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ZELLWAG PHARMTECH

Newsletter 03/2016

1. Project example modularized machine platform based on the Z-110 series (rotary system) as closing machine for consumer health and/or cosmetic containers

Customer requirements

Containers:	Various cosmetic containers up to a height of 200 mm and a diameter of 90 mm, expandable to airless and dispenser closures
Process:	Gentle cap infeed (no scratching of sensitive caps), torque control, in process control (presence and position of the cap) with automatic ejection, screwing/crimping
Output	45 containers/min (80 containers for a double-step machine)

Our solution: Automatic closing machine Z-110 k

Features

- Cap infeed by means of an inclined table, optional alternatives:
  - vibrating bowl
  - belt band (for caps and sprays)
  - turntable
- Servomotoric pre- and post-screwing axis with snap-on function, 3-jaw gripper and vacuum based cap holding. Suitable for a variety of closures.
- Vacuum based container holding instead of clamping (no scratching)
- In process control: torque, rotation angle and position control by the screwing axes. Cross control with sensors: no cap in place or cap too high/inclined with automatic ejection of non-conform containers
- Easy format change without tools: Gripper jaws clicked in, lateral guidance of cap conveyor and pick nest can be adapted by means of setting knobs with digital counters, wing handles

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Figure 1: Machine overview

Figure 2: Setting knobs

Figure 3: Presence control caps

Figure 4: Wing handle

Customer benefits

- Fully automatic process run in compact monobloc design
- Modular cap infeed options dependant on the cap type
- Snap-on and screw-on caps on the same machine
- Vacuum holding of containers and caps, suitable for sensitive products (no scratching)
- Pre- and postscrewing unit for an increased and optimal output
- Tool-free format part change according to the poka joke-principle (Japanese, engl. «avoid unfortunate errors»)
- Format parts are avoided whereever possible
- Indexed and reproducible settings

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2. Test laboratory

We have established a test laboratory that we expand continuously to offer our customers an optimal feasibility service in advance of a project by executing, documenting and analysing "proof of principle" testing.

Here we can carry out e.g. the following tests:

- Filling test of liquids, semi solids (creams, balms) and solids with different dosing systems:
  - rotary piston
  - peristaltic pump
  - endless pistion
  - gear pump
  - turn piston pump
  - rotatory pistion pump
- Filling under vacuum
- Closing tests (snap-on, press-on, screw-on)
- Determination of the torque during closing
- Determination of the snap-on force
- Determination of the optimal screwing unit – will a pneumatic screwing unit be sufficient or will an electric one be needed?
- Material selection for optimal sliding properties of your container type

Examples for tests:

- Dosing of micro pearls (cosmetics): check accuracy / shear at the product
- Dosing of hyaluronic acid in syringes under vacuum: check accuracy and air bubbles
- Dosing of permanent make up in small bottles: accuracy / cleaning
- Snap-on tests with airless containers on the Z-201 S platform
- Dosing of propolis products with high solids content (wax) with rotary piston: accuracy / product build up that blocks the piston

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3. We expose on the following fairs

PACK EXPO INTERNATIONAL, 06. - 09. November 2016, Chicago Illinois, USA
Visit us at booth # E-8309. We are looking forward to seeing you!

Compamed, 14. - 17. November 2016, Düsseldorf, Germany
Visit us in hall 8a at booth K16. We are looking forward to seeing you!

pharmtech & ingredients, 22. - 25. November 2016, Moskow, Russia
Visit us at the Crocus Expo IEC, pavillion 2 at the booth of P.E.C. We are looking forward to seeing you!

Pharmapack, 01. - 02. February 2017, Paris, France
Visit us at the Paris expo Porte de Versaille, hall 4, at booth F49. We are looking forward to seeing you!