



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 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.

# waterjet

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# APPLICATIONS



**Unparalleled.**  
**New.**  
**Innovative.**  
**Quality.**  
**Ultra.**  
**Effective solutions.**

bathroom and kitchen tops | ventilated facades | inlays and mosaics | flooring



flooring | fireplaces | urban furnishings | doorsteps, staircases and windowsills

The **UNIQUE** waterjet cutting machines.

Waterjet cutting systems

# WATERJET MACHINES FOR PROCESSING MARBLE

**BREMBANA EASYLINE:** the solution with a more flexible arm and excellent accessibility for abrasive waterjet processing



**BREMBANA PROLINE:** the most advanced technologically integrated solution to guarantee precision and repeatability to the top-end of the industry



**BREMBANA MILESTONE S:** the starter integrated solution for the marble worker's studio



**BREMBANA AQUATEC:** the sturdiest modular gantry solution on the market for swing processings



# BREMBANA EASYLINE

## TECHNOLOGICAL ADVANTAGES



LEARN MORE

### 3- AND 5-AXIS WATER JET CUTTING SYSTEM

Brembana Easyline is a high-performance, versatile, modular water jet cutting system - either pure or hydroabrasive - which can be employed in a number of application fields for the most diverse production demands.

- The cantilever structure, with a separate tank, allows an easy access to the worktable. Loading and removing material is quick and easy.
- All axes' motions are carried out through hardened and ground rack and pinion.
- The thermowelded bellows provide complete protection of the guides and the rack from water and dust.
- The steel structure undergoes an anti-rust treatment through sandblasting and ceramic painting, which results in a higher resistance against corrosion.
- The tank is set up for the installation of a dredge system for the abrasive removal.

### KEY BUYER BENEFITS

- + Easy operation: the cantilever structure with separate catch tank offers easy access on 3 sides to load and unload the material.
- + Easy maintenance: The 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 91% less maintenance costs.
- + Easy sealing: The heat-sealed bellows provide complete protection of linear guides and racks from dust and water during the cutting, guaranteeing long lifetime without affecting the cutting quality.
- + The versatility of waterjet to cut a wide range of materials, with custom solutions to increase the productivity up to 55%, like single or double tank pendulum cycle or the multiple cutting heads configuration.



Console on a mobile trolley with 21.5" touch screen.



Light barriers: protection of work area with photocell devices.



Remote control up to 6 axes that allow you to operate close to the cutting surface and set multi-origins.

# BREMBANA MILESTONE S

## TECHNOLOGICAL ADVANTAGES



LEARN MORE

### 3- AND 5-AXIS WATERJET CUTTING SYSTEM

Brembana milestone s is an advanced, versatile, high-performance waterjet cutting system – either pure water or hydro-abrasive – able to accommodate the most diverse production demands in different application fields, delivering highly accurate cuts even in 3D.

- The bridge structure with fixed table, mobile crossbeam and high guides make it compact and able to move quickly
- All motions are carried out by tempered ground rack, driven by brushless motors
- The axes' guideways are housed within the structure and protected by an innovative system called "Powder-Free", which provides full protection against water and powders

### KEY BUYER BENEFITS

- + Unparalleled cutting performance: The monolithic structure with electric gantry offers a solid, sturdy solution that can guarantee a speed of 40 m/min and accelerations of 2m/s<sup>2</sup> to the top-end of market standards.
- + The most compact solution on the market with limitless rotation that guarantees a 33% reduction in the nesting cutting cycle by eliminating the need to recover C-axis rotations to align the wires and pipes.
- + A labyrinth-arranged system of painted sheet metal panels protects the linear guides and racks from the effects of dust and water dispersion during the processing.



New Z-axis strokes up to 350 mm for 3 axes and up to 200 mm for 5 axes.



Hardware and Software control of the waterjet cutting system designed to offer the operator a simple and intuitive interface that allows for complete control of all the system functions, including the tapering control (JDC) for 5-axes machines.

# BREMBANA PROLINE

## TECHNOLOGICAL ADVANTAGES



LEARN MORE

### HYDRO-ABRASIVE WATERJET CUTTING SYSTEM

A genuine machining center, designed with specific solutions for waterjet technology to the extent that it guarantees superior technological performance. Brembana Proline features a stainless-steel base for dredge removal of used abrasive material, automatic water level and rotating axes for processing pipes.

The monolithic structure allows the 330 kg abrasive propulsor and the new generation hybrid intensifier to be integrated on the machine. The gantry structure can guarantee maximum reliability over the years, thanks to tempered and ground racks and spiral pinions combined with reducers that have a movement of less than 1 arcmin.

The racks and sliding guides on the axes are protected by CMS' revolutionary "Powder-Free" system that is an engineering masterpiece of an impenetrable labyrinth of casings that guarantee full protection against water and dust.

- **more versatile:** endless standard arrangements to adapt to new production requirements
- **faster:** NC and digitally activated to speed up the programming of the machine and its accessories
- **more compact:** all the accessories are built into the base structure for fast, easy installation
- **simpler:** reduced installation times and re-commissioning

### KEY BUYER BENEFITS

- + The monolithic structure allows the 330 kg abrasive propulsor and the new generation hybrid intensifier to be integrated on the machine.
- + Management of up to 2 4150 bar intensifiers in parallel 4150 bar, with the aim to achieve the highest throughput and cutting versatility also when working especially hard or thick materials.
- + Standard fitted system for housing the optional extras like the dredging system to remove used abrasive material and water level adjustment to adapt the plant to the client's growing production needs
- + 0.035 mm of positioning precision and +/- 0.025 mm of repeatability to guarantee cutting quality and accuracy



### RACKS AND SPIRAL PINIONS

The X and Y axes have tempered and ground racks and spiral pinions to guarantee high dynamic performance while maintaining high precision positioning standards and repeatability thanks also to the reduction of reversal movements.



Front and rear hatch with pneumatic movement to better protect the cutting area and reduce the dispersion of water and abrasive material.



21.5" industrial PC Panel on the machine with touch display and HMI CMS Active interface.

# BREMBANA AQUATEC

## TECHNOLOGICAL ADVANTAGES



LEARN MORE

### 3- AND 5-AXIS HYDRO-ABRASIVE WATERJET CUTTING SYSTEM

Brembana aquatec is an advanced, versatile, high-performance abrasive waterjet cutting system, able to accommodate the most diverse production demands in different application fields, delivering highly accurate cuts. The machine consists of a mobile bridge moving along separate high-thickness steel supports, fastened to the floor and providing outstanding structural rigidity. This structure delivers high performances even by the most demanding tasks.

- The motions - including the one of the cutting head - are carried out by high precision tempered ground rack, driven by brushless motors.
- Steel guards and the polyurethane bellows protect all motion components from water and powders.
- Loading and unloading the material is fast and simple thanks to 2 or 4 open sides, as well as checking the cutting process. Moreover it allows to possibly install additional equipment to handle the material.

### KEY BUYER BENEFITS

- + Unmatched cutting performance: the open frame structure with electric gantry on two separate thick supports on a basement anchored to the floor offer high rigidity even with rapid speed up to 54 m/min and acceleration up to 2 m/s<sup>2</sup>.
- + The most compact solution on the market with infinite rotation 33% less cutting cycle avoiding to recover the revolutions of the C axis to align internal wires and tubes.
- + Access of worktop from 4 sides: excellent access to the cutting area, the large gantry and modular frame allow configurations with wide space around the catch tank for easy loading and unloading operations.
- + High flexibility to maximize the productivity: the modular structure of frame and catch tank offer high flexibility for most demanding customers looking for large format heavy duty cutting solutions.



Console on a mobile trolley with 21.5" touch screen.



Remote control up to 6 axes that allow you to operate close to the cutting surface and set multi-origins.



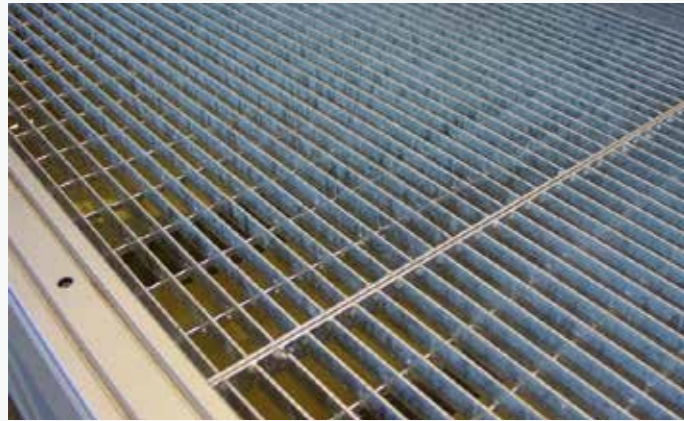
Maximum configuration flexibility thanks to the modular structure.



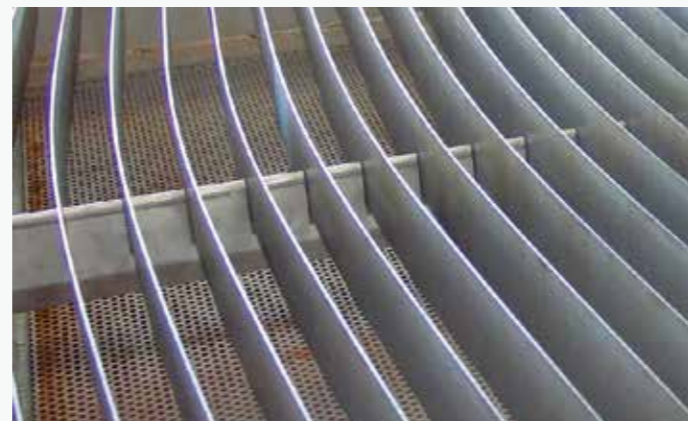
# WATERJET MACHINE CONFIGURATION

## STANDARD

### WORKING TABLES



Standard grate



Anti-reverberation table with sheet metal plates available in 35 or 70 mm (optional)

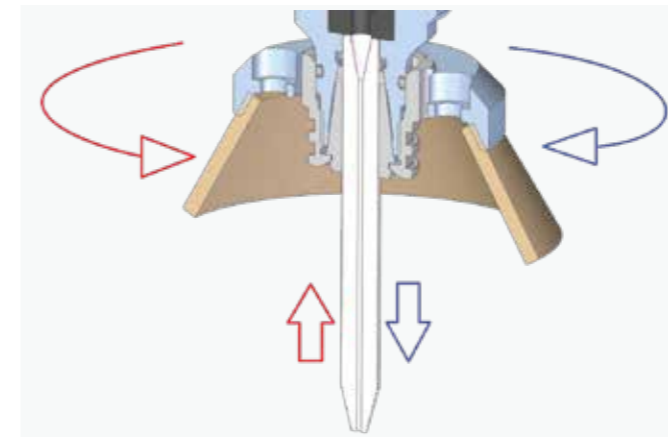


### 3-AXIS HEAD

The cutting head has been designed to achieve high performance when cutting. The components of the cutting head like the opening, wear insert and focusing device are perfectly aligned and auto-centered to guarantee fast replacement. The end part of the head can be changed for pure or hydro-abrasive waterjet cutting and provide maximum performance in both applications.



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 of the cutting head.



### SELF-CENTERING OF THE FOCUSING DEVICE

Thanks to CMS' experience in the electro-spindle sector, the focusing device does not need to be aligned with each replacement, because it is held by a high-precision self-centering petal clamp. Replacing the focusing device is done manually in a few seconds without tools and production is not interrupted.



### LUBRICATION

Forced injection CNC controlled automatic lubrication of the main axes X, Y and Z numerically controlled at pre-set intervals, without manual intervention and without machine down time. The presence of sensors allows for the pressure to be controlled and the tank's minimum level to be noted.

# WATERJET MACHINE CONFIGURATION

## OPTIONALS

### JD5AX



JD5ax's features open up new cutting opportunities on a wide range of materials, maximizing the operational flexibility of the 5-axis Waterjet CMS systems and ensuring very high standards of accuracy and quality of pieces obtained by an abrasive waterjet. With the innovative JD5ax head it's possible to get lower value of conicity, ensuring high finishing quality and size tolerance. JD5ax is made of an infinite rotation axis (C), an entirely new feature, and a tilting axis (B) up to +/- 62°, all designed and produced by the CMS engineers.

#### SPECIFICATIONS

- Compact design
- Cutting from 0° to 62°
- Automatic taper compensation (JDC)
- Patented abrasive injection
- New touch probe with incorporated anticollision detection
- Infinite HP joint rotation
- Compatible with the latest orifices
- Reduced mechanic components subjected to fatigue
- Monitoring of cutting components wear
- Direct drive servomotors

#### BENEFITS

- Infinite rotation for nesting cut without breakpoints
- High positioning accuracy
- High mechanical strength
- High cutting speeds and accelerations
- Taper compensation up to 60° tilt angle
- 3D machining
- Possibility to carry out countersinking and chamfering for ready-to-weld profiles
- Easy maintenance



#### DREDGING SYSTEM

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.



#### CROSS LASER

Cross laser pointer to simplify the setting of one or more points of origin of work commencement on the sheet positioned on the cutting table.

# WATERJET MACHINE CONFIGURATION

## OPTIONALS



### CLEANING SYSTEM OF THE CUT PIECE

Cleaning system for the work area which reduces the chances of scratches on the cut piece. It also enables the feeler to detect correctly the thickness of the material.



### WATER LEVEL

There is an automatic water level adjustment system inside the base. Using compressed air, the water level in the tank can be increased to 50 mm so a submerged cut can be made on the material loaded on the cutting table, guaranteeing a reduction in noise and water dispersion into the work area. A sensor fitted inside the base ensures accurate positioning of the water level above the surface of the piece without operator intervention.



### PRESSURIZED ABRASIVE FEEDING SYSTEM 330 KG

Pressurized abrasive feeding system with two 330 kg double stage tanks. The structure anchored to the base eliminates positioning and installation problems guaranteeing a constant and stable feeding of abrasive garnet into the electronic mini hopper. The double stage configuration allows for the main tank to be filled while the machine is processing.



### AUTOMATIC HOSE REEL

Air and water sprayer kit to clean table and material after the cut.

# WATERJET MACHINE CONFIGURATION

## OPTIONALS

### ACCESS THE LOADING PLATFORM

Possibility of rotating the tank by 90° by extending the Y-axis base travel runway modules to provide greater access space around the worktable and facilitate the loading and unloading of the material.

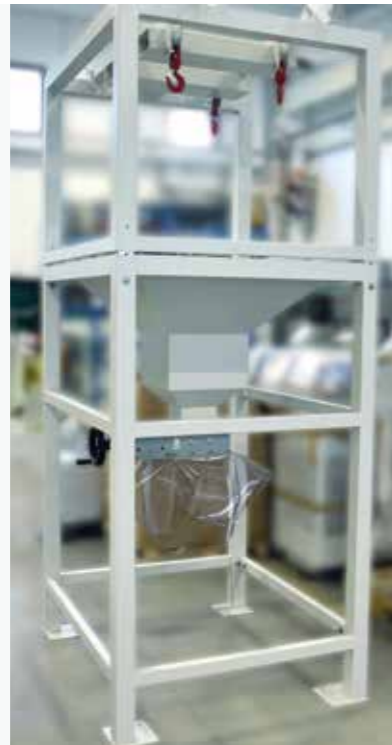
Alternatively, it is possible to configure the machine with a crossbeam up to 6 meters cutting envelope, guaranteeing a large front loading and unloading area, simplifying material handling with forklift trucks or crane.



### AUTOMATIC TCP DETECTION

Automatic cutting head alignment laser detection system with regard to the C axis and B axis rotation center for the purpose of:

- compensating the misalignment of the cutting head in the event of a strong collision
- calculating the XY positions on the focusing device precisely before performing processings with particular requirements of narrow tolerances. The device is housed on a tray hidden in the base that can be automatically removed on a guide with ball runner blocks to guarantee reliable and accurate measurements



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 feeding system with a 2000 kg capacity to complete long cutting jobs without interruptions due to a lack of abrasive.



Cutting table electrical cabinet air-conditioning unit for room temperatures of between 35°C and 40°C (opt).

# PRESSURE MULTIPLIERS

## BREMBANA JETPOWER EVO

The hydraulic multiplier with the maximum reliability and robustness thanks to the parallel cylinder configuration



## BREMBANA E-PUMP

The latest innovation in the range of CMS intensifiers, it exploits an electrohydrostatic unit connected directly to long-stroke pressure multiplier cylinders

# BREMBANA JETPOWER EVO

## PRESSURE MULTIPLIERS



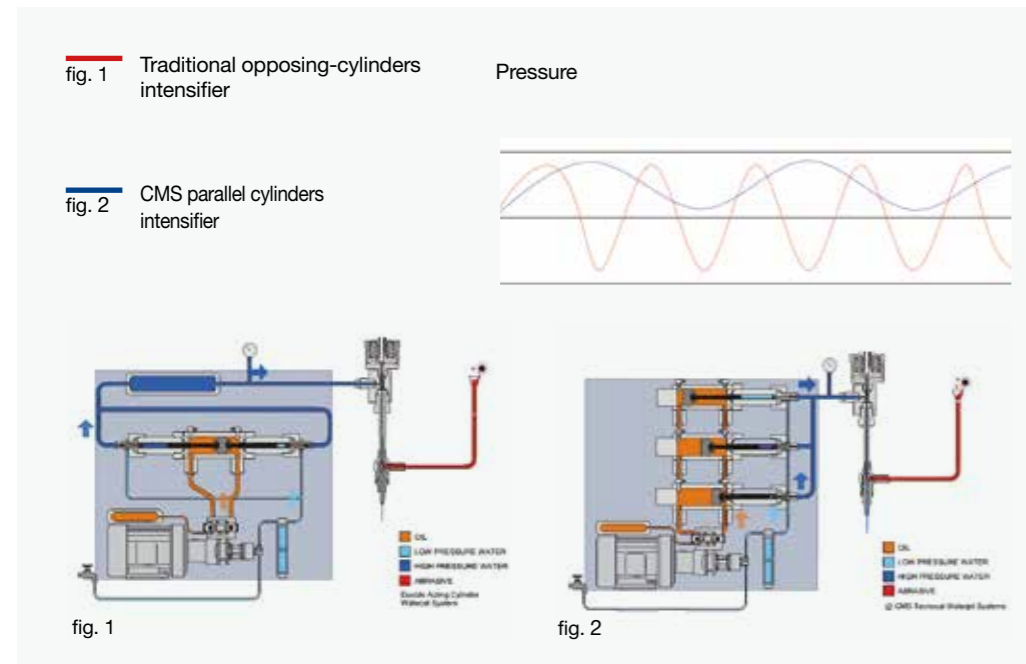
LEARN MORE

### PRESSURE INTENSIFIER ENTIRELY MADE BY CMS

CMS brought about a new concept in ultrahigh pressure intensifiers, enhanced by technological solutions designed to satisfy the needs of most demanding users. This new technology is based on an intensifier equipped with several pressure multipliers independent, parallel and electronically synchronized. This innovative solution results in an everconstant pressure avoiding any drops typical of traditional opposecylinder intensifiers.

### KEY BUYER BENEFITS

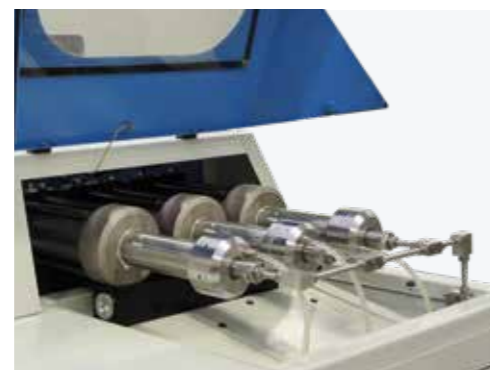
- + Hydraulic intensifier with 2 or 3 independent and electronically synchronized parallel cylinders to guarantee a constant signal of output pressure without the use of attenuator.
- + The technology with 3 independent cylinders allows the bypass of a single cylinder that needs maintenance, while the machine is working, avoiding unnecessary downtime.
- + The parallel cylinders architecture is designed for a low cycle frequency that reduce the high pressure components wear and consequently the maintenance costs.
- + Reduction of oil consumption and operating costs: Water flow rate up to 5 l/min to satisfy a wide range of cutting applications, adapting the oil consumption thanks to an independent variable flow pump for hydraulic circuit.



Hydraulic unit



Software-based electronic control of cutting pressure



Pressure multipliers



Oil/air heat exchanger

# BREMBANA E-PUMP

## TECHNOLOGICAL BENEFITS



LEARN MORE

### HYBRID INTENSIFIER

BREMBANA E-PUMP is the latest innovation in the range of CMS Stone Technology intensifiers created as a continuation of the quest by CMS for efficiency, performance, energy consumption and low environmental impact in the world of pressure intensifiers for waterjet cutting applications.

This new project was carried out entirely in the CMS engineering department and has given rise to an innovative product that combines the power density of a hydraulic pump with the energy efficiency of a direct-drive mechanical architecture.

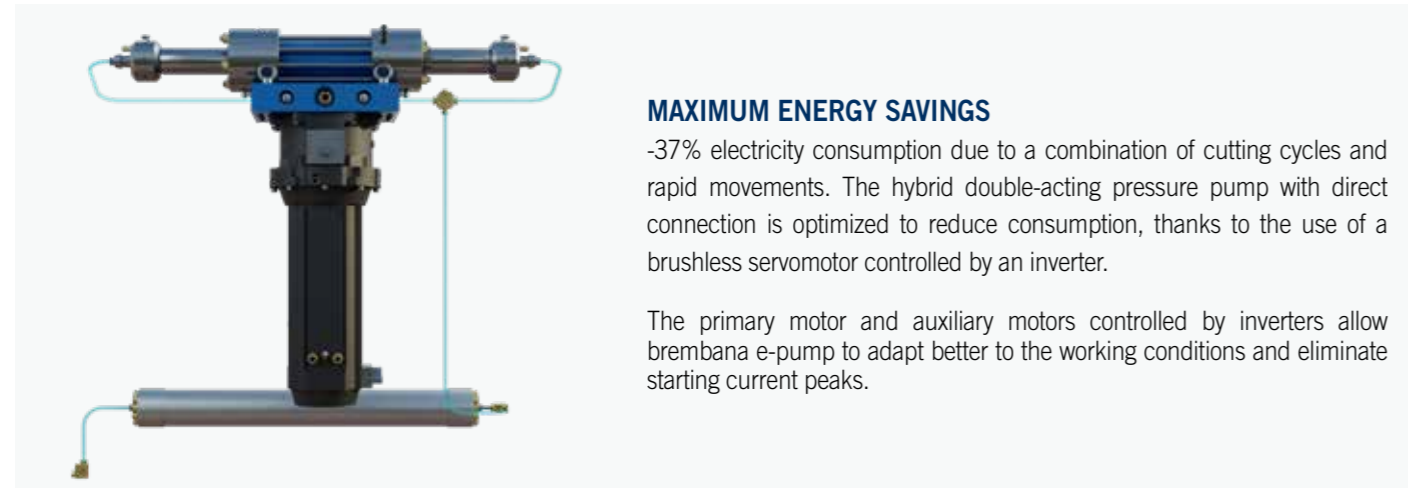
The simplicity of the system translates into a significant reduction in components: up to 95% compared to a conventional hydraulic intensifier. Brembana E-pump exploits an electrohydrostatic unit connected directly to long-stroke pressure multiplier cylinders, achieving an operating efficiency of more than 31% compared to hydraulic intensifiers.

The intensifier has an on-board intelligence with portable tablet (Wi-Fi) and touch display for monitoring and controlling operating parameters and performing diagnostics on hydraulic and high-pressure components.

Brembana E-pump can be installed on any cutting table, even third-party ones.

### KEY BUYER BENEFITS

- + High efficiency level: up to 31% more than conventional intensifiers.
- + Low maintenance, thanks to the use of 95% fewer hydraulic components.
- + Minimal use of hydraulic oil: -91% compared to conventional systems, with the benefit of lower environmental impact
- + Electricity consumption up to 37% lower due to a combination of cutting cycles and fast, closed-head movements



### MAXIMUM ENERGY SAVINGS

-37% electricity consumption due to a combination of cutting cycles and rapid movements. The hybrid double-acting pressure pump with direct connection is optimized to reduce consumption, thanks to the use of a brushless servomotor controlled by an inverter.

The primary motor and auxiliary motors controlled by inverters allow brembana e-pump to adapt better to the working conditions and eliminate starting current peaks.

### WI-FI TABLET WITH WEB HMI

The intensifier is controlled by an industrial PLC in the electrical cabinet in order to interface with CMS cutting tables, as well as third party ones.



The HMI control interface is accessible from the 10.4" Wi-Fi tablet and offers:

- remote diagnostics
- power management and control
- management and control of the cycle number per cylinder
- electronic cutting pressure control



### CENTRAL SEAL LEAKAGE COLLECTION SYSTEM

An external manifold to collect leaks from HP seals, for easy and quick diagnostics without the need to open the covers. Depending on the location of the leak, it is possible to identify on which side it is and whether it is from static or dynamic seals. Two status green leds identify the running multiplier.



### BOOSTER PUMP

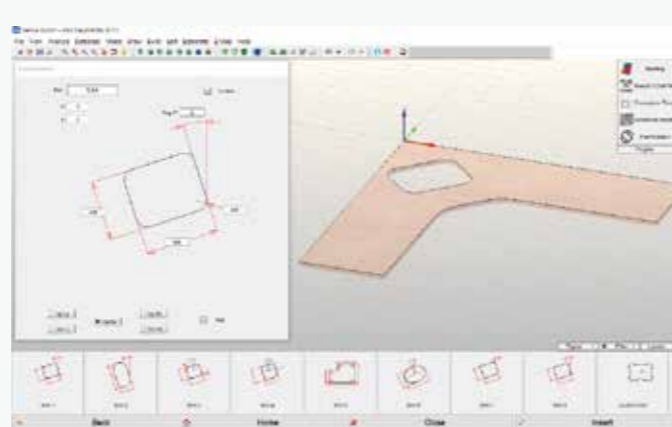
Inverter-powered booster pump for the inlet water supply, to optimize consumption by adapting to the mains water flow and pressure as well as to the cutting cycle (open/closed head). It is compatible with frequencies of 50 Hz and 60 Hz.

# EASYJET DDX SOFTWARE

Easyjet is a complete CAD/CAM suite for all-round management of every aspect of the 3 and 5-axis waterjet machining, that eliminates purchasing costs, maintenance and training of further third-party software products.

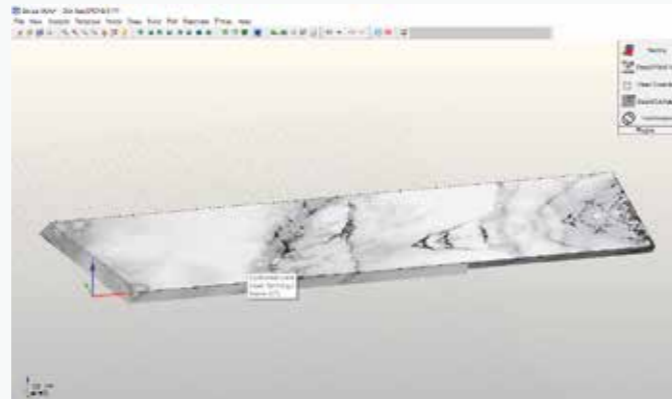
## THE GENERAL FUNCTIONS INCLUDE:

- Graphic management of the zoom and shift tools
- 3D and photo-realistic rendering of the project
- Functions to measure the profile and analysis of the individual entities
- Functions to delete and reset the most recent operations
- Option to configure the parameters database on-line to share it with numerous software stations
- Automatic e-mail management to request assistance
- Python Module and Scl included to customise software and interface with other systems



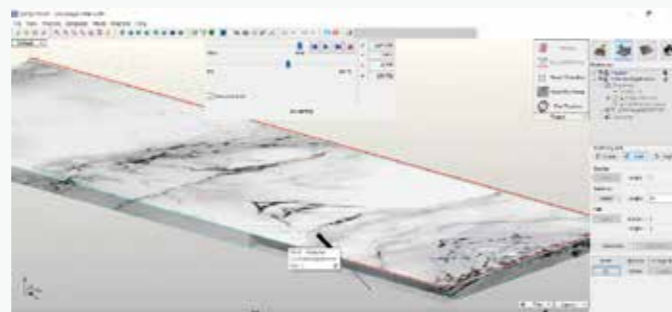
## THE CAD FUNCTIONS INCLUDE:

- Free drawing of geometrical entities like arches, lines, polylines, rectangles, squares, ellipses, circles, regular polygons, radii, clippings, nurbs, etc..
- Advanced surface drawing (loft, swept, polimesh, gordon) curve grid surface drawing
- PNT importing
- Definition of the surface using a point file elaborated by a laser scan
- Interactive change of surfaces, even complex ones, to insert chamfers, trimmings, insertion of sloping sides etc..
- Definition of construction tables
- Associating different colours to each tool path
- Change and elaboration of projects (shearing, extension, sub-division, union, interpolation, duplicate, symmetrical, rotation, deletion, etc.)
- Importing DXF, ISO, IGES, STEP, PARASOLID, 3DM and STL files
- Dimensioning

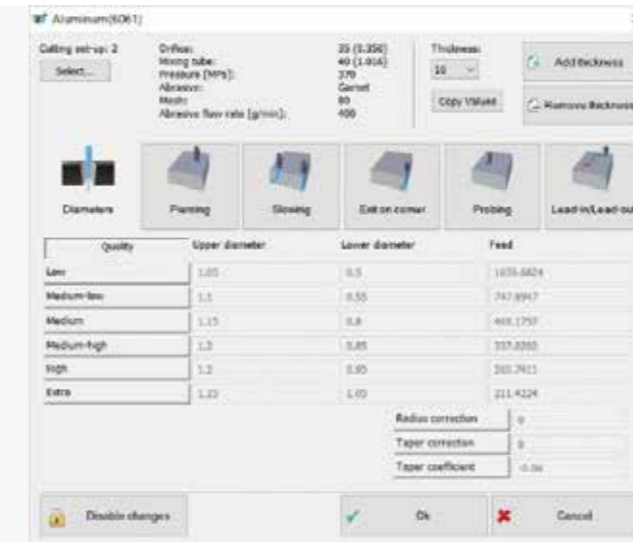
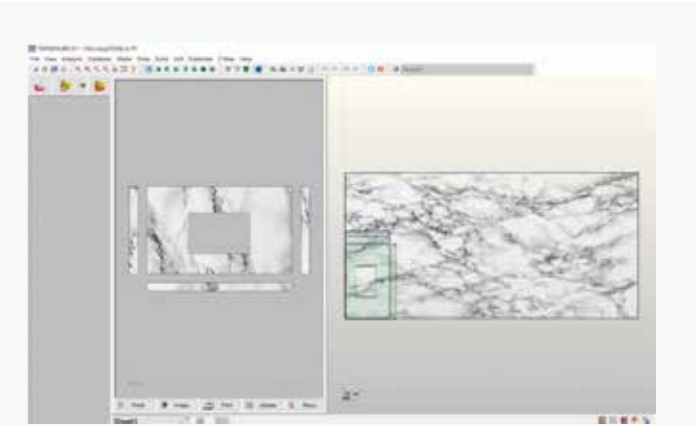


## THE CAM FUNCTIONS INCLUDE:

- Automatic generating of cutting paths with WaterJet head
- Automatic generation of input and output paths, boring included with interactive graphic change (optional)
- Continuous automatic management of the feeling cycles, at the start of the profile or the sole detection of the plate thickness
- Interpolated 5-axis control + 1
- Estimating project times and costs.
- Production of the ISO program optimised for the CNC
- Cutting management in common with the different algorithms to optimise the tool path
- Cutting with semi-automatic technology in the space.
- Automatic and/or custom-designed optimisation of the machining sequence to reduce cycle times.
- Automatic and/or manual management of the micro-joints and bridges.
- Cam-Auto module to automatically and intelligently create machining technology



In addition, the Easyjet software has powerful, fast multiple nesting algorithms in the work area, even with entities that differ from one another, with the possibility of graphically changing the arrangement of the objects and defining customised points of origin.



The JDE plug-in is included in the package to manage the cutting technologies archived in a complete materials database. The machine program is automatically generated on the basis of the selection of the cutting quality required out of 5 options (Q1, Q2, Q3, Q4 and Q5) that establish the speed advancement and acceleration settings in the internal/external corners. The ISO program can then be transferred to the machine using the local network or via USB drive.

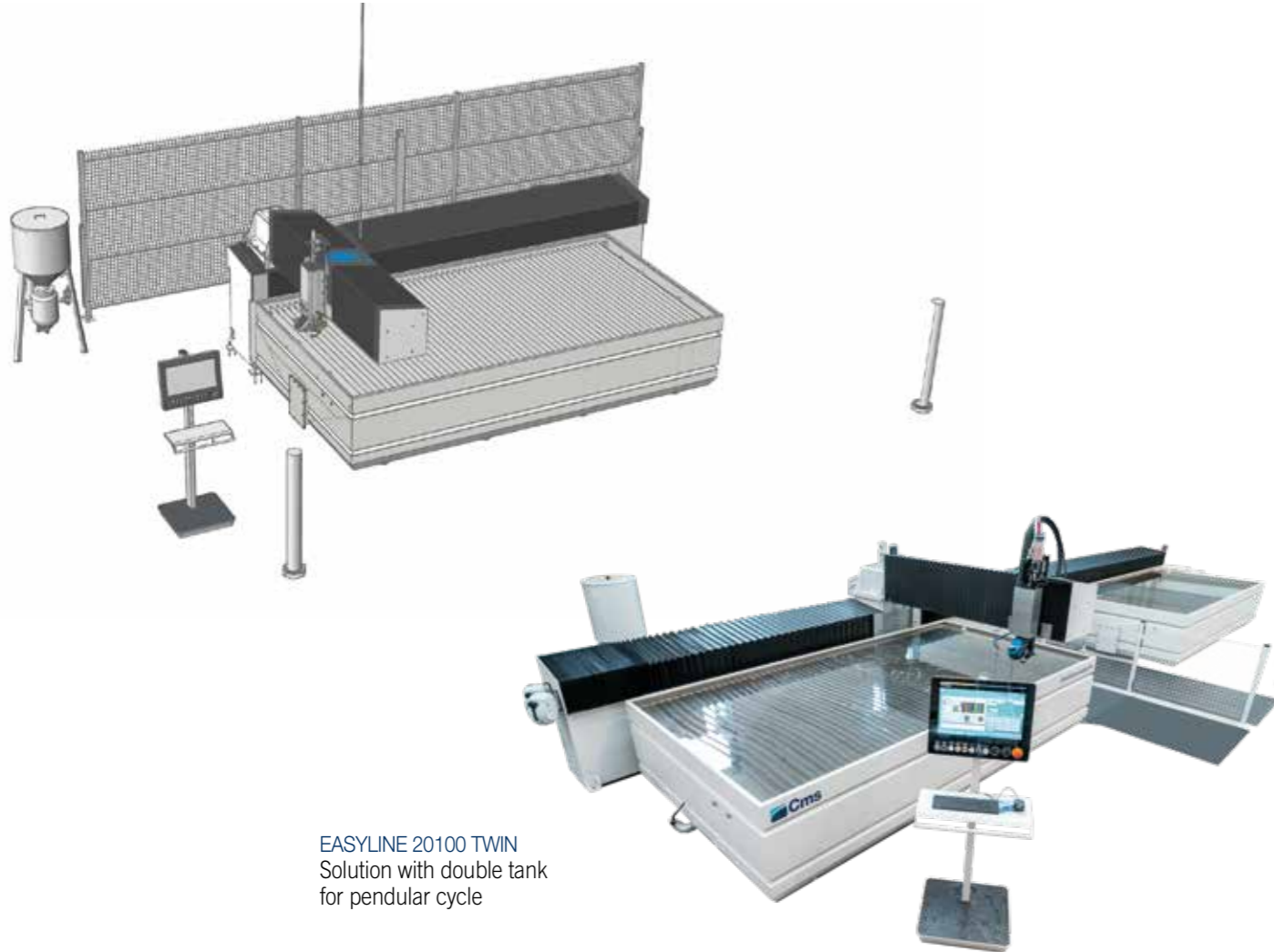
The correct setting of the machining parameters can be checked in advance thanks to the 3D simulation of the machining process using a 3D graphic model of the CNC that reproduces the table, handling axes, tool and piece arranged on the table.





# BREMBANA EASYLINE

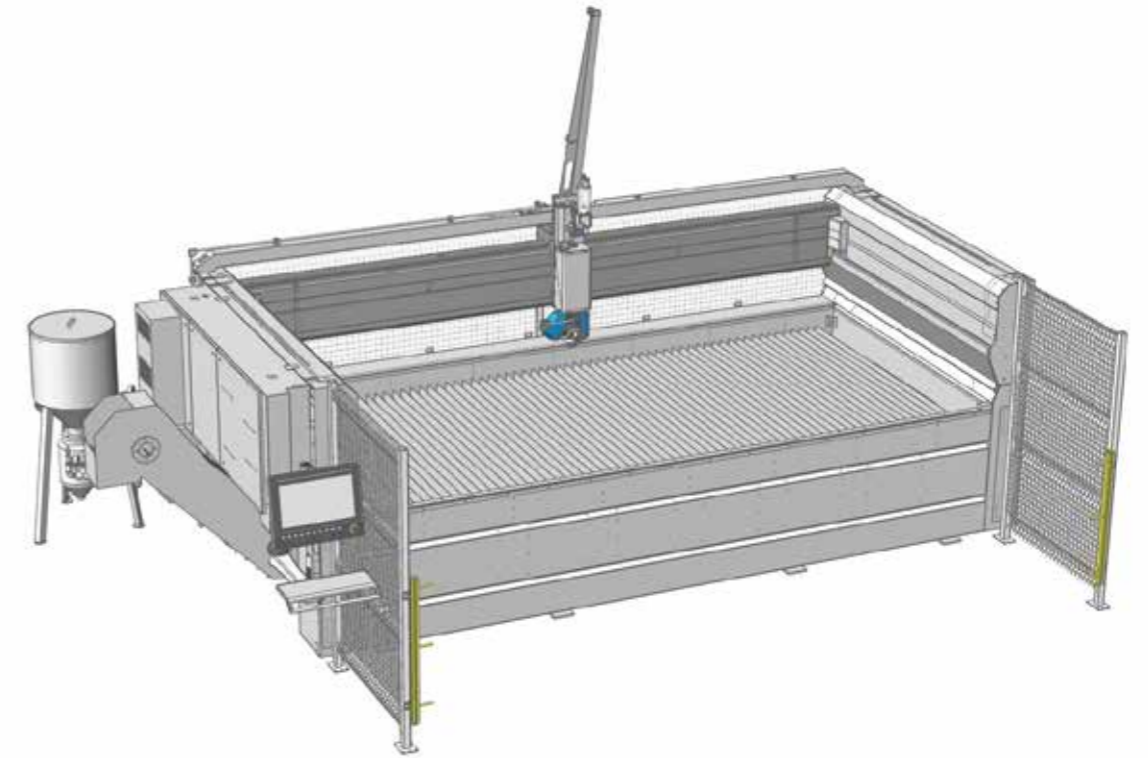
## BULK AND TECHNICAL DATA



BREMBANA EASYLINE: TECHNICAL DATA			
MODEL	2040	2060	20100 TWIN
X AXIS	4000 mm	6000 mm	11250 mm
Y AXIS	2000 mm	2000 mm	2005 mm
Z AXIS	220 mm (150 mm with 5-axis head)	220 mm (150 mm with 5-axis head)	150 mm with 5-axis head
B AXIS	+/- 60°	+/- 60°	+/- 63°
C AXIS	-	-	infinito
SUPPORT PLANE	4210 x 2225 mm	6210 x 2225 mm	2 x 6210 x 2225 mm
OVERALL DIMENSIONS WITH LIGHT BARRIERS	5680 x 7208 mm	5680 x 9242 mm	15200x5400 mm

# BREMBANA MILESTONE S

## BULK AND TECHNICAL DATA



BREMBANA MILESTONE S: TECHNICAL DATA		
MODEL	1730	2040
X AXIS	3000 mm (2 head) 3300 mm (1 head)	4000 mm (2 head) 4250 mm (1 head)
Y AXIS	1700 mm	2000 mm
Z AXIS	350 mm (200 mm with 5-axis head)	350 mm (200 mm with 5-axis head)
B AXIS	+/- 60°	+/- 60°
SUPPORT PLANE	3700 x 2050 mm	4650 x 2050 mm
OVERALL DIMENSIONS WITH LIGHT BARRIERS	5010 x 3600 mm	5960 x 3900 mm
WEIGHT (EMPTY)	3600 kg	4000 kg

# BREMBANA PROLINE

## BULK AND TECHNICAL DATA



# BREMBANA AQUATEC

## BULK AND TECHNICAL DATA



### BREMBANA PROLINE: TECHNICAL DATA

MODEL	2040
X AXIS STROKE (1 HEAD)	4250 mm
Y AXIS STROKE	2000 mm
Z AXIS STROKE (3-AXIS HEAD)	300 mm
Z AXIS STROKE (5-AXIS HEAD)	200 mm
C AXIS (5 AXIS ONLY)	Infinite
B AXIS (5 AXIS ONLY)	+/- 62°
XY AXIS RAPID SPEED	40000 mm/min
WORKTABLE SIZE	4820 x 2220 mm
WORKTABLE LOAD CAPACITY	1000 kg/m2
FOOTPRINT LXPXH	7290x 3480 x 3900 mm
WEIGHT MAX (EMPTY)	8000 kg

### BREMBANA AQUATEC: TECHNICAL DATA

MODEL*	2040	QUICK	ACCELERATIONS	6040 TWIN	QUICK	ACCELERATIONS
X AXIS	4020 mm	54 m	2 m	4000 mm	72 m/min	2 m/s2
Y AXIS	2650 mm	54 m	2 m	6650 mm	72 m/min	2 m/s2
Z AXIS	530 mm	12,6 m	1 m	530 mm	28 m/min	1 m/s2
B AXIS	± 60°	17200 °	1450 °	± 61°	13400 °/min	850 °/sec2
C AXIS	± 340°	13400 °	850 °	± 340°	17200 °/min	1450 °/sec2
WORKABLE AREA	2000 x 4000 mm			front area 4000 x 2000 mm rear area 4000x2000		
OVERALL DIMENSIONS	5886 x 4039 mm senza fotocellule			9800x10300 mm withour pressure intensifiers		

# PRESSURE MULTIPLIERS

## TECHNICAL DATA



BREMBANA JETPOWER EVO: TECHNICAL DATA		
MODEL	JETPOWER EVO 40 HP	JETPOWER EVO 60 HP
POWER	22,5 kW	45 kW
MULTIPLIERS	2	3
MAX FLOW PRESSURE	4150 bar	4150 bar
MAX WATER PRESSURE	2,7 L/min	5 L/min
MAX ORIFICES DIAMETER	0,28 mm	0,40 mm
VOLTAGE	400V +/- 5% 50-60 Hz (Different voltages and frequencies on request)	



### BREMBANA E-PUMP: TECHNICAL SPECIFICATIONS \*

POWER CONSUMPTION (0.38 ORIFICE AT 3800 BAR)	30 kW
MAXIMUM POWER CONSUMPTION WITH CLOSED HEAD	2.4 kW
MAXIMUM OPERATING PRESSURE	4130 bar
MAXIMUM WATER FLOW RATE AT 3700 BAR	5 l/min
MAXIMUM ORIFICE DIAMETER AT 3700 BAR	0.40 mm
OVERALL DIMENSIONS L X W X H	1666x906x1529 mm
WEIGHT	1400 Kg
VOLTAGE (THREE-PHASE)	400 V 50/60 Hz
OIL TANK CAPACITY	13 L
PRESSURE ATTENUATOR CAPACITY	1.15 L
CYLINDER STROKE	200 mm
REQUIRED INLET WATER TEMPERATURE (ACCEPTABLE MIN - MAX)	5 - 25 °C
NOMINAL ENVIRONMENT TEMPERATURE (ACCEPTABLE MIN - MAX)	5 - 40 °C
NOMINAL NOISE	70 db

\* BFT Technology. The technical data may vary with different configurations

# 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 services, without any downtime.

### 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

### 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 center (e.g.: operator, maintenance man, administrator, ...).

It is also possible to define the work shifts on the machining center 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 allowing for the programs to be run.



## THE MOST ADVANCED SKILLS AND KNOW-HOW IN THE FIELDS OF MACHINERY AND INDUSTRIAL COMPONENTS

A technological world leader in processing a wide variety of materials: wood, plastic, glass, stone, metal and composites. The Group companies, operating throughout the world, are reliable partners of leading companies 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.

### INDUSTRIAL MACHINERY

Standalone machines, integrated systems and services dedicated to the processing of a wide range of materials.



Woodworking technologies



Technologies for advanced materials, plastic, stone, glass and metals processing



### INDUSTRIAL PARTS

Technological components for Group and third party machines and plants and for the mechanical industry



Electrospindle and technological components



Electrical panels



Metalworking and mechanical machining



Cast Iron

### SCM GROUP IN BRIEF

**+700**  
Milioni/Euro  
in consolidated  
turnover

**+4.000**  
people  
in Italy and abroad

**3** main  
production  
centres

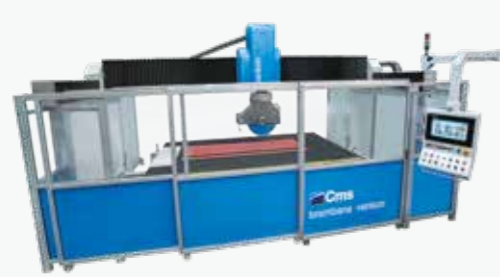
A presence on **5**  
continents that is  
direct and widespread

**7%**  
of turnover  
invested in  
R&D

# THE RANGE OF CMS STONE TECHNOLOGY

# FOR STONE PROCESSING

## 5-AXIS BRIDGE SAWS



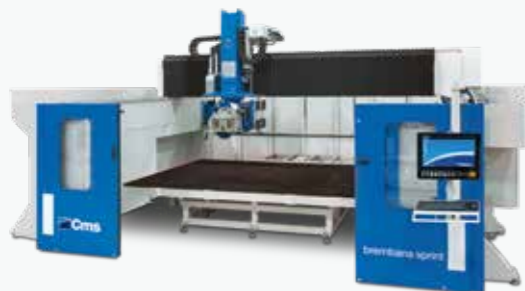
**BREMBANA VENKON**



**BREMBANA KOSMOS**



**BREMBANA KRATOS**



**BREMBANA SPRINT**

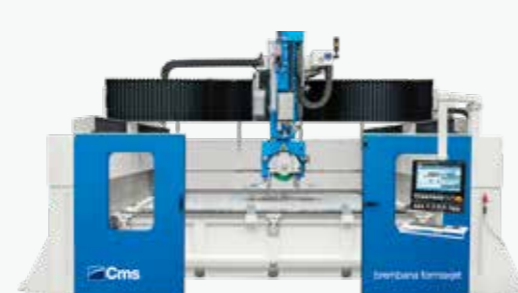


**BREMBANA GIXA**

## 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 SYSTEMS AND PRESSURE INTENSIFIERS



**BREMBANA EASYLINE**



**BREMBANA MILESTONE S**



**BREMBANA PROLINE**



**BREMBANA AQUATEC**



**BREMBANA  
JET POWER EVO**



**BREMBANA  
E-PUMP**



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