



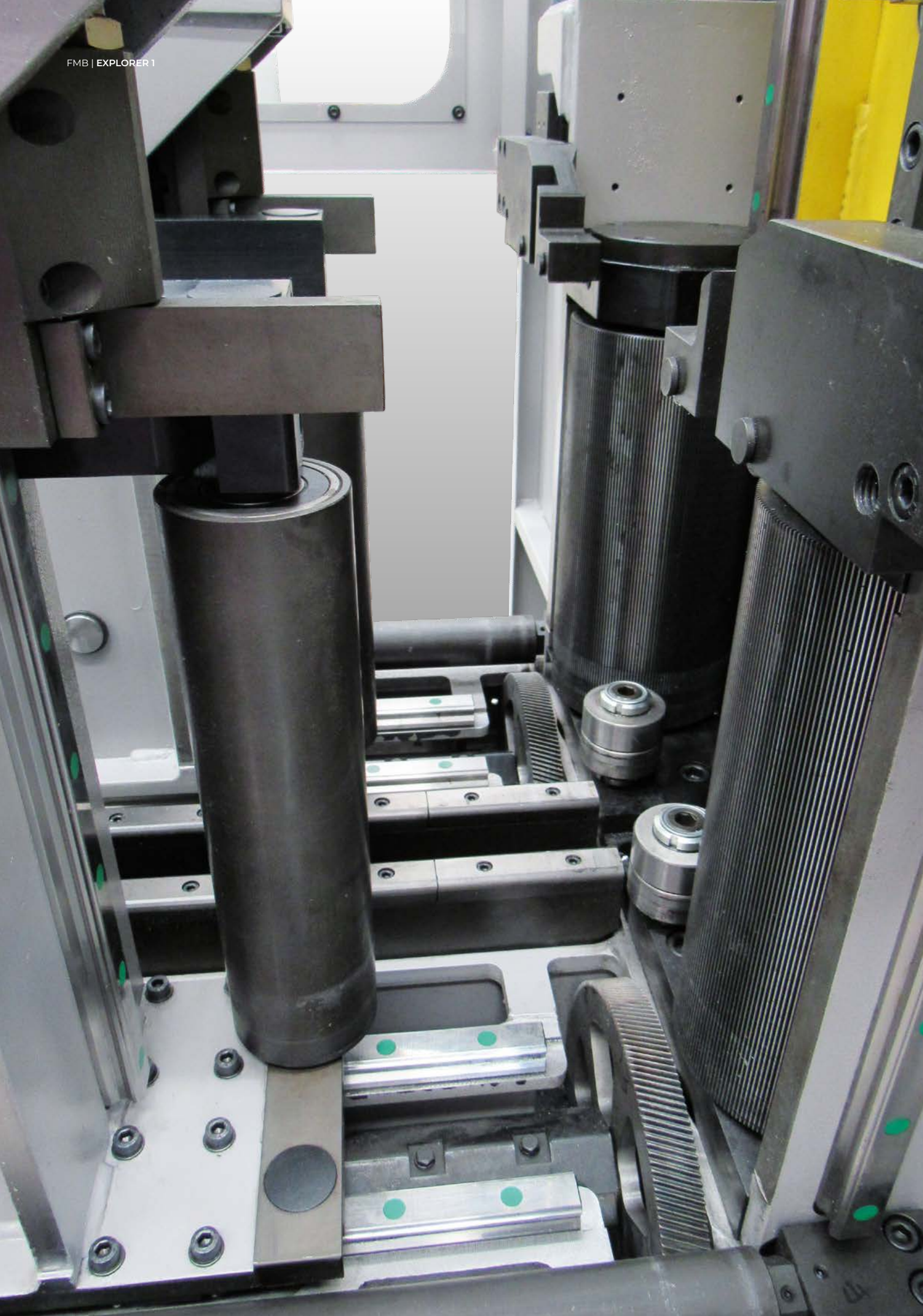
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EXPLORER 1

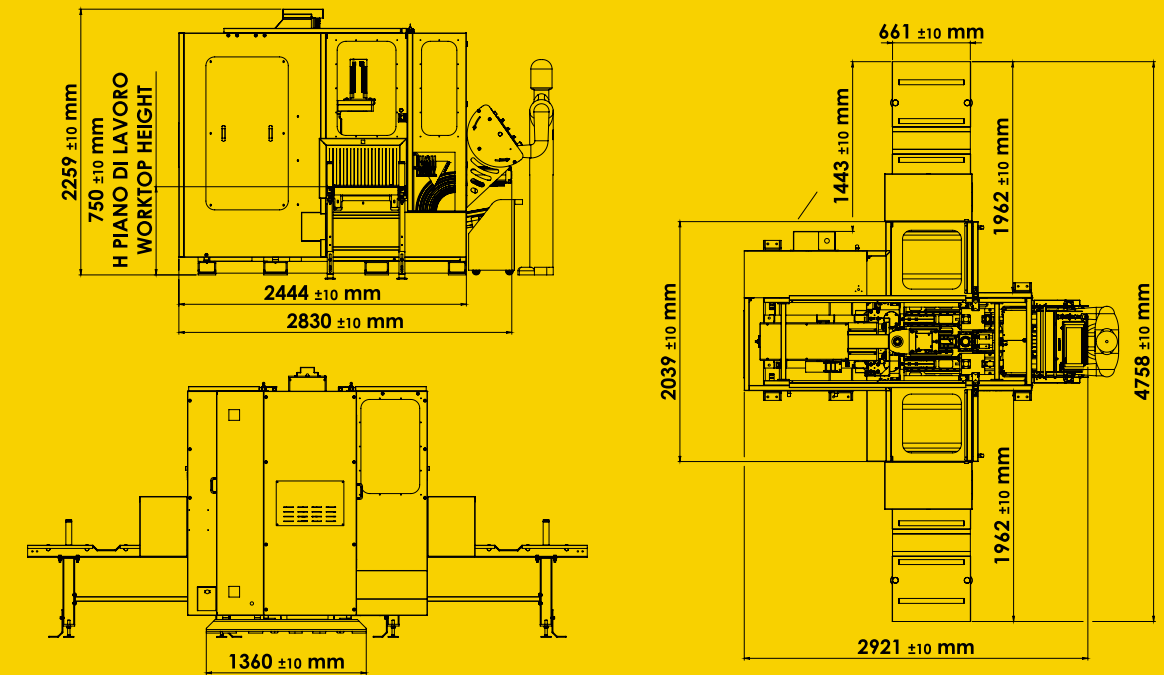
ONE SPINDLE VERTICAL DRILLING MACHINE





- ◆ Basement in electro welded high rigid carpentry.
- ◆ Machine provided of a controlled 4-axes CNC, of which 1 with double-position control to obtain the highest precision.
- ◆ Automatic control of the clamping rollers lock-ing and dragging rollers rotation that allow the bar feeding along the "x" axe.

- ◆ Horizontal and vertical pneumatic clamping devices that steadily lock the bar during the drilling operation.
- ◆ Operations which can be executed with the machine:
 - ◆ Through hole
 - ◆ Blind hole
 - ◆ Double hole
 - ◆ Thread (with limitations)
 - ◆ Slotting (with limitations)



FEATURES

- ◆ Materials feeding system by threaded and rectified dragging rollers.
- ◆ 2 vertical pushers involved during the whole working cycle.
- ◆ 2 horizontal locking vices.
- ◆ 2 vertical clamping vices.
- ◆ Tools lubrication: inside and outside.
- ◆ Swarf extractor.
- ◆ A vertical single bit drilling unit.
- ◆ Starting bar zero setting equipped of a laser system.
- ◆ Bar non-stop measuring system obtained thanks to a "contact system", of fly wheels, so avoiding possible measuring errors due to material sliding or stumbling.
- ◆ ISO40 spindle connection.

- ◆ The pneumatic circuit function is to supply the 2 horizontal vices cylinders, the 2 vertical pushers, the 2 vertical vices, the tools coolant unit and the measure fly wheels cleaning. It also allows the quick tool's replacement operation.
- ◆ Oil nebulizing tool cooling system, to avoid liquid dropping or shedding on the machine or on the floor.
- ◆ Control pulpit complete of electric device and industrial PC supporting console, in ergonomic position as to the operator.
- ◆ Protection mechanical barriers with panels in polycarbonate assuring a perfect view of the working process.
- ◆ 2 meters roller tables on the loading side and 2 meters on the unloading side to support material.
- ◆ Removable chips collector tank.



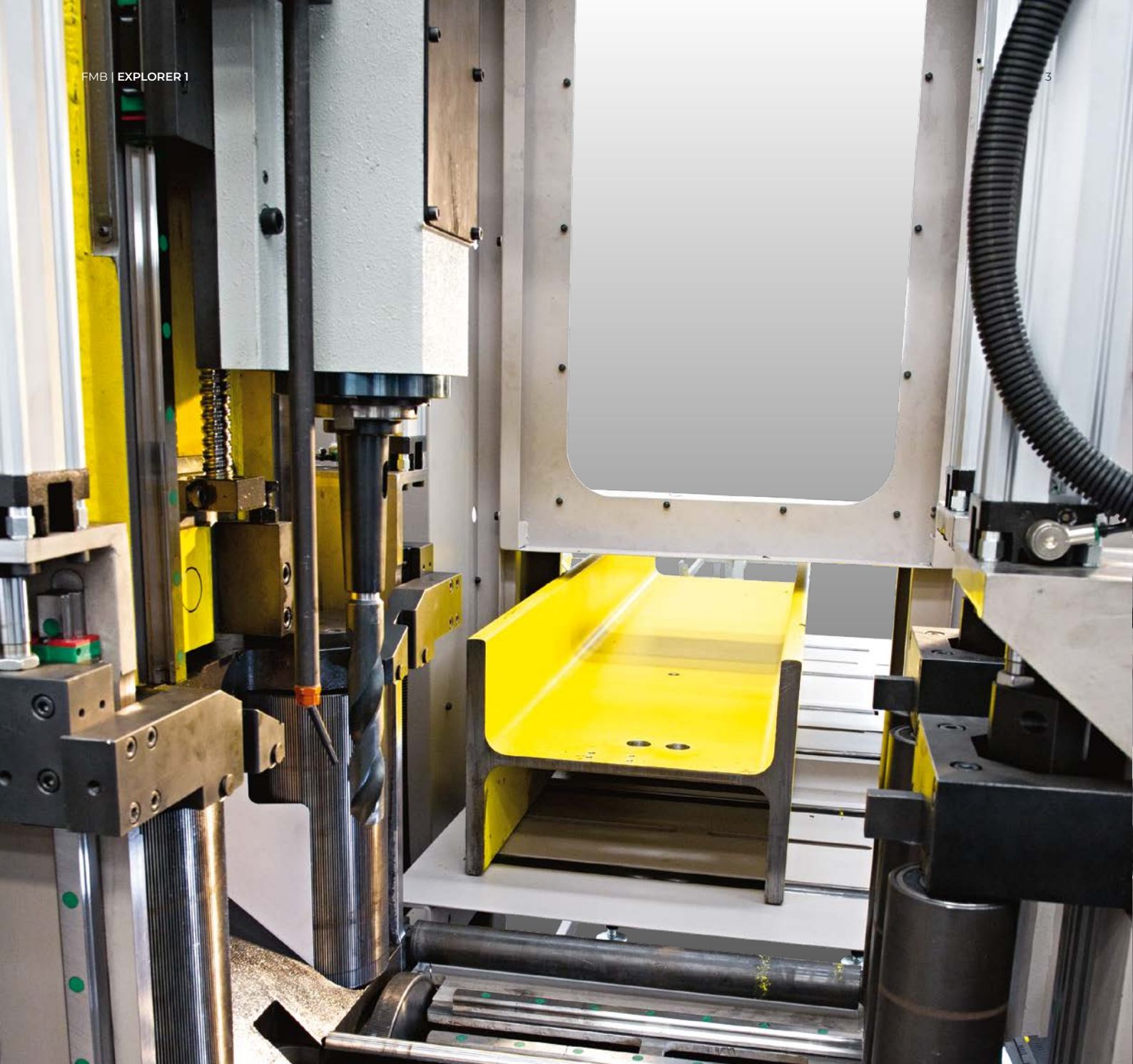
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Beam max. length	15 m
Beam min. length to make the exchange	450 mm
Beam min. width	40 mm
Beam max. width	450 mm
Angular min. dimensions	40x40x3 mm
Workable min. profile dimension	40x10 h mm
Workable min. profile dimension	450x330 h mm
Drilling max. diameter	32mm (indicative)
Machine positioning speed	10 m/min
Material feeding speed	5,5 m/min
Spindle max. rotation speed	3.000 rpm
Spindle power	6,1 Kw
Unit rated current	25 A
Short circuit protection	10.000 A
Spindle connection	ISO40 DIN 69871

*OPTIONAL: Software 4.0 ready



ADVANTAGES

- ◆ Smaller overall dimensions as to traditional machines with roller tables and thrust collets.
- ◆ Bar length even beyond 15 meters.
- ◆ The plant is built as a monobloc unit, electric board and pulpit control panel included, easy to be moved and installed. Loading and unloading side roller tables are not included. Being simple idle roller tables, they can be easily found.
- ◆ Many different types of profiles can be worked, from beams to angle bars but also tubular, UNP and flat bars.
- ◆ Thanks to the material feeding vices exchange system, it is possible to work on both ends of the bar.

SOFTWARE

- ◆ FMB studied a software very easy to be programmed for the operator.
- ◆ The Interface (PC Windows) is displayed on a 20" touch screen and it's provided of:
 - ◆ Tool tables.
 - ◆ Tables concerning the workable profiles families (HEA, HEB, HEM, IPE, UPN, etc.) with the most used dimensions for each material (yet, further dimensions can be added).
- ◆ It is possible:
 - ◆ To memorize the programmed pieces.
 - ◆ To memorize the compiled programs and to make holes in semiautomatic mode.
 - ◆ To connect the machine to internet to have remote assistance from FMB technicians.





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