

CONVEYING NEWS

New Lease of Life for Old Production Line

A new control system was at the heart of a recent project for WMH which has seen a redundant line saved from the scrap heap, refurbished and re-purposed to provide the factory with the production facilities that they need to meet their current production requirements.

The line was originally designed for production pies and flans with a pastry base but had stood idle for several years as production requirements changed. WMH were approached to re-develop the line and bring it back into use to produce cheese cakes.

The project required the line to be stripped back to its basic component parts before being built back up, integrating new denesters and depositors to cope with the new products and the installation of servo drives and complete new control system to bring all the elements together into a seamless inline system.

Operation and control of the line is via a touch screen HMI where the menus and functionality were designed in conjunction with the operators to give them access to all the functionality needed to run the line efficiently. Simplification of fault finding has been achieved by moving all the safety inputs into local enclosures which also reduced the amount of machine wiring needed.

The line has been configured to handle three sizes of cheesecake each needing different change parts and tooling. The control system monitors the change-parts and tooling throughout the line to prevent operation with incorrect or mis-aligned parts.

The line integrates a two-stage detester for plastic pots and cardboard bases and a granular dosing unit for the crumb base. It also integrates two depositors for the cheese cake topping. A closed loop feedback system was used and deposit weights are continuously fed back to the depositors which will automatically adjust for weight discrepancies helping to reduce product give-away for overweight and rejected underweight products.

To create a pattern on the top of the product WMH developed a "Swirly-Whirly" arrangement to spin the products through 360 degrees which swirls droplets of fruit compote into an attractive pattern.

Offload of product from the line via the WMH pick and place unit is profile controlled to ensure product does not slop during acceleration or deceleration, improving the quality and look of the finished product.

The line is fully integrated with the downstream production processes for speed matching to maintain optimum product flow and improve product quality. Weight and batch data from the production line is collected and exported to the factory.

"WMH have provided us with a simple clean approach to producing our products. Their design and automation team removed much of the complicated equipment and outdated safety circuit system resulting in a control panel a fifth of the original size" Chris Terry, Samworth Brothers.



Quick Change Cassette Conveyors

WMH has recently developed a novel drive arrangement for its collation system cassette conveyors which will reduce down-time and workloads for maintenance teams.

With ever increasing demand for continuous running WMH has created a system that enables maintenance teams to swap-out cassette conveyors for maintenance without the need for tools. The innovative design incorporates the conveyor drive system into the frame of the conveyor allowing the cassette units with belt and rollers to be removed quickly and easily for off-line maintenance.

“The new design means complete spare cassettes can be held on the shelf in case of break-down and can be swapped out quickly and easily by maintenance crews for off-line repair whilst maintaining the integrity of the line” said a spokesman for WMH.



The new format of collator, cassette conveyor will be integrated into all future pressure less collation systems developed by WMH.

Design Engineer Appointed



WMH has recently strengthened its design team with the appointment of George Court as Design Engineer.

George joins the company from a precision engineering background where he was involved in the design of valves for deep sea applications in the oil and gas industry and gained valuable experience in 3D design and stress analysis.

Originally from Cornwall George and his partner were looking to return to the area having studied and worked away from the area for several years. When the opportunity arose at WMH George was keen to take on the varied challenges involved in a food production environment and is looking forward to taking a hands-on role in the process, particularly in the controls and automation area.

Outside of work George is currently renovating his house and has a keen interest in classic car restoration and maintenance.

Automation Website Launch

WMH is pleased to announce the launch of its sister website www.wmhautomation.co.uk

The site will focus on the controls and automation capabilities of WMH and will showcase WMH projects with an emphasis on the technology used to achieve state-of-the-art production automation systems.

The site can be visited at www.wmhautomation.co.uk or can be reached using the menu links on the main WMH website



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