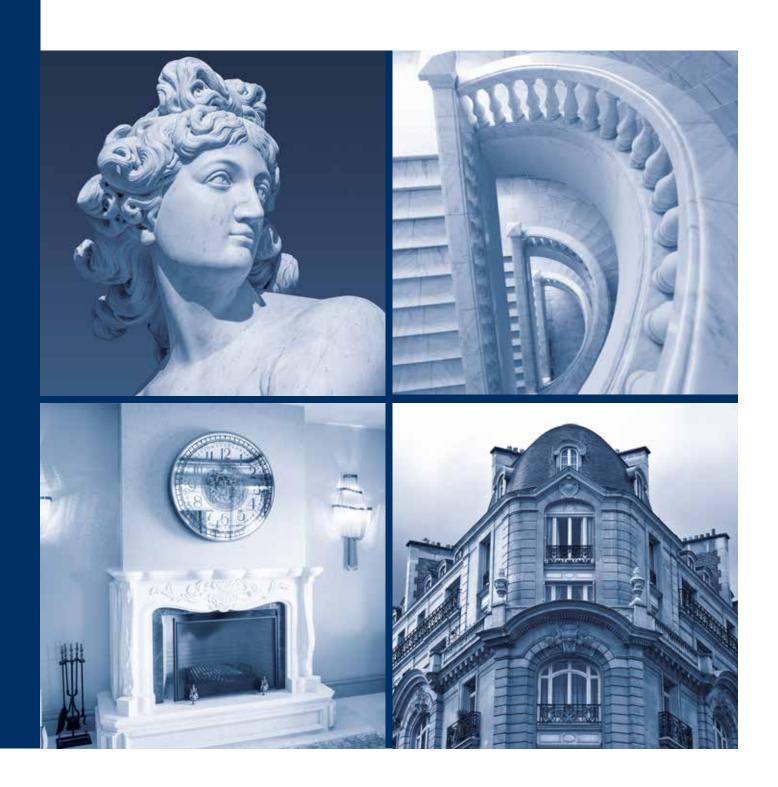
### brembana maxima / brembana g-rex

5 axes CNC machining centers





CMS is part of SCM Group, a technological world leader in processing a wide range of materials: wood, plastic, glass, stone, metal and composites. The Group companies, operating throughout the world, are reliable partners of leading manufacturing industries in various market sectors, including the furniture, construction, automotive, aerospace, ship-building and plastic processing industries. SCM Group coordinates, supports and develops a system of industrial excellence in 3 large highly specialized production centres employing more than 4,000 workers and operating in all 5 continents. SCM Group: the most advanced skills and know-how in the fields of industrial machinery and components.

CMS SpA manufactures machinery and systems for the machining of composite materials, carbon fibre, aluminium, light alloys, plastic, glass, stone and metals. It was established in 1969 by Mr Pietro Aceti with the aim of offering customized and state-of-the-art solutions, based on the in-depth understanding of the customer's production needs. Significant technological innovations, originating from substantial investments in research and development and take-overs of premium companies,



CMS Stone Technology realizes avant-garde solutions for the working of marble, natural stones and composite stones. Under the brand name Brembana Macchine, CMS Stone Technology was in the 80's the first manufacturer of a stone machining centre, thanks to an idea of its founder Mr Pietro Aceti. CMS Stone Technology has always been a reliable technological partner in designing unique solutions, for any need, in the world of building, architecture, interior and exterior decoration and wherever the use of stone and marble products is required.

### scmegroup industrial machinery and components



# have enabled constant growth in the various sectors of reference.

### brembana maxima / brembana g-rex

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### **APPLICATIONS**



### BREMBANA MAXIMA OF TECHNOLOGICAL BENEFITS



#### 5/6 INTERPOLATED AXES MACHINING CENTER

CMS brembana maxima is the new generation of 5-axis CNC machining center. It's ideal solution for stone fabrication workshops looking to invest in a machining center able to perform from cutting to routing to sculpturing.

Superior mechanical structure, removable cutting surface, automatic tool change, the most advanced software, awesome design: Go all-in-one with brembana maxima!

- A rational and essential open frame construction for maximum accessibility and integration in automated production lines
- Built for durability and productivity, without sacrificing precision in any job
- Automatic tool change ISO 40
- The most updated version of on-board software to make any operator feel at ease and in control of the machine.

### **KEY BUYER BENEFITS**

- + **Power at the top of the category:** new Hiteco electrospindle with 37.5Hp and 119Nm, for heavy duty machinings from cutting to milling.
- + Unrivalled mechanics: the sturdy structure of the machining center ensures optimal absorption of the stresses derived from machining, guaranteeing a high constant precision over time.
- + Maximum flexibility: ability to execute complete programs, from slabs to finished products, in a single machine footprint
- + Automatic tool wear control system and cutting speed control system, to guarantee best productivity and top quality finishing







### BREMBANA MAXIMA ACCESSORIES

New Hiteco ELECTROSPINDLE with 37.5hp and 119nm, for heavy duty machinings from cutting to milling.





AUTOMATIC TOOL CHANGE ISO 40 that can manage:

- Blades from 300mm up to 725mm in diameter
- Polishing tools
- Routers or bits requiring up to 12.000rpm
- Gearboxes for finishing sink cutouts and drainboards runnels
- Profile tools for edge works

Various options of tool cribs, from 19 to 55 stations and up to 2 blade stations





VACUUM MANIPULATOR for handling parts with a maximum weight of 500 kg.

#### ADVANTAGES:

- Easy to use, even for inexperienced operators
- Significant reduction in cycle times
- Fully automatic operation
- Option for manual mode to assist the operator during the unloading

Removable rubber cutting surface





SLAB THICKNESS PROBE for automatic detection of stone or ceramic piece thickness

90° gearbox with automatic tool change





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.

REDRESSING STATION FOR BLADES that is activated by a specific funtion on the operator panel.



### BREMBANA G-REX TECHNOLOGICAL BENEFITS



#### 5/6 INTERPOLATED AXES MACHINING CENTER

Brembana g-rex is a Numerically Controlled Machining Center with five/six interpolated axes suitable for processing both slabs and blocks even with high thickness in marble, granite, composite stone, and ceramic. It can perform each type of raw and polished contouring, as well as milling, drilling, countersinking, bas relief, writing, and blade working. The machine can be customized to the customer's needs and it is especially designed for fabshops involved in architectural projects and the building industry in general.

### **KEY BUYER BENEFITS**

- + +43% stiffness on rotary axes: Pneumatic brakes on B and C axes, guarantee maximum stiffness to achiee superior performance and quality.
- **Quality without compromise:** Tool wear control system, which enables the automatic adjustment of the tool position, ensures top quality finishing.
- + Maximum freedom for your projects: Z-axis stroke up to 2000 mm for ultra-thick workpiece machining.
- + **The best solution for block machining:** Its extraordinary stability allows to install disks with a diameter up to 1.200 mm.





Z-axis up to 2.000 to work very high tickness pieces.

### BREMBANA G-REX ACCESSORIES

Tool laser presetter for the automatic measuring of tools diameter and/or length; the use of this tool avoids manual setting operations and ensures a better control of tools' wear.



Digital camera fully equipped with protection box for automatic slab acquisition.





Diam 300 mm Frankfurt plates for natural stone surface treatment.



Vacuum manipulator with maximum loading up to 1.000 kg. It guarantees the movement of pieces with greater thinkness.





Suction cups h 100 or 200 mm.





Wide range of tables available: fixed or tilting, with working plane in wood, rubber and aluminum.

### BREMBANA G-REX ACCESSORIES

Wide range of lathes to satisfy every need: diam 700 mm - 700 kg / diam 1.200 mm - 5.000 kg /diam 1.500 mm - 10.000 kg Unità pulizia lastra e piano di lavoro Slab and work table cleaning unit Misuratore.



Slab and work table cleaning unit.



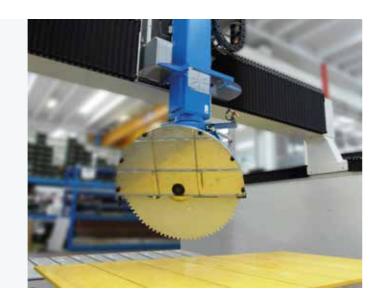


Steel supports.



5-axis head with a study fork able to support a powerful electrospindle with ISO 50 attack and power up to 23 kW.





Blade diameter presetter.



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### **BREMBANA MAXIMA** SOFTWARE

#### **SOFTWARE: CMS ACTIVE with SMARTSAW**

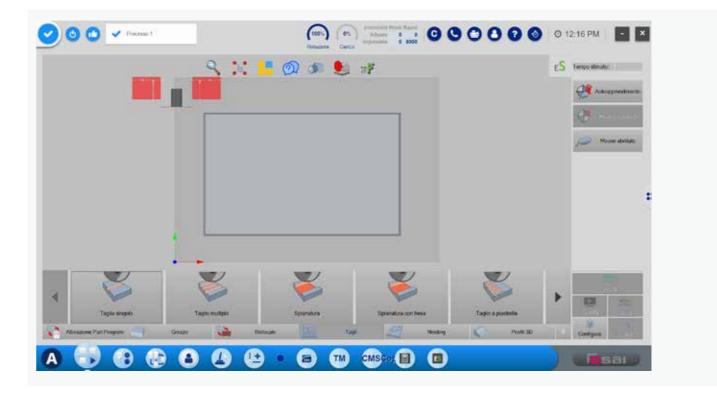
The ACTIVE software developed by CMS has been integrated with the powerful parametric CAD/CAM SMARTSAW, with the aim of managing all typical industry processes more easily and intuitively.

- Linear (vertical or inclined) and parametric cuts
- Drilling and profiling
- Kitchen countertops production with internal edge managment with finger bits or core drills.
- Import of DXF files created with external CAD
- Manual drawing throught native CAD
- Manual nesting
- 3D profiling, linear or curved
- 3D simulation
- Brushing by backing pad with Frankfurt inserts
- Engraving / Writing (optional)

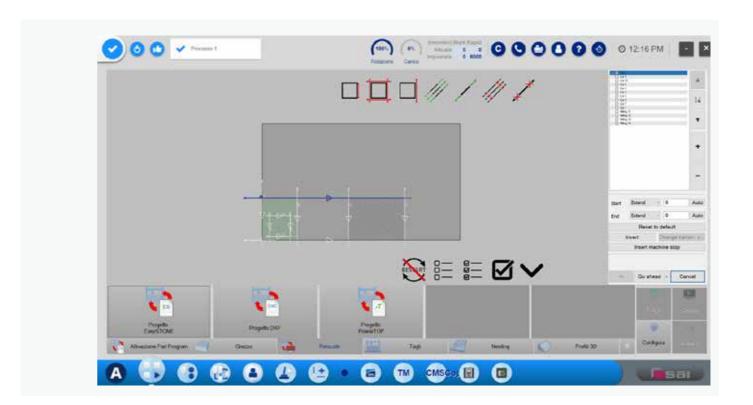
The machine can be managed either manually or automatically, using the parametric programs offered by the software and the laser projector supplied as standard with the machine.

The machine can be combined with an automatic system for the slab image acquisition, to allow pieces nesting directly on the slab.

The presence of the manipulator allows the software to optimize the cuts sequence to minimize the working scraps and the operator intervention.







### BREMBANA MAXIMA / G-REX SOFTWARE

#### **EASYSTONE PREMIUM**

EasySTONE Premium is a CAD/CAM software package, especially adapted to CMS Stone Technology machining centers and dedicated to the stone industry; it enables 360° management of all 5-axismachining related aspects.

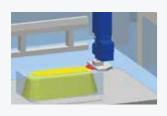
The software carries out the following functions:

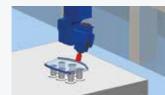
- Design and definition of three-dimensional space-oriented surfaces, countertops, ultra-thick sinks, shower trays; shaping and smoothing of custom profiles, inscriptions for the funerary art and decoration and disk cutting
- Management of tool table and automatic or manual tool change magazine
- Shaping and polishing of three-dimensional convex/concave sections
- Calculation of machining times and costs
- Polished beveling with variable angle and width
- Three-dimensional graphic simulation of the machining process

The basic operating performance of Easystone Premium can be integrated by the following functions:

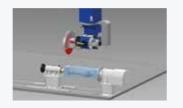
- Lathe machining management: milling of stationary or continuouslyrotating workpieces and interpolated milling of rotating workpieces
- Management of the machine as a "bridge saw" by means of joystick and CMS-SAW software interface; manual template copying with TEACH-IN key from remote keyboards
- Camera managment for slab image acquisition
- Collision check during graphic simulation
- Dynamic cutting management, with automatic adjustment of disk feed speed based on electrospindle load
- Internet messaging for remote interfacing with the machining center

It is also possible to import complex copied/designed surfaces by means of external devices and CAD programs, or to acquire via laser copiers complex surfaces like basreliefs or sculptures, both clamped to the bench and turned by the lathe.



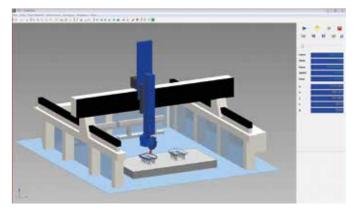






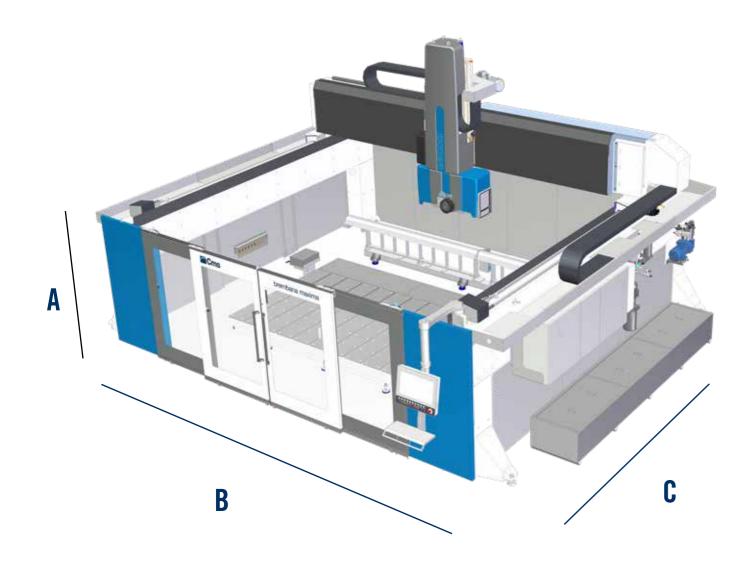








## BREMBANA MAXIMA OF DIMENSIONS & TECHNICAL DATA



WORKING PLANES				
TYPE OF WORKBENCH	FIXED ALUMINIUM WITH / WITHOUT SLOTS	TILTING ALUMINIUM WITH SLOTS	REMOVABLE WORKBENCH	FIXED / TILTING WITH RUBBER WORKTOP
DIMENSIONS	3600 x 2000 mm	3600 x 2000 mm	3600 x 2000 mm	3600 x 2000 mm 4200 x 2000 mm

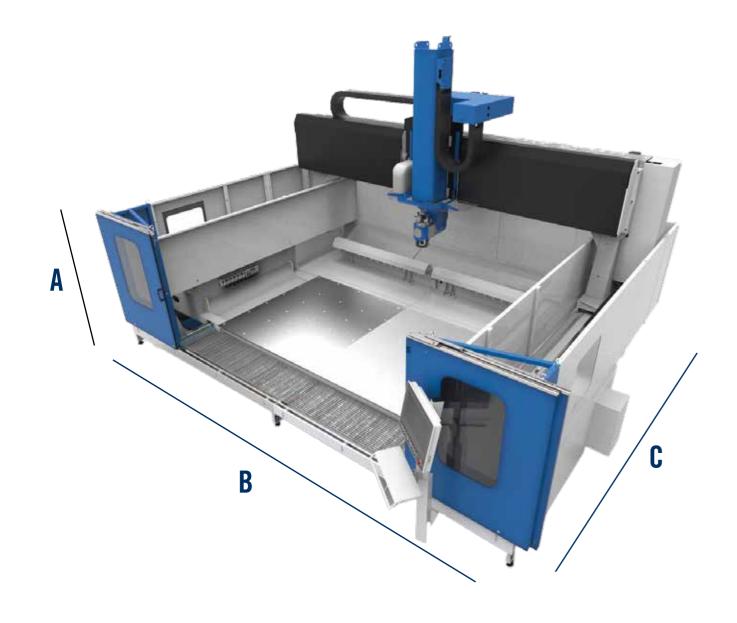
LATHES						
DIAMETER	700 mm	1200 mm	1500 mm			
WEIGHT	700 kg	5000 kg	10000 kg			
MAX WORKING LENGHT	2500 mm	3900 mm	3800 mm			

BREMBANA MAXIMA OPEN FRAME							
Z AXES STROKE	900 mm	1400 mm					
A	3770 mm	4850 mm					
X AXES STROKE	4250 mm						
В	8380 mm						
Y AXES STROKE	2550 mm	3550 mm	3850 mm	4800 mm	8500 mm		
С	5510 mm	6310 mm	6810 mm	7810 mm	12755 mm		

BREMBANA MAXIMA OF : TECHNICAL DATA						
ROTATING AXES	В	+0° / -95°				
NOTATING AXES	С	±185°				
N. STATIONS TOOL CHANGER	19 ÷ 55 + max 2 stations for blade Diam. max 725 mm					
	Power	28 KW				
ELECTROSPINDLE	Revolution	0÷12000 rpm				
ELECTROSFINDLE	Connection	ISO 40				
	Torque	119 Nm a 2200 rpm				
ELECTRICAL CABINET	Open Frame	Fixed on the right shoulder				

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## BREMBANA MAXIMA MB DIMENSIONS & TECHNICAL DATA



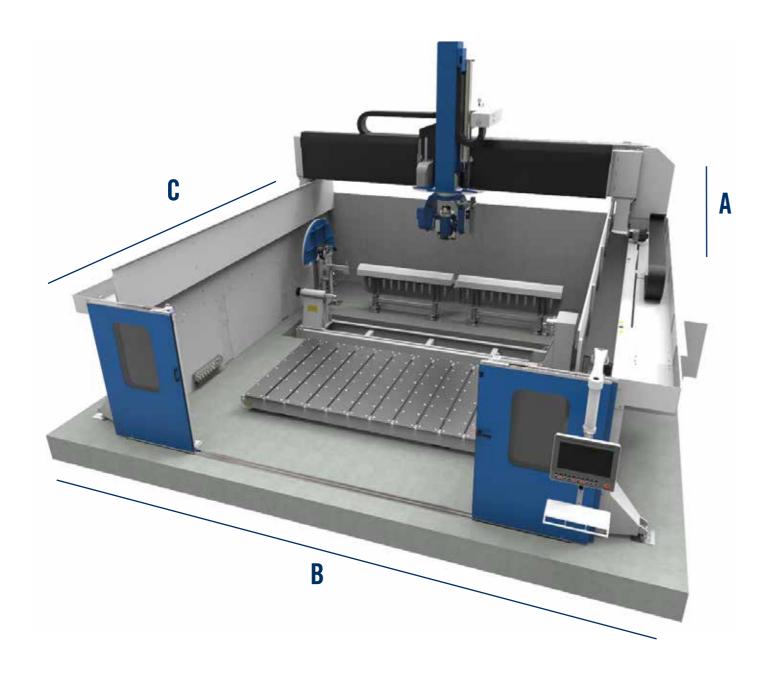
WORKING PLANES				
TYPE OF WORKBENCH	FIXED ALUMINIUM WITH / WITHOUT SLOTS	TILTING ALUMINIUM WITH SLOTS	REMOVABLE WORKBENCH	FIXED / TILTING WITH RUBBER WORKTOP
DIMENSIONS	3600 x 2000 mm	-	-	-

LATHES			
DIAMETER	700 mm		
WEIGHT	700 kg		
MAX WORKING LENGHT	2500 mm		

BREMBANA MAXIMA MB (MONOBLOCK)						
Z AXIS STROKE	460 mm	460 mm 900 mm				
А	2950 mm					
X AXIS STROKE	3800 mm					
В	6320 mm					
Y AXIS STROKE	2400 mm	3050 mm	4400 mm			
С	4320 mm	5100 mm	6310 mm			

BREMBANA MAXIMA MB : TECHNICAL DATA						
ROTATING AXES	В	±100°				
HOTATING AALO	С	±270° (540°)				
NO. STATIONS TOOL CHANGER	26÷180 + 1 for blade ø 500 mm					
	Power	13,5 KW	30 KW			
ELECTROSPINDLE	Revolution	0÷15000 rpm	0÷12000 rpm			
ELECTROSFINDLE	Connection	ISO 40	ISO 40			
	Torque	22 Nm a 6000 rpm 39 Nm a 6000 i				
ELECTRICAL CABINET	Monoblock	Integrated in the frame				

## BREMBANA G-REX DIMENSIONS & TECHNICAL DATA



WORKING PLA	WORKING PLANES						
TYPE OF WORKBENCH	FIXED ALUMINIUM WITH / WITHOUT SLOTS	TILTING ALUMINIUM WITH SLOTS	REMOVABLE WORKBENCH	FIXED / TILTING WITH RUBBER WORKTOP			
DIMENSIONS	3600 x 2000 mm	3600 x 2000 mm	3600 x 2000 mm	3600 x 2000 mm 4200 x 2000 mm			

LATHES						
DIAMETER	700 mm	1200 mm	1500 mm			
WEIGHT	700 kg	5000 kg	10000 kg			
MAX MACHINABLE LENGHT	2500 mm	3900 mm	3800 mm			

BREMBANA G-REX	OPEN FRAME				
Z AXES STROKE					
Z AXES STROKE	900 mm	1400 mm	2000 mm		
Α	4050 mm	4930 mm	6190 mm		
X AXES STROKE					
X AXES STROKE	3800 mm	4250 mm			
В	6560 mm	7700 mm			
Y AXES STROKE					
Y AXES STROKE	3000 mm	4350 mm	5000 mm	7000 mm	 18500 mm
С	5360 mm	6710 mm	7360 mm	9360 mm	22590 mm

BREMBANA G-REX TECHNICAL DATA			
ROTATING AXES	В	±100°	
	С	±270° (540°)	
N. STATIONS TOOL CHANGER	11 ÷ ∞ (multiple of 11) + blade holders		
MAX BLADE DIAMETER	1200mm		
ELECTROSPINDLE	Power	13 KW	23 KW
	Revolution	0÷8000 rpm	0÷8000 rpm
	Connection	ISO 50	ISO 50
	Torque	120 Nm a 1000 rpm	220 Nm a 1000 rpm
ELECTRICAL CABINET	Open Frame	Fixed on right shoulder	

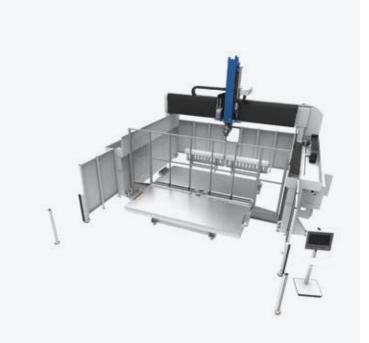
### BREMBANA MAXIMA / G-REX

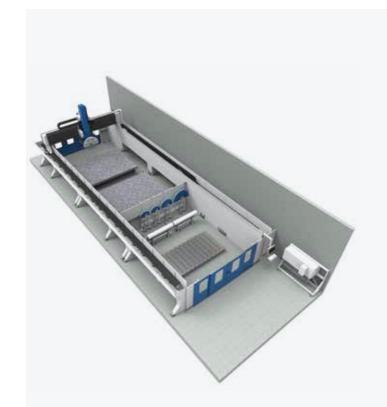
**SPECIAL SOLUTIONS** 

Electrospindle with hsk attach and customized covers to meet all the customers' needs.

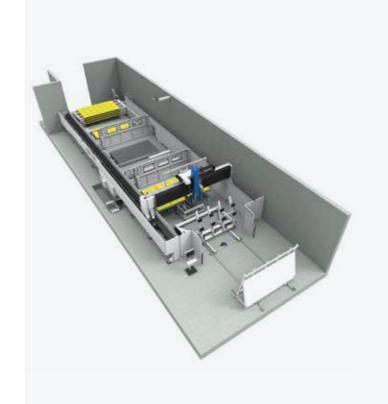


Rotating table: it eases loading and unloading operations. This is the ideal machine for a customer that is looking for high productivity.





Solution to work in pendular cycle: the front area works as a cnc center and the back area works as a bridge saw, with automatic stations for tools and disks change.



Solution for an integrated line to work slabs equipped as follows: automatic loading, cutting area, contouring area and storage

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

CMS Connect is able to offer customised 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. The platform displays, analyses and monitors all data from connected machines. The data collected by the machines in real time become useful information increase machine productivity, reduce operating and maintenance costs and cut energy costs.

### **CMS active** a revolutionary interaction with your CMS machine

Cms active is our new interface. The same operator can easily control different machines as the "CMS Active interfaces maintain the same look&feel, icons and iteration approach.



#### **APPLICATIONS**

**SMART MACHINE:** Section designed for the continuous monitoring of machine operation, with information on:

Status: machine status overviews. The representations provided allow machine availability to be checked - to identify possible bottlenecks in the production flow;

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

Production: list of machine programs run within a given timeframe 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 machine components indicate a potentially critical state associated with reaching a certain threshold. In this way, it is possible to take action and schedule maintenance ser- vices, without any down-time.

#### **SMART MANAGEMENT**

Section designed for KPI presentation for all the machines connected to the platform. The indicators provided assess of the availability, productivity and. The indicators provided assess of the availability, productivity and efficiency of the machine and the quality of the product.

#### **MAXIMISED SECURITY**

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

#### **ADVANTAGES**

- ✓ Optimisation of production performance
- ✓ Diagnostics to support components warranty optimisation
- ✓ Productivity increase and downtime reduction
- ✓ Improvement of quality control
- ✓ Maintenance costs down

#### **EASY OF USE**

The new interface has been especially developed and optimized to be immediately used via touch screen. Graphics and icons have been redesigned for user-friendly and comfortable navigation.

#### ADVANCED ORGANIZATION OF PRODUCTION

Cms Active enables configuring different users with different roles and responsibilities according to the operation mode of the machining centre (e.g.: operator, maintainance man, administrator, ...).

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

#### ABSOLUTE QUALITY OF THE FINISHED WORKPIECE

With CMS aActive 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 allowing for the programs to be run.

## THE RANGE OF CMS STONE TECHNOLOGY

## FOR STONE PROCESSING

# **5-AXES BRIDGE SAWS BREMBANA KOSMOS BREMBANA KRATOS BREMBANA SPRINT BREMBANA GIXA SAW-JET MACHINES**

**BREMBANA SPRINT JET** 



**BREMBANA KOSMOS JET** 

