



DIE CASTING

A journey from 20 g to 20 kg

Stringent quality control, production flexibility and machine capacity are the pillars of the Aluminium Die Casting SRL process. Castings ranging from 20 grams to 20 kilograms can be produced; with multiple working cells and a quality by design approach ensuring premium castings delivered quickly.

Aluminium Die Casting SRL operates ten separate die-casting working cells that combine presses, stamps and ABB robot automated extraction. Presses ranging in size from 340 to 1,350 tons means castings of varying size can be processed with equal capability. Three furnaces on-site allow for multiple alloy types to be utilised in production, meeting the needs of each casting individually. This means that specialised castings can be delivered on reduced lead times, as different casting requirements can be serviced simultaneously.

Before casting begins, outcomes are simulated via computer modelling to enable product and process optimisation – delivering quality by design. During casting, active thermoregulation of the mould ensures that castings are formed to required quality standards and that no critical low temperatures are reached. Further, gas extraction of the alloy reduces the risk of porosity in the finished cast.

Another capability is vacuum air extraction from the mould, which is carried out by Fondarex machines. Delivering precise vacuum process control, the machines extract air in complex casted parts to further reduce porosity.

Highly automated die-casting cells with robotic handling ensures quality is matched by speed of production. With each cell and furnace able to operate independently, long production runs of small or large castings can be carried out quickly with total reliability - ideal for meeting the supply requirements of large-scale manufacturers.



Aluminium Die-Casting process benefits:

- » Casting capability from 20 grams to 20 kilograms
- » Ten die-casting working cells and three furnaces
- » Simulations, thermoregulation, gas extraction and vacuum air extraction to reduce casting porosity
- » State-of-the-art automated casting processes for reliable delivery