

Packing machines

Application

Packing and strapping of tubes, cans and cartridges

Benefits

Reliability and worldwide availability of products and services in 176 countries

Reliable the world over

What do mayonnaise, toothpaste, hairspray and silicone sealing material have in common? They are packed in boxes or strapped on packing machines for tubes, cans and cartridges, supplied by small Swiss specialist mechanical engineering firm Texa. And what do these packing machines have in common? They all rely on Festo automation technology – right around the world.

■ With tube, can and cartridge packing machines as well as carton box forming stations, Texa AG based in Haldenstein, near Chur, Switzerland, is the worldwide number one for the packing of finished tubes, cans and cartridges in boxes. The packing machines are located right at the end of a production line, often measuring up to 100 metres in length. In the case of aluminium cans, for example, the stations for deep-drawing of the aluminium discs, cutting, washing, applying internal and external paint as well as the drawing-in machine are on a single production line. However, the last station – the packing machine – can prove to be something of a bottleneck. If it is not working reliably or is at a standstill, an entire production batch may be unusable. The paint on the cans that are held up can be destroyed in the drying ovens.

with minimal labour costs.

Absolute reliability is necessary as the machines are often used non-stop seven days a week.

Without this proven reliability, the packaging specialist would not be able to sell any machines, as 95 % of packing machines are bought by can, tube and cartridge manufacturers involved in production outside Switzerland. In the rare situations where service is required, the service technicians have a long way to travel. Texa therefore relies on Festo, its most important partner for automation technology. The worldwide availability of Festo automation products in 176 countries means that Texa customers are never left

Valve terminal MPA with electrical terminal CPX for all I/O and fieldbus connections is both modular and expandable.

Short cycle times

Reliability is a top priority in the system specifications for the machines, which pack up to 250 tubes per minute with diameters of 25 to 50 mm and 300 tubes per minute with diameters of 13.5 to 19 mm in boxes. At this speed the installations generate so much product that it would not be worthwhile to pack tubes manually even



at Texa

Valve terminal
CPX/MPAPneumatic linear
drive DGCVacuum generator
VN

stranded. Every Texa machine manual contains spare parts lists with all of the necessary details from the Festo catalogue, circuit diagrams for pneumatics and complete contact data for Festo service contacts in the respective countries in which the machine is operated. The fact that all part numbers are the same worldwide means that Festo can provide any spare part quickly and easily in any part of the world.

Endurance tests

While the spare part scenario may be exceptional, Festo automation technology is proven to offer not just short cycles, but also high machine availability. An average of 1,500 automation products undergo continuous endurance testing, with test experts analysing 7,000 measured values every month. Among the record breakers are valves that have survived 940 million switching cycles, which corresponds to a service life of 30 years in single-shift operation, and cylinders that could manage a round-the-world trip almost twice with a running performance of 82,000 km.

Productive new products

Clearly no matter what automation technology Texa engineers choose from the comprehensive range of

around 23,000 Festo products, they are dealing with reliable technology. That is why they are also choosing the latest products such as MPA valve terminals, rodless linear drives of type DGC or VN vacuum generators. The MPA valve terminals offer a high level of modularity and openness for conversion and expansion. When combined with CPX, the electrical terminal for valve terminals, all I/O and fieldbus connections can be realised simply and conveniently. The rodless linear drive DGC has proven to be extremely precise, steady and resilient in numerous tests and customer applications. And thanks to vacuum generators VN, suction grippers can handle even porous workpieces such as cardboard boxes. With their large high flow rate, vacuum generators are better able to compensate for leakage. Their low weight means that they can be used directly in the gripping area, because short lines and rapid evacuation of large volumes reduces cycle times and increases productivity – making them ideal for Texa packing machines. ■

Tube packing machine in operation

The tubes are transferred synchronously from the production line to the grouping section of the machine using a bowl feeder. In the grouping section the tubes are grouped in layers and pushed onto a grouping plate. When the grouping plate is full, it moves downwards and places the tubes in the carton. A unique feature of the tube packing machine BT-2300 is the packaging of tubes in carton boxes covered with plastic film. “Clean Factory” requirements can therefore be met. “This is becoming an increasingly common customer requirement”, explains Gottlieb Benz, CEO of Texa AG.


texa

Texa AG

Products	Development and construction of packing machines for tubes, cans and cartridges
Contact	www.texa.ch

Can strapping machine BS-2200: Cans are transported to the grouping unit using bowl feeders and output as strapped units.

