Biotechnology

Cubitainer Handling System

Reagent Cubitainer Flap Control & Neck Positioning

Process, Features & Benefits

Cubitainer boxes, transported directly from an upstream Pearson box erecting machine, enter the Farason system via a Hytrol conveyor. Farason received the Pearson from the system integrator, Filamatic, Baltimore, MD, for integration to the Farason supplied box conveyors and use for testing and debugging the Farason system. Prior to the Hytrol roller conveyor, there is a straight section of flat belt conveyor where the customer will manually place the flexible plastic bottles with the necks uniformly oriented.

Cubitainers enter the system and are positioned by an alignment device to establish a reference point and square the container. Both axes are horizontal and programmable to provide handling flexibility for five box sizes.

Leading and trailing box flaps are closed during the positioning move by means of a static rail for the leading flap and manipulation of the back flap by the alignment tool.

A second 2-axis device, horizontal and vertical, equipped with a neck locator is directed at the cubitainer flexible plastic bottle neck opening. The device is equipped with an end effector tool consisting of an inflatable bladder. With the bladder deflated, the tool is inserted into the neck opening to a predetermined level. The bladder is inflated and the tool moves upward, drawing the neck out of the bottle. The bottle is prevented from moving upward with the neck by the leading and trailing box flaps secured by the Farason tooling.

Once the neck has been withdrawn from the bottle, and with the box flaps controlled, the cubitainer is moved forward via both 2-axis devices moving in concert, and the bottle neck is inserted into the Filamatic neck locator and transport device for transfer to subsequent down-stream filling and capping operations.

More Information

For more information on this, and many other Farason projects, please visit our website at www.farason.com or call us at (610) 383-6224.