



## PRESS RELEASE

**iba 2025:**

**MECATHERM opens up new horizons with innovations that promote sustainability in the bakery and pastry sector.**

- *MECATHERM makes a commitment and publishes its Sustainability Charter.*
- *MECATHERM presents a range of concrete, innovative solutions to help manufacturers reduce their carbon footprint at the line level and produce more sustainably without compromising product quality and improving industrial performance.*
- *MECATHERM will be presenting equipment and solutions to optimize energy efficiency at the production line level, including the M-VT vertical oven and the new automated hygrometry management solution, the Hygro Control System. MECATHERM will also showcase an energy recovery solution installed at the oven level, the Energy Recovery System, which enables energy to be reused on the production line.*
- *MECATHERM and its sister company, ABI, will be presenting solutions to reduce product losses, such as the AI-based EYE-Q quality control system.*

(iba, Düsseldorf, Germany) May 18th, 2025 - MECATHERM, one of the world's leading designers of equipment and automatic production lines for industrial bakeries and pastry shops, is helping its customers meet the challenges of climate change. At the iba trade show, taking place from May 18th to 22nd, 2025, in Düsseldorf, Germany (MECATHERM stand - Hall 12, Stand A35), MECATHERM will be presenting numerous concrete solutions and innovations that enable manufacturers to optimize their energy efficiency and reduce product losses.

Manufacturers in the bakery and pastry sector are continually faced with a number of challenges, including the quest for product quality, optimum industrial performance, and sustainability issues. Today, for many stakeholders, whether on the customer, supplier, investor, or consumer side, a whole ecosystem is evolving with growing expectations and major concerns in terms of sustainability.

Aware of the importance of this subject, MECATHERM has set up a structured approach to social and environmental responsibility that involves supporting its customers in their own sustainability ambitions.

At iba 2025, the MECATHERM team presents its innovative solutions to help customers achieve their sustainability objectives, with a particular focus on actions that reduce greenhouse gas emissions on a production line scale.

*"In our carbon footprint, our greenhouse gas emissions are mainly recorded via the use of our customers' lines (98%). On the processes side, part of our customers' CO2 emissions is also represented by line usage. For the production of a baguette, for example, this represents between 15 and 20% of their carbon footprint.*

*It is therefore important to adopt a global approach with all the players in the industry if we are to make effective progress. As a committed partner, we have identified a number of levers on which we can act to meet our customers' expectations, particularly in terms of energy optimization and product loss reduction, while at the same time optimizing their industrial performance,”* shares Marie LAISNE, Marketing Manager at MECATHERM.

MECATHERM's commitment to its customers doesn't stop there. With the aim of building a sustainable ecosystem, the company takes a proactive approach, encouraging collaboration to drive sustainable practices across the entire bakery value chain.

*“In 2024, we held a Bakery Sustainability Customer Seminar in partnership with Puratos and key players in the bakery and pastry sectors to discuss the challenges of climate change and provide our customers with initial solutions and avenues for improvement. A webinar format is planned for 2025 to enable us to reach a larger number of customers around the world,”* says Amandine CARDONNET, Sustainability Manager at MECATHERM.

In March 2025, MECATHERM published its Sustainability Charter, a mark of its strong commitment and desire to act across its entire value chain in order to make progress on all its practices.

*“Our company has chosen to commit itself to a sustainable future by fully integrating corporate sustainability at the heart of our strategy. We are convinced that our success depends on environmentally friendly development and practices that benefit both our employees and our customers. Our commitment goes even further. We invest in training our employees to raise their awareness of sustainable practices because we believe that everyone has a role to play. At MECATHERM, we aspire to be a key player in the transition to a more responsible and sustainable future by integrating sustainability principles into all our activities,”* explains Raymond NOGAEL, President of MECATHERM.

## Solutions to reduce CO2 emissions

### Energy efficiency: Reduce, recover, or change

For MECATHERM, setting an example in energy transition is essential to help its customers consume less throughout the life cycle of their equipment.

On a production line, the most energy-intensive components are those that use thermal energy, such as the oven, cooler, or freezer. For example, on a baguette line, 60% of energy is consumed by the baking stage (oven and steam boiler).

MECATHERM has developed concrete solutions to reduce energy consumption by cutting energy losses, recovering energy and increasing savings, and changing the energy source to minimize losses:

#### 1. REDUCE

##### The M-VT: An energy-efficient vertical oven

Compared with a standard single-stage cyclothermic tunnel oven, MECATHERM's M-VT vertical oven offers energy savings of up to 30% and a significant reduction in carbon footprint. These savings are made possible



by several parameters: a vertical design that minimizes energy losses through the walls and a conveying system that avoids any heat loss associated with conveying outside the baking chamber.

### **The new Hygro Control System**

A humidity management system Hygrometry is a key parameter to better control crust thickness, water loss, and product softness during the baking process to obtain perfect product quality. This new feature, for which a patent has been filed, minimizes fresh air intake and steam injection into the oven, optimizing energy consumption during baking. The Hygro Control System automatically adjusts the hygrometry level according to expected product characteristics, guaranteeing consistent quality. It also reduces steam, gas, or electricity consumption, depending on the energy used, simplifying the daily work of operators. Finally, it helps customers in their sustainable development approach by optimizing hygrometry settings to achieve the lowest level of energy consumption while reducing product losses. Hygro Control System will be presented at iba 2025 and is nominated for iba award.

## **2. RECOVER**

### **An energy recovery system**

To go even further, MECATHERM has developed an energy recovery system that is compatible with the M-VT oven to enable energy savings across the entire line. The energy recovery system allows manufacturers to reuse the energy produced by baking vapors, recycling them into dry air for use in the oven and hot water for use in the proofer, steam boiler, or other equipment. This is made possible by a double heat exchanger. This project, which is at an advanced stage of development, will be presented at iba 2025 and is nominated for iba award.

## **3. CHANGE YOUR ENERGY SOURCE**

### **The advantage of electric or hybrid technology**

Switching to an electric solution reduces flue gas losses, providing an effective lever for reducing your carbon footprint when using green electricity.

Hybrid heating can also be an advantage when it comes to offering products a degree of baking flexibility. The M-TA oven, for example, features this hybrid technology (radiation as the main heating mode and convection as a supplementary heating mode).

### **Limit products losses**

In addition to energy efficiency, all MECATHERM solutions take product loss management into account.

The **M-VT oven** adapts quickly and automatically to the load to be fired. This prevents overcooking the first product sheets during production changeovers, offering a very significant reduction in non-conforming products and, consequently, a reduction in product losses.

Most of our equipment, such as the **M-UB handling system**, ensures gentle, shock-free, and minimal product handling to avoid damage. Likewise, the high precision of our equipment (ovens as well as line heads) guarantees homogeneous production, thus limiting product losses.



To minimize losses in the event of unplanned production line stoppages, the M-VD (plate) or M-DC (conveyor) buffer can be added. This solution provides additional storage capacity to manage downtimes.

MECATHERM's sister company, ABI, also offers the **EYE-Q quality control system**, based on artificial intelligence, which opens up new possibilities for optimizing production in industrial bakeries. This system identifies and sorts out defective products, thus reducing nonconformity and product losses. EYE-Q integrates seamlessly into all stages of the process, enabling rapid detection and analysis of problems. Combined with a rejection system, it ensures that only compliant products are packaged and enables dough to be reclaimed where possible. What's more, its trend analysis capabilities help to improve long-term production line performance.

## **Safety and personal fulfillment**

### **New M-RT moulder**

The new M-RT moulder that will be launched at iba 2025 has been designed to facilitate operators' access during production, cleaning, and maintenance operations. For example, most cleaning operations require the intervention of a single operator, and many components can be removed without the need for special tools. Production changeovers are quick and easy, as many settings are motorized and can be adjusted by the HMI, while non-motorized settings can be made with just a few simple steps.

### **New M-NS II divider**

The M-NS II divider is designed for easy use during production and maintenance operations. Flourers can be easily filled by removing them toolless. Moreover, the quick release and cantilever fastening and of the belts allow them to be removed quickly.

It also enables better management of ingredients and consumables thanks to the low use of dusting flour and reduces product waste by not generating trim. Last but not least, the use of more sustainable oils further strengthens the environmental aspect.

### **New M-VT oven**

The new M-VT oven has been designed with improved accessibility to offer easier maintenance and cleaning. For example, operators can access from the lower part of the ovens most of the external technical components requiring frequent maintenance. They can also easily access the interior of the oven for maintenance and cleaning thanks to four large doors located on the front. Finally, for easier cleaning operations, the slightly curved bottom of the oven includes draining sections. The bakers also benefit from the automated management of the four main baking parameters: temperature, baking time, air speed, and humidity, simplifying operation of the M-VT oven.

## **Connectivity at the service of use care**

The new MyMecatherm platform will be presented at iba. MECATHERM equipment enables the collection of relevant and accessible production data, such as energy consumption or equipment operating status



indicators. The digital solutions and connectivity added to MECATHERM equipment make life easier for operators. This helps users make the right decisions and reduces product wastage and operator stress.



## VISUALS

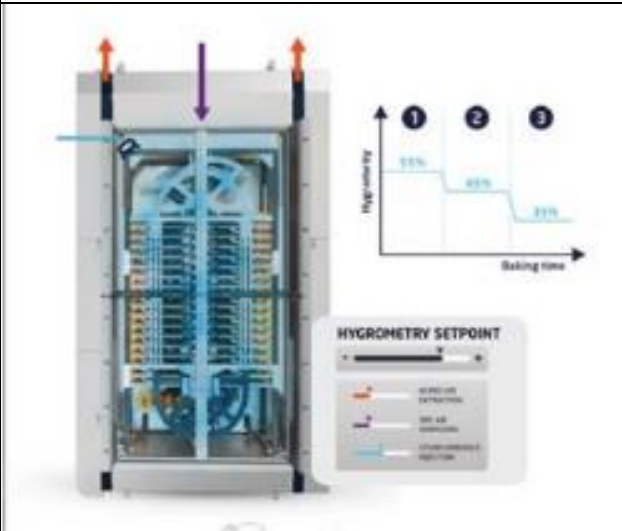
The new M-VT vertical oven, dedicated to bakery and pastry products, offers high industrial performance with priority given to energy efficiency and connected services.



The new M-RT shaper can handle both hydrated and pointed doughs, guaranteeing high product quality thanks to its hand-crafted movement.



The Hygro Control System is a patent-pending solution that minimizes the intake of fresh air. The system automatically controls hygrometry, guaranteeing both energy efficiency and product quality. This is a high-definition diagram of the Hygro Control System.



ABI's EYE-Q quality control system offers precise product quality control based on artificial intelligence (AI).



Energy Recovery System: This system recycles the energy from the vapors extracted from the oven using a dual heat exchanger:

- The first heat exchanger preheats dry air, which is reintroduced into the oven's heating circuit.
- The second heat exchanger generates hot water for the steam boiler, the oven, and the water circuit.

#### RE-USE ENERGY FOR YOUR LINE AND MORE



### About MECATHERM

MECATHERM designs, develops, assembles, and installs ovens, machines, and automated lines for the bakery, viennoiserie, patisserie, and other food processing industries worldwide. These solutions help industrial bakers meet the challenges of product quality, industrial performance, and sustainable development. The company generates over 90% of its sales from exports, with customers in over 70 countries on five continents.

For further information: [www.mecatherm.fr](http://www.mecatherm.fr)

### About ABI

Since 1989, ABI has been helping industrial bakeries around the world reduce operating costs, increase yields, and produce better food more efficiently. Headquartered in Toronto, Canada, ABI has approximately 80 team members, many of whom are engineering, technical, and production experts. With a network of satisfied customers on five continents, ABI is the leading designer and manufacturer of bagel-making equipment and a pioneer in robotics for bakeries. ABI equipment produces many popular bakery products, from bagels to pretzels, pizzas to sweet goods. ABI prides itself on its robust design and build quality and continues to innovate around the “bakery of the future.”

For further information: <https://www.abilt.com/>

### About TMG

Majority-owned by the Unigrains Group, TMG brings together its industrial bakery equipment and service subsidiaries using a privileged partnership approach. TMG supports the development of each of its brands through shared expertise, processes, and experiences, centered on a set of common values that include know-how, performance, and teamwork.

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