

WAX PATTERS

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Rolls Royce Advanced Blade Casting Facility

On 26 February 2015 Rolls Royce opened their new Advanced Blade Casting Facility (ABCF) in Rotherham UK.



Dave Morson of Blayson and Bruce Phipps of MPI at the opening

The £110m turbine blade casting facility is the most advanced in the world and was opened by UK Business Minister Matthew Hancock.

When fully operational in 2017 the 14,000 sq m facility will employ 150 people and have the capacity to manufacture more than 100,000 single crystal turbine blades a year.

These blades will feature in a wide range of Trent aero engines including the world's most efficient large civil aero engine the Rolls Royce Trent XWB, which powers the new Airbus A350 XWB.

Both Blayson and MPI have worked in close collaboration with the Rolls Royce project management team to develop innovative wax processing, injection and assembly equipment to substantially increase production rates and consistently deliver castings with enhanced quality.

[Link to press release](#)

Trisol Celebrates 20 Years of Success

Trisol 60 Plus wax pattern wash was first developed twenty years ago by EP Laboratories to a specific brief exclusively for Blayson.

With intimate knowledge of the requirements for a purpose designed wax pattern wash for investment casting assemblies, Blayson required that the pattern wash should not only remove all traces of silicone mould release oil, widely used by foundries, but most importantly should impart a micro etch to the surface of the wax pattern. The result was Trisol 60 Plus.

Trisol completely satisfies the criteria set out in the original brief by chemically bonding with silicone and removing it in the rinsing process and also greatly improving adhesion of the prime coat during the shelling process. This significantly benefits castings with sharp edges, for example turbine blades, that are particularly prone to shell cracking.

As a result Trisol has become the most widely used pattern wash in the international investment casting industry with 1.5 million litres sold to date.

Trisol is the wax pattern wash of choice for the majority of high quality foundries worldwide.

EP Laboratories is now part of Fisher Research Limited and new specialised products for investment casting are currently under development.

EICF Technical Workshop

The 2015 EICF Technical Workshop on Method Engineering and Process Modelling took place 12 - 13 May.

The workshop was hosted by the University of Sheffield Advanced Manufacturing and Research Centre in Rotherham with the cooperation of Casting Technology International.

The event featured presentations from foundries and suppliers on the latest technology available for method engineering and process modelling. For full details see -

www.eicf.org

Green Belt Training Awards

The Green Belt training scheme that Blayson team members have been involved in as part of the company's ongoing commitment to continuous improvement has resulted in awards for Kevin Burrows, Saul Graveling and Dave Bond.

The training has been organised by Phil Hancock of Blayson and led by Master Black Belt Ihsan-al-Zhanki of Highfield Solutions.

The Green Belt course sets a level of achievement that an individual can obtain within the discipline of Lean Sigma, which is a structured approach to problem solving aimed at achieving a solution more quickly and at a lower cost. It brings together a variety of proven techniques into one definitive approach.

The training course concentrated not just on the techniques involved, but also the use of Minitab software which is used to help with data analysis and is a critical part of the approach.

Each person had to undertake a detailed project that gave the individual experience and saved the company money. These projects involved improving production output, a deeper understanding of wax injection variability and understanding variables that affect testing.

By improving the problem solving skills of these key individuals, it is hoped that the technique can help further improve productivity by understanding and eliminating the causes of variability, both in the areas of quality and production.



Saul Graveling, Kevin Burrows and Dave Bond with their awards

Upcoming Events

ICI 62nd Annual Technical Conference and Expo
18 - 21 October 2015
Schaumburg, Illinois, USA

CMF Annual Awards and Dinner
19 November 2015
Meriden, Warwickshire, UK

14th World Conference on Investment Casting
17 - 20 April 2016
Paris, France

WORLD 14th CONFERENCE on Investment Casting Paris, 2016 April 17-20th

Organized by

European Investment Casters' Federation

JFS Inc 社団法人 日本鑄造協会 Japan Foundry Society, Inc.

The Investment Casting Institute

Future Events

ICI 63rd Annual Technical Conference and Expo
15 - 18 October 2016
Hyatt Regency Columbus, Ohio, USA