

No stone left unturned

by Waldemar Schmitke



Gerd Fuhrmann in front of PreWatcher III

At the K-Fair in Düsseldorf Waldemar Schmitke met Gerd Fuhrmann, Managing Director and CEO of Intravis Vision Systems. Intravis has been building optical inspection systems for the plastics and packaging industry ever since 1993. Today its range of products includes image processing technologies for the inspection and measurement of bottles, closures, preforms and decorations.

The PreWatcher and Sample PreWatcher have been developed for purposes of preform quality control.

preforms/h possible with a space requirement for a comparable length of 4m instead of 16m.

The PreWatcher is designed for the bulk inspection of preforms in on- or off-line operation downstream of a preform machine. The Sample Pre-watcher is deployed more as a measuring and inspection system when only random samples for the quality control of preforms are required. Now, here at the K-Fair, the third generation of the "Prewatcher III" is being exhibited.

This increase in capacity makes it possible to follow the market trend which, in the beverages sector, is primarily levelling out at 72/96-cavity preform lines. Where lightweight 0.5l preforms are concerned, these are achieving a capacity of 50,000/72,000 preforms/h (depending on the final design of the preform). This means that the PreWatcher III is available with capacities from 50,000 up to 72,000 preforms/h.



Centrifugal conveyor PreWatcher III

According to Gerd Fuhrmann, the device represents a crucial step towards 100% monitoring of preforms during in- and off-line operation of a preform installation. The key difference from its predecessors lies in the orientation of the preforms. In the past a "roller sorter" (as it was called) was used for this task, but, with its extensive space requirement (up to a length of 16m with a capacity of 36,000 preforms per hour) it made the installation of PreWatcher systems in on-line operation with existing preform systems more difficult or even impossible. The solution is a centrifugal feeder which, with its compact construction, significantly reduces the space requirement. This not only makes installation directly behind a preform line easier but also makes a capacity improvement of up to 72,000

Sorting in this way also permits sharper images and an extension of the inspection criteria. Eight cameras measure and inspect the relevant geometric dimensions in the preform body and neck finish area. "They record damage, contamination, colour variations, injection moulding faults, everything documented by preform numbers with statistical evaluation and the faulty preforms sorted out at the end so that no defects are overlooked," says Gerd Fuhrmann.

The first line in a ten series is running soft drink preforms at Coca Cola in Halle an der Saale in Germany. The other nine PreWatcher III have already been sold to Europe and America and will be used predominantly in on-line operations.

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