

### Precision Decorative Casting



# Project Detail

A leader in the Australian and Asia-Pacific electronic entertainment industry engaged Hosico to assist with the design and manufacture of their next-generation product, with the added pressure of ensuring delivery in an extremely short timeframe. This high-profile customer is known for constant innovation and this underpins their reputation as the premier vendor in this market segment.

Specifically, Hosico was tasked with producing precision decorative electroplating grade castings, turnkey sub-assemblies, and providing tooling design and maintenance. In short – tight timeframe, tight tolerances, and no latitude for error.

#### Solution

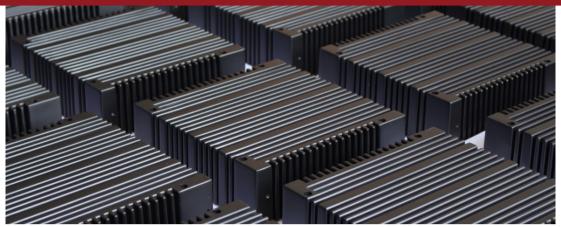
Hosico liaised closely with the client to refine the prototype component design, as well as to produce tooling for multiple pressure cast components. Importantly, components destined for decorative electroplating must be handled carefully to prevent additional costly manual re-work. For this reason, Hosico implemented robotic cells to eliminate handling errors and consequential cost, and developed work processes for blemish-free sub-assembly fulfillment and delivery.

Specific manufacturing challenges that need to be overcome for this assignment were:

- the requirement for a compressed timeframe for design, prototype and validation cycle;
- the need to provide for an electroplating-ready finish, free of blemishes;
- a fully functional component combined with third party subcomponents to make an error-free sub-assembly.



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Manufacturing methodology and raw materials employed for this assignment included:

- sophisticated 3D design tools allowing design review for manufacture;
- advanced pressure casting tooling, producing components ready for cosmetic finish without post-processing;
- robotic part manipulation to preserve surface finish prior to electroplating;
- traditional and optical metrology techniques for design validation and Quality Assurance;
- sub-assembly process development.

#### Outcome

Hosico partnered with the client to produce a complex pressure-cast functional component with an uncompromising best-in-class cosmetic finish. Significantly, this was achieved in just sixteen weeks, and this milestone was essential to the launch of a market disruptive product in a previously unprecedented timeframe.