

Universal robot solution in glass palletising

Iris Willnat and Christin van den Heuvel discuss an MSK robot palletiser installed at SGD Kipfenberg GmbH, Germany, which combines a significant capacity increase and flexibility with a compact design

When producing pharmaceutical hollow glass at Kipfenberg, both clean packs - according to different packaging patterns - and whole layers of bottles are handled and packed onto pallets. Key demands to be satisfied included a clear increase in capacity, simultaneously with highly efficient job changes. Furthermore, a different palletising robot for clean packs and a traditional glass palletiser for loose bottles were to be replaced by a more efficient and space saving universal solution for economic reasons.

FLEXIBILITY

MSK's robot palletising system is a genuine all-rounder. It is fitted with three different heads that can be exchanged quickly and comfortably with a novel changing device during job changes. In this way, the robot is able to palletise clean packs according to different packaging patterns, while it can also pick up different bottle types

with a suction plate or alternatively, with tubes that grip the bottles. In addition, the robot can put up card box trays and plastic plates as interlayers. "Thanks to this solution, the effort during job changes has been reduced and double the packaging capacity can be achieved. Reliability is more than 99%, which means it is highly efficient" comments Michael Bouwmann, Key Account Manager for glass at MSK.

MINIMAL SPACE REQUIRED

The palletising robot offers good flexibility in a minimum of space. "We have even been able to deal with the confined space towards the

ceiling at our plant in Kipfenberg due to the robot's fine programming technology" Michael Bouwmann explains. Since the robot features integrated supplementary functions such as the application of interlayers, additional modules are unnecessary and consequently, the equipment and its associated space requirements have been reduced at the cold end. "MSK has come up with competent and reliable project engineering" says Rainer Becker, Technical Director at SGD Kipfenberg GmbH. "The compact design of the machine and the possibility of handling all customer packaging demands with flexibility in the future tipped the scales for the palletising system."

COMPLETE SOLUTION

In addition to the palletising robot, MSK has delivered a centering frame with film sheet applicator, used to equip pallets with bottom sheets and loose bottles with interlayers. The cardboard trays are prepared by an MSK Traytech and are then applied by the robot. All modules are controlled via MSK EMSY, the centrally-integrated visualisation software.

With the EMSY software, the Kipfenberg plant has an integrated HMI at its disposal. Every operation of the high performance palletising system can be controlled on the monitor, in addition to which required parameters can be managed and different packaging programmes logged or accessed. No special software knowledge is necessary - visualisation of the whole packaging process, easy selection of parameters and programmes, support in troubleshooting and conducted statistics ensure easy and efficient operation of the machine. Since all other MSK machines on-site in Kipfenberg are also run via MSK EMSY, the standardised visualisation is of significant benefit for operating staff.

LONGSTANDING CO-OPERATION

In June 2009, MSK's robot technology was smoothly introduced to the existing packaging line at Kipfenberg. A co-operation of many years connects the specialist in pharmaceutical hollow glass production and the manufacturer of packaging systems. As early as the 1980s, MSK delivered its first shrink packaging machine to Kipfenberg. This was followed by a Triotech



ROBOT PALLETISING OF CLEAN PACKS AT SGD KIPFENBERG GMBH



PALLETISED CLEAN PACKS PRIOR TO SHRINKWRAPPING

swivel arm palletiser and another shrink packaging machine in 2002. "This co-operation of many years has been constructive and professional, while offering great availability of the existing MSK packaging systems and at the same time, associated standardisation. These were crucial reasons for us to decide in favour of MSK" concludes Rainer Becker.

COMPLETE SOLUTIONS

MSK is a full line supplier for the whole cold end of a glass production installation. More than 30 years of experience in the design of glass palletisers, hood shrink devices for transport security, shuttle cars and conveyor technology,



THE ROBOT ALSO HANDLES THE APPLICATION OF INTERLAYERS

as well as required control software have brought MSK to a leading position in the market. Additional modules, such as Looptech for securing single bottle layers during in-plant transportation, labelling technology, cardboard erectors, information tracking systems and other accessories make every MSK machine a complete system. ■

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