# Mold making solutions

Premium technologies for multicavities molds





### WHO WE ARE.





ERMO is an established expert in the design and manufacture of high precision injection molds for the plastics industry. The company, based in France, covers a wide range of technical applications that require **high production volumes and fast cycle times as thin wall packaging, beverage & home, beauty & personal care, medical sectors**.

### OUR NUMBERS.

**40** years of experience in the design and manufacture of high precision injection molds for the plastics industry.

9 + ERM0 patented technologies that have changed the world of the plastic injection.

10% + of investments in R&D, equipment, product engineers, process improvement activities.

**9** injection molding machines mono and multi component from 150T to 550T in our Testing Center.

 $\frac{10.000 \text{ m}^2}{\text{area}} \text{ (total surface 40.000 m}^2).}$ 

### MARKETS.









# 10 REASONS TO CHOOSE US.

Inermal and structural analysis on customer parts.

Part design improvement & co-development project.

Specialized laboratory for part validation.

Testing Center with an integrated quality department equipped with a full range of IMM.

Dedicated area for mold prototyping to ensure the fastest Time to Market.

High qualified area for special polishing.

Area for customers for turnkey manufacturing cell.

SLM (Selective Laser Melting), conformal channel for optimal mold cooling.

9+ patented technologies.

Finance Support can be evaluated with advantageous conditions for customers.

# OUR EXPERTISE.

# In Mold Assembly (IMA) - patented

Single stage procedure which enables the user to assemble 2 or more **different components in a single mold**. Main benefits: only one IMM, no assembling machine, pairing cavity by cavity, no need part positioning, space saving, improve quality control.

#### Tourniquet - patented

The main principle is the **bi-material/color by inner rotation core** that allows cycle time reduction. Higher cavitation, faster cycle, better part quality, smart solution, patented technology.

#### In Mold Labelling (IML)

A technology that allows **customised decoration of injected plastic parts** where user's robot can be integrated in the unique technology of thin pre-shaped hinge lid.

ERMO know how includes the following technologies:

#### Multi-component molds

specialization in multi-component injection molding, rotation technology, transfer and Coreback technology. The application of these skills provides high degree of colors customization and simplify assembly procedures and integrate functions.

#### Stack molds

the solution that ensures the highest production capacity at the shortest cycle time. Different opening stroke layout possible.

#### In Mold Closing (IMC)

this technology can be conceived also in multishot version







# PRODUCT ENGINEERING.

#### ERMO guides its customers in the product engineering starting from the draft design.

Advanced Finite Element Analysis simulations verify any functional aspect of the part to speed up product development:

- Mechanical performance
- Displacement under deformation or loads
- Sealing requirements
- Kinematics
- Assembly process

### PROTOTYPE MOLD.

ERMO is leading the Time To Market, allowing its customers to acquire welldesigned parts in a very short time. This operation allows having the right design including the functionality of the part in the right material. If any change is required, doing the necessary modifications will be easy and fast.



# HIGH QUALIFIED LAB FOR PART VALIDATION.

ERMO is equipped with a wide range of injection molding machines to fine tune customers' molds. ERMO Internal Lab for Part Validation certifies that features of the molded parts perfectly match customers' requirements thanks to:

- Dimensional control with the Laser and CMM three dimensional (multisensor) combined with manual threedimensional touch sensor
- Sealing control
- Strength control / Opening force / Top load
- Aesthetic control (can be performed under different lighting)
- Clamping force control
- Hinge strength control



# FROM CONCEPT TO PART.

We work with a 360-degree know-how supporting the customer with the full package: mold, hot runner system and control unit.

### ERMO offers advanced solutions to control the injection molding process.

When a customized cooling solution is needed, ERMO provides SLM (Selective Laser Melting): the conformal cooling technology.

### SLM (Selective Laser Melting Technology) 3D laser steel printing

- Conformal cooling channels perfectly shaped to the molded part
- High mechanical properties
- Relevant cycle time gain with assured tolerances
- Improved aesthetic finish of the product thanks to consistent thermoregulation
- Reduced residual stress that lead into less warpage of the finished part

## WHERE WE ARE.

#### **Production plants**

#### Marcillé-La-Ville (headquarter):

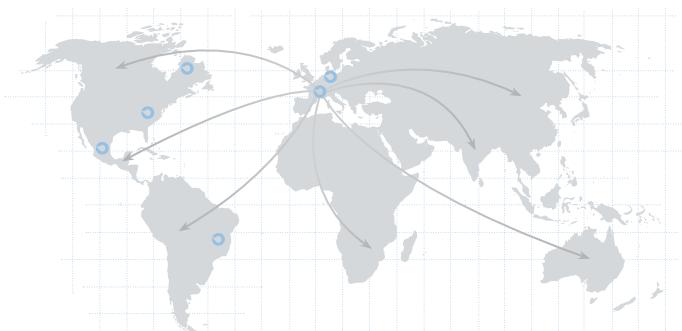
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## SALES AND SERVICE NETWORK.





Marcillé-la-Ville

Vire

Mayenne



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