

# masterform

Thermoforming machines



CMS is a company of the SCM Group, a world leader in technologies for processing a wide array of materials, including wood, plastic, glass, stone, metal and composite materials. The companies of the Group have gained the worldwide reputation of being sound and reliable partners for leading manufacturers in various industries, spanning from furniture, constructions and automotive to aerospace, boating and plastic processing. The SCM Group supports and coordinates the development of a system of industrial excellence in three major specialised production hubs. The Group employs over 3,300 people and is directly present worldwide. The SCM Group expresses the world's most advanced expertise in the design and manufacture of industrial machines and components.

CMS S.p.A. makes machines and systems for processing composite materials, carbon fibre, aluminium, light alloys, plastic, glass, stone and metal. It was founded in 1969 by Pietro Aceti to supply personalised, state-of-the-art solutions based on a deep understanding of the customer's processes. Significant technological innovations, generated by major investments in research and development and the acquisition of premium companies, have fostered constant growth in the various sectors.

# masterform

APPLICATIONS	4-5
MASTERFORM	6-7
COMPONENTS	8-11
SERVICE	12-13
THE RANGE	14-15



**CMS Plastic Technology** makes state-of-the-art numerically controlled machining centres and thermoforming machines for processing plastic materials. The brand is the result of a winning synergy between the technical-industrial experience in thermoforming of the time-honoured Villa company, founded in 1973, and the milling know-how of CMS. Following constant investments in research and innovation, **CMS Plastic Technology** is known as the sole partner for the entire process from thermoforming and trimming to the manufacturing of models and moulds, to maximise productivity.

**CMS Plastic Technology** is the key player in many sectors, including automotive, aerospace, construction machinery, caravans, buses, railway industry and bathtub production.



# APPLICATIONS



mass transport | healthware and wellness | sanitary ware



logistics | automotive | construction machinery



**I**nnovative.  
**D**esigned.  
**E**fficient.  
**A**adjustable.  
**L**ean solutions.

The **IDEAL** thermoforming machines.

Thermoforming machines

# MASTERFORM

## TECHNOLOGICAL ADVANTAGES

### A WINNING SOLUTION, ALL IN A SMALL SPACE

Specially designed for thermoforming long-fibre composite materials, the machine applies a thrust of up to 100 tonnes ensuring the best moulding fidelity even with complex shapes and tight curves. Extremely versatile and easily managed by a single operator, it reduces set-up time and allows very fast set-ups.

- **VERSATILE**  
The machine can be set up very quickly and can also work on non-composite materials. Versatility is enhanced by the heating system that acts on both sides of the sheet.
- **COMPACT**  
The structure has a small footprint and works with a special system with moving plates to interlock the two half-moulds.
- **FUNCTIONAL**  
One operator is all that is needed for operation because the functions are all automated and automatically programmable.
- **DIMENSIONS**  
From 1500 x 1200 mm to 3000 x 2000 mm



### KEY BUYER BENEFITS

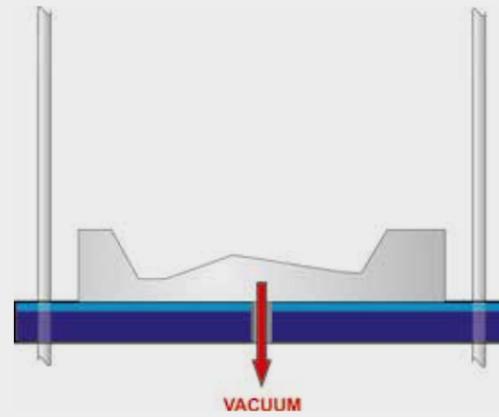
- + Easy management of all process parameters using the easy, user-friendly supervision software developed specifically for the thermoforming process. It guarantees 53% shorter learning times compared to other solutions. All variables are saved in a single program that guarantees repeatable results even after years.
- + Possibility of having two heating stations for twinsheet forming. The two stations are equipped with a twin heating system for the independent management of the two sheets to guarantee optimum heating even with different thicknesses and colours while allowing full access to the internal surfaces of the workpiece for applying inserts or structures.
- + Mould table handling system with shared columns for perfect mould alignment without using centring devices. The movement is powered by 8 brushless motors with a hydraulic interlocking system providing high closing values up to 120 tons adjustable by software.
- + It is possible to work in single sheet mode (with vacuum and pressure forming processes), in standard mode or by implementing a pendulum cycle using the second station to heat the sheet while the previous one is being formed and cooled. This increases productivity by up to 63% compared to the single station version. Possibility of stretching the sheet during heating and forming.

### OTHER MACHINE CONFIGURATIONS

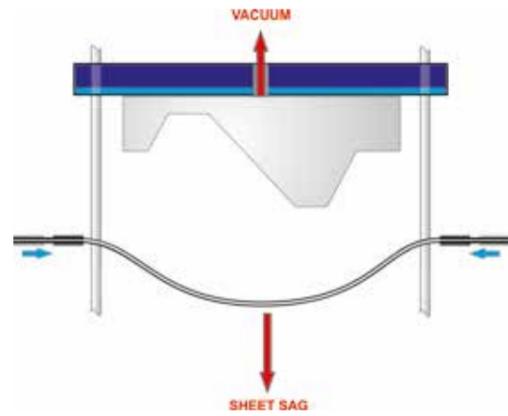
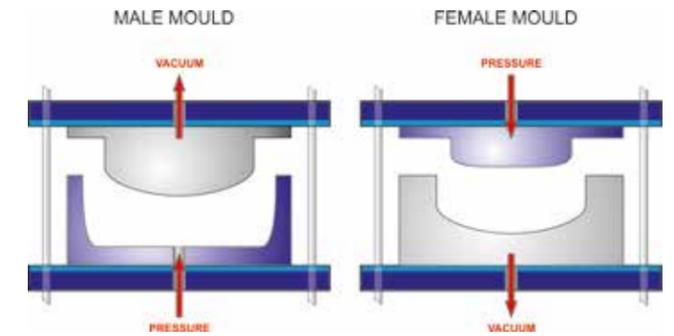


# COMPONENTS

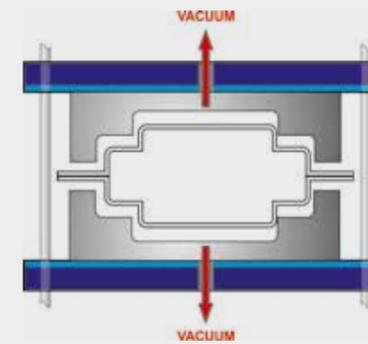
Vacuum forming with negative mould



Pressure forming with positive or negative mould and vacuum preforming

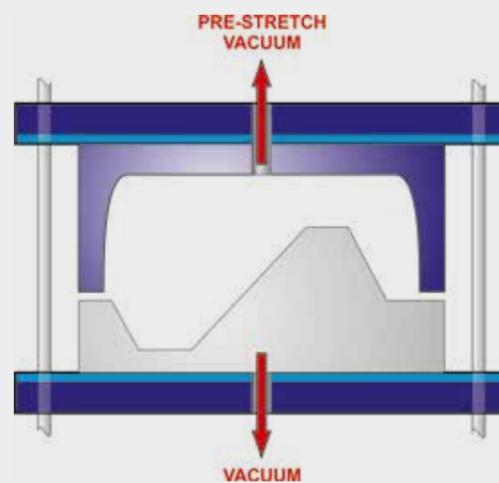


Vacuum forming with positive mould

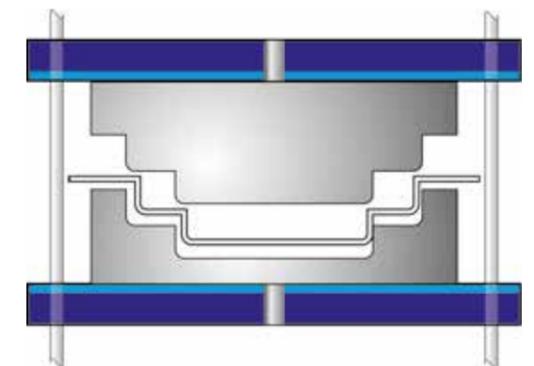


Twin-sheet forming

Vacuum forming with pre-stretch bubble

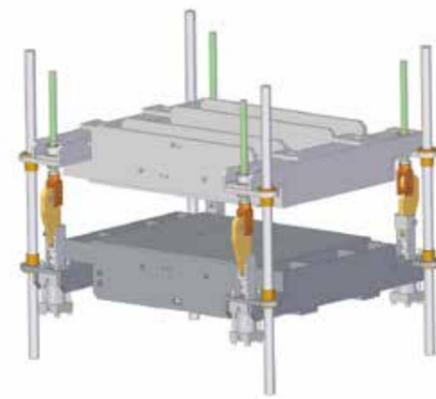


Mechanical forming

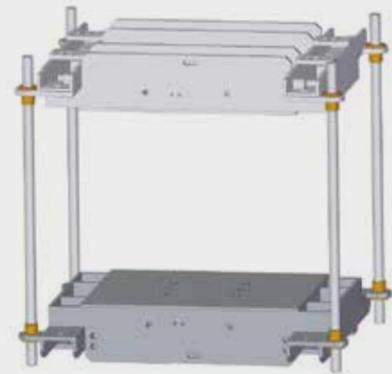


# COMPONENTS

Hydraulic actuators

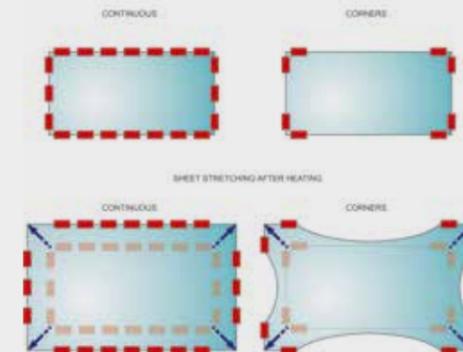


Cameras

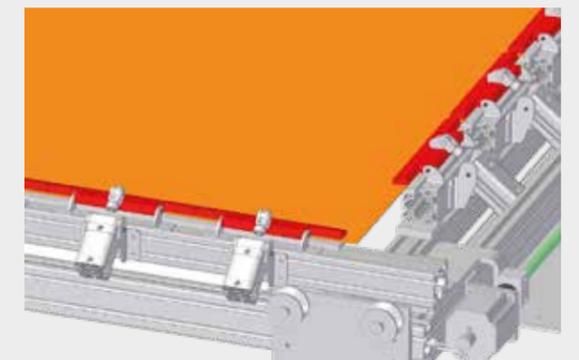
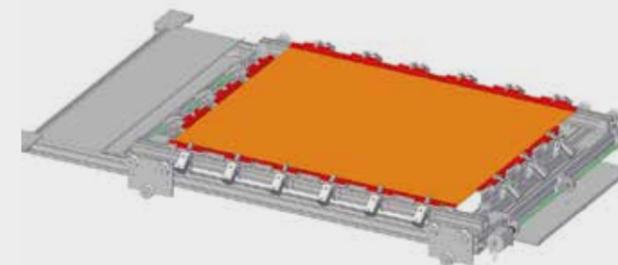


Mould table handling system with continue guidance system through columns for perfect mould alignment without using centring devices.

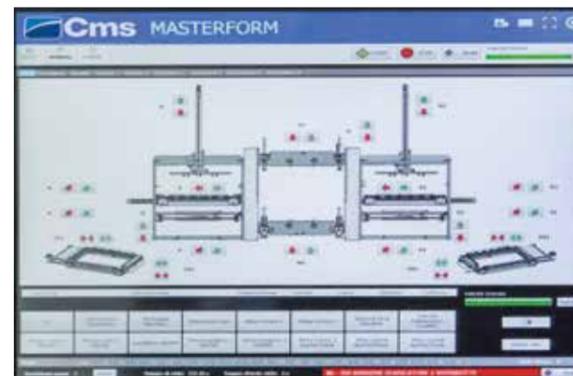
Double heating area



Dynamic clamping frame



Simple and user-friendly supervision software specially developed for the thermoforming process





## 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;

# THE RANGE OF CMS PLASTIC TECHNOLOGY

# FOR PROCESSING PLASTIC MATERIALS

## 3/5-AXIS CNC MACHINING CENTRES (Z stroke up to 500 mm)



**TRACER**



**TIME**



**EVOTECH**

## 5-AXIS CNC MACHINING CENTRES (Z stroke from 500 mm)



**ATHENA**



**ANTARES**



**ARES**



**GENESI**

## BEAMS SAWS



**HELIX**

## SAWS



**T-MAXI**

## THERMOFORMING MACHINES



**EIDOS**



**BR5 CS**



**BR5 HP**



**BR5 SPECIAL SPA**



**MASTERFORM**

## WATERJET CUTTING SYSTEMS



**TECNO CUT PROLINE**



**TECNO CUT SMARTLINE**



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