

EGG INDUSTRY SOLUTIONS

The identification of the origin of food sources, such as eggs is of significant importance for the protection of consumers, and potential costs to suppliers, particularly when a products quality is compromised. Product traceability becomes an important tool in the withdrawal, and quality control of foods and enables suppliers to be provided with targeted and accurate information concerning compromised produce. The best way to obtain this traceability is coding the eggs from source and with the two types of Egg Traverser that Scottish Robotic Systems can supply this can be easily achieved cost effectively.

Two different systems have been developed for use in the egg industry both using Domino A-Series ink-jet printers:

Manually Loaded Tray Printing System

This system is ideal for when customers require egg coding without having to incur the cost of additional machinery to index graded trays of eggs a single row at a time to allow the eggs to be coded. This compact system moves the print-head in 2 axes to enable it to code a tray of eggs that is loaded by an operator, and is mounted to a trolley that also houses the Domino A100 printer control cabinet, making the system ideal for transporting between different work areas. The Twin Axis system has an X-axis travel of 300mm and a Y-axis travel of 260mm and the speed the system moves the print-head is 1000mm/s. The number of print signals along the X-axis, the number of rows the system indexes and the pitch between these rows can all be changed to suit different sizes of egg carton as long as it is within the physical limits of the system.

The system can be tailored to suit different sized trays and different egg pitches/numbers



Tray Printing System with a Domino A-Series Printer

Single Axis System

This single axis system is designed to be installed at the output of an egg packing machine or other indexing conveyor, where speed of production is of prime importance, and the presence of an operator is not cost effective. The Single Axis Egg Traverser will print each row of eggs as the tray indexes out of the machine, using a signal from the packing machine or sensor output when the tray has indexed to trigger each print cycle.

The Single Axis Egg traverser can be supplied standalone or complete with a conveyor system

The single axis system has 2 variations, a standard version and a high speed version.

Standard Version:

The cycle time for a row of 6 eggs at approximately a 47mm pitch is 1.5 seconds, which as an example of cases of 360 eggs equates to 40 cases per hour. The single axis system operates at a speed of 500mm/s, set up for 6 'print go' outputs, and a single print-head. The standard version prints in one direction only, so does not require a user port on the printer, further reducing cost.

High Speed Version:

The cycle time for a row of 6 eggs at approximately a 47mm pitch is 0.6 seconds, which as an example of cases of 360 eggs equates to 100 cases per hour. The High Speed system operates at a speed of 1000mm/s and is set up for 6 'print go' outputs, and again a single print head. The high speed version prints in both directions and also has an encoder output to allow print to be applied during acceleration and deceleration to further increase throughput.



Farmpacker Egg Traverser Mounted on to 25 by 25mm Square Tubing