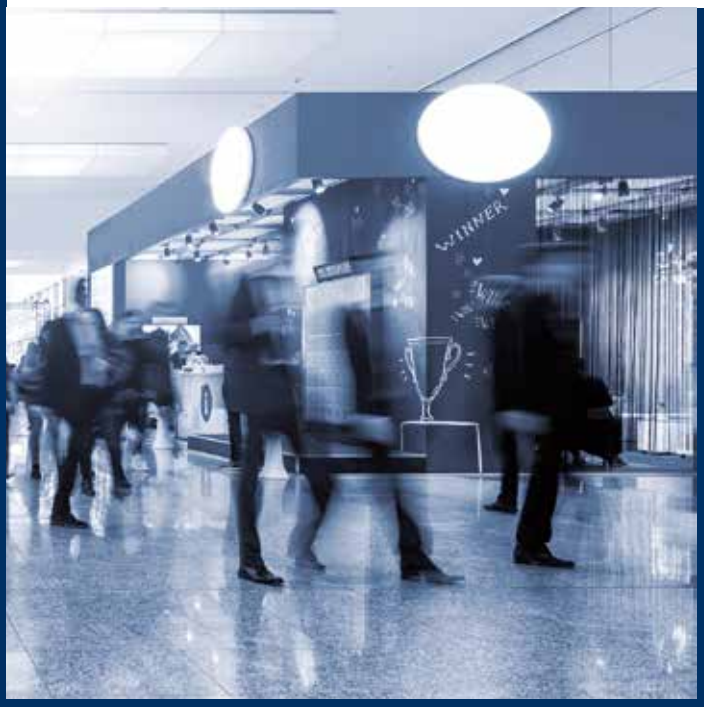
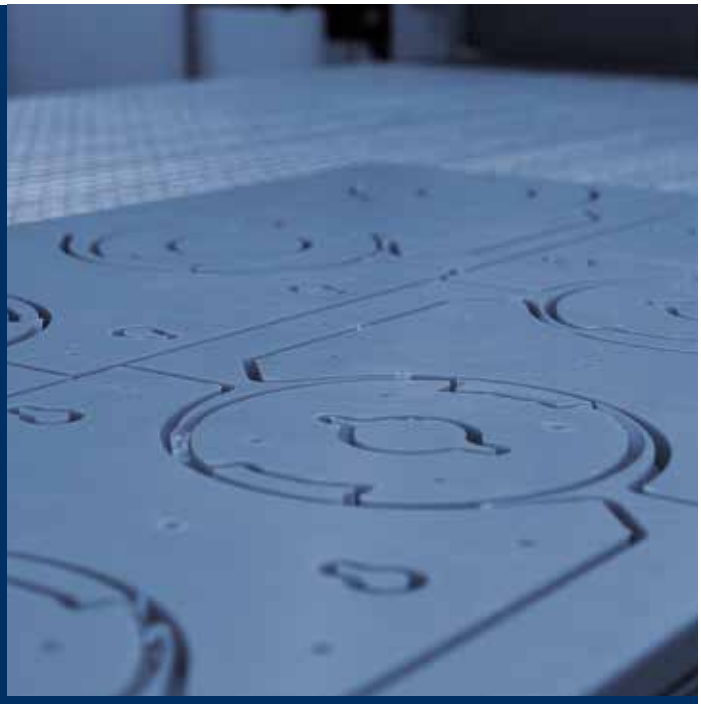
PLASTIC

cms time 100

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









Cms
plastic 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 three large, highly specialized production centers employing more than 4,000 workers and operating in five 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 fiber, aluminum, 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
plastic technology

CMS Plastic Technology produces numerically-controlled machining centers and thermoforming machines for plastic materials processing, offering technologically advanced solutions.The brand originates from the prized synergy between technical-industrial expertise in thermoforming from the historical company Villa, established in 1973, and CMS' s historical experience in milling. Thanks to constant investments in research and innovation, CMS Plastic Technology is recognized as a unique partner for entire processes: from thermoforming, to trimming, to the realization of models and molds, ensuring maximum productivity.

CMS Plastic Technology is in the forefront of manifold sectors, such as: automotive, aerospace, earth-moving machinery, motorhomes, buses, railway industry, bathtubs production, technical items, visual marketing, mechanical components and packaging.

scm group | industrial machinery and components

Cms | your technology partner



cms time 100

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a company of scm group

TECHNICAL FEATURES OVERVIEW

CNC MACHINING CENTERS FOR PLASTIC MATERIALS PROCESSING

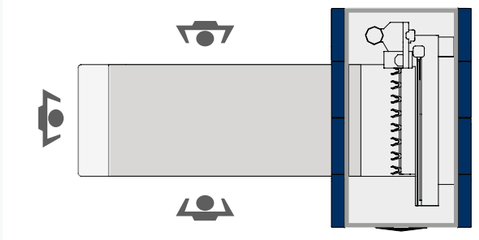
Machining center designed and engineered for plastic materials processing Due to the unique design and PRO-SPACE safety systems, it requires less floor space and can be operated from all sides for material handling of smaller components.

KEY BUYER BENEFITS

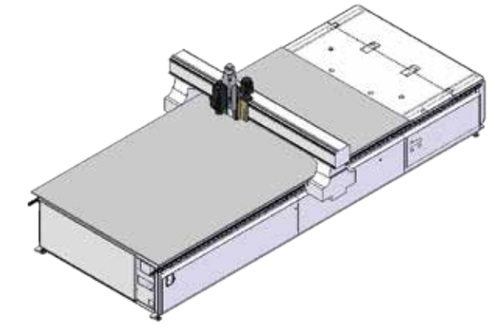
+ **High performance, essential and flexible** 3-axis machining centre with advanced technical solutions and an incomparable **performance/price** ratio
+ **High level performance** able to combine, in a unique way, the needs of all sectors of **plastics processing**, from **signage** to **nesting** to the **technical article**
+ **Compact size** thanks to our “pro-space” solution

DIMENSIONS

cms time 100
3/5-axis CNC machining centers (passage in Z up to 500 mm)



MINIMUM OVERALL DIMENSIONS AND MAXIMUM FLEXIBILITY: “PRO-SPACE” PROTECTIONS
Loading zone completely free to reduce the space occupied to the minimum.
The absence of perimeter protections facilitates the work table access on all the sides of the machine.



TOTAL LACK OF VIBRATIONS: MOBILE GANTRY STRUCTURE
Incomparable performance in the processing of plastic materials thanks to the mobile gantry structure that ensures high machining speeds while guaranteeing the best end products quality.



MACHINING UNIT



OPTIMAL PRECISION AND FLEXIBILITY
in all conditions of use with the 3 or 4-axisrouting unit up to 15 kW power.
in order to ensure constant performance even during the most intense phases of plastic sheet processing, the electrospindle can be equipped with a liquid cooling unit that allows to keep the operating temperature constant.



NO LIMITS TO MACHINING: INTERPOLATING VECTOR AXIS
360° rotation and automatic positioning on X-Y axes of all angular heads with the interpolating Vector axis digitally managed by the NC

TOOL CHANGERS

cms time 100

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



Maximum versatility thanks to the **TR** side tool changer that greatly reduces the tool changing times. Ideal solution to reduce cycle times, particularly in trimming flat or thermoformed plastic sheets.

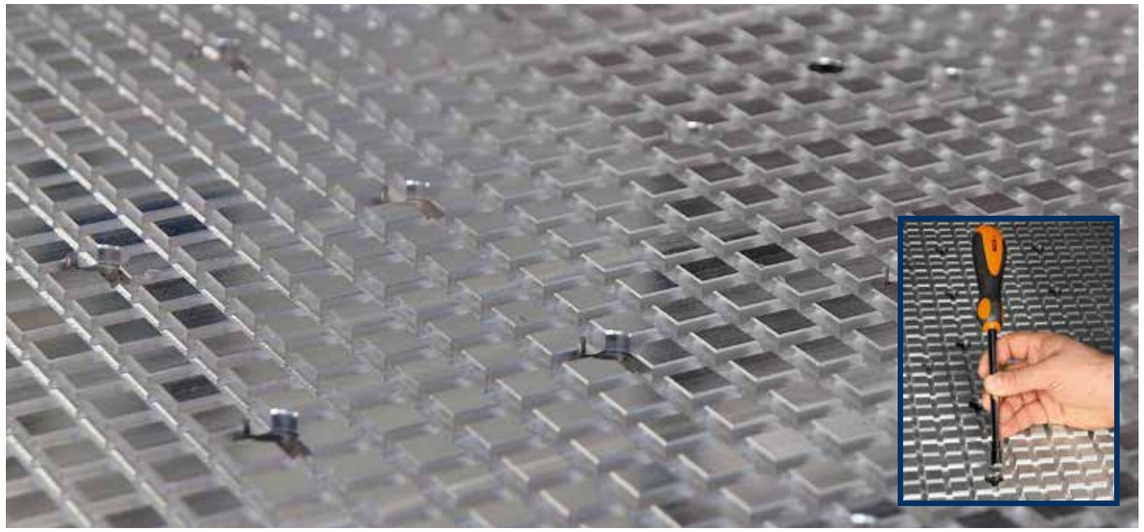


One position "**Pick-up**" tool changer with pneumatic positioning fitted on the mobile cross beam.
Ideal set-up for large sized angular heads.



CONSOLLE WITH INTEGRATED PC
Industrial PC with multi-touch colour display, 21,5" screen size, Full HD, positioned on a support base with displacement wheels, for an easy handling of the mobile console along the machine perimeter.
Ideal set-up for large sized angular heads.

WORK TABLE



DESIGNED FOR EFFICIENCY AND SAVING: “H.E.” (High Efficiency) WORK TABLE
Sturdy and practical work table, resistant over time thanks to its laminate aluminum structure.
Easy and quick setting with the magnetic locking system of the vacuum: in a few seconds the vacuum is activated only in the positioning area of the piece to be machined.



Wide choice of MPS vacuum pods and MODULSET to lock the pieces on the work table depending on the machining operations to be carried out.
Particularly effective devices in the most complex processing of sheets and technical articles made of plastic materials.



MAXIMUM EFFICIENCY IN ALL MACHINING SITUATIONS: PRESSURE ROLLERS
Perfect clamping of small-size workpieces and plastic strips in poor grip conditions in vacuum mode.
The rollers apply their pressure next to the milling area; they are also ideal for the processing of overlapping panels. In the case of milling operations that do not involve the use of pressure rollers, these are excluded while maintaining the full performance of the machine unchanged.

LOADING UNLOADING



100% productivity with the pusher that moves the processed work pieces on the unloading belt.



No dust and total removal of plastic waste with the upper extraction system for the work table cleaning.

HEADS RANGE AND DEVICES FOR ADVANCED MATERIALS PROCESSING





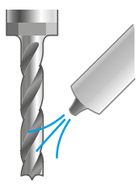


A range of dedicated heads for the machining of advanced materials, such as plexiglas, plastics, alucobond, aluminium, polyurethane forams and honeycomb cardboard.

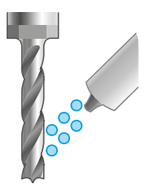


OPTISCOUT
This device is able to locate datums both on plastic and paper materials and compensate the actual part location and orientation.

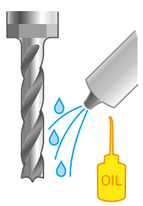
DEVICES FOR PARTICULAR APPLICATIONS



Air blower on electrospindle
For generic applications.
Suitable for a wide range of applications and especially in the trimming of flat or thermoformed plastic sheets.



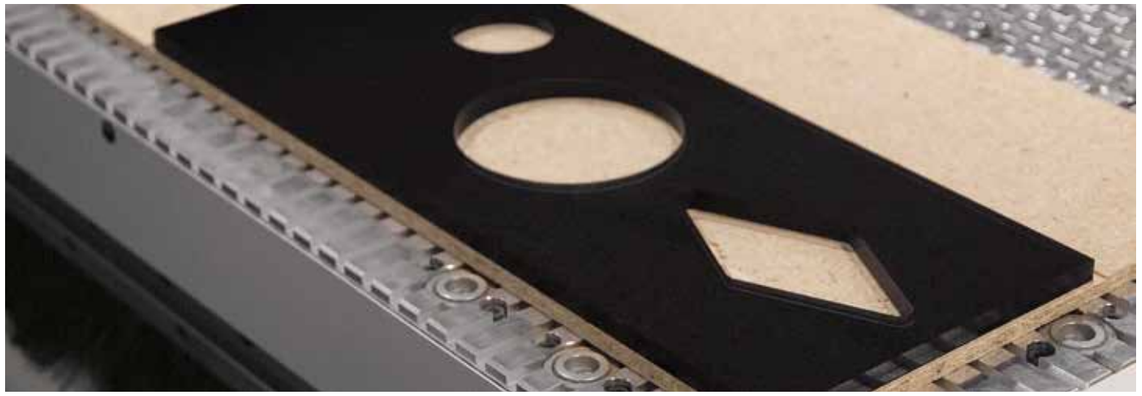
Ionized air blower on electrospindle
Indicated to eliminate the electrostatic charges accumulated by the cut material, making the suction of waste on multiple plastic materials easier.



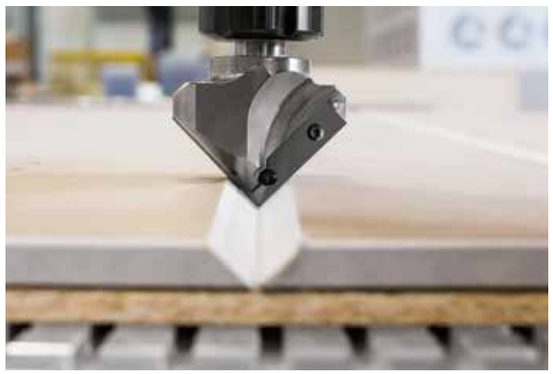
Air blower with microlubrication
Air and oil-mist blower suitable for lubricating and cooling the tool in case of non-ferrous metal machining.



Guides protections, X-Y axes
By means of a dedicated cleaning and protection system, it also allows the machining of abrasive materials.









OTHER DEVICES



"ALL" AT YOURFINGERTIPS:TECPAD CONTROL
Management of machine controls with the 7" colour remote control with touch-screen function that facilitates and speed up the setting operations.

BAR-CODE READER
Quick and simple scanning of the label associated to the panel by means the barcode reader.





TOOL LENGTH DETECTION DEVICE
Positioned on the machine base side, it allows to automatically detect the length of the tool.

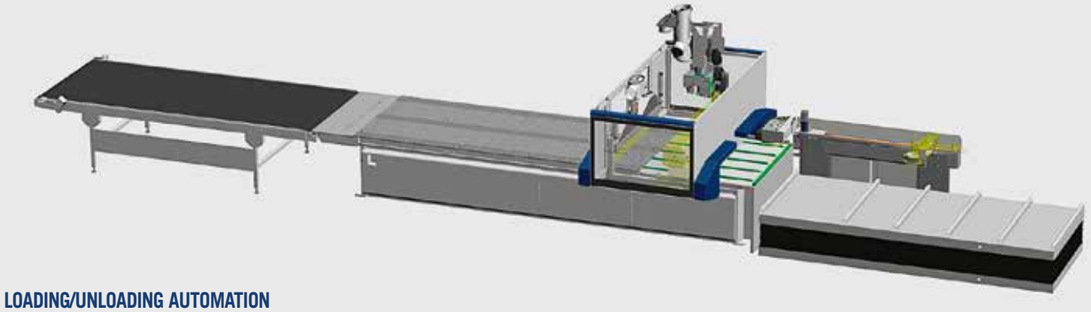




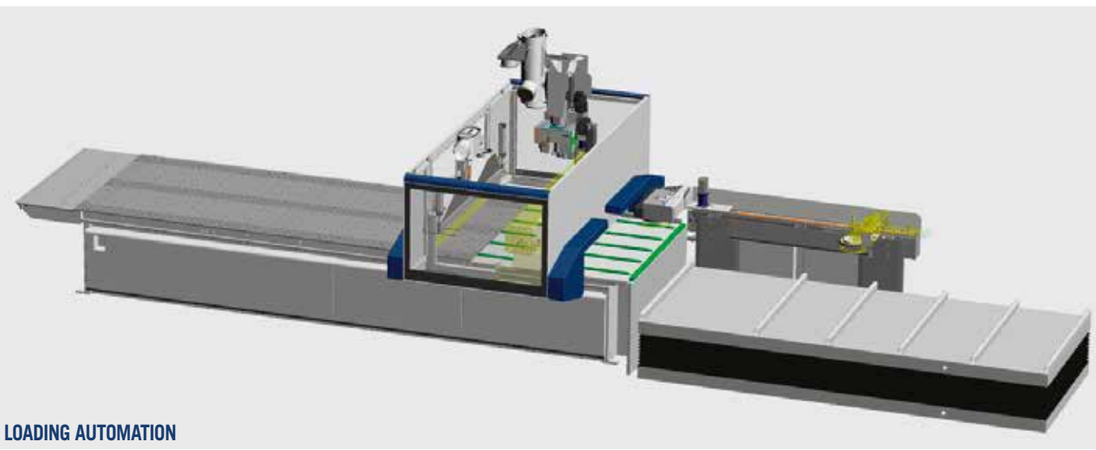
WIDE SELECTION OF CUSTOMIZATION OPTIONS TO COVER ALL NEEDS IN THE PROCESSING OF SHEETS, THERMOFORMED PARTS AND TECHNICAL ARTICLES MADE OF PLASTIC MATERIALS
With angular heads having 1, 2 and 4 outlets with HSK taper couplings for angled routing, drilling and blade grooving, with plays elimination system or fixed mechanical couplings.

MACHINE CONFIGURATION

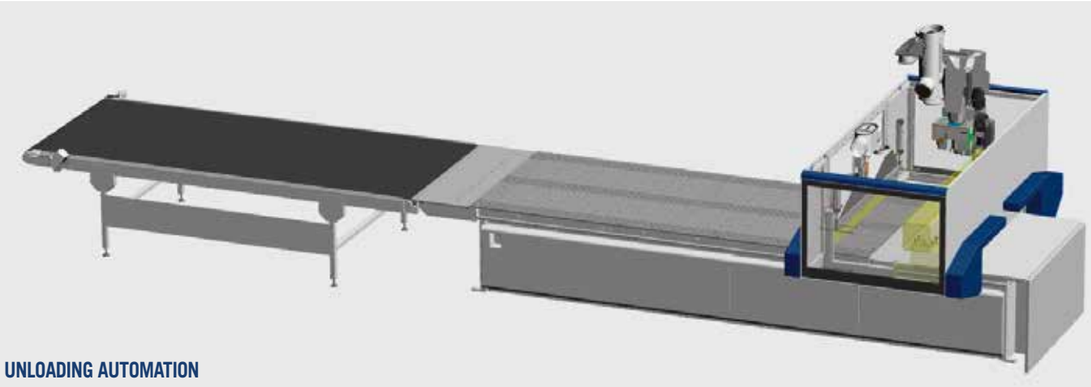
Machine available in nesting configuration with loading lifting table and unloading belt (also available with the loading version only or the unloading one) and right and left version.



LOADING/UNLOADING AUTOMATION



LOADING AUTOMATION

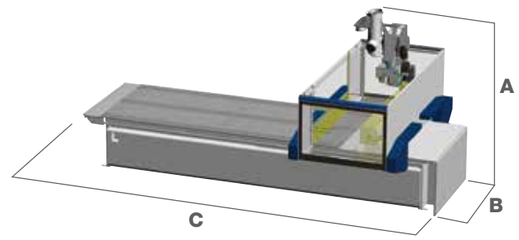


UNLOADING AUTOMATION

TECHNICAL DATA

cms time 100

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



PRO-SPACE OVERALL DIMENSIONS	A	B	C
mm	2190	2552 (3552*)	4565 (5570*)
mm	2190	2852 (3852*)	5765 (6770*)
mm	2190	3152 (4152*)	5765 (6770*)
mm	2190	3472 (4472*)	5215 (6215*)
mm	2190	3472 (4472*)	6402 (7400*)

* It includes the operating area

CMS TIME 100		TECHNICAL DATA				
		12	15	18	22-31	22-43
AXES						
Vectorial speed X-Y axes	m/min	35	35	35	35	35
Z axis stroke	mm	250	250	250	250	250
Z axis panel passage	mm	150	150	150	150	150
ROUTING UNIT						
Motor power (max.)	kW	15 (21)	15 (21)	15 (21)	15 (21)	15 (21)
Rotation speed (max.)	rpm	24000	24000	24000	24000	24000
Available tools on tool changer (max.)	places	12	15	17	20	20
DRILLING UNIT						
Independent vertical spindles (max.)	n.	12	12	12	12	12
ndependent horizontal spindles (max.)	n.	6	6	6	6	6
Rotation speed (max.)	rpm	8000	8000	8000	8000	8000
Integrated blade in X, diameter	mm	125	125	125	125	125
Integrated blade rotation speed (max.)	rpm	10000	10000	10000	10000	10000
INSTALLATION						
Exhaust air consumption *	m^3/h	3400/5300	3400/5300	3400/5300	3400/5300	3400/5300
Exhaust air speed	m/sec	30	30	30	30	30
Exhaust outlet diameter	mm	200/250	200/250	200/250	200/250	200/250
Vacuum management 50 Hz	n. pumps (up to)	4	4	4	4	4
Vacuum management	m^3/h	250	250	250	250	250

* stand alone/with pusher



Maestro cnc

In the office, before the production, the design and programming system Maestro cnc ensures that routing, drilling or sawing can quickly and easily be programmed thanks to 3D graphics of work pieces and machining and clamping aids as well as a smart App and macros library to program any machine operation with a mouse click.

Another click away and CNC programs are automatically generated.

SOFTWARE

Office

Maestro cnc

THE SOFTWARE THAT SIMPLIFIES THE WORK

CAD/CAM programming software to design all the production processes. Developed in Windows® environment it ensures easy programming with an advanced, simple and intuitive sketching environment that features all the tools necessary to design the parts, their layout on the work table, tools management and the relative machining operations. All the procedures are contained in a perfectly integrated and high performance software.

ADDITIONAL FUNCTIONS

Maestro pro view - **Unique in the simulation of 3D objects**

3D simulator allows to have in office the three-dimensional model of the machine and to visualize in advance all the machinings that will be done during production

Maestro 3d - **Unique in the creation of 3D objects**

The module integrated in the Maestro suite is designed to program three dimensional objects on 5-axis machining centres.

Maestro apps - **Unique know-how**

Maestro apps is a library of programming functions that are always available and easy to use, developed Specifically for plastic materials processing.

Maestro msl connector - **Total integration**

Connector for third-parties with design software.



Maestro active cnc

Maestro active is our new operator interface software which has been A single operator can easily and confidently run multiple machines due to controller and interface consistency: regardless the machine, Maestro active maintains the same look&feel, with many identical icons and navigation buttons, thus ensuring the same approach to interaction.

EASE OF USE

The new interface has been specifically designed and optimized for immediate use via touch screen. Graphics have been redesigned for simple and comfortable navigation, with tablet-like icons on touch screen controller.

"ZERO" ERRORS

Improved productivity thanks to integrated help and recovery procedures that reduce the possibility of error from the operator's side.

SOFTWARE

Factory

Maestro active cnc

AN INNOVATIVE INTERACTION WITH YOUR CMS MACHINE FOR PLASTIC MATERIALS PROCESSING

FULL CONTROL OF PRODUCTION PERFORMANCES

The creation of customizable reports by operator, shift, program, forecast period (and much more) allowsto monitor, optimize and improve the production performance.

FULL MACHINE AWARENESS AND KNOWLEDGE MANAGEMENT SYSTEM

Maestro active allows to record the times related to setup, maintenance, training and other events, tracing all the activities in a database. The operator's know-how is also stored and made available to other people inside the organization thanks to the possibility to comment and document all production events or notifications.

ORGANIZE YOUR PRODUCTION

Maestro active allows to create different users with different roles and authorizations (e.g.: operator, maintainer, administrator, ...). Any user can only execute the functions whose permissions have been assigned to him. It is also possible to define the work shifts on the machine and then detect activities, productivity and events that occurred in each shift.

TOTAL QUALITY OF THE FINISHED PRODUCT

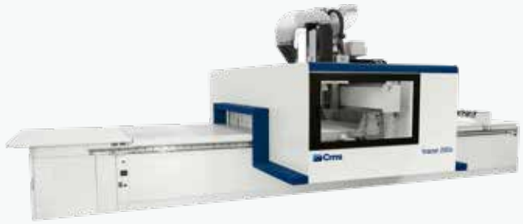
With Maestro active the quality of the finished piece is no longer put at risk by worn tools. The new Maestro Active Tool Life Determination system sends notification messages as the tool reaches its end of life and recommends its replacement at the most appropriate time.

TOOLS? NO PROBLEM!

Maestro active guides the operator during the magazine tooling phase, taking into account the programs to be executed.

THE RANGE OF CMS PLASTIC TECHNOLOGY FOR PLASTIC PROCESSING

3/5-AXIS CNC MACHINING CENTERS (passage in Z up to 500 mm)



TRACER



TIME



EVOTECH

5-AXIS CNC MACHINING CENTERS (passage in Z from 500 mm)



ATHENA



ANTARES



ARES



MX5

BEAM SAWS



HELIX

SAWS



T-MAXI

THERMOFORMING MACHINES



BR5



BR5 CS



BR5 S



BR5 HP



BR5 SPECIAL SPA



MASTERFORM

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Technical data are not binding and may be changed by CMS without prior notice.

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