

Brema EKO 902

vertical boring and insertion machine
with numerical control



When competitiveness means maximum customization



Made **In** Biesse

The market demands

a change in manufacturing processes, enabling companies to **accept the largest possible number of orders**. This is coupled with the need to maintain high quality standards whilst offering product customization with quick and defined delivery times.

Biesse responds

with technological solutions that can meet the requirements of companies who manufacture to order, with notably reduced costs and cycle times.

Brema Eko 902 is the compact and versatile vertical work centre which can perform all boring, milling and glue and dowel insertion operations in even the most limited of spaces. It is the ideal solution for the "just in time" production of finished panels, for businesses that require a simple yet high-tech machine for made-to-order and special operations.

- ▶ **Optimum product quality.**
- ▶ **Maximum machining flexibility.**
- ▶ **Complete process for cabinet-making applications.**

Reduced footprint,
high performance



Brema **EKO 902**

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Optimum product quality

In order to achieve maximum working efficiency, the panel is moved via a pair of mobile clamps on controlled axes, while the vertical management of the panel - one of the distinctive elements of the machine - enables operators to machine even the most delicate surfaces.



The clamps detect the thickness of the panel, and the Z-axis boring depth is monitored in real time. The clamps also support the panel vertically, delicately moving it forward without damaging the surface.



The laser scanner system that detects the start and the end of the panel enables the machine to compensate for any dimensional errors, correcting the panel's X dimensions.

Maximum machining flexibility



5-position tool magazine, which can be equipped with front cones and aggregates.



Standard group with independent spindles and **120 mm Ø blade**. The group can be fitted with an optional 4.5kW 18,000 rpm electrospindle and a boring group with configurable hinge assembly.



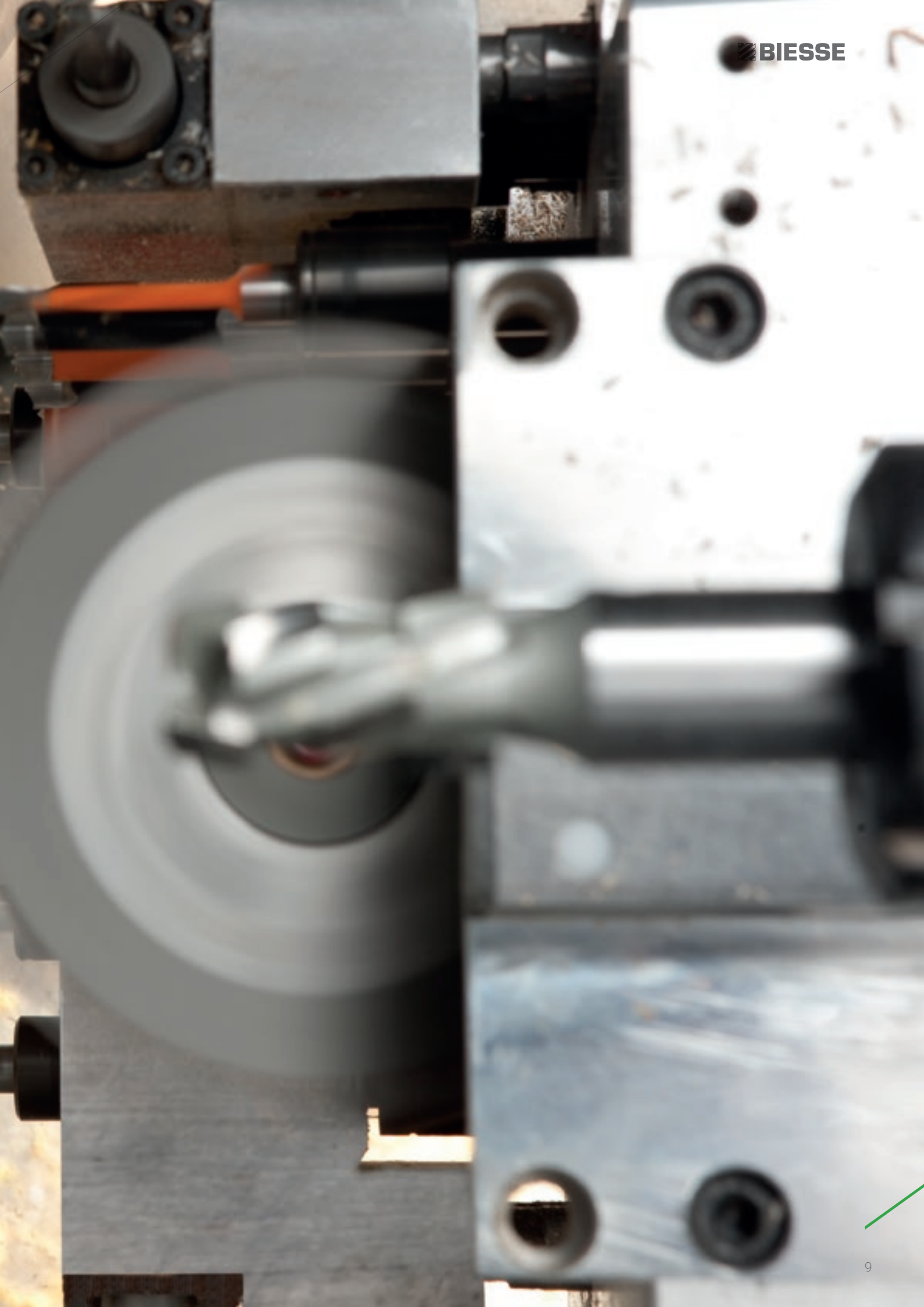
The glue and dowel insertion group is positioned on the rear side of the column mounted on the controlled Y and Z axis.

Compact power

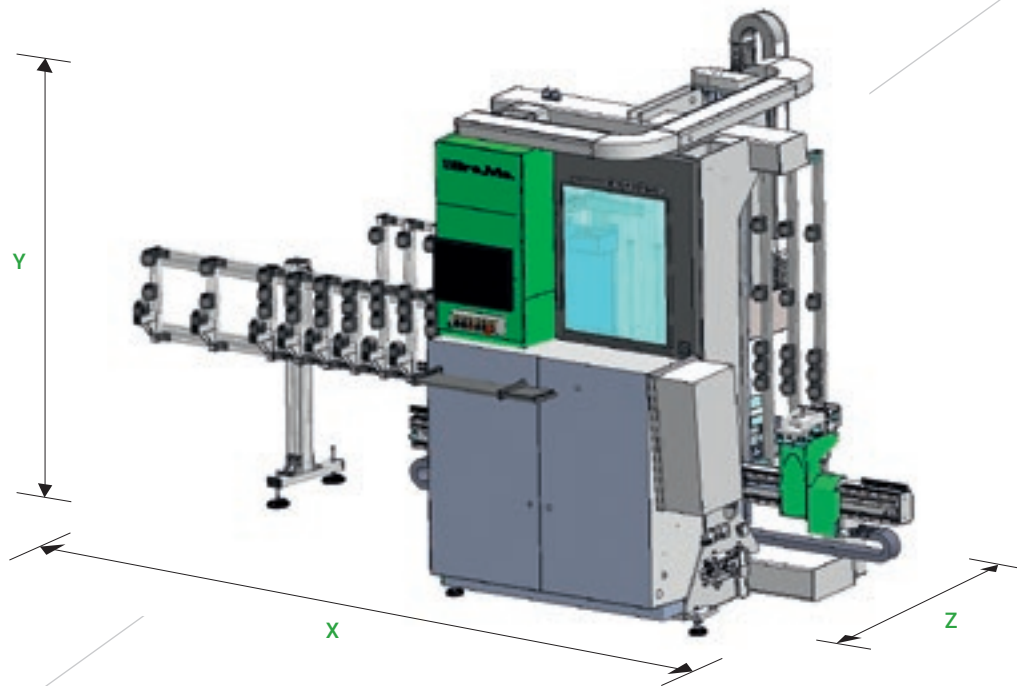


Brema vertical boring machines can carry out all boring, milling and glue and dowel insertion operations, as well as boasting the ability to manage additional hardware inserts. The structure of these machines has been designed to achieve optimal loading and unloading ergonomics, with a small footprint which saves 50% of space, in addition to offering zero set-up times and high levels of productivity.

The vertical position of the panel and the technical characteristics of these vertical boring machines allow for the processing of more delicate surfaces. A perfect combination of Biesse technology and Italian genius.



Technical specifications



Machine size	mm/inch	4500 x 2200 x 2250 / 177.16 x 86.61 x 88.58
Minimum panel length	mm/inch	160 / 6.29
Maximum panel length	mm/inch	3200 / 125.98
Minimum panel height	mm/inch	35 / 1.37
Maximum panel height (effective passage width 1100 mm/43.30 inches)	mm/inch	900 / 35.43
Minimum panel thickness (effective passage width 1100 mm/43.30 inches)	mm/inch	8 / 0.31
Maximum panel thickness	mm/inch	80 / 3.14
Axis speed (actual)	m/min	X 100 / Y 60 / Z 30
Installed power	kW	11.5
Air coupling	bar	3/4" - 6
Suction	m/h	d.150 - 1800

The technical specifications and drawings are non-binding. Some photos may show machines equipped with optional features. Biesse Spa reserves the right to carry out modifications without prior notice.

A weighted sound pressure level (LpA) during machining for operator workstation on vane-pump machine Lpa=79dB(A) Lwa=96dB(A) A-weighted sound-pressure level (LpA) for operator workstation and sound power level (LwA) during machining on cam-pump machine Lwa=83dB(A) Lwa=100dB(A) K measurement uncertainty dB(A) 4

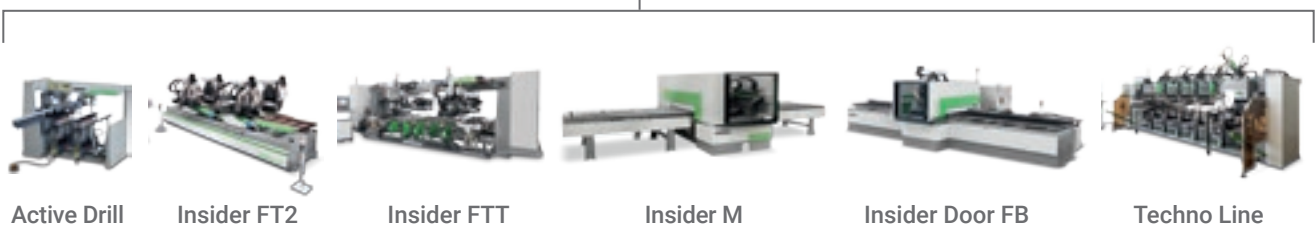
The measurement was carried out in compliance with UNI EN 848-3:2007, UNI EN ISO 3746: 2009 (sound power) and UNI EN ISO 11202: 2009 (sound pressure levels at workstation) during panel machining. The noise levels shown are emission levels and do not necessarily correspond to safe operation levels. Despite the fact that there is a relationship between emission and exposure levels, this may not be used in a reliable manner to establish whether further measures need to be taken. The factors determining the exposure level for the workforce include length of exposure, work environment characteristics, other sources of dust and noise, etc. i.e. the number of other adjoining machines and processes. At any rate, the above information will enable the operator to better evaluate dangers and risks.

Biesse boring range

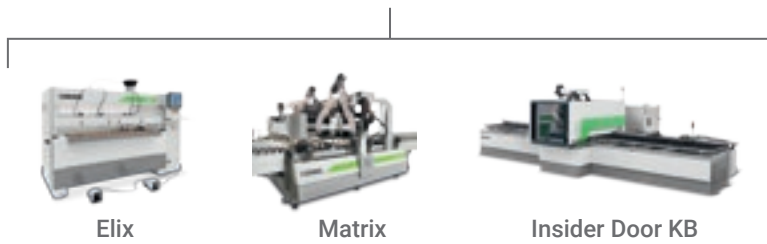
VERTICAL BORING AND INSERTION



BORING



BORING AND INSERTION



Service & Parts

Direct, seamless co-ordination of service requests between Service and Parts.
Support for Key Customers by dedicated Biesse personnel, either in-house and/or at the customer's site.

Biesse Service

- ▶ Machine and system installation and commissioning.
- ▶ Training centre dedicated to Biesse Field engineers, subsidiary and dealer personnel; client training directly at client's site.
- ▶ Overhaul, upgrade, repair and maintenance.
- ▶ Remote troubleshooting and diagnostics.
- ▶ Software upgrade.

500 / Biesse Field engineers in Italy and worldwide.

50 / Biesse engineers manning a Teleservice Centre.

550 / certified Dealer engineers.

120 / training courses in a variety of languages every year.

The Biesse Group promotes, nurtures and develops close and constructive relationships with customers in order to better understand their needs and improve its products and after-sales service through two dedicated areas: Biesse Service and Biesse Parts.

With its global network and highly specialised team, it offers technical service and machine/component spares anywhere in the world on-site and 24/7 on-line.



Biesse Parts

- ▶ Original Biesse spares and spare kits customised for different machine models.
- ▶ Spare part identification support.
- ▶ Offices of DHL, UPS and GLS logistics partners located within the Biesse spare part warehouse, with multiple daily pick-ups.
- ▶ Order fulfilment time optimised thanks to a global distribution network with de-localised, automated warehouses.

87% /

of downtime machine orders fulfilled within 24 hours.

95% /

of orders delivered in full on time.

100 /

spare part staff in Italy and worldwide.

500 /

orders processed every day.

Made **With** Biesse

Biesse Group technologies join forces with Lago's innovation and total quality management processes.

In the crowded world of domestic design, Lago takes its place as an emerging brand, thanks to a collection of stimulating products and a corporate philosophy that embraces the interaction between business and art, coupled with on-going research into sustainable development. "We created a number of projects, or rather, concepts - states Daniele Lago - that have shaped Lago as we see it today: we saw design as a cultural vision that applies not only to individual products, but rather to the entire business chain". "Flexibility is the key word here at Lago" says Carlo Bertacco, Manufacturing Manager. "We started to introduce the concept of processing only outstanding

orders, which enabled us to reduce our footprint and empty the site from the very beginning".

"The machinery that we purchased - states Bertacco - is great, it entailed a limited investment versus the capabilities it offers and is linked to a specific manufacturing approach. What I am talking about is a given manufacturing volume with Lago-standard quality levels and the possibility of customising as late as possible, at the customer's request: in short, the very basic principles of lean manufacturing".

*Source: IDM Industria del Mobile
Lago, our customer since 1999, is one of most prestigious Italian furniture brands in the world.*



<http://www.lago.it>



Biesse Group

In / 1 industrial group, 4 divisions
and 9 production sites.

How / € 14 million p/a in R&D
and 200 patents registered.

Where / 37 branches and 300
agents/selected dealers.

With / customers in 120 countries (manufacturers of furniture,
design items and door/window frames, producers of ele-
ments for the building, nautical and aerospace industries).

We / 3,800 employees throughout the world.

Biesse Group is a multinational leader in the
technology for processing wood, glass, stone,
plastic and metal.

Founded in Pesaro in 1969, by Giancarlo Selci,
the company has been listed on the Stock
Exchange since June 2001.

 **BIESSEGROUP**

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MECHATRONICS

