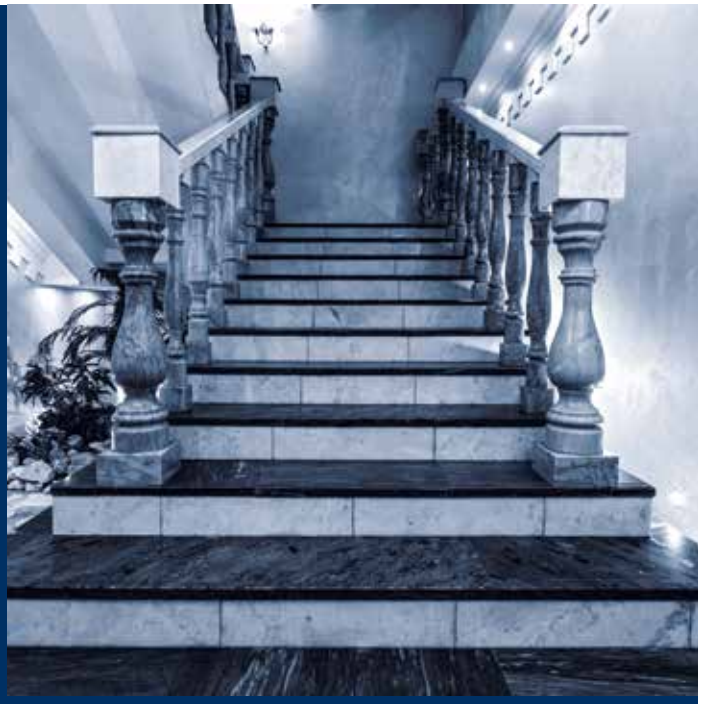
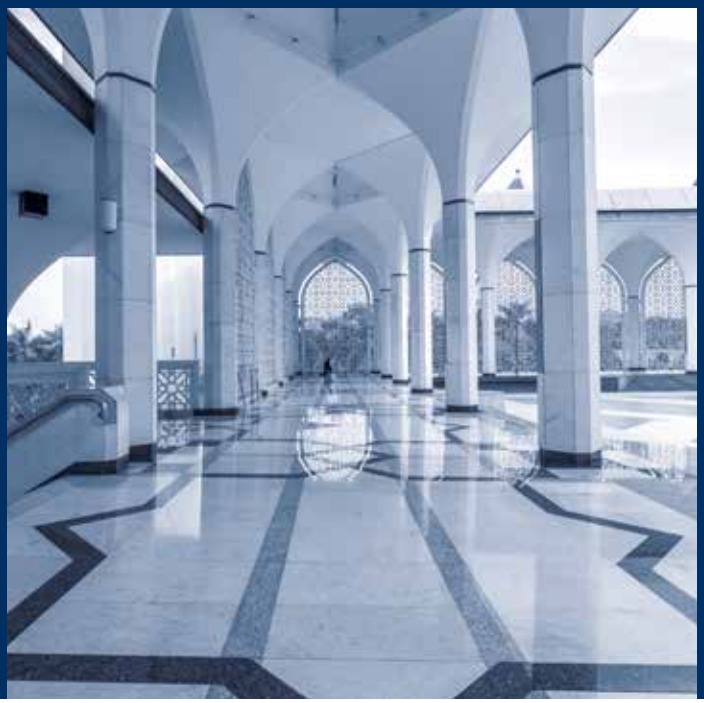
STONE

brembana formax | brembana sprint | brembana gixa

5 axes bridge saws





Cms
stone technology

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

Cms
stone technology

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.

scm group
Industrial Machinery and Components

Cms | your technology partner

brembana formax | brembana sprint | brembana gixa

a company of scm group

APPLICATIONS




furniture | countertops | inlays and mosaics | doorsteps, staircases and thresholds



funerary art | street furniture | architectural and dimensional stonework




Strong.

Modern.

Adaptable.

Reliable.

Technological solutions.

SMART machines for you production needs.

5 axes bridge saws

BREMBANA FORMAX
TECHNOLOGICAL BENEFITS

LEARN MORE

5-AXIS BRIDGE SAW
Brembana formax is a numerically controlled 5 interpolated-axis bridge saw equipped with a tilting head and fixed table. It can carry out any type of machining, cutting (straight or shaped, vertical or inclined), 3D profiling, and milling operations on marble, granite, composite stone and ceramic as well as stone blocks.
This machine can be customized to the customer's needs, it is the winning solution for every fabshop:

- kitchen countertops
- vanity tops
- wall panels for interiors and exteriors
- flooring
- doorsteps, staircases and thresholds
- street furniture

KEY BUYER BENEFITS

+ **Unrivalled mechanics:** Open frame version, to install on concrete or carpentry shoulders guaranteeing stability and rigidity to accomplish the most difficult processing and to ensure long longevity.
+ **Motion accuracy:** As a guarantee of quality all movements are powered by brushless motors coupled with a precision reduction gear and transmitted through a rectified and tempered guides and ball bearings.
+ **Limitless technology:** The machine can be equipped with a powerful ISO 50 electrospindle which, together with the interpolated-axis, transforms the machine into a modern and complete 5-axis machining center.
+ **+33% productivity without manual movements:** Thanks to the vacuum manipulator, it is possible to automatically move the cut pieces to optimize slab cutting and reduce waste processing.

BREMBANA SPRINT
TECHNOLOGICAL BENEFITS

LEARN MORE

CNC 5-AXIS BRIDGE SAW
Numerically Controlled 5 interpolated-axis bridge saw equipped with tilting head and fixed table to carry out any type of machining, cutting (straight or shaped, vertical or inclined), 3D profiling and milling operations, on slabs and stone blocks. The machine can work one shot or step by step to shape marble, granite, composite stone, and ceramic pieces. The 4.250 mm stroke of the bridge guarantees an easy machining of large sized slabs or stone blocks.
This machine can be very customized, it is the best solution for large sized fabshops with high production of:

- kitchen countertops
- vanity tops
- wall panels for interiors and exteriors
- flooring
- doorsteps, staircases and thresholds
- street furniture

KEY BUYER BENEFITS

+ **Unrivalled mechanics:** Open frame version, to install on concrete or carpentry shoulders guaranteeing stability and rigidity to accomplish the most difficult processing and to ensure long longevity.
+ **Motion accuracy:** As a guarantee of quality all movements are powered by brushless motors coupled with a precision reduction gear and transmitted through a rectified and tempered guides and ball bearings.
+ **Limitless technology:** The machine can be equipped with a powerful ISO 50 electrospindle which, together with the 5 interpolated-axis, transforms the machine into a modern and complete 5-axis machining center.
+ **+33% productivity without manual movements:** Thanks to the vacuum manipulator, it is possible to automatically move the cut pieces to optimize the slab cutting and reduce waste processing.

BREMBANA GIXA
TECHNOLOGICAL BENEFITS

LEARN MORE

LARGE SIZED 5-AXIS CNC BRIDGE SAW
Numerically controlled 5 interpolated-axis bridge saw equipped with tilting head and fixed table to carry out any type of machining, cutting (straight or shaped, vertical or inclined), 3D profiling and milling operations, on slabs and stone blocks.
The machine can work one shot or step by step to shape marble, granite, composite stone and ceramic pieces. The 4.250 mm stroke of the bridge guarantees an easy machining of large sized slabs or stone blocks. Its extraordinary stability allows to reach a Z-stroke of 1.400 mm with disks with a diameter up to 1.200 mm; representing industry leading features.

KEY BUYER BENEFITS

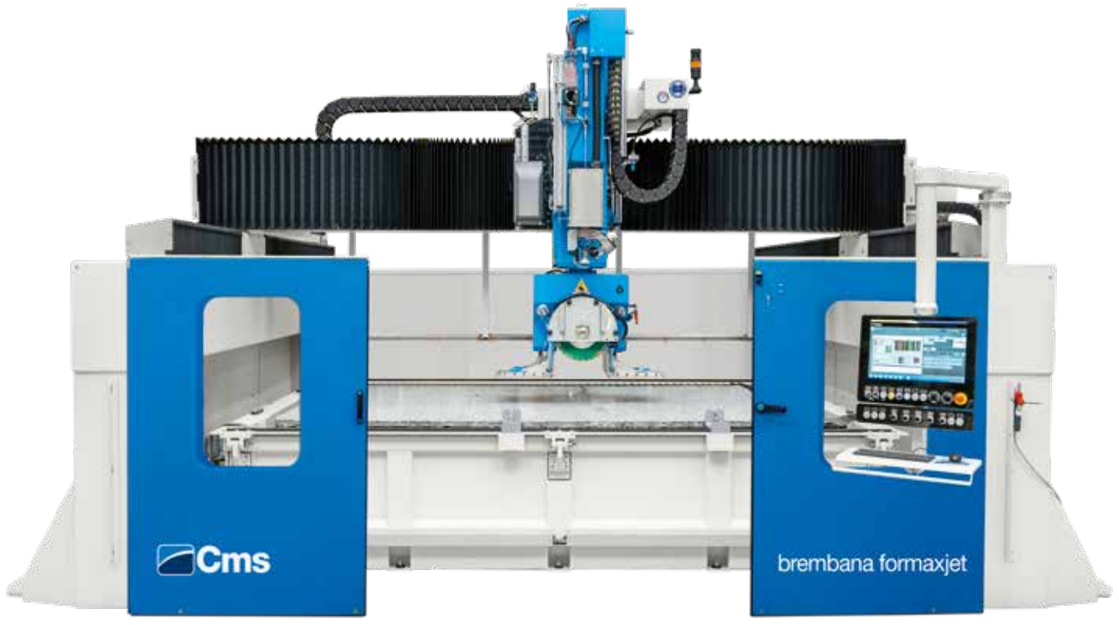
+ **Unrivalled mechanics:** Open frame version, to install on concrete or carpentry shoulders guaranteeing stability and rigidity to accomplish the most difficult processing and to ensure long longevity.
+ **Motion accuracy:** As a guarantee of quality all movements are powered by brushless motors coupled with a precision reduction gear and transmitted through a rectified and tempered guides and ball bearings.
+ **Limitless technology:** The machine can be equipped with a powerful ISO 50 electrospindle which, together with the 5 interpolated-axis, transforms the machine into a modern and complete 5-axis machining center.
+ **The best solution for block machining:** Its extraordinary stability allows to reach a Z-stroke of 1.400 mm with disks with a diameter up to 1.200 mm; representing industry leading features.

SAW JET MACHINES
TECHNOLOGICAL BENEFITS

The CMS Saw jets machines are Numerically Controlled 5 interpolated-axis bridge saw equipped with a tilting head and fixed table. They can carry out any type of machining, cutting (straight or shaped, vertical or inclined), 3D profiling and milling operations on marble, granite, composite stone and ceramic as well as stone blocks.
Those machines are equipped with an abrasive waterjet cutting head that, working in combination with the diamond disk, enables automating natural and composite stone slab cutting operations when interfering cuts and internal angles are the factor. The AWJ head, integral with the main head, allows variable and small radius cutting, which would be impossible with just the diamond disk.
Saw jet machines can be customized to the customer needs, it is the winning solution for every fabshop.

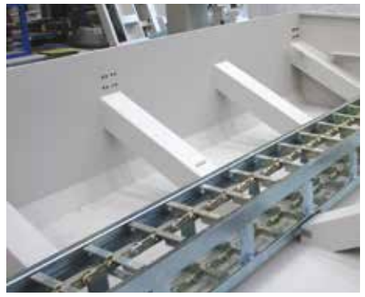
KEY BUYER BENEFITS

+ **Unrivalled mechanics:** Open frame version, to install on concrete or carpentry shoulders guaranteeing stability and rigidity to accomplish the most difficult processing and to ensure long longevity**.**
+ **Easy maintenance: 93% less cost for exhausted abrasive removal:** The catch tank with special anti-rust ceramic painting is designed to fit the new Evo4 chain dredge for exhausted abrasive removal even later after installation, with 93% less maintenance costs.
+ **Limitless technology:** 5-axis cutting head with IKC technology. Effective head motion to carry out perfect miter cutting through the cut conicity and deflection control.
+ **+33% productivity without manual movements:** Thanks to the vacuum manipulator, it is possible to automatically move the cut pieces to optimize slab cutting and reduce waste processing.



SAW JET MACHINE ACCESSORIES

LEARN MORE



Dredging system for “no maintenance” abrasive removal. The removal system inside the tank is protected both by baskets for collecting scraps and by a metal cage. The tank is ready to install a dredge system for the abrasive removal

5-axis cutting head with IKC technology - Intelligent Kerf Compensation -. Effective head motion to carry out bevel cutting and control the cut conicity.

Tilting table to ease the vertical loading of the slabs

Electronic hopper that automatically controls the abrasive flow. If the abrasive flow is interrupted for any reason, the system will automatically stop cutting to prevent damage and scrape materials. In addition, a vacuum sensor connect to the mixing chamber constantly detect the abrasive amount and flow, providing complete real-time information on the state of wear o the cutting head.

Pressurized abrasive feeding system with 330 kg capacity equipped with two tanks: one with a 330 kg capacity and another – pressurized – to supply the cutting head (electronic hopper). It is also available a 2-stage abrasive supply system with a 2000 kg capacity to complete long cutting jobs without interruptions due to a lack of abrasive and risks of damaging the material.

ACCESSORIES

Electrospindle powered by an inverter to regulate the rpm from 0 up to 6000. It allows the use of diamond tools. The tools chance is manual

Magnetic tool changer for core drills, with 6 stations holder rack.

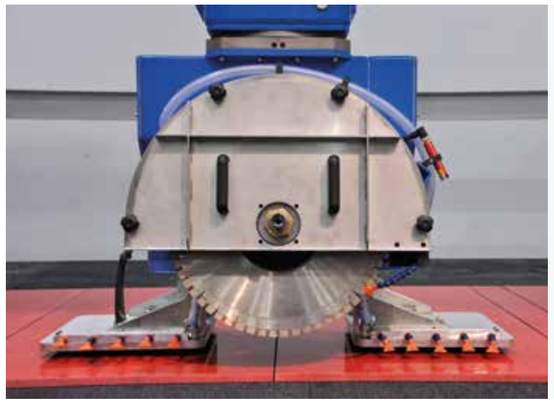
Powerful electrosondle ISO 50 – 13 kW with automatic tool changer (only for Brembana Formax and Brembana Sprint model) to litterally transform the saw in a very versatile universal CNC machining center.

Diamond discks with a diameter up to 1.200 mm (only for Brembana Gixa model).

Automatic suction cup loader, sliding on rails, for slab pickup from a vertical slab holder pallet and following overturning in horizontal position for feeding the workpiece in the machining line. Solution applicable for belt versions too.

Z axes up to 1.400 mm to ensure the machining also of pieces with very high thickness (only for Brembana Gixa model).

ACCESSORIES



Vacuum manipulator with maximun load capacity up to 500 kg (on Brembana Gixa and Brembana Sprint models optional also up to 1.000 kg). It allows the move of high thickness pieces.

Ø 300 Frankfurt plates for natural stine surfaces treatment.

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

Steel supports.

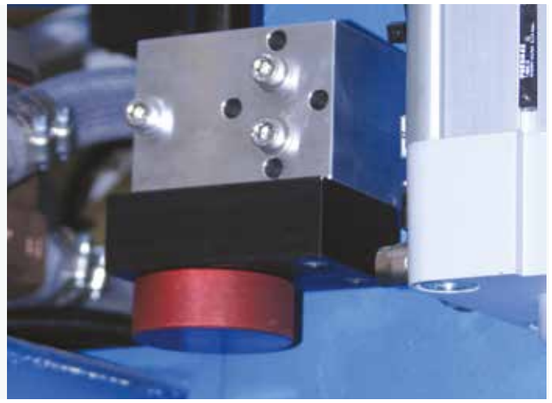
Wide range of lathes: Ø 700 mm – 700 kg / Ø 1.200 mm – 5.000 kg / Ø 1.500 mm – 10.000 kg.

Thickness touch proble to measure automatucally the thickness of the piece.

ACCESSORIES

Presetter to measure the blade diameter and core drills/ milling lenght.

Cross laser to obtain a two-dimensional template to be used for the following machining processes.



Remote control unit for driving up to 6 axes; it allows you to operate close to the cutting table and set multiple starting points.

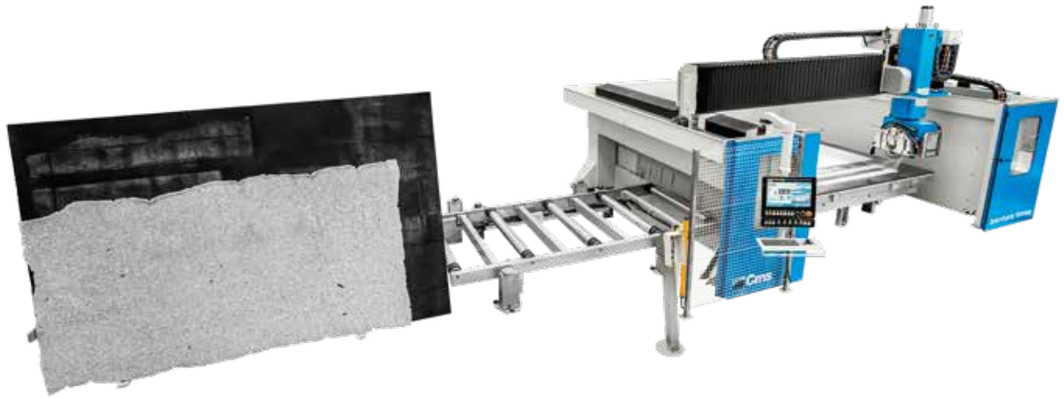
Slab and work table cleaning unit.

Unit for lower part cut to engrave the lower side ofthe slab; it allows to insert countertops supports. It can be equipped with drilling unit to realize holes to fix kitchen/ bath countertops. The operations are managed automatically by the machine and need the use of the vacuum manipulator.

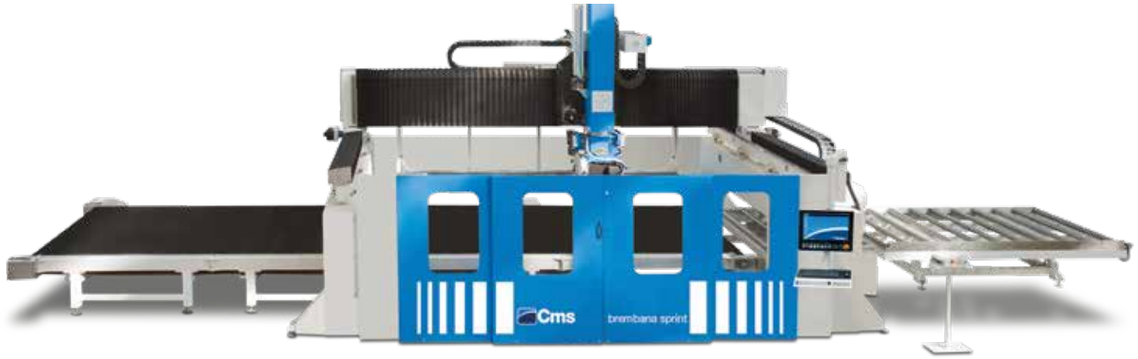
System to obtain images of the wotking table, to make the pieces positioning faster and to notice possible problems on the slab.

Bar code reader equipped with a dedicated software for the code reading and to set the machining program.

SPECIAL SOLUTIONS



SOLUTION WITH PALLET CHANGE FOR BRIDGE SAWS
(Brembana Formax / Brembana Sprint DUAL): Cutting line made up of an automatic exchange system of the workbenches, that means a slab ready to be cut can be loaded outside while the machine is cutting another slab. This system reduces loading/unloading times, and increases the machine's productivity



SOLUTION WITH BELT
(Brembana Formax / Brembana Sprint BT): Cutting line equipped with a belt working table. It can be configurated with automatic loading/ unloading systems for a fully automated process, to increase the machine's productivity.

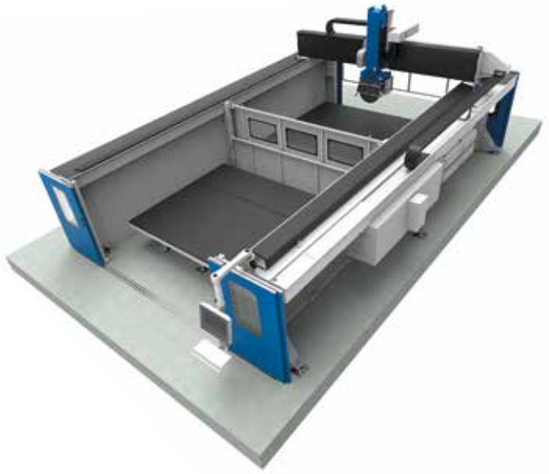
PRODUCTIVITY COMPARISON (8 WORKING HOURS)		
	SQUARE METRES CUT	CUT SLABS
BREMBANA FORMAX / SPRINT	124	23
BREMBANA FORMAX / SPRINT DUAL	211	39
BREMBANA FORMAX / SPRINT BT	243	45

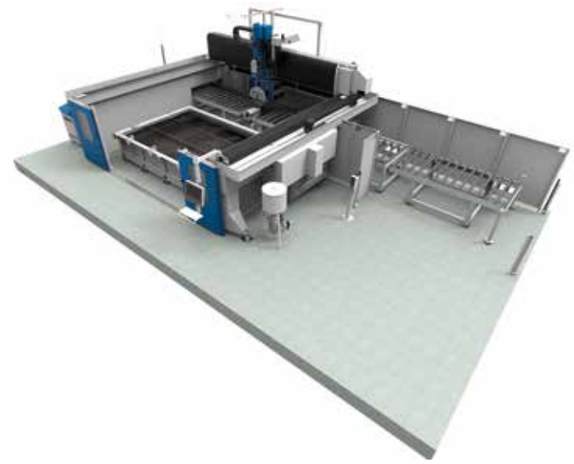
Data are not binding and may be changed according to the material, thickness, disc, HP pump and other factors not directly related to the machine

SOLUTION WITH PALLET CHANGE FOR SAW JET MACHINES
(Brembana Formax Jet / Brembana Sprint Jet PT): Cutting line made up of an automatic exchange system of the workbenches, that means a slab ready to be cut can be loaded outside while the machine is cutting another slab. This system reduces loading/unloading times, and increases the machine's productivity

PRODUCTIVITY COMPARISON (8 WORKING HOURS)		
	SQUARE METRES CUT	CUT SLABS
BREMBANA FORMAX JET / SPRINT JET	81	15
BREMBANA FORMAX JET / SPRINT JET PT	151	28

Data are not binding and may be changed according to the material, thickness, disc, HP pump and other factors not directly related to the machine





SOLUTION FOR PENDULAR MACHINING
(Brembana Formax / Brembana Sprint / Brembana Gixa): The bridge saw is positioned on strokes with a lenght that fits the customer needs, so the machine can work in one side while the operator in the other side the machine in a complete safe condition. With this loadind and unloading system the timing is reduced to increase the machine's productivity.

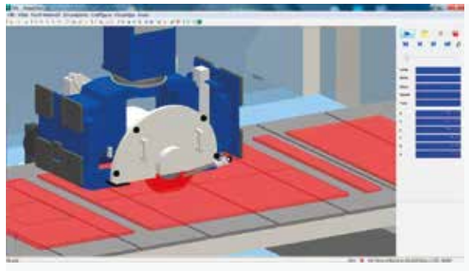
SOLUTION FOR THE AUTOMATIC UNLOAD OF THE PIECES
(Brembana Formax / Brembana Sprint / Brembana Gixa): After the machining, the bridge saw , with the vacuum manipulator, takes automatically the pieces and unload them on the back roller to move them forward in the protucion line to the next processings. This solution is available also on combined machines.

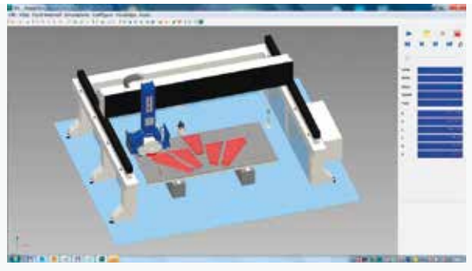
BREMBANA FORMAX / SPRINT / GIXA
SOFTWARE

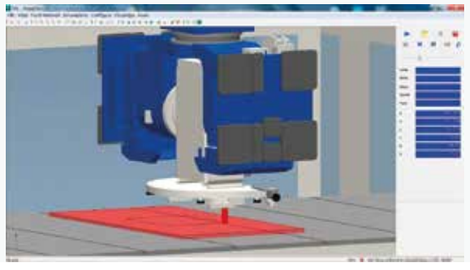
CMS bridge sawing machines are programmed and operated thanks to SMART SAW AND EASY STONE software packages.

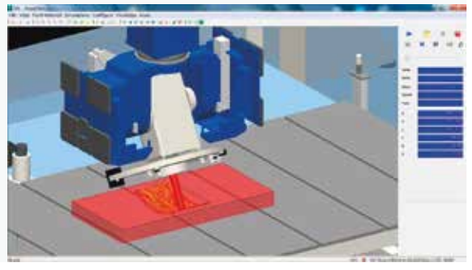
SMART SAW
Installed on the PC as operator's interface it enables using the machine in manual, semiautomatic and automatic mode. By means of simple and user friendly controls it is possible to operate various types of cuts: single, multiple, circular, horizontal and parametric; there are also special functions for the automatic cutting of tiles, mitered borders (both at 90° and 45°), copyng of templates and flattering.
Additional moduls allow advanced machining operation such as milling, 3D profiling (linear or curved) and slab polishing
The machine can be combined with an automatic slab photo system, which places the pieces directly on the slab for nesting. If the machine is equipped with a vaccum manipulator, the software allows an optimising cutting sequence in order to reduce machining waste and.

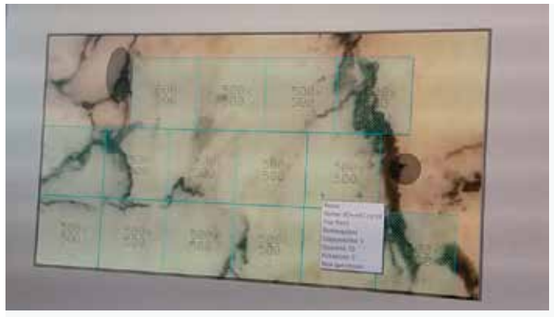
EASYSTONE
EasySTONE is a powerful CAD/CAM software, customized for CMS machinin centers and fully dedicated to the stone processing sector After defining the slab to be machined, it enables designing the workpiece to cut freely or importing 2D and 3D files in various formats: DXF, IGES, STL, STEP, SAT e RHINO. You can choose between a lot of different processing such as drilling, milling,profiling, polishing, engraving and writing using a disk or a tool; the system creates a 3D simulation of the work to show all the machine movements during the processing, so the operator can check ans see before he starts the machining that has to be done.
The DDX Photo software application, installed onboard the machine PC, acquires the real image of the slab, to be positioned inside the machine or on the external loading roller, through digital cameras. The program enables defining the useful cutting area of the slab (external perimeter), highlighting the material defects in order for the operator to isolate such areas from the workpieces and to control vein continuity. Underneath cutting and drilling unit are controlled by a specific software.

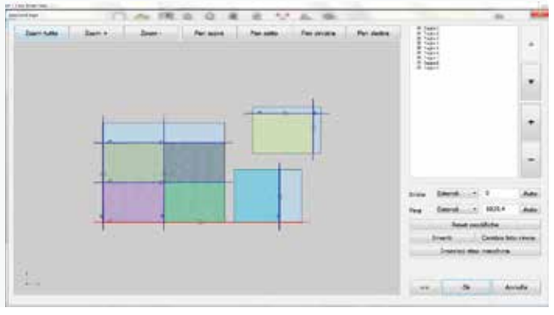












TECHNICAL DATA

BREMBANA FORMAX: TECHNICAL DATA	
X AXIS STROKE	3800 mm / 150 in
Y AXIS STROKE	2550 ÷ 7200 mm / 100 ÷ 283 in*
Z AXIS STROKE	700 mm / 27 in
DISK DIAMETER	350 ÷ 725 mm (optional 825 mm) / 14 ÷ 28 in (optional 32 in)
MOTOR	18,5 kW / 25 HP - 25,5 kW / 34 HP
MOTOR REVOLUTION	0÷5000 rpm (optional 0÷6000 giri/min)
ELECTROSPINDLE (OPTIONAL)	13 kw / 18 HP - 0÷8000 rpm ISO 50
MAXIMUM WORKING THICKNESS (WITH 90° DISK Ø 625 MM)	200 mm / 8 in
MAXIMUM WORKING THICKNESS (WITH 45° DISK Ø 625 MM)	130 mm / 5 in
HEAD REVOLUTION (4TH AXIS)	± 270° (540°)
HEAD INCLINATION (5TH AXIS)	+8° -90°
WORKBENCH DIMENSIONS	3600x2500 mm / 142x98 in*
MINIMUM SPACE REQUIRED FOR INSTALLATION	6560x4680x3490 mm / 258x184x137 in *

* = Bigger sizes available on request

BREMBANA GIXA: TECHNICAL DATA	
X AXIS STROKE	4250 mm / 167 in
Y AXIS STROKE	3000 ÷ 7000 mm / 118 ÷ 276 in
Z AXIS STROKE	900 ÷ 1400 mm / 35 ÷ 55 in
DISK DIAMETER	400 ÷ 1200 mm / 16 ÷ 47 in
MOTOR	25,5 kW / 34 HP - 28,5 kW / 38 HP - 31,2 kW / 42 HP
MOTOR REVOLUTION	0÷5000 rpm (optional 0÷6000 rpm)
MAXIMUM WORKING THICKNESS (WITH 90° DISK Ø 1200 MM)	440 mm / 17 in
MAXIMUM WORKING THICKNESS (WITH 45° DISK Ø 1200 MM)	315 mm / 12 in
HEAD REVOLUTION (4TH AXIS)	± 270° (540°)
HEAD INCLINATION (5TH AXIS)	+8° -90°
WORKBENCH DIMENSIONS	4200x2500 mm / 165x98 in*
MINIMUM SPACE REQUIRED FOR INSTALLATION	7700x5360x4430 mm / 303x211x74 in *

* = Bigger sizes available on request

BREMBANA SPRINT: TECHNICAL DATA	
X AXIS STROKE	4250 mm / 167 in
Y AXIS STROKE	2550 ÷ 7200 mm / 100 ÷ 283 in *
Z AXIS STROKE	600 ÷ 900 mm / 24 ÷ 35 in
DISK DIAMETER	350 ÷ 825 mm / 14 ÷ 32 in
MOTOR	18,5 kW / 25 HP
MOTOR REVOLUTION	0÷5000 rpm (optional 0÷6000 rpm)
ELECTROSPINDLE (OPTIONAL)	13 kW / 18 HP - 0÷8000 rpm ISO 50
MAXIMUM WORKING THICKNESS (WITH 90° DISK Ø 625 MM)	200 mm / 8 in
MAXIMUM WORKABLE THICKNESS (WITH 45° DISK Ø 625 MM)	130 mm / 5 in
HEAD REVOLUTION (4TH AXIS)	± 270° (540°)
HEAD INCLINATION (5TH AXIS)	+8° -90°
WORK BENCH DIMENSIONS	4200x2500 mm / 165x98 in*
MINIMUM SPACE REQUIRED FOR INSTALLATION	7700x4680x3780 mm / 303x184x149 in *

* = Bigger sizes available on request

SAW JET MACHINES		
TECHNICAL DATA	**BREMBANA FORMAX JET**	**BREMBANA SPRINT-JET**
X AXIS STROKE	3800 mm / 150 in	4250 mm / 167 in
Y AXIS STROKE	3200 ÷ 7200 mm / 126 ÷ 283 in*	3200 ÷ 7200 mm / 126 ÷ 283 in*
Z AXIS STROKE	700 mm / 27 in	600 mm / 24 in
DISK DIAMETER	350 ÷ 625 mm / 14 ÷ 25 in	350 ÷ 625 mm / 14 ÷ 25 in
MOTOR	18,5 kW / 25 HP	18,5 kW / 25 HP
MOTOR REVOLUTION	0÷5000 rpm (optional 0÷6000 rpm)	0÷5000 rpm (optional 0÷6000 rpm)
MAXIMUM WORKING THICKNESS (WITH 90° DISK)	200 mm / 8 in	200 mm / 8 in
MAXIMUM WORKING THICKNESS (WITH 45° DISK)	130 mm / 5 in	130 mm / 5 in
HEAD REVOLUTION (4TH AXIS)	± 270° (540°)	± 270° (540°)
HEAD INCLINATION (5TH AXIS)	+8° -90°	+8° -90°
WORKBENCH DIMENSIONS	4000x2000 mm / 157x79 in*	4000x2000 mm / 157x79 in*
HIGH PRESSURE INTENSIFIER	22,5 kW ÷ 45 kW / 30 ÷ 60 HP	22,5 kW ÷ 45 kW / 30 ÷ 60 HP

* = Bigger sizes available on request

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.

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 poten- tially 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

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.

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

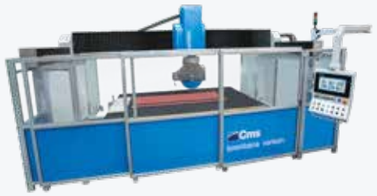
With CMS aActive the quality of the finished workpiece is no longer jeopardized by worn-out tools. The new Tool Life Determination system of CMS Active sends warning messages when the tool life is running out and recommends its replacement at the most appropriate time.

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.

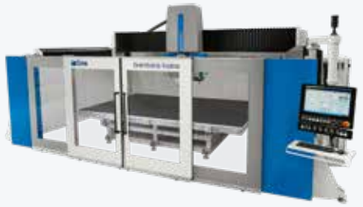
THE RANGE OF CMS STONE TECHNOLOGY FOR STONE PROCESSING

5 AXES BRIDGE SAWS



BREMBANA VENKON

BREMBANA KOSMOS



BREMBANA KRATOS

BREMBANA SPRINT

BREMBANA GIXA

5 AXES SAW JET MACHINES

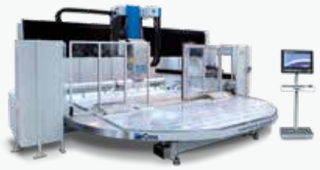
BREMBANA KOSMOS JET

BREMBANA FORMAX JET / SPRINT JET

CNC MACHINING CENTERS

BREMBANA ELECTA

BREMBANA SPEED



BREMBANA SPEED TR

BREMBANA KARTESIA

BREMBANA MAXIMA

BREMBANA G-REX

WATERJET CUTTING MACHINES AND PRESSURE INTENSIFIERS

BREMBANA EASYLINE

BREMBANA MILESTONE S

BREMBANA PROLINE

BREMBANA AQUATEC

BREMBANA JET POWER EVO

BREMBANA E-PUMP

SCFRESE-0924E

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C.M.S. SPA
via A. Locatelli, 123 - 24019 Zogno (BG) - IT
Tel. +39 0345 64111
info@cms.it
cms.it

a company of scmgroup