

Z SERIES

THE NEW GENERATION

OF ZVH MOVING

COLUMN MACHINING

CENTERS

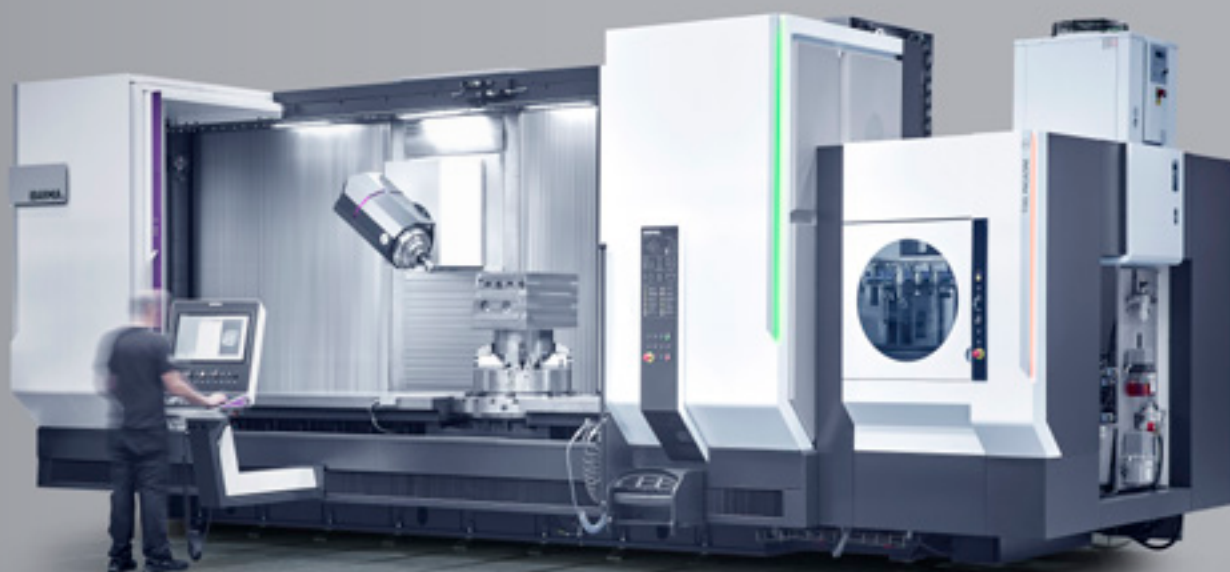
IBARMIA.
YOUR MACHINE TOOL POINT



The most powerful machine of its kind
now **Stronger, Faster and more Efficient**
for an even bigger ROI.



Z SERIES



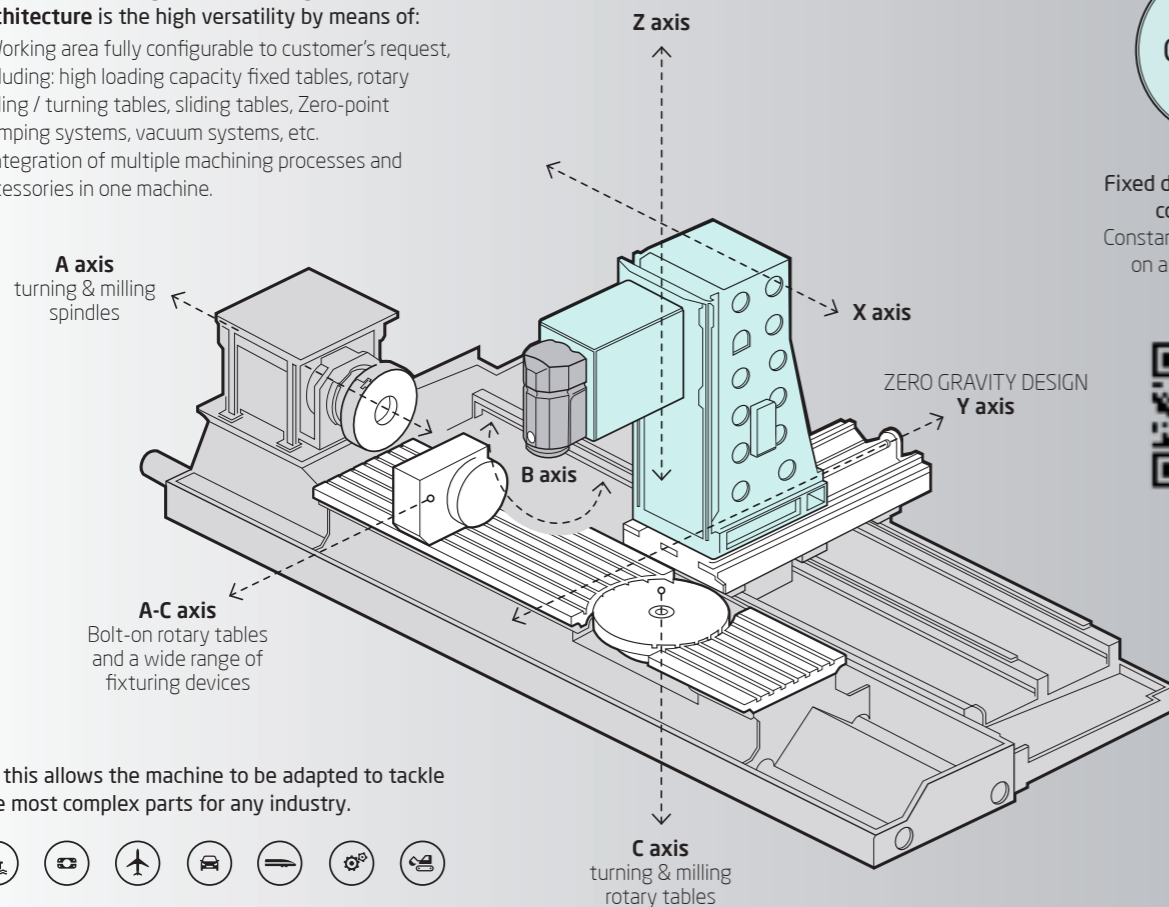
Z SERIES_ MOVING COLUMN ARCHITECTURE

It has been almost 40 years since IBARMIA launched in it's first machining center with fixed table and moving column architecture. Nowadays many manufacturers highlight the advantages of this concept, but at IBARMIA we understood this from the very beginning, which has taken us to create the widest range of models, always aligned to the inspiring principle.

- 1986**
ZVL 2000; the IBARMIA's firsts moving column machining center.
- 2001**
IBARMIA adds automatic tilting heads to the moving column centers.
- 2008**
IBARMIA adds turning capacity to the 5 axis moving column centers.
- 2011**
IBARMIA improves the machine design. The classic round window is here to stay.
- 2019**
IBARMIA launches the 2020 concept, improving the ergonomics, efficiency and appeal of the machine.

The main advantage in the moving column architecture is the high versatility by means of:

- Working area fully configurable to customer's request, including: high loading capacity fixed tables, rotary milling / turning tables, sliding tables, Zero-point clamping systems, vacuum systems, etc.
- Integration of multiple machining processes and accessories in one machine.



All this allows the machine to be adapted to tackle the most complex parts for any industry.

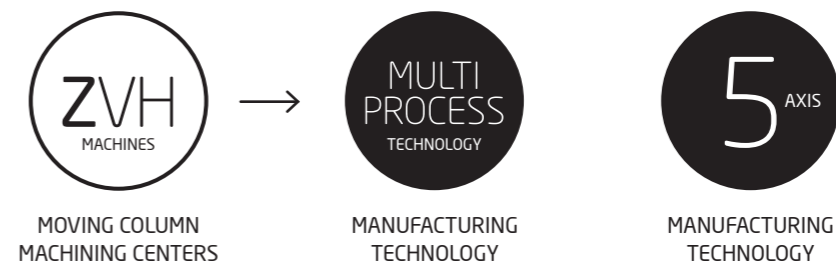


ZVH MACHINE MODELS

Since 2001 we turn the head but still look ahead. It was when we decided to add the B axis continuous tilting head to the valuable advantages of our fixed table and moving column machining centers. We apply the most advanced technology in the market: transmission by a torque motor installed on the rotating shaft and direct measuring on the axis.



ZVH HEADSTOCK
B axis | +/-105°
Continuous tilting head with torque motor.



01

02

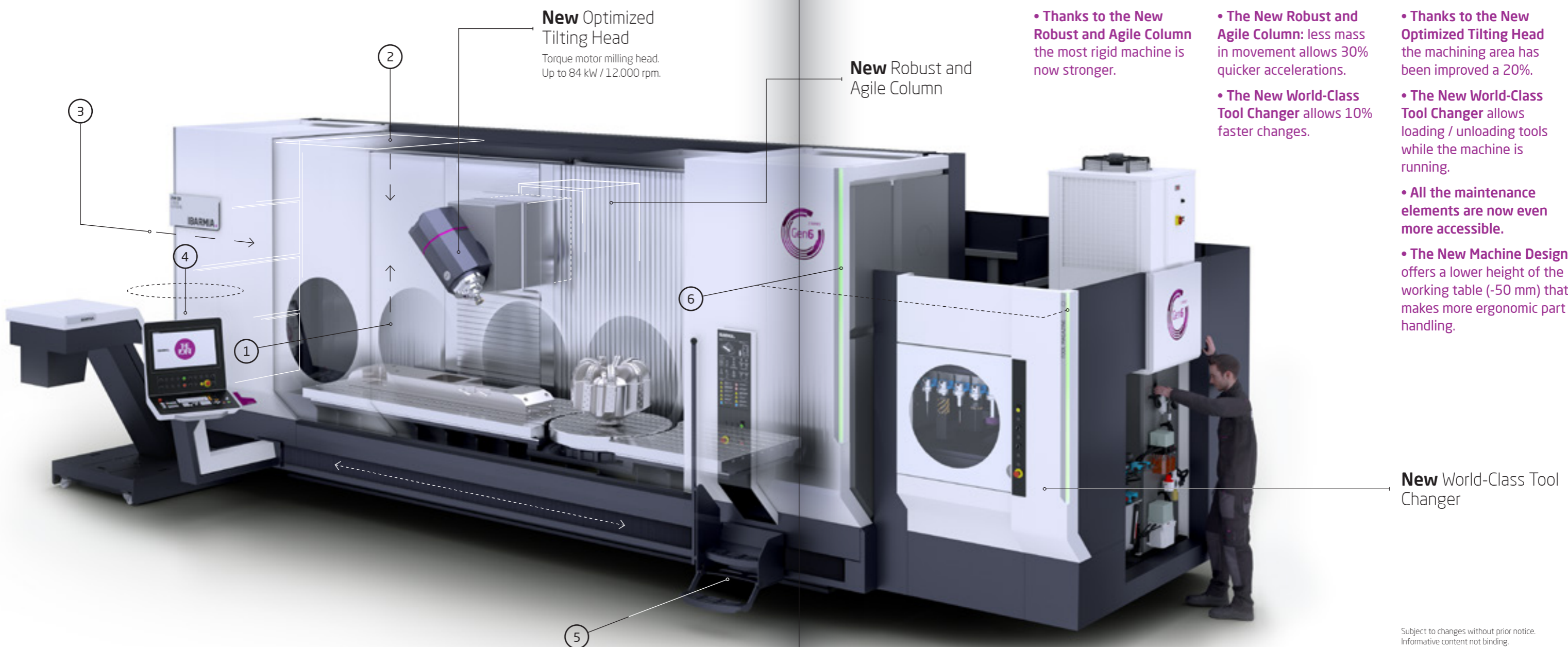


IBARMIA offers two performance levels for the ZVH MODELS:

- 01_ ZVH MULTIPROCESS: turning a milling centers with vertical and /or horizontal turning and milling capacity.
- 02_ ZVH EXTREME: milling centers with vertical and/or horizontal 5 axis machining capacity.

THE NEW GENERATION OF ZVH MACHINE MODELS

← The most powerful machine of its kind now **Stronger, Faster and more Efficient** for an even bigger ROI. →



New Optimized Tilting Head
Torque motor milling head. Up to 84 kW / 12.000 rpm.

USER CENTERED MACHINE DESIGN

A machine designed with the operator in mind in order to achieve the best efficiency in operations and ergonomics in use.

- 1_ Well lighted working area without horizontal planes and smooth top for an easier maintenance (standard).
- 2_ Openable roof with an ergonomic door design facilitating the loading/unloading of pieces by crane (standard).
- 3_ Loading of extra long pieces through the side panel which is easily removable (standard).

- 4_ Moving control panel along the entire longitudinal travel, with 360° rotation. Possibility to choose latest CNC controls of the most prestigious manufacturers; HEIDENHAIN, FANUC, SIEMENS (standard).
- 5_ Access stairway movable along the entire longitudinal travel, with the coolant and air guns, for a safe and ergonomic operations (optional).

- 6_ LED light signals are very comfortable and effective while working. Can be integrated into the sides, indicating the state of operation and improving the user experience given by the white enclosure and a high quality finishings for a warm interaction with the work environment (optional).

NOW →

Stronger_

- Thanks to the **New Robust and Agile Column** the most rigid machine is now stronger.

Faster_

- **The New Robust and Agile Column:** less mass in movement allows 30% quicker accelerations.
- **The New World-Class Tool Changer** allows 10% faster changes.

+ Efficient_

- Thanks to the **New Optimized Tilting Head** the machining area has been improved a 20%.
- **The New World-Class Tool Changer** allows loading / unloading tools while the machine is running.
- **All the maintenance elements are now even more accessible.**
- **The New Machine Design** offers a lower height of the working table (-50 mm) that makes more ergonomic part handling.

New Robust and Agile Column

New World-Class Tool Changer

Subject to changes without prior notice. Informative content not binding.

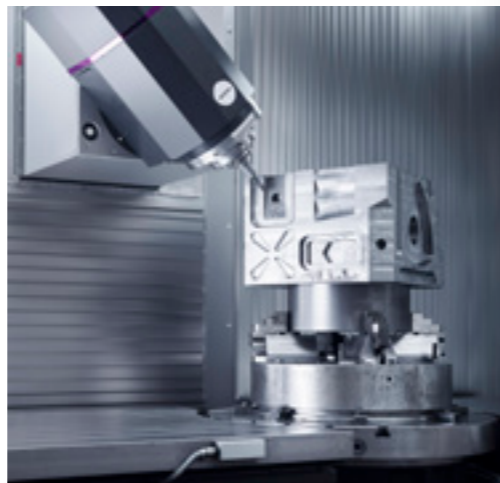
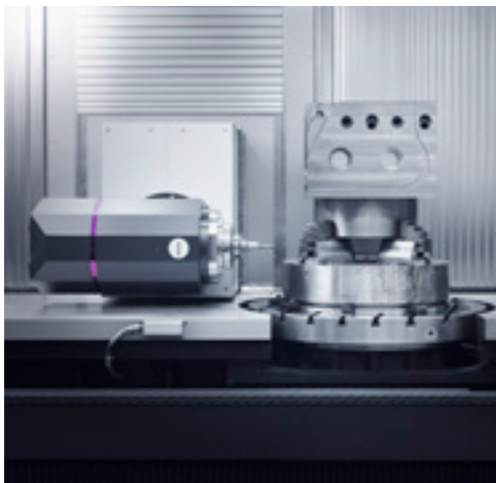
IMPROVEMENT POINT_1

OPTIMIZED
TILTING HEAD

Thanks to an optimized head tilting system, we are now able to maximize the machining area allowing to make bigger parts in the same space. The machine requires less energy for the same movements.

+20% / -20%

Improvement of working volume. /
Reduction in energy consumption.



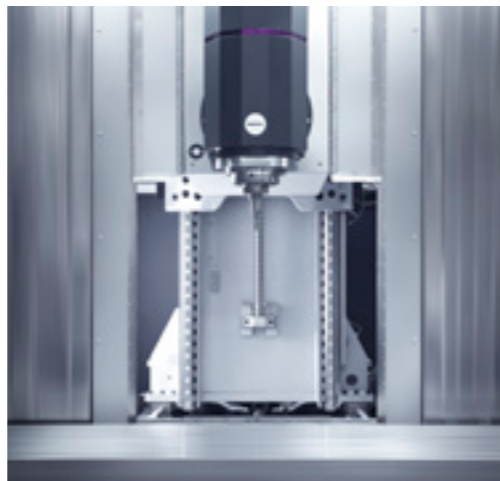
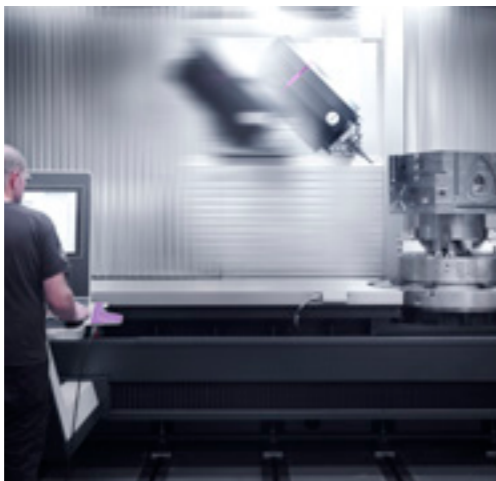
IMPROVEMENT POINT_2

ROBUST AND
AGILE
COLUMN

The column is now even stronger and more dynamic, with quicker accelerations that will dramatically reduce your cycle times. The reduction in the overall mass also offers significant energy savings.

+30% / -10%

Quicker accelerations: $+0,5 \text{ m/s}^2$. /
Reduction in energy consumption.



IMPROVEMENT POINT_3

WORLD-CLASS
TOOL CHANGER

A New Design that allows to easily load tools while the machine is running, faster tool changes and an easier access to the maintenance elements. Furthermore the machine depth is reduced by 4%.

+10% / -4%

Faster tool changes. /
Reduction of the machine depth.

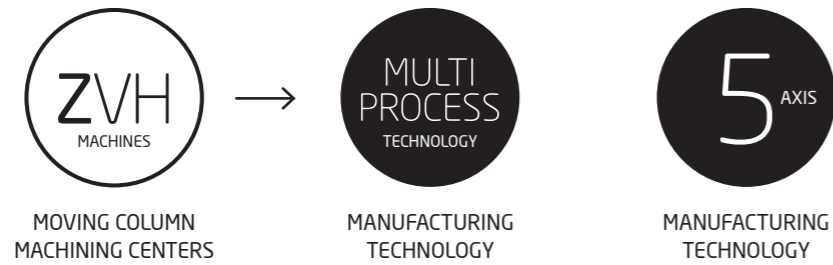


Machine efficiency: Faster and risk-free tool changes outside the working area.

Machine efficiency: Tool loading / unloading during machining time.

Machine ergonomics: All maintenance elements are now even more accessible.

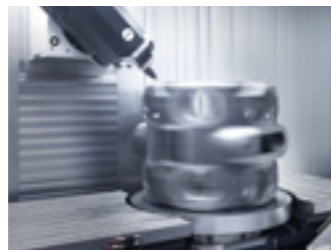




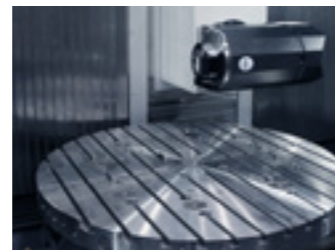
ZVH MODELS_ MAIN CONFIGURATION EXAMPLES



Non-stop machining option that includes a central division wall, independent locking of front doors and pendulum cycle work area management software.



Integrated C axis turning & milling rotary tables up to $\varnothing 1500$ mm swing, for turning and/or 5 axis machining operations. Up to 6000 kg / 800 rpm.



The moving column design can be adapted to integrate bigger diameter rotary tables up to $\varnothing 2200$ mm for heavier loads.



Bolt-on rotary tables to be used either with horizontal or vertical axis. Up to $\varnothing 1500$ mm swing for 4-5 axis machining operations.



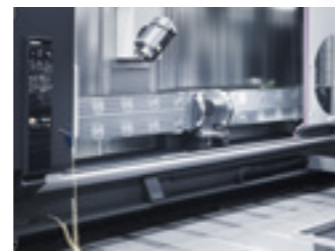
Horizontal multitasking machining capacity by integrated lathe spindles in the machine for turning and/or 5 axis machining operations. Up to 1500 kg / 3000 rpm.



Automatic changer with integrated pick-up station for Long Boring Bars and extra large tools used for Internal diameter turning operations.



Integration of different clamping systems on the fixed table, such as Zero-point systems, vacuum systems, etc.



Customized working areas: Trunnion fixtures replacing the fixed table and facilitating the chip evacuation.



Customized working areas: sliding platforms on guideways replacing the fixed table, which can be quickly re-positioned for machining parts with different lengths.



Advanced gear machining functions (skiving-hobbing) valid for straight and helicoidal gears, depending on the machine model (MULTIPROCESS / EXTREME).



Grinding capability with different cycles depending on the machine model (MULTIPROCESS / EXTREME).

Other standard items

- Totally encapsulated working area and safety windows.
- External coolant.
- Climatized electric cabinet with easy access.
- Programmable central lubrication system.
- 40 tools ATC magazine.

Optional items

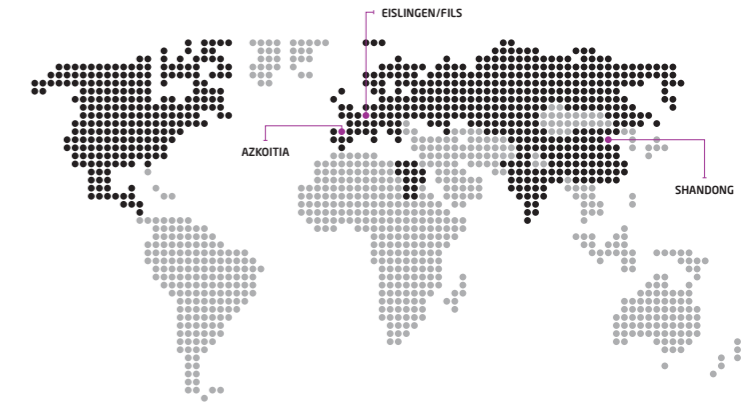
- ATC magazines up to 134 tools.
- Coolant through spindle systems.
- Part and tool probes.
- Steam and mist aspiration systems.
- CNC touch screen up to 24".



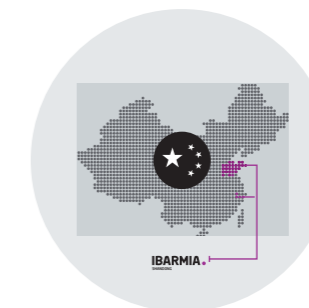
IBARMIA

GOING BIGGER, GETTING CLOSER

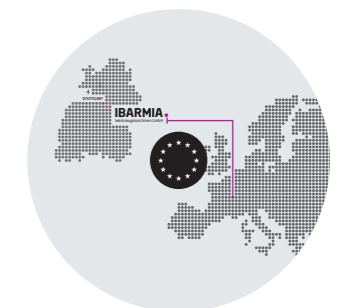
The last few years at IBARMIA have been intense in growth for the company. Determined to stay close to customers, the company has kept deepening the roots in the biggest markets of the world. This tendency will be kept in the future, with further development of these two areas of the world and others to come.



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PRODUCTION CENTER
IBARMIA Shanghai
SALES OFFICE
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IBARMIA Eisingen/Fils
SALES & SERVICE OFFICE
(Baden-Württemberg) Germany



COMPETING IN THE GLOBAL MARKET



A YOUNG TEAM WITH HIGH FORMATION



INTEGRATED MANUFACTURING



TOTAL FLEXIBILITY

YOUR MACHINE TOOL POINT

EST. 1953

IBARMIA is an advanced technology manufacturer of high added-value solutions adapted to customers' needs by highly customized machining centers.



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