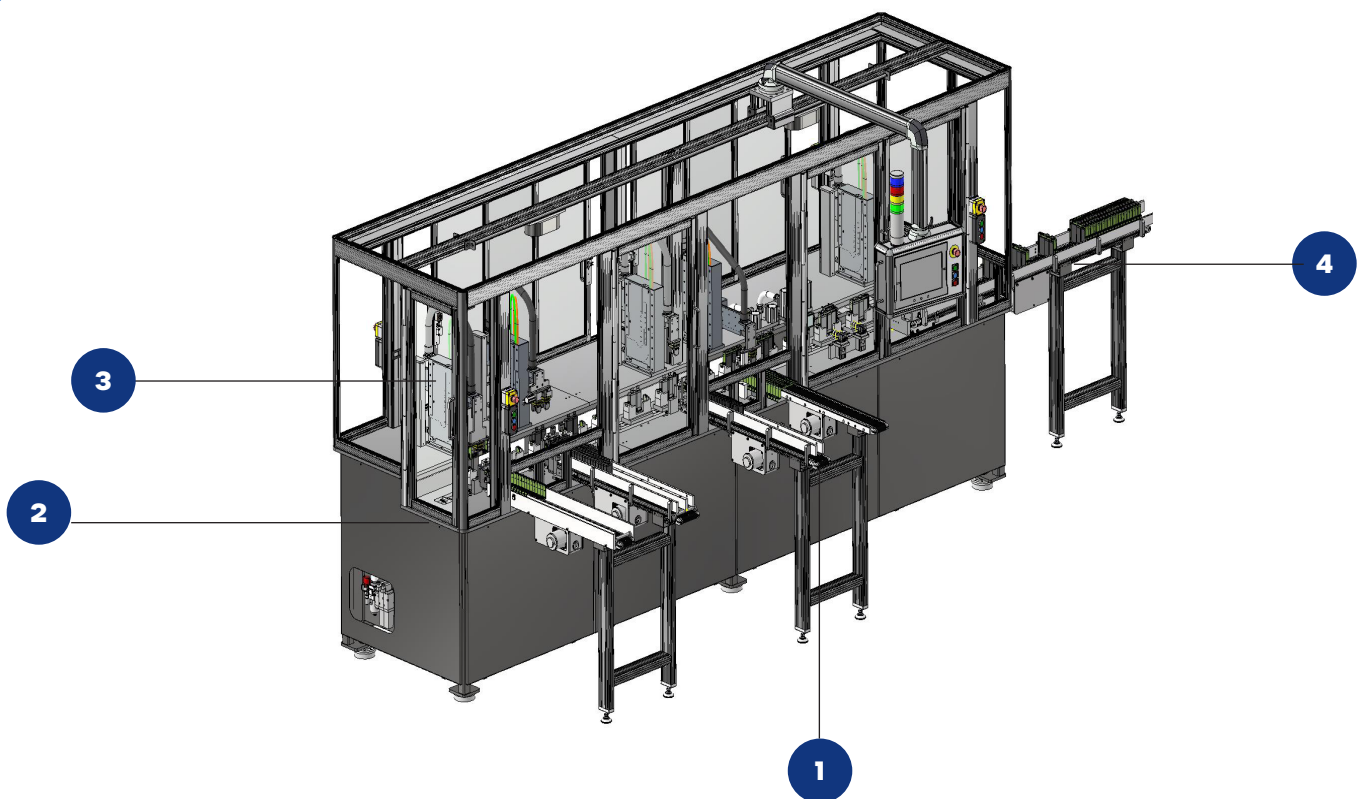


Medical Device Assembly Cell



1 Automatic infeed of all products and components

2 Precision link indexing conveyor

3 Servo pick and place units, to allow for placement configurations

4 Outfeed conveyor to integrate to upstream packaging machine.

Tube Marking System

Our client required a system to automatically assemble a medical device (within a cleanroom) comprising of a series of vessels and an enclosure which encapsulated the vessels to provide a securing frame around them. In addition to the assembly, the machine was also required to inspect bar coding on the devices and feed into a packaging machine.

The Challenge

To design and manufacture a machine to assemble a multi part medical device. The system was required to accept the assembly components from infeed conveyors. The option for bowl feeding of the product was not required.

The device assembly had many permutations, and required a control system that would allow the operator to quickly change from assembling a variety of model variants

It was also a requirement for the system to integrate with an existing final packaging machine.

- Automatic in feed of components on conveyors.
- Ability to handle different assembly configurations.
- Full tracking of product through system
- Output into existing packaging machine

The Solution

The system was based around a mechanical indexing precision link conveyor. The conveyor

was tooled with machined nests to accept the variety of assembly build ups.

Four infeed conveyors were used to transfer the components into the machine. The leading component was then escaped and transferred into a nest on the indexing conveyor.

Although located, the parts were not assembled until later in the process. To allow for different placement positions (different products), servo pick and place units were used.

The assembled components were then pressed together, with finally assembly and bar code inspection taking place prior to the device being loaded onto a packaging machine input conveyor.

Reject parts were removed and placed into a segregated area.

Features & Benefits

- Automatic input conveyors for all products
- Precision link conveyor for fast indexing
- Servo Pick and place units to allow for multiple position placement of components
- Built for cleanroom environment
- Bar code checking of components
- Full integration with upstream machines
- Single module construction to allow for ease of integration.



For more information or to discuss your bespoke solution get in touch.

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