

## Utilise Precision Castings



**“Lost wax casting offers a flexible & cost-effective manufacturing process”.**

*Should you be talking to Supreme Precision Castings about the benefits investment casting can offer you?*

Talk to us if you want to reduce machining costs! The investment casting process allows Supreme Precision Castings to produce tightly dimensioned castings of “near-net” shape with none of the draft angles necessary for sand or die casting. A linear tolerance of  $\pm 0.2\text{mm}$  per 25mm can be maintained and angular tolerances  $\pm 0.5^\circ$  are normal.

*How much time do you spend machining away metal that will only end up as a swarf?*

Our ability to cast a “near-net” shape will reduce your machining wastage. It can often be beneficial for Supreme Precision Castings to cast “machining blanks” drastically reducing bar stock material and machining time. This becomes particularly important when your component is in an expensive or “hard to machine” alloy.

Supreme Precision Castings has been producing investment castings in Auckland since 1984 and have grown to become the largest investment casting company in the country. More than 350 tonnes of castings are produced annually, ranging in weight from a few grams to around 35Kg. The spectrochemical analysis is used to check and confirm alloy compositions before casting and an X-Ray and Mechanical property certification service are available if required for critical components. Heat treatment and machining services are available if required. Castings in a wide range of alloys can be produced including carbon steels, medium alloy steels, stainless steels, tool steels, aluminium and copper-base alloys as well as air melt super-alloys such as Stellite and Hastalloy.

*Talk to us if you want a fine surface finish!*

Investment casting typically produces a finish on the final casting of around 125RMS. Your company Logo, part numbers, or even safety warnings or patent numbers, can be cast into the surface to provide clear easily read the information that will remain with the casting throughout its life. There are many surfaces finishes available ranging from sand, shot or bead blasted to electropolishing, rumble or Vibro polishing, or even a mirror finish hand polish.

*Talk to us if you want to reduce assembly and fabrication costs!*

Are you producing a complex assembly in a difficult to work alloy? The cost of preparing individual components, jigs and fixtures for the welding together of plates, tubes and pipe fittings and the time and skill required to complete and inspect the finished items can make for a costly component. Investment casting can often reduce costs by reproducing your assembly as one component. It will look a lot nicer too!

*Above all, talk to us early!*

Our input at the design stage may significantly reduce the final casting price. In common with the other casting processes, initial designs can include features that are difficult to produce or cause high unacceptable scrap rates. Our experienced engineers can usually detect these and suggest changes for discussion. The team at Supreme Precision Castings are committed to achieving the best outcome for their customers and ask that they be made, "Part of your design team".