

WH Tildesley

Successful Knowledge Transfer Partnership helps manufacturer improve its processes, enhance its competitive edge and access new markets

Background

WH Tildesley is the leading UK manufacturer of drop forgings and produces small and medium batches of safety critical parts.

The AFRC initially worked with the firm on a successful consultancy project. Recognising further key areas of interest, a Knowledge Transfer Partnership (KTP) bid was put forward and secured with Innovate UK.

Customer challenge

The aim of the KTP project was to embed advanced forging, materials engineering and simulation expertise within the company, allowing it to exploit high-value opportunities within a number of premium and previously unexplored markets.

There was a particular focus on nickel alloy and high-grade stainless steel materials. This is a niche area for WH Tildesley but it is also widely recognised as a potentially problematic area for forging.

A key objective of the project was to implement a knowledge management system (KMS) to support the company's diverse and ambitious product range, which increases by up to five new products each month.

This new system would help the firm make informed decisions prior to forging new shapes or using materials that it has never forged before.

Containing a combination of forging knowledge and information from staff based on past forging experiences, it would help with choosing new materials and production methods and then conducting feasibility studies.

Customer quote

"This KTP project exceeded all my expectations. The project brought together, materials, knowledge management, design and manufacturing as well as process optimisation expertise. This combination of expertise enabled WH Tildesley to exploit high-value opportunities in various sectors.

"At WH Tildesley we have always taken pride in our ability to overcome problems and be innovative. KTP is showing us how to do this quicker and more effectively. Most importantly we shall be embedding our new knowledge to ensure that we continue to be more efficient in the future."

Managing Director, John Tildesley

How did the AFRC help?



We provided supervision of the KTP associate, Nthambe Singo, who worked on the two-year project.

As a world leading innovation centre, we were able to provide a broad range of expertise, including our materials and metallurgy knowledge plus modelling and simulation advice.

The University of Strathclyde's prestigious department of Design Manufacture and Engineering Management (DMEM) provided further input.

Business impact

The KTP has provided WH Tildesley with a number of business benefits including improved processes and productivity and an enhanced competitive edge.

The introduction of a KMS provided a useful vehicle for formally capturing the valuable knowledge and experience embedded within its workforce.

Supporting the company's innovative culture and readiness to forge new products, the firm has subsequently implemented a process of new product introduction (NPI) for manufacturing a wide range of components for key sectors.

The scientific and methodical approach undertaken during the project has also been adopted company wide, which has improved its right first time capability and production efficiency.

A consequent reduction in risk and cost in day-to-day operations has provided an increased competitive advantage, while manufacturing processes and management of subsequent heat-treatments have also improved.

Barriers to entry for competitors have also increased as WH Tildesley has further developed its expertise and processes for working with niche materials.

This project was awarded the highest merit of 'outstanding' by the KTP grading panel and has demonstrated that the KTP model can provide huge benefits for a forward thinking UK manufacturing company.

Further highlighting the KTP's success, the associate involved went on to secure a management position within WH Tildesley.