



SERIE T600

T658 V2 | T658 V2 TOPS

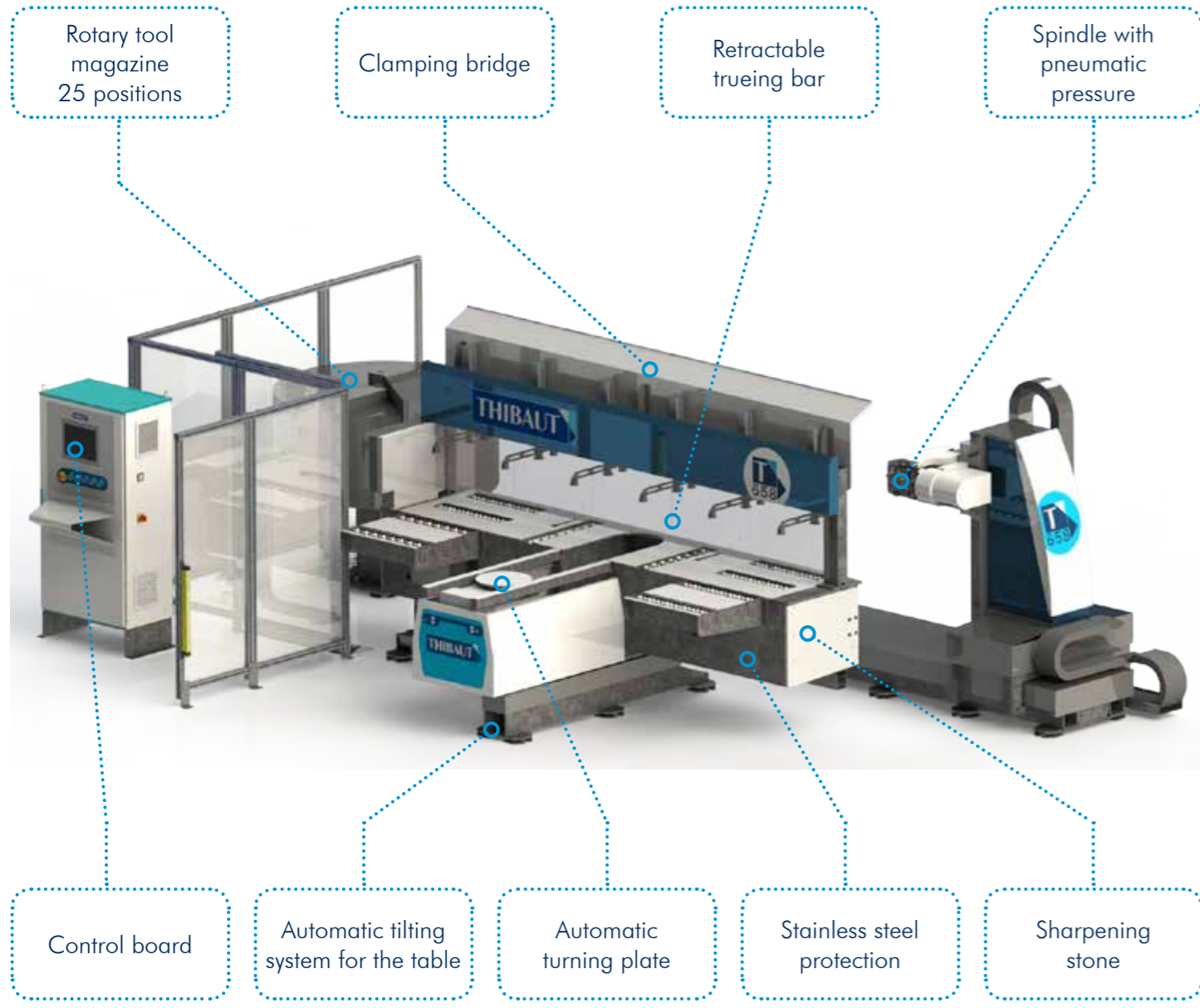


**CNC multipurpose edges profiling & polishing
center 4 axes**



STANDARD EQUIPMENT

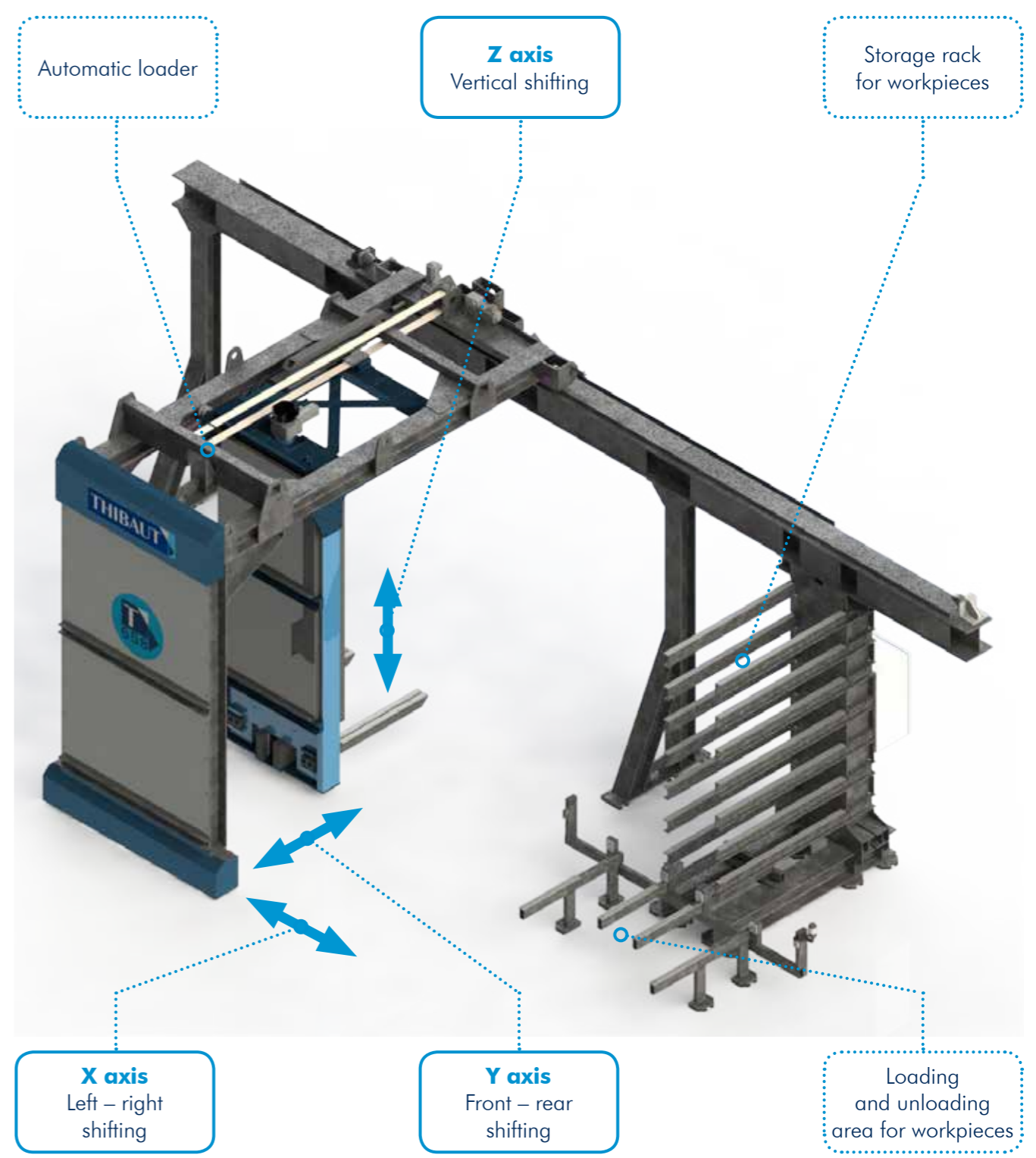
This is the **version without automatic charger**, other versions are available.



* Partial view of the safety enclosing.

STANDARD EQUIPMENT

AUTOMATIC PIECES LOADER WITHOUT THE MACHINE

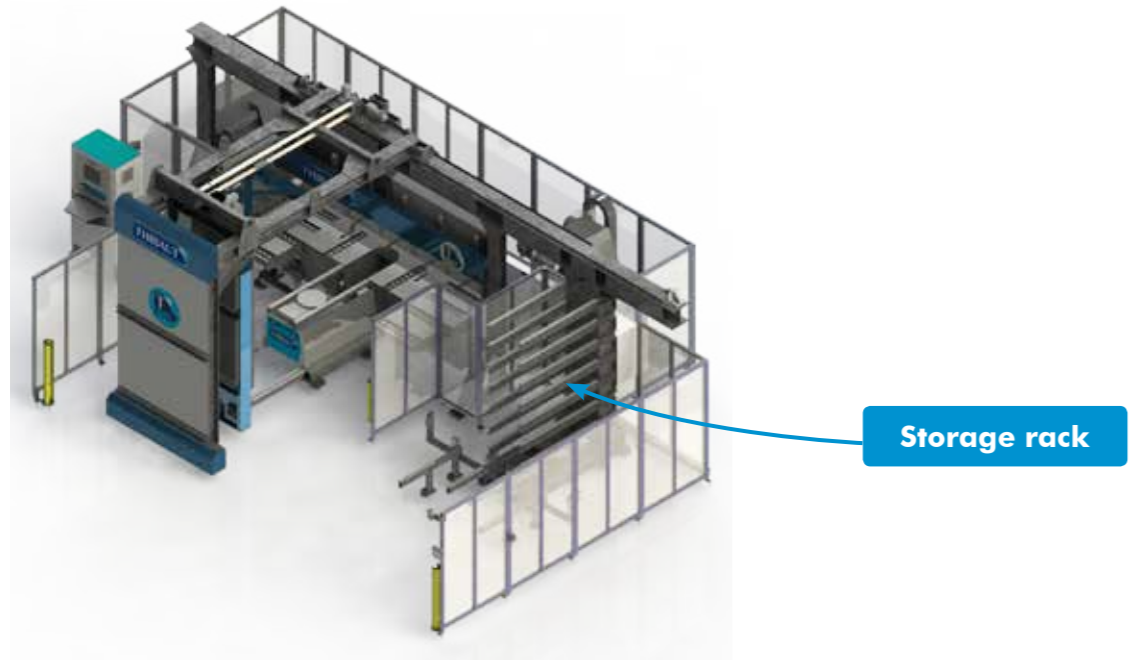


* Partial view without the machine.

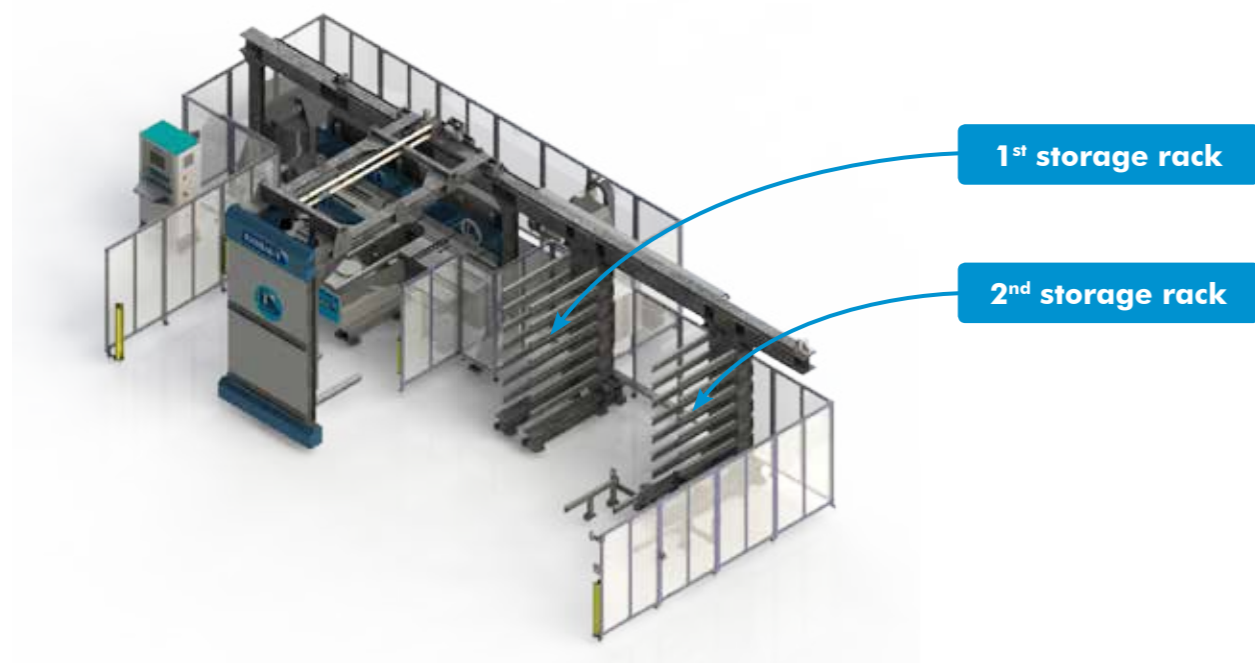
STANDARD EQUIPMENT

A TOPS VERSION FOR MORE AUTONOMY AND PRODUCTIVITY

The TOPS version has been designed to significantly reduce handling times and thus offer more productivity to marble workers. At the beginning and end of the day, load up to 7 pieces in the storage rack and let the machine work without any operator intervention!



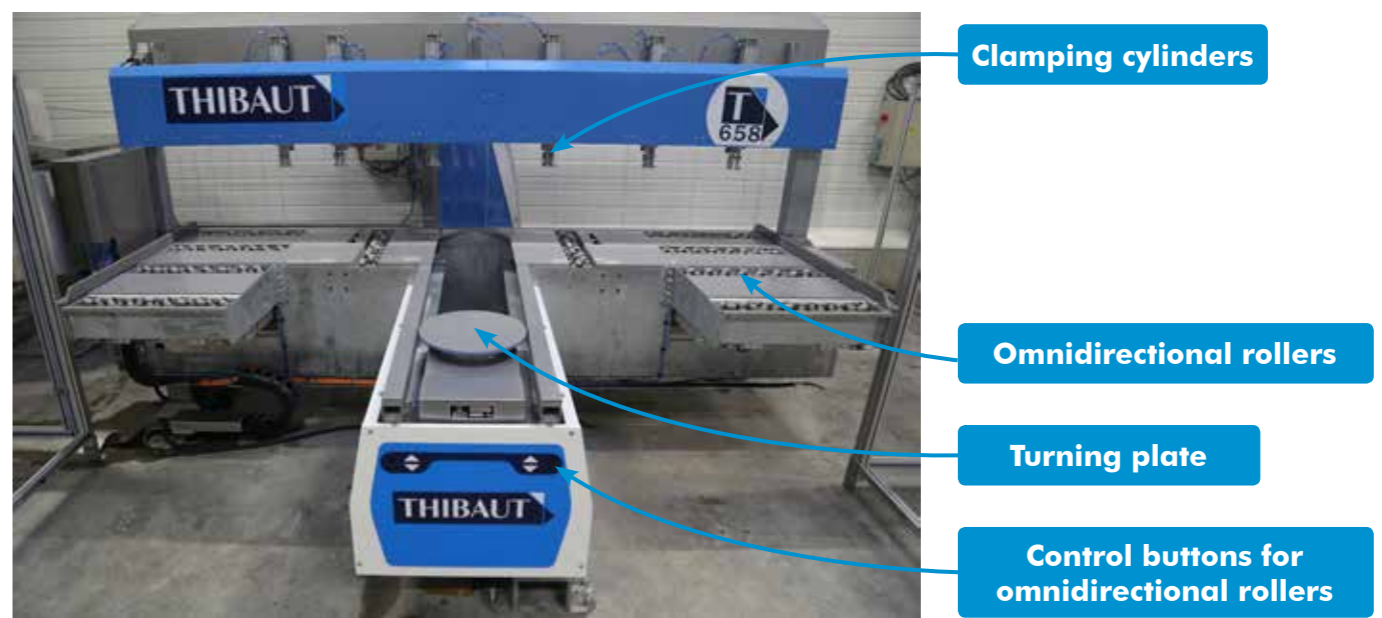
The machine can be equipped with a second workpiece storage rack to give the machine even more autonomy. This configuration is ideal for small parts as a small part requires less machining time.



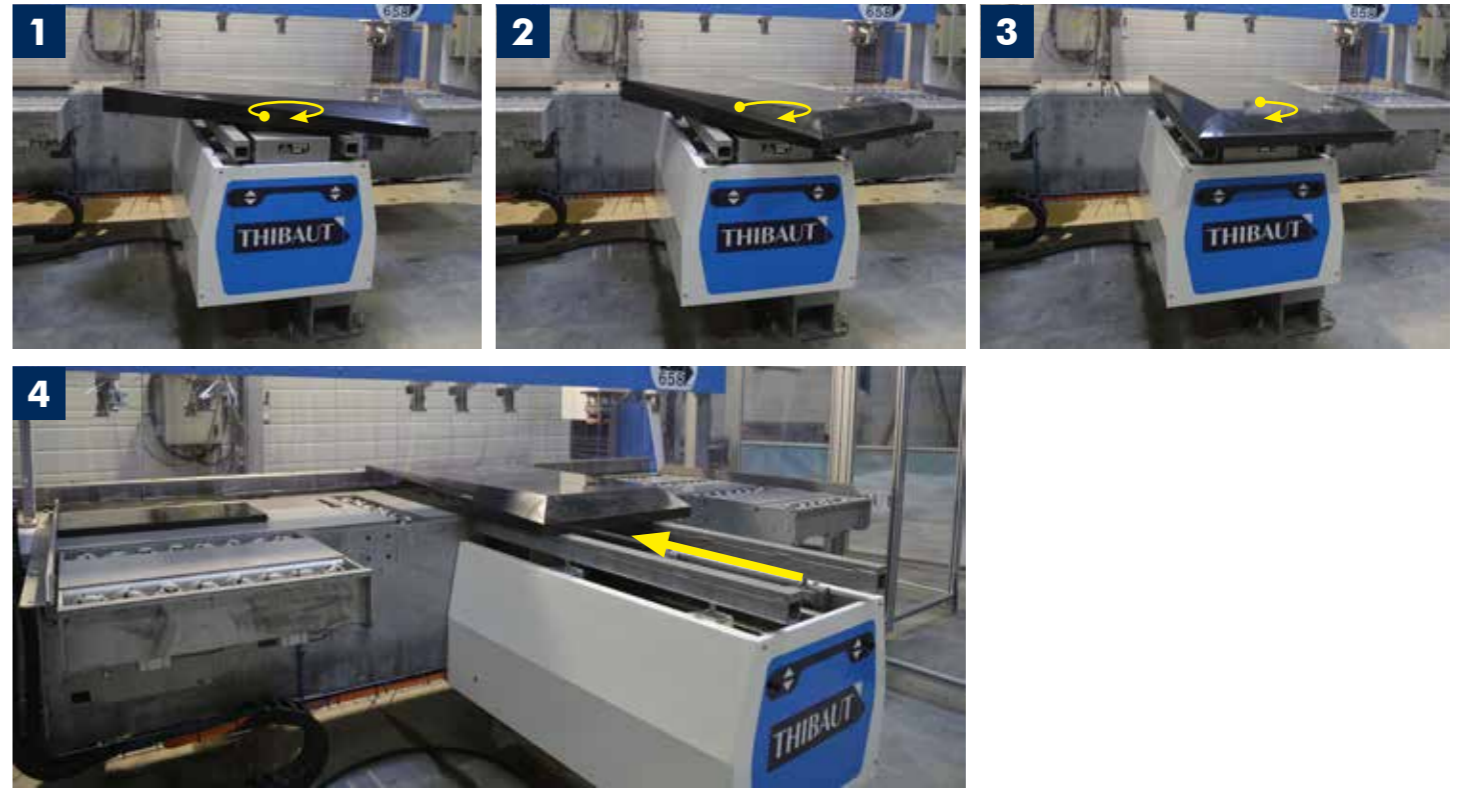
STANDARD EQUIPMENT

AN ENGINEERED WORKING TABLE

The large capacity (3600mm wide) galvanised work table is equipped with an **automatic turning plate** for positioning of the workpiece and **omnidirectional rollers** to facilitate manual handling.



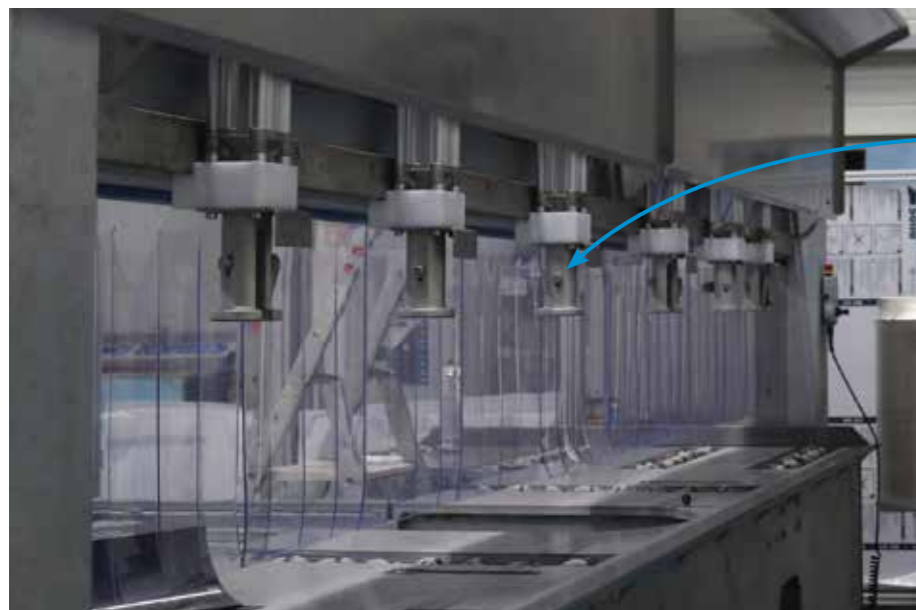
The automatic turning plate makes it possible to work on all the edges of a workpiece without the need for operator intervention.



STANDARD EQUIPMENT

AN ENGINEERED WORKING TABLE

The 6 pneumatic clamping cylinders located on the gantry allow the workpiece to be clamped firmly. The clamping cylinders are mounted on a slide system allowing them to be positioned anywhere along the table.



Clamping cylinders

It is possible to equip each cylinder with a clamping beam to increase the clamping surface and to easily clamp narrow parts.



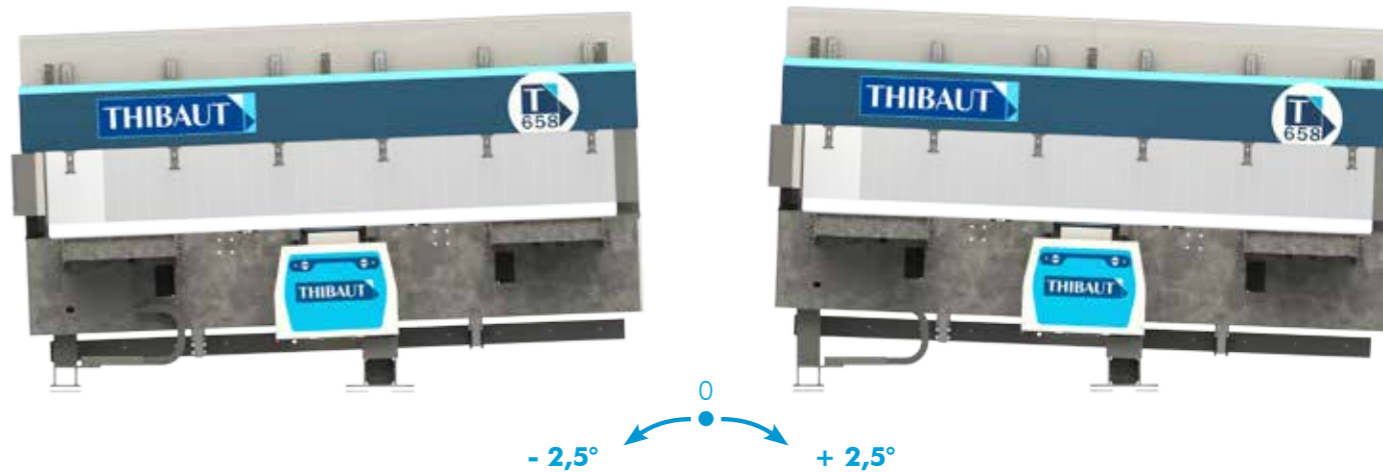
+
The assembly and disassembly of the clamping beams is carried out without tools.

Clamping beams

STANDARD EQUIPMENT

AN ENGINEERED WORKING TABLE

The table can easily be tilted (from -2.5° to $+2.5^\circ$) thanks to an electric cylinder, which makes it possible to easily make tapering chamfer.



STANDARD EQUIPMENT

AN ENGINEERED WORKING TABLE

The machine table is equipped with an automatically retractable truing bar. It ensures the perfect positioning of the workpiece in relation to the machine, to obtain a perfect geometry on the workpiece.

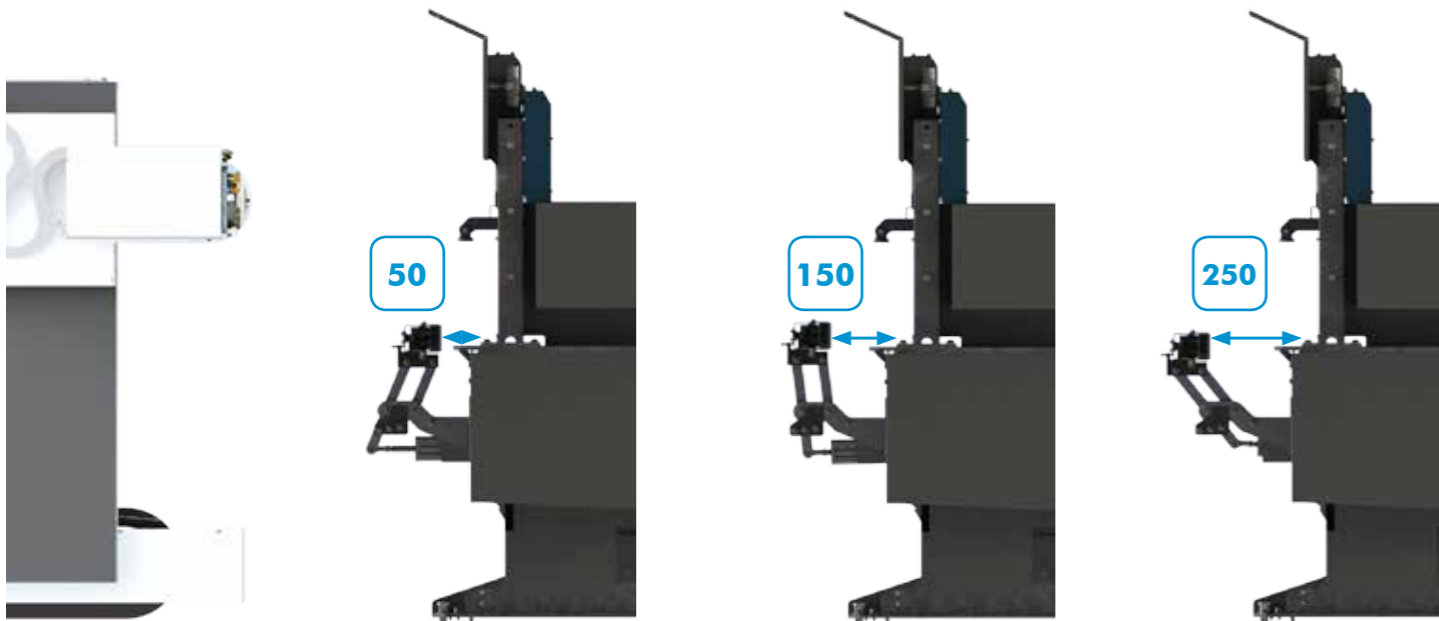
Coupled with the automatic turning plate, the truing bar allows the 4 edges of a workpiece to be worked on without the operator's intervention.



Retractable truing bar

The truing bar is automatically adjustable in 3 positions depending on the type of operation to be machined:

- Offset of 50 mm for edge trimming (narrow workpiece),
- Offset of 150 mm for a straight edge with top and bottom arises,
- Offset of 250 mm for a bullnose or an inclined plane.

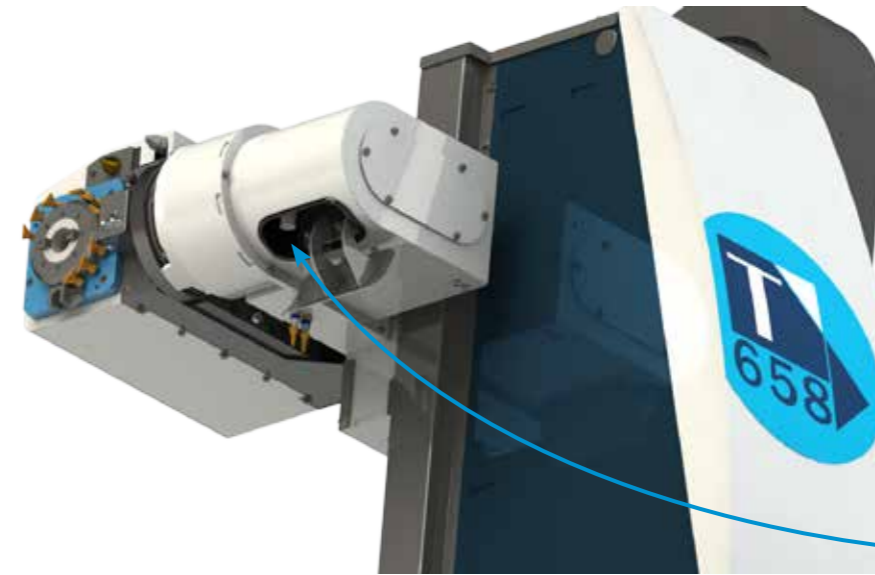


STANDARD EQUIPMENT

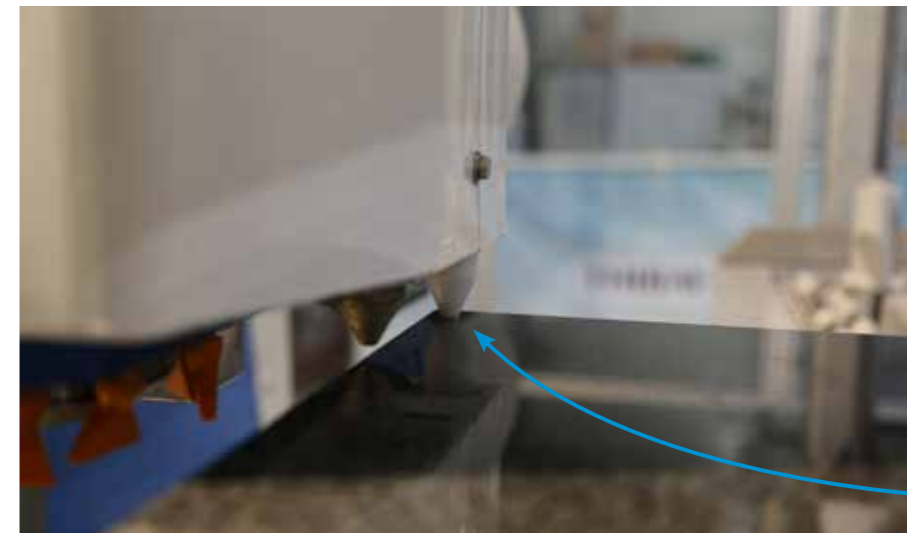
EASY WORKPIECE REGISTRATION

Two laser sensors are integrated on the trolley:

- A cross laser for manual registration,
- A laser for the automatic registration, of the positioning and width of the workpieces, placed on the table. This means that the operator only needs to use the truing bar to set up the workpieces.



Laser and cross laser

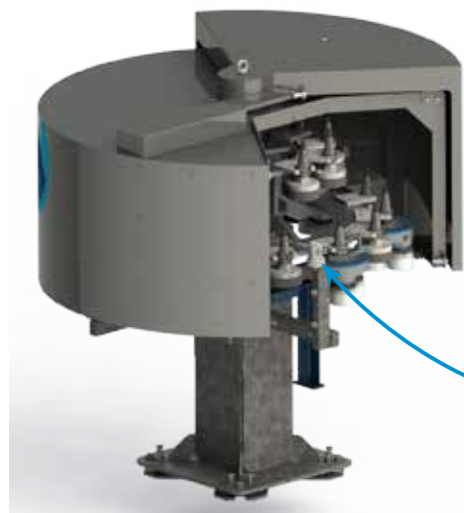


workpiece thickness sensing device

STANDARD EQUIPMENT

A LARGE CAPACITY TOOL MAGAZINE

The **25 positions rotary tool magazine** has a corrosion-resistant stainless steel protective cover.



A tool sensor device is integrated into the magazine to measure the height of the tools.



The size of the magazine allows all tools to be used automatically. This **avoids manual intervention and cycle interruptions. The AR-3 polishing heads can easily be placed in the magazine** thanks to the large tool slots.

Example of a 25 positions rotary tools magazine configuration for monuments.



This configuration includes:

- 1 milling cutter Ø150
- 1 milling cutter Ø55
- 1 disc Ø300
- 1 multi disc Ø150
- 8 polishing drums Ø120
- 6 polishing wheels
- 5 «AR-3» polishing heads
- 1 «PAC-3» plate for vertical edges and chamfers
- 1 drill

TOTAL : 25 tools

A VERSATILE POLISHING CENTER



1. Milling cutter
2. Polishing wheel
3. Stubbing wheel
4. Drill
5. Monument roller
6. Multi Discs
7. Saw Blade
8. «AR-3» polishing head
9. «PAC-3» plate for vertical edges and chamfers

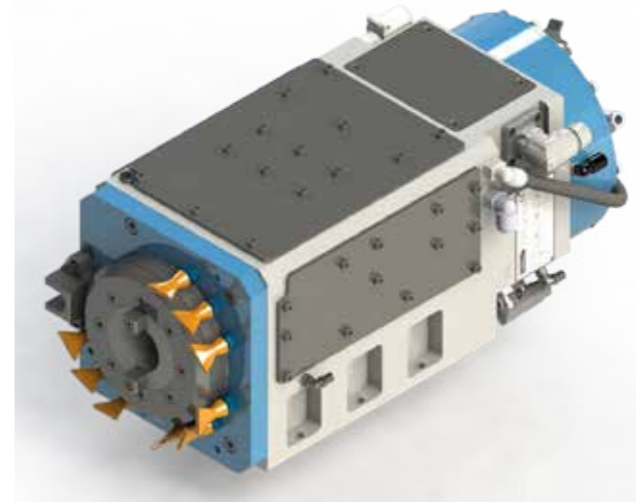
STANDARD EQUIPMENT

A HIGH-PERFORMANCE SPINDLE

The T658 is equipped with a new, more powerful spindle.

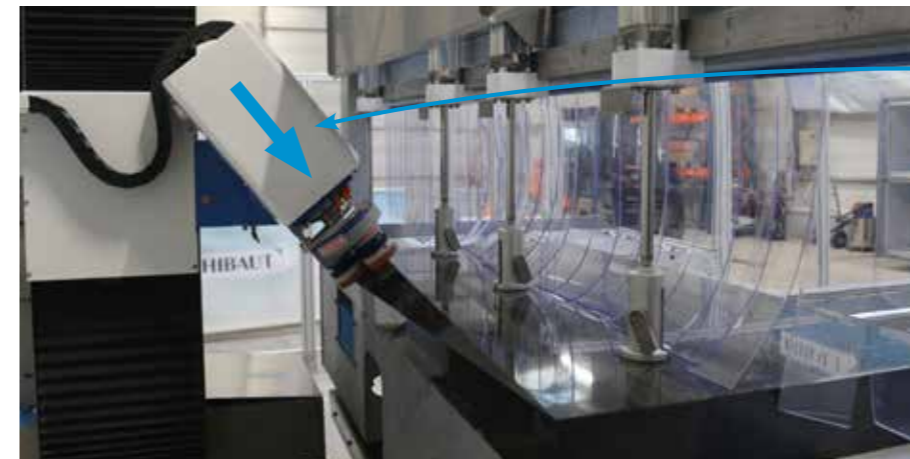
The liquid cooling system of the spindle prevents it from overheating and therefore allows you to benefit from 100% power, 100% of the time. This system also makes it possible to have a compact spindle so that the space between two parts is reduced compared to a conventional spindle of other machines on the market.

In addition, the cooling system does not require a cooling unit.



The machine uses BT40 arbor compatible with most of our machining centers.

Our machine is equipped with the exclusive THIBAUT omnidirectional pneumatic pressure. Programable and adjustable according to the tool grits, the pneumatic pressure allows for the tool to be in perfect contact between the tool and the material by compensating for any unevenness. **A major advantage for exceptional polishing!**



Pneumatic pressure

OPTIONAL EQUIPMENT

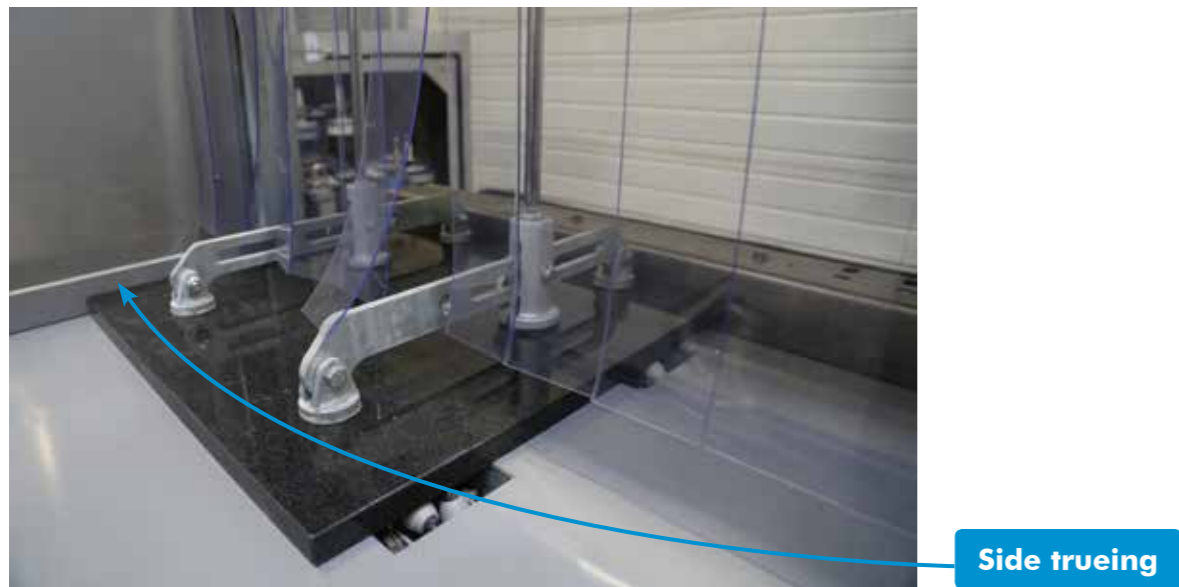
Option

SIDE TRUEING

It is possible to equip the machine with two side stops to facilitate the positioning of narrow workpieces on the left and right side of the table. This system ensures perpendicularity between the long side of the workpiece to be clamped and the alignment bar. Particularly recommended for the production of beams.



Side trueing



Side trueing

OPTIONAL EQUIPMENT

Option

SHARPENING STONE

Located on the left side of the working table, the retractable abrasive stone allows for the easy sharpening of your tools and guarantees the quality of cut throughout the life of the tool.



Sharpening stone device in working position of the machine



Sharpening stone device in sharpening position

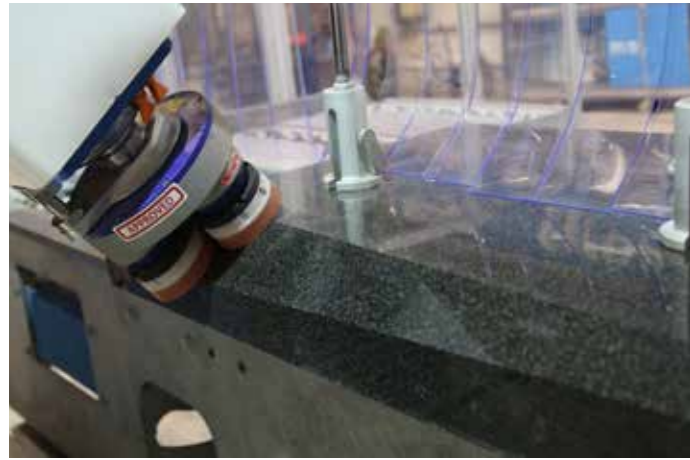
OPTIONAL EQUIPMENT

Option

“AR-3” SATELLITE HEAD



Our new satellite polishing head called «AR-3» is ideal for polishing flat surfaces. Combined with the exclusive THIBAUT pneumatic pressure, it provides for an unrivalled polishing quality on hard materials.



Powerful, the head is equipped with 3 quick fitting wheels and offers an excellent polishing quality with only five grits.

It is also possible to obtain other finishes such as a brush finish by replacing the polishing wheels with diamond brushes.

Once the five «AR-3» heads have been positioned in the tool magazine, the polishing operation requires no intervention from the operator.



+
The T658 table includes an **AR-3 polishing head sensing system**. Located at the rear of the worktable, the head scanning area measures the wear of the grinding wheels to ensure that they are always in perfect contact with the material.

OPTIONAL EQUIPMENT

Option

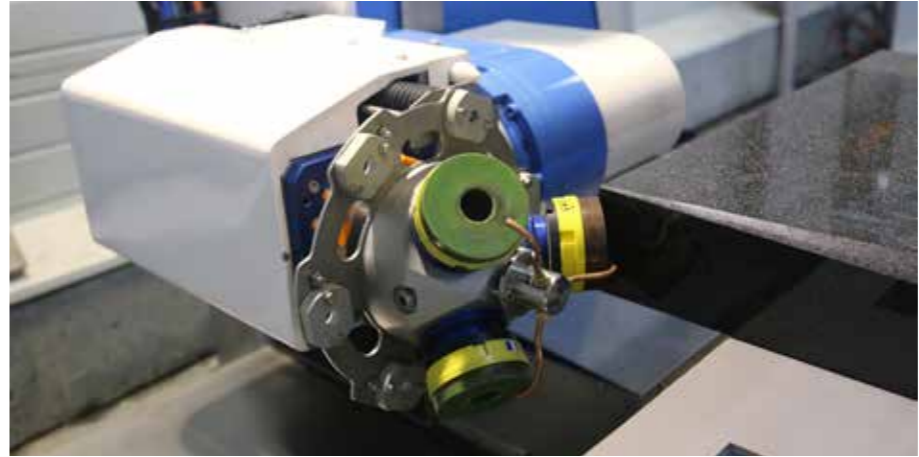
PAC-3 ARISES POLISHING HEAD

This new polishing head developed by THIBAUT allows for polishing vertical arises without changing tools.



45° inclined wheel

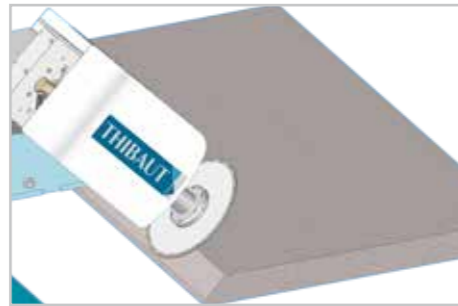
The head is equipped with 3 quick fit wheels and offers excellent polishing quality with only three grits. To do this, you simply equip the head with 3 different grit wheels. Once the PAC-3 head is positioned in the tool magazine, the polishing operation does not require any intervention from the operator.



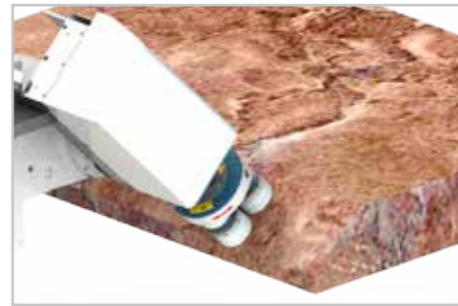
MONUMENT APPLICATIONS



Polishing of thick straight edge.



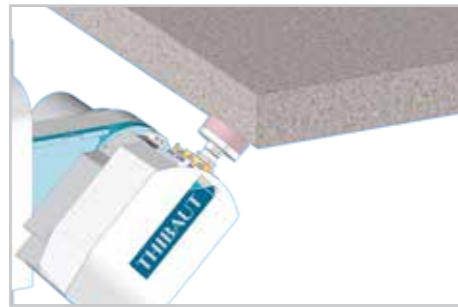
Straight or inclined sawing.



Polishing of thick inclined straight edge.



Polishing of thin straight edge.



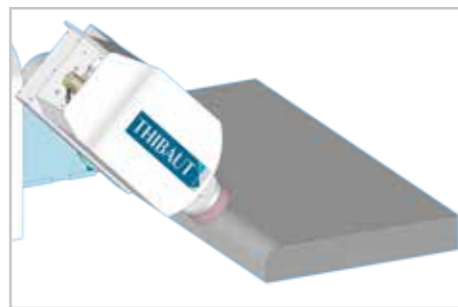
Lower arrise polishing.



Profiling and polishing with shaping wheel.



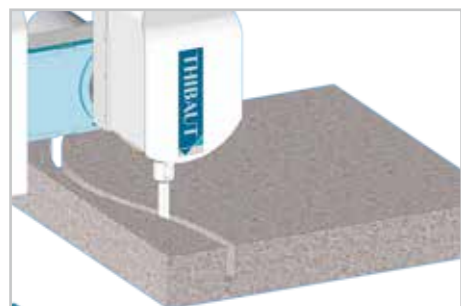
Profile shaping with a 130 mm Ø wheel.



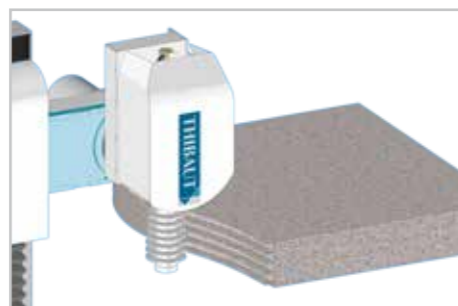
Profile polishing with a 130 mm Ø wheel.



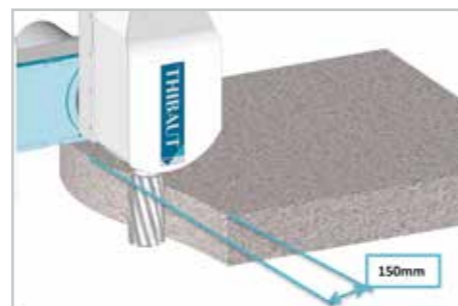
Drilling from 0 to 90°.



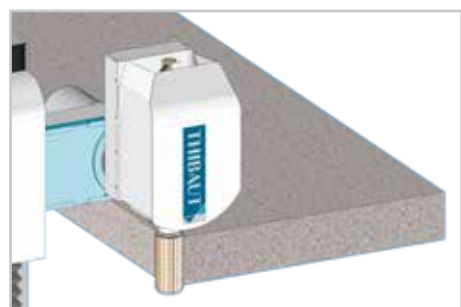
Curved edge shaping with routing cutter.



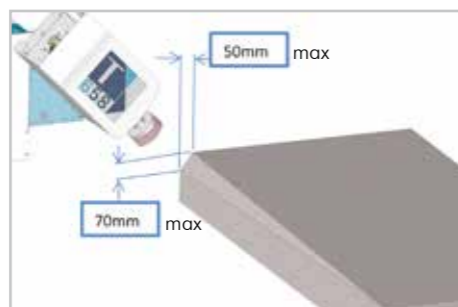
Curved edge shaping with multidiscs.



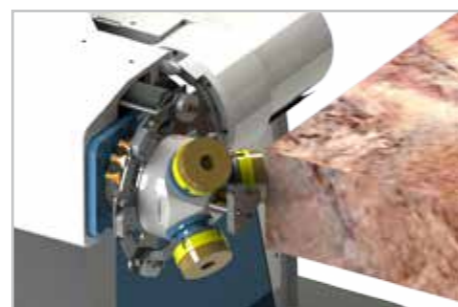
Curved edge milling and polishing.



Possibility of straight edge polishing by drum.

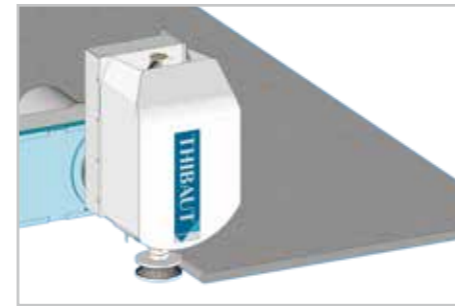


Sloping arrise milling and polishing with a 130 mm Ø wheel.

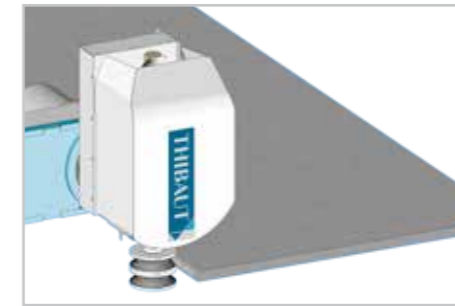


Vertical arrise polishing.

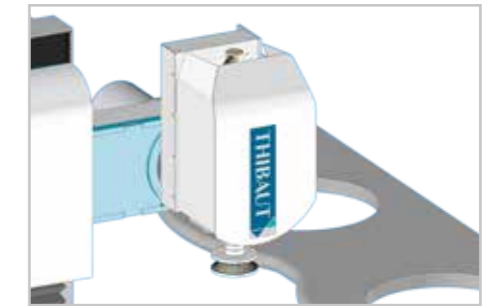
INTERIOR DESIGN APPLICATIONS



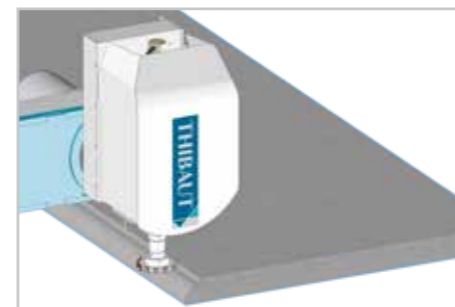
Profiling and polishing with shaping wheel.



Profiling and polishing with stacked shaping wheels.



Profiling and polishing with shaping wheel on curved edge.



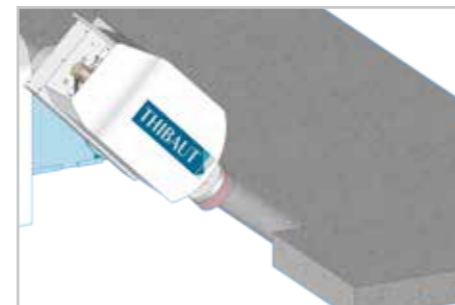
Shaping with a 130 mm Ø wheel.



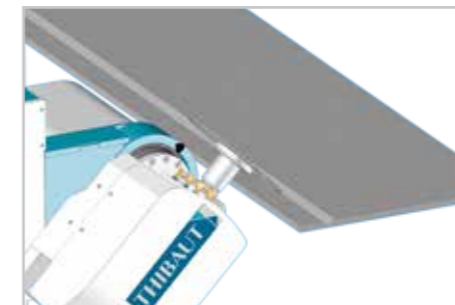
Polishing with a 130 mm Ø wheel.



Horizontal arrise polishing.



Profiling and polishing of a piece with return.



V grooving / Mitre cut (under development).



V grooving / Mitre cut (under development).



Horizontal grooving.

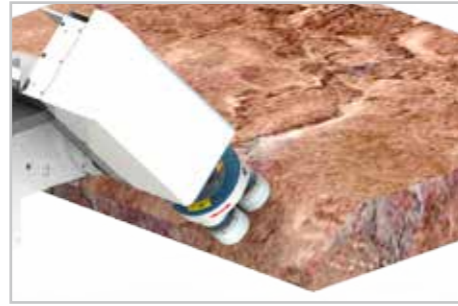


Lower grooving.

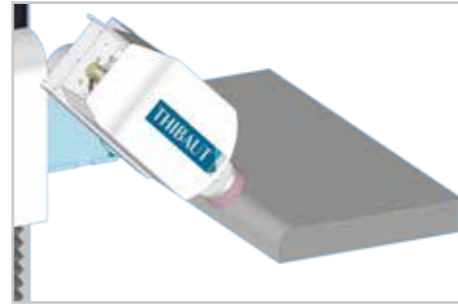
CONSTRUCTION APPLICATIONS



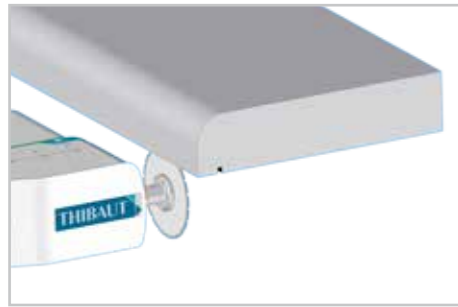
Thick straight edge polishing.



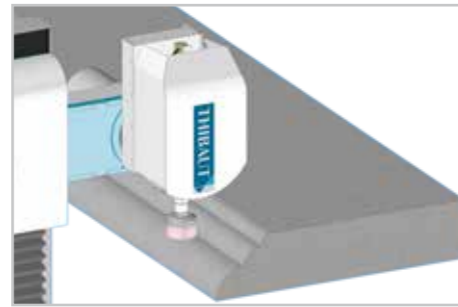
Polishing of thick and inclined straight edge.



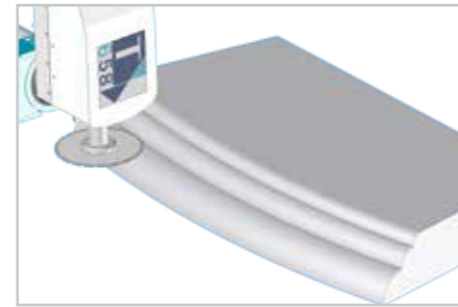
Profile shaping and polishing with a 130 mm Ø wheel.



Lower grooving.

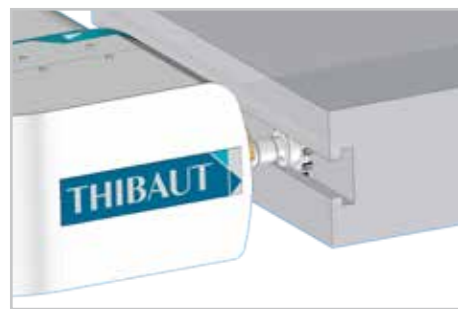


Straight edge milling and polishing.



Curved profile milling.

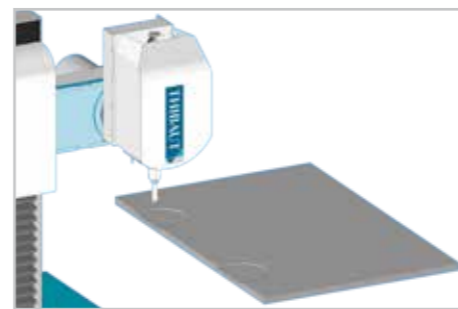
Different possible machinings (on request)



T grooving.



Profiling.



Drilling from 0 to 90°.

PROGRAMMING

Control panel

The interface is simple, easy to use and innovative. It's similar to the one you find on digital tablets or smartphones, for "touch" navigation as well as for the data registration.



Tool setting

- Tool visual programming.
- Identical to the entire THIBAUT range of machines.



Tool library

- This library allows to store the parameters of 100s of tools and to have a general overview.
- Easy search through keywords.
- Time saving when programming.

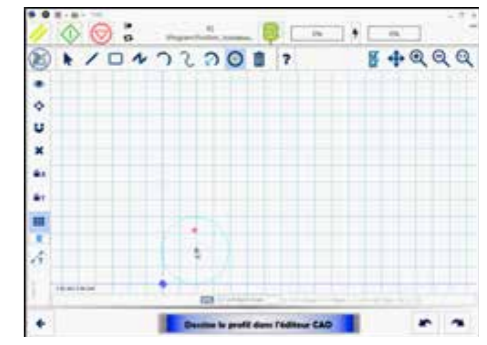


Quick programming

- 1- The piece dimension and thickness auto detect is made automatically by the laser.
- 2- Link a machining model already programmed to each piece (this operation is not necessary if the models are the same as the last machining).
- 3- Cycle starting.

Setting of the machining sequences

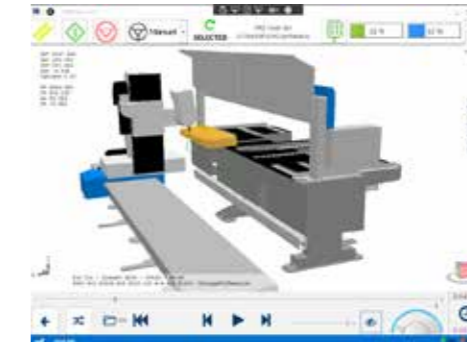
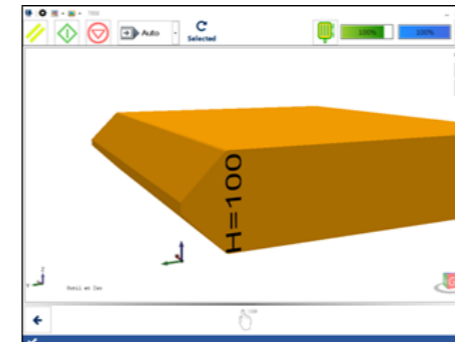
To simplify the machining settings, the sequences of the same type are colour coded. The elements can also be filtered with buttons or keywords.



Simulation

When creating a new profile and to reassure the operator, it's possible to have a 3D preview of the piece before commencing the machining process.

It's also possible to have a 3D simulation of the machine and the pieces on the table before and during the machining process, in order to validate that the machining cycle can be started.



TECHNICAL CHARACTERISTICS

Working capacity:

- Length : up to 3600 mm
- Thickness : from 10 to 380 mm

X axis (left – right movement):

- Galvanized welded structure frame
- Galvanized welded structure horizontal carriage
- Longitudinal movement by a pulley driving belt with brushless gearmotor (variable speed). Linear guiding protected by stainless steel housings.

Y axis (front – rear movement):

- Painted welded structure traverse carriage
- Horizontal movement by a ball screw driving and a brushless motor. Precision linear guiding with protection bellows.

Z axis (vertical movement):

- Painted welded structure vertical carriage
- Horizontal movement by a ball screw driving and a brushless motor. Precision linear guiding with protection bellow.

A axis (spindle orientation):

- Rotation of A axis from +/- 90° by a brushless gear motor. Rotary guiding by precision bearing.

Pneumatic pressure:

- Pressure by pneumatic cylinders, electronically and automatically adjusted according to the A axis orientation. Allows to optimize the work quality, to use less tools and to increase their life span.

Electrospindle:

- Synchronous spindle motor 11.1 kW in S6 (at 3000 rpm)
- Rotation speed from 0 to 5000 rpm
- BT40 tool changing common to all THIBAUT machines (T108 - T812 - T818 - T858 - with the exception on spindle application -90° which require a shorter tool)
- Double watering : central in clear water and external in recycled water

Tool magazine:

Rotary tool magazine 25 spaces on 2 rows :

- 11 spaces for tools Ø maxi 150 mm on the upper row
- 14 spaces for 7 tools Ø maxi 150 mm and 7 tools Ø maxi 300 mm on the lower row

Feedings:

- Voltage 400 V / 50 Hz
- 5 µm air filtration with automatic draining
- Water filtration by 50 µm filter for central watering

Automatic centralized lubrication:

- Greasing unit feeding the X, Y, Z linear guidings as well as the ball screws of the Y and Z axes.

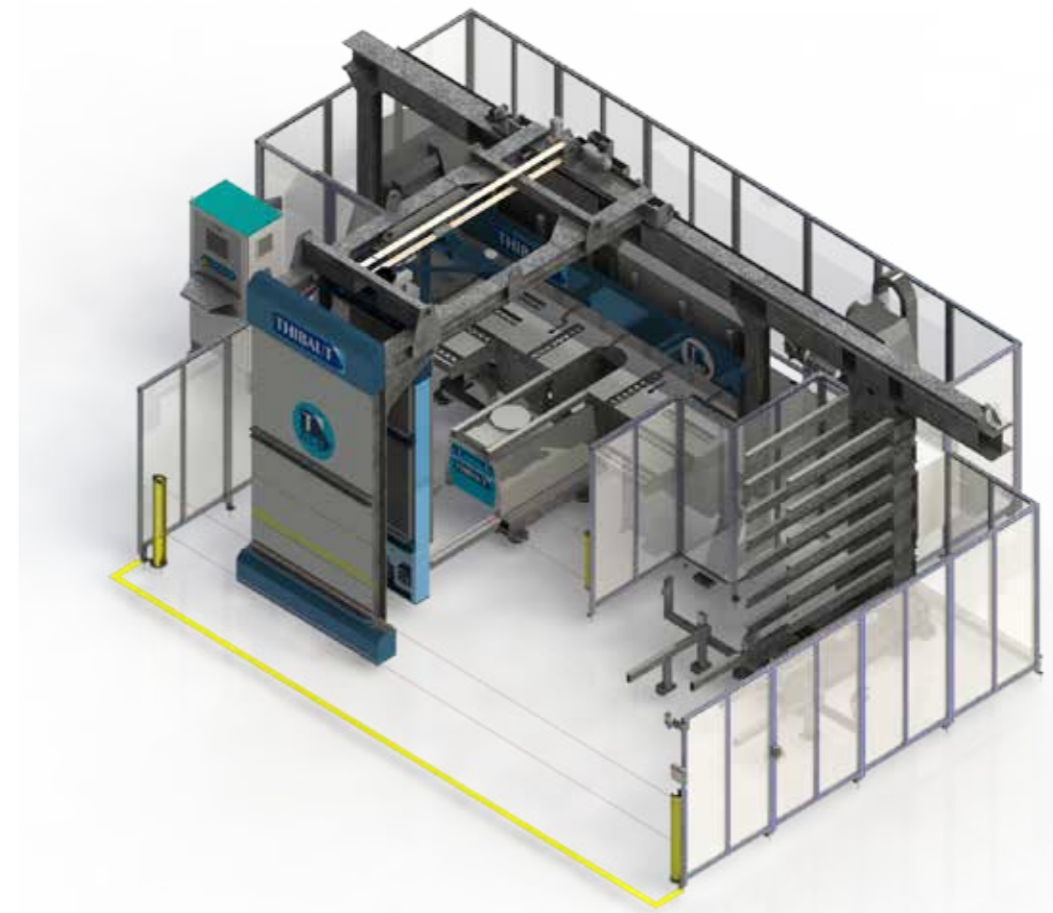
Automation and machine operating:

- Electric cabinet located near the magazine in order to give the maximum visibility to the operator
- Digital control panel equipped with a 15" colour touch screen
- Automatic teaching of the piece positioning on the clamping table
- Automatic device to stop the machine in case of tool wear
- Tool wear out dynamic balancing for some machining cycles
- Tool measuring with 2 systems of automatic correction:
 - The first one for the automatic correction of the length and/or of the tool diameter according to the degree of wear and tear
 - The second one to measure the length of the big tools
- Cross laser to take into account the headstone positioning in case of curve polishing (with import of the DXF file)
- Laser for measuring length and thickness of the pieces.

Supplied with:

- Digital calipers with its equipment to measure the tool diameter
- Digital height gauge capacity 300 mm to measure the tool length

TECHNICAL CHARACTERISTICS OF THE AUTOMATIC LOADER OF WORKPIECES



X axis (left – right movement):

- Machine-welded galvanized frame.
- Machine-welded galvanized carriage.
- Longitudinal movement ensured by pulley / belt drive with brushless gearmotor (variable speed). Linear guide with rollers.

Y axis (front – rear movement):

- Machine-welded painted carriage.
- Horizontal movement ensured by pulley / belt drive with brushless gearmotor. Linear guide with rollers.

Z axis (vertical movement):

- Machine-welded painted vertical carriage.
- Vertical movement ensured by ballscrew drive with brushless gearmotor. Linear guide with precision rollers.

Storage rack for workpieces:

- Positioned to the right of the machine.
- 7 locations.
- Possibility of adding a second storage rack.

Workpieces:

- 900 x 600 x 20 mm minimum
- 2500 x 1500 x 150 mm maximum.
- 1500 kg maximum.

Automation and machine control:

- Electrical cabinet positioned at the back of the storage rack. This makes for easy access, operation and maintenance.
- Integrated CNC with coloured touchscreen and remote control.
- Automatic learning of the dimensions of the pieces on the loading area.

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Because your peace of mind matters to us, we remain at your disposal.

Parce que votre sérénité nous importe, nous restons proches de vous.

Kundenzufriedenheit hat bei uns höchste Priorität, deshalb sind wir in Ihrer Nähe!

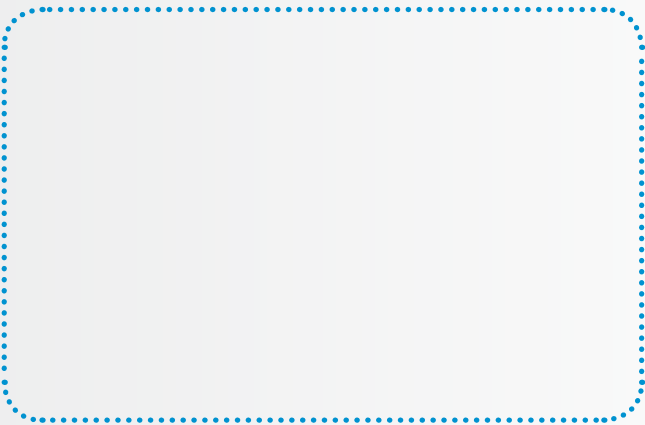
Porque nos importa tu tranquilidad, siempre estamos cerca de ti.

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Video



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