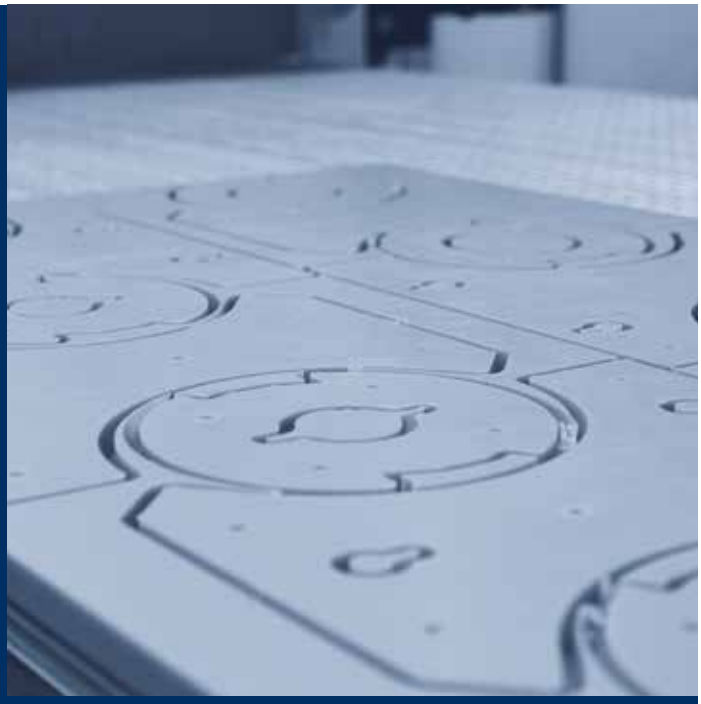
PLASTIC

cms tracer 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 tracer 100

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a company of scm group

TECHNICAL FEATURES OVERVIEW

TECHNOLOGICAL ADVANTAGES FOR PLASTIC MATERIALS PROCESSING

KEY BUYER BENEFITS

- + **"All in one"** machining centre, 3 and 5 axes for the processing of **plastic materials** and **advanced materials**, equipped with technical solutions especially dedicated to the technical article and the **low-drawing thermoformed products**
- + **Wide workpiece passage** in Z up to 250mm
- + **Best-in-class range of spindles** for all machining needs up to 15kw and 24.000 rpm
- + **Incomparable optimization of encumbrance** thanks to the available "pro-speed" and "pro-space" solutions



All at your fingertips thanks to the TECPAD 7" colour remote control with touchscreen.



Wide availability of tools thanks to the **TRC** rear chain tool changer with 32 positions.



Rapid working cycles with the 14 position **FAST** tool changer.



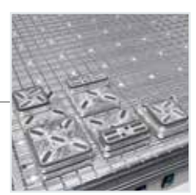
- **Total flexibility** thanks to the unique configurability of the operator group.
- **Unprecedented finish** in the processing of flat plastic sheets and trimming of thermoformed sheets thanks to the 5-axis JQX electrospindle



TRB tool changer with 14 positions.

Console with integrated PC, industrial PC with multi- touch color 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.

Integrated electrical cabinet with air conditioner.



Exceptional flexibility due to the multi-purpose worktable of extruded aluminium, extremely rigid, especially designed to maintain perfect planarity over time even after repeated stress; ideal for nesting processes of plastic material sheets.

JQX electrospindle: high rotation speed and maximum performance in the processing of plastic materials
Exceptional finishing quality with the JQX (**J**ust **Q**uality e**X**treme) 5-axis electrospindle, direct drive and up to 12 kW of power, which guarantees total absence of vibrations even with substantial removal of material at high speeds. The light structure and the excellent quality/ price ratio make this electrospindle the ideal solution for those who are looking for a flexible product, suitable for the many needs related to the processing of plastic materials.

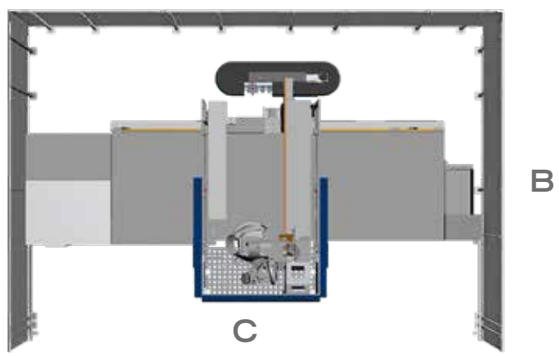
SAFETY SYSTEMS

GUARANTEED SAFETY: BUMPERS PROTECTIONS
Fully safe machining with the bumpers safety system with lock the machine in case of accidental contact with the operator.

MINIMUM OVERALL DIMENSIONS MAXIMUM SAFETY AND FLEXIBILITY: PRO-SPACE PROTECTIONS
Loading zone completely free to reduce the space occupied to the minimum. The protections allow the machine to be used with a feed speed up to 25 m/min in X direction. The absence of perimeter protections facilitates the work table access on all the sides of the machine.



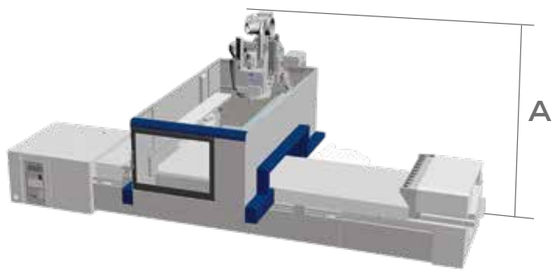
TOTAL FREEDOM AND HIGH PRODUCTIVITY: PRO-SPEED PROTECTIONS
Protection system for the machine use to the maximum speed of 60 m/min. When the operator enters into the loading area, which is delimited by the front photocell barrier, the machine automatically reduces the speed; when the operator leaves the loading area the system restores the maximum speed.



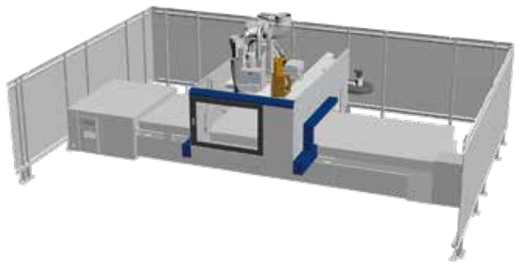
OVERALL DIMENSIONS

		A	B		C	
			PRO-SPACE	PRO-SPEED	PRO-SPACE	PRO-SPEED
TRACER 100 WORK TABLE						
Working area 3110 x 1320	mm	2780	3156 (4156*)	4720	6715 (7065*)	7300
Working area 3710 x 1320	mm	2780	3156 (4156*)	4720	7315 (7665*)	7900
Working area 5510 x 1320	mm	2780	3156 (4156*)	4720	9115 (9465*)	9700
Working area 3110 x 1620	mm	2780	3456 (4456*)	5020	6665 (7015*)	7300
Working area 3710 x 1620	mm	2780	3456 (4456*)	5020	7265 (7615*)	7900
Working area 5510 x 1620	mm	2780	3456 (4456*)	5020	9065 (9415*)	9700

PRO_SPACE
Layout



PRO_SPEED
Layout



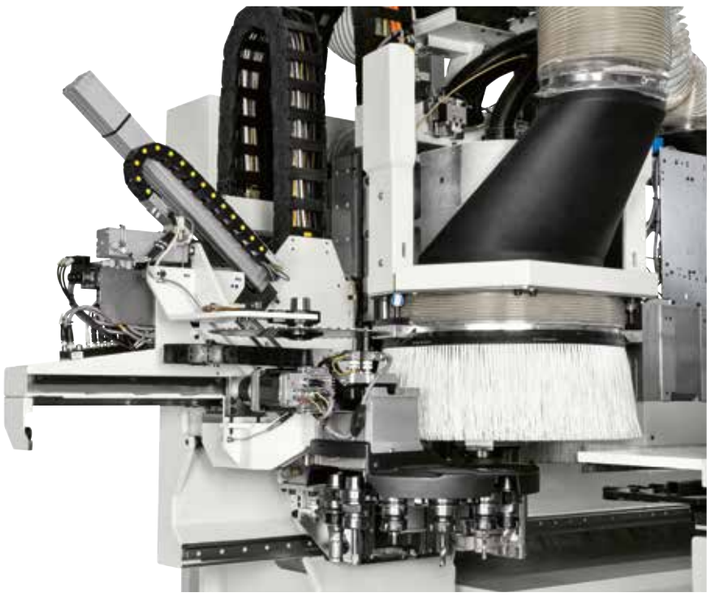
TOOL CHANGERS
HIGH LEVEL PERFORMANCE IN PLASTIC MATERIALS PROCESSING



NO IDLE TIME for the tool change from a machining process to another one with the 14 position **FAST** tool changer.



Wide range of tools available to the operator with the rear tool changers up to 32 positions.



The "VELOCE" on-board tool changer with 12 or 16 positions, equipped beside the electrospindle, allows the tool change in hidden time. It is also available with the additional "pick-up" for saw-blade.



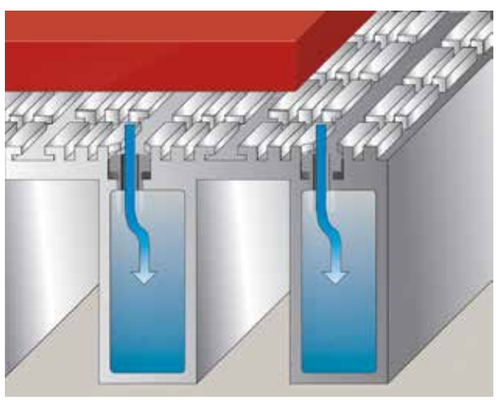
TRB side tool changer with 11 or 14 positions.

MULTI-FUNCTION WORK TABLE

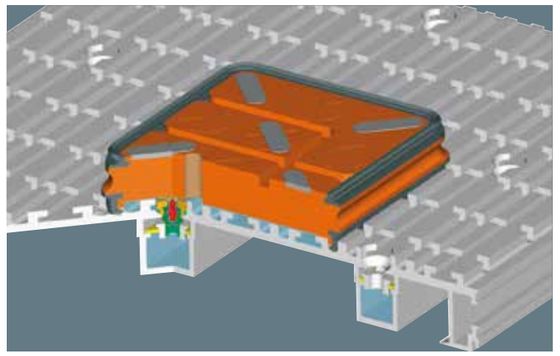
EXCEPTIONAL FLEXIBILITY IN MEETING ALL NEEDS IN CLAMPING PLASTIC PARTS



Extremely stiff work table made of extruded aluminum, designed to maintain a perfect planarity over time, even after repeated mechanical stresses. It is ideal also for nesting machining.



Optimal work piece holding with the high capacity vacuum up to 1200 m³/h (50 Hz).







Easy and quick positioning of locking accessories such as MPS vacuum pods and the practical MODULSET system with the surface channels structure.



It is possible to fix custom references thanks to the exclusive “T-shaped” grooves available on the work table.

HEADS RANGE AND DEVICES
FOR ADVANCED MATERIALS PROCESSING





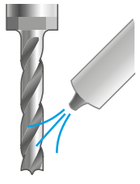


A range of dedicated heads for the machining of advanced materials, such as plexiglas, plastics, alucobond, aluminium, polyurethane forams and honeycomb cardboard.

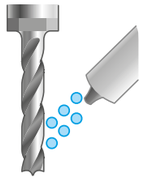


OPTISCOUT
This device is able to locate datums both on plastic and paper materials and compensate the actual part location and orientation.

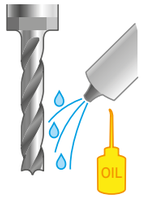
DEVICES FOR PARTICULAR APPLICATIONS



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.

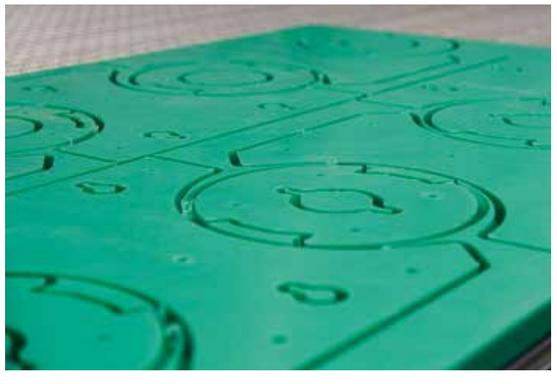


Guides protections, X-Y axes
By means of a dedicated cleaning and protection system, It also allows the machining of abrasive materials.



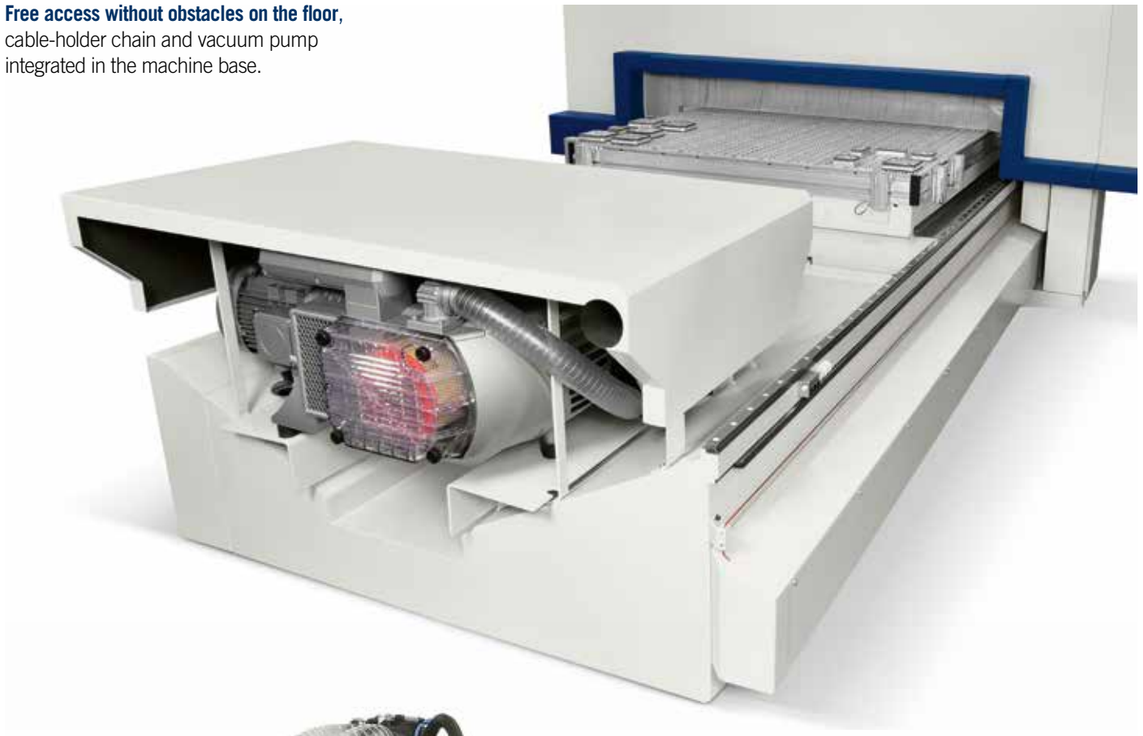






MINIMUM OVERALL DIMENSIONS AND EASE ACCESS

Free access without obstacles on the floor, cable-holder chain and vacuum pump integrated in the machine base.





Rapidity and ergonomics to equip and do maintenance to the operating group thanks to the practical frontal opening.

TECHNICAL DATA

cms tracer 100

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

TRACER 100		100
AXES		
Vectorial speed X-Y axes “PRO-SPACE” version *	m/min	56
Vectorial speed X-Y axes “PRO-SPEED” version **	m/min	78
Z axis panel passage	mm	180 (250 opz.)
ROUTING UNIT		
Motor power (max.)	kW (hp)	15 (20,5)
Rotation speed (max.)	rpm	24000
Available tools on tool changer (up to)	places	57
DRILLING UNIT		
Independent vertical spindles (up to)	n.	21
Independent horizontal spindles (up to)	n.	12
Rotation speed (max.)	rpm	8000
Integrated blade in X, diameter	mm	125
INSTALLATION		
Exhaust air consumption	m^3/h	4430
Exhaust air speed	m/sec	25
Exhaust outlet diameter	mm	250

* with high dynamic equipment: 84 m/mm
**with high dynamic equipment: 113 m/mm



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

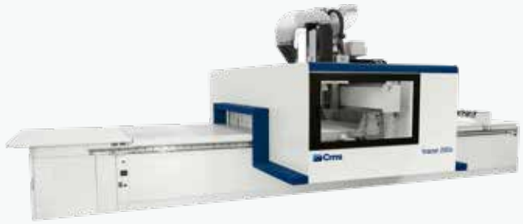
With Maestro active the quality of the finished piece is no longer put at risk by worn tools. The new Maestro Active Tool Life Determination system sends notification messages as the tool reaches its end of life and recommends its replacement at the most appropriate time.

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

PPTRAC1-0220E

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

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