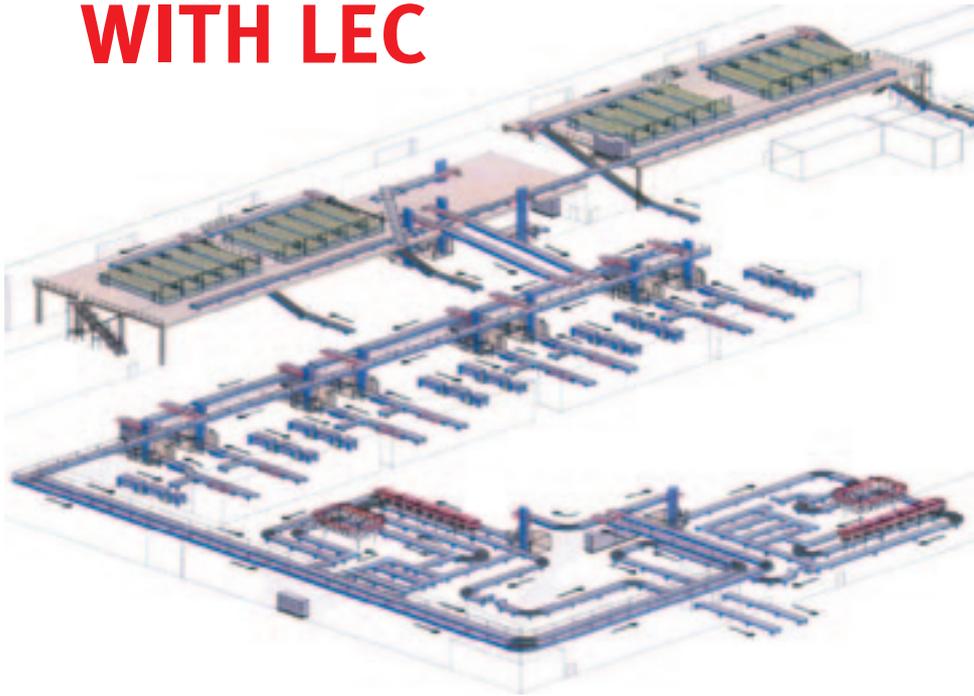


# KEYMAS IS ALL WHITE WITH LEC



One of Europe's largest manufacturers of white goods, recently involved Keymas in the design and supply of integrated material handling and information systems, in a major investment programme to revolutionise production facilities at their Bognor Regis plant. Since commencement, further updates and re-configurations have taken place, raising the total contract value to up to £2.4 million.

The entire scheme involved the integration of 1.5km of powered roller conveyor, 1km of gravity conveyor, 14 high speed elevators and 22 specifically designed turntables. At the heart of the scheme is a PC based programme and monitoring system. This supervises the bar code reader network and the 10 PLC's that are strategically placed throughout the plant, all integrated to ensure accurate tracking and movement.

Control computers are programmed for the type of fridge to be produced. The PC's are linked to network control panels which operate the conveyors, turntables, elevators, etc.

Fridge inner containers are given a bar code and placed on a level/ inclined belt conveyor. The control computer allocates each container a destination within the live storage system, which is located on a raised mezzanine floor, and the inner is transferred to store.

Production cells call off work requirements and inner containers are directed from the live storage system directly to the cells, or to a separate holding area. A bar code scanner detects the fridge type and directs the container through a fire door and onto an overhead roller conveyor, being tracked continuously by bar code sensors until it reaches its destination, where it is transferred via a turntable onto an elevator to be lowered to the designated production cell at ground floor level.

The container is located into a special pre-treated steel fridge cabinet and inserted into a foam filling machine for injection of insulation material between the inner and outer cabinet walls. The product is then transferred to the final assembly area, via the elevator and overhead conveyor. A bar code scanner reads the model of cabinet being transported and directs the unit down one of two slow moving curing lines. A lowerator lowers the cabinet into the assembly area where its doors are finally added.

The completed fridge then passes into the final test area where test equipment using bar code tracking ensures that individual items meet Lec quality control standards. The fridge is shrink wrapped for protection and transported by conveyor into the warehouse for final shipment to the customer.

## RAISING PRODUCTION AT CROPPERS

James Cropper Plc a leading manufacturer of a wide range of specialist paper products, invited Keymas Controls and Automation to tender for the creation of a new raised production area and pallet handling method.

After surveying the site and observing the restrictions on available space, Keymas presented a proposal that would create additional floor space by utilising the existing building height to the full and positioning a new mezzanine floor over the top of an existing mezzanine.

Previously a fork lift truck could service the needs of the first floor mezzanine, but the additional height demanded a much safer alternative method for handling pallet loads, and a two stage pallet elevator was installed to link all floors to ground level.

Required to smoothly transport heavy loaded pallets of different sizes, the elevator is fully guarded and fitted with safety features to protect operatives. The drive unit is fitted with an overload device which holds the pallet elevator in position should a fault trigger the safety device, and sets of limit switches at the various levels ensure stability of load as the motor is automatically slowed to a pre-set stop position.

The time for manufacturing and delivery was very tight, as Croppers had a restricted installation period scheduled for over the Christmas shut down. The system had to be completed within this 'window' to avoid disruption to ongoing production requirements.

Apart from various structural difficulties they encountered on site, by liaising closely with the customer throughout, Keymas did complete the project two days behind schedule but to the complete satisfaction of the client.

