

The Italmatic Group, responding to the request of the most important brands in the sector, has created innovative hot vulcanization systems (vulcanizing machines and moulds), which guarantee a high quality of the regenerated tyre.

#### The Challenge

Our most important customers asked us to study technologically advanced presses and moulds, which would allow continuous and precise control of all process variables, suitable for the creation of the most modern treads and highest quality retreaded tyres, without neglecting an accurate evaluation of energy consumption.



#### The Design

Having accepted the challenge, our team of designers immediately got to work, relying on the experience acquired in more than 50 years of activity, the basis of the creation of all our products, and applying all the most modern materials and latest technologies available from the market. The objective of the study was to design new systems aimed at the future and which met the following requirements:

INNOVATION | ROBUSTNESS | PRECISION | VERSATILITY | ERGONOMICS  
PRODUCTIVITY | RELIABILITY | SAFETY | SUSTAINABILITY

#### The Result

The result of this great work was the launch of the new line of EVOMATIC vulcanizing machines and two new lines of HQ and PREMIUM molds.



We are a team of professionals building autoclaves for any need.



**Italmatic** is not only a reliable and qualified supplier, it is a **successful partner for your work.**



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THE REVOLUTION IN THE  
VULCANIZATION OF RETROUND TIRES

**EVOMATIC / HQ MOLDS /  
PREMIUM MOLDS**





LOADING ARM



CORRECT SIZING OF STEAM CHAMBER



INNOVATIVE FEATURES



Differentiated speed



Automatic centering



Process parameter controll



Different inflation modes



HIGHLY ERGONOMIC PLATFORM

**italmatic**  
AUTOCLAVES OVENS & PRESSES

## EVOMATIC

This **revolutionary vulcanizing machine**, thanks to its very sturdy structure (weight +/- 9t ), studied with the most modern mechanical design software and created with very high precision CNC machinery, ensures perfect alignment of all the reference points of the mold.

Its power given by a hydraulic system capable of generating a thrust of up to 40t, ensures irreversible closing of the mold and an almost total reduction in burrs.

The particular closing kinematics with automatic alignment and continuous recovery of wear ensures that all parts of the mold (sectors and beads), during the vulcanization phase, are always perfectly aligned, even in the presence of different thermal expansions related to the mold same.



**The platform** for the operator, the **loading arm**, the tire gripping device, the upper bead attachment system, make these machines highly ergonomic. The carters, the intermediate cover, the mobile upper cover, the safety bumper, the two-hand operation, the compliance with machine safety regulations and the CE certification ensure a high level of safety.

The correct sizing of the **steam chambers**, the special insulation with high thermal insulation materials, the possible equipment with a particular unit for electric steam generation and condensate recovery, as well as the innovative system with heating via magnetic induction, guarantee these machines high energy efficiency.

Furthermore, other innovative features such as the differentiated speed, slower during the penetration and extraction phase of the mold compared to the tyre, the automatic centering of the tire before the total closing of the mould, the possibility of choosing and controlling the process parameters (time, temperature and pressure) through recipes dedicated to each tyre, the possibility of managing different inflation modes (air, nitrogen, water, steam), the availability of versions with higher inflation pressures (up to 23 Bar) and versions with 8 or 10 or 12 sectors allow very high quality standards of the retreaded tire to be achieved.



This energy efficiency, together with the lube-free system which eliminates the use and dispersion of lubricating substances into the environment, certifies a high degree of sustainability of this product.

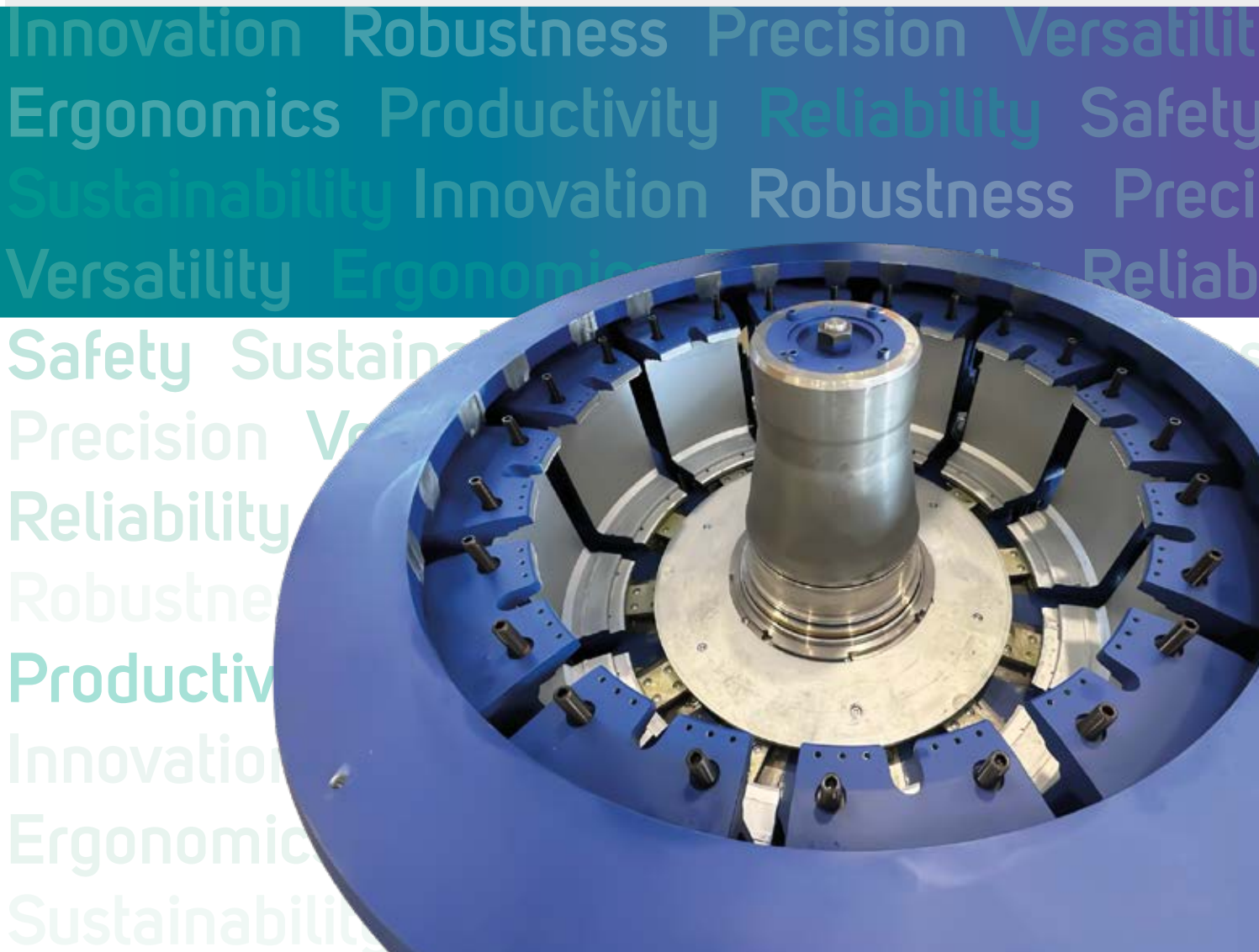
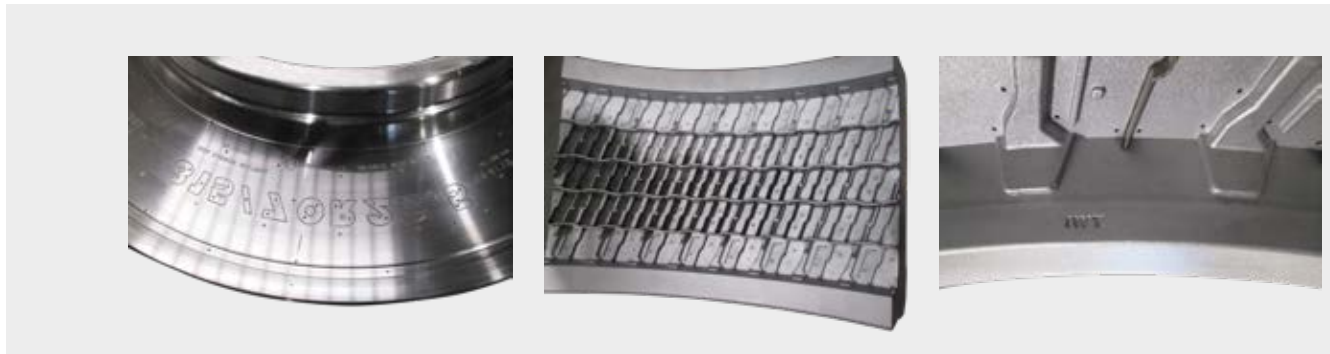
The new Evomatic series is available with drum or Tbl or baking chamber inflation systems and with dimensions suitable for all existing cylindrical sector moulds . All the characteristics listed above and the variety of possible configurations, decree the absolute versatility of the EVOMATIC vulcanizing machines.

## HQ & PREMIUM molds

In order to meet the needs of some leading customers in the sector, ITALMATIC has decided to add two other product lines to the traditional line of moulds, which would allow us to further improve some characteristics of the hot retreaded tyre.

The HQ line differs from the existing traditional one due to a series of new production processes designed to obtain lower dimensional tolerances and a higher thermal conductivity index.

This third line of molds, for production processes (Precision Casting and Surface CNC Milling ) and quality of materials, is comparable to molds for new tyres.



Innovation Robustness Precision Versatility  
Ergonomics Productivity Reliability Safety  
Sustainability Innovation Robustness Preci  
Versatility Ergonomics Reliability  
Safety Sustainability  
Precision Versatility  
Reliability  
Robustness  
Productivity  
Innovation  
Ergonomic  
Sustainability