

DELTA SERVO ROTARY CAPPING MACHINE



The **Dico**[®] Delta multi spindle servo capping machine is the latest evolution of the **Dico**[®] rotary capping machine range.

It utilises programmable servo-driven axis, replacing the conventional cam driven movement of a typical rotary capping machine.

Software configuration of the **Dico**[®] servo capping head allows rotary cap tightening, push-on cap and straw inserter applications .

With the extended stroke (ES) version of the machine, combined with the option of the **Dico**[®] straw inserter module, this configuration allows dip tube insertion, tightening of trigger and displacement pump together with trigger and spout orientation.

- ✦ **LOW COST**
- ✦ **VERSATILE**
- ✦ **SIMPLE TO OPERATE**
- ✦ **HIGH OUTPUT**
- ✦ **SMALL FOOTPRINT**
- ✦ **SIMPLIFIED PRODUCT CHANGE OVER**
- ✦ **QUALITY MONITORING SYSTEM**
- ✦ **REMOTE SUPPORT**

SPECIFICATIONS

◉ PCD Size	250mm – 2000 mm	◉ Camera overcheck	Optional
◉ Machine size	Dependant of variant	◉ Track & Trace system	Optional
◉ Voltage	415v AC	◉ Container marking system	Optional
◉ Air supply	5.5 Bar / 80 PSI	◉ Straw inserter	Optional
◉ Stroke	Standard or Extended Stroke	◉ HMI size	15 inch
◉ Capping heads	2 – 30	◉ Remote diagnostics	Yes
◉ Capping technology	Servo	◉ Control system	Siemens
◉ Output	Up to 900 containers per minute	◉ Materials	Stainless steel clad frame. Parts in contact with the container or cap – manufactured from stainless steel or suitable plastic
◉ Electronic cam	Yes	◉ Machine guards	EC Machinery Directive compliant
◉ Straw inserter	Yes	◉ Tracking	Number of containers handled. Running speed and time
◉ Cap feed	Automatic	◉ Remote diagnostics	Yes
◉ Container change parts	Yes	◉ User manual	Yes
◉ Cap change parts	Yes		
◉ Cap supply system	Options available		
◉ Elevator	Options available		

TECHNOLOGY

- ◉ **Twin Servo capping heads**
each capping head has two servo motors inbuilt
- ◉ **Electronic cam control** vertical motion is configurable to optimise the capping cycle
- ◉ **Brushless servo tightening**
the motion of the capping chucks is configurable via software
- ◉ **Level control sensor** provided in the cavity sorter to demand caps from hopper / elevator
- ◉ **High level cap chute sensor**
stops sorter and turns off air selector when cap chute is full
- ◉ **Low level cap chute sensor**
stops the machine in event of starvation of caps from sorter
- ◉ **Infeed conveyor 'Q' sensor**
automatically starts the machine with a supply of sufficient containers
- ◉ **Outfeed conveyor 'Q back' sensor**
automatically stops the machine in the event of build back from down line equipment
- ◉ **Software** configurable capping operation.



CONTAINER CHANGE PARTS

Each container type requires a set of quick release change-parts including:

- ◉ **Centre turret assembly**
- ◉ **Centre guide assembly**
- ◉ **Back guide assembly**
- ◉ **Feed scroll**
- ◉ **Star wheels**



DICO® SORTING SYSTEMS

Multiple options available for sorting rotary caps, push-on caps, Displacement pumps and triggers prior to being fed into the capping machine.



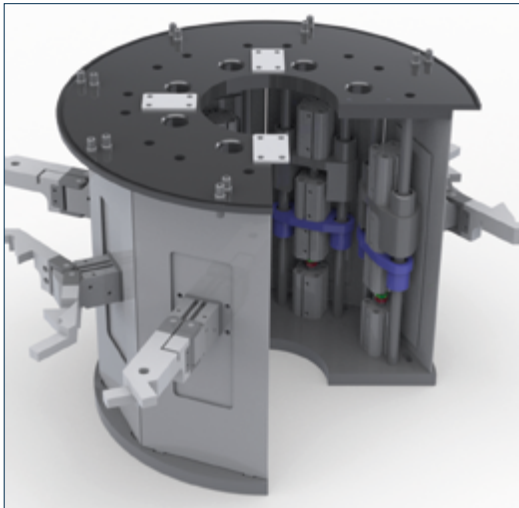
CAP CHANGE PARTS

Each cap type requires a set of quick release cap change-parts to handle caps from the cap sorting system to the capping chuck, these include:

- ◉ **Capping chucks**
- ◉ **Cap chute assembly**
- ◉ **Cap sorting disc**
- ◉ **Cap plate assembly**



OPTION STRAW INSERTER MODULE



The **Dico®** straw inserter module comprises a series of swinging jaws which align the straws with the container centre. Moving vertically it places the straw guide over the container neck.

These actions correspond with the movements of the servo capping heads to insert the straw into the container. Once inserted the jaws open allowing the pump / trigger cap to be presented and tightened onto the container.

The module includes two meters of air conveyor that can be used to manually load the pump / trigger assemblies to the capping heads and connect directly to the optional **Dico®** Pump and Straw Sorting System.

- ◉ Fits all long stroke capping machines
- ◉ Straw insertion for pump dispensers
- ◉ Standard control system integration
- ◉ Straw insertion for trigger caps

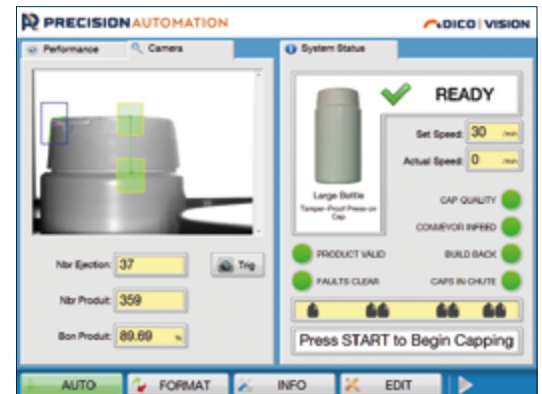


Compliant with European product safety directives.

STANDARD SERVICE REMOTE DIAGNOSTICS

All Precision Automation equipment is designed using the very latest hardware. The PC interface and ethernet communication protocol means that we can remotely connect through the customer's VPN or 4G device. Our service desk can monitor the condition of the control system and, if required, take control of the machine. This important advanced feature further improves machine uptime and most cases prevents the requirement for on-site intervention.

**DICO® HAVE A RANGE OF
OPTIONS TO SUIT YOUR LINE
INCLUDING UNSCRAMBLING
AND ORIENTATION SYSTEMS**

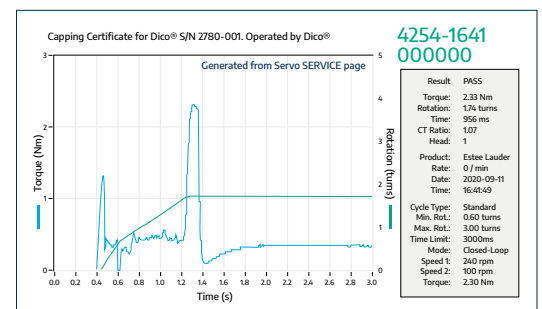


OPTION VISION INSPECTION SYSTEM

The **Dico®** Vision system checks for cap presence, correct orientation of the pump nozzle and that the thread is tightened.

A reject conveyor can be added to the machine system with a diverting gate assembly linked to the **Dico®** Vision system. The conveyor diverts containers that have failed the Vision inspection process into a controlled reject area.

2-30 CAPPING HEADS
WITH SPEEDS OF UP TO
900 CONTAINERS
PER MINUTE



OPTION TRACK & TRACE

Dico® Track & Trace system stores cap tightening data in graphical form against either a unique serial number read from a label or applied to the container / cap. If a unique serial number is not required a time and date stamp can be used.

- ◉ Store data on your factory network



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