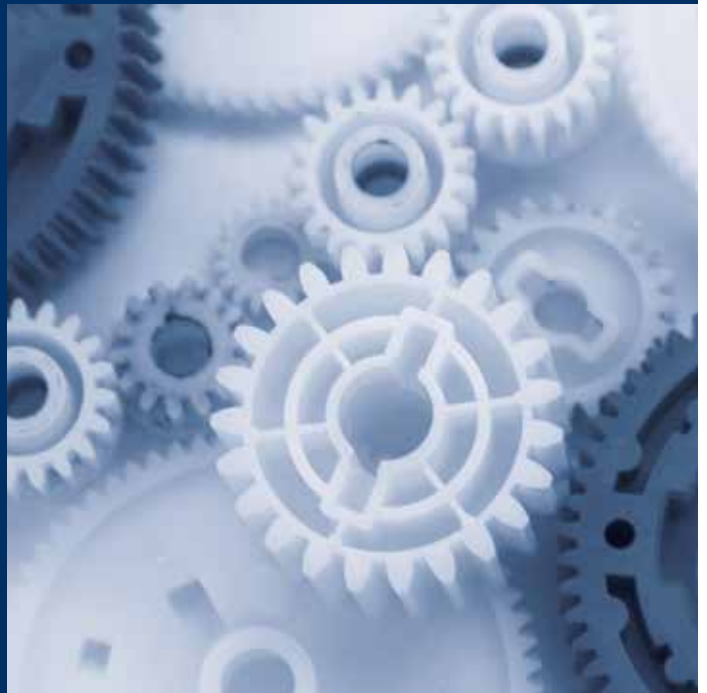
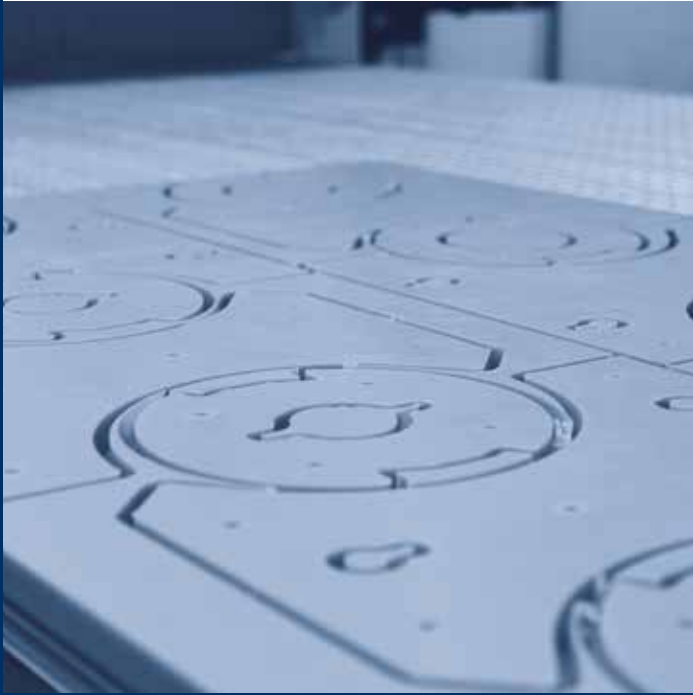


# cms tracer 100

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





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** 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 investments 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.



# cms tracer 100

**Adaptable.**  
**Global.**  
**Innovative.**  
**Lean.**  
**Efficient solutions.**

The **AGILE** way for  
sheets cutting.

TRACER 100	
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# TRACER 100

## TECHNOLOGICAL BENEFITS



LEARN MORE



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



Many tools available thanks to the 32-position **TRC** rear chain magazine.



Faster work cycles with the 14-position **FAST** magazine.

Electric cabinet with built-in air conditioning.



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.



Exceptional flexibility with the multifunction worktable made of extremely rigid extruded aluminum, specially designed to remain perfectly flat over time, even under repeated stress. Ideal for sheet nesting processes.



- **Absolute flexibility** with operating unit configuration options that are unique in the market.
- **Unprecedented finishing** when machining of advanced materials and plastic flat sheets or trimming thermoformed sheets, thanks to the 5-axis JQX electrospindle.



**TRB** magazine with 14 positions.



**JQX electrospindle: high rotation speed and maximum performance for machining plastics**  
Exceptional finishing quality with the JQX(Just QualityXtreme) 5-axis electrospindle with direct-drive transmission and up to 12 kW of power; it ensures absolutely no vibration even when removing large amounts of material at high speeds. Lightweight construction and excellent value for money make this electrospindle the ideal solution for those looking for a flexible product that is suitable for the many machining needs.

### KEY BUYER BENEFITS

- + **"All in one"** 3- and 5-axis machining center for machining **plastics** and **advanced materials**, with technical solutions dedicated to **engineering parts** and **low-drawing thermoforming machines**
- + **Large workpiece Z clearance** up to 250mm
- + **Best-in-class spindle range** 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

# SAFETY SYSTEMS

## GUARANTEED SAFETY: BUMPER GUARDS

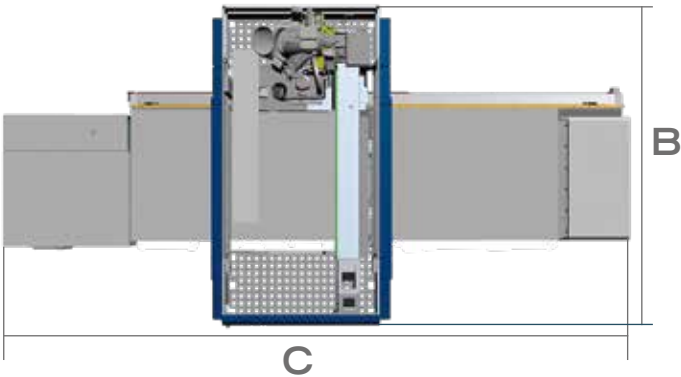
Work in complete safety with the bumper guard system, which stops the machine in the event of accidental contact by the operator.



## MINIMUM FOOTPRINT, MAXIMUM SAFETY AND FLEXIBILITY: PRO-SPACE PROTECTION

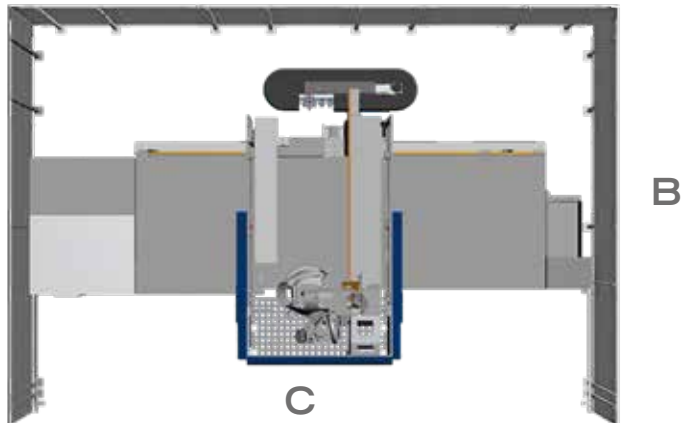
Completely free loading area to minimize occupied space. The protection allows the machine to be used in the X-direction at a forward speed of up to 25 m/min.

The absence of perimeter guards allows access to the worktable from all sides of the machine.



## COMPLETE FREEDOM AND HIGH PRODUCTIVITY: PRO-SPEED PROTECTION

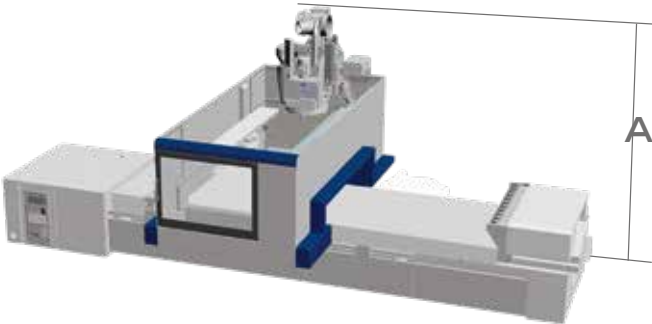
Protection system for using the machine at the maximum forward speed of 60 m/min. The machine automatically reduces speed when the operator enters the loading zone bounded by the front photocell barrier; it returns to full speed as soon as the operator leaves the loading zone.



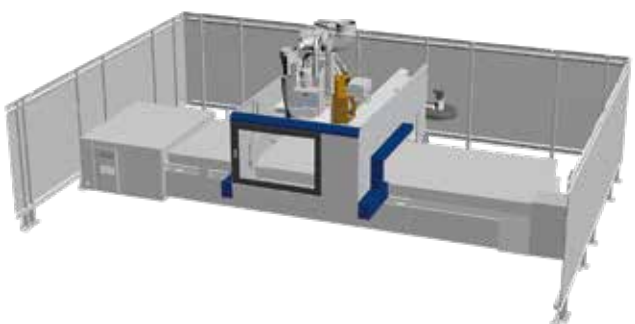
# OVERALL DIMENSIONS

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

PRO-SPACE  
Layout



PRO-SPEED  
Layout





# TOOL CHANGE MAGAZINES

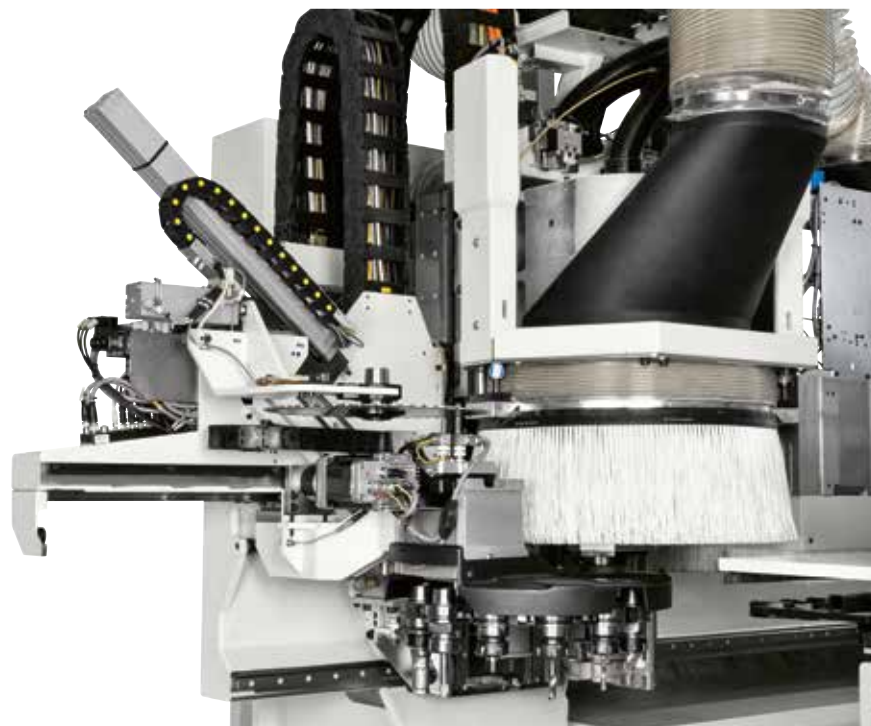
## ENSURE HIGH PERFORMANCE



**NO DOWNTIME TIME** for tool changes between machining operations with the 14-position **FAST** magazine.



Large tool set always available to the operator thanks to rear magazines with up to 32 positions.



The on-board **"FAST"** tool change magazine with 12 or 16 positions located next to the electrospindle allows tool changes in hidden time. Also available with blade pick-up, in addition to the other tools.



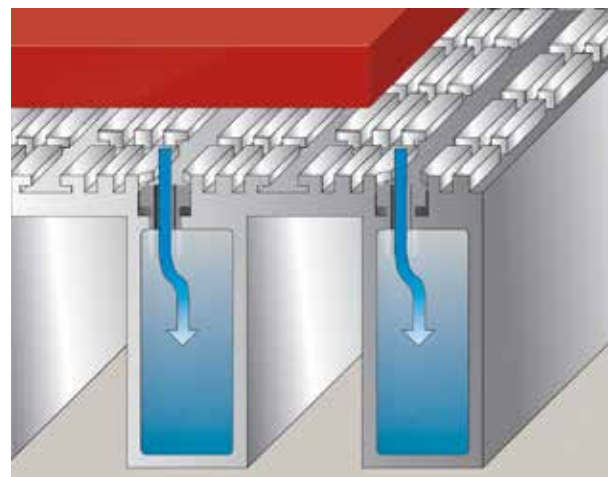
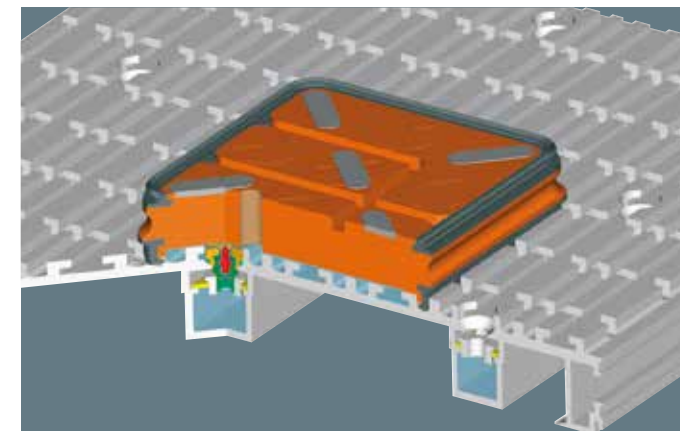
**TRB** side magazine with 11 or 14 positions.

# MULTIFUNCTION WORKTABLE

## EXCEPTIONAL FLEXIBILITY FOR ANY CLAMPING REQUIREMENTS



Extremely rigid extruded aluminum worktable, specially designed to remain perfectly flat over time, even under repeated stress, making it ideal for nesting machining processes.



**Excellent workpiece clamping** with high vacuum flow-rates up to 1200 m<sup>3</sup>/h (50 Hz).



Easy and quick placement of clamping accessories such as MPS suction cups and the practical MODULSET modular system with a surface channel structure.



There are unique "T" slots in the worktable for attaching custom equipment.



# RANGE OF HEADS AND DEVICES FOR ADVANCED MATERIAL MACHINING

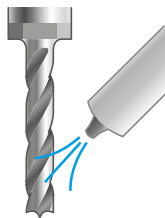


A range of heads specifically for machining advanced materials such as plexiglass, plastic, alucobond, aluminum, polyurethane foams, and honeycomb board.



**OPTISCOUT**  
Device for measuring reference points on plastic or paper material, for rototranslation of the program according to the actual workpiece position on the bed.

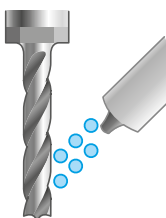
## DEVICES FOR SPECIAL APPLICATIONS



**Blower on the electrospindle**  
Suitable for many applications and particularly in trimming flat or thermoformed plastic sheets.



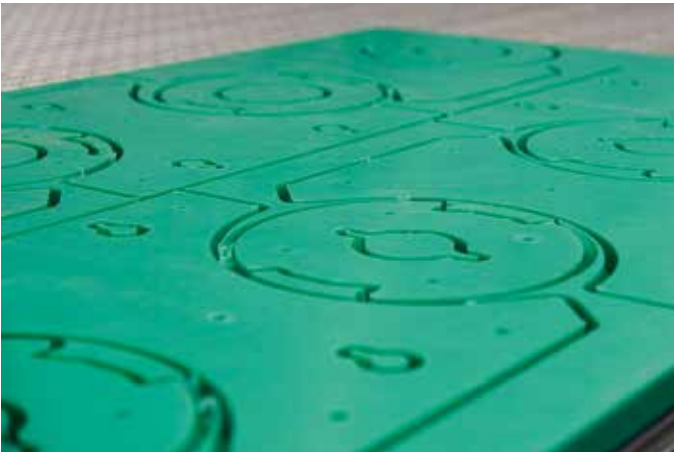
**Air blower with micro-lubrication**  
Blower with air and a small amount of oil suitable for lubricating and cooling the tool when machining non-ferrous metals.



**Ionized air blower on the electrospindle**  
Suitable for eliminating electrostatic charge build-up from cut material, making suction easier.



**Protection of X-Y axis guides**  
A dedicated cleaning and protection system means that even abrasive materials can be machined.



# SMALL FOOTPRINT AND EASY ACCESS

Free access without obstacles on the ground, cable support chain and vacuum pump located inside the machine base.



Speed and ergonomics when tooling and maintaining the operating unit with convenient front door opening.



# TECHNICAL DATA

TRACER 100		100
AXES		
"PRO-SPACE" X-Y axis vector speed*	m/min	56
"PRO-SPEED" X-Y axis vector speed**	m/min	78
Workpiece Z clearance	mm	180 (250 opt.)
MILLING UNIT		
Motor power (max.)	kW (hp)	15 (20.5)
Rotation speed (max.)	rpm	24000
Tools available in the magazine (up to)	positions	57
DRILLING UNIT		
Independent vertical spindles (up to)	no.	21
Independent horizontal spindles (up to)	no.	12
Rotation speed (max.)	rpm	8000
Integrated X blade, diameter	mm	125
INSTALLATION		
Intake air consumption	m³/h	4430
Air intake speed	m/sec	25
Intake port diameter	mm	250

\* with high dynamic package: 84 m/mm  
\*\*with high dynamic package: 113 m/mm





# 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 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 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

### 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.

# THE RANGE OF CMS ADVANCED MATERIALS TECHNOLOGY

# FOR COMPOSITES, ALUMINUM AND METAL PROCESSING

## MONOBLOC CNC MACHINING CENTERS FOR VERTICAL MILLING



**ANTARES MK3**

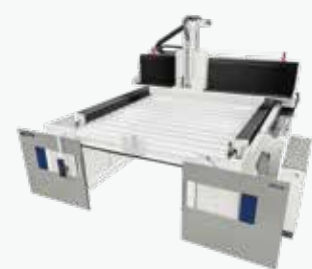


**ARES**



**ETHOS K**

## 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**



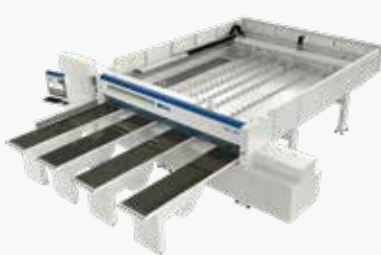
**KREATOR ARES**

## MONOBLOC CNC MACHINING CENTERS FOR HORIZONTAL MILLING



**IKON**

## BEAM-SAWS

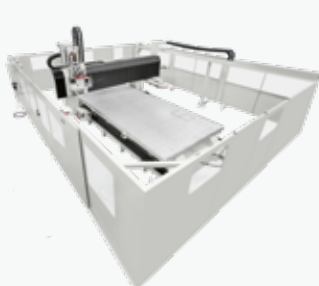


**HELIX**

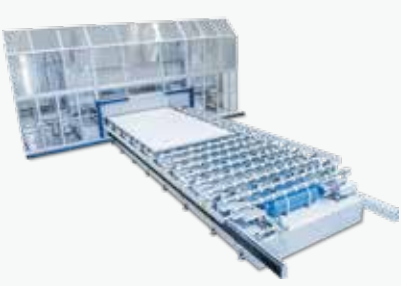
## FIXED AND MOBILE BRIDGE CNC MACHINING CENTERS



**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



**TECNO CUT PROLINE**



**TECNO CUT SMARTLINE**





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