

brembana kosmos jet

5 axes saw jet machine



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 realizes avant-garde solutions for the working of marble, natural stones and composite stones. Under the brand name Brembana Machine, 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.

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APPLICATIONS



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



funerary art | street furniture | architectural and dimensional stonework



Concrete.

Lasting.

Efficient.

Valiant.

Easy.

Robust solutions.

CLEVER machines for amazing results.

5 axes saw jet machine

BREMBANA KOSMOS JET

TECHNOLOGICAL BENEFITS

5 AXES MONOLITHIC SAW JET MACHINE

New generation of 5-axes bridge saw entirely managed with Numeric Control.

Compact and easy to install, it does not require any kind of base so it can be re-located almost immediately.

The machine is fitted with an abrasive waterjet cutting head which, by working in combination with the diamond disk, means natural stone and composite slab cutting can be automated when there are interferent cuts and internal angles.

The machine is designed for all laboratories that cut natural stone, composite and ceramic slabs.

The machine's weight, which can be as much as 8 tons, guarantees a perfect rigidity when producing:

- kitchen top
- vanity tops
- wall panels (internal and external)
- flooring
- doorsteps, staircases and window sills
- street furniture

KEY BUYER BENEFITS

- + **No workability problem** thanks to the most extensive workbench in its category: 4,000 x 2,350 mm
- + **Complete protection against rust:** the structure is manufactured in hot galvanised steel, while the work tank is in stainless steel
- + **Installation dimensions are the smallest in this category:** the machine takes up just 36.5 m²
- + **Slab loading operations made easier** thanks to the tilting table with an off-the-ground height of just 380 mm



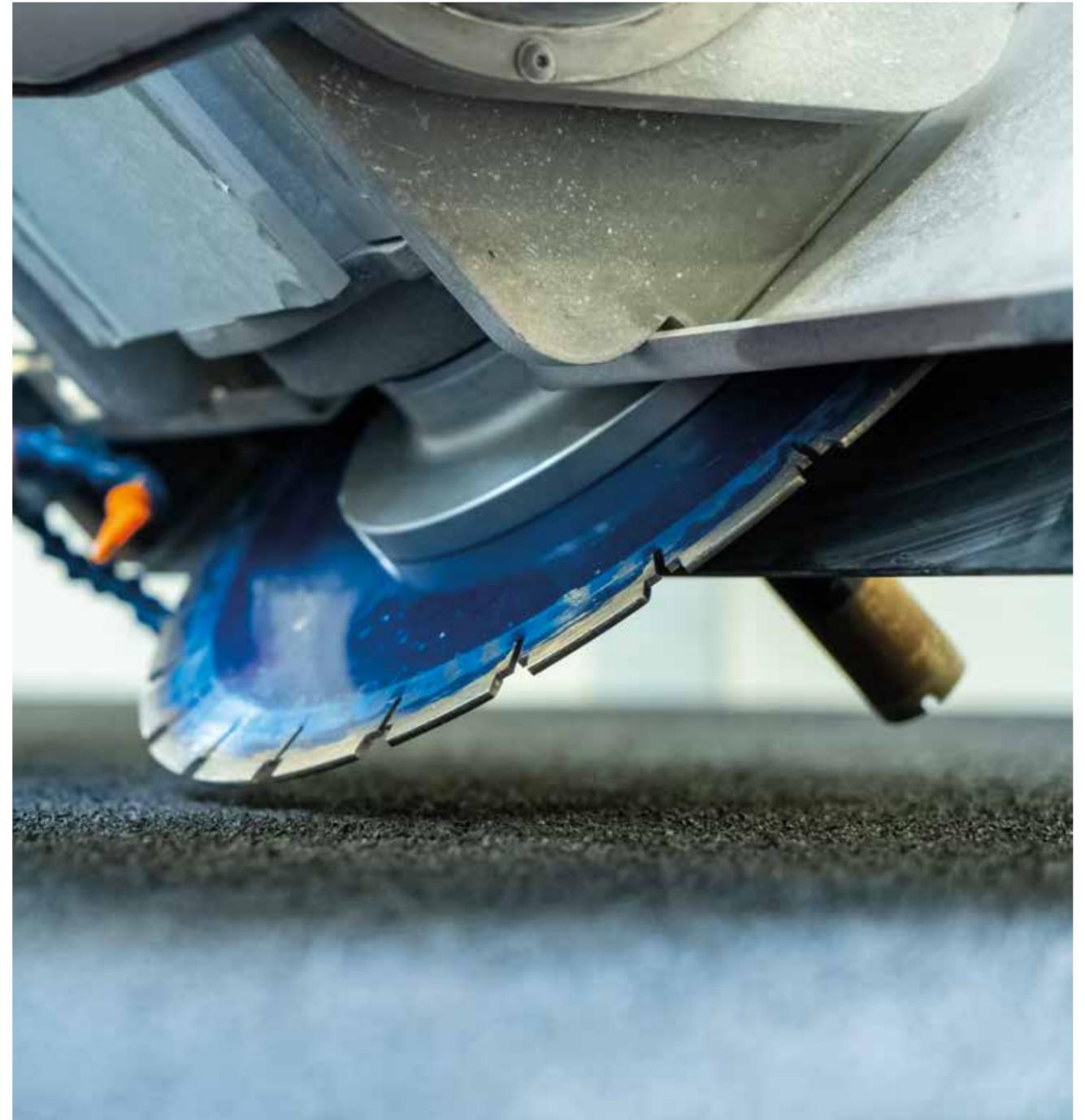
STANDARD ACCESSORIES



WORKBENCH with four flap forks (optional, with a maximum capacity of up to 800 kg) and dimensions of 4,000 x 2,350 mm; the work table is in rectified rubber



PC PANEL with touch screen controls and 21" screen



ELECTROSPINDLE managed by an inverter, it allows the rpm regulation from 0 up to 5.000. It can be used with diamond tools as finger bits or core drills. The tools changer is manual

STANDARD ACCESSORIES

VACUUM MANIPULATOR allows cut pieces relocation up to a maximum weight of 300 kg. This permits to minimize the working scraps without stopping the machine, increasing its productivity. It can be used with a disk up to 625 mm.

ADVANTAGES:

- Easy to use, also by operators without experience
- Important cycle time reduction
- Automatic operation
- The very functioning design guarantees maintenance reduction
- Manual use available, to help the operator during loading

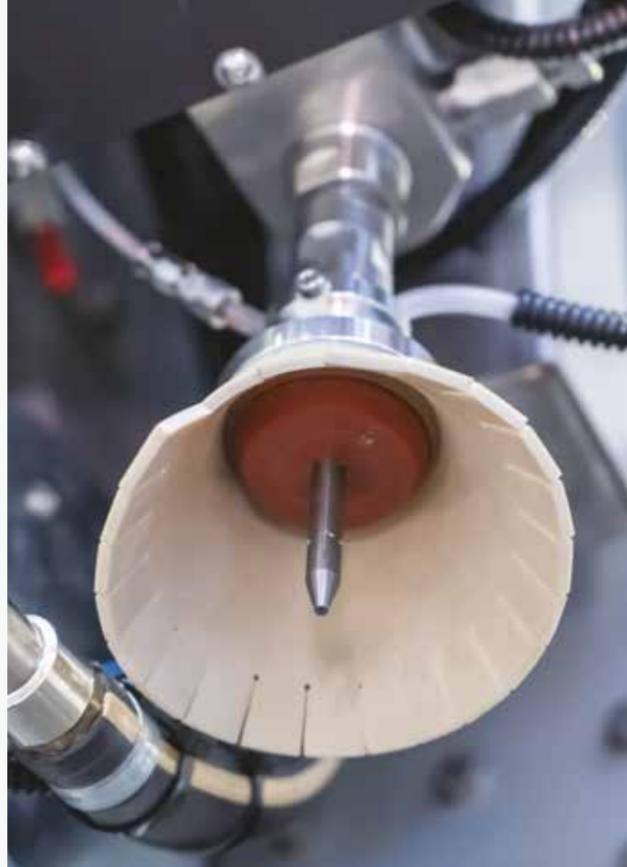


SLAB THICKNESS PROBE to automatically measure the thickness of the piece of stone or ceramic, this is essential in achieving perfect 45° cuts.

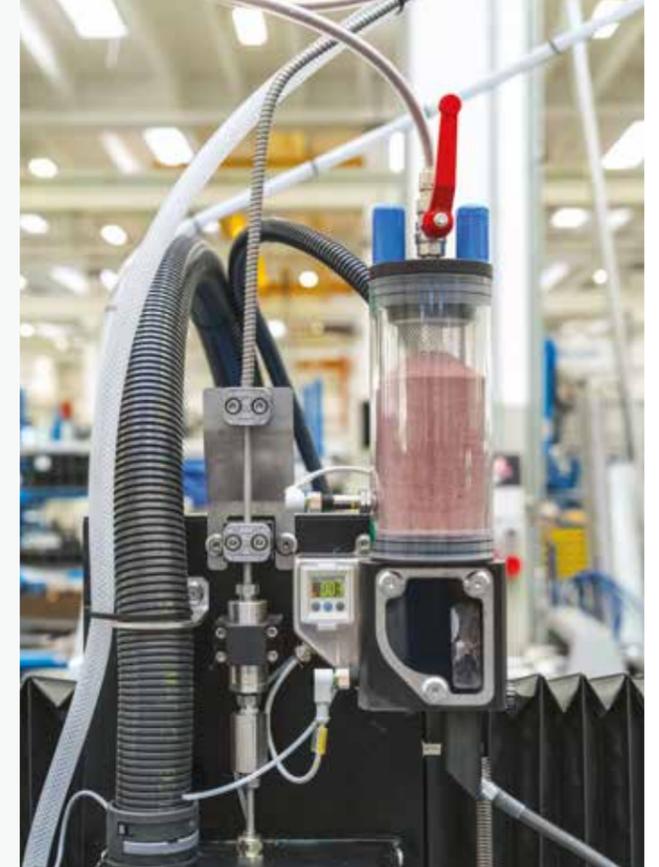


STANDARD ACCESSORIES

5-AXES AWJ CUTTING HEAD which, by working in combination with the slab thickness probe, guarantees the perfect continuity of the cut with diamond disk as well as 45° machining which are impossible to achieve with the disk alone



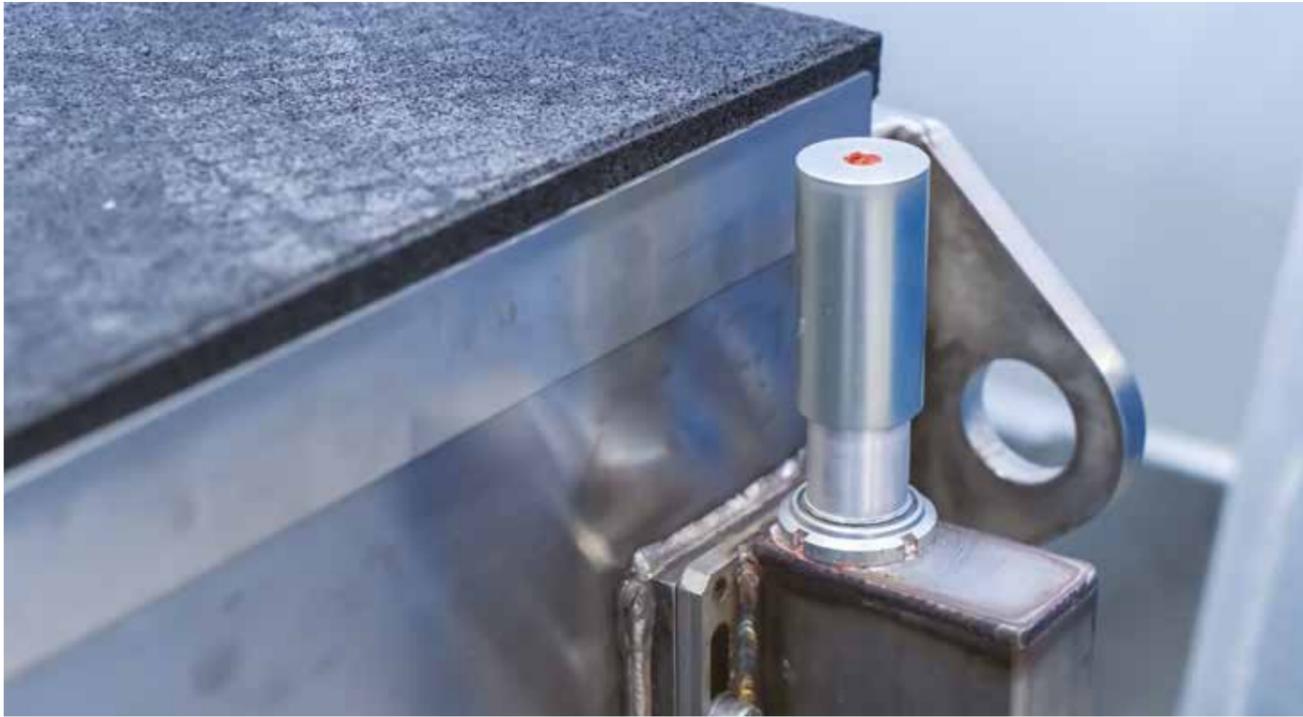
ELECTRONIC HOPPER that automatically controls the abrasive flow. If the abrasive flow is interrupted for any reason, the system will automatically stop cutting to prevent damage and scrape materials. In addition, a vacuum sensor connect to the mixing chamber constantly detect the abrasive amount and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



PRESSURIZE ABRASIVE FEEDING SYSTEM with 330 kg capacity for powering the abrasive system fitted with two tanks: one with a 330 kg load capacity and another pressurised one for powering the cutting head.



OPTIONAL



DISK PRESETTING to measure disk diameter and finger bits or core drills length



CAMERA: system to obtain the images from the working table, it permits to accelerate the pieces positioning and notice possible bugs on the slab



DISK AUTOMATIC RESTART STATION it can be activated by a specific function on the operator panel



ELECTRIC PRESSURE INTENSIFIERS and HIGH PRESSURE INTENSIFIERS.

BREMBANA KOSMOS JET SOFTWARE

SOFTWARE: CMS ACTIVE SAW

The software has been entirely developed by CMS in order to manage all the typical processes of the industry in the most efficient way:

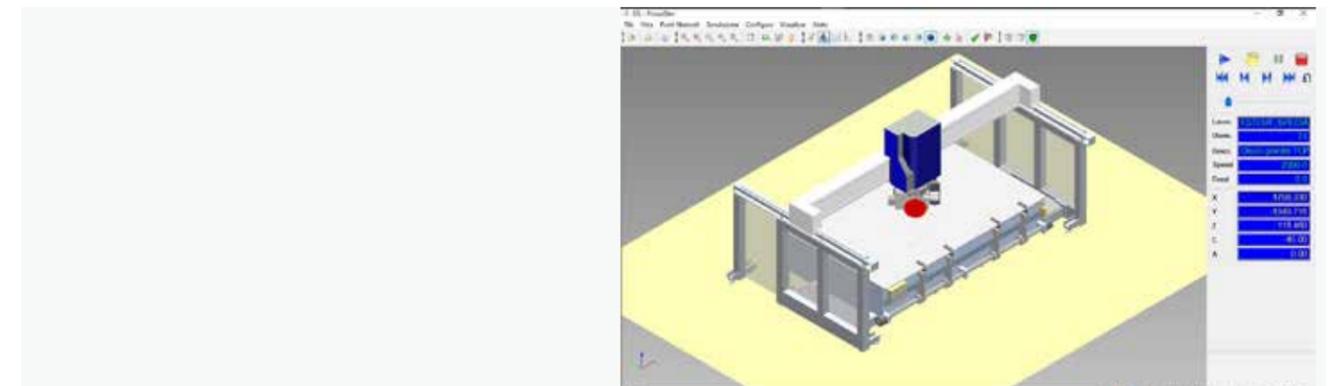
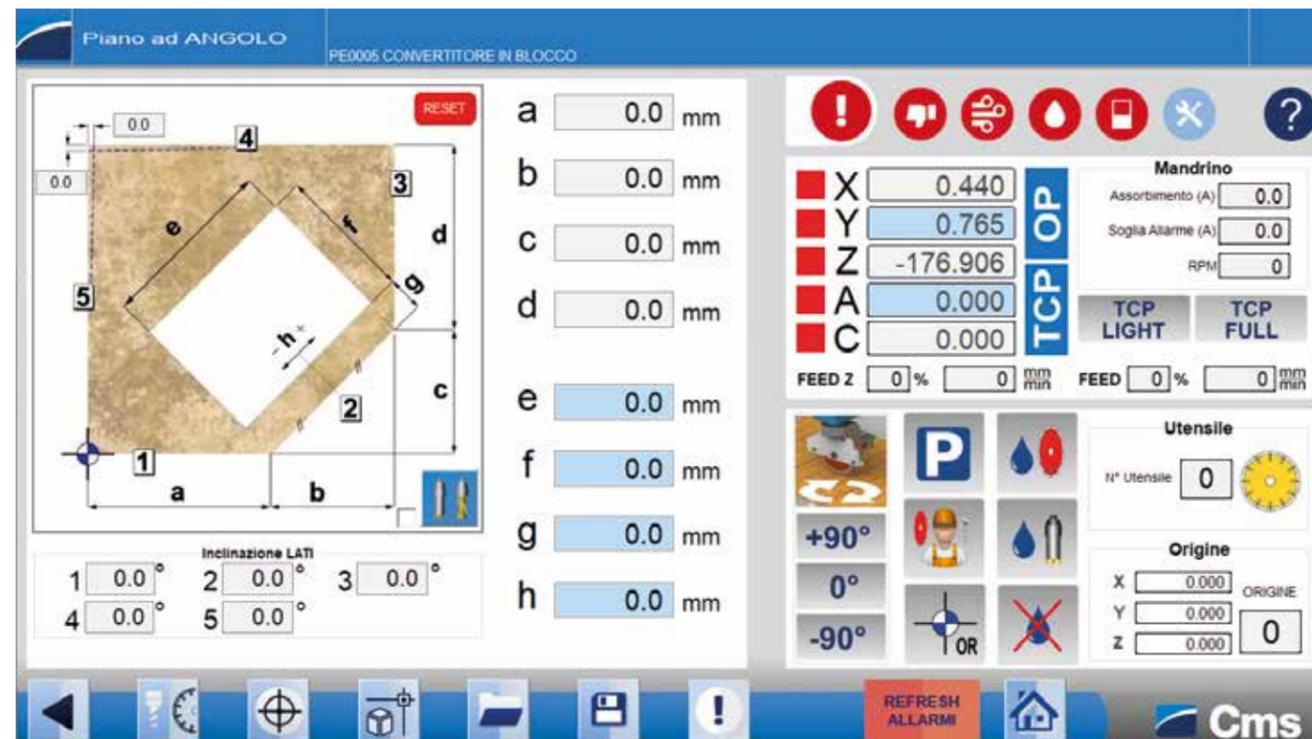
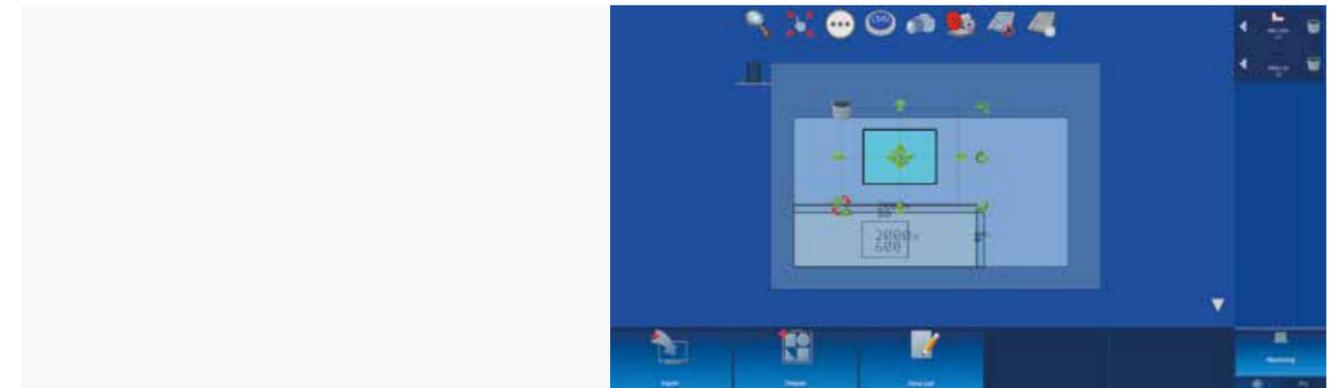
- Linear (vertical or inclined) and parametric cuts
- Drilling and profiling.
- Kitchen work surfaces, with the reclaiming of the internal edge using waterjet, core bit or milling cutter.
- Import of DXF files created with external CAD
- Manual drawing through native CAD
- Manual nesting
- 3D profiling, linear or curved
- 3D simulation

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.

Within each process there is a support section for the operator, which illustrates the operations to be performed directly on the screen.

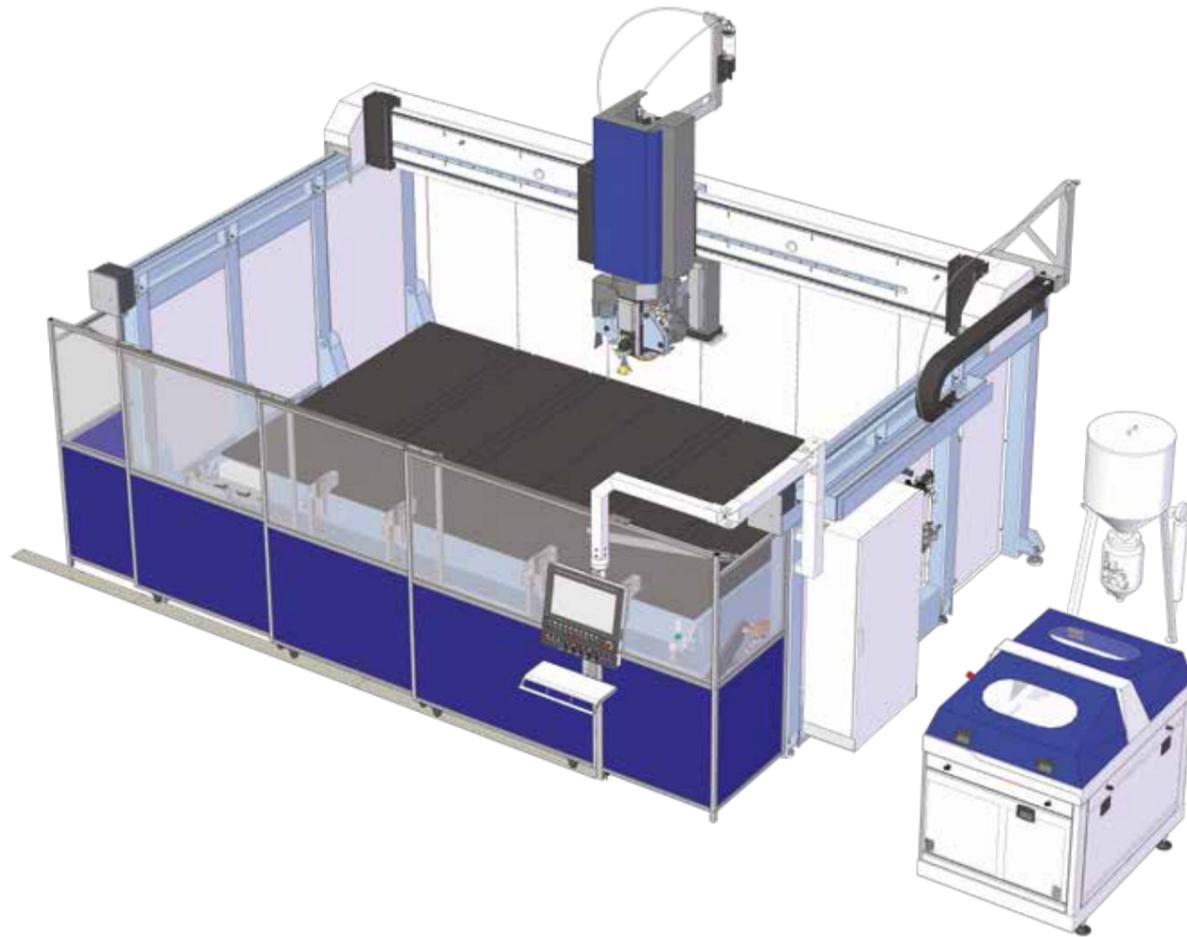
The machine can be combined with an automatic system for the slab image acquisition, to allow pieces nesting directly on the slab.

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



BREMBANA KOSMOS JET

OVERALL DIMENSIONS & TECHNICAL DATA



BREMBANA KOSMOS JET: TECHNICAL DATA

X AXIS STROKE	3960 mm / 156 in
Y AXIS STROKE	2450 mm / 96 in
Z AXIS STROKE	400 mm / 16 in
HEAD ROTATION (C AXIS)	± 185° (370°)
HEAD INCLINATION (A AXIS)	0° - 90°
X AXIS SPEED	30 m/min / 98 ft/min
Y AXIS SPEED	25 m/min / 82 ft/min
Z AXIS SPEED	7.5 m/min / 25 ft/min
MINIMUM DISC DIAMETER	350 mm / 14 in
MAXIMUM DISC DIAMETER	425 mm / 17 in
MAXIMUM WORKABLE THICKNESS WITH Ø425 1 MM DISC	100 mm / 4 in
MAXIMUM WORKABLE THICKNESS WITH WATERJET	80 mm / 3 in
WORKBENCH DIMENSIONS	4000x2350 mm / 157x92 in
MAXIMUM CUT SLAB DIMENSIONS	3960x2280 mm / 156x90 in
EXTERNAL ABRASIVE TANK CAPACITY	330 kg / 661 lb
MAXIMUM WATERJET PRESSURE	4.150 bar / 60.190 psi
OVERALL DIMENSIONS (INCLUDING WATERJET PUMP)	8650x4220x3600 mm / 340x166x142 in
OVERALL MACHINE WEIGHT	Fino a 8.000 kg / Up to 17637 lb

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 potentially critical state associated with reaching a certain threshold. In this way, it is possible to take action and schedule maintenance services, 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 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-the-art 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



THE RANGE OF CMS STONE TECHNOLOGY

FOR STONE PROCESSING

CNC MACHINING CENTERS



BREMBANA SPEED



BREMBANA SPEED TR



BREMBANA MAXIMA



BREMBANA G-REX

5 AXES BRIDGE SAWS AND 5 AXES SAW JET 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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