

# Titanium parts can be treated properly

The surface treatment of titanium parts has been enhanced by the installation of two purpose-designed Mac'Ants Tumble-Blast machines. The facility at Acorn Surface Technology's premises in Kirkby in Ashfield is enabling the company to maintain the highest levels of quality and to enhance the efficiency of its service – by achieving greater throughput rates and optimising a key production process.

The automatic micro-processor controlled Mac'Ants units are centred on a stand-alone design at the heart of which is a rotating or 'tumbling' chamber. Here, up to 50 kilos of components are loaded for each operation and are then subjected to aluminium oxide blasting by either two or four

fixed nozzles – depending upon the component configuration. The blast material, which is also supplied by Mac'Ants, is collected for re-use with fines ultimately separated and collected for safe efficient disposal via an adjacent cyclonic unit.

Neil Dutton is Site Production Manager at Acorn Surface Technology and explains the role undertaken by the Mac'Ants systems –

"The new facility is designed to handle up to ¼ million fasteners per week primarily for one specific aerospace customer," he says. "The majority of these are titanium – used extensively within this sector because of significant weight and performance benefits – but each component

must also be coated with a 98% pure aluminium skin to avoid the risk of galvanic reaction in use. Blasting in association with this process is the key function of the Mac'Ants systems, the accuracy

of which also helps us to ensure that the precise amount of material is removed which we can then replace accurately with the coating after the blasting process."

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