

Engineering expertise for the automotive sector

For three generations, ISO 9001-certified Modelleria Brambilla has been implementing high quality products in the foundry engineering industry. The company designs and produces models, core boxes, shells and other equipment, primarily for the production of automotive components.



Engineering and simulation are a key part of Modelleria Brambilla knowhow.

Based on two decades of experience, Eugenio Brambilla established Modelleria Brambilla SpA in Carpi in 1951. Over the years, it developed from a small craft industry, dealing primarily with local customers, into a company whose foundry products are now exported throughout the world. Yet, it maintains its creativity skills and capability of handling unforeseen events, as well as adapting to complex situations.

In December 2014, the company was listed on the AIM Milan stock exchange, illustrating how far the business has evolved in recent times. Primarily serving the international automotive sector, many passenger cars and trucks, as well as F1 cars are equipped with Brambilla-made cylinder heads and crankcases. The organisation's main production site is located at Correggio, Reggio Emilia, in addition to which an engineering office is located at Goa, India, while a second manufacturing facility is planned for Bhiwadi, close to Delhi.

Design specialisation

The huge technical experience developed over more than 50 years has brought the company's designers to a high level of specialisation. Understanding and meeting customers' needs is a priority, in order to contribute to production process optimisation. This means verifying if a project can be developed and if proper modifications previously agreed upon with customers can be implemented in order to bring important improvements during the production, use and maintenance phases.

Equipped with the most powerful CAD systems, the technical department develops the project which, once validated by the customer, is made available to other departments to 'translate'

a 3D model into reality. In co-operation with premium European companies, Modelleria Brambilla was one of the first tool makers to develop and produce core boxes for the inorganic process, the 'green' core-producing system that is growing in popularity around the world.

Simulation and production

Simulation can be made during or at the end of the design phase to preview the behaviour of the equipment and the final result of the casting, in order to obtain a metallurgical result that meets the customer's requirements.

The 3D model is then CAM processed, making it available for all manufacturing processes. The production cycle is carried out using the most modern and powerful technologies. CNC

machines, all equipped with CAM positions, get the 3D model while the highly qualified technicians work out the tool path according to the processes to be carried out, thus playing an active role in the decision-making process regarding tool path settings.

Testing ensures the accuracy of 3D model reproduction. Via the use of software, machinery and optical measurement technology, Modelleria Brambilla's quality control department acquires the 3D model and compares the dimensions defined in the virtual project with the real ones, highlighting deviations from tolerances. Compliance tests are performed throughout the production process in order to check every semi-finished product.

Along with the tooling, the customer is provided with complete 3D engineering data, related 2D drawing sets and dimensional inspection reports. Such documentation is aimed at facilitating all activities related to product management and maintenance.

Modelleria Brambilla is able to manufacture small sample series of cores and castings, in order to grant customers equipment efficiency that is further certified by the dimensional test effected on the prototypes.

www.brambillaweb.it



The Modelleria Brambilla plant is located at Correggio (RE), Italy.



Developing and producing inorganic core boxes is a key business for Modelleria Brambilla.