

## **AFFORDABLE AUTOMATION: THE AC25 ROBOT PALLETISING CELL**

CKF Systems has developed a standard range of cost effective robot handling cells as direct replacements for existing manual operations whilst providing easy-to-use technologies with enhanced capabilities and a very attractive return on investment.

One of the new systems is the AC25 robot palletising cell.

A typical manual palletising line is, by its very nature, a labour intensive handling operation with inherent limitations in respect of box sizes, weight and restricted flow rates; typically 20 boxes per minute or less. This arrangement would normally require the operative(s) to transfer boxes from a dedicated feed conveyor to a pallet located on the floor, with separate operatives charged with the removal of loaded pallets and replenishment of the empty pallet(s).

The palletising rate of 20 boxes per minute would be the maximum for a single operative, although this would be compromised by the introduction of layer cards or heavy boxes. Furthermore, current legislation restricts the maximum unit weight that an operative can lift and also defines the maximum achievable stack height on a pallet. In the context of SMART working practises and commercial competitiveness this operation would be deemed inefficient, limited and inflexible.

The AC25 Robot Palletising cell has been developed specifically for this type of application where the enhanced functionality and performance provides a highly flexible and cost effective alternative. All aspects of the cell are based on proven technologies and utilise user friendly interfaces for both operatives and engineers. The cell can easily be expanded to accommodate a series of additional modules such as vision cameras, layer cards, open-flap detection and pre-collation of boxes for increased throughputs and alternating pallet patterns. The palletising cell can be installed as a standalone operation or combined for multiple feeds with a common discharge into secondary palletising operations such as spiral wrappers or pallet stacking.

**Replacing this type of manual palletising operation with the standard AC25 robot palletising cell immediately realises significant benefits and advantages:**

- Significant improvement to overall efficiency and flexibility
- Reduced operating costs
- High levels of reliability and easy to maintain
- Enhanced handling capabilities and capacity i.e. heavier boxes, improved cycle times and multiple pallet patterns
- Capable of handling cases with dimensions of up 400mm long x 300mm wide x 250mm high and net weight of 25kg
- Will handle Euro or UK pallets with layer cards as an option
- Increased stack heights providing better trailer utilisation and reduced transportation costs (with subsequent environmental benefits)
- Reduced footprint and configuration with the perimeter guarding typically occupying a floor area of 3500mm x 3200mm

- Removal of human interface issues i.e. repetitive strain problems, rest breaks, availability of labour, etc.
- Manufactured in the UK utilising ABB 4-axis robot and industry standard equipment
- Fully supported in the UK including training and spares, with a 12 month warranty
- Proven systems from an established UK provider with a long and successful history in the field of robots and automation
- Modular design with a range of add-on features
- Short lead times with minimal disruption during the installation and commissioning stage
- Improved utilisation of the floor space with good all round access
- Safe working environment to current HSE legislation

Typically costing under £80,000.00 for a fully installed unit, the standard **AC25** Robot Palletising cell could provide a payback of less than 24 months.