

FMB s.r.l.

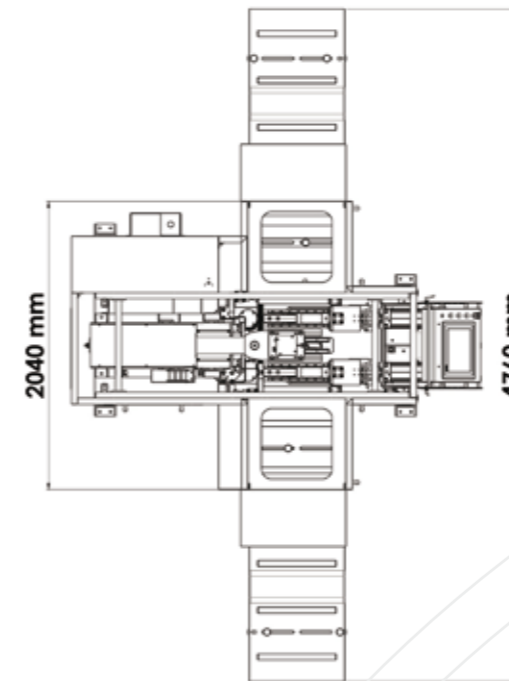
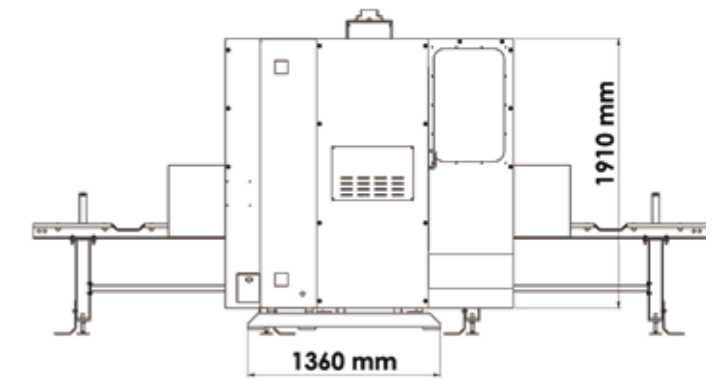
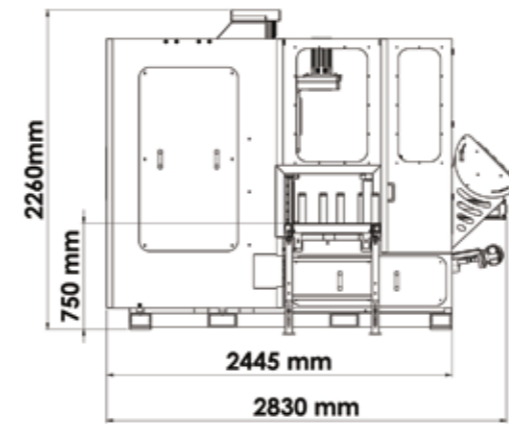
Via Lodi, 7 - 24044 Dalmine (BG) ITALY
Tel. +39 035.370.555 - Fax +39 035.370.668

E-mail info@fmb.it - www.fmb.it

www.fmb.it

EXPLORER 1

ONE SPINDLE VERTICAL DRILLING MACHINE



MAIN FEATURES

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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.

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.

DESCRIPTION

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Basement in electro welded high rigid carpentry.

To obtain the highest precision, the machine is provided of a controlled 4-axes CNC, of which 3 with double-position control.

The automatic control of the clamping rollers locking and the dragging rollers rotation allow the bar feeding along the "x" axe.

The horizontal and vertical pneumatic clamping devices steadily lock the bar during the drilling operation.

Machine processings:

- Through hole
- Blind hole
- Double hole
- Thread
- Slotting



EXPLORER 1

OPTIONAL
EXPLORER 1

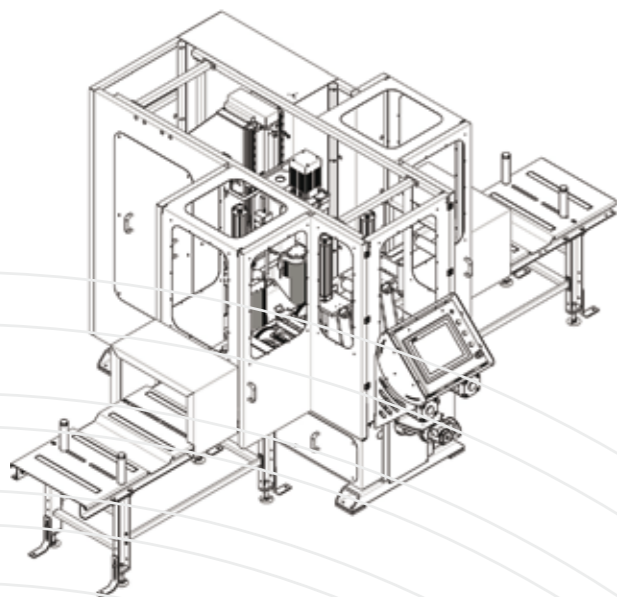
TECHNICAL DATA

EXPLORER 1

Beam max. length	24 m
Beam min. length to make the exchange	440 mm
Beam min. and max. width	min. 40 mm max. 450 mm
Angular min. dimensions	40x40x3 mm
Workable profile dimension	min. 40x10 h mm max. 420x300 h mm
Drilling min. diameter	5 mm
Drilling max. diameter	32 mm
Machine positioning speed	10 m/min
Material feeding speed	5,5 m/min
Spindle max. rotation speed	1.300 rpm
Spindle power	4,5 Kw
Drilling accuracy (on a length of 10 m)	± 0,5 mm
Unit rated current	25 A
Short circuit protection	10.000 A
Spindle connection	ISO40 DIN 2080/69871

- 6,1 Kw spindle. Maximum rotation speed: 3.000 rpm.
- Semiautomatic spindle change (ISO40 DIN 69871 connection).
- HSK spindle connection.





ADVANTAGES

EXPLORER 1

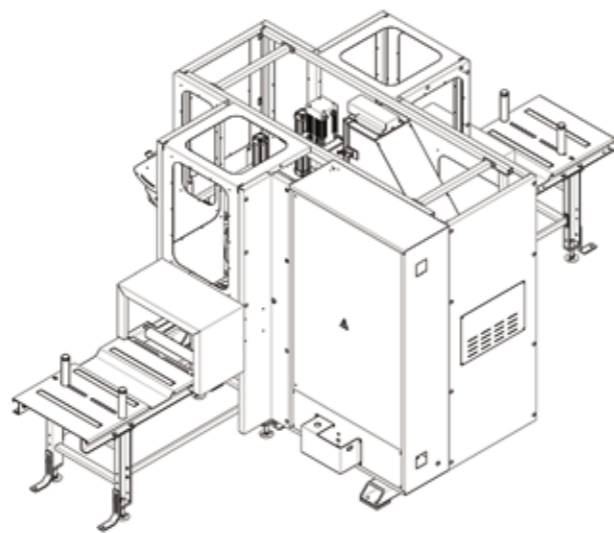
Smaller overall dimensions as to traditional machines with roller tables and thrust collets.

Bar length even beyond 24 meters.

The plant is built as a mono-bloc 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 FEATURES

EXPLORER 1

FMB studied a software very easy to be programmed for the operator.

The Interface (PC Windows) is displayed on a 20" color 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.
- To make holes in semiautomatic mode.
- To make the machine measure the tool length directly.
- To connect the machine to internet to have remote assistance from FMB technicians.

Standard on the machine the "FMB smart drilling control" (selected by the operator). This control prevents the head from entering the piece too deeply so saving the tool from possible breaking and the machine from stress.

