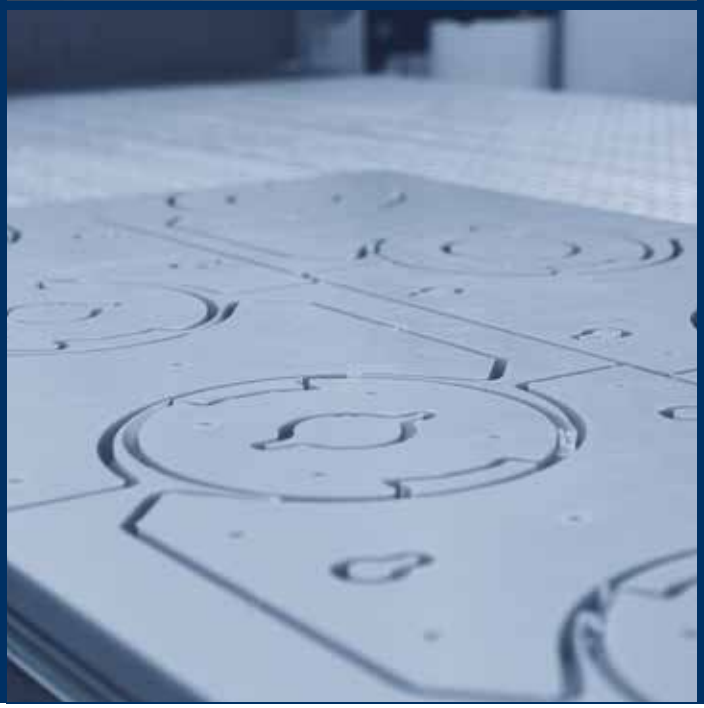
ADVANCED MATERIALS

cms tracer 200x/300x

3/5-axis CNC machining centers
(Z clearance up to 500 mm)



Cms
advanced materials 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 centers employing more than 4,000 workers and operating in all 5 continents. SCM Group can offer the most advanced expertise worldwide in the design and construction of machinery and components for industrial processing.

CMS SpA manufactures machinery and systems for processing composite materials, carbon fiber, aluminum, light alloys, plastic, glass, stone, and metals. It was established in 1969 by Pietro Aceti, with the aim of offering customized and state-of-the-art solutions based on an in-depth understanding of customers' production needs. Significant technological innovations originating from substantial investments in research and development and take-overs of premium companies have led to constant growth in the various sectors.

Cms
advanced materials technology

CMS Advanced Materials Technology is a leader in the field of numerically controlled machining centers for the working of advanced materials: composites, carbon fibre, aluminum, light alloys and metal. Substantial investiments in research and development have allowed the brand to always be on the forefront of cutting-edge design, with machines that ensure best-in-class performance in terms of accuracy, speed of execution, and reliability; meeting the needs of customers operating in the most demanding divisions. Since the early 2000's**, CMS Advanced Materials Technology** has established itself as a technology partner in areas of excellence such as aerospace, aviation, automotive, race boating, Formula 1, and the most advanced railway industry.

scm group | *industrial machinery and components*

Cms | *your technology partner*

Adaptable.
Global.
Innovative.
Lean.
Efficient solutions.

The **AGILE** way for sheets cutting.

cms tracer 200x/300x

a company of scm group

TRACER 200X/300X
TECHNOLOGICAL BENEFITS

LEARN MORE

The new generation of 3- and 5-axis nesting CNC machining centers for advanced materials and plastic machining. Cell version models with automatic loading and unloading belts are also available .

KEY BUYER BENEFITS

+ "**All in one**" 3- and 5-axis machining center for machining **plastics** and **advanced materials**, with technical solutions dedicated to **advanced nesting** and **engineering parts**
+ Wide range of **best-in-class** heads and spindles for all machining needs up to 15 kW and 24,000 rpm
+ **Unparalleled optimization of overall dimensions** thanks to the availability of "pro-speed" and "pro-space" solutions
+ Worktable with **unique vacuum management**solutions, thanks to the dynamic **X-Vacuum** system

Faster work cycles with the **FAST** magazine of up to 12, 14 or 18 positions.

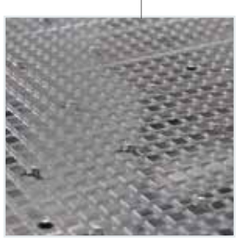
Tools always available thanks to the **R16** rear storage .

Console with built-in PC, an industrial PC with 21.5-inch full HD multi-touch color display, on a support base with wheels so that the console can be moved easily around the machine perimeter.

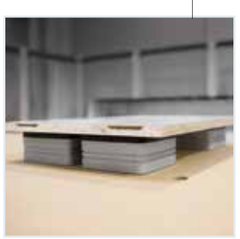
3-, 4-, 5-axis main electrospindle.

TRB magazine with 11, 14, 16 and 19 positions.

Everything at your fingertips with the **TECPAD** remote control with 7" color touch-screen.



Worktables made of "PHE" (Phenolic High Efficiency) and "**HE**" (High Efficiency) are robust, practical and non-deformable.



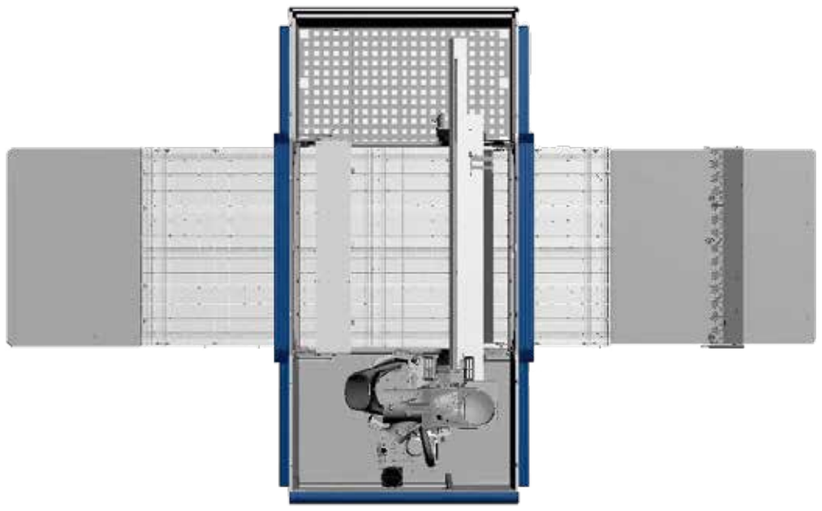
Wide range of specific suction cups for both HE beds and beds with support panels.

Maximum effectiveness in all work situations
The presser roller solution provides perfect clamping of workpieces such as strips and profiles, small parts made by nesting and stacked panels. In general, it offers is perfect clamping under conditions in which a vacuum would not hold well. For machining processes that do not require them, the rollers are disabled without affecting the machine performance.

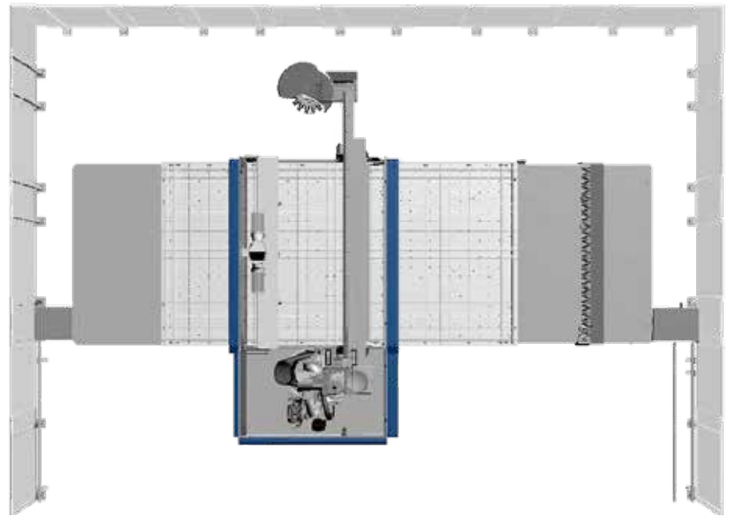
SAFETY SYSTEMS

GUARANTEED SAFETY: BUMPER PROTECTOR
Work in complete safety with the bumper guard system, which stops the machine only in the event of accidental contact by the operator.

MINIMUM FOOTPRINT, MAXIMUM SAFETY AND FLEXIBILITY: PRO-SPACE PROTECTION
The absence of perimeter guards allows access to the worktable from all sides of the machine, and controls located on both the rear and the front means that panels can be loaded and unloaded from both sides. The safety system allows the machine to be used in the X-direction at a forward speed of up to 25 m/min.



COMPLETE FREEDOM AND HIGH PRODUCTIVITY: PRO-SPEED PROTECTION
Protection system for using the machine at the maximum forward speed. The machine automatically reduces speed when the operator enters the loading zone bounded by the front photocell barrier; it returns to full speed as soon as the operator leaves the loading zone.



HIGH-LEVEL NESTING
AND MORE

THE JQX ELECTROSPINDLE (Just Quality eXtreme) with 5 axes, direct-drive transmission and up to 12 kW power guarantees maximum machining freedom and absolute quality when machining engineering parts.
All this allows the tracer 300x to cover both nesting and 5-axis machining needs with maximum performance.

The 0°–90° blade assembly easily makes cuts or grooves in the X and Y directions.

Increased efficiency and reduced working time with the additional milling unit of up to 5.4 kW.

TOOL MAGAZINES

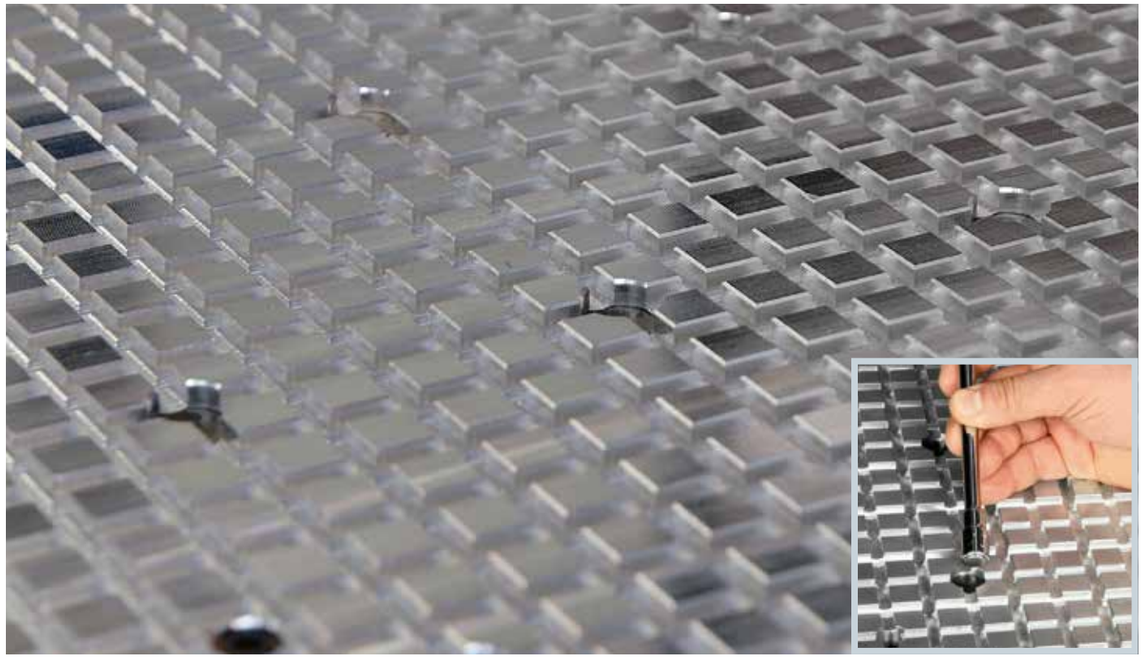
* For all versions available "Pick-up" storage anchored to the movable beam. The ideal setup for the use of bulky tools and angular transmission heads.

TOOL LENGTH SENSOR
On the side of the base automatically measures the tool length.

TRB side magazine with up to 19 positions.

Many tools always available thanks to the **R16** rear storage.

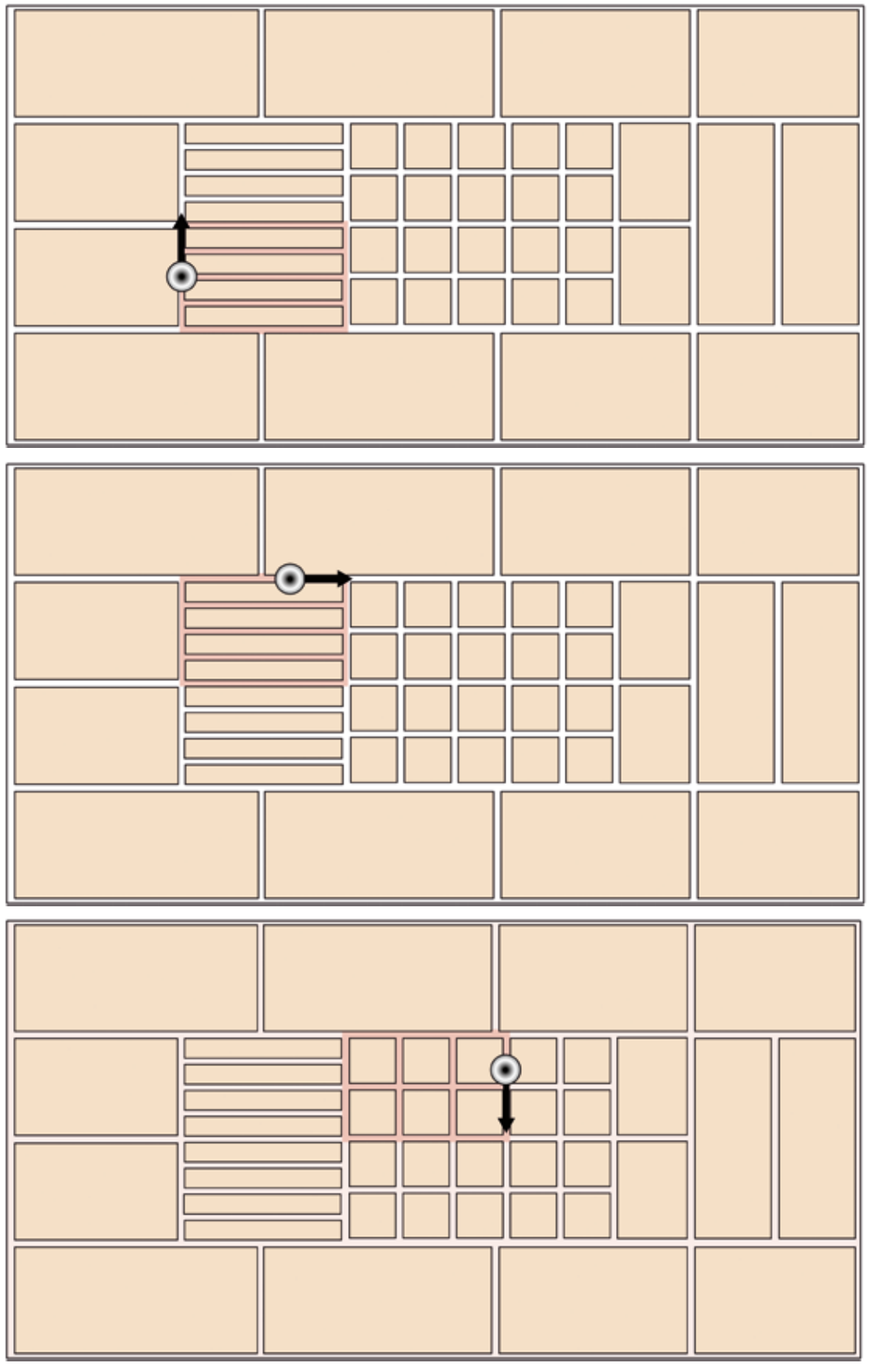
WORKTABLES



AIMED AT EFFICIENCY AND SAVINGS: "HE" WORKTABLE (High Efficiency)
A rolled aluminum frame makes the worktable sturdy, practical and non-deformable. Easy and fast tooling with the magnetic vacuum shut-off system: in just a few seconds the vacuum is directed only to the workpiece positioning area.

Maximum workpiece holding only where needed: 2 to 30 vacuum zones, depending on the bed size.

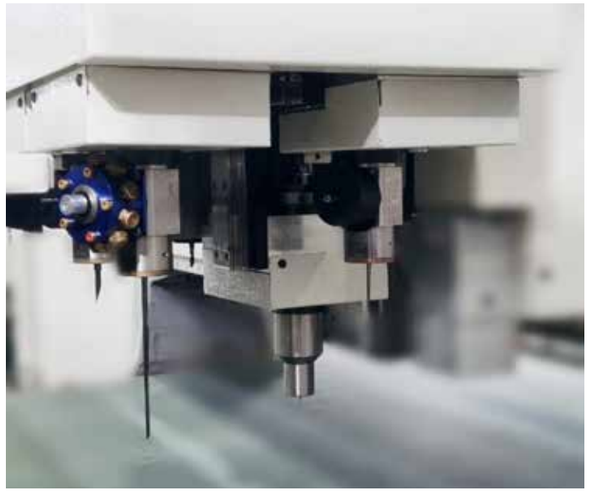
X-VACUUM
Maximum vacuum effectiveness for processing small parts or highly breathable materials.



The vacuum is concentrated in the area of the worktable actually used.

“GIS” INTEGRATED DEVICE
KNIVES CUTTING TECHNOLOGY

Knives cutting **GIS 1, GIS 2 and GIS 4**, located on the machine’s moving bridge, are equipped with insertion slides independent in respect the machine’s main spindle.

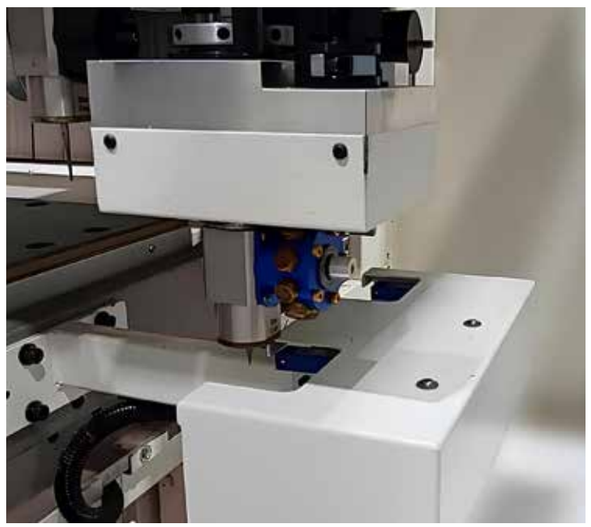


FASTER CYCLE TIMES
The machine’s main spindle is free and always available for milling operations. Always optimal knives cutting parameters, as they are untied from spindle rotation as is the case when using aggregates.

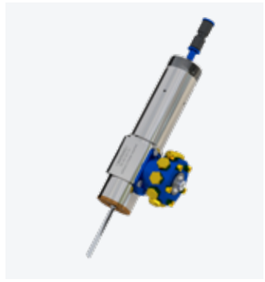
Maestro’s “Overcut Compensation” function allows the perfect management of each type of blade/knife to achieve optimized radius trajectories without ‘’sawtooth” effect as well as without ‘’extra cut” effect.

Plug-and-play spindle changing to maximize configurability and minimize downtime.

Optical blade-measuring device enables automatic, fast and accurate checking of the length and possible blade breakage.



SPINDLES
FOR ALL CUTTING NEEDS



PNEUMATIC SHORT STROKE
Stroke 3,2 mm
15.000 stroke/min

ELECTRICAL
Stroke 1,6 mm
12.000 stroke/min

TANGENTIAL KNIFE
Interpolated fixed knife

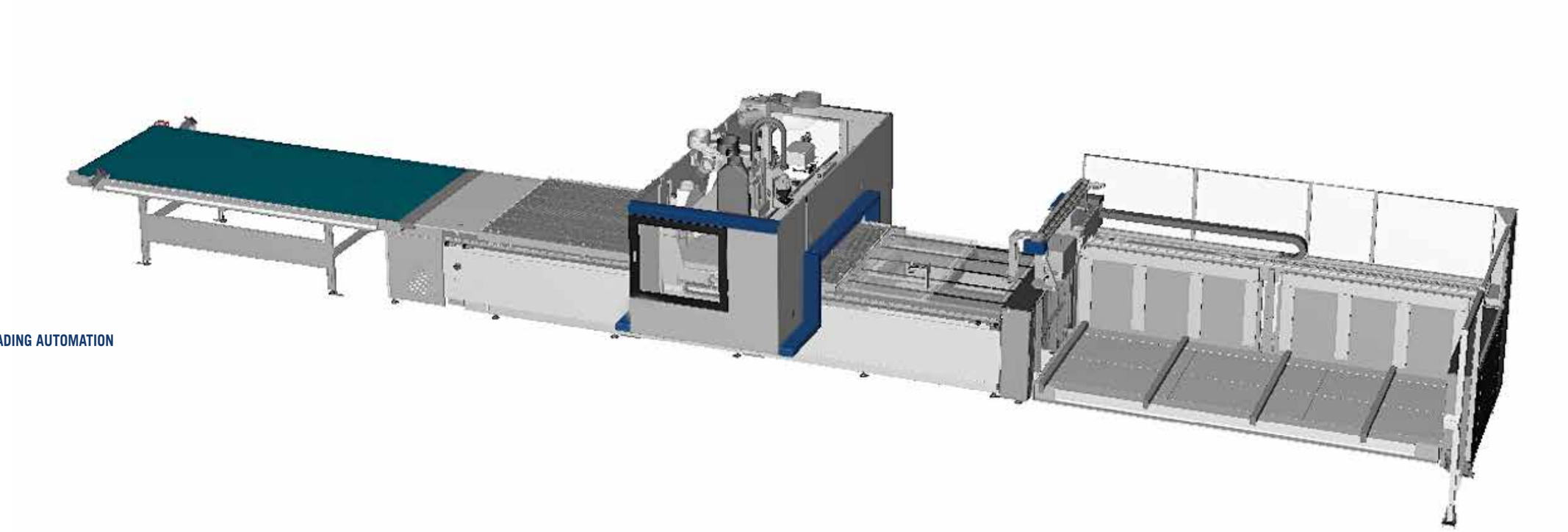
PNEUMATIC LONG STROKE
Stroke 5 - 7 mm
9.000 stroke/min

WINNING PAIR!
“GIS” cutting technology is the particularly effective match for high-speed spindles such as our 8kW 40,000 rpm HSK32E

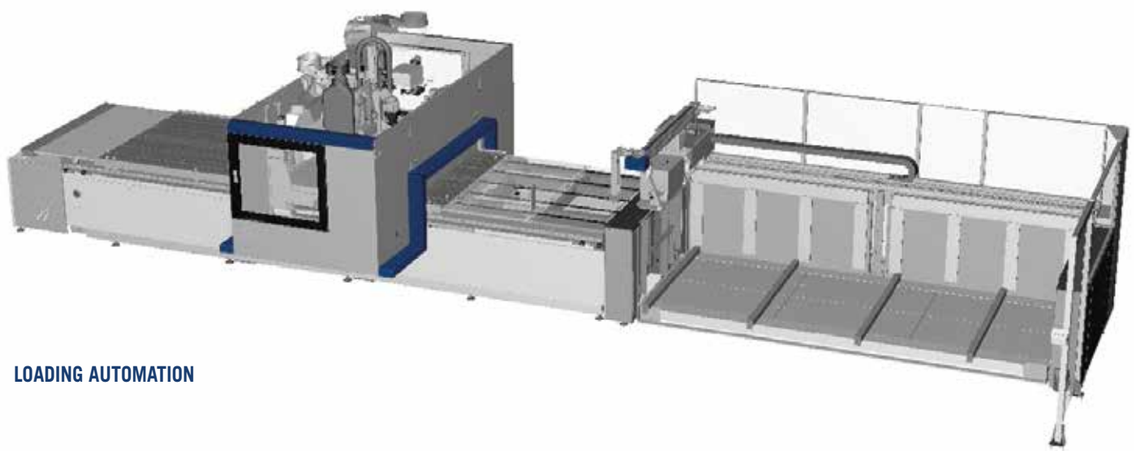
OPTISCOUT
Optical device for detecting geometric references for management and rototranslation of the program according to the actual position on the plane. Import function for the most common digital printing file format.

LOADING AND UNLOADING

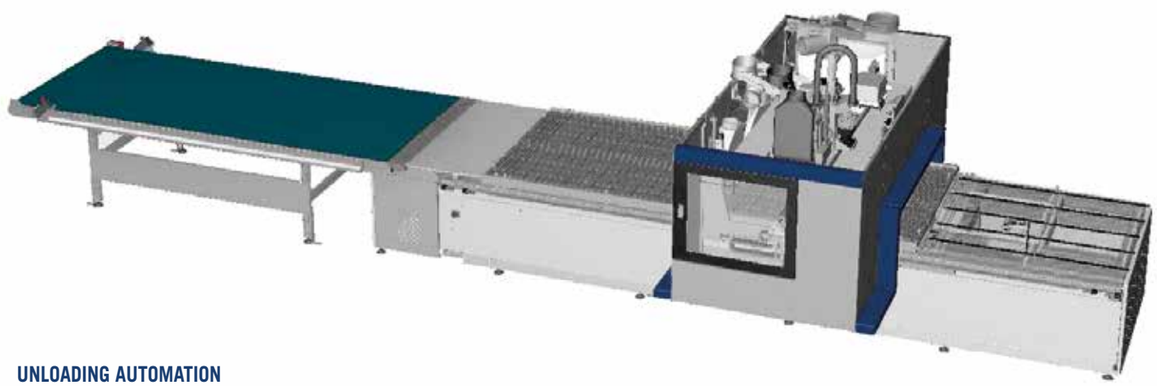
Machines available with nesting cell configurations with loading elevators and unloading belts (loading only or unloading only versions are also available), as well as left and right versions.



LOADING/UNLOADING AUTOMATION



LOADING AUTOMATION

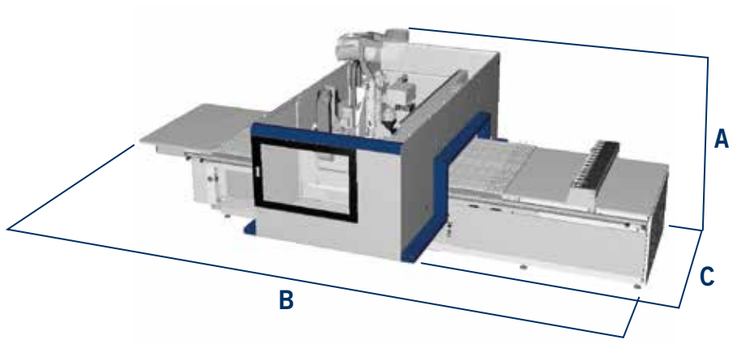


UNLOADING AUTOMATION

OVERALL DIMENSIONS

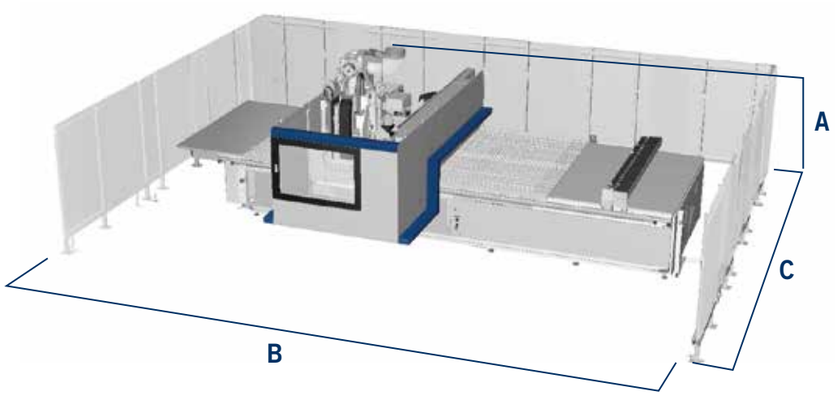
* Including operational space

STAND-ALONE		A	B	C
cms 200x/300x 1224	mm	2610/2790	6110/6350	3965/4465
cms 200x/300x 1531	mm	2610/2790	6710/6950	4265/4765
cms 200x/300x 1536	mm	2610/2790	7310/7550	4265/4765
cms 200x/300x 1836	mm	2610/2790	7310/7550	4565/5065
cms 200x/300x 2231	mm	2610/2790	6710/6950	4885/5385
cms 200x/300x 2243	mm	2610/2790	7910/8150	4885/5385



* Including operational space

STAND-ALONE		A	B	C
cms 200x/300x 1224	mm	2610/2790	6570	4190/5060
cms 200x/300x 1531	mm	2610/2790	7170	4490/5360
cms 200x/300x 1536	mm	2610/2790	7770	4490/5360
cms 200x/300x 1836	mm	2610/2790	7770	4790/5660
cms 200x/300x 2231	mm	2610/2790	7170	5110/5980
cms 200x/300x 2243	mm	2610/2790	8370	5110/5980



TECHNICAL DATA

TRACER		200x	300x
AXES			
"PRO-SPACE" X-Y axis vector speed	m/min	84	
"PRO-SPEED" X-Y axis vector speed	m/min	113	
Workpiece Z clearance	mm	150	180
MILLING UNIT			
Motor power (up to)			
3-4 axes	kW (hp)	15 kW (20.5)	
5 axes		-	13.5 (18.4)
Rotation speed (up to)	rpm	40.000	
Tools available in the magazine (up to)	positions	38	53
DRILLING UNIT			
Vertical spindles (max.)	no.	21	
Horizontal spindles (max.)	no.	12	
Rotation speed (max.)	rpm	8000	
Integrated X blade, diameter	mm	125	
INSTALLATION			
Intake air consumption	m^3/h	4430	
Air intake speed	m/sec	25	
Intake port diameter	mm	250	

Maestro cnc

Office, the Maestro cnc design and programming system ensures that milling, drilling, cutting, etc. machining processes can be programmed quickly and easily.

This is due to the 3D graphical representation of the workpieces and the support provided by the ready-to-use apps and macros to create any machining process with a click of the mouse. Another click and the CNC programs are generated automatically.

SOFTWARE

OFFICE

Maestro cnc

THE SOFTWARE THAT MAKES WORK EASIER

CAD/CAM programming software for designing any production process. Developed in the Windows® environment, this advanced, simple and user-friendly sketching environment provides customers with all the tools they need for drawing parts and arranging them on the worktable, and managing the tools and related machining, all in a perfectly integrated and high-performance context, making programming very easy.

ADDITIONAL FUNCTIONS

Maestro pro view - **Unique for 3D simulation**
3D simulator that gives the users a three-dimensional model of their machine in order to view the machining processes that will be performed during production in advance on their PC in the office.

Maestro 3d - **Unique for creating 3d objects**
Integrated module for programming three-dimensional objects on 5-axis machining centers.

Maestro apps - **Unique for know-how**
Maestro apps is a library of immediately available and easy-to-use programming functions, developed specifically for machining parts from plastics.

Maestro msl connector - **Full integration**
Connect with third-party design software.

Maestro active cnc

Maestro active is our new interface. An operator can easily guide different machines as the Maestro active interface software maintains the same look&feel, icons and approach to interaction.

EASE OF USE
The new interface has been specially designed and optimized for immediate use via a touch screen. Graphics and icons have been redesigned to make navigation simple and comfortable.

ZERO ERRORS
Improved productivity with built-in help and recovery procedures that reduce the possibility of operator error.

SOFTWARE

FACTORY

Maestro active cnc

REVOLUTIONARY INTERACTION WITH YOUR CMS MACHINE TOOL FOR MACHINING PLASTIC

MAXIMUM CONTROL OF PRODUCTION PERFORMANCE
Generating customizable reports by operator, shift, schedule, timeframe (and more) makes it possible to monitor, optimize and improve production performance.

FULL KNOWLEDGE OF MACHINE EVENTS AND SHARING OF OPERATOR EXPERIENCE

Maestro active records maintenance, training and other events, tracking all activities within a database. The ability to comment and document all production events or notifications stores the operator's know-how and makes it available to the company.

ADVANCED PRODUCTION ORGANIZATION
Maestro active can configure different users with different roles and responsibilities depending on how they use the machine (e.g. operator, maintenance technician, administrator, ...).
It is also possible to define work shifts on the machine and then measure the activities, productivity and events that occurred during each shift.

ABSOLUTE FINISHED PART QUALITY
With Maestro active, the quality of the finished part is no longer jeopardized by worn tools. The new Tool Life Determination System in Maestro active sends notification messages as the end of tool service life approaches, and recommends replacement at the most opportune time.

TOOLING? NO PROBLEM!
Maestro active guides the operator through tool magazine set-up, taking the programs to be executed into account.

World leader in the field of technologies for the processing of a wide range of materials - wood, aluminum, plastic, glass, stone, metal and composite materials - and industrial components.

The Group companies around the world are reliable partners of well-known companies working in several product sectors: from the furniture, construction, automotive industry to aerospace, boating and plastic materials processing.

Scm Group coordinates, supports, and develops a system of industrial excellence, with highly specialized and integrated plants in Italy and other sites in Germany, the United States, and Brazil, with production dedicated to local markets.

Scm Group has a turnover of 900 million euros, over 4,000 employees, and a direct presence in five continents.

INDUSTRIAL MACHINERY

Stand-alone machines, integrated systems and services dedicated to processing a wide range of materials.

scm
Woodworking technology

Cms
Composite, aluminium, plastic, glass, stone, metal technology

MECAL
Technologies for the profiles processing of aluminum, PVC and light alloys

TECNOLOGICA
Automated systems for industry

INDUSTRIAL COMPONENTS

Technological components for the Group's machines and systems, for those of third-parties and for the mechanical industry.

HITECO
Electrospindles and technological components

es
Electric panels

steelmec
Carpentry and mechanical machining

scmfonderie
Iron castings

SCM GROUP IN A NUTSHELL

900 Million/Eur of consolidated turnover	**+4.000** employees in Italy and abroad	**5** main production centers	**5** continents with direct and widespread presence	**7%** of turnover invested in R&D

THE RANGE OF CMS ADVANCED MATERIALS TECHNOLOGY

MONOBLOC CNC MACHINING CENTERS FOR VERTICAL MILLING

ANTARES MK3

ARES

KYROS

GANTRY CNC MACHINING CENTERS FOR LARGE-SIZE WORK AREAS

ETHOS

POSEIDON

CONCEPT

3/5-AXIS CNC MACHINING CENTERS, PASSAGE IN Z UP TO 500 MM

EVOTECH

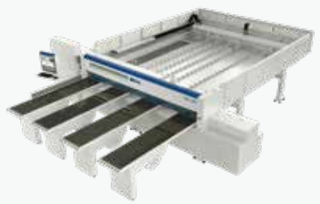
SOLUTIONS FOR ADDITIVE MANUFACTURING

KREATOR ARES

MONOBLOC CNC MACHINING CENTERS FOR HORIZONTAL MILLING

IKON

BEAM-SAWS

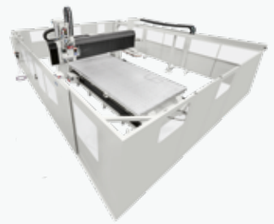


HELIX

FOR COMPOSITES, ALUMINUM AND METAL PROCESSING

FIXED AND MOBILE BRIDGE CNC MACHINING CENTERS

FXB



MBB

AVANT CARAVAN

CNC MACHINING CENTER FOR THE EYEWEAR INDUSTRY

MONOFAST EVO

WIND BLADE WORKING SYSTEMS

EOS

CNC MACHINING CENTERS FOR GUNSTOCKS PROCESSING

MULTILATHE

MONOFAST GUNSTOCKS

KARAT

WATERJET CUTTING SYSTEMS

TECNOCUT PROLINE

TECNOCUT SMARTLINE

ACTRACE-0925E

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