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NEWS RELEASE

Innomech develops automated lower cost manufacturing for ITW Imagedata

Automation consultancy GB Innomech (Innomech) has designed and developed an easy to use, fully automated printer ribbon assembly machine for ITW Imagedata (ITW), a specialist manufacturer of film ribbons and consumables for the global card industry.

The new 'spool pairing and assembly' machine has been developed to help ITW reduce manufacturing costs for its highest volume products and has been seamlessly integrated into the company's existing production lines. The new machine needs just one operator and replaces a manual assembly process involving six people at different stages.

"Innomech's automation specialists have worked alongside our in-house team to automate a series of intricate manufacturing tasks and to ensure their innovative solution fits perfectly into our existing workflows. None of our upstream manufacturing processes had to be amended, there is no need for 'work in progress' trays, preloading of parts into special hoppers or double handling of any components," said David Parmenter, operations manager at ITW.

Innomech was initially appointed to automate two particularly labour-intensive and repetitive manufacturing tasks that required multiple operators with consistently high levels of manual dexterity: adding injection moulded drive gear and idle components to the correct ends of wound or empty spools; then pairing the spools and attaching the start of the ribbon onto the take-up spool. The consultancy's automation engineers needed to modify the manufacturing process to 'bridge' the two spools using an adhesive label because the manual steps could not easily be automated. The label has the added advantage that it can be printed on demand with customer-specific, marketing or other messages as required.

The new system uses a Toshiba robot with a sophisticated laser-guided 3D vision system to load spools into the machine. The robot scans the box of wound spools, works out the depth and position of components, before picking up groups of wound spools, verifying they are correctly orientated and loading them into the machine. A separate loading system feeds empty spools from a hopper before the ends are fitted and locked in place.

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The machine then rotates the wound spool to 'find' the end flap, applies a label to link the wound and take-up spools, winds the empty spool to take up the exposed adhesive surface, and then passes the paired spools onto ITW's existing flow wrapping station. Innomech has also configured ITW's new automated assembly machine to handle multiple different spool sizes with simple menu-based selections allowing operators to quickly and easily change it over as required.

Notes to editors:

About ITW Imagedata

ITW Imagedata (ITW) is a major global manufacturer of consumables for the card industry, based in Manningtree, Essex. The company specialises in the design, manufacture and supply of D2T2 (dye diffusion thermal transfer or dye sublimation) ribbons for OEM card printer manufacturers and the development of a broad range of card-related consumables and substrates. ITW products are widely used across the world for a wide range of security and identity card applications including access control, licensing, travel passes and national ID schemes.

For further information see itw-imagedata.com

About GB Innomech

GB Innomech (Innomech) specialises in automating highly complex and labour-intensive manufacturing processes to maximise outputs, improve product quality and boost business performance. The company works with major international manufacturers in sectors such as pharmaceuticals, medical devices and environmental, as well as earlier-stage businesses looking to bring breakthrough technologies or products to market.

Innomech has a growing market reputation for solving the toughest of manufacturing problems by the early identification and management of risk, often cross-fertilising technologies and techniques from a range of industry sectors. All projects from initial feasibility studies through to building production-scale machines are conducted to high specification pharmaceutical industry standards and are designed to comply with GAMP5, FDA and other international standards.

The company was founded in 1990, is based at The Innovation Centre in Witchford, north of Cambridge and was awarded The Queen's Award for Enterprise 2009 to recognise its sustained growth in international markets.

For additional information about GB Innomech please visit or contact:

- www.innomech.co.uk
- Press enquiries to Simon McKay on +44 (0)1353 741075 or email to simonmckay@innomech.co.uk
- All other enquiries to Tim Mead at Innomech on +44 (0)1353 667394

Photographs

Print quality JPEGs of the images below have been attached to the original email or are available on request from Simon McKay (details above). Alternative images can be supplied.



- 1 Innomech has developed a fully automated 'spool pairing and assembly' machine for ITW Imagedata, a specialist manufacturer of film ribbons used to print identity and security cards (as shown above).
Credit: GB Innomech



- 2 Innomech's printer ribbon assembly machine replaces a manual assembly process that previously involved six people at different stages. This image shows the system robot picking up two wound spools from the boxes on the right, before verifying their orientation to load them into the machine.
Credit: GB Innomech



- 3 This image shows the machine station where the spool end components are pressed into place before the pair of wound film and take-up spools are connected together with a label.
Credit: GB Innomech



- 4 Innomech modified the paired spool assembly process to use an adhesive label to bridge the two spools because the previous manual task could not be easily automated. This image shows the integrated labelling station where labels are printed with customer-specific, marketing or other messages before being affixed.
Credit: GB Innomech

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