

CAPPING & CLOSING MACHINERY





DICO® MACHINES CAN
PICK AND PLACE CONTAINERS UP TO:
900 PER MINUTE
INCLUDING SEALING WITH
A CAP OR ADDING A SCOOP

FLEXIBLE
SCREW-ON, PUSH-ON, TRIGGER
OR DISPENSE SPRAY WITH
DIP TUBE, PRE-CAPPING INSERTS
AND MANY SEALING OPTIONS

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

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

DICO® SUPPLY INDUSTRY LEADING CAPPING AND CLOSING SYSTEMS CAPABLE OF HANDLING THE WIDEST RANGE OF PRODUCTS

Dico® which was known initially as Design and Installation Company Ltd. was founded in 1949 to produce machines for the aircraft, atomic and packaging industries. In 1962 Dico Packaging Engineers was created to focus on capping and closing machinery.

Precision design and manufacturing in the UK

Dico® capping systems cover a wide range of closures used in the industries of personal care, detergents, pharmaceuticals, automotive and food products. Our experience and understanding of the important mix between speed, volume, product and container type ensure the success of our systems. We also design and manufacture to suit specific customer applications.

Tomorrow's technology. Today

With a 71 year history in precision packaging, innovation is programmed into the **Dico®** DNA. Our next-generation **Dico®** machines are built for versatility. Seal your product with push or twist-on closures, pump action or trigger caps.

There are many options available to build a bespoke machine for your exact requirements.



The Precision Automation group also design and manufacture the Gravfil® range of filling machines. Wider services include bespoke test, assembly and automation systems.



Compliant with European product safety directives.



SHAMPOO • LIQUID SOAP
COSMETICS • LUBRICANTS
FOOD & BEVERAGES
CHEMICALS • ADHESIVES
HOUSEHOLD PRODUCTS
POLISH • PAINT
HAND SANITISER

This is the most versatile and flexible version of our capping systems. Every capping head is equipped with a brushless servo motor. The electronic cam ensures rapid pump and bottle format change and increased flexibility to handle different formats. For screw-on caps, it is possible to set the required torque directly from the HMI. Auto height configuration reduces the need for many costly change parts – simplifying product change over, reducing costs and increasing output efficiency.

Extended stroke for easy dip-tube insertion

With the extended stroke (ES) version of the machine together 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.

Dico® Sorting System

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

Quick release cap change-parts:

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

Servo Rotary Capping Machine with speeds of up to 900 containers per minute

- Available in standard or extended stroke
- Mechanical structure in stainless steel
- Rotary turrets with 2-30 capping heads, giving output speeds up to 900 containers per minute
- Quick product change over
- Multi Cap feeding options available
- Siemens control system
- Automatic cap feed
- Option: Camera overcheck
- Option: Sorting systems
- Option: Track+Trace system
- Option: Container marking
- Option: Straw inserter

15 inch touch screen HMI

Quick release container change-parts:

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

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

TOMORROW'S TECHNOLOGY TODAY

- ◉ **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 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 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.

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.

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**

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 2m 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**
- ◉ **Standard control system integration**
- ◉ **Straw insertion for pump dispensers**
- ◉ **Straw insertion for trigger caps**





DICO | PULS-i

Rotary turrets with 2-30 capping heads, giving output speeds up to 900 bottles per minute

Suitable for the application of all screw and press-on caps, tightening control is via magnetic hysteresis clutches. Positive grip type chucks pick-up systems ensure perfect control of positioning and tightening of the cap onto the bottle.

Service and aftercare

All our new machines are supported by our 12 month parts and labour warranty. We offer a full maintenance back-up for servicing and breakdown repairs and will create a service plan to match the machine and the customer's usage.

Ask us about our refurbishment and upgrade services in support of older **Dico®** capping machines.

- ◉ **Mechanical structure in stainless steel**
- ◉ **Quick product change over**
- ◉ **Hysteresis clutch tightening technology**
- ◉ **Multi-cap feeding options available**
- ◉ **Siemens control system**
- ◉ **Automatic cap feed**
- ◉ **Option: Camera overcheck**
- ◉ **Option: Sorting systems**
- ◉ **Option: Container marking**
- ◉ **Option: Electronic scroll**



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.

ASK US TODAY ABOUT HOW TO INTEGRATE A DICO® CAPPER INTO A COMPLETE FILLING AND CLOSING LINE.

FEATURES	Puls-i Cam-driven	Delta Servo	Delta Servo ES
Electric cam	✗	✓	✓
Hysteresis clutch tightening technology	✓	✗	✗
Brushless servo tightening technology	✗	✓	✓
Capping heads	2-30	2-30	2-30
Capping speeds (bottles per minute)	Up to 900	Up to 900	Up to 900
Container size ranges	20ml up to 20 Litre	20ml up to 20 Litre	20ml up to 20 Litre

CLOSURE CAPABILITIES	Puls-i Cam-driven	Delta Servo	Delta Servo ES
Screw-on caps	✓	✓	✓
Push-on caps	✓	✓	✓
Plugging	✓	✓	✓
Pumps : spray • dispense • trigger	✗	✗	✓

OPTIONS	Puls-i Cam-driven	Delta Servo	Delta Servo ES
Dico Vision overcheck	✓	✓	✓
Dico Track+Trace	✗	✓	✓
Dico Sorting System	✓	✓	✓
Dico Straw Inserter	✗	✗	✓
Dico electronic scroll	Optional	✓	✓
Capping head stroke	80-200mm fixed	20-110mm variable	20-320mm variable

BENEFITS	Puls-i Cam-driven	Delta Servo	Delta Servo ES
Remote support and diagnostics	✓	✓	✓
Simple in operation	✓	✓	✓
High output	✓	✓	✓
Quality monitoring systems	✓	✓	✓
Small footprint	✓	✓	✓
Versatile	★ ★ ★	★ ★ ★	★ ★ ★
Labour reduction	★ ★ ★	★ ★ ★	★ ★ ★
Reduced mechanical parts	★ ★ ★	★ ★ ★	★ ★ ★
Simplified product change over	★ ★ ★	★ ★ ★	★ ★ ★



Designed and built in the UK. Precision Automation are the only official manufacturer of Dico® machines



Unit D4 Bonham Drive
Eurolink Commercial Park
Sittingbourne, Kent ME10 3RY
United Kingdom

+44 (0)1795 551500

✉ INFO@PREC.CO.UK

🔗 PRECISIONAUTOMATION.CO.UK