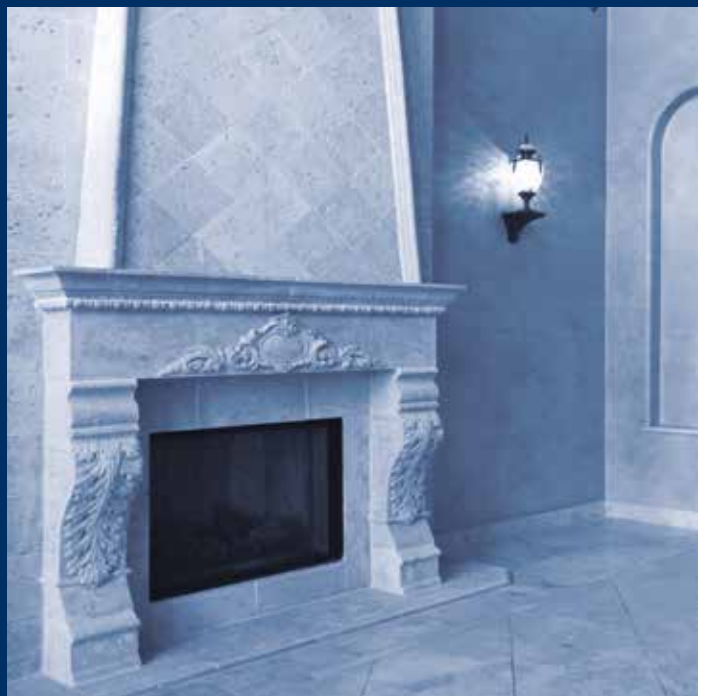


# brembana speed brembana kartesia

3/4-axis machining centers



CMS is part of the SCM Group, a world leader in technologies for processing a wide range of materials: wood, plastic, glass, stone, metal and composite materials. The Group's companies are, all over the world, the solid and reliable partner of the main manufacturing industries in various product sectors: from furniture to construction, from automotive to aerospace, from boating to plastics processing. SCM Group supports and coordinates the development of a system of industrial excellence organized in 3 large specialized production centers, employing more than 4,000 people and with a direct presence on 5 continents. SCM Group represents the most advanced skills in the design and construction of machines and components for industrial processing in the world.

CMS SpA manufactures machines and systems for processing composite materials, carbon fiber, aluminum, light alloys, plastic, glass, stone and metal. Born in 1969 from an idea of Pietro Aceti with the aim of offering customized and advanced solutions, based on a deep knowledge of the customer's process. Significant technological innovations, generated by major investments in research and development and acquisitions of premium companies, have enabled constant growth in the various sectors of reference.



**CMS Stone Technology** creates cutting-edge solutions for the marble, natural stone and composite stone processing sector. Under the Brembana Machine brand, CMS Stone Technology was in the 1980s the first manufacturer of a machining center for stone, thanks to an idea of the founder Pietro Aceti. **CMS Stone Technology** has always been a reliable technology partner in designing unique solutions, for any need, in the world of construction, architecture, interior and exterior decoration and wherever the use of stone and marble artefacts is required.



# brembana speed brembana kartesia

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# APPLICATIONS



bathroom and kitchen tops | funerary art | swimming pools | sculpture |  
doorways, stairs and windowsills



architecture and construction | inlays and mosaics | fireplaces



**E**ffective.

**A**ccurate.

**S**uitable.

**Y**our solutions.

The **EASY** way for stone processing.

3/4-axis machining centers

# BREMBANA SPEED MB

## TECHNOLOGICAL BENEFITS

### MONOBLOC 3-4 INTERPOLATED AXIS MACHINING CENTER

Brembana speed is a **machining center operated by Numerical Control with three/four interpolated axes for processing slabs and solid blocks** also with high thickness of marble, granite, synthetic stone and ceramics. It can quickly and accurately carry out rough or polished edge contouring, milling, drilling, countersinking, pocketing, bas-relief and lettering.

It is a **highly configurable** machine designed to meet all the needs of the modern workshop.

### KEY BUYER BENEFITS

- + **Best-in-class power:** CMS-designed and manufactured liquid-cooled electrospindle with power up to 30 KW, providing optimal operating conditions and a saving of up to 21% on cycle times.
- + **Unsurpassed mechanics:** the strong structure of these machining centers ensures optimal stress absorption due to the machining, guaranteeing high precision over time. The base fixed directly to the ground, without the need for masonry work, increases the stability and the performance of the machine.
- + **Finishing without compromise:** tool wear control system that automatically adjusts the tool position to ensure the highest quality finish.
- + **Magazine without limits thanks to CMS solutions:** up to 128 installable tools, in in-line or under-beam magazines, to cover all workshop needs without retooling.



# BREMBANA SPEED TR

## TECHNOLOGICAL BENEFITS

### 3- OR 4-AXIS NUMERICALLY CONTROLLED MACHINING CENTER WITH ROTARY TABLE (TR)

Brembana speed TR is a **rotary table machining center** operated by Numerical Control with three/four interpolated axes for processing slabs and solid blocks also with high thickness of marble, granite, synthetic stone and ceramics. It can quickly and accurately carry out rough or polished edge contouring, milling, drilling, countersinking, pocketing, bas-relief and lettering.

The rotary worktable allows for pendulum work, **zeroing out downtime for loading/unloading operations**.

It is a highly configurable machine designed to meet all the needs of the modern workshop.

### KEY BUYER BENEFITS

- + **Best-in-class power:** CMS-designed and manufactured liquid-cooled electrospindle with power up to 30 KW, providing optimal operating conditions and a saving of up to 21% on cycle times.
- + **Unsurpassed mechanics:** the strong structure of these machining centers ensures optimal stress absorption due to the machining, guaranteeing high precision over time. The base fixed directly to the ground, without the need for masonry work, increases the stability and the performance of the machine.
- + **Finishing without compromise:** tool wear control system that automatically adjusts tool position to ensure top-quality finishing.
- + **+38% productivity compared to a standard machine:** the rotary worktable allows finished parts to be unloaded and new blanks to be loaded while the machine is always in operation, eliminating downtime for loading/unloading operations.



# BREMBANA KARTESIA F

## TECHNOLOGICAL BENEFITS

### 3- OR 4-AXIS NUMERICALLY CONTROLLED MACHINING CENTER WITH AUTOMATIC STOP AND SUCTION CUP POSITIONING SYSTEM

Brembana Kartesia f is the most **compact and revolutionary** three/four-axis interpolated **machining center** operated by Numerical Control for processing **marble slabs, granite, synthetic stone and ceramics**. This machine is the ideal solution for quickly and accurately performing any kind of edge contouring, rough or polished, milling, drilling, countersinking, bas-reliefs and lettering.

Worktable tooling is handled fully automatically by the machine and does not require any human intervention: this solution **significantly increases productivity while ensuring a small footprint**.

### KEY BUYER BENEFITS

- + **-71% human intervention:** the operator will no longer have to worry about worktable tooling times, which will be fully automatic and managed by the machine. In the free time gained, the operator can focus on other workshop activities.
- + **+26% productivity compared to a standard machine:** with the same amount of floor space occupied, the machine will no longer have to wait for the worktable to be tooled, since it will do so itself in a very fast and fully automatic manner.
- + **Ergonomics at the forefront:** the complete elimination of visible air/vacuum piping and the height of the worktable contribute to improved ergonomics for daily workpiece loading/unloading operations.
- + **Unsurpassed mechanics:** the strong structure of these machining centers ensures optimal stress absorption due to the machining, guaranteeing high precision over time. The base fixed directly to the ground, without the need for masonry work, increases the stability and the performance of the machine.
- + **Finishing without compromise:** tool wear control system that automatically adjusts tool position to ensure the highest quality finish.



# ACCESSORIES

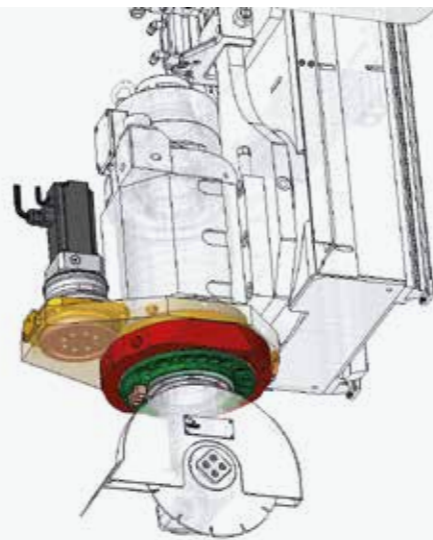


Front tank for processing water recirculation, complete with grated top to provide easy access for the operator.

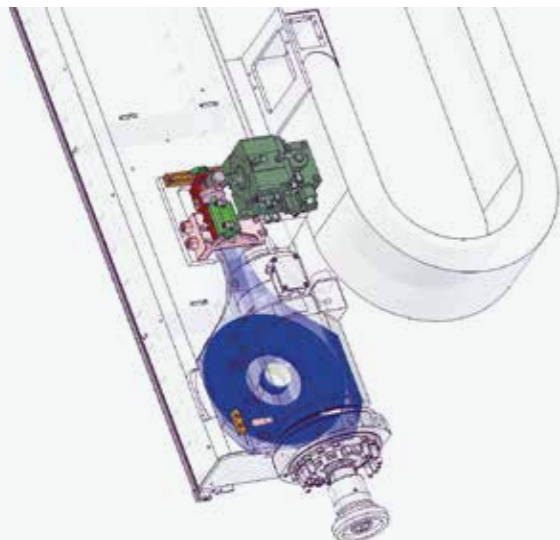


Thickness tester for capturing the actual thickness of the stone or ceramic slab to ensure the perfect execution of the piece.

Rotary Axis C (4th Axis), makes it possible to use the angular transmissions with their 360° continuous rotation around the Z axis and rapid speed at 9,000°/min.



Electrospindle cooling with refrigeration unit.



Tilting head in three positions for machining inclined drip pans for kitchen countertops. By tilting the working unit, it is possible to create sloping surfaces in both directions (left and right).



**LASER PROJECTOR FOR SUCTION CUP POSITIONING**  
By using the laser projector, suction cup placement time is greatly reduced. Thanks to this device, it is possible to equip the machine in masked time when working in pendular mode.

# ACCESSORIES

Laser presetting for automatic measurement of tool length and/or diameter; its use avoids manual setting operations and ensures very accurate control of tool wear.



Rotary axis for NC turning machining fixed to the worktable. The maximum machinable dimensions are Ø400 mm or Ø750 mm with maximum loadable weight of 700 Kg.



**UNDER-BEAM MAGAZINE:** 8-station tool magazine fixed under the machine beam, which can be used for grinding wheels, drill bits, writing and engraving tools for natural stone slabs, composites and ceramics.



90° angular transmission for cup grinding wheels.

## MAGNETIC MAGAZINE

Tool kit for cutting 90° sink hole and polishing its inner rib, complete with dedicated magazine.



90° cutting unit for vertical discs.





# BREMBANA SPEED SOFTWARE

## EASYSTONE

EasySTONE is a CAD/CAM software, customized on CMS Stone Technology machining centers, dedicated to the stone materials processing sector that enables full management of all aspects related to CNC machining.

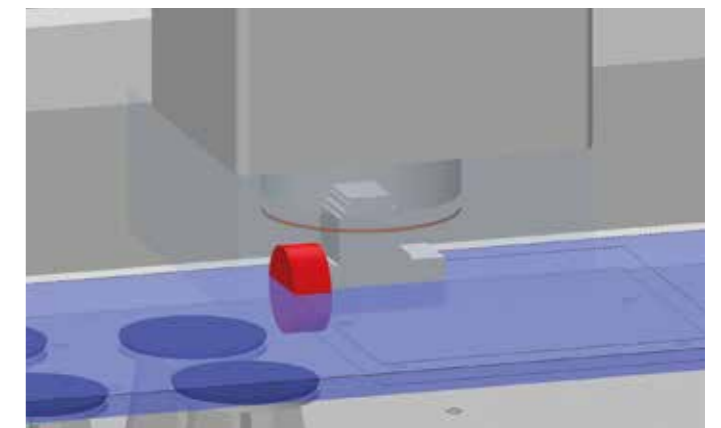
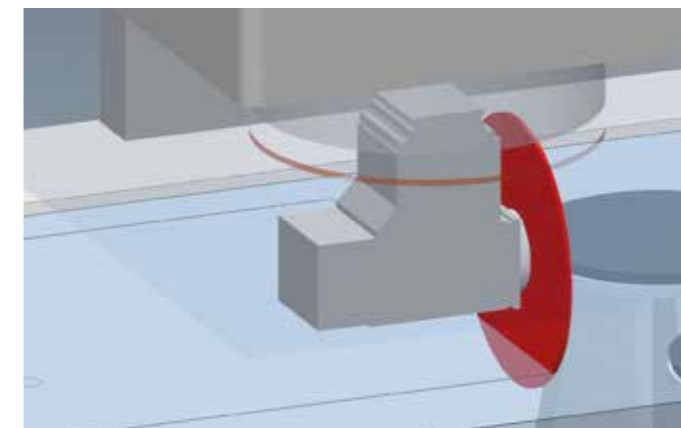
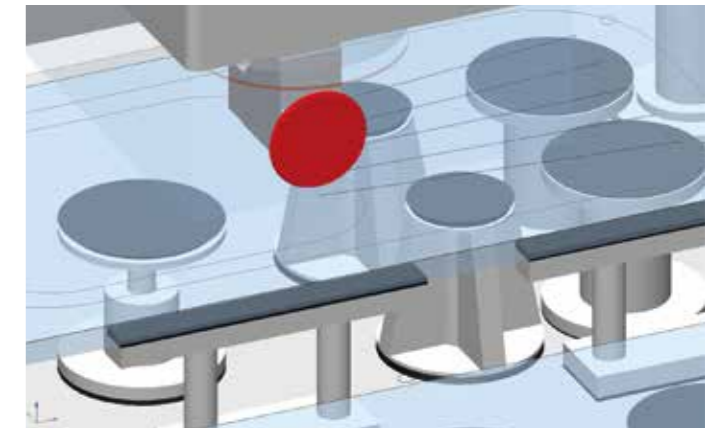
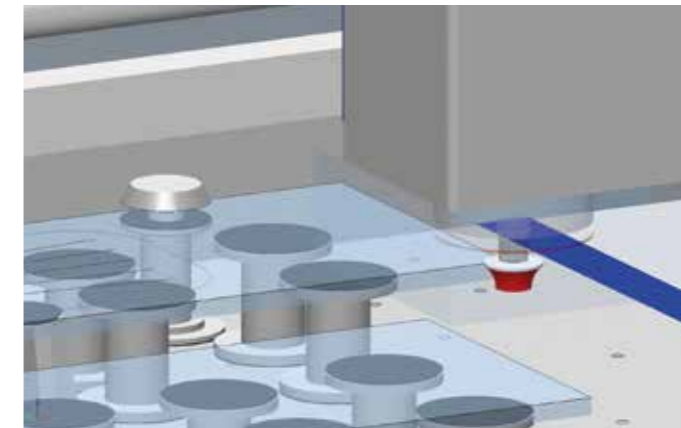
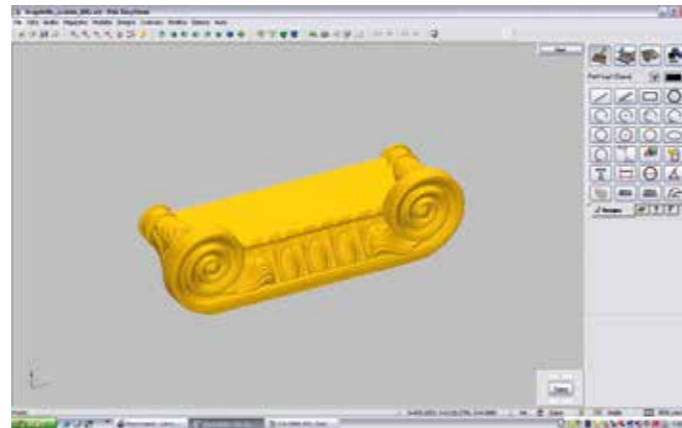
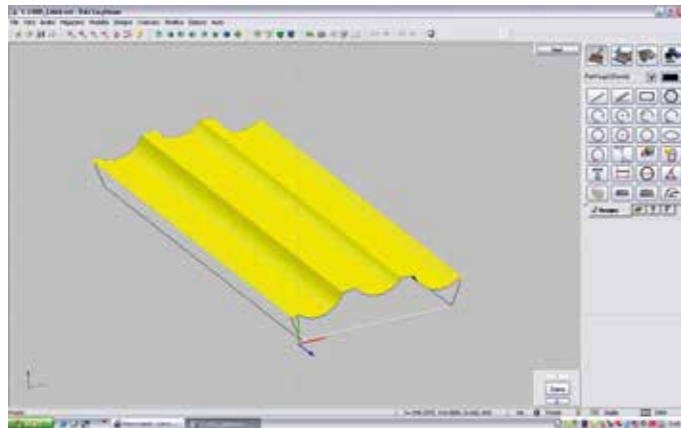
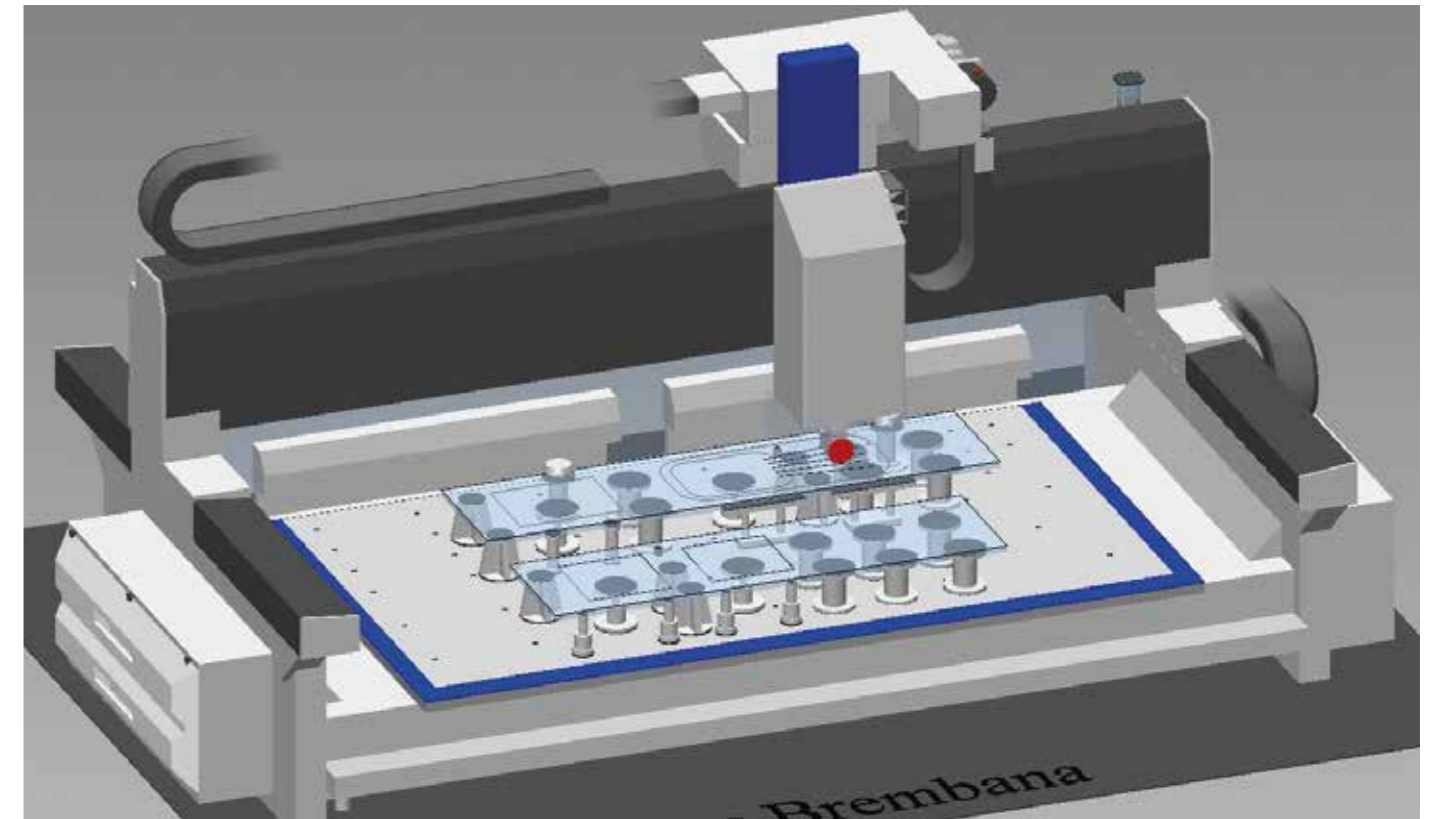
Available in different levels, it offers the following features:

- drawing and defining three-dimensional surfaces of bathroom tops, kitchen countertops, thick stone sinks, shower trays; contour shaping and sanding of drawn profiles, lettering for funerary art and decoration, cutting with discs mounted on angular transmissions of any type
- tool table management and automatic or manual tool change magazine
- guides the placement of suction cups via interactive graphic layout
- calculation of processing time and cost
- three-dimensional graphic simulation of the machining process

In addition to the above features, the following functions are available:

- laser projection of the suction cups to be placed or 2D profiles to be made
- acquisition of blank thickness variation and adjustment of subsequent processing
- tool measurement and requalification
- automatic and controlled management of polishing pressures
- acquisition of templates through probe tips
- Internet messaging to interface with the machine remotely

It is also possible to import complex surfaces copied/created with external equipment and CAD, or to acquire via laser copiers complex surfaces such as sculptural bas-reliefs.



# BREMBANA SPEED

## DIMENSIONS AND TECHNICAL INFORMATION

BREMBANA SPEED MB (MONOBLOC): TECHNICAL INFORMATION		
X AXIS TRAVEL	2,800 ÷ 3,800 mm	
Y AXIS TRAVEL	1,650 ÷ 7,200 mm	
Z AXIS TRAVEL	350 ÷ 900 mm	
ROTARY AXIS (OPTIONAL)	C = 360° continuous	
TOOL CHANGE STATIONS	12 ÷ 120	
ELECTROSPINDLE		
POWER	13.5 KW	30 KW
ROTATION	0 to 15,000 rpm	0 to 12,000 rpm
CONNECTION	ISO 40	ISO 40
TORQUE	22 Nm at 6,000 rpm	39 Nm at 6,000 rpm
ELECTRIC CABINET	Integrated with the base	
WEIGHT	4,300 to 15,000 Kg	
MINIMUM SPACE REQUIRED FOR INSTALLATION	6,320 x 3,480 x 2,740 mm *	

\* Larger sizes available upon request

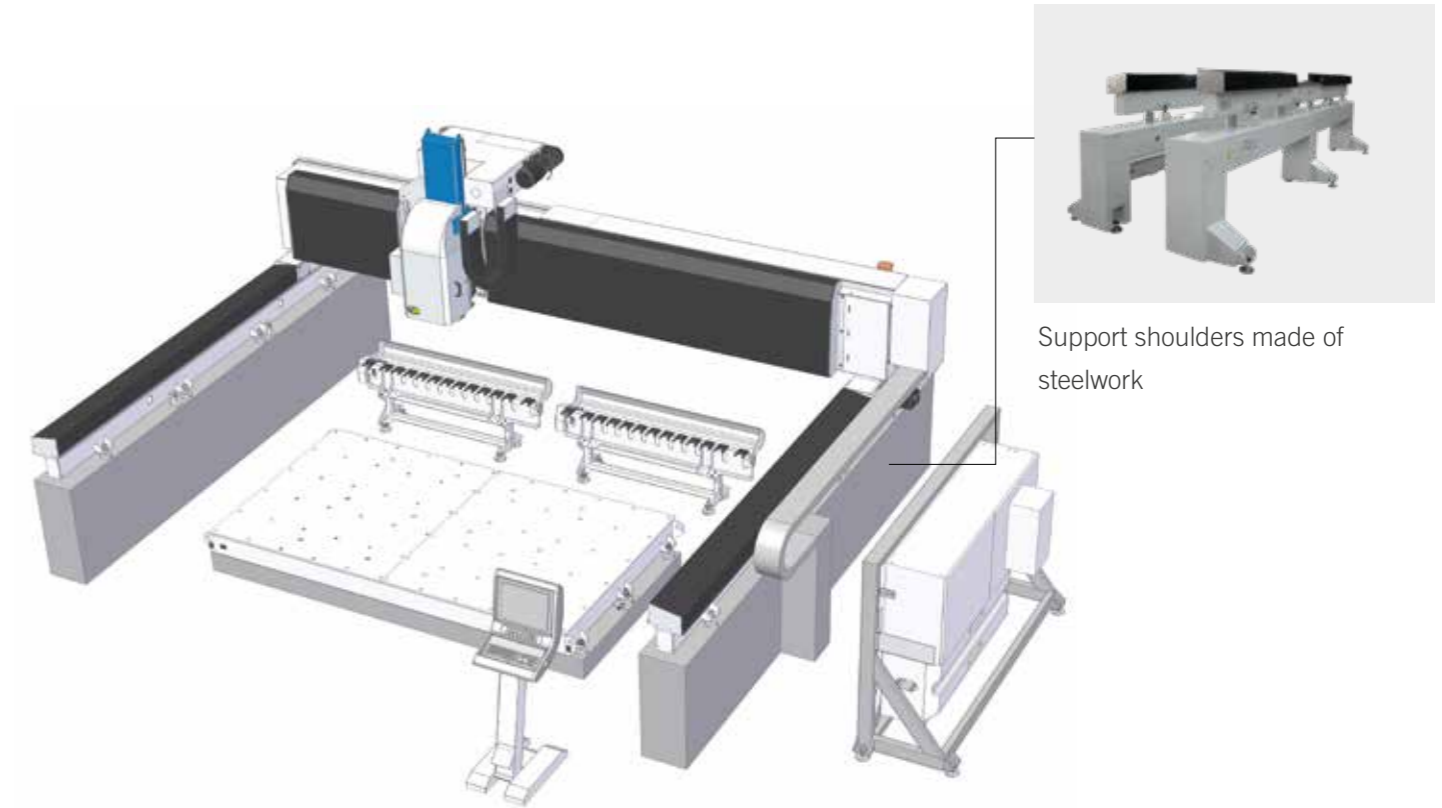
BREMBANA SPEED TR (ROTARY TABLE): TECHNICAL INFORMATION		
X AXIS TRAVEL	3,800 ÷ 4,250 mm	
Y AXIS TRAVEL	2,610 ÷ 4,550 mm	
Z AXIS TRAVEL	350 ÷ 900 mm	
ROTARY AXIS (OPTIONAL)	C = 360° continuous	
WORK AREA SIZE	3,600 x 1,700 mm / 3,800 x 1,600 mm	
TOOL CHANGE STATIONS	12 ÷ 120	
ELECTROSPINDLE		
POWER	13.5 KW	30 KW
ROTATION	0 to 15,000 rpm	0 to 12,000 rpm
CONNECTION	ISO 40	ISO 40
TORQUE	22 Nm at 6,000 rpm	39 Nm at 6,000 rpm
ELECTRIC CABINET	Integrated with the base	
WEIGHT	8,900 to 10,800 kg	
MINIMUM SPACE REQUIRED FOR INSTALLATION	6,320 x 7,060 x 2,740 mm *	

\* Larger sizes available upon request

# SPECIAL SOLUTIONS

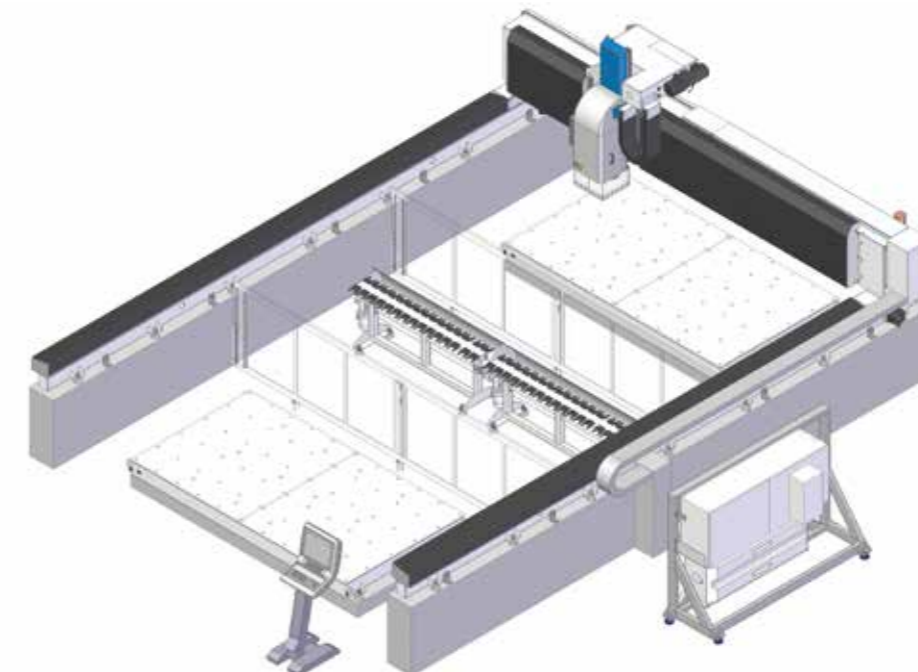
## BREMBANA SPEED OF

3- or 4-axis numerically controlled machining center with separate shoulder structure (Open Frame).



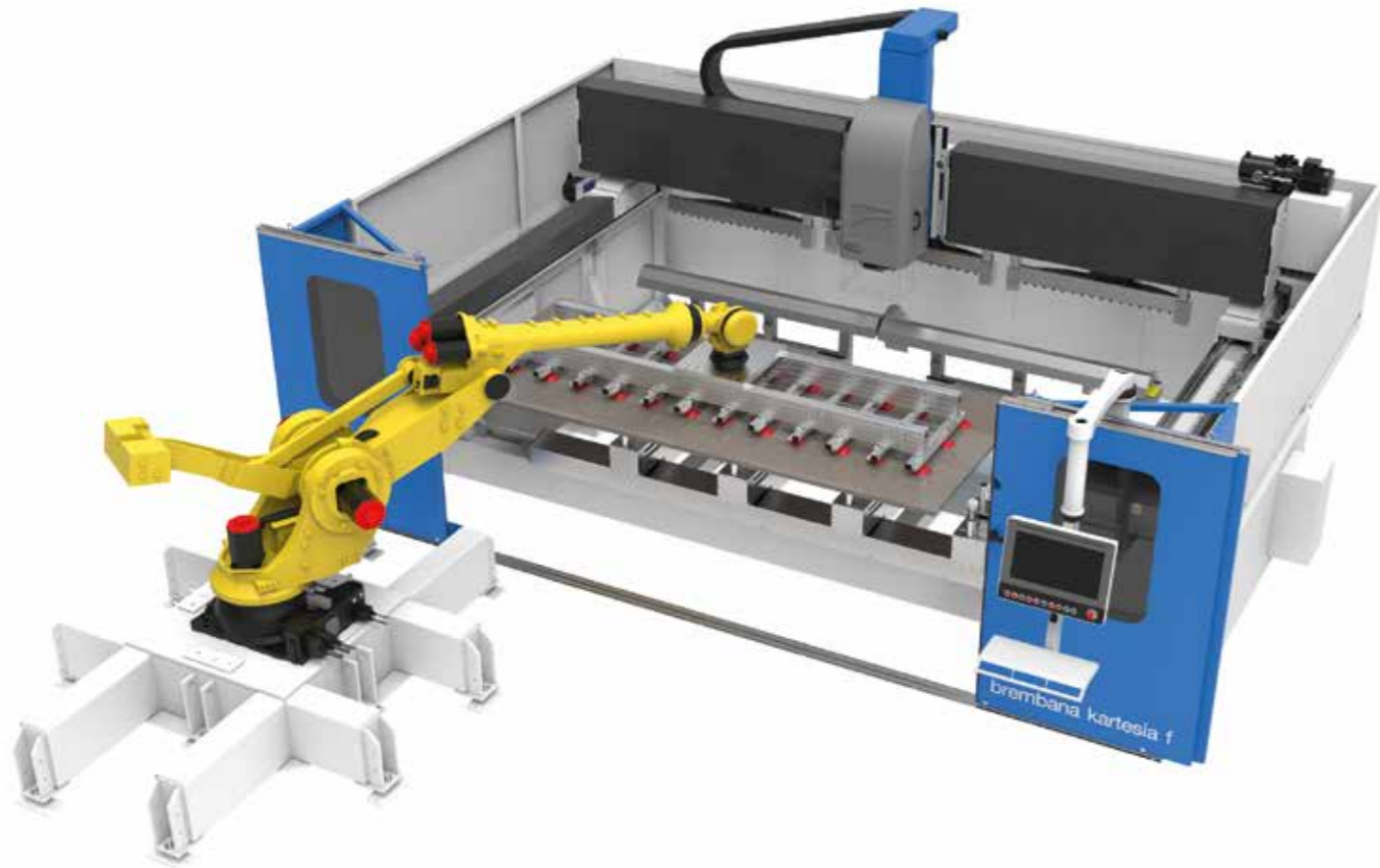
## BREMBANA SPEED OF

3- or 4-axis numerically controlled machining center with double worktable and separate shoulder structure for pendulum machining.



# BREMBANA KARTESIA F

## DIMENSIONS AND TECHNICAL INFORMATION



**BREMBANA KARTESIA F**  
Robotic solution for zero operator presence time

BREMBANA KARTESIA F: TECHNICAL INFORMATION	
X AXIS TRAVEL	3,800 mm
Y AXIS TRAVEL	2,300 mm
Z AXIS TRAVEL	520 mm
ROTARY AXIS (OPTIONAL)	C = 360° continuous
SUCTION CUP AND STOP KIT COMPOSITION ON THE WORKTABLE	The table can be equipped with 12 suction cups and 5 striker stops
MAXIMUM WORKPIECE	3,300 X 1,600 mm
TOOL CHANGE STATIONS	28 ÷ 52
ELECTROSPINDLE POWER ROTATION CONNECTION TORQUE	13.5 KW 0 to 15,000 rpm ISO 40 22 Nm at 6,000 rpm
ELECTRIC CABINET	Integrated with the base
WEIGHT	7,250 kg
MINIMUM SPACE REQUIRED FOR INSTALLATION	6,330 x 4,230 x 2,940 mm

# CMS connect is the IoT platform perfectly integrated with the latest-generation CMS machines

CMS Connect is able to offer customized micro services through the use of IoT apps that support the daily activities of industry operators, improving the availability and use of machines or systems. Real-time data collected by the machines become useful information **to increase machine productivity, reduce operational and maintenance costs and cut energy costs.**

## APPLICATIONS

**SMART MACHINE:** continuous monitoring of machine operation, with information on:

**Status:** machine status overview. It allows to check the machine availability, in order to identify potential bottlenecks in the production flow.

**Monitoring:** instantaneous, live display of the operation of the machine and its components, currently running programs and potentiometers.

**Production:** list of machine programs run within a given time frame with best time and average running time.

**Alarms:** active and historical warnings.

## SMART MAINTENANCE

This section provides a **first approach to predictive maintenance**, by sending notifications when the machine components report a potentially critical status associated with reaching a certain threshold. This way, it will be possible **to intervene and schedule maintenance interventions without stopping the production.**

## SMART MANAGEMENT

Section dedicated to KPI presentation for all the machines connected to the platform.

The indicators provided assess the availability, productivity and efficiency of the machine and the product quality.

## MAXIMUM SECURITY

Use of the standard OPC UA communication protocol, which guarantees the encryption of data at Edge interface level. Cloud and DataLake levels meet all the state-of-the-art cyber-security requirements. Customer data are encrypted and authenticated, to ensure total protection of sensitive information.

## ADVANTAGES

- ✓ Optimization of production performances
- ✓ Diagnostics to support the optimization of component warranty
- ✓ Productivity increase and downtime reduction
- ✓ Improvement of quality control
- ✓ Lower maintenance costs



# CMS Active a revolutionary interaction with your CMS machine

Cms Active is our new interface. The operator can easily manage different machines, as the CMS Active interface software maintain the same look&feel, icons and interaction approach.

## EASE OF USE

The new interface has been specially designed and optimized to be immediately used via touch screen. Graphics and icons have been redesigned for an easy and comfortable navigation.

## ADVANCED ORGANIZATION OF PRODUCTION

CMS Active makes it possible to configure different users with distinct roles and responsibilities according to the use of the machine (e.g.: operator, maintenance technician, administrator...).

It is also possible to define the work shifts on the machine and then survey activities, productivity and events that have occurred in each shift.

## ABSOLUTE QUALITY OF THE FINISHED WORKPIECE

With CMS Active, the quality of the finished workpiece is no longer jeopardized by worn-out tools. The new Tool Life Determination system of CMS Active sends warning messages when the tool life is running out and recommends its replacement at the most appropriate time.

## TOOL SET-UP? NO PROBLEM!

CMS Active guides the operator during the tool magazine set-up phase, also considering the programs to be run.



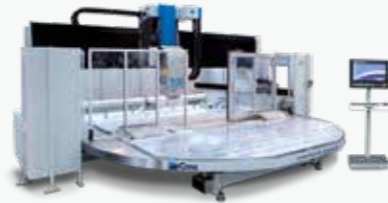
# THE RANGE OF CMS STONE TECHNOLOGY

# FOR STONE PROCESSING

## MACHINING CENTERS



**BREMBANA SPEED**



**BREMBANA SPEED TR**



**BREMBANA MAXIMA**



**BREMBANA KARTESIA**



**BREMBANA G-REX**

## 5-AXIS MILLING MACHINES AND COMBINED 5-AXIS MILLING MACHINES



**BREMBANA VENKON**



**BREMBANA KOSMOS**



**BREMBANA IMPACT**



**BREMBANA FORMAX**



**BREMBANA SPRINT**



**BREMBANA GIXA**

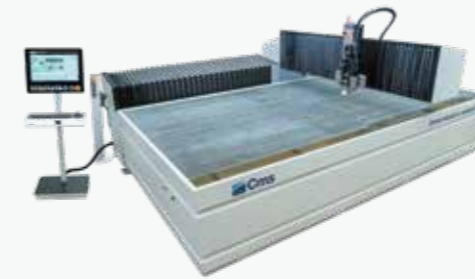


**BREMBANA KOSMOS JET**



**BREMBANA FORMAX JET / SPRINT JET**

## WATERJET CUTTING SYSTEMS



**BREMBANA EASYLINE**



**BREMBANA MILESTONE S**



**BREMBANA PROLINE**



**BREMBANA AQUATEC**

## PRESSURE INTENSIFIERS



**BREMBANA JET POWER EVO**



**BREMBANA GREENJET EVO**



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