

# Mix 'em all up

THE TREND FOR MIXED PRODUCT PACKS HAS REACHED THE FROZEN FOOD INDUSTRY ALREADY, BUT MANUAL PICKING AND PACKING IS EXPENSIVE

The **Paal Group** belongs to the leading suppliers of packaging and automation technology. With more than 230 employees at two sites, the group produces one of the most comprehensive product ranges in the packaging industry. This includes wrapping machines, robots for primary and secondary packaging of products, horizontal and vertical cartoners, pouch packaging systems, side and top loaders, case erectors, closing and lidding machines, paper wrapping machines, picking units, palletizers as well as special equipment. – [www.paal.com](http://www.paal.com)

**++ figure 1**

The flexible high speed servo mixing unit

**++ figure 2**

The continuous cartoner ELEMATIC® 1000 HC

**++ figure 3**

The inline and offline packaging unit ELEMATIC® 6000 F-4 Variety

**+** German Paal Group, Remshalden, has introduced a new concept for automatic mixing and packing of pizza slices. The packaging plants which have been introduced are designed either for packing traditional pizzas or for so-called pizza slices. The plant for pizza slices has been in operation since April 2005 in multiple shift operation and can process 400 slices per minute. Firstly the slices are individually wrapped by flow packers, then in a continuously operating cartoner the flow-packed pizza slices are packed in sets of six pieces each into pre-glued boxes. The cartoner is driven by advanced servo technology and controlled by a modern industrial computer. The actual mixing center is located downstream of the cartoner. Here the folding boxes from the on-line production are mixed with other products from the frozen storage (off-line) and packed. For that the off-line products are first removed fully automatically from the multi-packs and mixed with the on-line products in a freely selectable proportion. After that, the emptied multi-packs are refilled with the mixed products. Missing

multi-packs are automatically produced and made available by a case erector.

With his mixing center the pizza manufacturer can get together within a day or even faster requests from the trade for different combinations. This is possible without manual intervention but is fully automatic via an intuitive menu-driven control interface.

### Logistics mixing cell

Due to the large success of this concept, work for another mixing cell to be put into operation in 2006 is on its way. This is a further development. Round pizzas will be mixed fully automatically. For this, pallets with multi-packs are removed from the frozen pallet storage, automatically depalletized, unloaded, mixed, packed and palletized again. This new Paal plant is a large step towards fully automatic production of frozen products, either as mixed products or one product only on each pallet. The concepts are already being implemented to other industries and have aroused much interest. +++

