

br5hp

Thermoforming machines for pressure forming



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.

br5hp

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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 | caravans | sanitary ware



consumer goods | automotive | refrigeration



Innovative.
Designed.
Efficient.
Aadjustable.
Lean solutions.

The **IDEAL** thermoforming machines.

Thermoforming machines for pressure forming

BR5HP

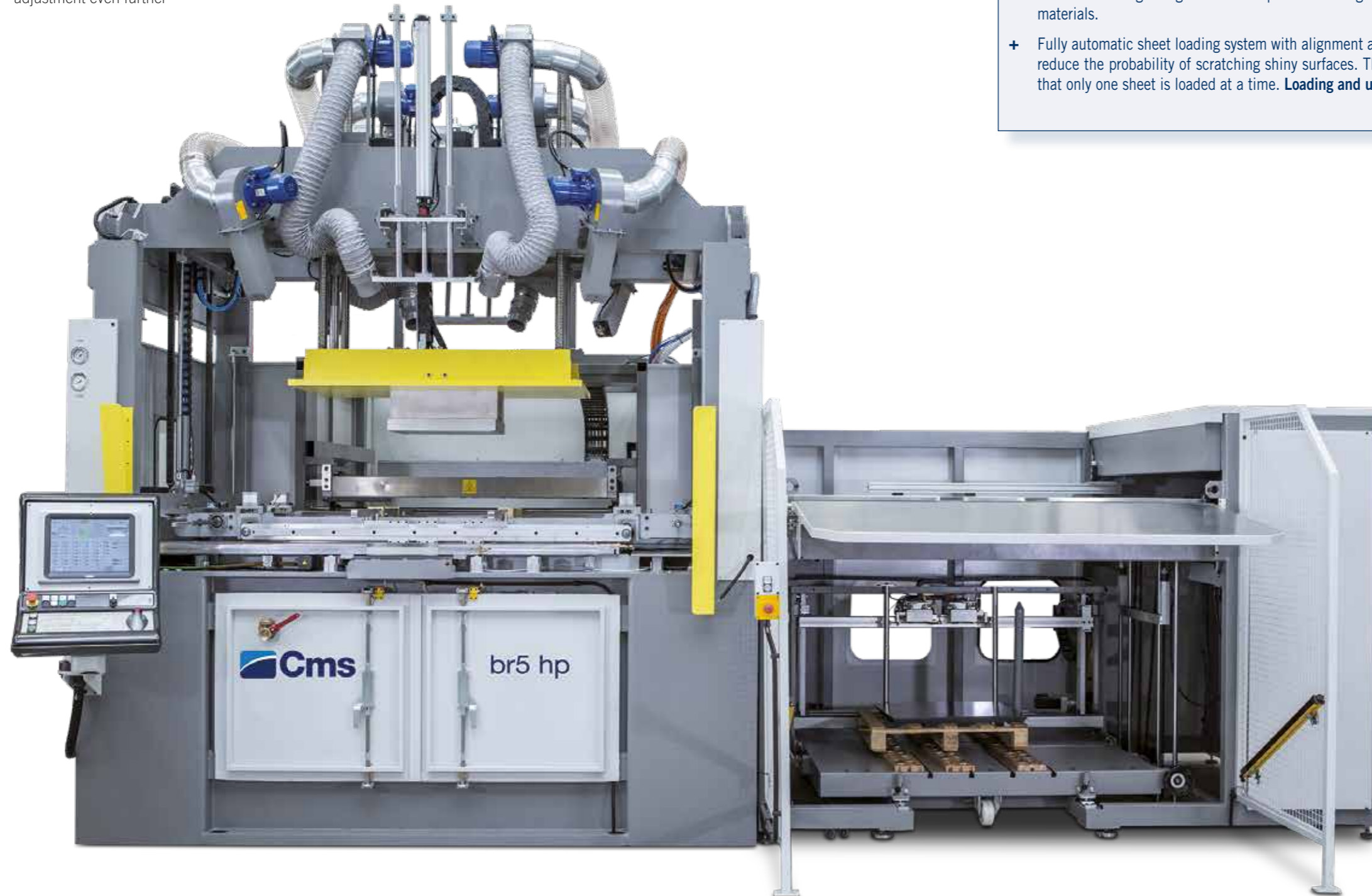
TECHNOLOGICAL ADVANTAGES

VACUUM AND PRESSURE THERMOFORMING

The BR5HP sheet thermoforming machine with manual or automatic loading functions is characterised by an extremely innovative workpiece management system that loads the sheet to be formed. Forming and unloading are carried out automatically. Quick tool changes, full diagnostics, connection to the network and the possibility to work with vacuum and pressure also on the top of the table are the features that have confirmed the BR5HP series as the benchmark for the entire thermoforming industry.

- Extremely fast format changeovers with systems integrated in the software
- The frame can be entirely stored to speed up clamping frame adjustment even further

- All movements are motorised. The mould plate is equipped with a servo movement controlled by PC with stored speed and positioning information. The patented mechanics work using two electronically coupled servomotors (gantry), ensuring quick and precise positioning of the mould and a high level of pressure.
- The lower and upper mould plate have gantry systems with coupled axes and ball screws.
- Dimensions: from 1500 x 1000 mm to over 3500 x 2500 mm



KEY BUYER BENEFITS

- + Simple management of all process parameters thanks to a **userfriendly software specifically developed for thermoforming process. It shortens by 53% learning times compared to different solutions using wizard procedures.** All variables are saved in a single program ensuring the same results even after years.
- + Smart heating control advanced system using thermal vision thanks to **the exclusive ThermoProphet by CMS (patented).** Thermal image allows to read surface temperature and through this information apply modifications to heating percentages automatically. This allow to ensure maximum heating quality even with every kind of environmental conditions. Thanks to this is possible to reduce probability of bad parts by 55% end restart time by 25%
- + Possibility of working with both vacuum and pressure forming. By using pressure from the upper table (with counter mould or pressure bell), it is possible to obtain **excellent detail definition** with the possibility to have texture transfer from the mould. Pressure forming can guarantee the perfect forming of extreme undercuts and excellent results also with thermoplastic composite materials.
- + Fully automatic sheet loading system with alignment and centring of a single sheet. During centring, the sheets are raised slightly to reduce the probability of scratching shiny surfaces. The double-sheet laser identification system, with separation function, ensures that only one sheet is loaded at a time. **Loading and unloading operations will be easier and safer.**



Upper mould plate (for pressure forming)

COMPONENTS

Cooling with telescopic taps



Quick mould change



Automatic reduction plate



Mould carts with a mould lifting system (only available for some sizes)



Clamping frame with automatic control



Automatic sheet centring system with double sheet detection



Electronic bubbling control



Electric fan for bubbling, vacuum and extraction



Optical pyrometer for monitoring heating and cooling



HEATING ELEMENTS



Halogen heaters



Quartz heaters



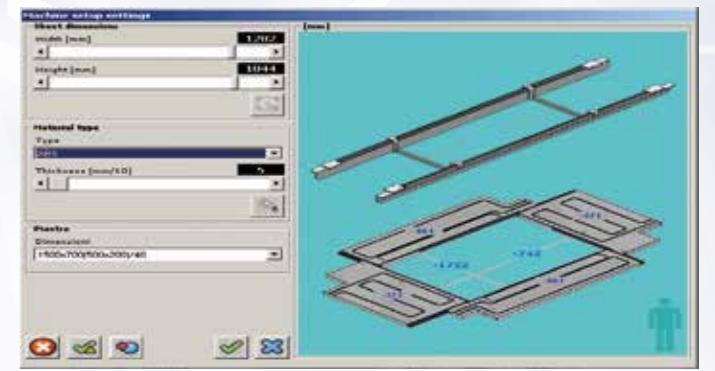
Ceramic heaters

CMS SUPERVISOR MASTER

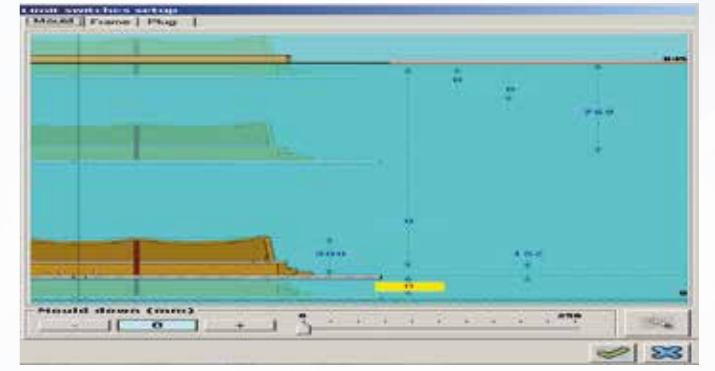
MAIN SCREEN

- User-friendly
- Touchscreen-ready
- Diagnostics, automatic cycle, process parameters, sensors and productivity parameters all on one screen
- Direct links to the set-up screens from the main screen

Frame size changeover and electronic reduction plate

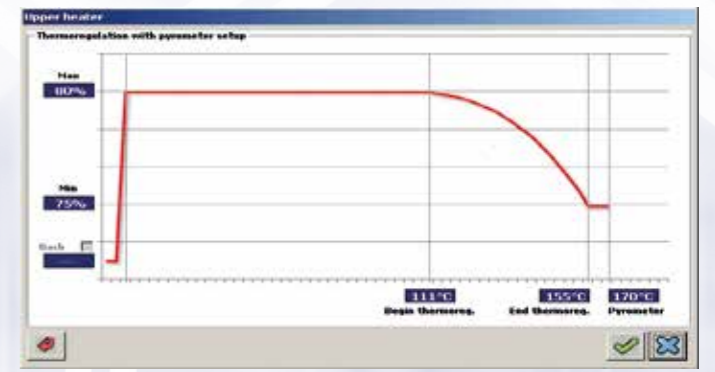


Synoptic system for simplified axis programming

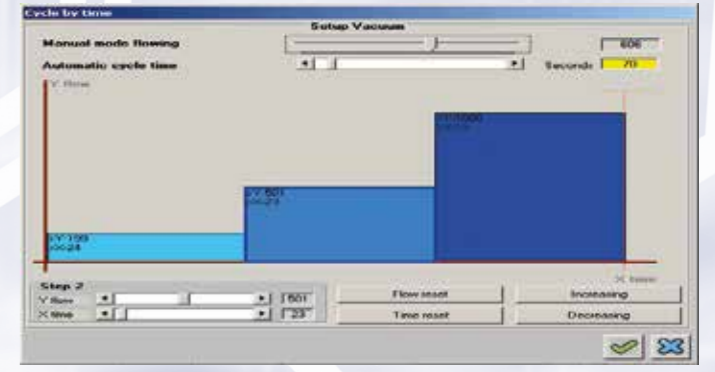


Programming is simplified by comparing the sheet dimensions to the heating oven

Variable heating power according to material temperature



Vacuum, air and bubble adjustable in flow and time





SERVICE OUR TECHNICIANS BY YOUR SIDE ALL OVER THE WORLD

Training

Installation

Remote Customer Care (RCC)

On-site assistance

Maintenance

Changes & Retrofitting

Spare parts

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- 36.000 different codes to serve machines 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 CENTERS (Z stroke up to 500 mm)



TRACER



TIME



EVOTECH

5-AXIS CNC MACHINING CENTERS (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



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**