

Product feasibility analysis in action

After contacting several die makers and not achieving the required results due to product feasibility problems, a known car manufacturer (and Formula 1 competitor) contacted Eurostampi for the supply of several die-cast aluminium details to be assembled in a single structure.

The product, which involved very thin thicknesses and an elevated technological content, was to be delivered in initial sampling groups of 100 pieces per type and within 40 days.

The project

- Cost analysis: Design, casting, transformation, mechanical machining and final post-machining treatments.
- 2D and 3D detail drawing review, thus making it possible to produce the part while maintaining the appearance and material requested by the customer
- Stereolithography sampling
- 2D and 3D die design
- Tebis, Auton and MasterCam tool paths
- Die construction using suitable heat treatments
- Aluminium casting for 150 pieces, with dimensional control report
- Mechanical machining on automated machining centres



Die-cast aluminum structure for micro camera/special control unit

- Pieces washed to eliminate impurities as a result of mechanical machining
- Packaging.

Analysis

After performing a first product feasibility analysis according to the specifications provided by the customer and the non-performing results obtained from the previous die makers, the company accepted Eurostampi's recommendation to modify the thicknesses of the object and its internal characteristics in order to ensure its feasibility and series production.

In order to produce the final product, it was also necessary to build special mechanical processing apparatuses:

Control jigs and special arbours made of hardened steel, which were used on the automated machining centres.

Result

Eurostampi's preliminary project feasibility study and optimal simultaneous management of five different suppliers were decisive elements in producing the high-performance finished pieces while meeting - and even bringing forward - the scheduled time for delivering the samples (30 days).

As a result of the first supply, manufacture of the product was confirmed for the customer in subsequent lots of 5,000 pieces. ■