



## MOULDING

### Design for success

The quality of a casting is tied to the quality of its moulding. Aluminium Die Casting SRL is an expert in mould design and optimisation. This delivers a quality product at a competitive price point, tailored to the requirements of each customer. Work is carried out in conjunction with Studio DSM, a highly capable partner in mould design simulation.

Aluminium Die Casting SRL's partner is Italy's only ISO9001:2015 certified mould designer, ratified by the TÜV Süd. Working together with customers, moulds are originated via a quality by design approach. This delivers castings that are optimised for mass production, minimal machining post casting and reduced cost per part. Running simulations beforehand allows design engineers to make highly accurate predictions and mitigate risks to quality. Simulations of solidification, porosity, velocity and temperature are carried out with 3D models to deliver accurate data and insight. Design engineers can also predict the rate of temperature changes, which maximises the lifetime of the mould by ensuring optimal cast cooling.

Extensive technical data from the simulations also allow engineers to compare machining with casting for the delivery of complex shapes and other attributes. By making the decision early in the design stage it's possible to reduce costs and minimise material wastage.

Working hand in hand with customers, Aluminium Die Casting SRL can offer a custom approach to mould design that expedites casting and subsequent production operations. Speed and flexibility from initial simulations to the final casting ensures that a tailored mould doesn't translate to a long lead time. In fact, it ensures a highly optimised casting exactly to requirement, exactly when required.

#### Aluminium Die-Casting moulding benefits:

- » Expert liaison with customer throughout mould design and testing
- » Studio DSM runs simulations before casting begins to identify potential issues before they occur
- » Efficient mould design can minimise machining requirements – cutting costs and material waste
- » ISO9001:2015 certified mould designer

