# INTOUCH

THE LATEST NEWS ON INTEGRATED AND INFORMATION SOLUTIONS



#### **Control & Automation Systems**

## **KEYMAS ANNOUNCE 'PARTNERSHIP'** AGREEMENT WITH PENTAMASTER



Keymas Control and Automation based in Dudley, announce their recent 'partnership' appointment to represent Pentamaster Corporation Bhd of Malaysia, for the sale of their range of 'Intelligent Conveyor Systems' in Europe. Pentamaster have supplied to bluechip companies throughout the world including major handling systems in the Computer Manufacturing and Electronics Assembly industries in the USA and Ireland, with the latter installation alone having virtually 2 kilometres of conveyors.

#### **KEYMAS AWARDED MAJOR** £4.6M CONTRACT BY ARGOS

Keymas Controls and Automation has been appointed main contractors by Argos, to coordinate the refitting of their Regional Distribution Centre at Bridgwater, Somerset.

This is part of a long term development strategy to accommodate Argos future expansion plans. The project will be undertaken over a 9 month period at agreed phases so as not to interfere with day to day running and operations on site.

Complementing the Keymas business for providing fully integrated storage and materials handling solutions, the Pentamaster products provide a powerful, modular operational conveying system for use in highly demanding manufacturing industries, where complex work flows are executed at the highest level of productivity and efficiency.

Keymas will be able to offer a range of quality modular conveyor products that can be totally integrated with controls to provide cost effective storage and handling systems to meet individual customer requirements.

#### **ZERO PRESSURE FOR KEYMAS** AT MORRISONS PRODUCE

Keymas has recently completed the control systems for 176 zones of zero pressure accumulation, utilising their latest circuitry for the control of 24volt brushless motorised rollers from Itoh Denki. The system was installed to handle tote boxes carrying fresh produce and was completed on time to the full satisfaction of Morrisons Produce Ltd.



Spiralling success at logistics company

# CONVEYOR SYSTEM FOR DIESEL ENGINE ASSEMBLY

**PLANT** 

Cummins Engine Co. Ltd., a leading pioneer of 'clean emissions technology' in the manufacture of diesel engines, recently awarded Keymas Control & Automation the contract to design and supply a closed loop powered roller conveying system to transport and control the flow of special containers carrying piston and con-rod assemblies between various workstations.

The new system replaced a straight-line conveyor, predominantly gravity feed, and a more labour intensive operation. The powered conveyor circuit now makes light work of moving products throughout the various stages of assembly. Pistons are selected from a Kardex carousel, assembled to the con-rod and loaded into the special containers and conveyed on lineshaft driven powered rollers to a series of manually operated pneumatically controlled blade stops. At the various work stations, operatives use the hand valve control to stop the containers in order for them to complete the fitting of circlips and piston rings to the piston and con-rod assembly, before releasing the container to the engine assembly area. These containers are married to the individual engines in lineset sequence on the main engine assembly line and therefore the control and flow of work is vitally important.



Two lift up gate sections were installed to enable operator access to the assembly machines located within the circuit, and to enable truck access, two modular conveyor sections were also installed. When the access gates are raised, power to the conveyor system is automatically cut to prevent line pressure build up. Emergency stops were also included at strategic points around the system.

Senior Manufacturing Support Engineer, Mr. Gerry Blow commented, "The system is very effective and has certainly created an orderly and improved flow of piston sub-assembly work. The project went according to plan and was installed on time, with no disruption to production and was within the planned budget."



### KILT HIRE HANDLING EFFICIENCIES RISE BY 70%

The worlds largest kilt hire company - ACS Clothing of Glasgow has recently moved into a new £2million hi-tech processing, handling and warehouse centre with the capacity to store up to 10,000 kilts and service the needs of over 1,000 retailers throughout the UK. The new overhead garment handling system is fully controlled and automated through the use of barcodes and bespoke distribution technology supplied and installed by Keymas, and is capable of handling and sorting some 6,000 full Highland outfits per hour for delivery.



Managing Director Richard Freedman proudly acknowledged, "It represents the biggest investment made in Highland wear in the world and includes equipment which will literally revolutionise our business overnight. The logistics garment handling system installed was co-ordinated by Keymas Control and Automation, and incorporates the unique Stockrail overhead 'Hangerglide' rail system. These high-tech and efficient systems allow us to fully track every garment, dress item and shoes, etc within the warehouse system, through to distribution, hire and returns. It also allows us to receive and dispatch orders for special events, such as weddings, with as little as 24 hours' notice.

We can report that the new system has resulted in a 70% increase in handling efficiency and has the flexibility and capacity to meet our proposed expansion plans."

MD Richard Freedman continued, "The system met our criteria for increased stock control and order picking efficiencies and was completed on time and within budget. As a result of their success, Keymas have received further orders to provide software linking to the host computer and providing additional management information."

# KEYMAS DISPLAY STORAGE AND HANDLING EXPERTISE AT CARTER RETAIL EQUIPMENT

When moving to an all purpose built new group administration and production centre, leading manufacturer of refrigerated display cabinets - Carter Retail Equipment Limited, contacted Keymas to supply three mezzanine floors to accommodate various processes and assist in developing a new 'cabinet assembly line' conveyor.

Previously, display cabinets had been manually handled through the various assembly stages and the intended move was seen as a great opportunity to review manufacturing and consider proposals for automating operations. Some six companies were approached and invited to tender for the project, but after careful consideration, Carter Retail Equipment reported that Keymas offered the best overall handling solution coupled to a very competitive quotation.



Following a site visit and obtaining full specification of transported product sizes, weights and required handling criteria, Keymas proposed a system based upon the supply of a single 4om. long, twin chain powered roller conveyor to be located in the assembly and testing areas, below one of the mezzanine floors. This chain conveyor was designed to sit on the floor and provide a conveying height of only 150mm, whilst



also supporting non-slip surfaced in-fill plates for cleanliness and safety reasons.

In the loading zone an operative would control the movement and positioning of the display cabinet onto the main conveyor. A single set of pneumatically raised idler rollers mounted between the two chains and fed by an off-line static roller bed facilitated the easy transfer of the refrigeration carcass on to the main conveyor.

An electric test zone was built into the system and fitted with a pneumatically operated lifting device that helped ensured electrical isolation of the display cabinet from the conveyor.

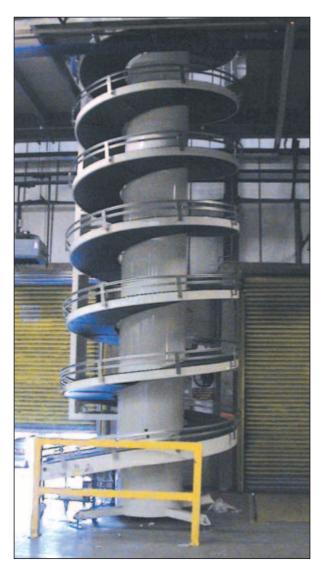
Keymas designed, built and installed the control system which controlled the raising and lowering of the pneumatic devices, plus timed indexing (30-60 minutes) of product on the conveyor. For safety reasons, an adjustable volume, two-toned audible warning device was fitted to alert operatives of impending conveyor movement.

Steve Wilson of Carter Retail Equipment commented, "Keymas provided a 'one stop shop' solution for our needs. The installation of the three mezzanine floors have enabled us to use the height of the building to good effect, whilst the two heavy duty chain conveyors make light work of moving refrigeration display cabinets

Keymas gave us much practical support and technical advice with our planning, and we have been very pleased with the overall project and are now reaping the benefits of improved workflow, safer working environment and reduced level of product damage in transit."



## SPIRAL SOLUTION FROM KEYMAS



One of the leading global logistics companies recently appointed Keymas Controls and Automation to resolve a handling requirement at their main distribution centre. This necessitated transferring boxes from the loading bay on to an upper mezzanine floor.

In principle, this was not a difficult project and the obvious solution would have been to install an inclined belt conveyor, but this proposal was thwarted due to space restrictions on the loading dock. Keymas also considered installing a vertical elevator, which occupied less floor space, but because of the requirement for product indexing this would slow down the transfer procedure.

After due consideration and consultation with management, it was agreed to install a spiral conveyor in order to transport product to the upper floor.

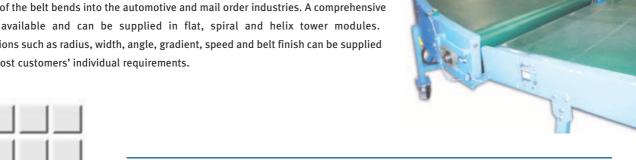
The robustly engineered spiral conveyor, provided an effective space saving solution to transporting goods between floors as the unit occupies a very small foot print area. With only one drive required for heights up to 7m. the spiral conveyor is energy efficient, simple to install with minimum controls, and very flexible in operation. The spiral can be used to provide an accumulation buffer if required, reversible conveying, and high speed throughputs of even unstable products.

The customer acknowledged that the handling requirement was not difficult, but was made more complicated by having space restrictions on the loading dock. Keymas's proposal for installing a spiral conveyor was excellent as it occupied the minimum area and maintains free flowing movement on the loading dock. It was also very quickly installed and created minimum disruption to the ongoing operations and is a great success.

### BELT BENDS FROM KEYMAS

Manufactured within the Group, Keymas can now offer a niche range of conveyor belt bends. Of proven modular design and technology, incorporating robust engineering materials and customer led efficiency features, the new Keymas belt bends provide faultless handling for a wide range of applications.

Easily integrated into material handling systems, Keymas has already successfully installed a number of the belt bends into the automotive and mail order industries. A comprehensive range is available and can be supplied in flat, spiral and helix tower modules. Specifications such as radius, width, angle, gradient, speed and belt finish can be supplied to meet most customers' individual requirements.



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