

# Z SERIES

## MOVING-COLUMN MACHINING CENTERS

**IBARMIA.**  
YOUR MACHINE TOOL POINT

Multitasking, 5-, 4- or 3-axis models  
in M and L machine sizes.

For the largest variety of shapes, pendulum work and swing up to  
 $\varnothing 2000$  mm, unlimited flexibility makes this platform a must-have  
for any high-precision manufacturing plant.



Z SERIES



[www.ibarmia.com](http://www.ibarmia.com)



Z SERIES

# YOUR MACHINE TOOL POINT

# IBARMIA.

## INTRO

### Z SERIES | SINCE 1986



1986

ZVL 2000; IBARMIA's first 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.



2023

IBARMIA launches the 6th Generation, stronger, faster and more efficient for an even bigger ROI.

**Fully convinced\_** It has been almost half century since IBARMIA presented in 1986 their first machining center of fixed table and moving-column, ZVL-2000. Every day more and more manufacturers highlight the advantages of this architecture; at IBARMIA we understood this from the very beginning and our specialization and bet on this concept have taken us to create the widest range of models, always faithful to the inspiring principle. Besides high quality, capacity and precision, our machining centers of fixed table and moving column offer superior ergonomics and flexibility.

- [1\\_ Machine Program Summarizing](#)
- [2\\_ Application industries](#)
- [3\\_ Characteristics](#)
- [4\\_ Create your own machine](#)
- [5\\_ Technological integration](#)
- [6\\_ Star Edition](#)
- [7\\_ Technical specifications](#)

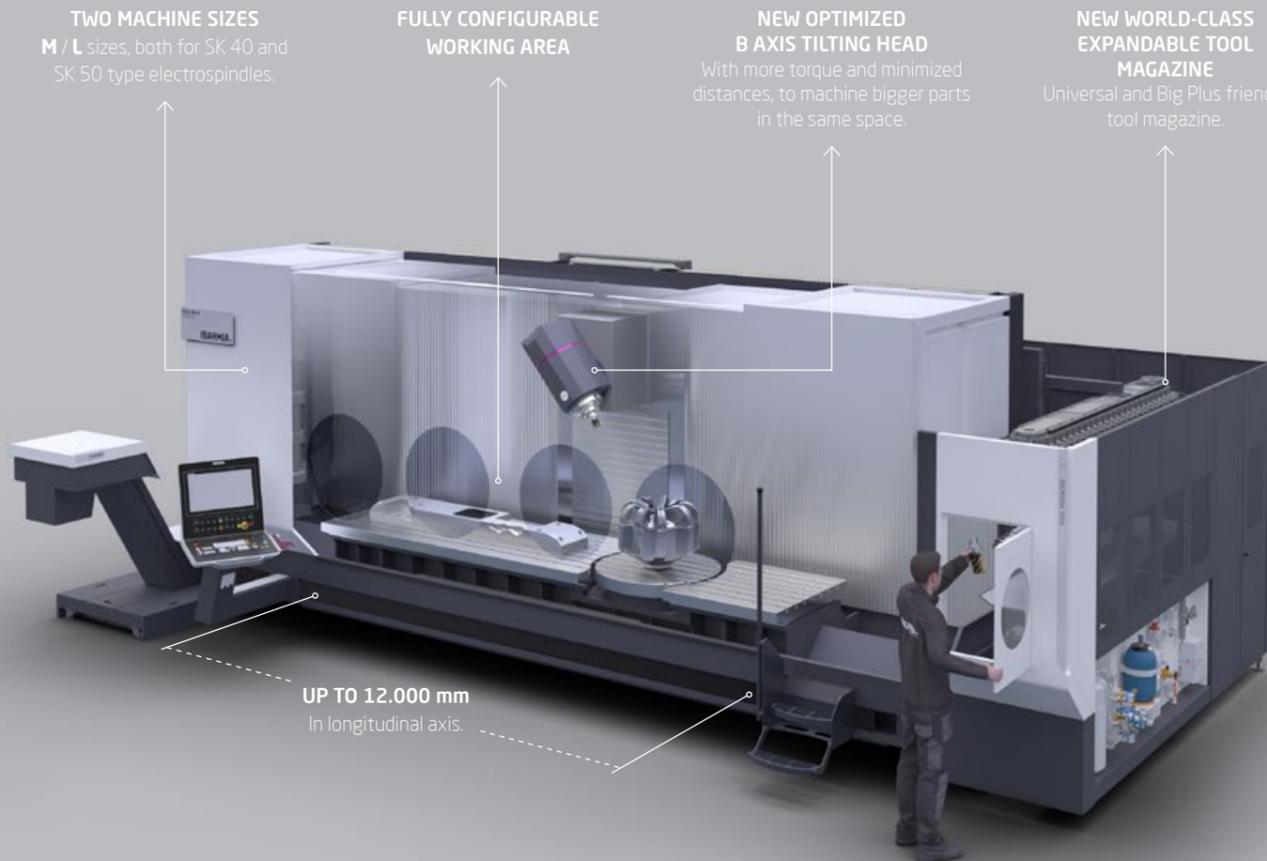


1.1\_ MACHINE PROGRAM SUMMARIZING

TAILORED TO EACH CUSTOMER'S NEEDS

Every customer, every piece, every material, every process requires a specific performance from the machine, and the Z SERIES gives the optimal solution for every case, always following a quality standard ensuring the best performance. The high configurability and the possibilities offered by the combining of axes and processes provide an unlimited field of work, a differential value for the customer and a return of investment of maximum viability.

THE PLATFORM FOR IBARMIA'S MULTIPURPOSE MACHINING CONCEPT HIGHLIGHTS



IN THE PICTURE: ZL55\_40.10 EXTREME

Z SERIES\_ BODY SIZES



IBARMIA adapts the machine structure depending on the manufacturing requirements. The M size robust machine structure is focused on integrate high power spindles to produce a wide range of parts in any materials.



Likewise, BARMIA introduces a bigger structure to endure the forces applied when machining hard materials with high power or when the size of parts requires it.

For SK 40 & SK 50 type spindles

**Tool holder:**  
SK 40 / BT 40 / HSK-A63 / CAT 40 / CAPTO C6  
**Up to:**  
50 kW • 200 Nm • 12.000 rpm  
Higher speeds on request, up to 15.000 and 20.000 rpm

**Tool holder:**  
SK 50 / BT 50 / HSK-A100 / CAT 50 / CAPTO C8  
**Up to:**  
43 kW • 260 Nm • 8000 rpm

See on page 50

For SK 40 & SK 50 type spindles

**Tool holder:**  
SK 40 / BT 40 / HSK-A63 / CAT 40 / CAPTO C6  
**Up to:**  
50 kW • 200 Nm • 12.000 rpm

**Tool holder:**  
SK 50 / BT 50 / HSK-A100 / CAT 50 / CAPTO C8  
**Up to:**  
84 kW • 452 Nm • 12.000 rpm  
Higher torque spindles on request.

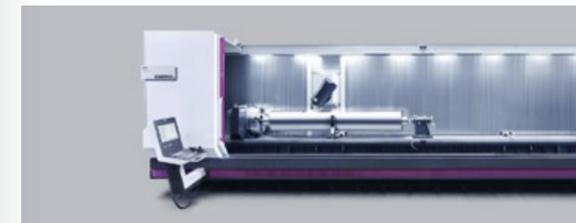
ZM S/V 4

ZM S/V 5

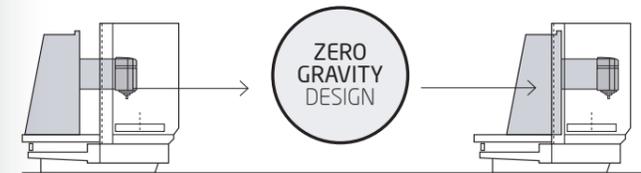
ZL S/V 4

ZL S/V 5

Z SERIES\_ MACHINE TRAVELS



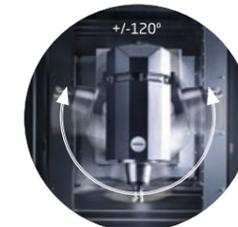
**X AXIS LONGITUDINAL TRAVEL\_**  
A wide range of longitudinal travels available for M & L machine size models.  
1500 / 3000 / 4000 / 5000 / 6000 / 7000 / 8000 / 9000 / 10.000 / 11.000 / 12.000 mm.



**Y AXIS ZERO GRAVITY DESIGN\_**  
Fixed distance monoblock design with constant cutting conditions on transversal travel.  
M size: 800 / 1000 mm L size: 800 / 1000 / 1100 mm

**Z AXIS VERTICAL TRAVEL\_**  
M size: 800 / 900 mm L size: 1100 / 1300 mm

Z SERIES\_ PERFORMANCE LEVELS



**S SPINDLE HEAD**  
Torque motor B axis continuous tilting head: +/- 120°.



**V SPINDLE HEAD**  
Vertical head.



**MULTIPROCESS**  
Highly customizable  
5-axis advanced multitasking centers.

**EXTREME**  
Highly customizable  
5-4- axis machining centers.

**STAR EDITION**  
Short delivery closed configuration  
5-axis machining center.



**EXTREME**  
Highly customizable  
4-3- axis machining centers.

- [1\\_ Machine Program Summarizing](#)
- [2\\_ Application industries](#)
- [3\\_ Characteristics](#)
- [4\\_ Create your own machine](#)
- [5\\_ Technological integration](#)
- [6\\_ Star Edition](#)
- [7\\_ Technical specifications](#)

**2\_ FOR THE LARGEST VARIETY OF SHAPES AND SIZES**

**MACHINE IT ALL**

The most flexible platform in a wide selection of sizes and axis combinations. Capacity to machine the largest variety of sizes and shapes from various industrial sectors such as Oil&Gas, Energy, Railway or Machinery. Pendulum work capacity and swings up to ø2000 mm make this platform a must-have for any machine shop.



**RANGE OF MACHINING**



**Z SERIES**

**SAMPLE APPLICATIONS**



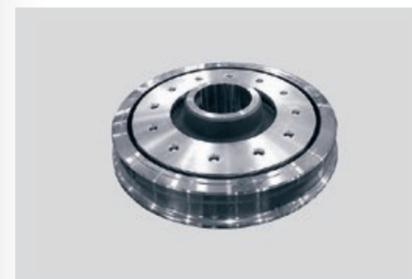
Toothed shaft



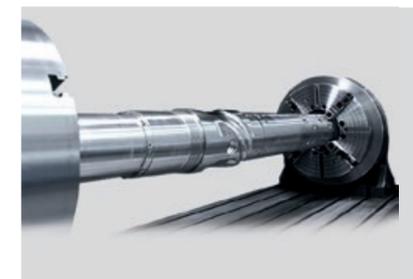
Crankshaft



Impeller shaft



Railway wheel



Directional drilling tool



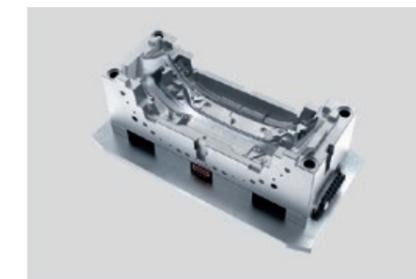
Machinery component



Engine block



Industrial blades



Industrial mold

**INDUSTRIES & MATERIALS**



OIL & GAS



MOLD & DIE



AEROSPACE



AUTOMOTIVE



RAILWAY



MACHINERY



YELLOW GOODS

Low-Alloy Steel | Grey Cast Iron | Nickel based Super Alloy | Austenitic Stainless Steel | Titanium based Alloy | Aluminum based Alloy | Extra hard Steel

## 1\_ Machine Program Summarizing

## 2\_ Application industries

## 3\_ Characteristics

### 3.1\_ Performance

## 4\_ Create your own machine

## 5\_ Technological integration

## 6\_ Star Edition

## 7\_ Technical specifications

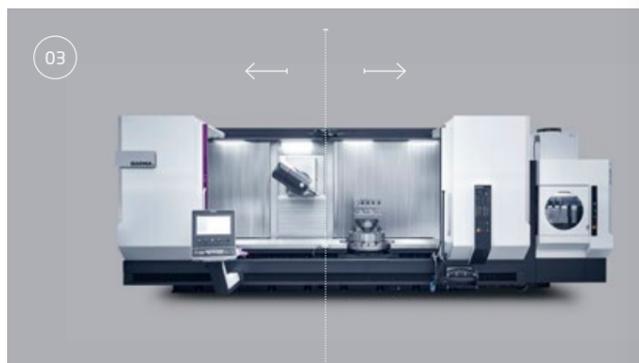
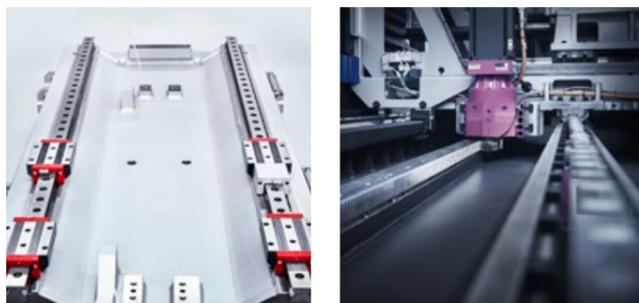
### 3.1\_ A HIGH PERFORMANCE PLATFORM

## DYNAMICS, POWER & ACCURACY

**Structural bodies of maximum rigidity** optimized by finite elements (FEM). X / Y / Z axes over linear guides with preloaded rolling shoes with two rows of circulating rollers. Rectified ball screws of high precision with preloaded double nuts for the longitudinal axis movement.

Geometric verification with direct measurement systems on the 5 machining axes (linear and rotary).

**New thermo-symmetrical and thermostable structure design** complemented with digital thermal twin models. Thermal compensation system on the electrospindle and heat source isolation.



**THERMO-SYMMETRICAL DESIGN**  
BY IBARMIA



### 01\_

• Maximum stability in the monoblock design of the machine bed. Structural bodies of maximum rigidity for an optimum performance throughout the machine's life cycle.

### 02\_

• High quality guideways for the highest dynamics, accuracy and energy efficient movements. Rectified ball screws and double rack and pinion systems depending on length.

• Standard measuring device on X, Y, Z axes in our machining centers: direct measurement.

### 03\_

• Thermo-symmetrical and thermostable structure design.

### 04\_

• Geometric check and volumetric calibration of the machine by laser interferometer on request, according to ISO 230- 2, -4 and -6.



**Z SERIES**



**ACTIVE**  
THERMAL CONTROL  
TECHNOLOGY →

### PRECISION PLUS PERFORMANCE CONCEPT

#### Optional machine manufacturing measures:

- Machine manufacturing in thermo stable assembly area.
- Structural finishing by hand scraping manufacturing.

#### Integral cooling measures to improve the thermal behaviour of the machine:

##### 1\_ Spindle head

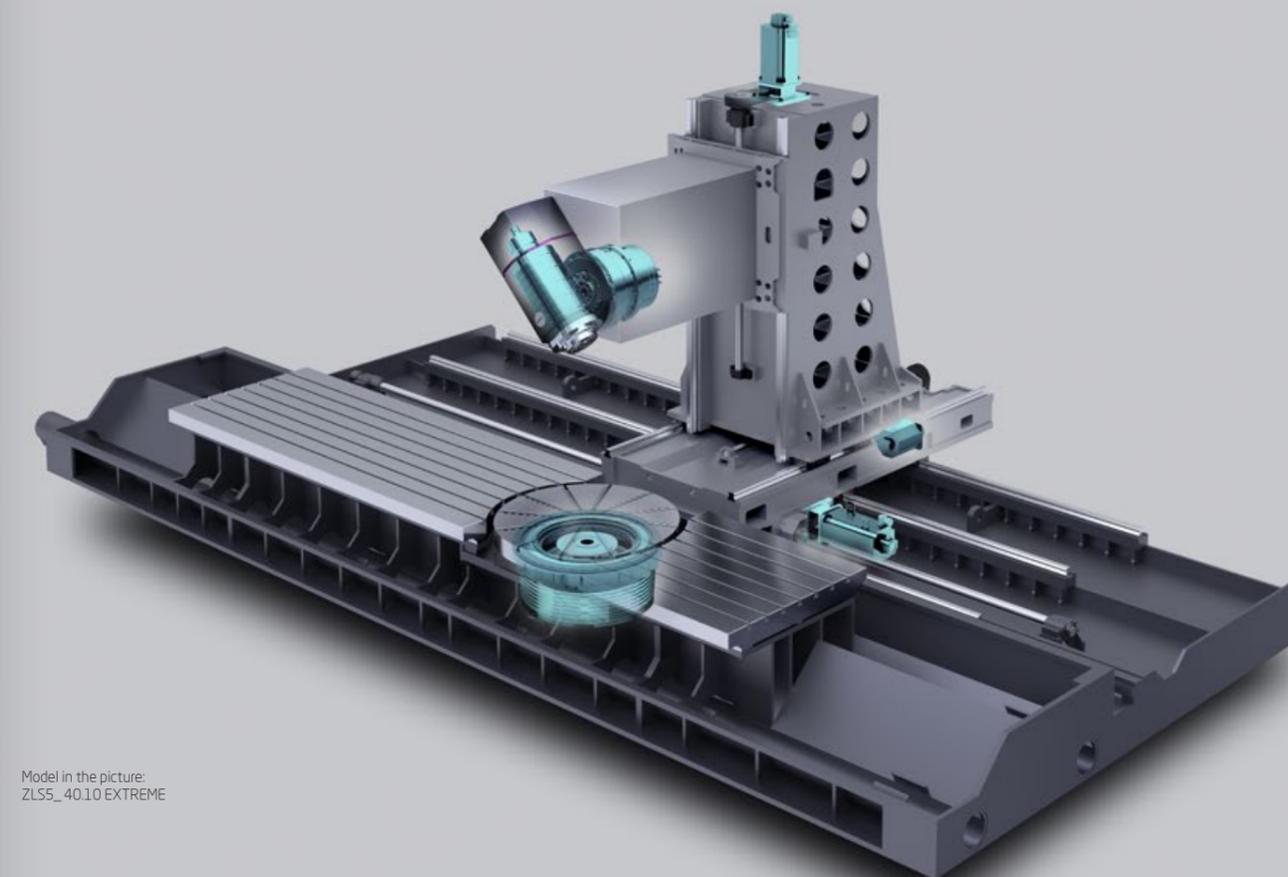
- Spindle.
- Direct Drive torque motor B axis.

##### 2\_ Rotary table

- Bearing.
- Direct Drive torque motor.

##### 3\_ Basic structure

- X / Y / Z axis motors.
- Support motors X / Y / Z axes.
- Ball screw nut support X / Y / Z axes.
- Bearing support combined Z axis.
- Coolant chiller with PID control (optional).



Model in the picture:  
ZLS5\_40.10 EXTREME

- 1\_ Machine Program Summarizing
- 2\_ Application industries
- 3\_ Characteristics
- 3.2\_ Efficiency
- 4\_ Create your own machine
- 5\_ Technological integration
- 6\_ Star Edition
- 7\_ Technical specifications

**IBARMIA ECO DESIGN**

Design by means of FEM method, oriented to the structural optimisation of the machine, which integrates various systems to reduce energy consumption:

- MQL lubrication avoiding pumps and their consumption.
- Grease lubrication.
- LED lighting.
- High efficiency servomotors.

- Self-regulation of consumption by means of intelligent functions for automatic switch-on and switch-off of the machine.
- Technological cycles for more efficient performance.

20%

REDUCTION  
In environmental Impact

**3.2\_ CONCEIVED FOR A MAXIMUM EFFICIENCY**

**ECO & ERGO DESIGN**

Machines designed with the aim of optimising energy consumption throughout their life cycle; machines conceived for the highest efficiency in the machine-user relationship, which translates into improved accessibility and usability.

“ECOLOGY AND ECONOMY CAN GO HAND-IN-HAND INTEGRATING GREEN PARAMETERS INTO THE MACHINE DESIGN PHASE AND IT’S FUTURE PERFORMANCE”



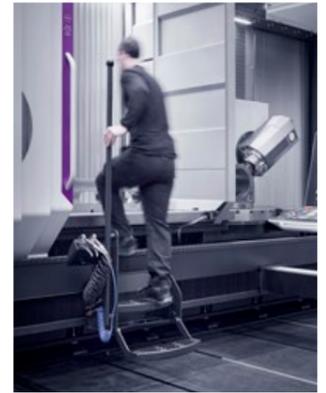
“A MACHINE CONCEIVED WITH THE OPERATOR IN MIND, IN ORDER TO ACHIEVE THE BEST EFFICIENCY IN OPERATIONS AND ERGONOMICS IN USE”

**IBARMIA ERGO DESIGN**

A new machine designed for an optimum interaction with the operator

- Now with a lower height of the working table.
- Motorised door opening to avoid physical efforts.
- Openable roof with an ergonomic door design facilitating the loading/unloading of pieces by crane (Standard).
- Loading of extra long pieces through the side panel which is easily removable (Standard).
- An easy top access for loading / unloading parts by crane.
- Well lighted working area without horizontal planes and smooth top for an easier maintenance (Standard).
- Total closing of the working area to reduce the acoustic and environmental contamination.

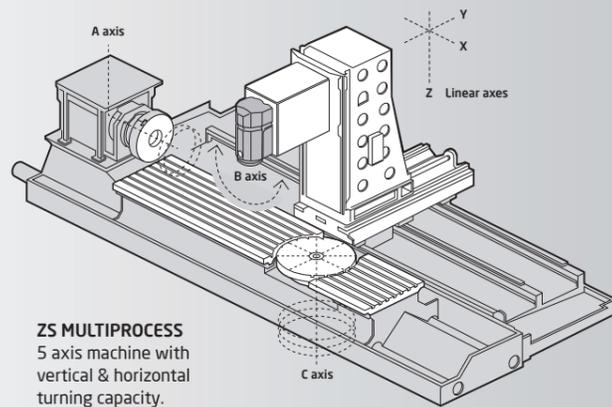
- Moving control panel along the entire longitudinal travel (L size), with 360° rotation. Possibility to choose latest CNC controls of the most prestigious manufacturers; HEIDENHAIN, FANUC, SIEMENS (Standard).
- Access stairway movable along the entire longitudinal travel, with the coolant and air guns,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



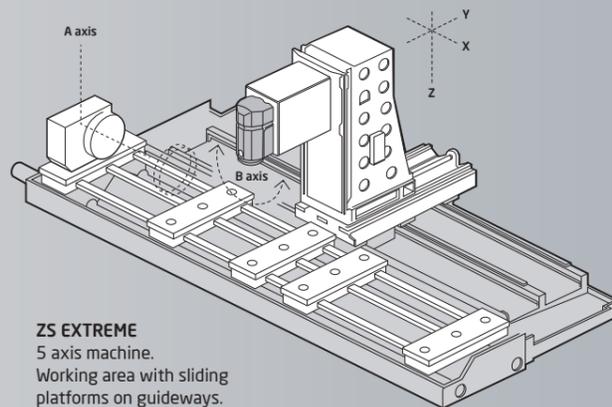
- 1\_ Machine Program Summarizing
- 2\_ Application industries
- 3\_ Characteristics
- 4\_ Create your own machine
- 5\_ Technological integration
- 6\_ Star Edition
- 7\_ Technical specifications



Z SERIES



**ZS MULTIPROCESS**  
5 axis machine with vertical & horizontal turning capacity.



**ZS EXTREME**  
5 axis machine. Working area with sliding platforms on guideways. No fixed table.



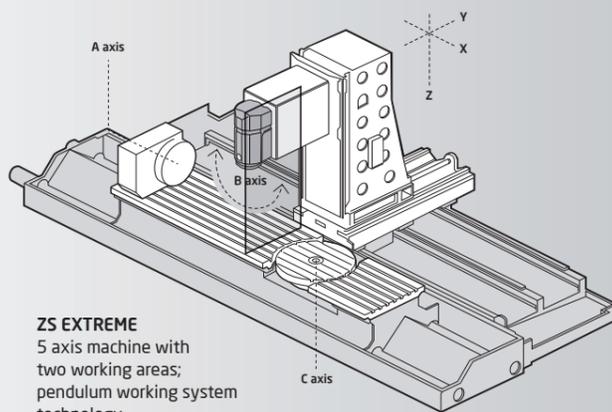
MULTITASKING CENTERS



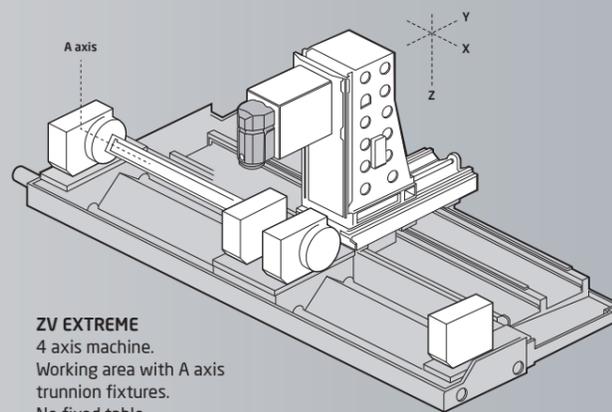
5-4 AXIS CENTERS



4-3 AXIS CENTERS



**ZS EXTREME**  
5 axis machine with two working areas; pendulum working system technology.



**ZV EXTREME**  
4 axis machine. Working area with A axis trunnion fixtures. No fixed table.

# CREATE YOUR OWN MACHINE

AT YOUR SERVICE | SINCE 1953

IBARMIA ADAPTS THE MACHINE TO YOUR MANUFACTURING SPECIFIC REQUIREMENTS maintaining intact the heart of it's moving column and fixed table machine architecture.

- 1\_ Machine Program Summarizing
- 2\_ Application industries
- 3\_ Characteristics
- 4\_ Create your own machine
- 4.1\_ Advantages
- 5\_ Technological integration
- 6\_ Star Edition
- 7\_ Technical specifications



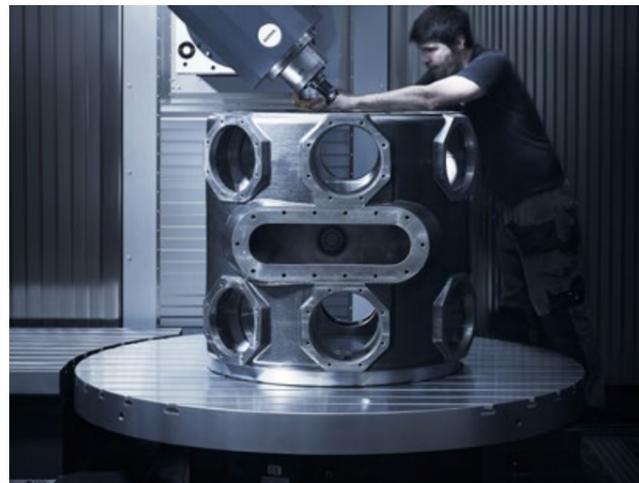
Z SERIES

4.1\_ MACHINE CUSTOMIZING ADVANTAGES

HIGHEST FLEXIBILITY

Maximum flexibility, thanks to the unlimited machine configuration possibilities, always on the same machine structure: the proven moving column on fixed table architecture by IBARMIA: a platform from which each client can configure the machine according to their specific production needs.

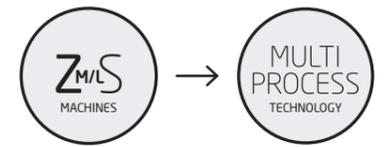
View this video about the flexibility of Z SERIES Machine Program:



"IBARMIA Z SERIES; AN UNRIVALLED PROPOSAL IN TERMS OF MACHINE CONFIGURATION POSSIBILITIES"

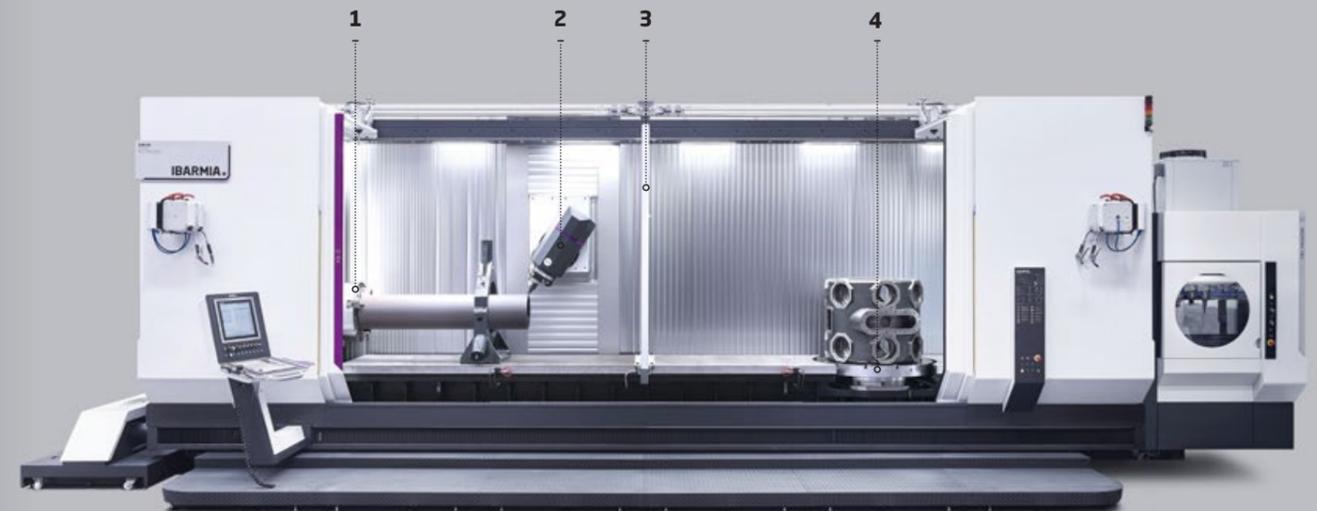
MAXIMUM POLYVALENCE

The high flexibility of the program allows the configuration of what is likely the most versatile machining center in the market; a machine that is a workshop in itself, capable of providing the most effective responses to the increasingly volatile and changing demands of the market.



A WHOLE WORKSHOP IN A SINGLE MACHINE\_ Integrate vertical and/or horizontal multitasking capacity in one machine. A solution for every requirement without the need to move parts around the factory.

- 1\_ A axis turning & milling spindles.
- 2\_ B axis torque motor continuous tilting head for milling operations.
- 3\_ Two working areas. "Nonstop machining" pendulum system.
- 4\_ C axis turning & milling tables.



- 1\_ Machine Program Summarizing
- 2\_ Application industries
- 3\_ Characteristics
- 4\_ Create your own machine
- 4.2\_ Performance levels
- 5\_ Star Edition
- 6\_ Technological integration
- 7\_ Technical specifications



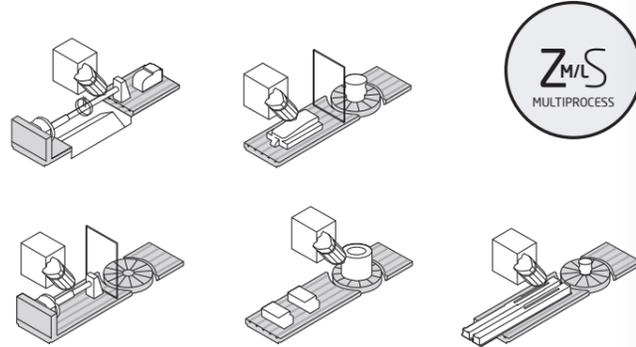
## Z SERIES

### 4.2\_ MACHINE PERFORMANCE LEVELS (MODELS)

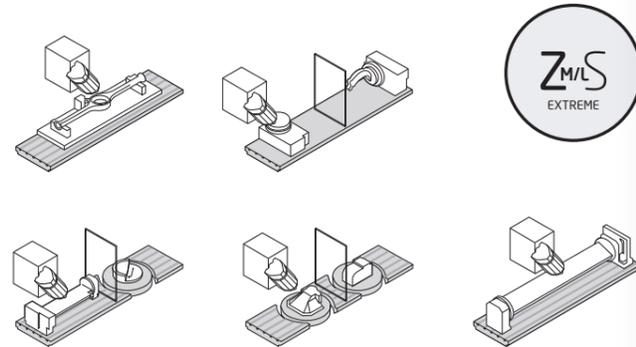
#### AN UNLIMITED FIELD OF WORK

IBARMIA Z SERIES has been conceived to cover the widest range of machining, from 3-axis models to the most advanced multitasking centers that integrate milling and turning capabilities and the most advanced manufacturing technologies.

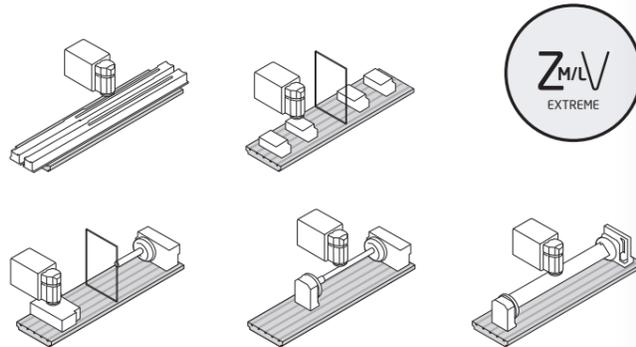
01



02



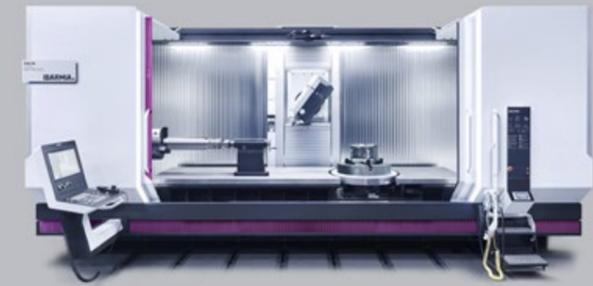
03



DEPENDING ON THE ROTARY AXES CONFIGURATION THE PROGRAM OFFERS THREE MACHINE PERFORMANCE LEVELS: ZS MULTIPROCESS / ZS EXTREME / ZV EXTREME, all of them available in M and L machine sizes.

#### ZMS - ZLS MULTIPROCESS MULTITASKING MACHINING CENTERS

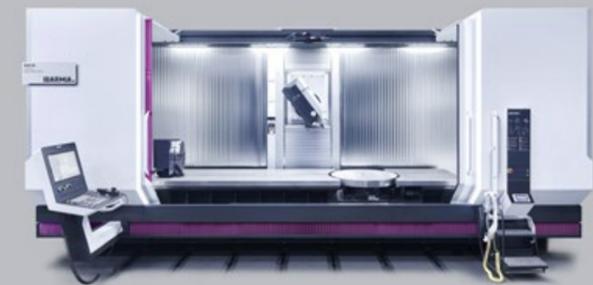
Combine 5 axis milling technology with vertical and/or horizontal turning, grinding and the most advanced gear machining capabilities.



MANUFACTURING TECHNOLOGY

#### ZMS - ZLS EXTREME 5-AXIS MACHINING CENTERS

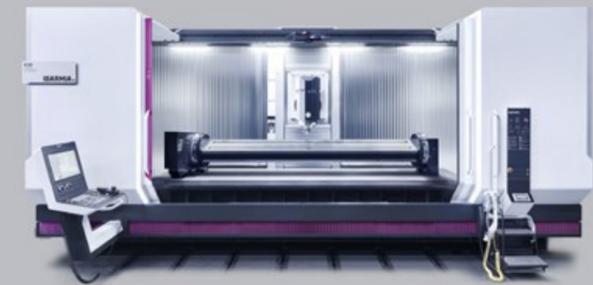
Combine up to 5 axis milling capacity with the large range of working area configuration possibilities so you will be ready for any job at the shortest notice.



MANUFACTURING TECHNOLOGY

#### ZMV - ZLV EXTREME 3 / 4-AXIS MACHINING CENTERS

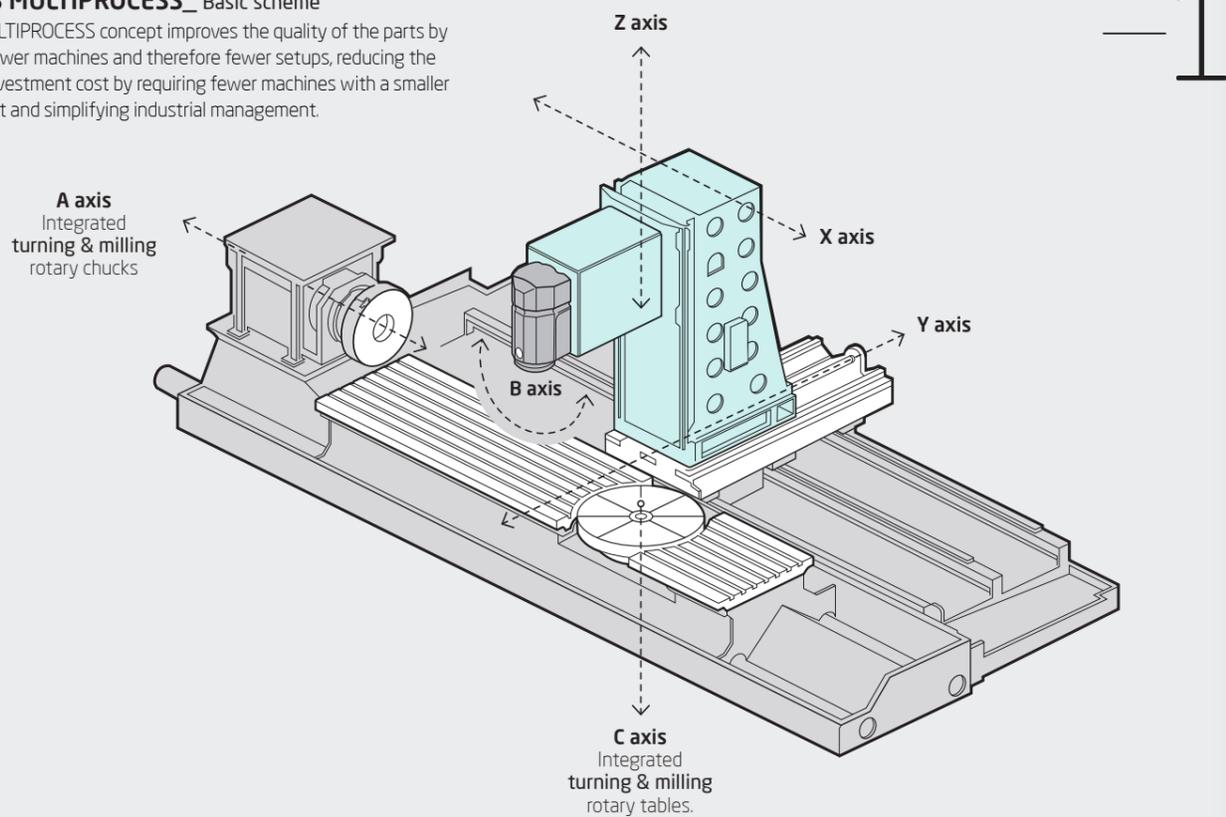
3 axis models or in combination with horizontal rotary tables, to reach the highest productivity.



MANUFACTURING TECHNOLOGY

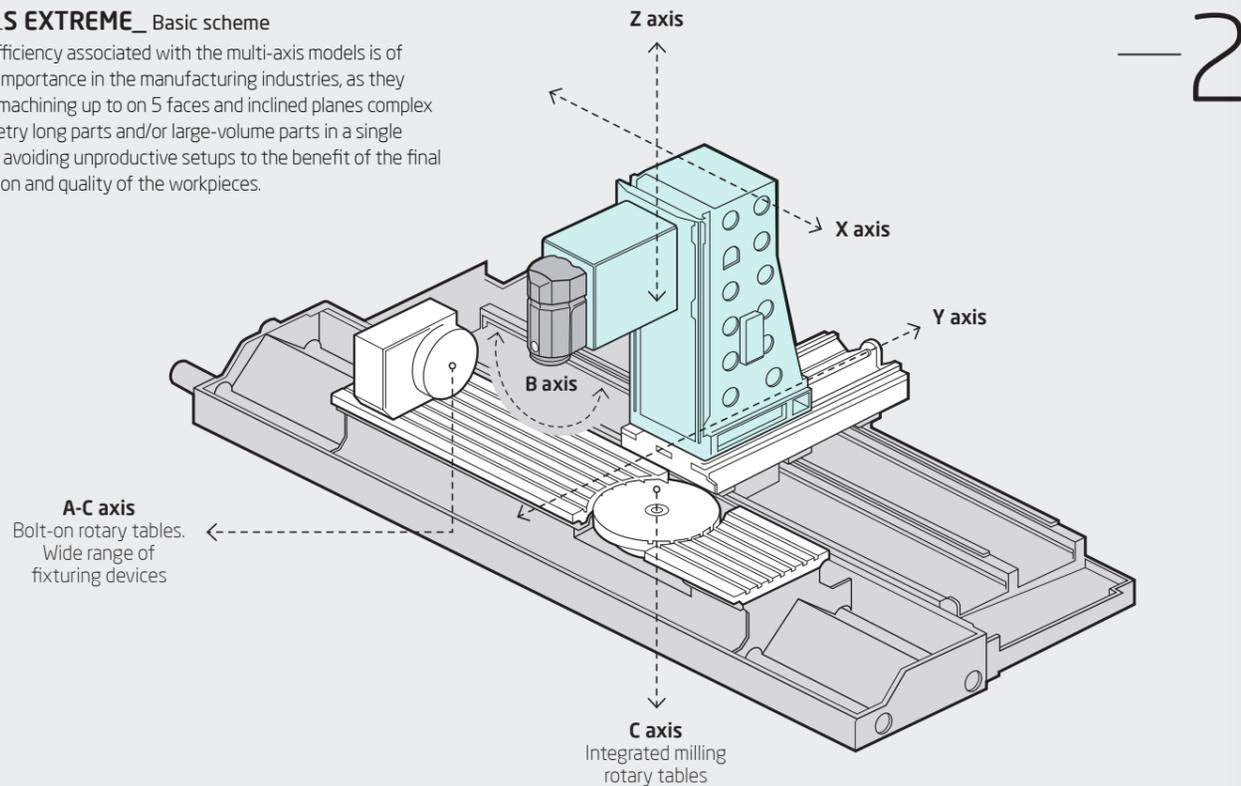
**ZM/LS MULTIPROCESS\_ Basic scheme**

The MULTIPROCESS concept improves the quality of the parts by using fewer machines and therefore fewer setups, reducing the initial investment cost by requiring fewer machines with a smaller footprint and simplifying industrial management.



**ZM/LS EXTREME\_ Basic scheme**

The efficiency associated with the multi-axis models is of great importance in the manufacturing industries, as they allow machining up to on 5 faces and inclined planes complex geometry long parts and/or large-volume parts in a single setup, avoiding unproductive setups to the benefit of the final precision and quality of the workpieces.

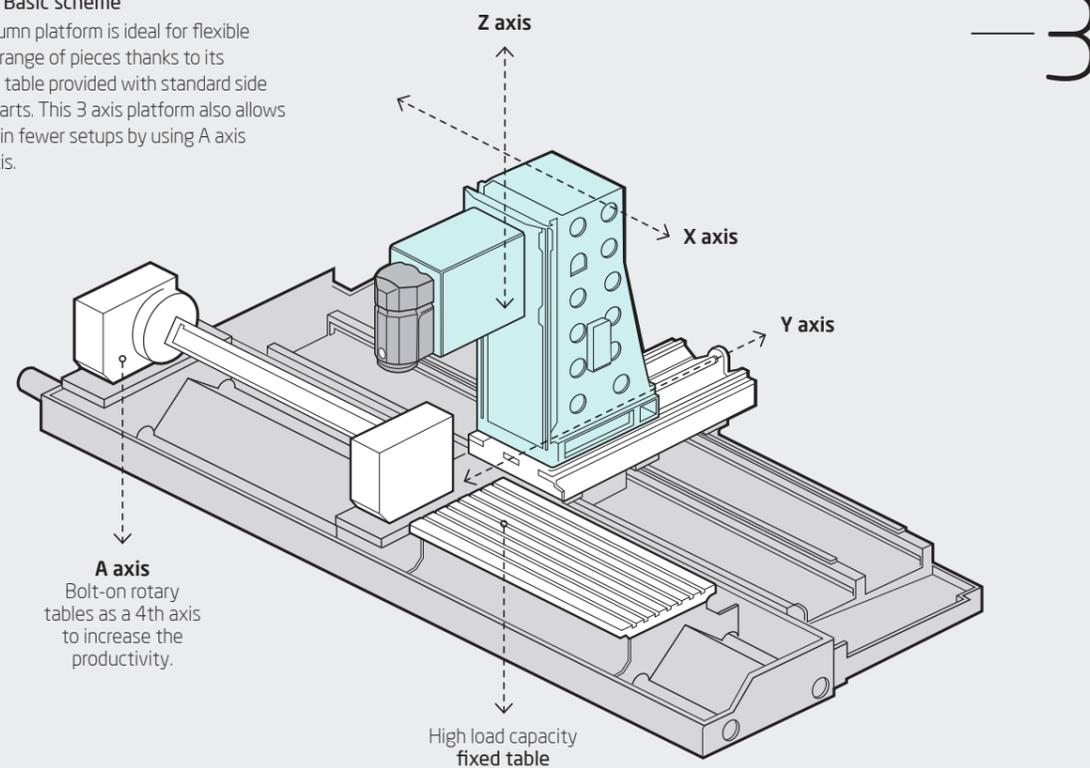


**ZM/LV EXTREME\_ Basic scheme**

The IBARMIA moving-column platform is ideal for flexible manufacturing of a wide range of pieces thanks to its heavy load capacity fixed table provided with standard side windows for extra-long parts. This 3 axis platform also allows machining complex parts in fewer setups by using A axis rotary tables as fourth axis.



Fixed distance monoblock column design

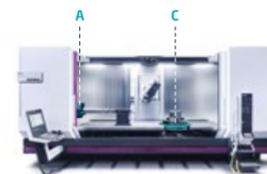


**AXES CONFIGURATION**

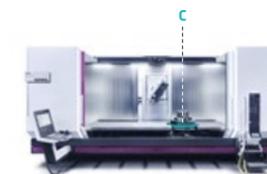


—1

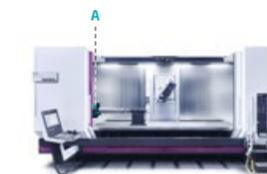
**ZS MULTIPROCESS**  
Linear axes / B axis head / A-C turning & milling axes



**A-C axis**  
Turning & 5 axis milling capacity



**C axis**  
Turning & 5 axis milling capacity

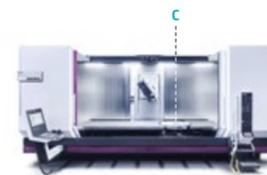


**A axis**  
Turning & 5 axis milling capacity

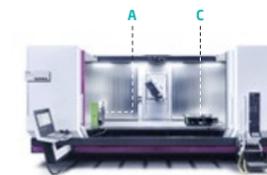


—2

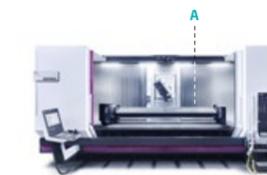
**ZS EXTREME**  
Linear axes / B axis head / A-C milling axes



**C axis**  
Integrated rotary table  
5 axis milling capacity



**A-C axis**  
Bolt-on rotary tables  
5 axis milling capacity

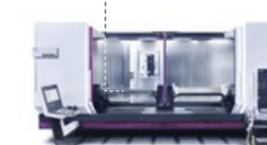


**A axis**  
Trunnion fixtures  
5 axis milling capacity



—3

**ZV EXTREME**  
Linear axes / A milling axis



**A axis**  
Trunnion fixtures  
4 axis milling capacity

- [1\\_ Machine Program Summarizing](#)
- [2\\_ Application industries](#)
- [3\\_ Characteristics](#)
- [4\\_ Create your own machine](#)
- [4.3\\_ Machine configuration](#)
- [5\\_ Technological integration](#)
- [6\\_ Star Edition](#)
- [7\\_ Technical specifications](#)

**4.3\_ MACHINE CONFIGURATION**

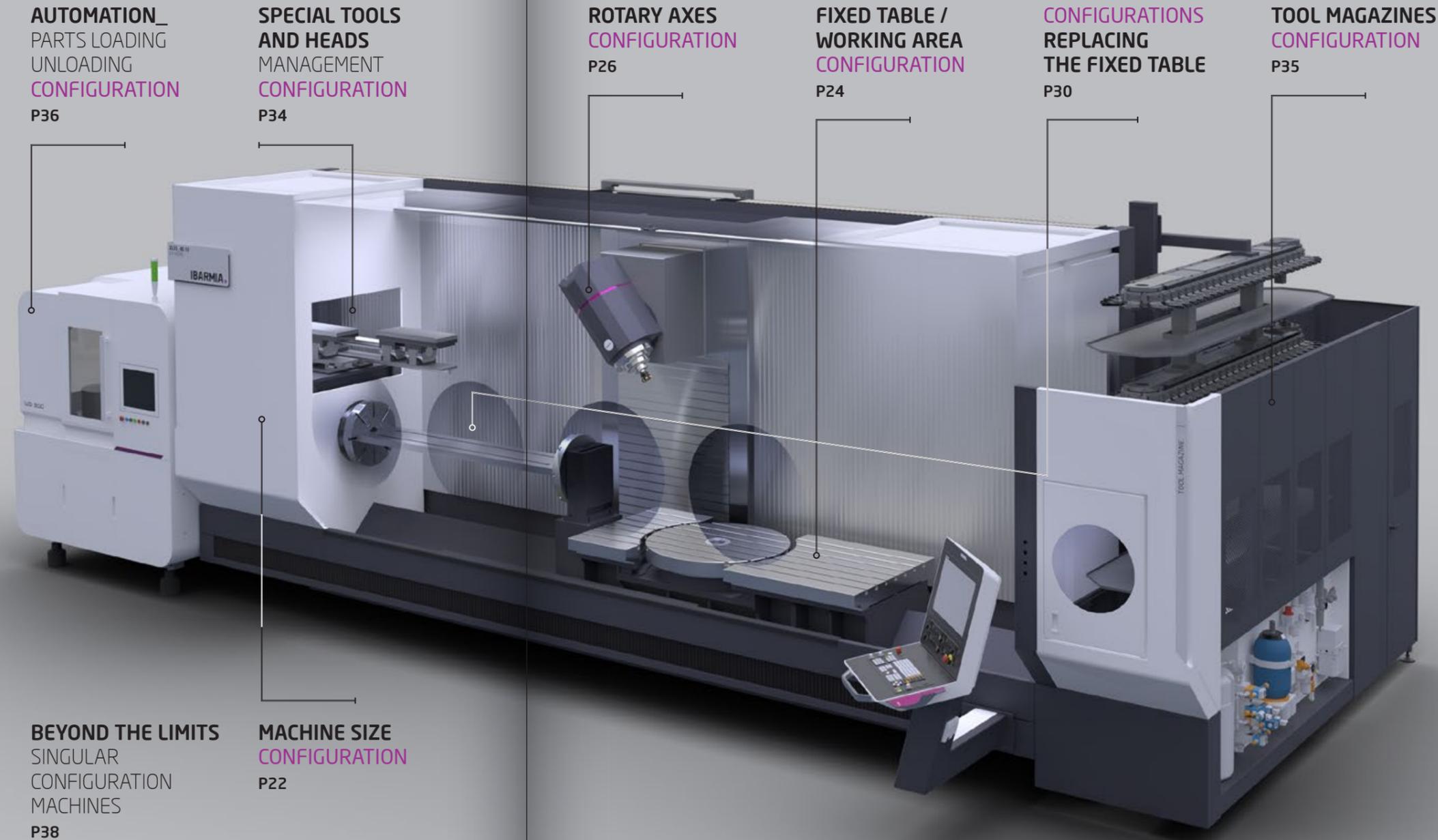
**YOUR MACHINE, A LA CARTE**

IBARMIA offers the largest configuration catalogue in the market to define the best solution in any production industries.

→

“MORE THAN 900 CONFIGURATION OPTIONS MAKE Z SERIES THE OPTIMAL PLATFORM TO FIND THE BEST SOLUTION FOR ALMOST ANY MANUFACTURING REQUIREMENTS”

Let's look at it in detail.



**AUTOMATION\_ PARTS LOADING UNLOADING CONFIGURATION**  
P36

**SPECIAL TOOLS AND HEADS MANAGEMENT CONFIGURATION**  
P34

**ROTARY AXES CONFIGURATION**  
P26

**FIXED TABLE / WORKING AREA CONFIGURATION**  
P24

**CONFIGURATIONS REPLACING THE FIXED TABLE**  
P30

**TOOL MAGAZINES CONFIGURATION**  
P35

**BEYOND THE LIMITS SINGULAR CONFIGURATION MACHINES**  
P38

**MACHINE SIZE CONFIGURATION**  
P22



**Z SERIES**

# 01

## CHOOSE THE MACHINE SIZE

IBARMIA ADAPTS THE MACHINE STRUCTURE TO ANY PART AND ANY PROCESS, DEPENDING ON THE CUSTOMERS MACHINING REQUIREMENTS.

### MACHINE SIZE CONFIGURATION



**Up to 20.000 rpm high-performance spindles 40% more powerful.**

M machine size can integrate both SK 40 and SK 50 type spindles (view on page 50) and is available up to 12.000 mm in longitudinal axis. It offers two transversal travels: **800 mm / 1000 mm**, configurating by this way ZM 08 and ZM 10 models, and two vertical travels: 800 mm / 900 mm.

**M SIZE** MACHINE STRUCTURE DESIGNED FOR **HIGH SPEED MACHINING**



SIZE MACHINE STRUCTURE

SK 40 type spindles up to: 50 kW • 200 Nm • 12.000 rpm  
Higher speeds on request, up to 15.000 and 20.000 rpm  
SK 50 type spindles up to: 43 kW • 260 Nm • 8000 rpm

From 1500 mm to 12.000 mm in longitudinal axis  
Length



Height (mm)  
08: 3150 / 10: 3240  
3650 with 150 tools ATC.



Z SERIES



**A large structure to support extra-powerful spindles and heavy loads for the most demanding sectors.**

L machine size can integrate both SK 40 and SK 50 type spindles (view on page 50) and is available up to 12.000 mm in longitudinal axis. It offers three transversal travels: **800 mm / 1000 mm / 1100 mm**, configurating by this way ZL 08, ZL 10 and ZL 11 models, and two vertical travels: 1100 mm / 1300 mm.

**L SIZE** MACHINE STRUCTURE DESIGNED FOR **SUPER POWER MACHINING**



SIZE MACHINE STRUCTURE

SK 50 type spindles up to: 84 kW • 452 Nm • 12.000 rpm  
Higher torque spindles on request.

From 3000 mm to 12.000 mm in longitudinal axis  
Length

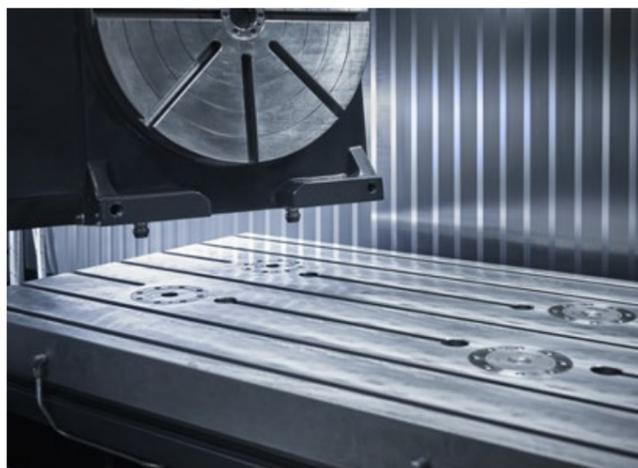


Height  
08: 3540 / 10: 3600 / 11: 3700  
4050 with 150 tools ATC

## 02

**TAKE FULL ADVANTAGE OF THE FIXED TABLE**

STARTING AT THE BEGINNING, THE FIXED TABLE STANDARD ARCHITECTURE OFFERS MULTIPLE CONFIGURATION POSSIBILITIES TO CUSTOMIZE THE MACHINE TO ALMOST ANY MANUFACTURING REQUIREMENT.

**FIXED TABLE & WORKING AREA CONFIGURATION**

**Customize the fixed table**  
Integrating Zero Points for a quick change-over of several elements.



**Customize the fixed table**  
with hydraulic connections for automatic clamping devices.



**Customize the fixed table**  
By a threaded vacuum clamping system, suitable for non-magnetic materials.



**Customize the fixed table**  
with magnetic clamping systems for a direct positioning of parts and/or devices.



**Z SERIES**



**Complete the fixed table**  
configuration by integrating a wide range of devices as steady rests, tailstocks, bolt-on rotary tables or supports...



**Customize the working area**  
by mixed beds, a configuration that offers a wide range of possibilities for different horizontal machining operations.



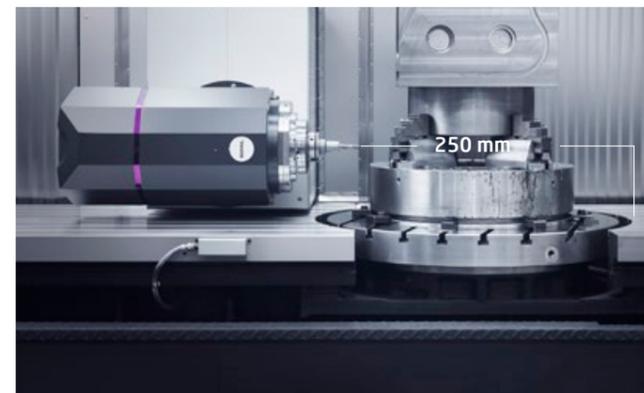
**Customize the working area**  
and increase your productivity by obtaining two machines in one thanks to the NSM; "Nonstop machining" option with a central division wall, independent blocking of front doors, and pendulum cycle working software.

## 03

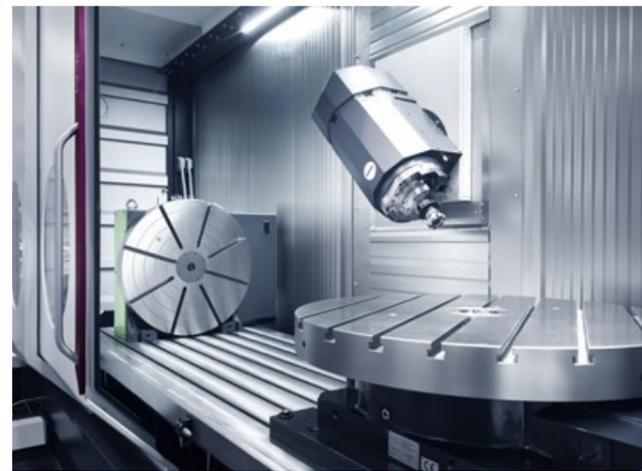
## TOWARDS ADVANCED MACHINING

THANKS TO THE INTEGRATION OF ROTARY AXES, THE Z SERIES PROGRAM REACHES THE MAXIMUM PERFORMANCE IN THE MACHINING OF COMPLEX PARTS IN A WIDE RANGE OF SHAPES AND MATERIALS.

## ROTARY AXES CONFIGURATION



**B AXIS SPINDLE HEAD** \_ The "S" headstock is the heart of Z SERIES program and provides the 4<sup>th</sup> axis at the tool tip. This new generation continuous tilting head with torque motor, maintains its extraordinary dynamics and accuracy characteristics intact while its travels have been optimized at maximum. **Tilting range: +/-120°**



**BOLT-ON ROTARY TABLES** \_ Integrate the 5<sup>th</sup> axis with these devices able to be used either in **A-C** horizontal or vertical axis. The program offers a wide range of bolt-on rotary tables up to  $\varnothing 800$  mm and  $\varnothing 1500$  mm swing.



**A AXIS TRUNNION FIXTURES** \_ The trunnion is a fixture turning around an **A** axis by using a bolt-on rotary table with a rotary support (know more about trunnion systems on pages 31-33).



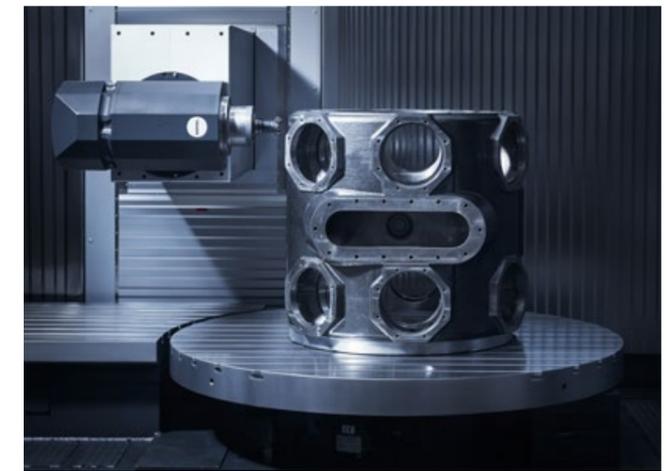
Z SERIES



**C AXIS INTEGRATED ROTARY TABLES** \_ milling rotary tables fully covering the Y axis for 5 axis / 5 faces machining operations. Up to 25 rpm /  $\varnothing 1500$  mm swing / 3500 kg. Combine these rotary tables according to your machining requirements.



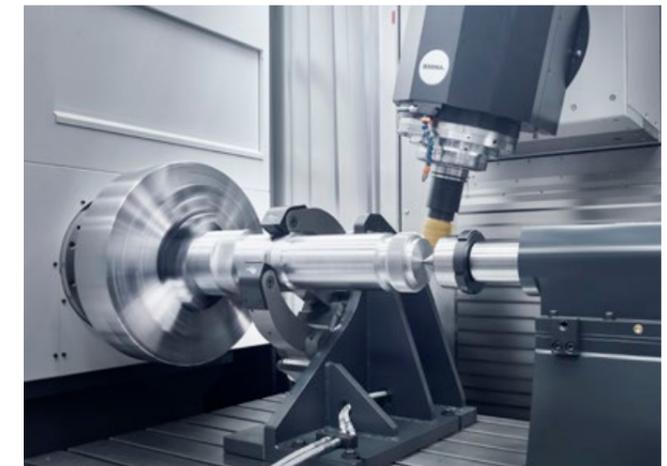
**ADD VERTICAL TURNING CAPACITY** \_ Into these integrated C axis rotary tables. **C axis turning & milling rotary tables** up to  $\varnothing 1200$  mm / 6000 kg / 500 rpm / 83 kW / 4000 Nm.



**BIG DIAMETER C AXIS INTEGRATED ROTARY TABLES** \_ All the advantages of the moving-column design adapted to bigger diameters and heavier loads.

**Swing increases:**

- ZMS 08/10:  $\varnothing 1100$  to  $\varnothing 1600$  mm
- ZLS 10:  $\varnothing 1400$  to  $\varnothing 2000$  mm
- ZLS 11:  $\varnothing 1500$  to  $\varnothing 2200$  mm



**ADD HORIZONTAL TURNING & MILLING CAPACITY** \_ **A axis turning & milling rotary tables** up to  $\varnothing 380$  mm / 3000 kg with tailstock / 1800 rpm / 78 kW / 1400 Nm. (For internal turning view on page 34).

**INCREASE YOUR MACHINING CAPACITIES** by using both horizontal and vertical turning & milling axes in the most advanced gear machining operations. (view on page 49).

**FIXED TABLE & ROTARY AXES: An unlimited field of work**



Fixed table with hydraulic connections.



Threaded fixed table for no magnetic materials.



Fixed table with magnetic clamping system.



Integrate a wide range of fixturing devices.

**FIXED TABLE CONFIGURATION  
POSSIBILITIES  
AVAILABLE FOR ALL  
Z SERIES MODELS**



**\* ZV / ZS MODELS**

**ZS MODELS →**



A axis Trunnion fixtures on fixed table by using A-C axis bolt-on rotary tables.



A-C axis bolt-on rotary tables for machining up to 5 axis / 5 faces.

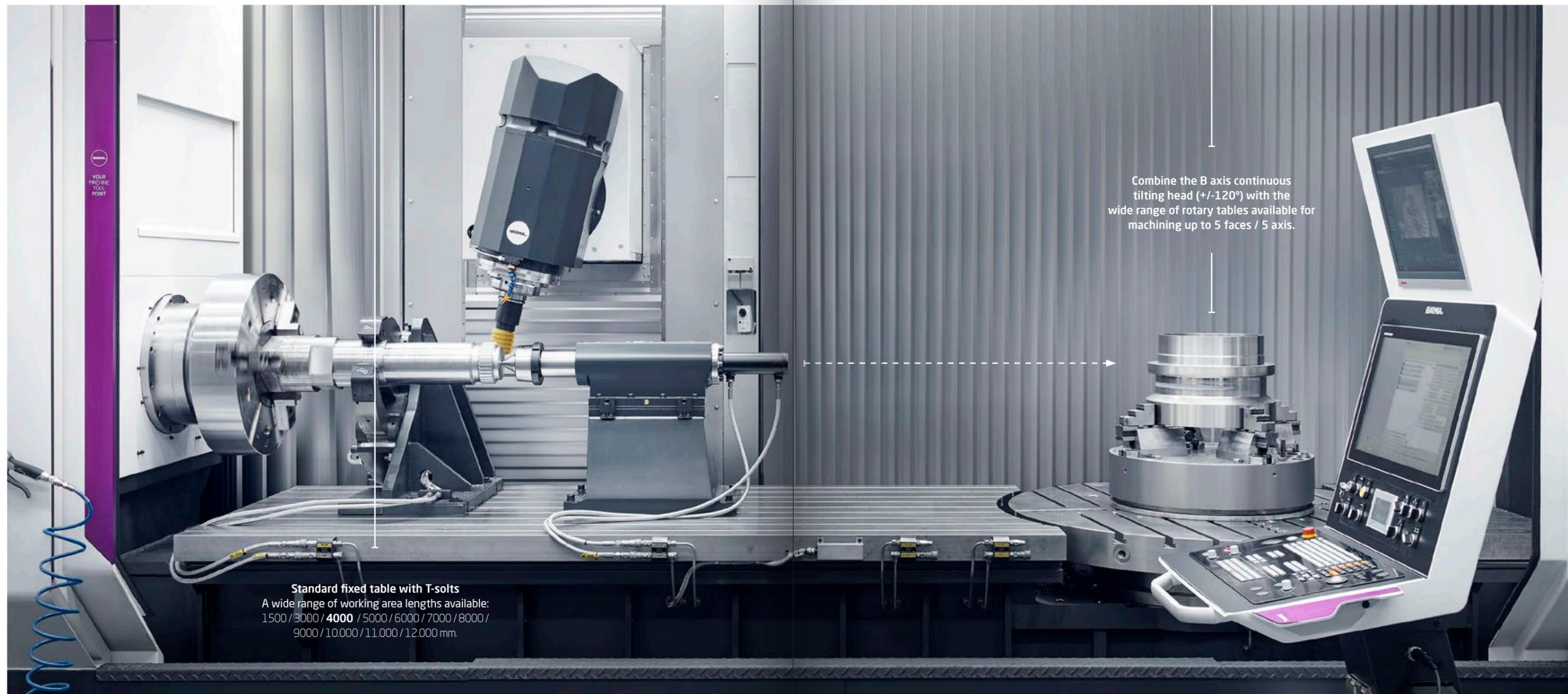


C axis integrated rotary tables for vertical 5 axis milling and turning operations.



A axis integrated rotary tables for horizontal 5 axis milling and turning operations.

**ROTARY AXES CONFIGURATION  
POSSIBILITIES  
AVAILABLE FOR ALL  
Z SERIES MODELS\***



**Standard fixed table with T-solts**  
A wide range of working area lengths available:  
1500 / 3000 / **4000** / 5000 / 6000 / 7000 / 8000 /  
9000 / 10.000 / 11.000 / 12.000 mm.

Combine the B axis continuous tilting head (+/-120°) with the wide range of rotary tables available for machining up to 5 faces / 5 axis.

## 04

## REPLACING THE FIXED TABLE

THE PROGRAM OFFERS SPECIFIC SOLUTIONS TO TAKE FULL ADVANTAGE OF MOVING-COLUMN ARCHITECTURE CHARACTERISTICS.

SOLUTIONS ADJUSTABLE TO  
VARIOUS PIECE LENGTHS  
AVAILABLE FOR ALL  
Z SERIES MODELS

**MOVING SUPPORTS**

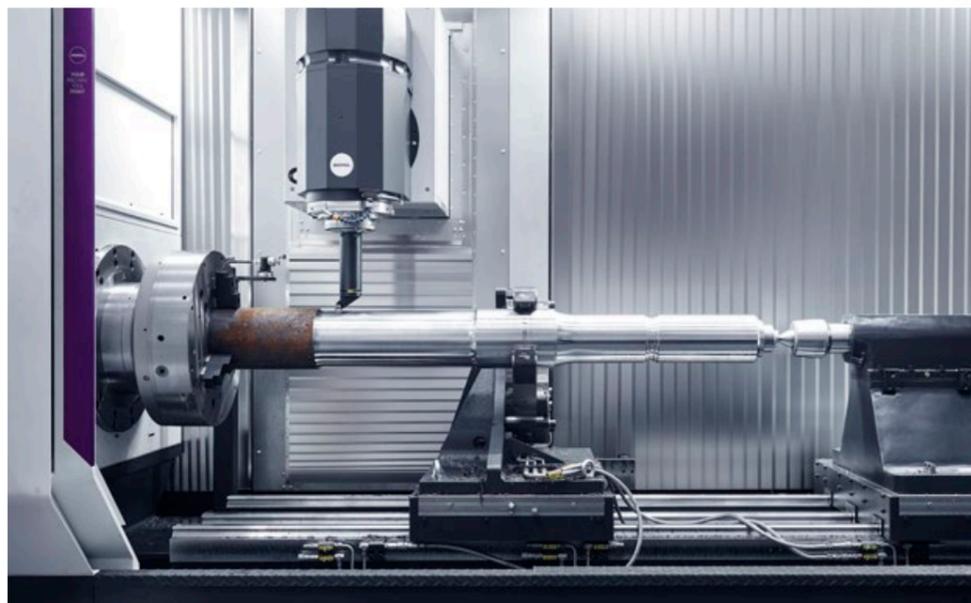
The moving support systems allow the easy moving of the different clamping devices for a quick preparation of short series of pieces with different lengths.

**1\_Sliding platforms on guideways**

This system makes it possible to adapt the position of all elements such as bolt in rotary tables, tailstocks, steady rests, vices and other fixturing devices to adapt to the different part lengths and reducing set up times drastically. These moving tables can also be used as "tool following steady rests" to machine long parts faster with better quality. Integrating Zero Points, the system allows quickly interchange vices, steady rests, tailstocks, etc. on the table, saving much time during the production process.

**2\_Servo-driven moving supports**

With the same purpose, IBARMIA also offers servo-driven moving tables with telescopic covers, focused on horizontal multitasking machining.

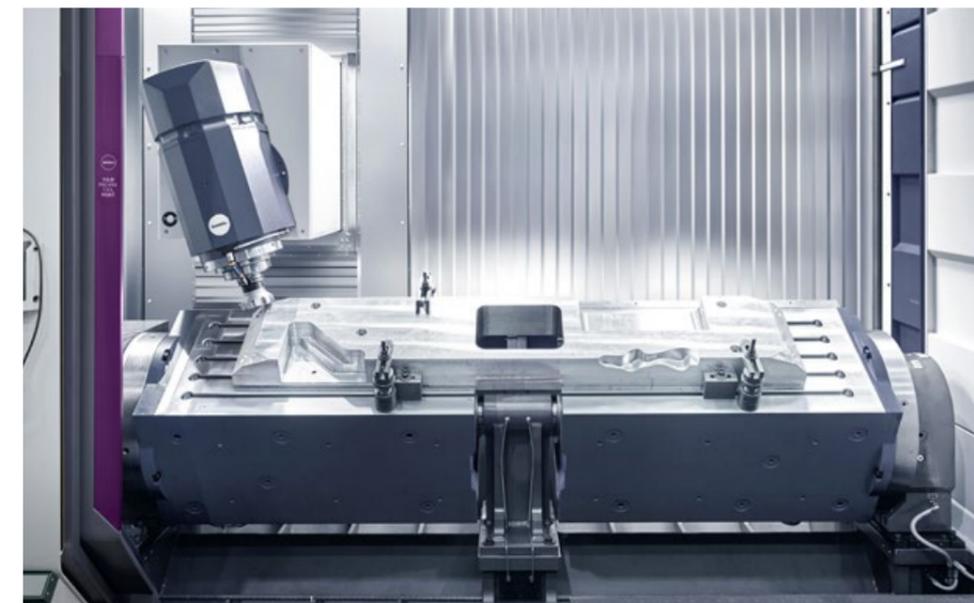


Z SERIES

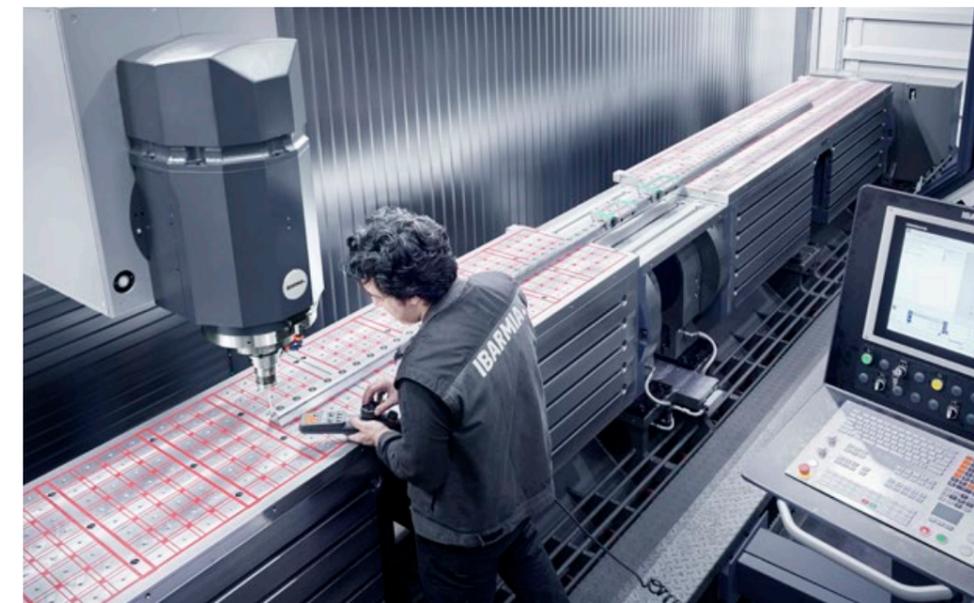
SOLUTIONS FOR INCREASE THE  
PRODUCTIVITY  
AVAILABLE FOR ALL  
Z SERIES MODELS

**TRUNNION FIXTURES**

The trunnion consists of a fixture that turns around an A axis by using a rotary table with a support (motor-support), or 2 rotary tables (double motor system). Thanks to this trunnion fixture, IBARMIA offers the possibility of machining 1, 2, 3 or 4 faces, with a smooth surface with clamping holes, T-slots, and the possibility of integrating Zero Points or magnetic / hydraulic / pneumatic clamping systems, which facilitates the automation of the part change.



Depending on the longitudinal travel of the machine, one or two trunnion can be integrated for pendulum cycle work. It also includes a plate between the two central rotary tables, connecting the fixtures on both sides to change from a double to a single workstation.



## TRUNNION FIXTURES SUMARIZING

"A CUSTOM SOLUTION THAT IBARMIA HAS BEEN WORKING FOR MANY YEARS WHICH IS PERFECTLY INTEGRATED INTO MOVING-COLUMN ARCHITECTURE"

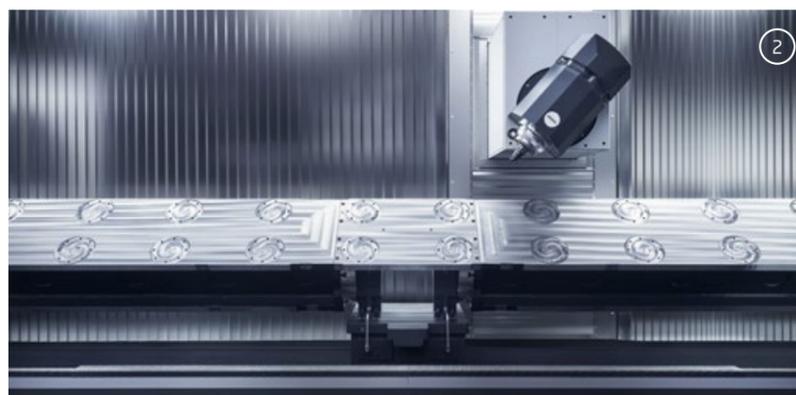
SOLUTIONS FOR INCREASE THE  
PRODUCTIVITY  
AVAILABLE FOR ALL  
Z SERIES MODELS



1\_ Four faces single trunnion with double motor for stainless steel profiles manufacturing, integrating two by two faces: a customized clamping system and t-slots.

2\_ Two faces single/double trunnion (with a plate between the two central rotary tables) integrating Zero Points, for aeronautics structural long parts manufacturing.

3\_ Four faces single/double trunnion with double motor, integrating different clamping systems depending on the trunnion face (t-slots, magnetic...) and focused on machinery long components manufacturing.



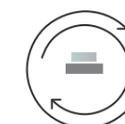
One face single trunnion  
on the fixed table.



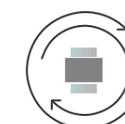
Two faces double trunnion  
replacing the fixed table.



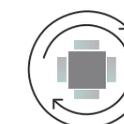
Four faces single trunnion  
replacing the fixed table.



01



02



03

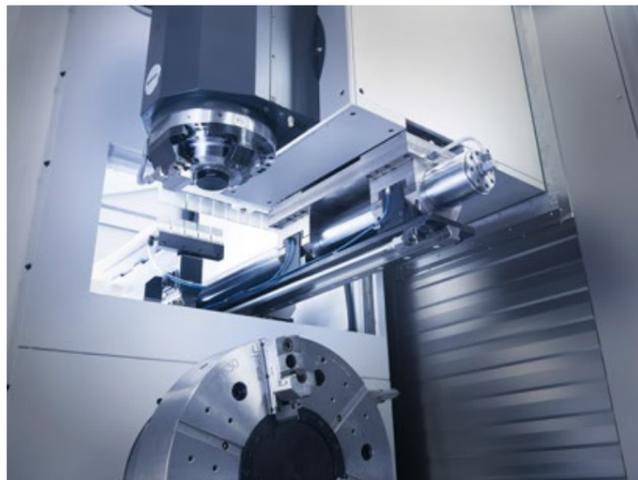
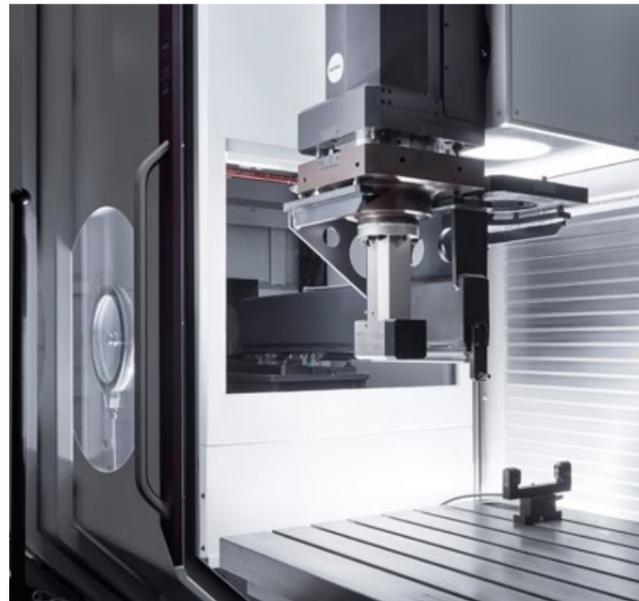
## 05

**A WHOLE WORKSHOP IN A SINGLE MACHINE**  
 THAT CAN INTEGRATE SINGULAR PICK UP STATIONS  
 IN DIFFERENT CONFIGURATIONS, TO MANAGE SPECIAL HEADS  
 AND TOOLS AS THE FOLLOWING:

## SPECIAL HEADS AND TOOLS MANAGEMENT



IBARMIA adapt the B axis head to hold special heads which can be automatically managed by pick-up stations integrated in the machine.



Likewise, in the case of MULTIPROCESS models with A axis turning & milling capacity, the machine can integrate an automatic changer for LBB.



These extraordinarily rigid long boring bars give the machine the capacity to perform internal turning operations.

## 06

**UNIVERSAL AND BIG PLUS FRIENDLY TOOL MAGAZINES**  
 WITHOUT TAPER RESTRICTIONS:  
 A KEY ELEMENT IN THIS NEW GENERATION MACHINES.

## TOOL MAGAZINES CONFIGURATION

**CHAIN SYSTEM STANDARD ATC**  
 Modular solution up to 150 tools  
 without taper restrictions located at  
 the right side of the machine.

**Universal & big plus friendly**

**M machine size & SK 40 spindle**

50 / 100 / 150 tools option

**M machine size & SK 50 spindle**

50 / 100 tools option

**L machine size & SK 40 spindle**

50 / 100 / 150 tools option

**L machine size & SK 50 spindle**

50 / 100 / 150 tools option

**Maximum tool SK 40 type spindle**

L 350 mm / 10 kg /  $\varnothing$ 100-150\* mm

**Maximum tool SK 50 type spindle**

L 400 mm / 20 kg /  $\varnothing$ 125-200\* mm



\*Tool max. diameters for full magazine and magazine with free spaces.

**POLAR TYPE OPTIONAL ATC**  
 Specific solution for customers  
 that need to manage a high  
 number of tools, located at the  
 right side of the machine.

**Big plus friendly**

**M machine size & SK 40 spindle**

220 tools option

**M machine size & SK 50 spindle**

134 / 255 tools option

**L machine size & SK 40 spindle**

220 tools option

**L machine size & SK 50 spindle**

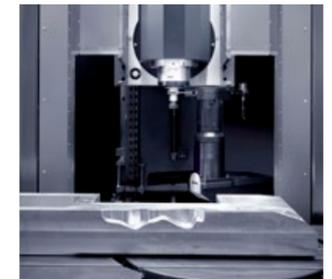
255 tools option

**Maximum tool SK 40 type spindle**

L 350 mm / 10 kg /  $\varnothing$ 100-150\* mm

**Maximum tool SK 50 type spindle**

L 400 mm / 20 kg /  $\varnothing$ 125-200\* mm



\*Tool max. diameters for full magazine and magazine with free spaces.



This new ATC system design increases the productivity and machine efficiency allowing risk-free changes outside the working area, loading / unloading the magazine while the machine is running and an easy access to the machine all maintenance elements.



## 07

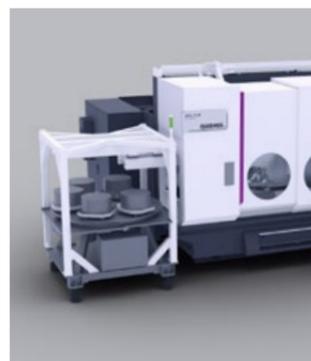
**REACHING THE MAXIMUM PRODUCTIVITY**

IBARMIA ANSWERS THE CHALLENGE OF MAKING THE MACHINES  
WORK FOR AS MANY HOURS AS POSSIBLE  
OR EVEN UNATTENDED.

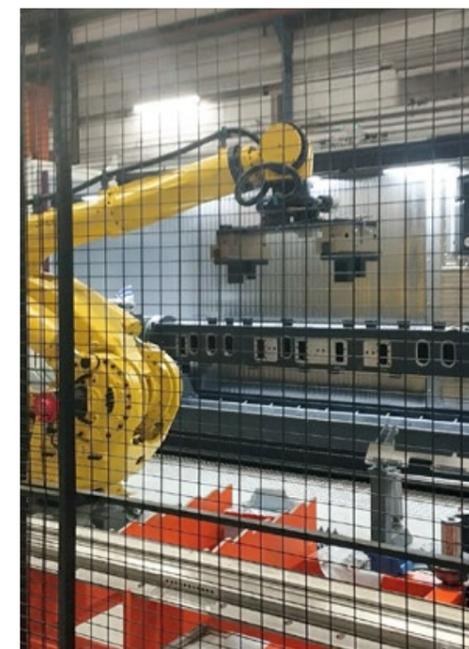
**AUTOMATIC PARTS LOADING / UNLOADING CONFIGURATION****LATERAL LOADING / UNLOADING**

IBARMIA offers various pallet configurations from standard static stations to manual or automatic rotary stations, offering different automation levels depending on requirements.

- Maximum Load Capacity: Up to 300 kg (part + tooling + pallet), ideal for bulky or heavy parts.
- Number of Pallets: Configurations of 4, 6, or 8 pallets, depending on production requirements.
- Pallet Dimensions: Multiple options between 320x320 mm and 500x500 mm.
- Maximum Part Height and Diameter: Supports parts up to 400 mm in height and a maximum diameter of  $\varnothing 650$  mm.

**Z SERIES****FRONTAL LOADING / UNLOADING**

The weight and length of parts are determining factors when configuring automatic loading / unloading systems. Therefore, to overcome the limitations of the lateral loading, IBARMIA offers the possibility of integrating front-loading / unloading systems by using robot arms, for the configuration of the most advanced autonomous production cells where the only limit is which customer's production requirements establish.



## 08

## BEYOND THE LIMITS

IBARMIA ADAPTS THE MOVING-COLUMN ARCHITECTURE TO DESIGN AND PRODUCE UNIQUE MACHINES, ACCORDING TO THE MOST SPECIFIC MANUFACTURING NEEDS.

## MACHINE SINGULAR CONFIGURATIONS EXAMPLES

**ZLS5\_15.08 MULTIPROCESS\_**

This multitasking machine, designed for train wheels manufacturing, shows that there are no limits for IBARMIA's moving column architecture: With only 1500 mm longitudinal travel, it features a powerful B axis milling head in a singular working area where the standard fixed table has been replaced with a high-performance turning rotary table up to 500 rpm and  $\varnothing$ 1500 mm swing for parts up to 6000 kg.

**Main singular characteristics:**

- Turning & milling rotary table replacing the fixed table.
- Reduced linear axes adapted to machine specific design.



"SO DIFFERENT AND SO EQUAL, THESE HIGHLY SPECIFIC MACHINES HAVE BEEN DESIGNED MAINTAINING THE HEART OF MOVING-COLUMN STRUCTURE INTACT"



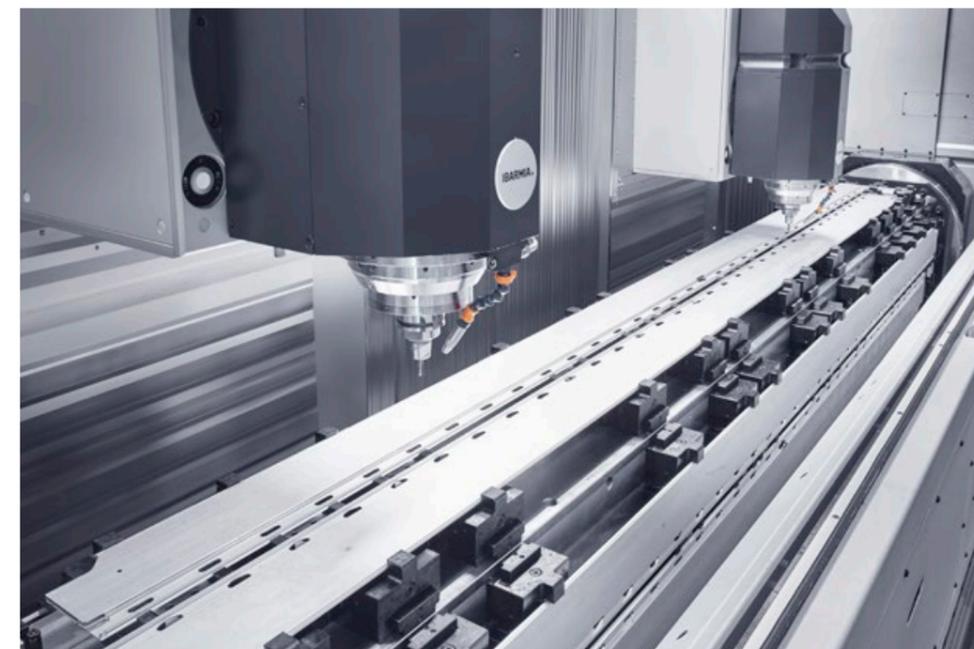
## Z SERIES

**ZLV4\_79.06 EXTREME\_**

This machine, designed for machinery long components manufacturing, features two independent vertical heads with high-performance synchronous electrospindles up to 20.000 rpm and 60 kW power. The extended axis travel up to 7.900 mm provides exceptional flexibility for machining large components. Featuring a dual trunnion system, this model can machine one part while preparing another, eliminating downtime and ensuring continuous workflow.

**Main singular characteristics:**

- Dual head / column configuration.
- Four faces dual trunnion fixture.
- Two independent working areas with vertical opening special doors.
- Extended linear axes adapted to customer requirements.



- [1\\_ Machine Program Summarizing](#)
- [2\\_ Application industries](#)
- [3\\_ Characteristics](#)
- [4\\_ Create your own machine](#)
- [4.4\\_ Machine basic equipment summary](#)
- [5\\_ Technological integration](#)
- [6\\_ Star Edition](#)
- [7\\_ Technical specifications](#)



Z SERIES

3.3\_ MACHINE EQUIPMENT SUMMARIZING

MACHINE BASIC ITEMS SUMMARY AS A GENERAL VIEW

The high level of the machine equipment makes to these models focused on high flexible response in advanced manufacturing a reference in terms of adaptability and immediate performance.



Totally encapsulated working area and safety windows. (Standard).



Up to 12.000 mm long working fixed table with "T" slots. (Standard).



Illuminated working area. Working area without horizontal planes and smooth top. (Standard).



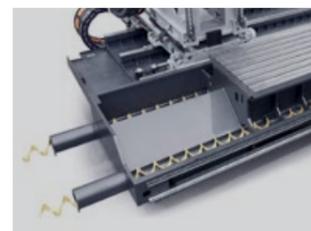
Standard convertible roof for an easy loading/unloading of parts by crane. (Standard).



Loading of extra long parts through the side panelling which is easily removable. (Standard).



Chip conveyor with integrated coolant tank. (Standard).



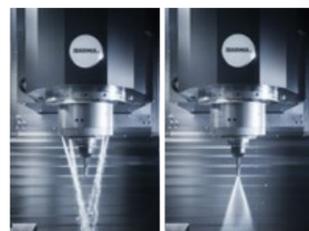
Double auger system for chip evacuation (long tail chip conveyor in ZM 08 model). (Standard).



- Climaticized electric cabinet with easy access.
- Programmable central lubrication system. (Standard).



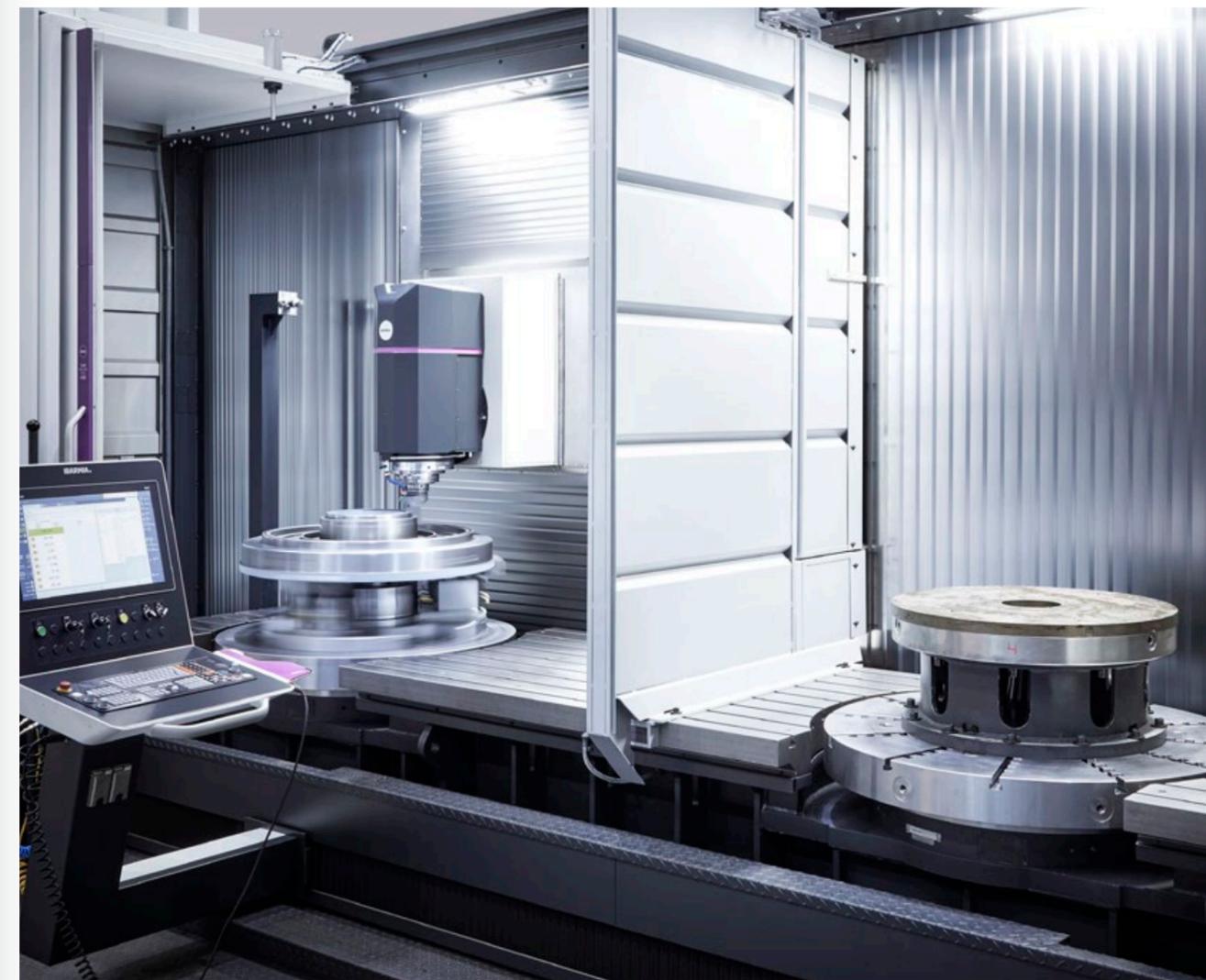
Moving and light control panel with 360° rotation over the entire longitudinal travel. (Standard).



External coolant system around the spindle. (Standard). Coolant through spindle. (Optional).

Optional basic items

- Tools / parts measuring and touch systems.
- Steam and mist extraction.
- Air and water guns.
- "Comfort" pack: Sliding access stairway along the longitudinal travel with supports for air and water guns.
- "Illumination" pack: LED lights with acoustic signal indicating the state of the machine, integrated into the sides.
- Lights with acoustic signal indicating the machine status.
- Camera settings and display mode.
- CNC with touch screen up to 24".



**MULTIPLE CNC CONTROL PLATFORM IN ALL MODELS\_**  
Freedom to choose latest generations CNC controls of the most prestigious manufacturers.

HEIDENHAIN  
FANUC  
SIEMENS

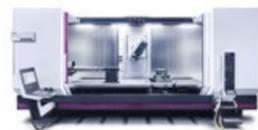
- 1\_ Machine Program Summarizing
- 2\_ Application industries
- 3\_ Characteristics
- 4\_ Create your own machine
- 5\_ Technological integration
- 6\_ Star Edition
- 7\_ Technical specifications



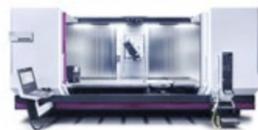
**5\_ TECHNOLOGICAL INTEGRATION**

**ACTIVE ASSISTANCE TO THE MACHINING PROCESS**

IBARMIA range of applications for active support in the manufacturing process, through connected machines equipped with the latest technology for the most demanding production needs.



**ZS MULTIPROCESS**  
Multitasking machines



**ZS EXTREME**  
5 axis milling machines

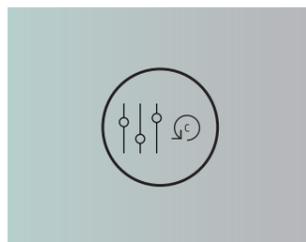
**C AXIS AUTOTUNING**

**ZS MULTIPROCESS / EXTREME**

This applications are aimed to maximize the position loop bandwidth for variable moving masses placed on rotary tables (C axis).

**Main features C axis autotuning:**

- Automatic measurement of the axis inertia for every noticeable change in mass on rotary tables.
- Automatic calculation of natural frequencies and inertia ratios by means of motor consumption signals.
- Automatic limitation of maximum rotational speed of the rotary table depending on the workpiece weight, for axis protection.



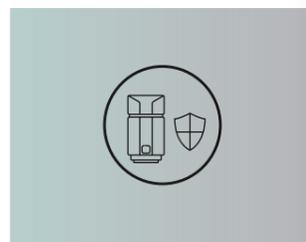
**CONTROL CYCLES**

**ELECTROSPINDLE PROTECTION**

**ZS MULTIPROCESS / EXTREME**

This smart equipment has been designed to detect, at a very early stage, abnormal situations and disturbances that may affect the lifetime of the main spindles, especially imbalanced tools, excessive vibration during machining and collisions among spindles and machined parts.

- Monitoring of spindle imbalance during idle conditions.
- Automatic stop of spindle feed axis in case of abnormal vibrations.
- Continuous diagnosis of spindle bearings condition for preventive maintenance purposes.

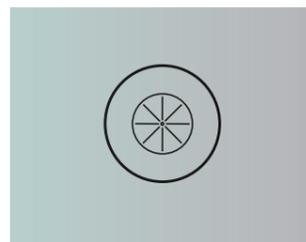


**RESIDUAL IMBALANCE CHECK**

**ZS MULTIPROCESS**

Imbalance reduces the life of bearings and other components, produces noise and may be a safety risk; the Rotary Axes imbalance Compensation (RAUC) increases the life and the safety of your machine.

- Static, coupled and dynamic imbalance detection.
- Mass distribution detection.
- Balancing masses weight and location suggestion for rotary tables.



Subject to change without prior motive. Informative contents are not binding.



**Z SERIES**

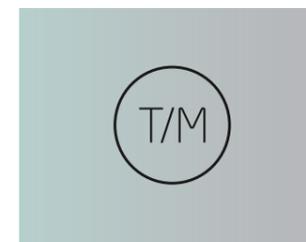
**OPERATIONAL CYCLES**

**MILLING-TURNING**

**ZS MULTIPROCESS**

High productivity thanks to complete machining on one machine in a single setup.

- Cutting, undercutting, cutting chips, threading, etc.
- Imbalance calculation, control and monitoring.
- Storage, emission and transmission of measurement data.
- Turning of long tools in the workpiece.
- Use of multi-cutting tools.



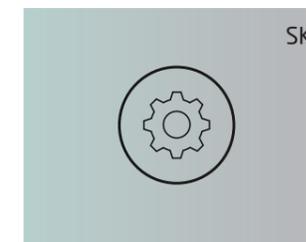
**GEAR SKIVING**

**ZS MULTIPROCESS**

Synchronized rotation of tool and workpiece to be machined. Innovative manufacturing process for gears with straight or oblique gearing.

- For internal and external gearing.
- Shorter machining times.
- Fewer tools.

**Achievable gear quality:**  
-Straight gear DIN 9 (roughing). (Depending on the gear module and diameter).  
-Straight gear DIN 7 (finishing). (Depending on the gear module and diameter).



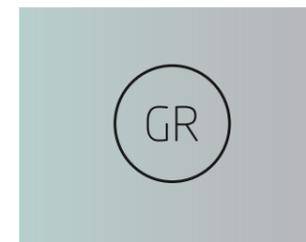
**GRINDING**

**ZS MULTIPROCESS / EXTREME**

Grinding cycles for Z SERIES-ZVH machines.

- MULTIPROCESS models\_
- External cylindrical.
- Internal cylindrical.
- Flat surfaces with flat grinding wheel (tangential contact).
- EXTREME models\_
- Flat surfaces with flat grinding wheel (tangential contact).

**Achievable tolerances:**  
-Surface quality down to 0,8 µm. Depending on the process.



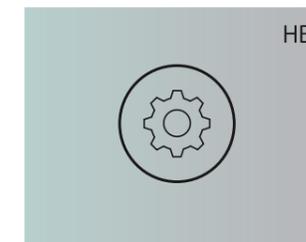
**GEAR HOBBING**

**ZS MULTIPROCESS / EXTREME**

Maximum flexibility through production with standard tools on standard machines.

- Free modification of profiles, flanks and contact pattern.
- Flexible for different gears.
- Soft and hard machining on one machine.

**Achievable gear quality:**  
-Straight gear DIN 9 (roughing). (Depending on the gear module and diameter).  
-Straight gear DIN 7 (finishing). (Depending on the gear module and diameter).



Subject to change without prior motive. Informative contents are not binding.

- 1\_ Machine Program Summarizing
- 2\_ Application industries
- 3\_ Characteristics
- 4\_ Create your own machine
- 5\_ Technological integration
- 6\_ Star Edition
- 7\_ Technical specifications



Z SERIES

# IBARMIA STAR EDITION

SINCE 2017

A LIMITED EDITION OF A STANDARD CONFIGURATION FOR SHORT DELIVERY  
Based on the most demanded machine configuration items in the market,  
for a fast answer to the widest manufacturing requirements.

- 1\_ Machine Program Summarizing
- 2\_ Application industries
- 3\_ Characteristics
- 4\_ Create your own machine
- 5\_ Technological integration
- 6\_ Star Edition
- 7\_ Technical specifications

#### 4.1\_ STAR EDITION; SHORT DELIVERY STANDARD MACHINES

### ZMS(4 or 5)\_30.08 EXTREME STAR EDITION

IBARMIA'S 3 METERS LONG STANDARD MODEL IN M MACHINE SIZE WITH THE POSSIBILITY TO INTEGRATE SK 40 AND SK 50 TYPE SPINDLES"

#### STANDARD CONFIGURATION

##### Travels

X 3000 / Y 800 / Z 800 mm /  
B +/-120° / C 360°.

##### Working area

- 3000 mm long working area.
- ø800 mm C axis integrated rotary table.

##### Milling head

- B axis torque motor continuous tilting head. Tilting range: +/-120°.
- Standard SK 40 taper spindle up to 50 kW, 200 Nm and 12.000 rpm.

##### Tool magazine

- 50 positions standard chain system tool magazine.

##### CNC Control

- Heidenhain / Fanuc controls on 19" touch screen.

##### Included items

- Full enclosed working area.
- External coolant system 12 bar.
- Coolant through spindle 22 bar.
- Electronic handwheel.
- Chip conveyor.
- Air & Spray guns.
- Climatized electrical cabinet.
- LED lighting in the working area.
- Side window for long parts.



Z SERIES



In the picture, machine with optional polar type 220 tools ATC magazine.

- 1\_ Machine Program Summarizing
- 2\_ Application industries
- 3\_ Characteristics
- 4\_ Create your own machine
- 5\_ Technological integration
- 6\_ Star Edition
- 7\_ Technical specifications

THE SAME PREMIUM ELEMENTS PRODUCED IN A LARGE BATCH OF STANDARD CONFIGURATION FOR IMMEDIATE AVAILABILITY.

## HIGHLIGHTS & OPTIONALS

### 1\_SPINDLES

#### SK 40 STANDARD

Spindle taper: SK 40  
 Power S1 (100%): 30 kW  
 Power S6 (40%): 46 kW  
 Total available power from: 2200 rpm  
 Torque S1 (100%): 130 Nm  
 Torque S6 (40%): 200 Nm  
 Max. speed: 12.000 rpm

#### SK 50 OPTIONAL

Spindle taper: SK 50  
 Power S1 (100%): 30 kW  
 Power S6 (40%): 43 kW  
 Total available power from: 1.600 rpm  
 Torque S1 (100%): 180 Nm  
 Torque S6 (40%): 260 Nm  
 Max. speed: 8000 rpm

### 2\_ C AXIS STANDARD ROTARY TABLE

B axis head combined with ø800 mm integrated high dynamics milling rotary table for 5 faces / 5-axis machining.

- Max swing: ø1100 mm
- Max load 1500 kg/m<sup>2</sup>
- Up to 25 rpm
- Positioning accuracy: +/- 4"

### 3\_CNC CONTROLS Available

Heidehain TNC7.  
 Fanuc 31iB.

### 4\_ATC MAGAZINES

#### STANDARD chain type magazine

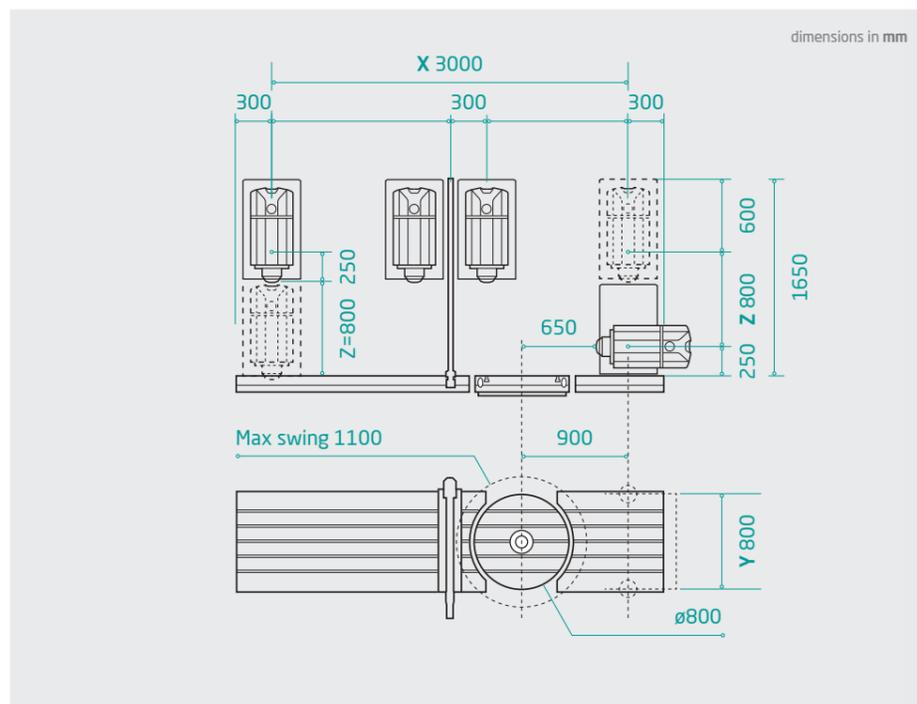
Standard: 50 tools.  
 Optional: 100 and 150 tools for SK 40 type spindle taper,  
 100 tools for SK 50 spindle taper

#### OPTIONAL polar type magazine

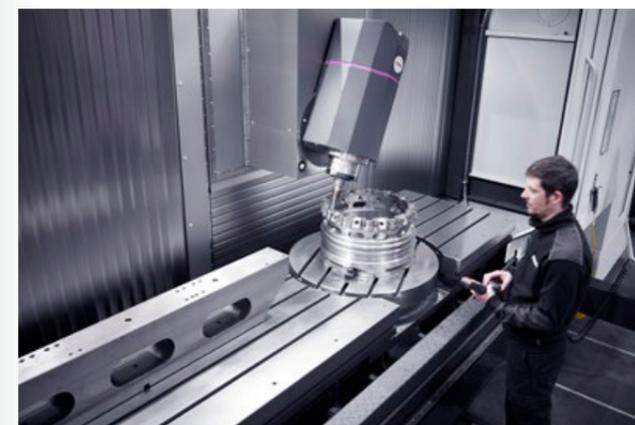
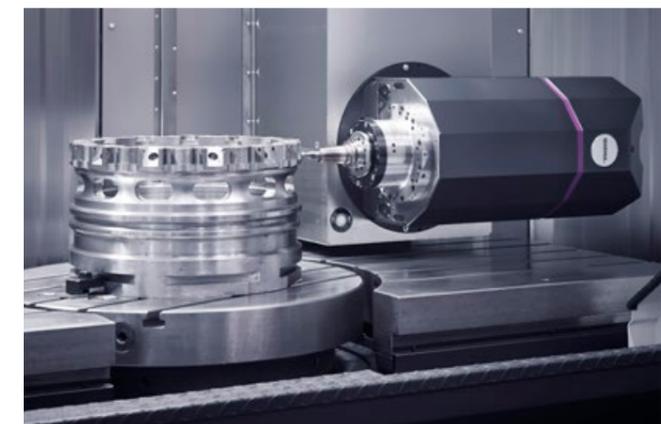
220 tools for SK 40 type spindle taper.  
 134 or 255 for SK 50 type spindle taper.

### 5\_WORKING AREA

OPTIONAL NMS; "Nonstop Machining" pendulum working system.



Z SERIES



Combine linear and rotary axes in a generous 3 meters long working area for machining a wide range of size and shapes; use the entire long of the the high load capacity fixed table (1500 kg/m<sup>2</sup>) for machine long parts, and the integrated rotary table for manufacturing complex parts up to in 5 faces / axes.

Freedom to choose between the latest generation CNC controls; Heidenhain / Fanuc.



Chain system or polar type ATC magazines available, in both cases located at the right side of the machine for a easy load / upload tools while the machine is running.

- 1\_ Machine Program Summarizing
- 2\_ Application industries
- 3\_ Characteristics
- 4\_ Create your own machine
- 5\_ Technological integration
- 6\_ Star Edition
- 7\_ Technical specifications



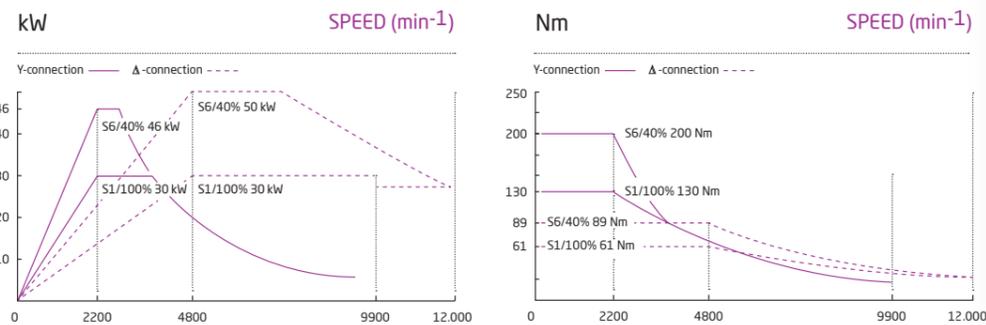
Z SERIES

7.1\_ LATEST TECHNOLOGY SPINDLES

ISO 40 SPINDLES

Higher speed spindles on request up to 15.000 and 20.000 rpm

**40.1\_ SPINDLE**  
The access spindle\_  
Up to 12.000 rpm.  
30/50 kW (S1/S6).  
130/200 Nm (S1/S6).

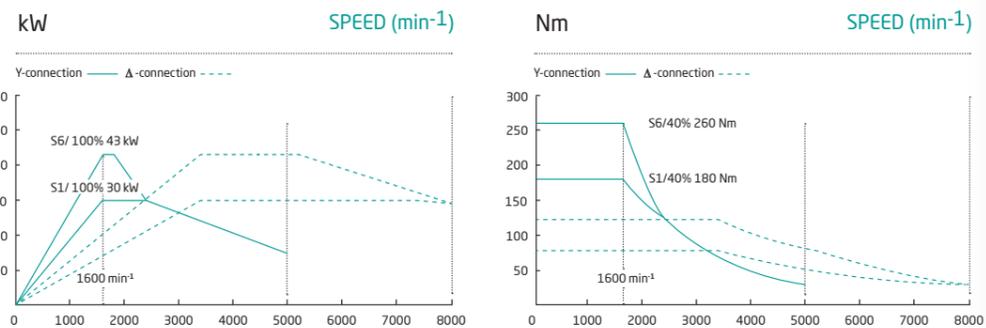


M machine size: **STANDARD**  
L machine size: **OPTIONAL**

ISO 50 SPINDLES

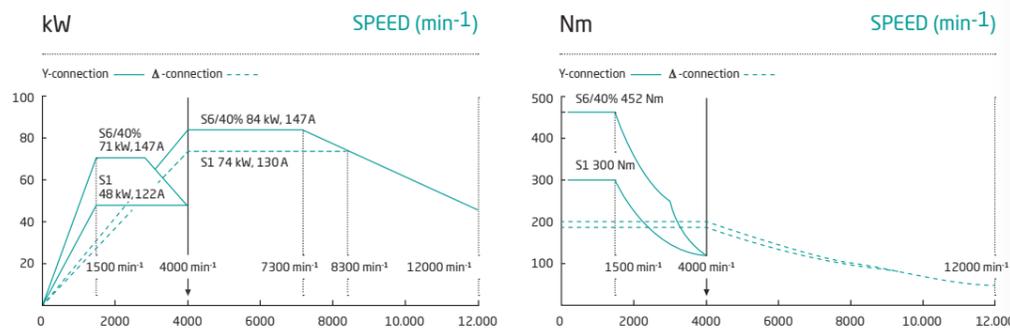
Higher torque spindles on request up to 650 Nm

**50.1\_ SPINDLE**  
Optimized performance spindle\_  
Up to 8000 rpm.  
30/43 kW (S1/S6).  
180/260 Nm (S1/S6)



M machine size: **OPTIONAL**

**50.2\_ ELECTROSPINDLE**  
High-performance spindle\_  
Up to 12.000 rpm.  
74/84 kW (S1/S6).  
300/452 Nm (S1/S6).



L machine size: **STANDARD**

7.2\_ TECHNICAL DATA

TRAVELS

- X axis travel (length)
- Y axis travel (cross)
- Z axis travel (vertical) (\*optional)
- B axis head tilting range
- C axis rotary table maximum swing diameter\*
- Piece maximum height
- Distance spindle nose-table. Head in V position
- Distance spindle nose-table. Head in H position\*

M MACHINE SIZE		L MACHINE SIZE		
08	10	08	10	11
*ZM/LS MULTIPROCESS and ZM/LS EXTREME machine performance levels (view on pages 16-19)				
1500 - 12.000 mm				
800 mm	1000 mm	800 mm	1000 mm	1100 mm
800 mm	900 mm	1100 mm		1100 mm (1300*)
+/- 120°				
ø 1100 mm	ø 1300 mm	ø 1200 mm	ø 1400 mm	ø 1500 mm
800 mm	900 mm	1100 mm		
0---800 mm		0---1050 mm		
250---1050 mm		250---1350 mm		

STANDARD WORKING AREA

- Fixed table dimensions
- Maximum table load capacity
- Number of "T" slots
- "T" slots size
- Distance between "T" slots
- Fixed table height
- C axis turning tables - A axis turning chucks

X 1500: X +400 mm; ≥ X 3000: X+600 mm & Y +50 mm				
1500 Kg/m²		2000 Kg/m²		
5	7	5	7	9
18 H7 mm				
125 mm				
1050 mm		1050 mm		1150 mm
Various models available (see on pages 06-07)				

TILTING HEAD\*

- Technology
- Position clamping force

*ZM/LS MULTIPROCESS and ZM/LS EXTREME machine performance levels (view on pages 16-19)				
Torque Motor System				
6000 Nm				

MAIN SPINDLE (Standard)

- Tool holder
- Maximum speed
- Maximum power
- Maximum torque (Nm)

Various models available, see on left page.				
SK 40 / BT 40 / HSK A-63 / CAT 40 / Capto C6		SK 50 / BT 50 / HSK A-100 / CAT 50 / Capto C8		
Up to 12.000 rpm		Up to 12.000 rpm		
Up to 50 kW		Up to 84 kW		
Up to 260 Nm		Up to 452 Nm		

FEED

- Feed thrust X-Y-Z 100%
- Rapid feed for positioning X-Y-Z
- Maximum working feed X-Y-Z
- Rapid feed for positioning in B axis

X: 11.992 N / Y: 8521 N / Z: 7669 N		X: 15.021 N / Y: 12.154 N / Z: 10.649 N		
40-40-40 m/min. Option: 50-50-50 m/min.				
30 m/min				
50 rpm				

ACCURACY VDI / DGQ3441

- Positioning Tp X-Y-Z (1000 mm)
- Repeatability
- Measuring system on B axis
- Positioning accuracy B axis
- Positioning accuracy C axis

*ZM/LS MULTIPROCESS and ZM/LS EXTREME machine performance levels (view on pages 16-19)				
8 µm				
5 µm				
Rotary scale				
+/- 5 s				
+/- 4 s				

CAPACITIES

- Milling capacity in steel St 60
- Drilling capacity in steel St 60
- Tapping capacity in steel St 60

900 cm³/min	2000 cm³/min
ø 50 mm	ø 70 mm
M 33 mm	M 45 mm

TOOL MAGAZINE\*

- Number of tools\*\*
- Maximum tool length
- Maximum tool weight
- Maximum tool diameter with full magazine
- Maximum tool diameter with free spaces
- Tool changing time
- Chip-to-chip time

*Standard chain type tool magazine / **Depending on the tool holder (view on page 35)	
Standard: 50 tools. Optional: 100, 150 tools.	
350 mm	400 mm
10 kg	20 kg
100 mm	125 mm
150 mm	200 mm
8 s	10 s
10 s	12 s

CNC CONTROL

- Available digital controls

Fanuc / Heidenhain / Siemens	
------------------------------	--



IBARMIA SERVICE

YOUR SERVICE POINT

When a customer becomes part of the IBARMIA family, that special link makes us work together throughout the machine's lifetime. Our service-point guides all technical and human resources to satisfy the customer's needs from the moment the machine enters its facilities.

WE BELIEVE IN SERVICE AND WE ARE COMMITTED TO THE PROFITABILITY AND RELIABILITY OF YOUR MACHINE; A PROVEN EFFICIENT SERVICE THAT IS VALUED BY OUR CUSTOMERS.



TELEPHONE SUPPORT SERVICE BY EXPERT MULTILINGUAL STAFF



REACTION AND SOLUTION TIMES ADEQUATE TO THE CUSTOMER'S NEEDS



HIGHLY QUALIFIED TECHNICIANS



GLOBAL SERVICE VOCATION



MACHINE RECALIBRATION

The accumulation of working hours and other factors might affect the machine's adjustment. At servicepoint we offer the possibility of readjusting the machines, leaving them almost as brand new.

PERIODIC PREVENTION MAINTENANCE

Servicepoint staff regularly checks and tunes up the machine, ensuring optimum machine availability.

CRITICAL COMPONENTS HIRE

Our machines have a high level of technology reflected on key elements of high value, and sometimes long delivery times. Following our commitment to reduce the machine breakdown times to a minimum, we stock those key elements for hire.

CUSTOMIZED MAINTENANCE CONTRACTS

Various levels of maintenance contracts adjustable to each customer.

SPARE PART MANAGEMENT

We are well aware of the importance of ensuring that the parts replaced in our machines maintain the same quality as the originals. Our spare part management service takes care of this.

ASSISTANCE AND LOCAL SERVICE

Our objective is to respond to our customers quickly, efficiently and at a reasonable cost. We are creating a global service network to ensure we respond to our clients in the shortest possible time.

REMOTE AND ONLINE MONITORING AND DIAGNOSE

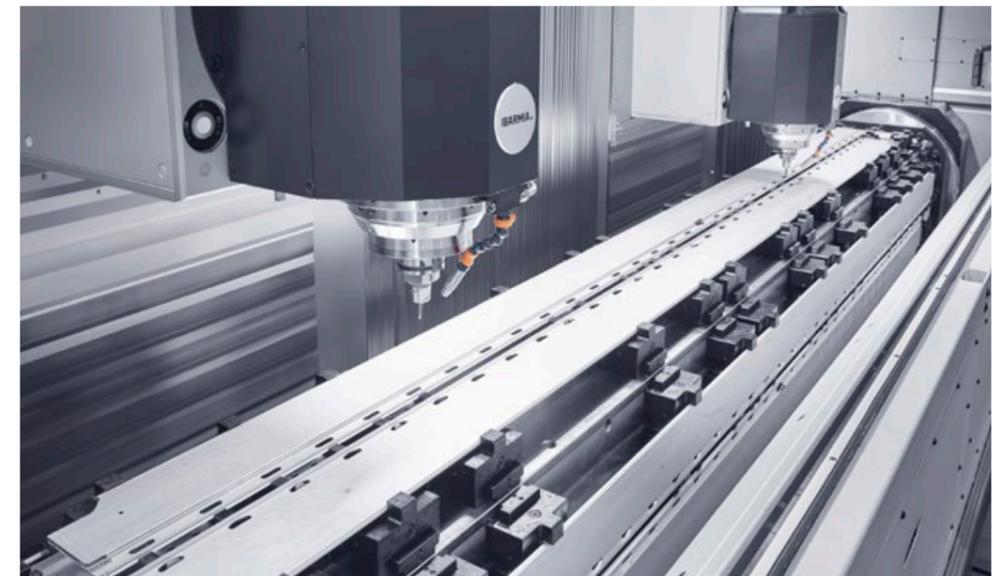
It allows you to monitor the machine status remotely to ensure an intelligent diagnose of the key elements.



IBARMIA SERVICE



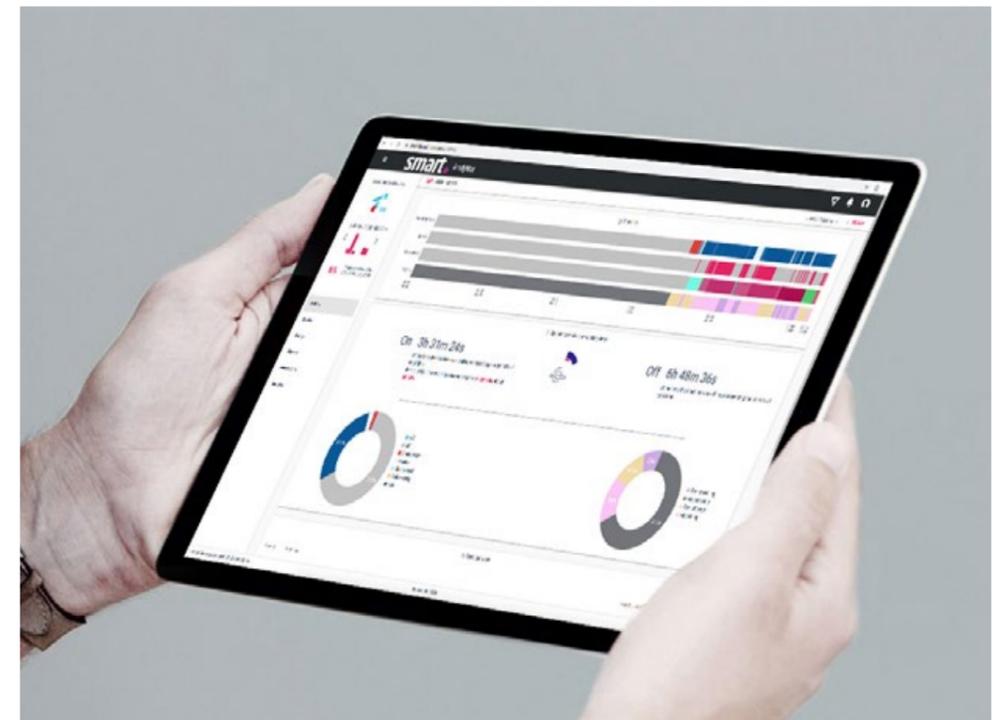
ADVANCED DATA MANAGEMENT: ONLINE MONITORING AND DIAGNOSIS



SMART POINT SOFTWARE

Thanks to our SMART POINT cloud monitoring system, we have real time information about the status of your machine, and we are able to make an intelligent diagnosis of the critical components. SMART POINT allows us to record and process the data collected on your machine, thus generating valuable information about the optimal use, the life cycle of the parts or the manufacturing process itself.

- Monitor your machines activity in real time from anywhere in the world
- Anticipate machine breakdowns and maximize its availability. Discover the root of the errors so you can correct them, as well as consumable exchange dates and component health status.





IBARMIA.

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.



IBARMIA Azkoitia  
PRODUCTION CENTER  
(Gipuzkoa) Spain



IBARMIA Qingdao  
PRODUCTION CENTER  
IBARMIA Shanghai  
SALES OFFICE  
(Shandong-Shanghai) P.R. of China



IBARMIA Eislingen/Fils  
SALES & SERVICE OFFICE  
(Baden-Württemberg) Germany

70 IBARMIA.  
YEARS  
EST. 1953



COMPETING IN THE  
GLOBAL MARKET



A YOUNG TEAM WITH  
HIGH FORMATION



INTEGRATED  
MANUFACTURING



TOTAL  
FLEXIBILITY



# YOUR MACHINE TOOL POINT

EST. 1953

**Z SERIES**  
MOVING-COLUMN  
MACHINING  
CENTERS

**SZG 2026**  
Subject to change  
without prior notice.

---

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

---



Diego Umantsoro, 6 - Apdo 35  
20720 Azkoitia (Gipuzkoa) Spain. T +34 943 857 000  
ibarmia@ibarmia.com

Follow us on our social networks



[www.ibarmia.com](http://www.ibarmia.com)

---