

# cannon



## CREA

Single-station Thermoforming Machine





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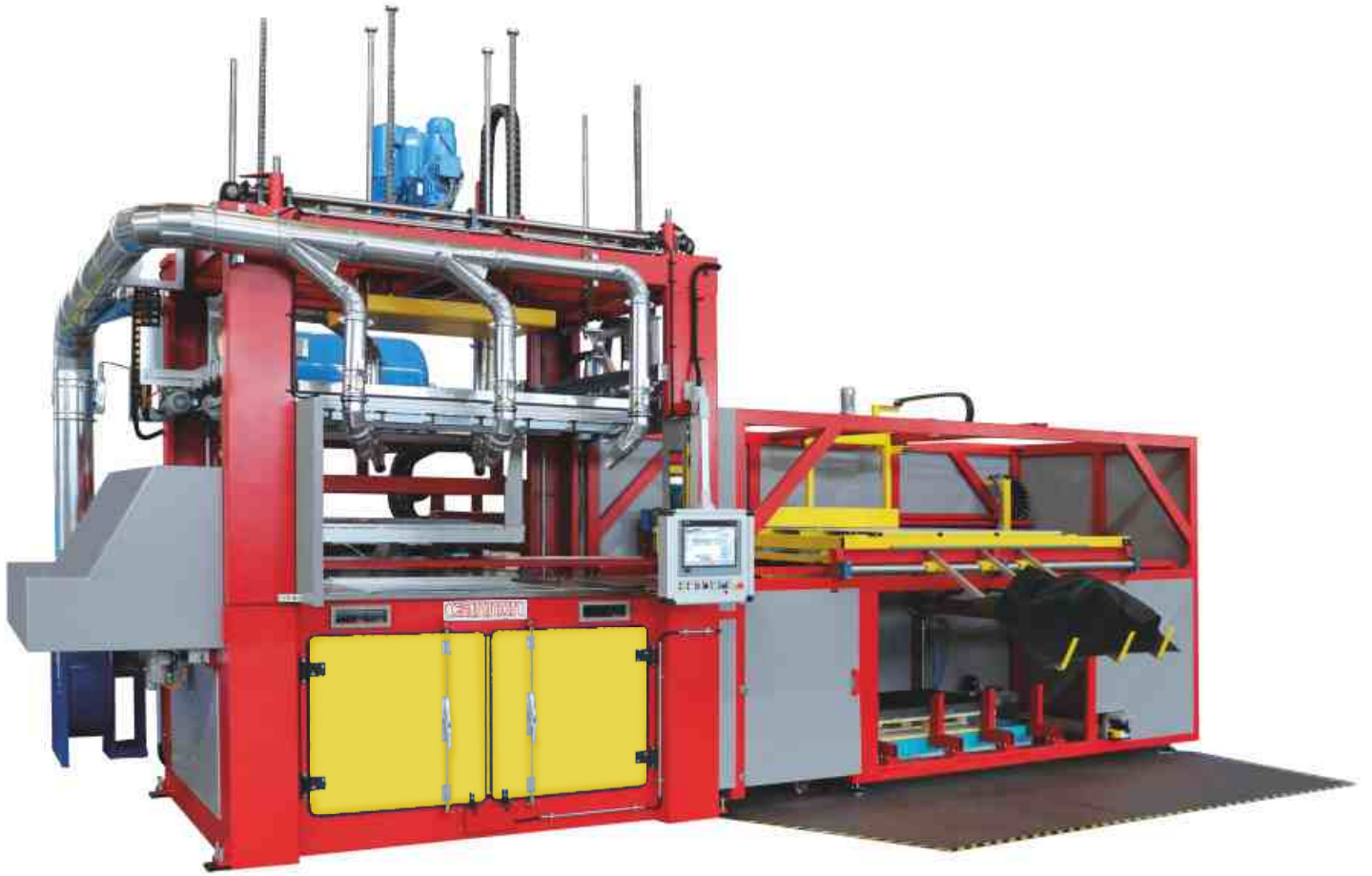
## CREA Series

The general-purpose thermoforming solution

Designed to perfection based on Cannon's expertise, the single-station thermoforming machine is tailored to satisfy our customers' requirements.

### Main features

- Single-station machine from cut sheet or roll
- Thick gauge
- Capable of processing all thermoplastic materials of any thickness
- Fully customizable solutions



## Main data

	Size	Forming area (LxW)	Draw depth
CREA 1510-06	Small	1500x1000	450 / 650
CREA 1512-08	Small	1500x1200	650 / 850
CREA 2010-08	Medium	2000x1000	650 / 850
CREA 2012-08	Medium	2000x1200	650 / 850
CREA 2215-08	Medium	2250x1500	650 / 850
CREA 2515-10	Medium	2500x1500	850 / 1050
CREA 2520-10	Medium	2500x2000	850 / 1050
CREA 3020-10	Large	3000x2000	850 / 1050
CREA 3520-10	Large	3500x2000	850 / 1050
CREA 4525-10	Large	4500x2500	850 / 1050

Sizes are suitable of customization based on client request



# The Core of Cannon CREA

CREA is a fully automatic single-station thermoforming machine designed to be versatile and work across many applications and different types of materials.

The machine is exceptionally flexible and guarantees consistent repeatability thanks to a multitude of inbuilt sensors.

CREA can automatically mitigate the variability of the thermoforming process, maintaining high-quality levels of the finished products.

- Options for thermal imaging of the sheet temperature **H**
- Closed loop control and automatic heating cycle optimization, valuable for high-end applications with expensive raw materials

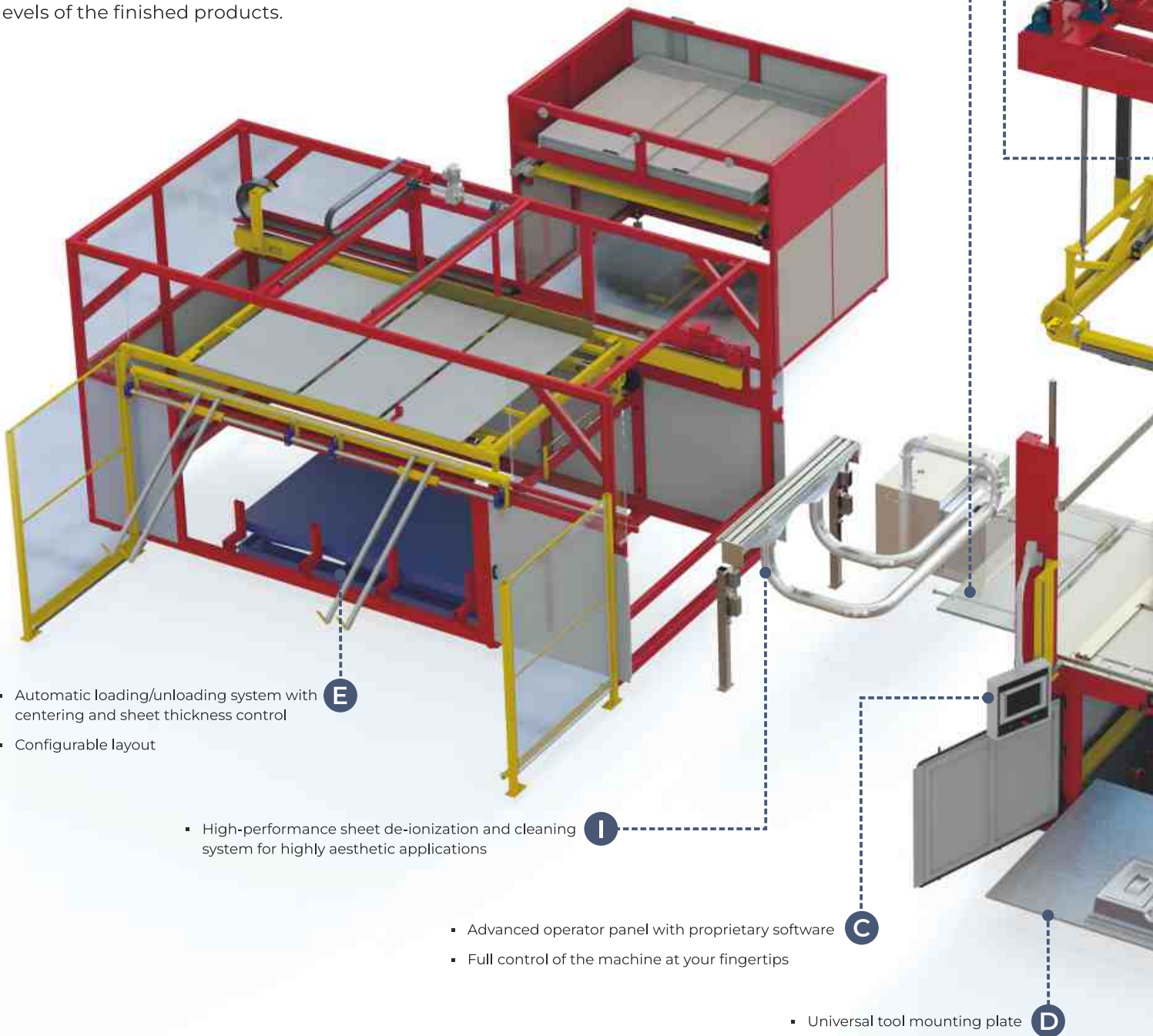
- "TRIPLO" adjustable reduction plate system (Cannon patent) **B**

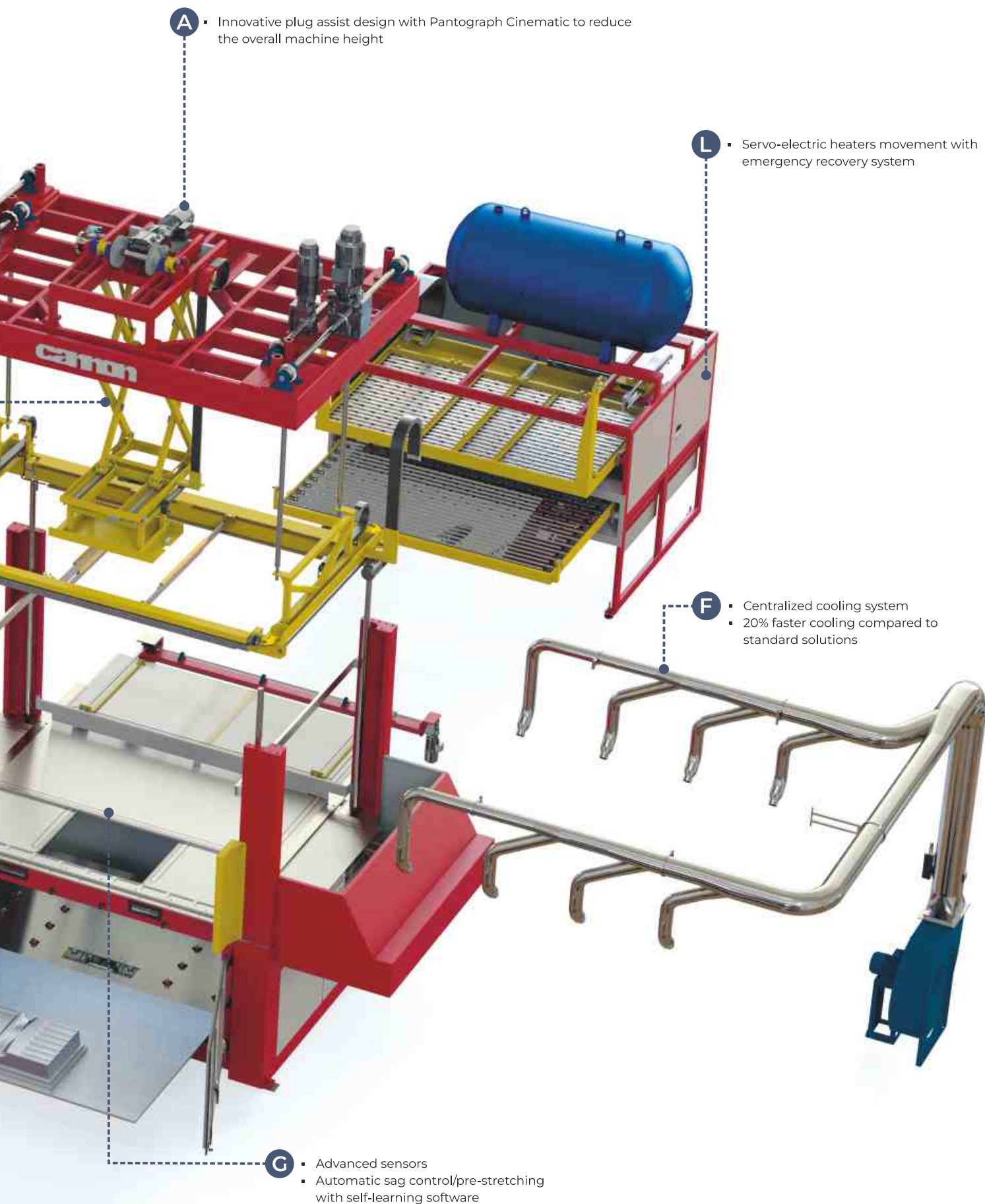
- Automatic loading/unloading system with centering and sheet thickness control **E**
- Configurable layout

- High-performance sheet de-ionization and cleaning system for highly aesthetic applications **I**

- Advanced operator panel with proprietary software **C**
- Full control of the machine at your fingertips

- Universal tool mounting plate **D**





**A** ▪ Innovative plug assist design with Pantograph Cinematic to reduce the overall machine height

**L** ▪ Servo-electric heaters movement with emergency recovery system

**F** ▪ Centralized cooling system  
▪ 20% faster cooling compared to standard solutions

**G** ▪ Advanced sensors  
▪ Automatic sag control/pre-stretching with self-learning software





## Machine's Design Architecture

50 years of machine and plant manufacturing experience and know-how resulted in our single-station design.

The CREA frame is manufactured using high resistance steel sections and bent sheets welded together to form a rigid flat-based frame.

As a result, no foundations or pits are required. The strong design grants a long lifecycle to our machine and can limit damages in case of external accidents.

All the movements are provided with mechanical safeties and electrical interlocks to avoid accidental damage during operation.

Each CREA commercial component and sensor are sourced from leading European brands to deliver a high-quality product to our customers.

All thermoforming machines come with safety guarding and CE certification as a standard.

## Heating Control

Superior heating control is crucial for process efficiency, materials saving, and the final part's high-quality result.

The heating solutions we offer include ceramic (versatile for general trade purposes), quartz (designed for delicate applications), or "speedium" halogen lamps (highest performance and efficiency for technical applications), individually controlled through the proprietary state-of-the-art Siemens-based system, which features many options for advanced control.

The movement of heaters is electrically actuated for maximum speed and precision, with an emergency safety system to retract them back to their resting position.

## Operator Interface

CREA thermoforming machines are widely appreciated for their HMI operator panel; hardware and software systems have been developed in-house to manage all the thermoforming functions with a highly user-friendly architecture.

The proprietary control system is based on Siemens's latest PLC, using an industrial PC for input control which allows the operators to set the parameters for every phase of the process at any time and to store

them to create a collection of recipes that can be quickly recalled for ultra-fast production change and high repeatability.



## TRIPLO solution for Adjustable Reduction Plate

This patented system can significantly improve single-station thermoforming flexibility.

With just one set of sliding plates moving over the CREA's forming aperture, dedicated aperture plates can be removed, resulting in actual savings in required space for storage and time for production changes.



TRIPLO can be installed on any Cannon thermoforming machine and grants the widest range of adjustments available on the market to reduce the machine's forming area down to 30-40% on each principal dimension (depending on the machine size).

The system is infinitely variable between the maximum and minimum parameters thanks to the 3-motor drive adjustment, and the setting can be easily saved and recalled for fast mold changes.

## CAMBIO solution for Fast Mold Change

Thanks to interchangeable removable mold plates, automatic locking devices for mold/plug assist, and motorized adjustable clamp frames, we offer customizable solutions to provide maximum flexibility to any thermoforming machine.

This allows you to change the production scenario in less than 10 minutes while keeping the compatibility with the existing tools.

The solution includes automatic locking of tools with different concepts: universal removable tool plates for manual locking outside the machine, thermoregulated plates for tools without internal thermoregulation, or any combination of these.







## Automatic feeding from sheet or roll

CREA can be equipped with an automatic sheet loader/part unloader with the option for a pre-heating step before going into the main station.

With this solution, the single station can produce a series of numbered parts, only requiring the operator to remove the formed part from the unloading station. Refilling the raw material takes just a few minutes once the material stack is done or the production is finalized.

For some special applications such as automotive, we also foresee feeding material in the machine from rolls. Our solution will cover automatic unwinding, cutting to length, and part unloading.

These higher levels of automation can appreciably increase productivity and help the operators run the machine when thermoforming large parts.

## Centralized Cooling

This option ensures higher efficiency and reduced cooling times. Formed product cooling is achieved with the distribution of a single air flow generated by a centralized fan that feeds a common collector and several manually oriented distribution nozzles in the forming area.

The intake flange of the fan can be connected to the outside or an air-cooling system to further improve the cooling power for disadvantageous climates.





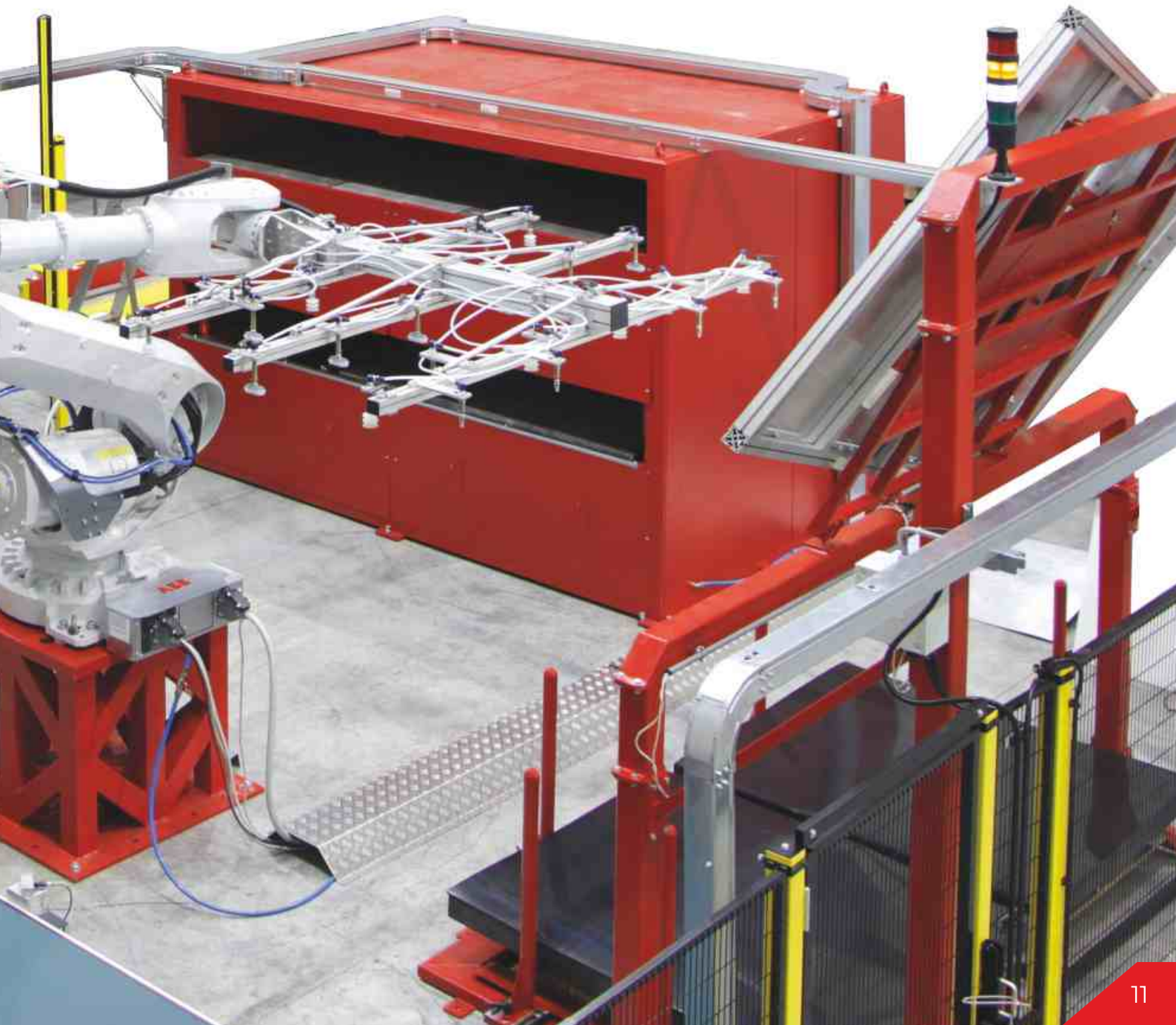


## Twin sheet pressure forming technology

The CREA series can be equipped with additional provisions for high-pressure forming technologies, such as twin sheets or pressure forming.

The offer is based on a hybrid concept, keeping both flexibility and freedom of a fully electrically actuated machine. The addition of highly/efficient hydraulics acts only on the final closing stroke to minimize the amount of oil in the machine and cut down energy consumption.

This option allows for higher productivity, forming more complex or hollow parts and drastically increasing the machine's capabilities in forming high-value products.





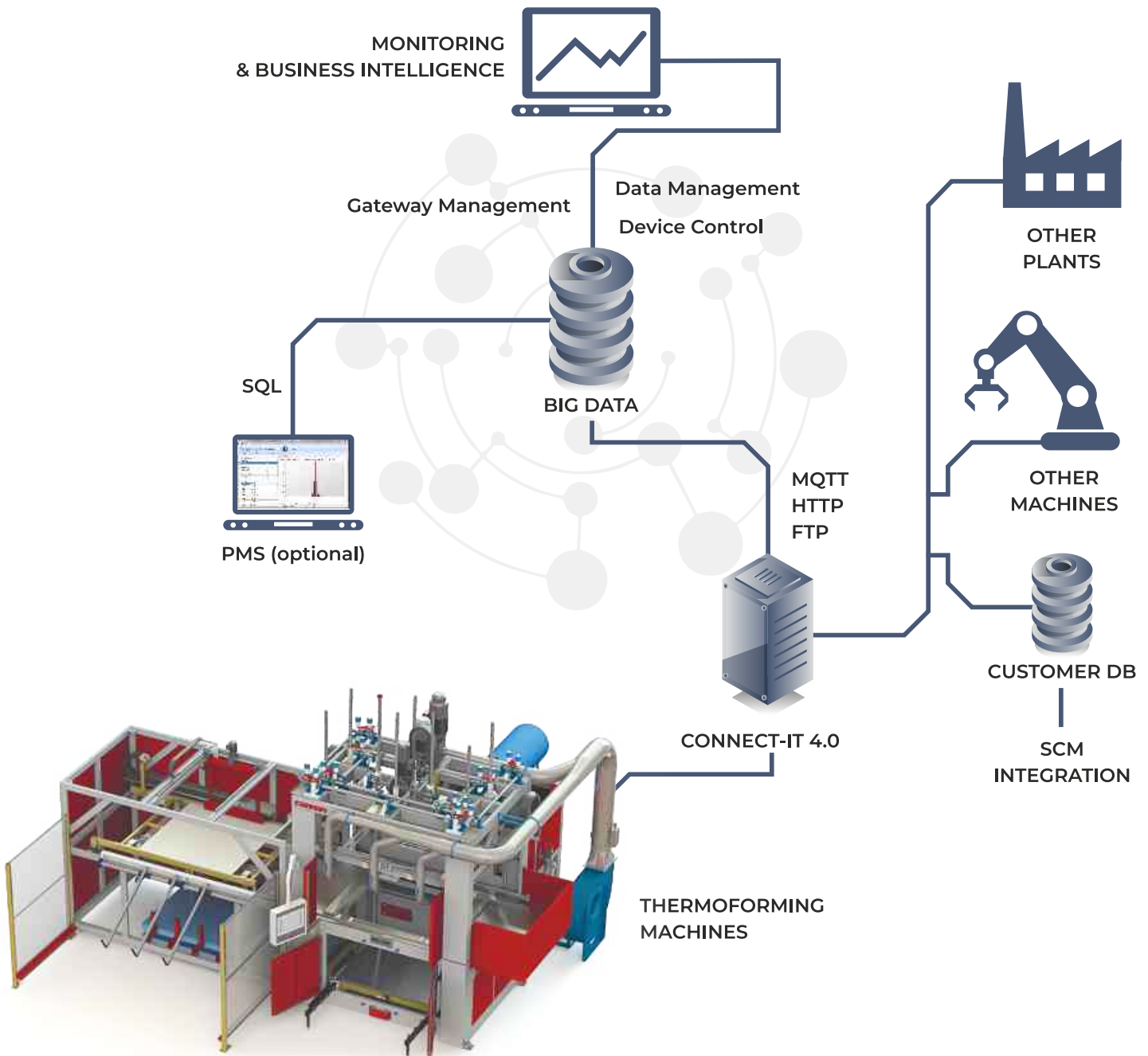
## Industry 4.0

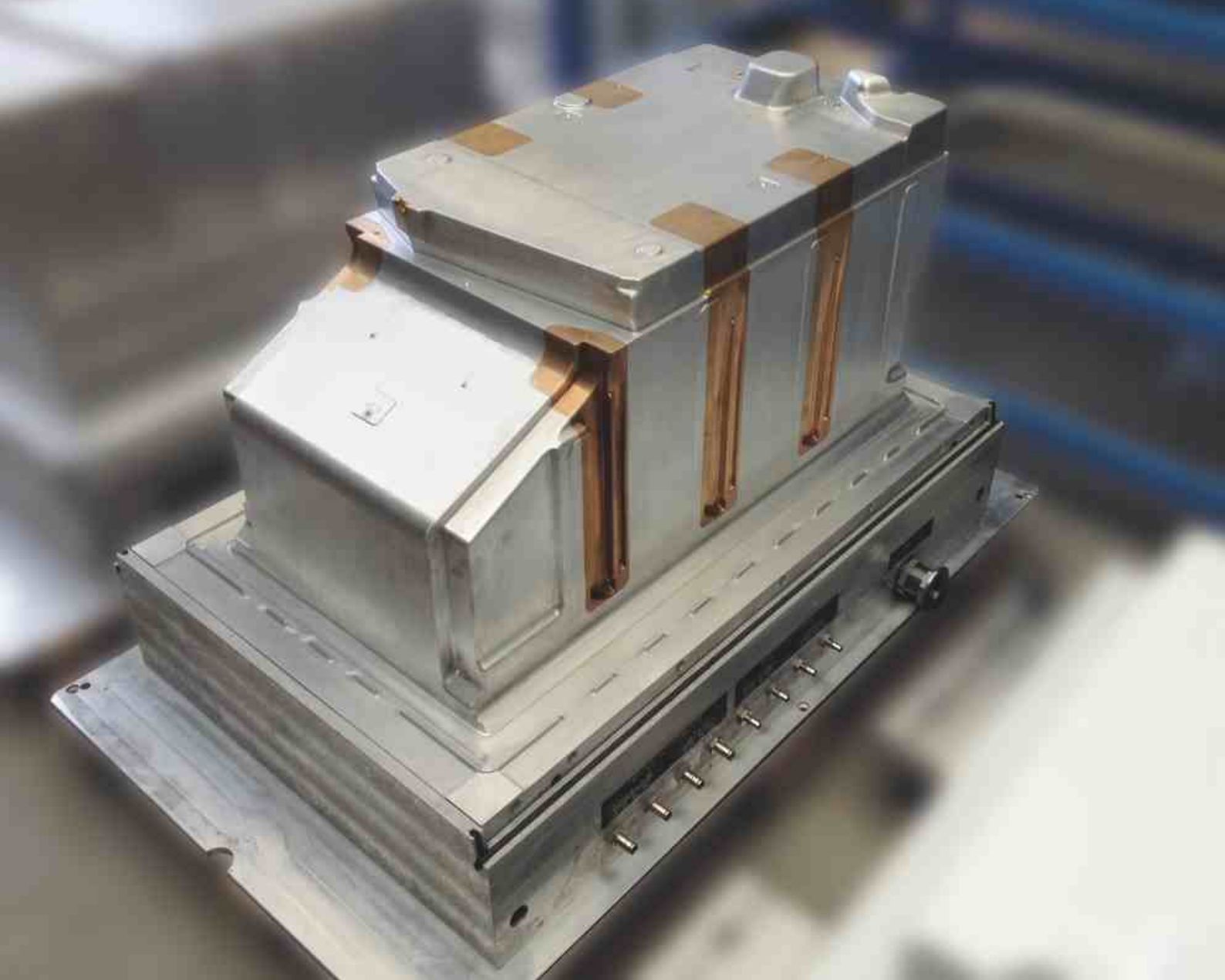
To integrate CREA into more complex production scenarios, we offer Connect-IT, a solution for providing advanced data collection and real-time monitoring of the thermoforming machine.

It consists of an additional PLC with a double Ethernet card connected to the machine's main PLC and the factory network. The auxiliary unit is dedicated to collecting and storing all the CREA working parameters, providing a customizable interface for their visualization and analysis.

## Main features

- Process monitoring
- Data collection and storage
- Production traceability
- Quantitative statistical analysis
- Remote monitoring of the machine via Web/App (Can4Pro) and options for Cloud integration





**Center  
of excellence**

## Industrial Design

A Consultancy and Advisory service is dedicated to assisting customers in the early stage to assess technologies and processes needed to industrialize their products.

## Mold Manufacturing

If you need an integrated technical solution, we support you in designing and supplying a wide range of molds for different applications.

The design starts from your specific demand and comprises additional features dedicated to the process, such as heating, vacuum valves, sensors, and undercut motions for applications like RTM (Resin Transfer Molding), compression molding, preforming, and thermoforming.

Cannon Laboratories are available for testing molds for prototypes.



## Technical Service and Spare Parts

Our engineers are highly qualified specialists with several years of experience in Cannon technologies, available onsite to ensure timely and effective maintenance.

Whenever you need a part, we promptly support you from our inventory supply in Italy, stipulating long-term contracts for the supply of spare parts is possible.

### Main services

- Installation and commissioning
- Customer training of technical personnel either on your site or at Cannon-s facilities.
- Phone technical support
- Remote assistance and control
- Planned and preventive maintenance





## R&D Laboratory

The R&D team based in Northern Italy is composed of 15 engineers exclusively dedicated to developing technologies related to polyurethane foaming, composite materials molding, molds, thermoforming and industrial automation.

### Main services

- Studying and testing of new technologies to be applied to future machines
- Testing campaigns together with raw material producers, using advanced materials to improve the quality of the finished product
- Development of new systems in collaboration with clients to increase the efficiency of the manufacturing process
- Pre-series production for clients that are developing cutting-edge production processes

We are part of the Cannon Group, an international machinery manufacturing holding, which comprises more than 30 companies and branches worldwide.

Dedication to continuous innovation and a strong commitment to reducing the ecological footprint are the drivers of all the Group's technology developments, with a clear focus on energy efficiency, resource consumption reduction, and emissions reduction.

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