



## SINGLE-HEAD BORING MACHINES

# BORING SYSTEM 21 TECHNOLOGY

### Multispindle, single-head, electronic boring machine, with 3 NC axes

For **horizontal** and **vertical drilling** into **wood-based panels** and **solid wood**, for the furniture manufacturing.

- Quick, electronic set-up: Click and go!
- Accurate drilling: NC axes (+/- 0,1 mm) and the finest mechanical systems
- Small footprint: 1 sqm

More than 20.000 machines manufactured, over thirty years' experience.  
100% made-in-Italy machines abiding by the highest quality standards as a result of the "Lean" manufacturing process, also known as "Toyota System".

## TECHNICAL FEATURES

Quick-change spindles 32 mm interaxis. **Electronic selection of boring height, depth and boring angle from 0° to 90°**. Well-dimensioned working table made of steel. Ready to be connected to a dust-collector. Manufactured according to EC standards.

## STANDARD EQUIPMENT

n.1 - 2HP Motor + linear actuator for boring-head tilting

n.2 stepper motors for the vertical and horizontal movement of the boring head

n.2 patented safety hold-down clamps

n.5 quick-change chucks

n.2, 1500 mm long, aluminium fences, with 4 ref. stops

n.2 removable side-fences on working table, adjustable on high-precision numeric counters

n.2 fixed ref. stops at 37 mm for hinges

Rear fence having 300 mm max. stroke

Ergonomic control panel, color 7" touch-screen, PLC for the electronic selection of the boring parameters

"Linux" Operative System

Up to 1.000 working programs storable

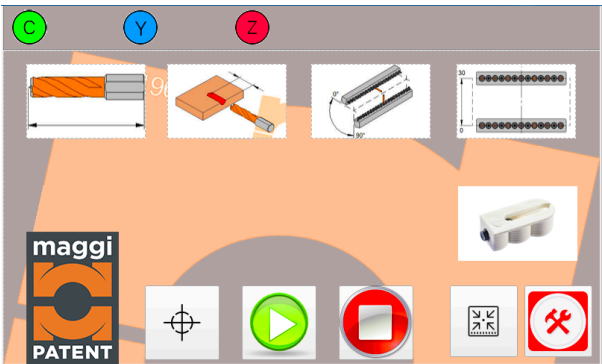
USB and Ethernet ports

Package:stackable carton box

Ready to be connected to a dust- collector

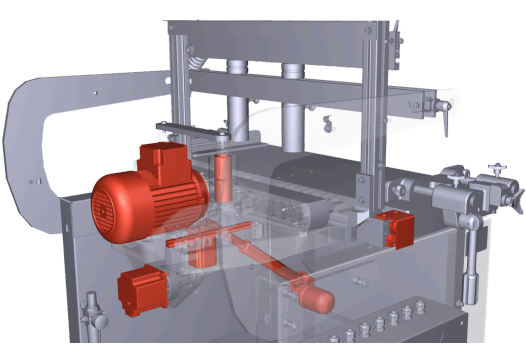
Manufactured according to EC standards

# MORE INFORMATION



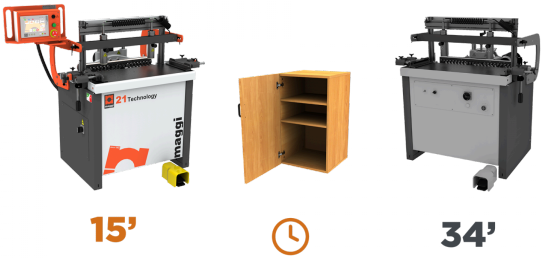
## SIMPLE, ELECTRONIC, UNIQUE

Thanks to the "touch-, icon-based", **patented System**, for the **electronic selection of boring height, depth and boring angle** over a PLC; the set-up is easy and intuitive and it does not require any specific programming skills.



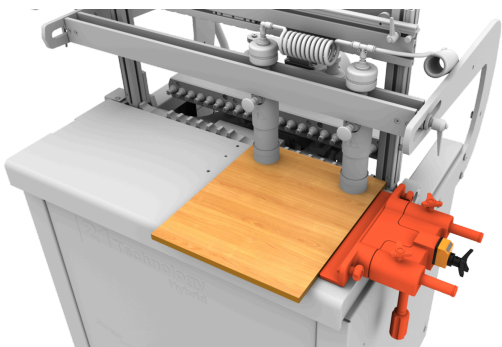
## HIGH-QUALITY END PRODUCTS

The **high-precision movement of the NC axes**, driven by stepper motors and endcoder; as well as the **well-balanced and even movement of the boring head**, driven by a centered motor and sliding along linear guides and ball bearings, **ensure an extremely accurate drilling process, and high-quality end products**



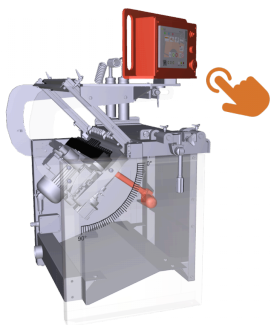
## QUICK SET-UP : CLICK AND GO!

Electronic selection and saving of the drilling parameters ( Up to 1.000 programs storable ) allow a **reduction of the set-up time by 80%**, making this machine **two times faster than any other single-head boring machine of the same category**.



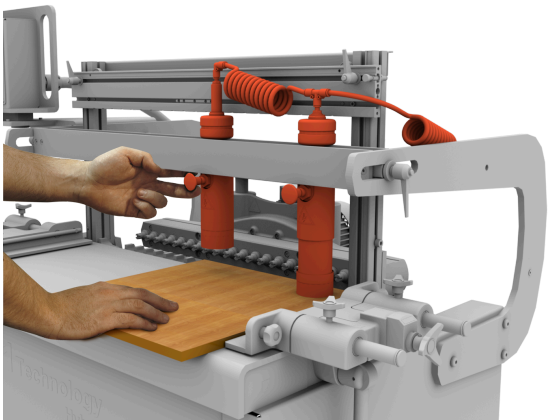
## PERFECT PANEL JOINTS

The ref. side fences, adjustable on numeric counters, always represent a precise reference point, quick to set-up, and guarantee perfect parallelism of the drilling operations.



## VERSATILE

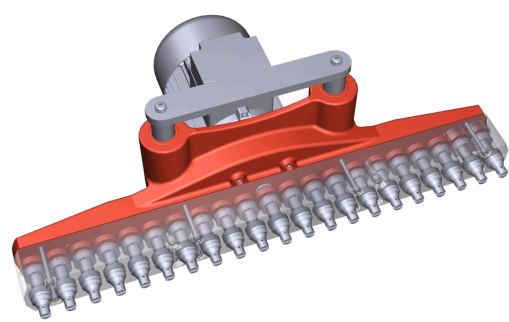
It drills at any angle between 0° and 90°. The selection of the boring angle is electronic over a touch screen



## SAFE PANEL HOLD-DOWN

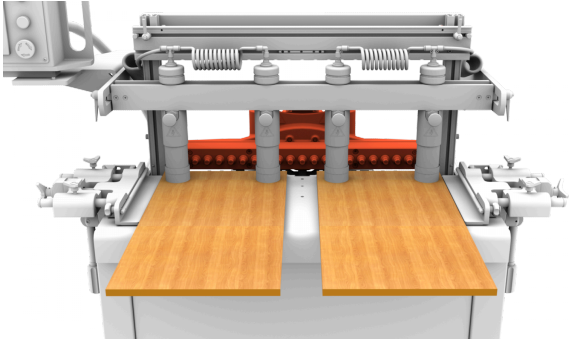
The quick-positioning, safety, hold-down clamping units ensure the greatest stability and steadiness of the working piece during the working cycle and the highest accuracy of the drilling process

# MORE INFORMATION



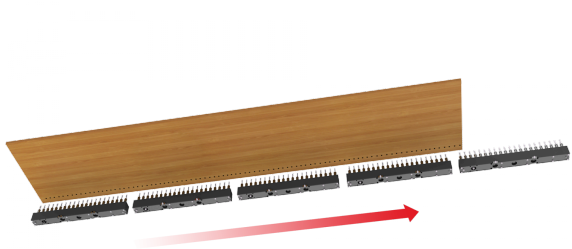
## TOP-OF-THE-RANGE BORING-HEAD

Made of aluminium with internal gears made of rectified steel; well-dimensioned holder plate and centered motor for the highest balance, sliding on guides and sleeve bearings for an even vertical and horizontal movement to give You a top-performance, always!



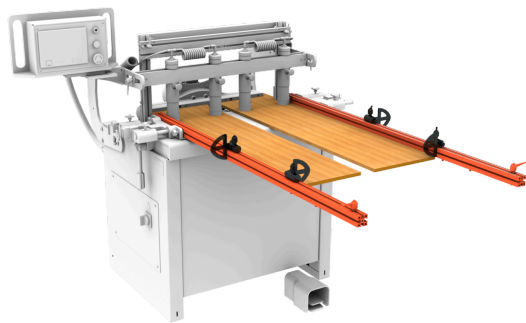
## FAST HORIZONTAL DRILLING

Thanks to the 640 mm interaxis and the large working table, You can process 2 panels having 316 mm width at the same time



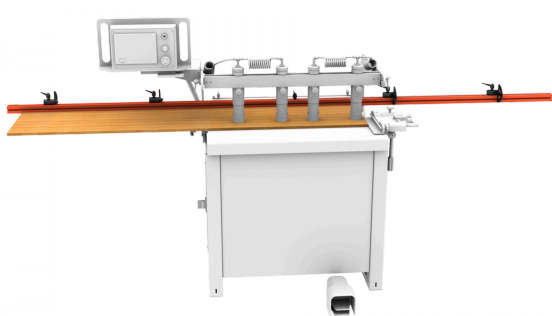
## FAST VERTICAL DRILLING

You can process 3000 mm - long sides in 5 working cycles



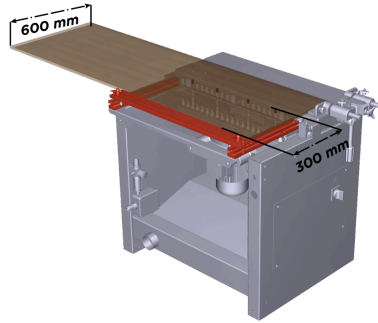
## QUICK AND ACCURATE PANEL POSITIONING

Thanks to the two aluminium fences 1500x 80 mm with 4 reference stops,( two are included, two are options)



## QUICK AND ACCURATE PANEL POSITIONING

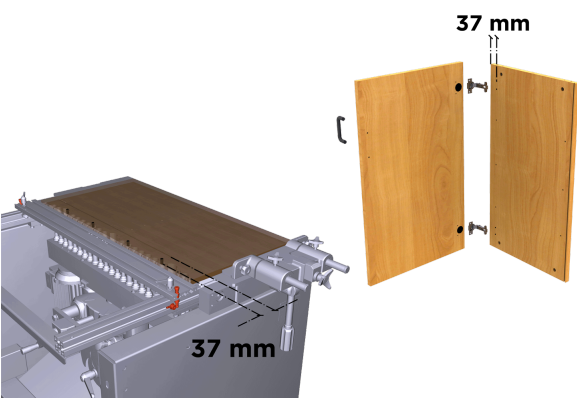
Thanks to the two aluminium fences 1500x 80 mm with 4 reference stops,( two are included, two are options)



## REAR FENCE

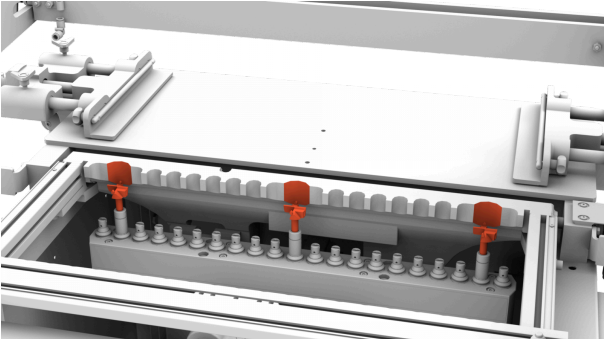
The rear fence, 300 mm stroke, allows to drill holes right in the middle of wardrobe side-panels, without using the long fence.

# MORE INFORMATION



## FIXED STOP FOR HINGES

The 37 mm fixed ref. stop is extremely useful to drill fixing holes for the hinges on side panels.



## SPECIAL DESIGN TO WORK WITH LARGE-DIAMETER DRILL-BITS

The comb has been designed so as to have 3 fixed positons where You can use cutter-drill bits of large diameter, without any further adjustment of the boring head.



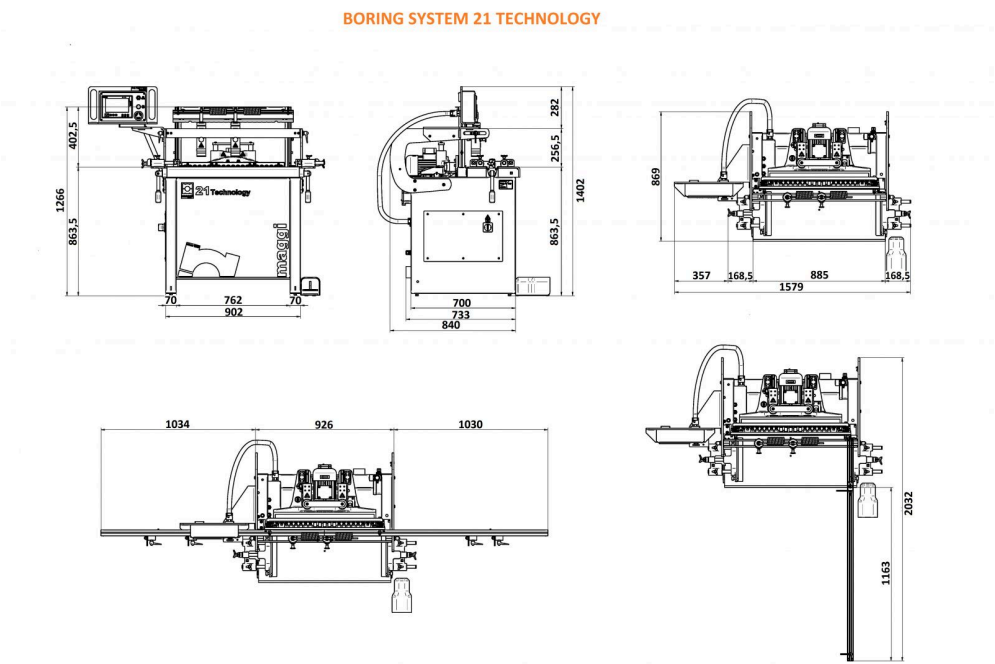
## SOLID STRUCTURE

Made of steel, built to last, eco-friendly, rust-resistant powder coating.



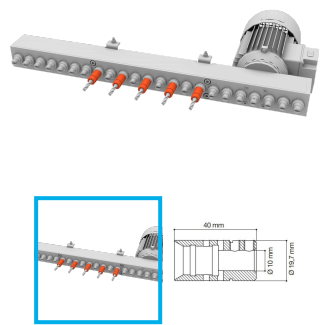
# DATA SHEET

Spindles	N. 21
Left and right spindles	N. 10 sx - N. 11 dx
Spindle interaxis	32 mm
Total interaxis	640 mm
Max. tool diameter	35 mm
Max. boring depth	65 mm
Max boring height	35 mm
Height of working table	860 mm
Dimensions of the working table	885 x 349,5 mm
Max. panel thickness (optional*)	60 mm (130 mm *)
Max. panel dimensions	900 x 3000
Motor	HP 2 / KW 1,5 - RPM 2800
Stepper motor 1	nema 24, 3.2 Nm, 4.2 A, 800 g/cm^2
Stepper motor 2	nema 34, 4.4 Nm, 5.6 A, 1050 g/cm^2
Linear actuator	max 6000 N, 12 mm/s, RPM 5000, max 24 A
Standard pneumatic pressure	BAR 6/ 8
Air consumption per working cycle	5 NL
Dust collection hood diameter	80 mm
Overall dimensions - net weight:	1580 x 950 x 1400 mm
Package dimensions (machine)	1140 x 950 x 1060
Rod packaging size	1500 x 120 x 60
Gross weight	Kg 370
Net weight	Kg 340



# ACCESSORIES

Ergonomics

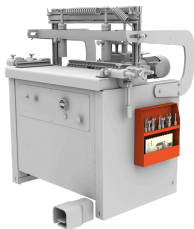


## Quick-change bush / chuck

By using these quick-change tool-holders, You can mount Your drill-bits on the boring head in just "one click"

**CODICE: 36000061**

Ergonomics

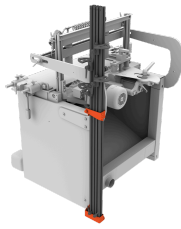


## Tool-tray

To keep Your drill-bits and tools tidy and always close at hand

**CODICE: 26000014**

Ergonomics



## Stand for the long fences

To keep Your fences always close at hand

**CODICE: 26000010**

Specific for long panels



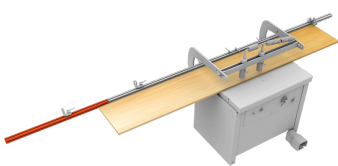
## Ref. stops to match the long panel

It keeps long working panels aligned for a more accurate drilling process

N. 2 ref. stops to match the long panel during transversal drilling

**CODICE: 26001071**

Specific for long panels

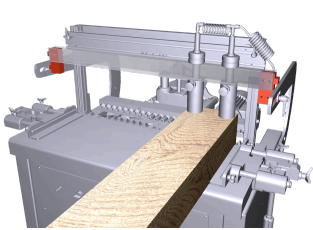


## 1000 mm long fence extension

To increase by 1 mt the length of the 2 standard fences (1,5 mt each) and carry out the in line drilling process on long panels

**CODICE: 29970302**

Increase the versatility



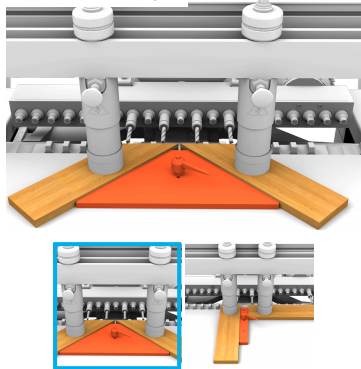
## Blocks to lift the hold-down clamps up to 130 mm

To process beams having a maximum height of 130 mm

**CODICE: 26001015**

# ACCESSORIES

Increase the versatility



## Set of two ref.stops for drilling at 45° and 90°

To drill mouldings and laths

**CODICE: 26000069 A / 26000069 B**

Quicker set-up

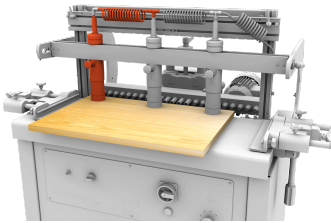


## Set of n° 2 additional ref. stops

For an even quicker and more accurate set up

**CODICE: 26028819**

Enhance the hold-down on the workpiece



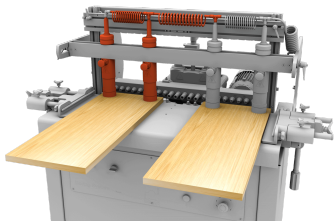
## Additional hold-down clamp

To increase the hold-down pressure on the working panel and consequently its stability during the drilling process

N.1 additional hold-down clamp

**CODICE: 29971019**

Enhance the hold-down on the workpiece



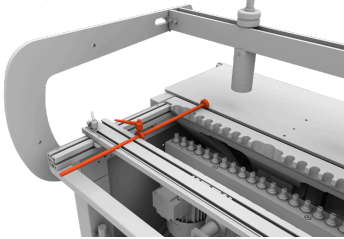
## Additional hold-down clamps

To increase the hold-down pressure on the working panel and consequently its stability during the drilling process. It allows to process two small panels at a time

N.2 additional hold-down clamps

**CODICE: 29971020**

Quicker set-up



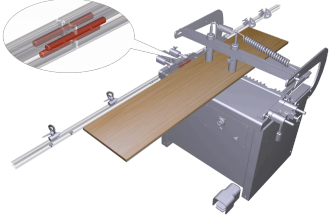
## Ref. gauge for reaf fence parallelism

For a quick and accurate set-up of the rear fence

Ref. gauge for reaf fence parallelism ( 500 mm)

**CODICE: 26000061**

Quicker set-up



## Kit to join the two aluminium fences

To get one single 3mt long fence

Kit to join the two aluminium fences (1500 + 1500 mm)

**CODICE: 26028820**

# ACCESSORIES

Recommended tools

	DX / SX	DIAMETRO (mm)	LUNGHEZZA (mm)	QUANTITA'
↓	DX	8	57,5	2
↓	SX	8	57,5	2
↓	DX	8	77	2
↓	SX	8	77	2
↓	SX	15	70	1
↓	DX	15	70	1
↓	DX	20	70	1
↓	SX	20	70	1
↓	DX	5	57,5	3
↓	SX	5	57,5	3
↓	SX	35	57,5	1
↓	DX	35	57,5	1

## Recommended drill-bit set

A selection of drill-bits by our technicians for a professional approach

**CODICE: 26054750**

Special voltages

## Single-phase Motor

To have the machine working in small handcraft shops having an electric system running on 220 VIt's

**CODICE:**

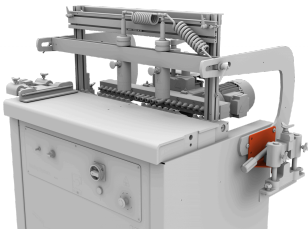
Special voltages

## "CSA" standards

Electrical standards abiding by the Canadian wiring regulations

**CODICE:**

Ergonomics



## Kit of n° 2 stands for the side fences

To keep side fences always close at hand

**CODICE: 26000012**

Improve the comfort



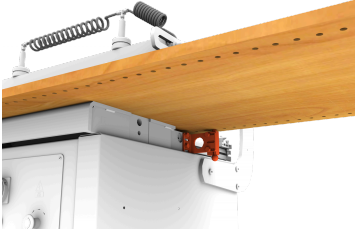
## Independent idle-roller table 500x1500 mm

To make the handling of large-size panels easier for the operator

Independent idle-roller table 500x1500 mm ( idle-roller surface only) 562x1540 mm (incl.frame), adjustable height from 770 to 1.175 mm, max. capacity 45 Kg/m. It can be installed both sides of the machine

**CODICE: 27304100**

Increase the accuracy of the working process



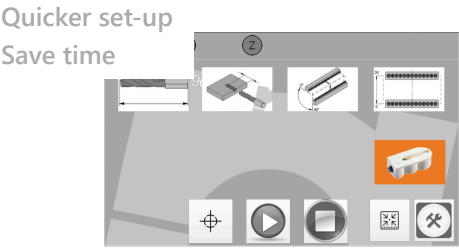
## Ref. pin for line drilling

To carry out the line vertical drilling process very quickly and accurately, without using the long fence. It is highly recommended to have this device both sides of the machine to process panels longer than 2 mt.

Ref. pin for line drilling (1 piece)

**CODICE: 26229020 - (left) / 26229024 (right)**

# ACCESSORIES



## Macro "Cabineo"

A click is all You need to drill the holes for the "Cabineo" connectors, in one working cycle.

**CODICE:**