

kyros

Monobloc CNC machining centers for vertical milling



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 a vision 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 Advanced Materials Technology is a leader in the field of numerically controlled machining centers for the working of advanced materials: composites, carbon fiber, aluminum, and light alloys. 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.



kyros

APPLICATIONS	4-5
KYROS TECHNOLOGICAL ADVANTAGES	6-7
KYROS DIMENSIONS AND TECHNICAL DATA	8-9
CMS CONNECT	10
CMS ACTIVE	11
SERVICE	12-13
THE RANGE	14-15

APPLICATIONS



aeronautics | trains | automotive | marine industry



F1 & motor sport | defence | aeronauticaw



Unparalleled.
New.
Innovative.
Quality.
Ultra.
Effective solutions.

The **UNIQUE** cnc machines.

Monobloc CNC machining centers for vertical milling

KYROS

TECHNOLOGICAL ADVANTAGES



LEARN MORE

NEW HIGH-SPEED MACHINING CENTER WITH MONOBLOC STRUCTURE

Designed to provide a practical response to the ever-evolving needs of the market, Kyros is the new CMS machine tool designed to ensure high robustness, precision and reliability, even in the most complex applications. The result of careful design optimization, Kyros ensures measurable benefits in terms of **reliability, stability and fabrication quality**. All in a **small footprint**, thanks to its **monobloc structure** design, which minimizes floor space and does not require special foundations, making installation and start-up easy.



Machine version available with cutting fluid system



Operating unit



Chip removal system



Laser tool presetting probe

KEY BUYER BENEFITS

- + Space optimization with an **excellent footprint to useful work area ratio** ensures **maximum production efficiency**, even in environments with limited space;
- + **Worktable with high load capacity**, ideal for **heavy industrial applications** and fabricating **large components**
- + **Machine also available with cutting fluid system** for maximum versatility in production processes, while allowing it to adapt to different materials and operating conditions.



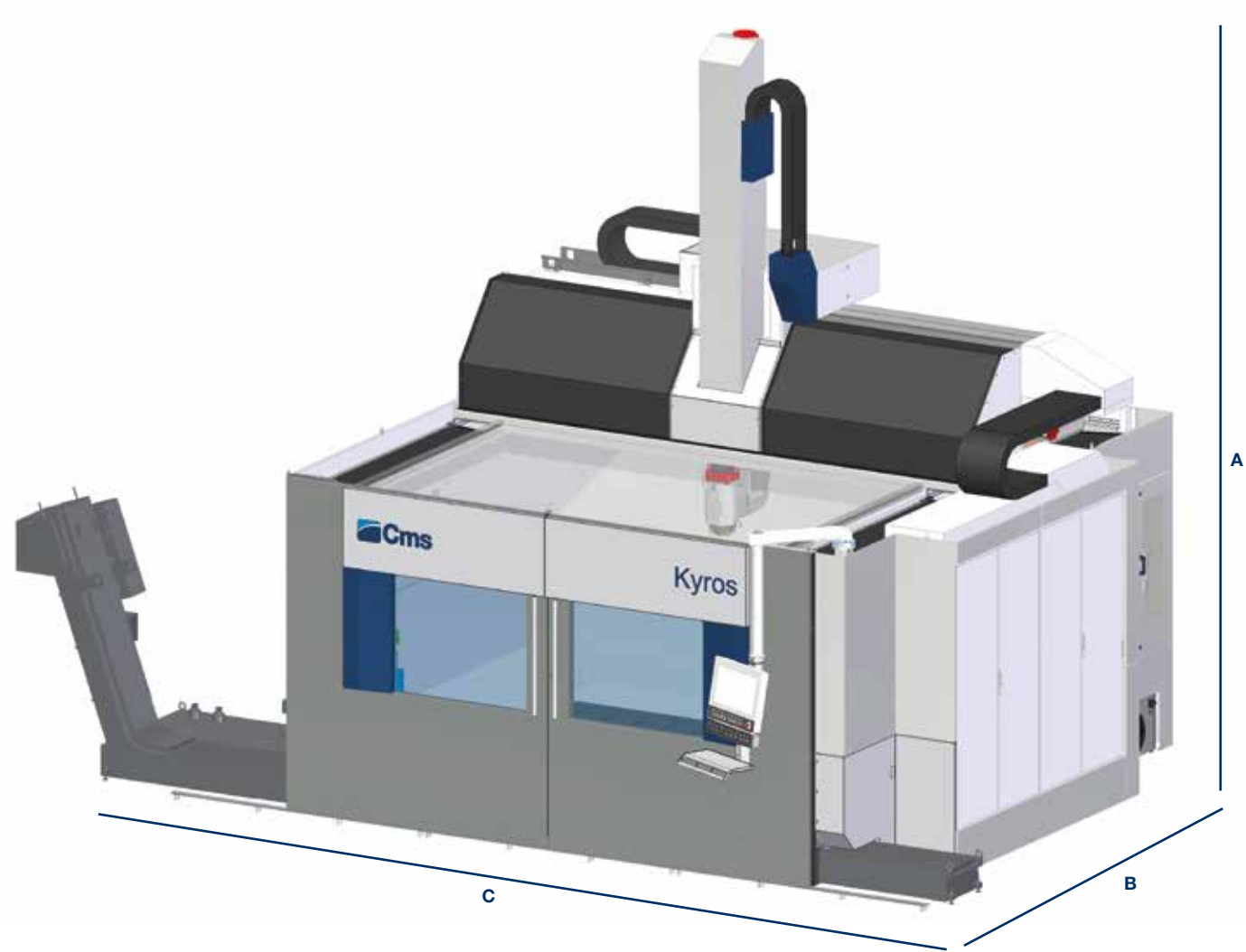
Tool change magazine



Bellows-type opening roof

KYROS

DIMENSIONS AND TECHNICAL DATA



WORKTABLES	
VERSION	WORKTABLES
SIZE	2000 x 2600 mm / 79 x 102 in

OVERALL DIMENSIONS		
	DRY	LIQUID-COOLED
A HEIGHT	5440 mm / 214 in	5440 mm / 214 in
B DEPTH	4820 mm / 190 in	4820 / 190 in
C FRONT	5200 mm / 205 in	7800 mm / 307 in

PROCESSING UNITS AND ELECTROSPINDLES			
		KX5 24_24	KX5 32_24
PROCESSING UNIT GEOMETRY		Kompact – MonoArm	Kompact – MonoArm
ROTARY AXIS STROKE	A	±110°	±110°
	C	±300°	±300°
RAPID		9000°/min	9000°/min
ELECTROSPINDLES		SYNCHRONOUS	SYNCHRONOUS
RATED POWER (S1)		24 kW	32 kW
MAXIMUM POWER		24 kW	32 kW
MAXIMUM RPM		24.000 rpm	24.000 rpm
TORQUE (S1)		23 Nm	68 Nm
TOOL CHANGE		AUTOMATIC	
CONNECTION		HSK63A	HSK63A
COOLING		LIQUID	

KYROS		
STROKES AND SPEEDS		
AXIS	AXIS STROKE	SPEED
X	2000 mm / 79 in	50 m/min
Y	2600 mm / 102 in	50 m/min
Z	1300 mm / 51 in	40 m/min
A	±110°	9000°/min
C	±300°	9000°/min

TOOL CHANGE WAREHOUSES		
	30-positions disc magazine	60-positions chain magazine
NO. OF STATIONS	30	48
MAX Ø WITHOUT RESTRICTIONS	80 mm / 3 in	100 mm / 4 in
MAX Ø WITH RESTRICTIONS	300 mm / 12 in	250 mm / 10 in
MAX TOOL LENGTH	400 mm / 16 in	400 mm / 16 in
MAX. WEIGHT OF SINGLE TOOL	8 - 90 (total) kg / 18 - 198 (total) lb	10 - 300 (total) kg / 22 - 661 (total) lb

CMS connect the IoT platform perfectly integrated with the latest-generation CMS machines

CMS Connect is able to offer customised 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 platform displays, analyses and monitors all data from connected machines. The data collected by the machines in real time become useful information increase machine productivity, reduce operating and maintenance costs and cut energy costs.



CMS active a revolutionary interaction with your CMS machine

Cms active is our new interface. The same operator can easily control different machines as the “CMS Active interfaces maintain the same look&feel, icons and iteration approach.



APPLICATIONS

SMART MACHINE: Section designed for the continuous monitoring of machine operation, with information on:

Status: machine status overviews. The representations provided allow machine availability to be checked - to identify possible bottlenecks in the production flow;

Monitoring: instantaneous, live display of the operation of the machine and its components, of currently running programs and potentiometers;

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

Alarms: active and historical warnings.

SMART MAINTENANCE

This section provides a first approach to predictive maintenance by sending notifications when machine components indicate a potentially critical state associated with reaching a certain threshold. In this way, it is possible to take action and schedule maintenance services, without any down-time.

SMART MANAGEMENT

Section designed for KPI presentation for all the machines connected to the platform. The indicators provided assess of the availability, productivity and. The indicators provided assess of the availability,

productivity and efficiency of the machine and the quality of the product.

MAXIMISED SECURITY

CMS Connect uses the standard OPC-UA communication protocol, which guarantees the encryption of data at Edge interface level. CMS Connect's Cloud and DataLake levels meet all state-of-the-art cyber-security requirements. Customer data are encrypted and authenticated to ensure total protection of sensitive information.

ADVANTAGES

- ✓ Optimisation of production performance
- ✓ Diagnostics to support components warranty optimisation
- ✓ Productivity increase and downtime reduction
- ✓ Improvement of quality control
- ✓ Maintenance costs down

EASE OF USE

The new interface has been especially developed and optimized to be immediately used via touch screen. Graphics and icons have been redesigned for user-friendly and comfortable navigation.

ADVANCED ORGANIZATION OF PRODUCTION

Cms Active enables configuring different users with different roles and responsibilities according to the operation mode of the machining centre (e.g.: operator, maintenance man, administrator, ...).

It is also possible to define the work shifts on the machining centre and then survey activities, productivity and events that have occurred in each shift.

ABSOLUTE QUALITY OF THE FINISHED WORKPIECE

With CMS aActive the quality of the finished workpiece is no longer jeopardized by worn-out tools. The new Tool Life Determination system of CMS Active sends warning messages when the tool life is running out and recommends its replacement at the most appropriate time.

TOOL SET-UP? NO PROBLEM!

CMS Active guides the operator during the tool magazine set-up phase, also allowing for the programs to be run.



SERVICE OUR TECHICIANS BY YOUR SIDE ALL OVER THE WORLD

-  Training
-  Installation
-  Remote Customer Care (RCC)
-  On-site assistance
-  Maintenance
-  Changes & Retrofitting
-  Spare Parts

A GLOBAL PRESENCE FOR BEST-IN-CLASS SERVICE

- 36,000 different codes to serve machinery of all ages;
- 1 central warehouse at the headquarters in Zogno and 6 bases around the world fully integrated at IT level and controlled by a shipping optimisation software to reduce waiting times;
- 98% of orders available in stock;
- spare parts guaranteed thanks to a scrupulous control process and validation via our internal quality laboratory;
- availability to draw up recommended spare parts lists based on client needs, to reduce down time to a minimum;

CMS ADVANCED MATERIALSTECHNOLOGY RANGE OF MACHINES

FOR COMPOSITE MATERIALS,ALUMINUM AND METAL PROCESSING

MONOBLOC CNC MACHINING CENTERS FOR VERTICAL MILLING



ARES



ANTARES MK3



ANTARES MK3 FLOOD



ATHENA



VM 30

GANTRY CNC MACHINING CENTERS FOR LARGE-SIZE WORK AREAS



MX5



POSEIDON



ETHOS

MONOBLOC CNC MACHINING CENTERS FOR HORIZONTAL MILLING



IKON

LARGE FORMAT ADDITIVE MANUFACTURING SOLUTIONS



KREATOR ARES

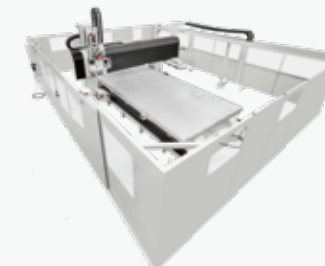


KREATOR A3

FIXED AND MOBILE BRIDGE CNC MACHINING CENTERS



FXB



MBB



AVANT CARAVAN

CNC MACHINING CENTER FOR THE EYEWEAR INDUSTRY



MONOFAST EVO



EOS

CNC MACHINING CENTERS FOR GUNSTOCKS PROCESSING



MULTILATHE



MONOFAST GUNSTOCKS



KARAT

WATERJET CUTTING SYSTEMS



TECNOCUT PROLINE



TECNOCUT SMARTLINE



C.M.S. SPA

via A. Locatelli, 123 - 24019 Zogno (BG) - IT

Tel. +39 0345 64111

info@cms.it

cms.it

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