



BRUSCHI

KitchenAid Co-Design Activity



PROJECT GOALS

KitchenAid decided to develop a new coffee machine characterized by a stunning shapes and innovative finishing. KitchenAid asked Bruschi a solution to reach its goal.

Bruschi suggested a co-design activity in order to reach the customer goals.

Co-Design Activity

KitchenAid needed innovative shapes for mass market for its new coffee machine. To reach this goal a co-design activity has been carried out on all the parts along with the customer technical team and the final shape of the parts has properly being designed in order to meet both functional and process requirements.

The DFM study included filling simulation and thermal balancing simulation by means of MagmaSoft program. Bruschi simulated with MAGMASOFT® the whole cover to ensure to KitchenAid a great result, innovative shapes and saving.



MAIN TECHNICAL SPECIFICATIONS

- High level surface quality
- Low porosity rate
- Assembly without machining

High level surface quality

To reach the necessary surface quality after painting is required a very good surface and structure of the die cast part. Right position of injection point and overflows, designed with simulation software, guarantee the correct filling of the cavity avoiding air entrapping and undesired porosity.

Low porosity rate

During powder coating process the castings are heated up to around 200° C, therefore any air entrapping must be avoided. Under vacuum die-casting allows production of castings with no problem of blistering or bubble creation.

Assembly without machining

Deep analysis of tolerances and shapes in matching position allowed to get parts with no machining operations. The study of draft angles between matching parts has been carried out in order to avoid any further operation in assembly process.



KitchenAid®



EUROPEAN ZINC DIE CASTING COMPETITION 2016

For this project, on 23rd September 2016 in Brescia, Italy, Bruschi won the prestigious European Zinc Die Casting Competition 2016 for Nespresso KitchenAid Artisan 5KES0503.

The project was awarded thanks to the innovative finishing and stunning shapes developed and to an extraordinary zinc die casting process.

KitchenAid Small Appliance Global Senior Quality Manager Darrin Keiser said: *"My experience with Bruschi has been a very gratifying journey. From the early days of the project where we had to choose a supplier with highly capable people, methods and manufacturing process, it was clear to me that Bruschi was a winning choice. Its team is committed to the high quality expectation our brand is associated with."*

Bruschi Vice President & Head of Sales Simone Maggiori said *"We are very proud to have won this important award. The project of Nespresso KitchenAid Artisan was an important step for us due to the complexity of components and to the process used to develop this product. The collaboration with the customer, in terms of co-design in die casting, allowed us to reach the expected goals: working from the beginning of the project we can support the developing of the components, focusing our attention on design and engineering, in order to guarantee the best possible quality with our expertise and our technology. I want to thanks KitchenAid for their trust in our company and their collaboration: this was really a great experience for us. That is the right direction for the future."*

Bruschi Technical Manager Ermo Fusè noted: *"It was a great challenge for us. We worked in order to meet both functional/aesthetical and process requirements. Our technical team was strictly focused on the task to ensure the customer's needs, in order to avoid adjustments in assembling operations. The flatness requirements within 0.3mm on bigger parts have been met indeed, even after heating during powder coating process. Specific design of the molds has been achieved in order to comply with the narrow tolerance required on mating shapes from ± 0.05 to ± 0.1 mm on the bigger parts. All of those parts are die cast under vacuum. The vacuum system was developed entirely in Bruschi and it is currently installed on all the machines. This technology allows to get scrap rates close to zero."*



ABOUT BRUSCHI

For over 70 years Bruschi has been working in industrial production in the field of zinc die casting. Over time the company distinguished itself for efficiency, accuracy, ability to listen to its customers' needs and innovative drive in technology, co-design and mass production.

Bruschi technicians apply the know-how acquired by working in many sectors of industry during co-design activities with the client. In fact it is an interdisciplinary knowledge placed at the service of the client's engineers. A huge expertise in the zinc alloy die casting industry allows to anticipate the customers' needs and expectations, by providing engineering solutions to accelerate time of delivery, improve performances, and simplify integrations.

Let's keep in touch:

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