

# taktika

Vertical machining center



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 Glass Technology** is a leader in processing curved and flat glass with technologically advanced solutions such as CNC machining centers, cutting tables and waterjet cutting systems. Thanks to the tradition and experience of the historic Brembana and Tecnocut brands, **CMS Glass Technology** is today a leading player in this field, capable of implementing innovative solutions intended for the architectural field and for interior decoration.

# taktika

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# APPLICATIONS



doors | stairs | bathroom tops



mirrors | tables | ovens and hobs

**T**echnological.  
**O**riginal.  
**P**erforming solutions.

**TOP** machines for glass processing.

Vertical machining centers

# TAKTIKA

## TECHNOLOGICAL BENEFITS

### WHAT IS THE IDEAL VERTICAL MACHINING CENTER FOR THE GREATEST FLEXIBILITY IN SMALL SPACES?

Taktika is the **compact vertical machining center developed by CMS for the greatest flexibility in small spaces**. The project was conceived for small and medium-sized glass factories that need to increase their efficiency, and is also ideal for larger companies that need the flexibility to manage small batches of glass.

The new Cms Active software was designed to make **the user interface more efficient and user-friendly than ever**.

Taktika can perform **seaming, industrial and smooth grinding, milling and coaxial drilling**; it can be used **stand-alone or in line with a vertical washing machine** to wash the glass immediately after processing.



## SOFTWARE AND USER INTERFACE USING NC HAS NEVER BEEN SO IMMEDIATE!

**THE NEW SOFTWARE WAS DESIGNED TO MAXIMIZE THE EFFICIENCY OF NUMERICAL CONTROL AND THE USER INTERFACE.**



### EVERYTHING UNDER CONTROL

CMS experts have created SCADA (Supervisory Control and Data Acquisition) software to supervise and monitor all the main machine components through specific synoptic views.

### LESS TROUBLE FOR DESIGNERS AND OPERATORS

The operator drawing the workpiece just needs to indicate what machining is required. **The CMS taktika will either find the right tool mounted on the machine or warn if the tool is not loaded or has insufficient service life.**



## KEY BUYER BENEFITS

- + 3000mm x 2000mm x 15mm: maximum workpiece size, **the largest for this machine category [FLEXIBILITY]**
- + 320mm x 220mm x 4mm: minimum workpiece size **[FLEXIBILITY]**
- + 12 +11 tool holder positions in the front and rear magazines, **the largest capacities for this machine category [FLEXIBILITY]**



# ACCESSORIES

## THE HEART OF MACHINING

Taktika is equipped with opposing twin spindles, **6.5kW (S1)** each, designed by the **SCM group** company **Hiteco**, which specializes in designing and manufacturing high-tech components for machine tools. The spindles were designed for high-performance machining.



## ONE TOOL FOR EVERY JOB

Taktika has **two linear tool magazines**, one at the front with **12 positions**, and one at the rear with **11 positions**, both for **ISO40 tool cones**. Each cone can accommodate tools up to 50mm thick. Multi-profile tools such as milling cutters and combination profiles are also allowed.



## GENTLE FIRMNESS

Each of the two operating units in Taktika is equipped with a water film presser, specially developed by CMS to guide the glass during machining. The presser holds the glass still for high quality machining, while a thin layer of water is interposed between the glass and the presser to ensure that the glass is supported gently and firmly without scratching.



## UNCOMPROMISING CLAMPING AND EFFICIENCY

The suction cup units in Taktika have been designed to hold the workpiece without compromise. The vacuum is created by a Venturi system that not only ensures top performance, but also **consumes 87% less electricity than conventional vacuum pumps**.

## FOCUS ON THE ESSENTIAL, TAKTIKA WILL TAKE CARE OF THE REST!

Taktika is equipped with a fully automated truing system for grinding wheels and core drill bits. The software can be set to true the grinding wheels and core drill bits after a specific number of meters machined/holes drilled. Taktika continuously monitors tool wear and automatically chooses the right time to start the truing cycle.



## A CLEAN JOB!

Taktika is ready to be connected to vertical washing machines because the **electrical panel is already configured with the CMS standard signal exchange for communication between the two machines**. A pusher attached to the suction cup carriage accompanies the glass into the washing machine.



# TAKTIKA

## DIMENSIONS AND TECHNICAL DATA



### TAKTIKA: TECHNICAL DATA

MAXIMUM WORKPIECE DIMENSIONS	3000 x 2000 x 15 mm   118 x 79 x 0,6 in
MAXIMUM THROUGH-HOLE HEIGHT	2500 mm   98 in
MINIMUM WORKPIECE DIMENSIONS	320 x 220 x 4 mm   12,5 x 8,5 x 0,15 in
TOOL CHANGE STATIONS (front + rear)	12 + 11
MAXIMUM GRINDING WHEEL DIAMETER	100 mm   4 in
MAXIMUM CORE DRILL BIT DIAMETER	50 mm   2 in
ELECTROSPINDLE POWER	6 kW   8 HP front head 6 kW   8 HP rear head
MAXIMUM SPINDLE SPEED	12.000 rpm
TOOL CLAMPING	ISO 40
WEIGHT	11.000 kg   24.250 lb
OVERALL DIMENSIONS	10.050 x 3270 x 3480 mm   396 x 129 x 137 in (electrical panel doors open)



# CMS connect is the IoT platform for perfect integration with the latest generation of CMS machines

CMS Connect offers customized 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 data collected by the machines in real time can be used to **increase machine productivity, reduce operating and maintenance costs and cut energy costs.**



# CMS active: revolutionary interaction with your CMS machine

CMS active is our new interface. An operator can easily control different machines as the CMS Active interfaces maintain the same look&feel, icons and approach to interaction.



## APPLICATIONS

**SMART MACHINE:** continuous monitoring of machine operation, with information on:

**Status:** machine status overviews. These can be used to verify machine availability and identify possible bottlenecks in the production flow.

**Monitoring:** real-time live display of the operation of the machine, its components, running programs and potentiometers;

**Production:** list of machine programs run within a given time frame with best time and average running time;

**Alarms:** active and logged warnings.

### SMART MAINTENANCE

This section provides an **initial approach to predictive maintenance** by sending notifications when machine components indicate a potentially critical state on reaching a specific threshold. This makes it possible to **take action and schedule maintenance work without any production downtime.**

### SMART MANAGEMENT

Section that presents the KPIs for all machines connected to the platform.

The indicators provided can be used to assess machine availability, productivity and efficiency, as well as product quality.

### UTMOST SECURITY

CMS Connect uses the standard OPC UA communication protocol, which guarantees data encryption at the Edge interface level. The Cloud and DataLake levels meet all of the latest cyber-security requirements. Customer data is encrypted and authenticated to ensure full protection of sensitive information.

## BENEFITS

- ✓ Production performance optimization
- ✓ Diagnostics to support component warranty optimization
- ✓ Productivity increase and machine downtime reduction
- ✓ Improvement of quality control
- ✓ Lower maintenance costs

### 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.

### ADVANCED PRODUCTION ORGANIZATION

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

### TOOLING? NO PROBLEM!

Cms active guides the operator through tool magazine set-up, taking the programs to be executed into account.

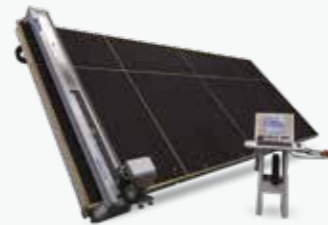
# THE CMS GLASS TECHNOLOGY RANGE

# GLASS PROCESSING TECHNOLOGIES

## TABLES AND CUTTING LINES



**AGIL TR**



**RUNNER**



**RUNNER LINE**

## HORIZONTAL MACHINING CENTERS



**ELECTA**



**SPEED**



**GEA**



**MAXIMA**

## VERTICAL MACHINING CENTERS



**TAKTIKA**



**YPSOS**



**VERTEC MILL**



**YPSOS + VERTEC MILL**

## SEAMING MACHINES



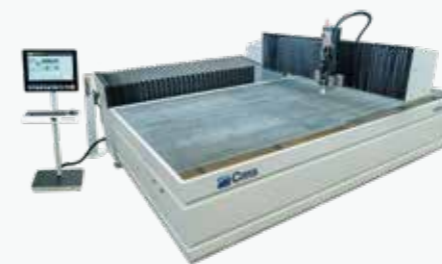
**AURA**

## LOADING SYSTEMS



**KART**

## WATERJET CUTTING AND PRESSURE INTENSIFIER SYSTEMS



**EASYLINE**



**SMARTLINE**



**PROLINE**



**AQUATEC**



**EASYPUMP**



**JETPOWER EVO**



**GREENJET EVO**





**C.M.S. SPA**  
via A. Locatelli, 123 - 24019 Zogno (BG) - IT  
Tel. +39 0345 64111  
[info@cms.it](mailto:info@cms.it)  
[cms.it](http://cms.it)

a company of **scm**  **group**