

WE MERGED OUR DIVERSITY FOR A COMMON GOAL: YOURS

"The machine is not important, it is the customer needs that matter"

Pietro Aceti, CMS Founder

Patric Bollar, DMS Founder



two companies of **scm@group**



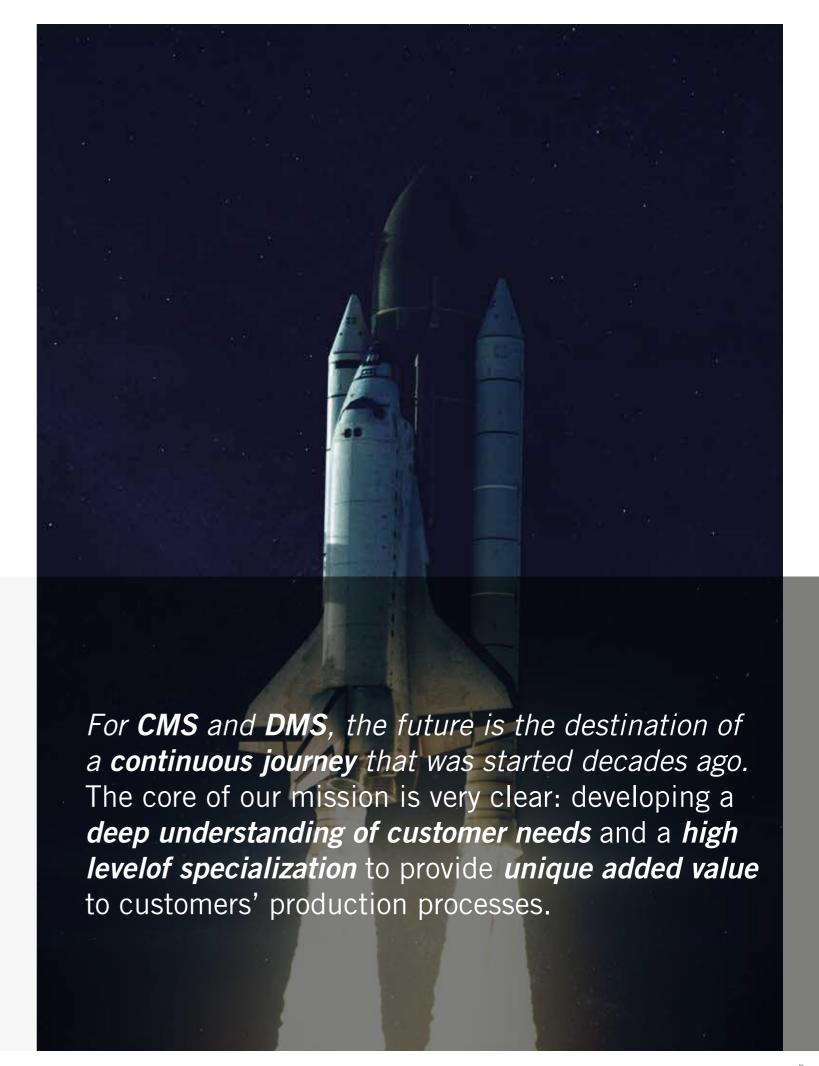


TOGETHER FOR YOUR SUCCESS

CMS and DMS are leaders in the field of numerically controlled machining centers for advanced materials, composites, carbon fiber, aluminum, light alloys, metals and plastic processing.

CMS's acquisition of DMS in November of 2018, signified the start of this greater vision, unifying the unique skill sets and industry leading products each company possesses, in order to create new standards of excellence for uncharted, innovative solutions.

The main commonality between CMS and DMS is this: **the customer is our core business**. Above all else we will work with you and for you, maximizing our synergy to develop customized machines that best serve your business. With us, you will gain considerable advantages and as our partner, a solid, reliable foundation on which to build your success.





1981

CMS starts to do business in USA

1987

CMS opens a branch in USA: **CMS North America**

NO MATTER THE TASK, WE HAVE THE MACHINE.
WHETHER YOU NEED A HIGH-SPEED, BEST-IN-CLASS EUROPEAN
ENGINEERED CNC BY CMS, OR, A DMS CUSTOM HEAVY-DUTY
ROUTER MADE HERE IN AMERICA.
WE ARE YOUR ONE-STOP SOLUTION PROVIDER.

1996

Establishment of Diversified Machines Systems (DMS)

2015

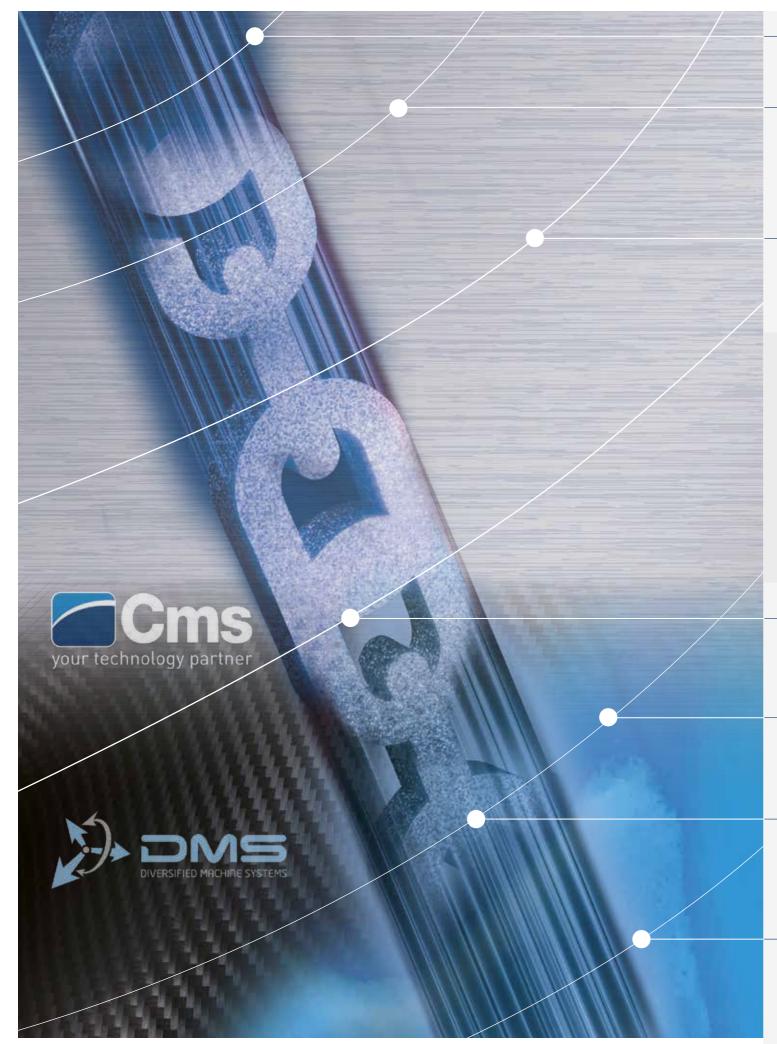
SCM Group, which by 2002 had already acquired 51% of CMS, takes over the remaining company shares. **CMS therefore becomes 100% part of the Group** guaranteeing international solidity and coverage.

2018

DMS joins CMS and SCM Group

2021

The merging sales' staff of CMS North America and Diversified Machine Systems **has been solidified**







CMS and DMS are recognized in the North American market as leaders in the flexibility, efficiency and quality of their products. We represents excellence in many industries, such as: aerospace, automotive & F1, marine industry, defence, production of wind turbines, mass transports, trains and many more.



CMS AND DMS TECHNOLOGIES

OUR RANGE OF MACHINES FOR ADVANCED MATERIALS PROCESSING

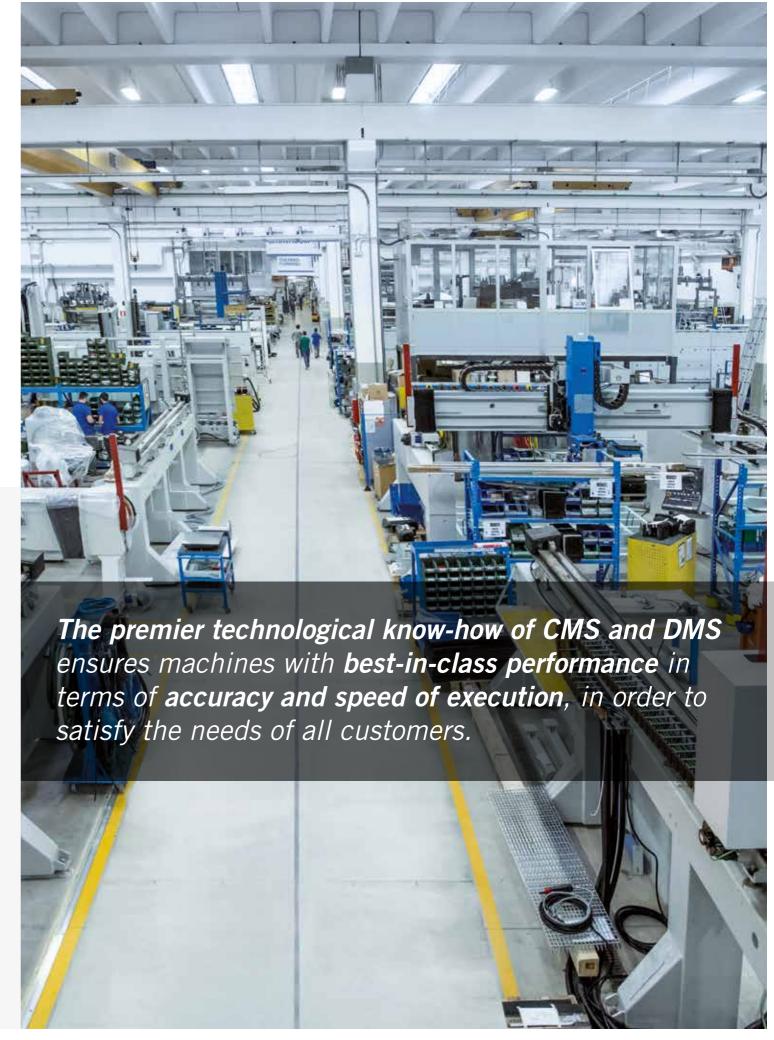
- A. MONOBLOC CNC MACHINING CENTERS FOR VERTICAL MILLING
- B. MONOBLOC CNC MACHINING CENTERS FOR HORIZONTAL MILLING
- C. GANTRY CNC MACHINING CENTERS
- D. FIXED AND MOBILE BRIDGE CNC MACHINING CENTERS
- E. WIND BLADE MACHINING SYSTEMS
- F. ADDITIVE MANUFACTURING SOLUTIONS

OUR RANGE OF MACHINES FOR PLASTIC PROCESSING

- A. 5-AXIS CNC MACHINING CENTERS WITH 500-MM Z-PASSAGE
- B. 3/5-AXIS CNC MACHINING CENTERS WITH UP TO 500-MM Z-PASSAGE
- C. THERMOFORMING MACHINES
- D. PANEL SAWS
- E. SAWING MACHINES
- F. AUTOMATED WAREHOUSE

OUR RANGE OF MACHINES FOR WATERJET CUTTING

- A. WATERJET CUTTING SYSTEMS
- **B. PRESSURE INTENSIFIERS**





A. MONOBLOC CNCMACHINING CENTERS FOR VERTICAL MILLING

Integrated machining centers for vertical routing, are ideal for machining composite materials, aluminum and metals. The advanced design of the structures are the result of CMS and DMS's continuous investments in R&D and the sophisticated technological solutions adopted, provide rigidity and precision over time to guarantee an exceptional level of finishing and unparalleled accuracy. Due to the Adaptive Technology the operator achieves maximum removal parameters of material on a specific surface by simply calling up the specific mapping. These machines dramatically reduce cycle times on complex surfaces without compromising the finishing quality and precision. Each detail of these machines is designed to guarantee an uncompromising performance.





NO LIMITS CONFIGURABILITY

These machining centers have large sized work areas to provide maximum freedom and new production opportunities. This flexibility is possible thanks to the several configurations offered for each machine model like pendular working as well as the availability of configurations with automatic pallet change (APC) and rotating (TR) table to achieve maximum productivity flexibility.

THE POWER OF INNOVATION

All the electrospindles are entirely designed and manufactured within the Group and are the result of 30 years of experience and continuous innovation. The extensive range means our clients always have the electrospindle with the ideal torque, power and rpm features for their processing, maximizing the machine's productivity. In addition to the routing units, it is possible to add on an ultrasound cutting unit, combining the two technologies to create an exceptional synergy in processing core materials.

THE STRENGTH OF WATER

Some models are designed with integrated lubrorefrigeration systems that are ideal for processing aluminum parts. Each component is expressly designed for this function; from the sealed base with integrated steel table, to the layered safety windows and evacuation system. Each detail is designed and integrated to guarantee uncompromising performance.



B. MONOBLOC CNCMACHINING CENTERS FOR HORIZONTAL MILLING

Ikon is the 5-axis machining center with a vertical table structure to machine components in composite materials and aluminum. Fitted with one or two machining units, it can guarantee high productivity levels and ensure maximum visibility of the work areas. The advanced design of the integrated structure, a result of CMS's research center and the technical solutions adopted, guarantee rigidity and precision over time.





POWER AND PRECISION

Ikon is fitted with 2 vertical rotary tables for equipping and loading/unloading of workpieces without stopping operations and double 5-axis operating unit for simultaneous machining of 2 workpieces or combined machining of both units on a large sized workpiece. High operating power, geometric precision and reliability even in the most complex machining operations lead to a single result: producing better workpieces more quickly.

ALL AROUND FLEXIBILITY

The machine's structure, with vertical rotating tables, adjusts the extremely compact sizes, with sizes that are 41% smaller compared to traditional configurations, to allow an easy, low cost insertion into any production environment. In addition, the accessibility for loading/unloading outside the work area makes the operation safe and effective as well as easy to integrate into high automation contexts.

DUST? NO PROBLEM!

The machine can be completed with a total enclosure to retain dust, chips and noise produced during machining and for maximum safety of the operators. A motorized belt attends to the automatic evacuation of chips, which are dropped due to the special vertical table geometry of the machining centre, while special suction inlets carry out the dust cleaning operation.



C. GANTRY CNC MACHINING CENTERS

These machines are the result from experience CMS and DMS acquired in the automotive, aerospace, rail and nautical sectors. The structure and technical solutions adopted, together with the selected components, ensure a high level of finishing, high processing speeds, reliability, structural rigidity, flexibility of use and excellent productivity.





LIMITLESS PERFORMANCE

The panel sizes are no longer a problem; not even the most extreme ones in highly challenging sectors like aerospace, nautical and wind turbine. In addition, the rigid and strong structures improve the performance levels, guaranteeing volumetric precision that is lower than 21% compared to industry average.

BETTER AND FASTER

The excellent operating power, structural precision and reliability even with the most complex processing brings about only one result: better, faster piece production. These machines are designed to adapt to your production conditions and make it even more effective and competitive.

TAILOR MADE

This kind of machine allows you to choose the solutions that best meet your requirements: single or double machining unit, single or double work area, 5-axis routing unit from 12 to 32 kW and 5-axis unit with waterjet technology. With more than 100 sizes, it is impossible not to find the most effective configuration for every production condition.



D. FIXED AND MOBILE BRIDGE CNCMACHINING CENTERS

3, 4, or 5-interpolated-axis machining centers specifically for high speed processing of large panels or long, narrow pieces in composite materials, aluminum, or a sandwich of different materials. Structures and mechanics (with high precision guides and racks) offer high power, structural accuracy and reliability to guarantee high speed performance even in the case of difficult processing work.





The advanced design of the structures , and the technical solutions adopted, such as roller recirculation and gantry motorization, guarantee rigidity and precision over time so that the high finish and accuracy of the workpieces remains a constant feature of your production over the years.

Each production has specific needs that require specific solutions. These machines offer the opportunity to be configured and customized in several different configurations to cover all production requirements. Indeed, the worktables may have the following configurations: fixed, suction, suction cup, built-in rollers or mechanical clamping systems.

This kind of machines can be configured for full integration on unmanned production lines, where each stage of the work, from panel loading, to alignment, to locking is done entirely automatically. This is achievable, both by adopting the most advanced technologies, and the extreme reliability of the machines that become an essential element for advanced production systems.



E. WIND BLADEWORKING SYSTEMS

These machines offer full coverage for the routing processes of wind turbines, with the benefits of automatic solutions, and the structure of CNC machines. Thanks to the technical specifications, they guarantee processing productivity, precision, and repeatability. These machines' structures are extremely flexible and are adaptable to the processing of different wind turbine models. Easy to program and manage, they represent the evolution of technology for this kind of application.





LARGE-SIZED PRODUCTION WITH FLEXIBILITY

By using these machining solution the precision level of this process ensures the highest degree of accuracy on the market and thus the most effective wind turbine operation.

THE MACHINING SOLUTION TAILORED TO YOUR NEEDS

Automatic blade alignment. The CNC program of each blade is automatically adjusted to the actual position of the blade. Set up for different size blade in a flash.

DUST? NO PROBLEM!

Full enclosure and suction hoods on each operating unit. Very efficient dust extraction.



F. ADDITIVE MANUFACTURING SOLUTIONS

- CMS Kreator is the result of the cooperation between CMS and the German prestigious Fraunhofer Institute which, in 2018, started developing a unique LFAM solution to improve the competitiveness of **composite** and other industries. This solution uses the exceptional mechanics of the CMS machining centers for vertical milling, ideal for the processing of composite materials, aluminum, light alloys and metal.
- DMS Hybrid machine integrates **metal additive manufacturing** into our proven, heavy duty 3-axis router structure. This unique machine is ideally suited for process development and material characterization. With its large envelope and non-hazardous environment, this versatile asset can provide a number of manufacturing solutions not available from a traditional subtractive machine.



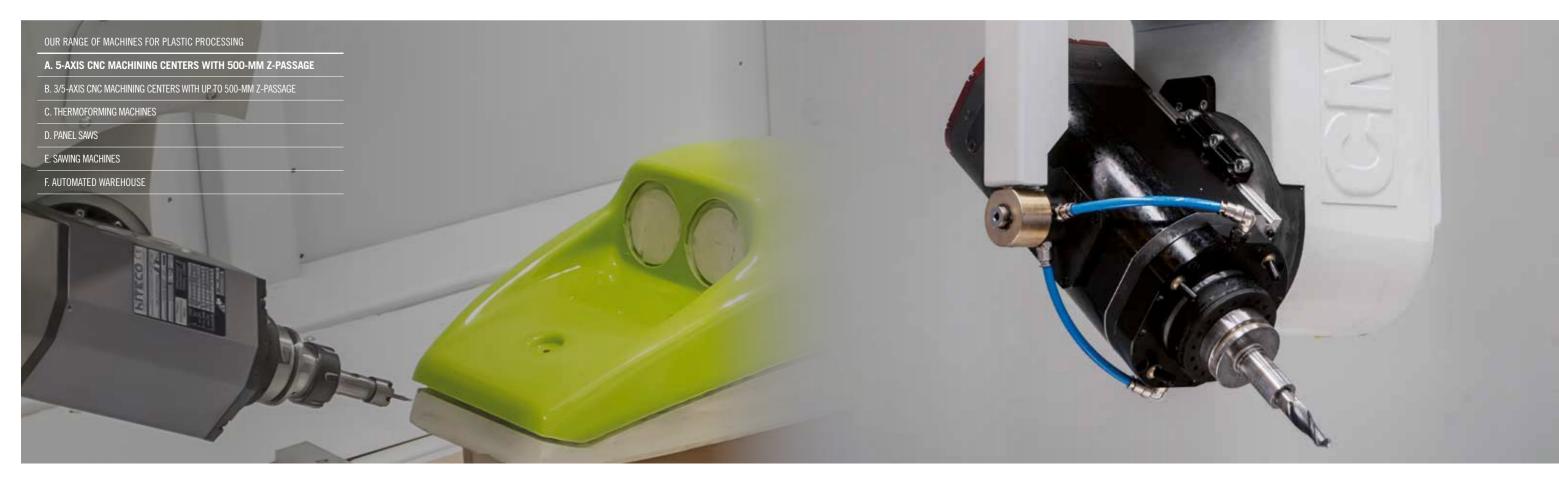


CMS KREATOR: STRONG REASONS WHY

- 1 Unique solution, designed to integrate completely a machine tool and a large format 3D printer.
- 2 Material saving factor compared to current manufacturing technologies: more than 5.
- 3 Up to 5 times less material than competitors, to print the same part. 4 Less subparts, less manufacturing times, less costs than large sized

DMS HYBRID LINE

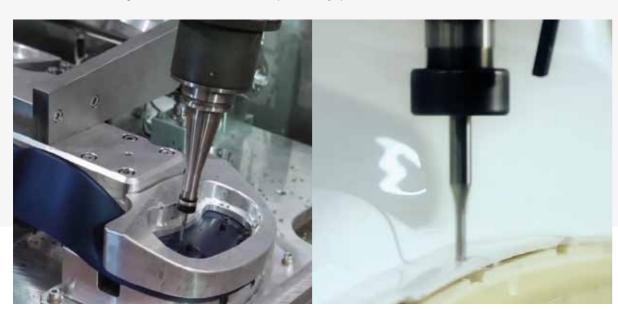
Subtractive manufacturing meets additive. The same industrial components demanded by Fortune 500 companies are standard on all Hybrid machining centers, which translates into a durable product that your business can depend on. DMS Hybrid machining centers are produced in Colorado Springs, where everything is handled: from welding the frame together to assembling the various components and finally conducting quality control



A. 5-AXIS CNC MACHINING CENTERS WITH 500-MM Z-PASSAGE

Mobile portal machining centers specifically studied for high-speed processing of **plastic materials** capable of offering **exceptional movement dynamics to ensure high productivity**. These machine typologies are built using technologically sophisticated solutions to ensure **rigidity, precision over time, speed and flexibility, to guarantee exceptional levels of finishing and an incomparable accuracy**.

Equipped with large-size work areas, they guarantee **maximum production freedom**. They are also **extremely customizable**, to adapt to any production need.





NO-LIMITS CONFIGURABILITY

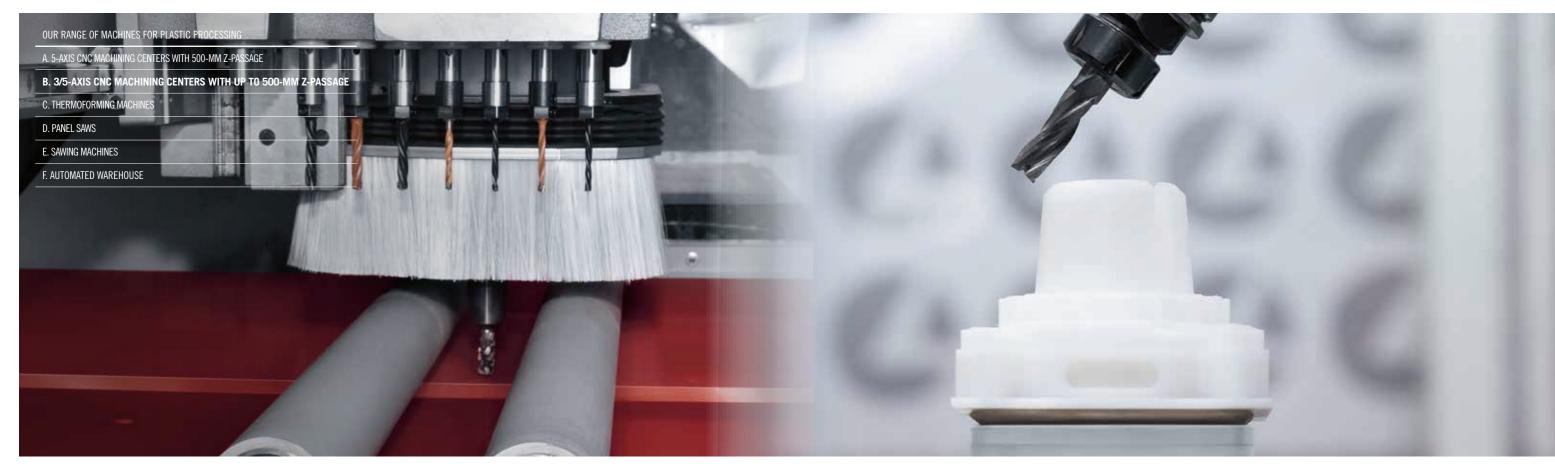
These machining centers feature large-size work areas, to offer maximum freedom and new production opportunities. In many models, this configuration flexibility is expressed through the possibility of pendular working and the availability of configurations with extractable (APC) and rotating (TR) tables, in order to obtain the highest production flexibility.

THE POWER OF INNOVATION

All the electrospindles are fully designed and manufactured within the group, and represent the result of 30 years of experience and continuous innovation. The extensive range allows our customers to always have the electrospindle with the ideal torque, power and rpm features for their processing, maximizing the productivity of the machine.

IDLE TIMES? NONE!

The maximum accessibility to the work areas for loading and unloading the pieces, including with automated systems, makes the production simple, comfortable and fast.

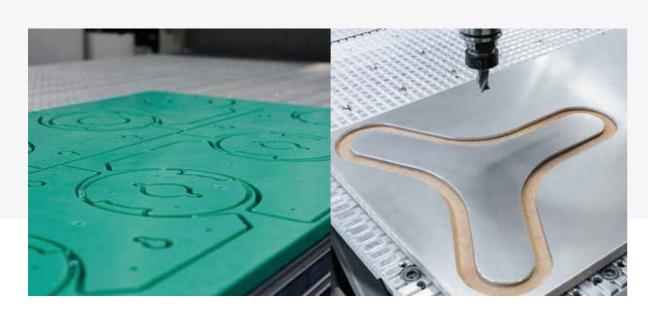


B. 3/5-AXIS CNC MACHINING CENTERSWITH UP TO 500-MM Z-PASSAGE

"All in one" 3- and 5-axis machining centers equipped with high-tech solutions for the processing of plastic materials.

All the necessary to give the best response to the most diversified processing requests: from nesting technical items to cutting low-drawing thermoformed products, without compromising.

The structure of these machines guarantees maximum reliability and performance consistency over time.

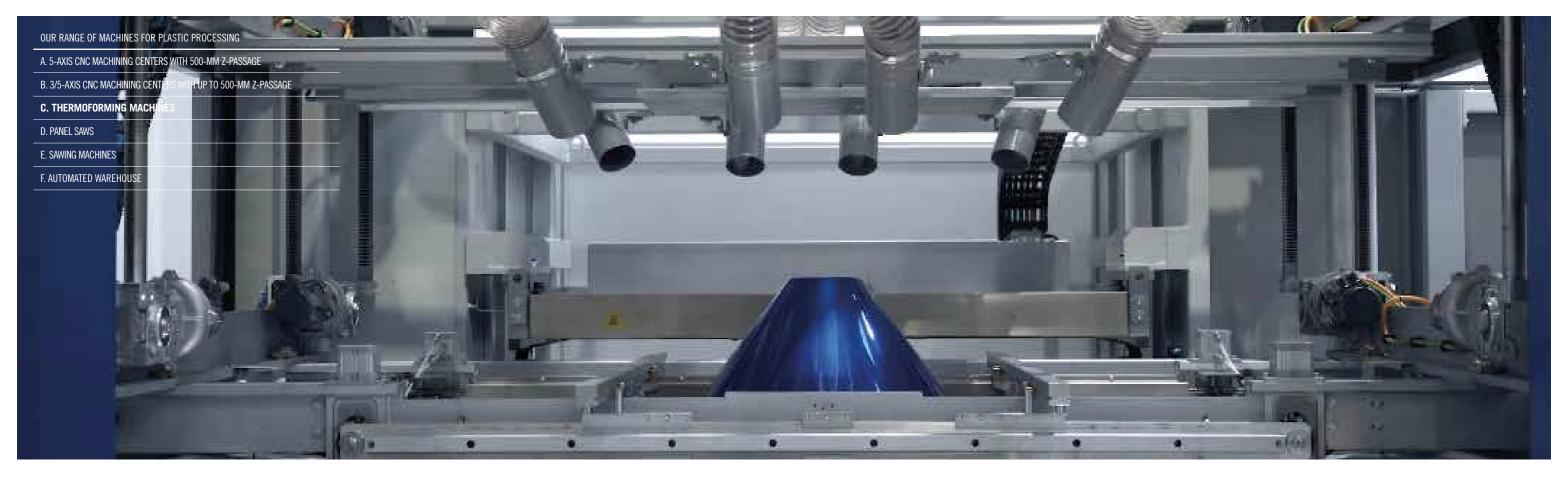




optimized for this type of machining. Total **absence of vibrations** both during the removal processes and during the high-speed trimming of thermoformed parts.

The tools are always available in the front part of the operating unit for changes in less than

perimetral protections allows to access the work plane from all sides of the machine, saving on average 15% of the work surface



C. THERMOFORMING MACHINES

More than **40 years of experience** and continuous investments in research and development make CMS a **reference point for the world of thermoforming** of plastic materials with solutions including machines with **vacuum-seal**, **pressure forming and twin sheet forming technology**. CMS thermoforming machines have been developed with extremely refined and high-tech mechanical solutions to **guarantee maximum performances**. The use of **innovative software** allows a total availability of the product with the maximum user-friendliness.





MAXIMUM CONTROL

Thanks to CMS ThermoActive, the parametrization of the thermoforming process is immediate. A guided system makes the probability of error almost null highlighting errors and incongruities. The visual representation of the cycle makes the software clear and immediate, with learning times reduced by up to 53%. With CMS ThermoProphet, it is possible to guarantee maximum heating stability even in presence of variables external to the thermoforming machine. Maximum quality from the very first piece produced!

OPTIMIZED PROCESS

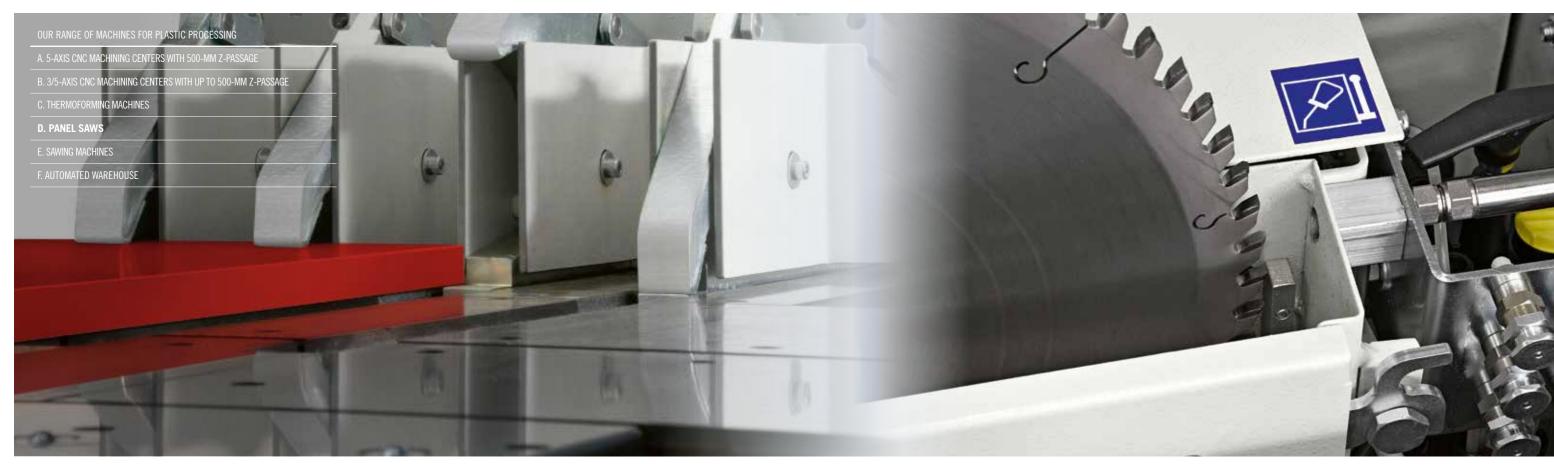
The new mold cooling systems provided with the "tilting" function reduce the time necessary to cool down the mold by up to 31%. The heating systems with the tilting function guarantee maximum effectiveness next to the sheet presser.

Maximum quality with minimum heating cycle time!

SPECIFIC MACHINES

CMS offers thermoforming machines with every technology type: vacuum-seal, pressure forming and twin sheet forming.

CMS thermoforming machines with twin sheet technology are specifically developed for thermoforming long-fiber composite materials. They act with a thrust of up to 100 tons, ensuring the best molding accuracy even in case of complex shapes and narrow curves.



D. PANEL SAWS

The best technology for cutting plastic materials in terms of processing quality and speed. Provided with technological solutions deriving from CMS broad experience in the field of panel sawing, they are capable of satisfying all the specific needs of the companies that process plastic, acrylic and synthetic panels.

The **high cutting quality** and the **high processing speeds** are ensured by the regulation of the speed of the blades, the optimization of the upward movement, the cooling of the blades, and the lubrication of the tools.





TAILOR MADE

Panel saws explicitly conceived for sawing plastic materials. These machines are capable of satisfying all the specific needs of the companies that process plastic, acrylic and synthetic panels.

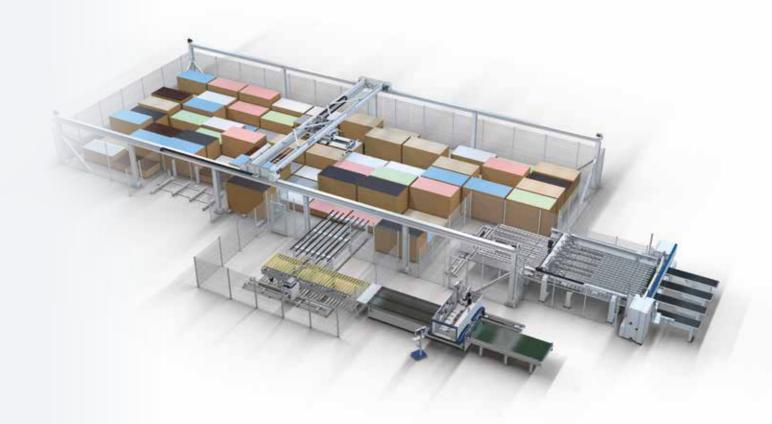
MAXIMUM SAWING FLEXIBILITY

Direct control of the cutting parameters specific for maximum flexibility in the sawing of plastic materials. Available directly from the console: regulation of the blade speed, optimized blade upward movement, primary blade cooling and tool lubrication.

UNMATCHED FINISHING AND SPEED The complete electronic control of the blades guarantees unmatched finishing and speed standards in the work cycles in the sawing of

plastic materials.





E. SAWING MACHINES

The t-maxi horizontal-belt sawing machine represents the **essential solution downstream of the thermoforming process**, characterized by top quality, cutting speed and production capability. This machine guarantees **ideal cutting parameters in all conditions**, saving on average 15% of the time to separate the base sheet figure thanks to the belt speed adjustable through the inverter. The electronic regulation allows to quickly find the ideal cutting speed for every shape, size, thickness and material of the thermoformed product.



SAFETY WITHOUT COMPROMISE

Maximum safety for the operator throughout
the work cycle. Simple load cycles and total
safety throughout the cutting phases thanks to
the "anti-fall" tilting plane.

NO SHAPE LIMITS AND MAXIMUM ADHERENCE

Maximum adherence between belt and piece in all conditions. The adjustable pressure arms, provided with tilting multiple wheels, are capable of adapting to the most varied thermoformed shapes.

BETTER CUTTING QUALITY AND MAXIMUM DURATION OF THE BLADE

The blade tension regulation system, equipped with light indication, allows to **quickly find the perfect working conditions,** resulting in an average increase of the 15% of the life cycle of the blade.

F. AUTOMATED WAREHOUSE

Automatic 3-axis warehouses, for the optimized management of **plastic sheets**, integrable in cells for nesting and/or cutting operations.

They assure a remarkable **boost of the productivity** and of reduction of costs of management of the warehouse.

They manage both **homogeneous and mixed sheets**, with plates of different material, size and color



COMPLETE TRACEABILITY

The warehouse is equipped with software dedicated to the management of semi-finished slabs and finished parts according to the most advanced and efficient functions of storaging.

Automatic labelling, carried out in accordance with the cutting scheme, before it is processed by the machine operator

HIGH PRODUCTIVITY AND RELIABILITY

Robust **steel structure** that allows the achievement of **high performance** (up to 65 cycles / hour) and the **handling of large slabs** (2,200 x 5,600) even in cases of **high density and weight** (350 kg).

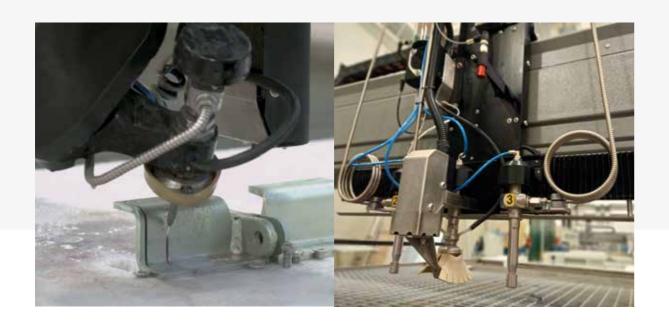
HIGHEST QUALITY

Accurate and precise handling of multiple formats thanks to the **dedicated gripping surface**, able to best manage plastic plates even in cases of **sensitive and/or delicate gripping surfaces**.



A. WATERJET CUTTING SYSTEMS

CMS Metal technology offers a wide range of complete **systems for waterjet cut and pressure intensifiers**. Thanks to the know-how of CMS Tecnocut in this field these machines are the perfect solution for a wide range of applications. These solutions are the perfect combination of **high pressure waterjet cutting power, reliability, modular structures with vast worktables** capable of guaranteeing the best positioning precision and repeatability in this category.





INFINITE OPPORTUNITIES: SAVINGS UP TO 33% OF THE CYCLE TIME

Cutting heads with infinite rotation guarantee the 33% reduction of the cuttig cycle, avoiding the need to recover the revolutions of the C axis to align internal wires and tubes.

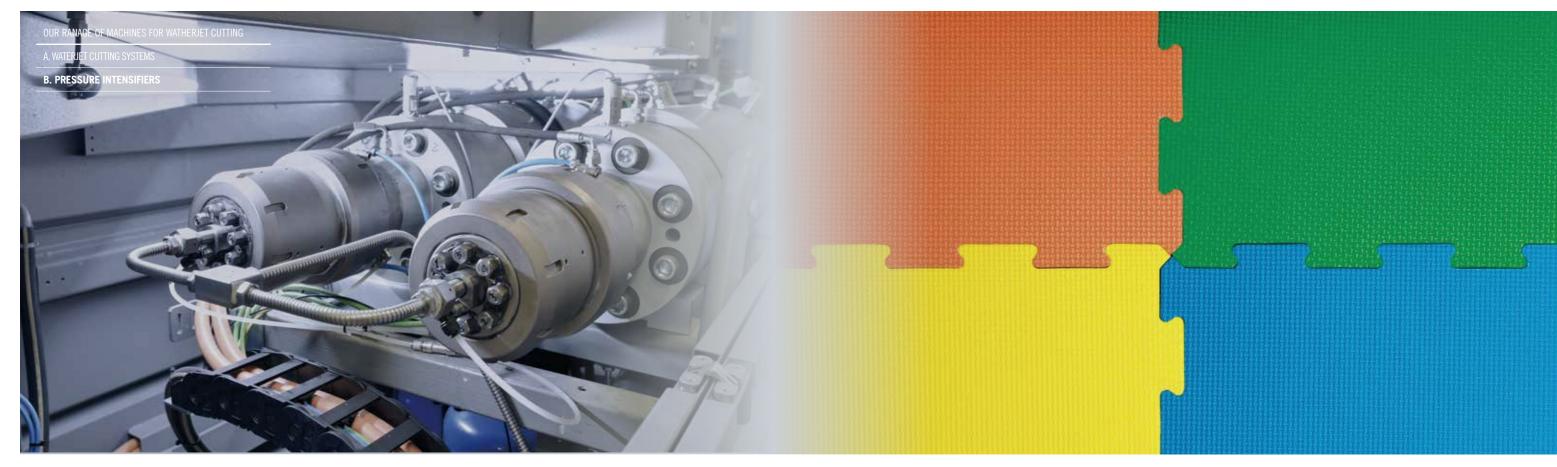
UP TO 75% MORE PRODUCTIVITY

The versatility of waterjet allows to cut a wide range o materials. Customized solutions, like pendulum cycle or the multiple cutting configuration up to 4 independent 3 axis heads allow to increase the productivity up to 75%.

EASY LOADING /UNLOADING: SMART OPERATIONS

Excellent access to the cutting area.

Monolitic and open frame structures to simplify loading and unloading operaions.



B. PRESSURE INTENSIFIERS

CMS has devised a **new concept of high pressure intensifiers**, with an abundance of technological content to meet the needs of the most demanding consumers. CMS's offer is vast and spans from revolutionary intensifiers equipped with up to **3 separate**, **electronically synchronised parallel cylinders** to the **high performing revolutionary electric solutions**.





LESS MAINTENANCE COSTS

The parallel cylinders architecture is designed for a low cycle frequency that reduce the high pressure components wear and consequently the maintenance costs.

REDUCED ENVIRONMENTAL IMPACT

The electric actuator generate the high pressure without the hydraulic components with the advantage to avoid the disposal of the exhausted oil typically 200 liters every 2000 h.

LESS MAINTENANCE COSTS: GREEN MAINTENANCE

Less than 81% of hydraulic and mechanic components and 73% less intensifying cycle than a direct drive pump, with consequently less maintenance costs and machine downtime.

36 3/



THE MOST ADVANCED SKILLS AND KNOW-HOW IN THE FIELDS OF MACHINERY AND INDUSTRIAL COMPONENTS

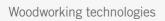
A technological world leader in processing a wide variety of materials: wood, plastic, glass, stone, metal and composites. The Group companies, operating throughout the world, are reliable partners of leading companies in various market sectors, including the furniture, construction, automotive.

aerospace, ship-building and plastic processing industries. SCM Group coordinates, supports and develops a system of industrial excellence in 3 large highly specialized production centres employing more than 4.000 workers and operating in all 5 continents.

INDUSTRIAL MACHINERY

Stand-alone machines, integrated systems and services dedicated to processing a wide range of materials.









Technologies for advanced materials, plastic, stone, glass and metals processing

INDUSTRIAL PARTS

Technological components for the Group's machines and systems, for those of third-parties and for the mechanical industry.

HITECO

Les

4steelmec

4scmfonderie

Electro-spindles and technological components Electrical panels

Metalworking and mechanical machining Cast Iron

SCM GROUP IN BRIEF

Million/Euro in consolidated turnover

+4.000 3 main people

in Italy and abroad

production centres

5 a presence on continents that is direct and widespread

7% of turnover invested in R&D





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DIVERSIFIED MACHINE SYSTEMS

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