

Palletising special glass container forms

SPECIAL FORMS OF CONTAINERS REPRESENT A CHALLENGE TO GLASS PALLETISERS. PALLETISING SYSTEMS HAVE BEEN DEVELOPED WHICH CAN FORM AND PALLETISE DEMANDING PRODUCTS IN A PRECISE LAYER

There is barely another machine in the hollow-glass industry which faces the same high demands in reliability and performance as the palletiser. Whether it's the layer former, accumulation table, layer loop and layer inserter, centring frame, layer sheet inserter or the tray supply and tray maker – everything has to run in harmony.

MSK delivered the complete cold end for the new Quinn plant in the UK, which included 13 fully-automatic palletiser lines, conveyors with shuttle cars and three shrink packaging lines. MSK had to create a special palletising system to package a 'flask' bottle – a narrow, concave-shaped container.

Special attention was paid to synchronising the shifting speed from the layer former with the speed of the accumulation table, so that the flask's stability could be balanced. As different container forms are packaged on the same line, the palletising system needed the ability to quickly and easily be adapted.

TRIANGULAR SHAPES

Triangular glass containers can also be formed into precise layers with the newly developed bottle infeed, which has been specially designed for this glass form. A method to influence the bottle infeed so that the bottles are exact aligned when assembled in a row was developed in close cooperation with a customer. This means it is possible to complete a layer of 24 rows with two shifts of the layer former.

An electronic control system (EMSY) was developed to support the operator during machine operation. This system controls

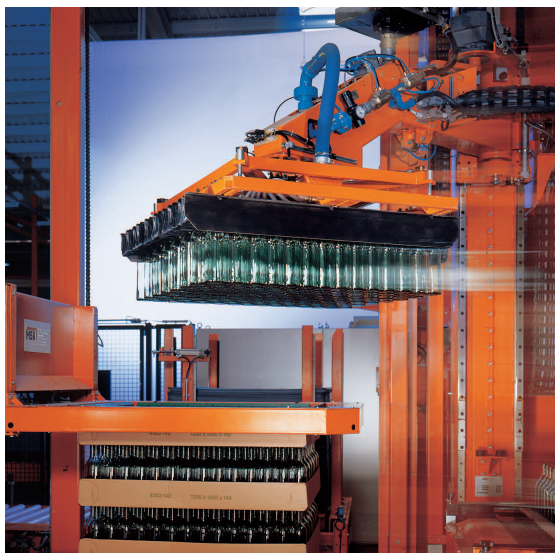


'FLASK' BOTTLES BEING PALLETISED AT THE NEW QUINN PLANT IN THE UK

every movement of the machine with an on-screen display of the current operating status. The operator can get all the data he needs, from current position controls to error messages and fault finding.

Full details of errors are provided to help the operator resolve the problem, and machine operation parameters can immediately be changed by selecting items on the screen - no specific software knowledge is required.

In order to run several palletisers fully automatically, shuttle cars on a one-rail system deliver empty pallets which are dressed with base film on cardboard to the in-feed conveyor. They also pick up the loaded pallets and transport them to the pallet shrink-wrapping lines. Smooth operation means that the bottles are handled securely before shrink-wrapping.



THE MODULAR PALLETISING PRINCIPLE PROVIDES FLEXIBILITY, ACCESSIBILITY AND EASY JOB CHANGES



BOTTLE INFEEED FOR TRIANGULAR GLASS CONTAINERS

A FULL LINE FOR THE COLD END

MSK can supply every component for the cold end of a glass production as the company has 30 years experience developing glass palletisers, shrink hooding machines for secure transportation, shuttle cars, conveyor technique and control software.

Add-on modules such as the MSK Looptech, which secures single layers of bottles, labelling technique, carton erectors, information tracking systems and other modules are available. MSK uses top quality materials and fully tested elements. With MSK's EMSY software, specialists can remotely detect errors via a modem. ■

FURTHER INFORMATION

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