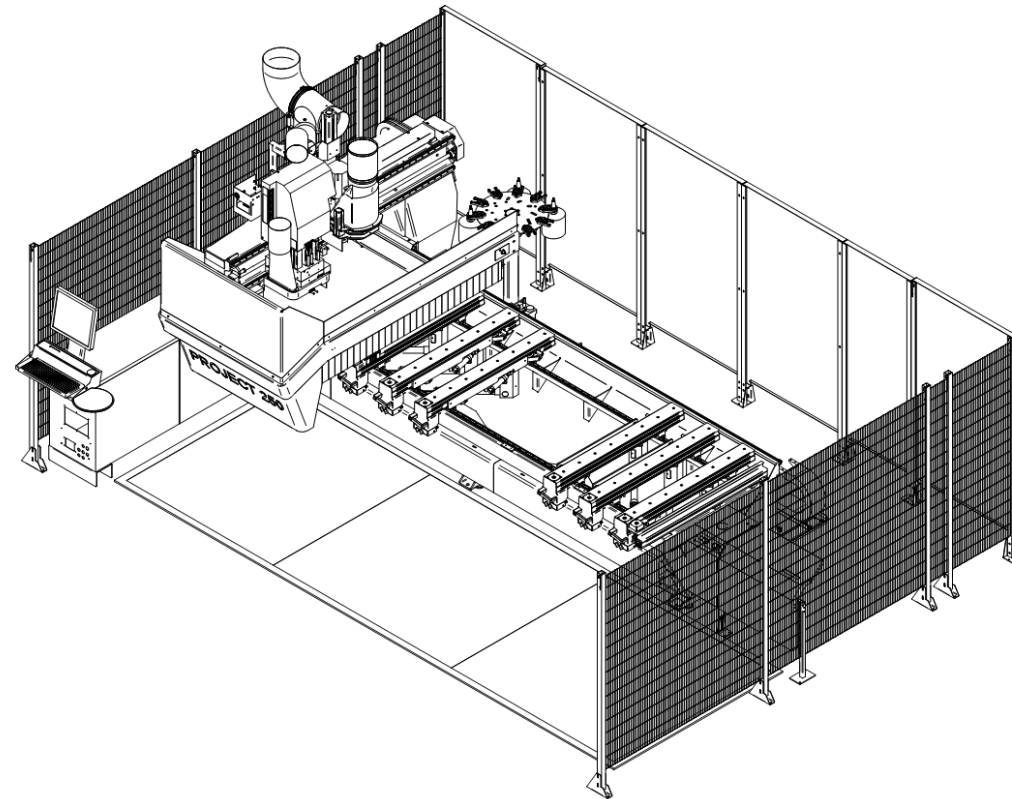
Drives



Inverter



# WINNER 250 - Layout

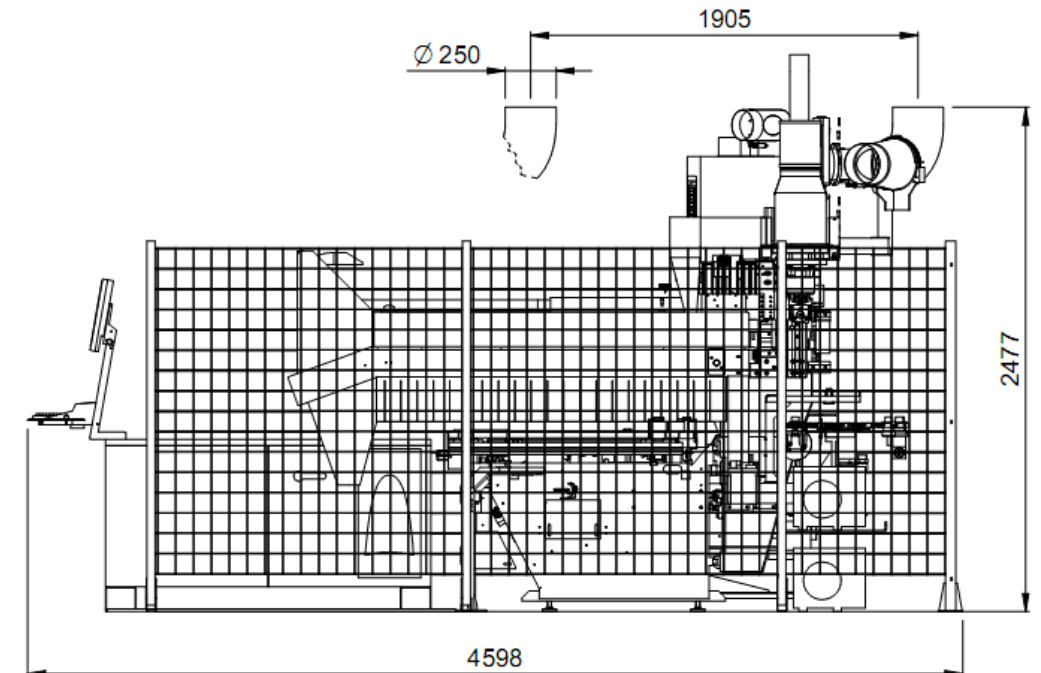
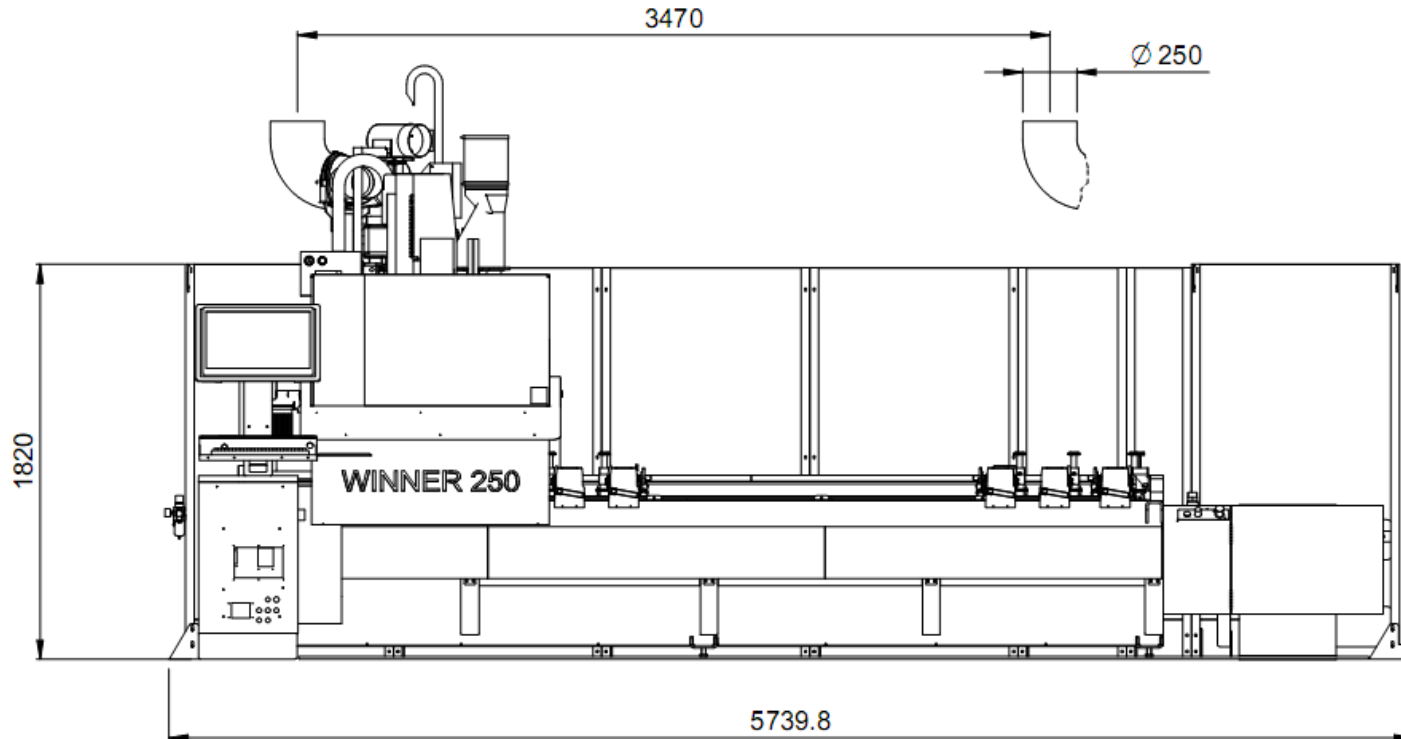


## Overall Dimension

CE	Length : 5.728 mm	Width : 4.598 mm	Height : 2.480 mm
No CE	Length : 5.320 mm	Width : 4.340 mm	Height : 2.480 mm

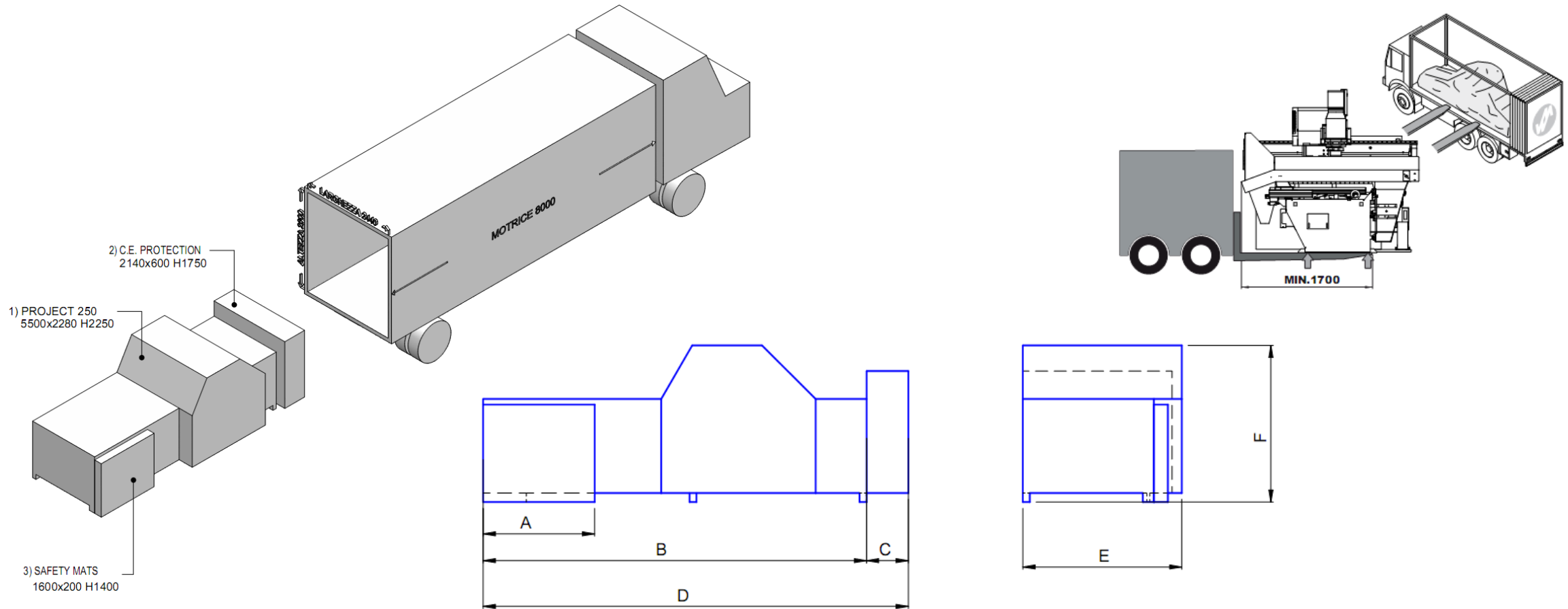


# WINNER 250 - Layout





# WINNER 250 - *Transport*



## Transport Dimension (CE Configuration)

	A	B	C	D	E	F	Weight
P 250	1600 mm	5500 mm	600 mm	6100 mm	2280 mm	2250 mm	3000 kg

# WINNER 250 – *Software*



- **Standard Software:**

- **Masterwork**      The graphic programming system which allows to avoid the ISO programming thanks to an easy, fast and intuitive graphic interface  
As a standard 2 licenses (dongles) are supplied : office and machine
- **Master AT**      The intelligent software that reduces human errors, with easy disposition of the working piece where do you want.

- **Specific Software (Optional):**

- **Masterwindow**      Specific Software to programming Windows elements:
- **Masternest**      Specific Software to Nesting Optimizazion
- **Master DOOR**      Specific Software to programming Doors elements
- **Mastercabinet**      Specific Software to produce Cabinet Projects

# WINNER 250 – Software – Master AT



## Master AT

graphical software for tables management

It is a 3D visual environment allowing the arrangement of working table, vacuum bars, as well as suction pads positioning. It displays the workpiece and the working table complete with clamping systems (suction cups or clamps) Available on the working centre.

It will execute the correct positioning of the clamping system so as to ensure a solid positioning of the workpiece without incurring any interference between the clamping devices and the cutting tool.

As final operation, Master AT will output all information so as to allow the corresponding manual placement (based on metric rulers or digital readout displays) or automatic positioning for machines equipped with an automatic working table.

Master AT also allows the placement of multiple workpieces and subsequent optimization of tool path reducing significantly the execution time of each piece.



# WINNER 250 – Software - Masterwork



## Masterwork

A continuous software development almost twenty years long made Masterwork the solid basis of all Masterwood CNCs.

It is a graphic programming system which allows to avoid the ISO programming thanks to an easy, fast and intuitive graphic interface.

It is a tool for all users, but specially dedicated to whom have no experience of programming.

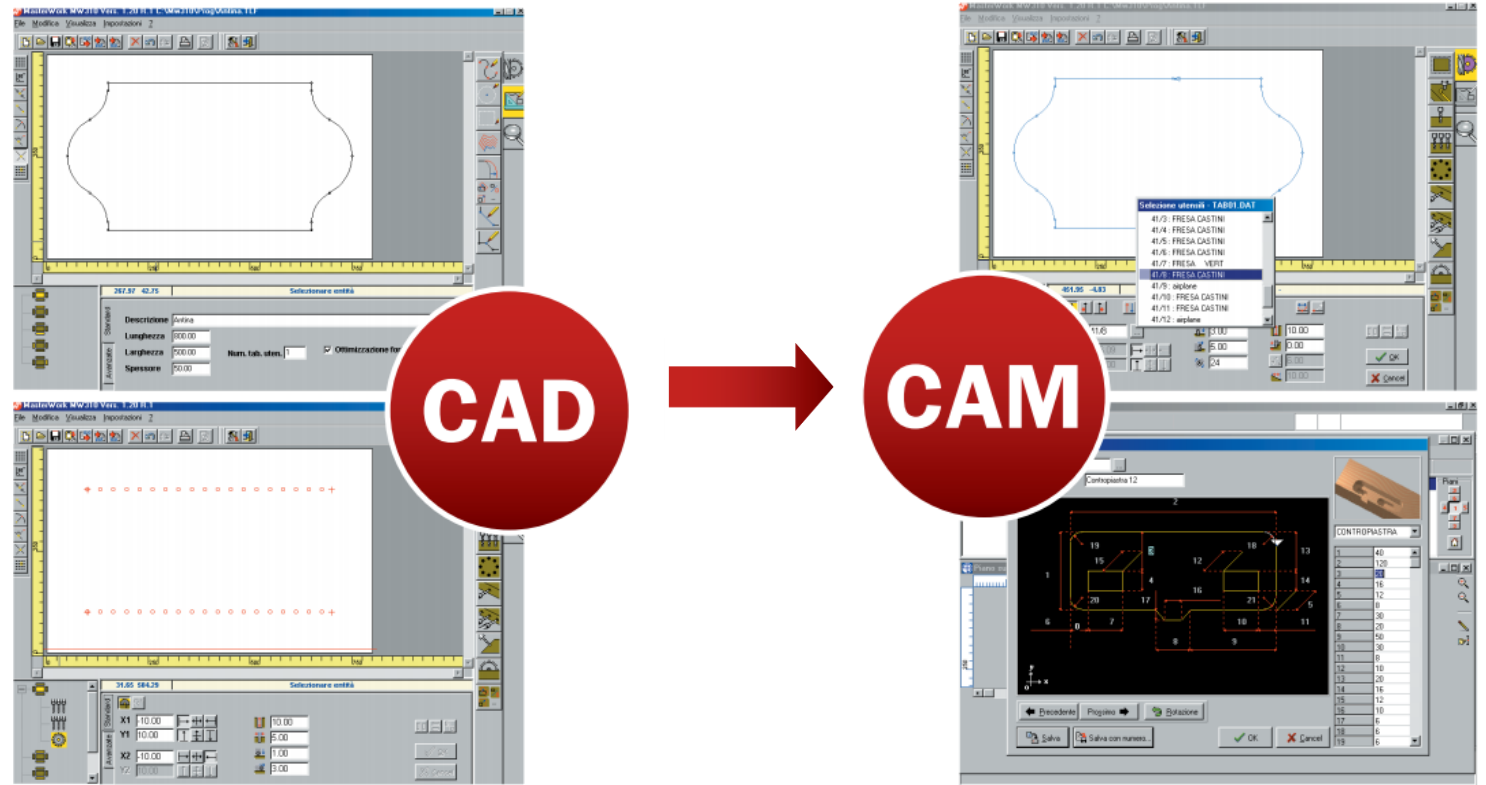
Masterwork complies with Windows standards and guarantees the immediate and easy understanding of all commands.

### DETAILS

- Graphic boring - routing and cutting programming
- Boring cycle optimization
- Realization of profiles and parametric drawings
- Tools configuration (machine setting – tools editor)
- Graphic basic macros for simple and complex elaborations
- Graphic visualization of the surfaces to be machined
- Importing of dxf files generated by cad systems or by commercial programs for furniture

### PROCESSING

- Automatic conversion of dxf files into iso programs .



# WINNER 250 – Software – Master3D



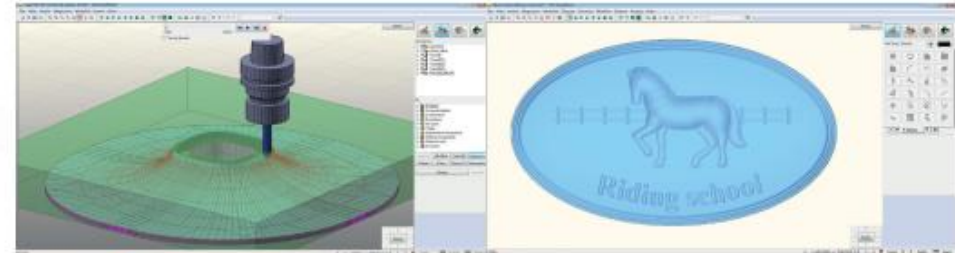
## Master 3D

Master 3D level 1 : 3 linear axes interpolated management. It is a complete CAD/CAM software and fully manages the woodworking process and CNC: from design to disposition of pieces and underpieces on the bench, 3D automatic collision detection with simulation, machining optimization and program generation.

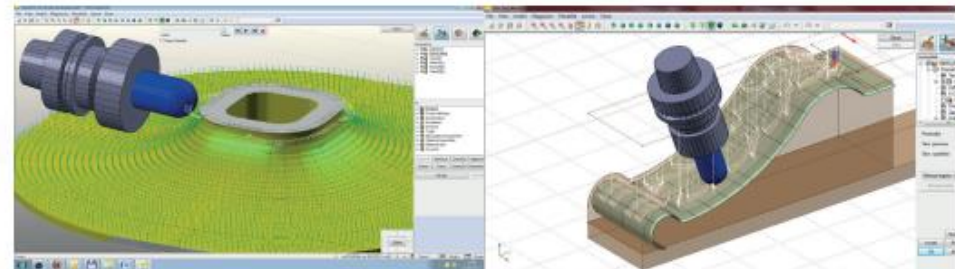
Main features :

- 3D graphics and photo-realistic rendering of the WINNER
- Free design and measures of geometrical entities
- Design from predefined parametric models in library
- Pictures vectorialization
- Texturing
- Graphic tool database, customized profiled tools
- Recess, relief machining and sharp-edge engravings
- Aggregates management
- Cutting cycles by blade or tool
- Machining time and cost estimation
- Virtual milling
- Graphic simulation of the tools

Design



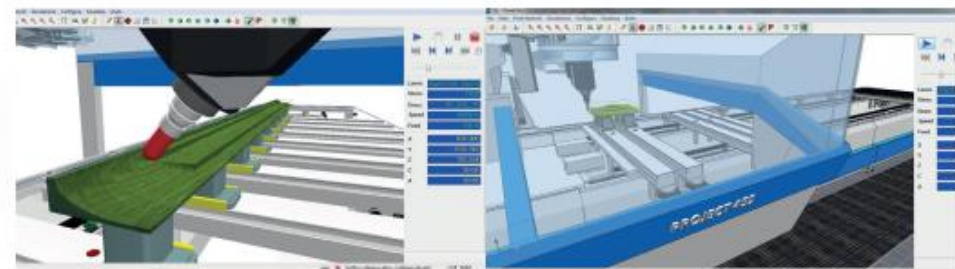
Machining



Disposition



Simulation  
&  
Generation



# WINNER 250 – Software - Mastercabinet

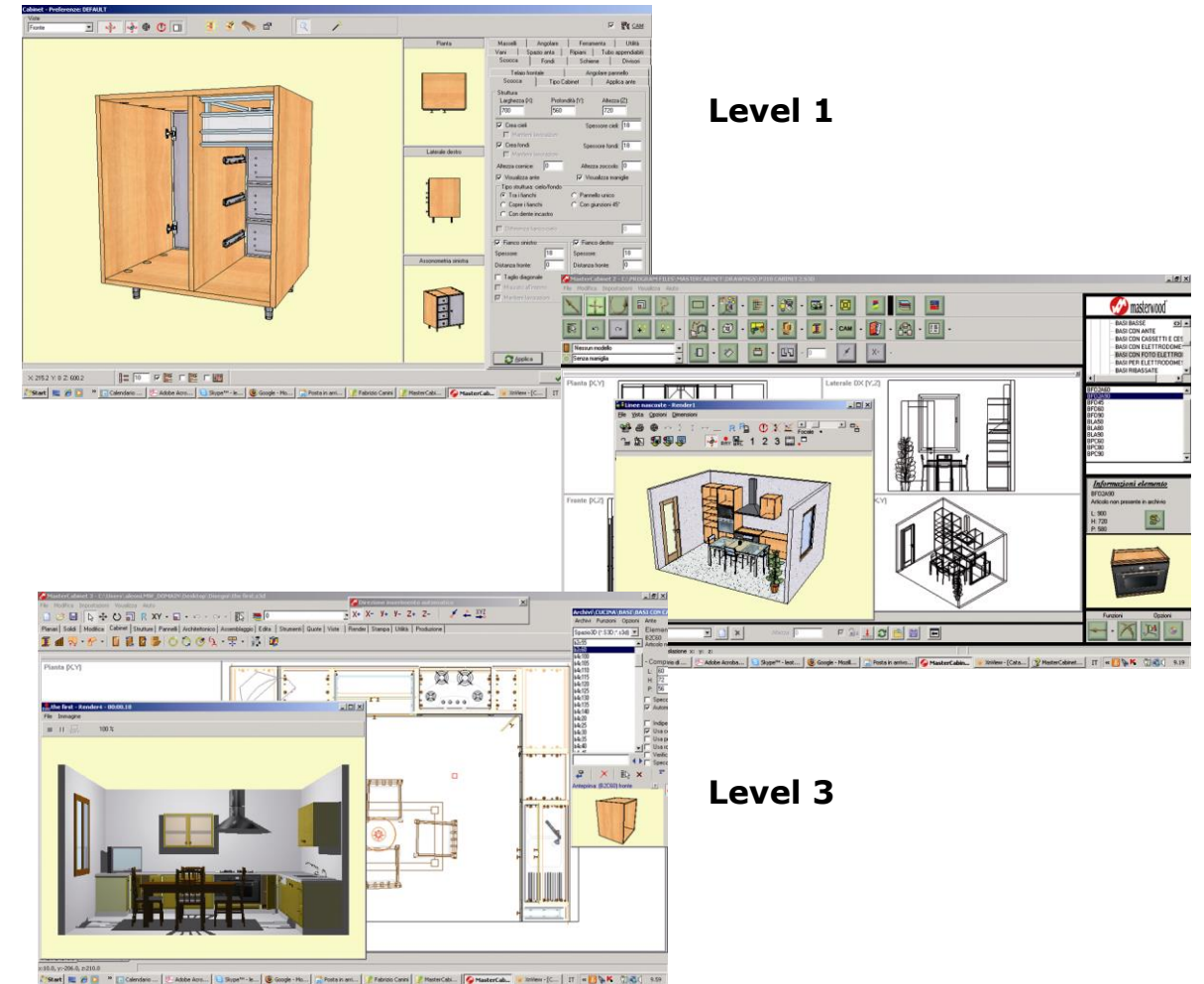


## Mastercabinet

Software package for 3D WINNERing of home, shops and offices furniture.

Main characteristics :

- Design in three dimensional graphic environment
- Automatic generation of programs
- WINNERing is directly in parametric 3D format
- WINNER can be visualized from any angle and it can be presented like wire frame or solid
- Different kind of furniture feasible : kitchen, dining room, bathroom, bedroom, shops, office
- Machine program realization
- Different kind of jointing feasible
- Wide library to easily and quick define the element to be produced, possibility to implement existing libraries and/or to create a personalized ones.
- Level 1, Level 2 and Level 3 available



Level 1

Level 3

# WINNER 250 – Software «Masterwindow»



## MASTER WINDOW

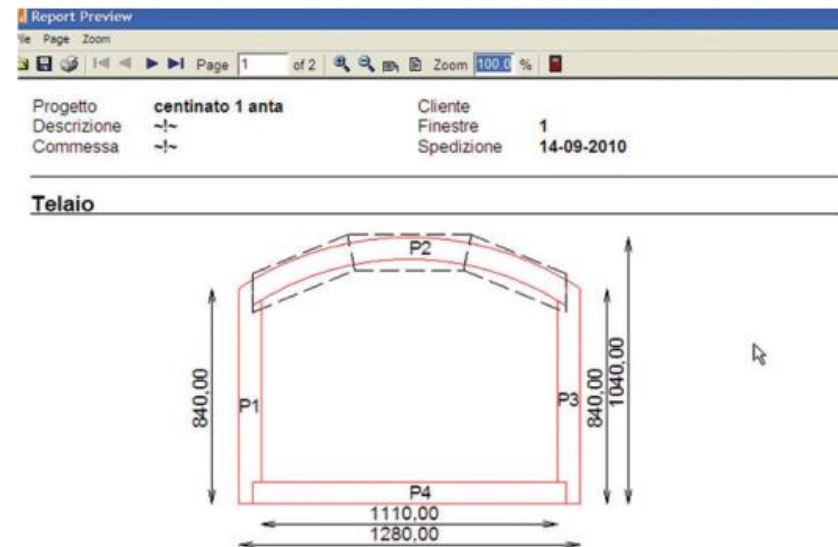
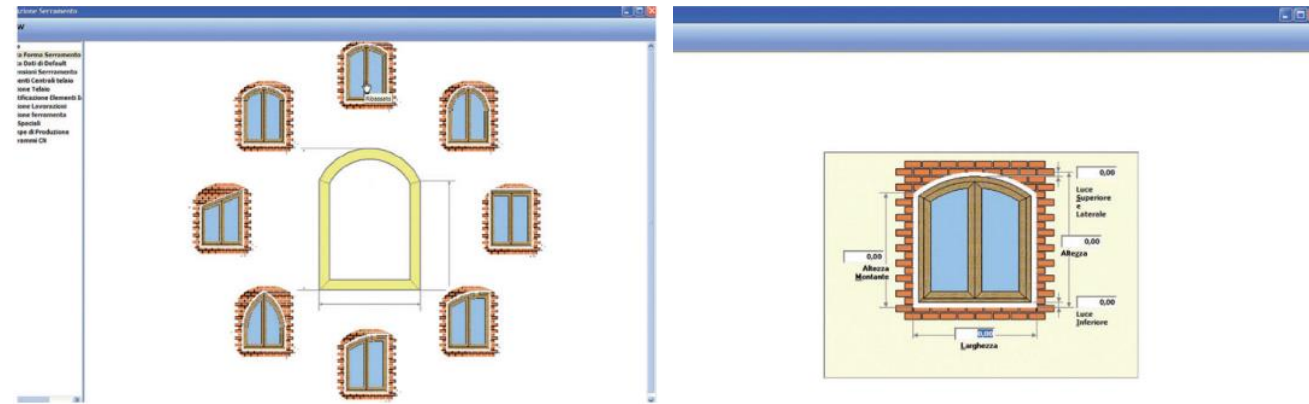
Masterwindow is a software package for designing and machining various types of windows (from standard to special shapes) from predefined parametrical models.

Masterwindow is very easy to use: the user is guided in every WINNER phase, from the shape choice to the loading of the individual window components.

With Masterwindow it is possible to configure the parameters of every window component.

### DETAILS:

- Possibility to create automatically all the subprograms for the individual components
- Round arch, longitudinal arch, irregular arch (through given points), gothic arch, three centered arch
- Fun light, circular port hole
- Elliptical port hole
- Windows with unlimited number of wings
- Automatic programming of tools path
- Printing of cutting list and glasses
- Automatic conversion of files for the machining centre
- Facing and finger jointing of logs, stile and rails.
- Dowel and tenon jointings
- Internal and external profiling of frame components and of wings components
- Sizing of wings



# WINNER 250 – Software – Masterwindow Professional



## MASTER WINDOW PROFESSIONAL

Software package for machining various kind of windows with irregular or arched shape.

- Easy programming of wings and frames.
- Graphic programming for easy use of the package.
- Possibility to create automatically all the subprograms for the individual components directly from the numeric control of the machine selecting only the basic parameters:

Arch type, dimensions and jointing.

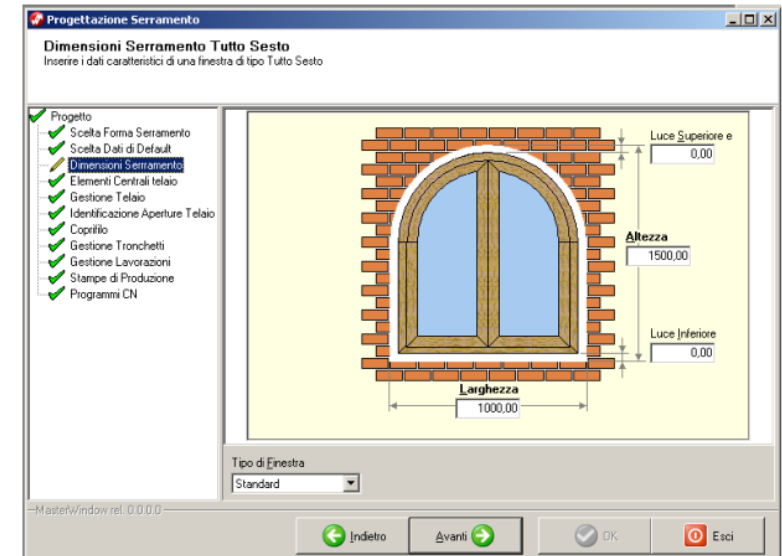
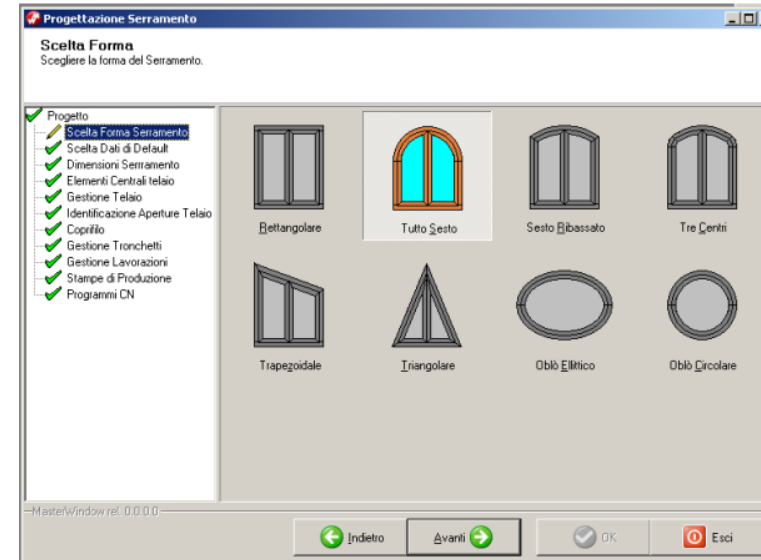
Window type : Round arch, Longitudinal arch, Irregular arch (Through given points), Gothic arch, Three centered arch, Fun light, Circular port hole, Elliptical port hole.

Feasible WINNERS

- Windows with unlimited number of wings
- Stile and rails
- Automatic programming of tool path
- Printing of cutting list and glasses
- Automatic conversion of files for the machining center

Machining types

- Facing and finger jointing of logs, stile and rails.
- Dowel and tenon jointing
- Internal and external profiling of frame and wing components
- Sizing of wings
- Internal and external profiling of stiles and rails





# WINNER 250 – Applications



Cabinet Doors



Internal & External Doors



Windows



Bathrooms



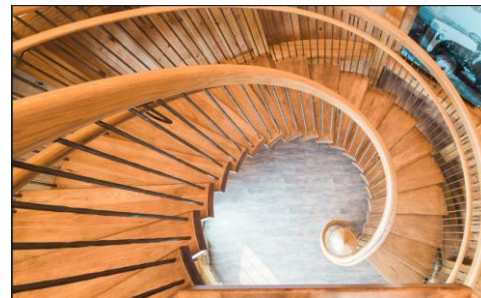
Kitchens



Drawers



Cabinets



Stairways

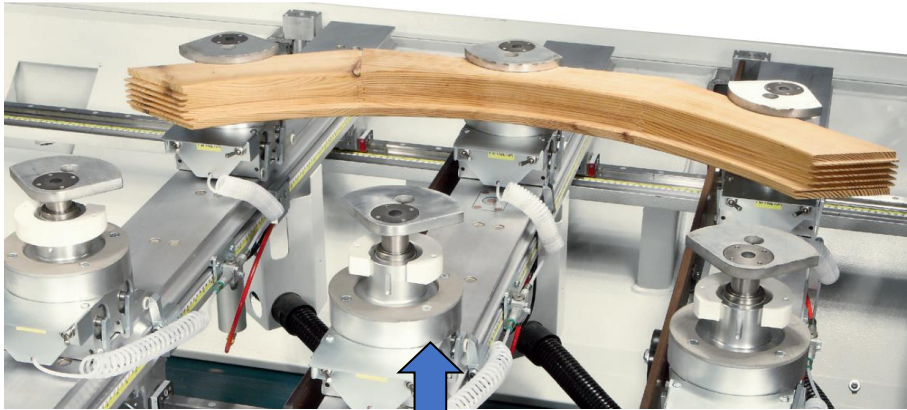


Doors Frame

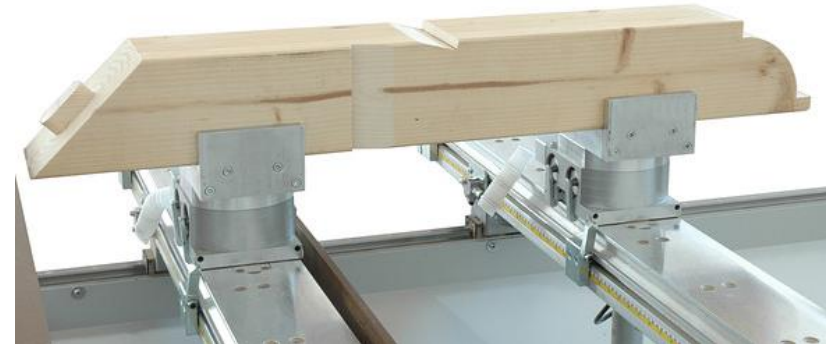


Wardrobe

# WINNER 250 – *Machining Example*



**CLAMPING DEVICES FOR ARCHES**



# WINNER 250 – *Machining Example*



Profiling furniture fronts



Door lock machining