

equipment models for Cryovac-Darfresh skin packaging are also available in the novel design format; and in order to simplify the exchange of those frequently heavy and large forming plates and to minimize necessary changeover times, Multivac also offers an optional new form plate changeover system for fully automatic and program-controlled forming tool retooling.

### Technology for pros

With its home base in Bad Homburg, Germany, Helmut Boss produces a great number of vacuum packaging machines for professional use.

Turning to the meat products industry with its high-level packaging needs, packaging solutions are offered in cases where vacuum chamber machines with automatic product output are being used, with the company's single chamber machine type EK 1000 one example. Mounted on that model's smooth chamber floor is the transportation belt which, offering infinitely variable height adjustment, automatically removes the vacuum-packaged product from the machine. For instance moving it over into the shrink submerging tank ATT 77/3 D Super, where the packaging bag is being shrunk around the product. As the manufacturer also points out, the vacuum machine's transportation belt can be completely removed from the chamber, for instance when extremely tall products are up for packaging, or in case the machine itself is up for thorough cleaning. The automatic shrink submergence tank ATT 77/3 D Super also offers work-facilitating functions as a part of its standard equipment, including an integrated time switch clock for submergence tank preheating, an automatic water refilling function and/or a program storage system.

In addition to the electric standard version, a steam heating version is also being offered in cases where a steam production system is already in place. And to properly address specific customer requirements, the company's vacuum packaging machines as well as the

shrink submergence tanks can also be offered in special sizes or as especially customized models.

### Packaging in line

When it comes to packaging large quantities, automation can be used to accelerate the process. Automatic loading and unloading are contributing to higher efficiency as much as powerful pumping systems, a sophisticated vacuum technology and temperature-controlled sealing. And it is in particular when shrink bags are being used, that optimum fine-tuning of entire vacuum shrink lines, including shrink tanks and driers, turns out to be a highly important factor. For industrial production plants, Inauen of Herisau, Switzerland, has the new K7 model and the already established VC999 K8 in its range – both coming as ful-



This ground meat packaging line lives up to industrial processors' needs and requirements.

ly automatic units with a continuous flow belt. In the industrial process environment, high performance, process integration and reliability are ranking among the most important factors.

Inauen's big automatic tray sealing systems attain capacities of up to 6,000 trays per hour under a protective atmosphere, as the company points out in its product statement, adding that the automatic tray sealer type VC999 TS2500 does, for example, check in as an in-line machine.

Depending upon specific needs and requirements, packaging units made in the MAP process turn out as skin-type or simply sealed tray packs. The linear machine concept allows peripheral units such as stackers, metering systems, printers, codifiers, labelers, metal detectors or weighing scales to be integrated, as the manufacturer indicates in its product statement. VC999 automatic deep-draw packaging systems of the RS type are applied to practical use where large product quantities of similar shape and size are being packaged. The packaging itself is formed from flexible film or foil drawn from a reel, with that process taking place no sooner than in the machine itself, in order for packaging material and logistics costs to be reduced. As the company also points out, these machines enable processors to package large production quantities thanks to multiple-use tools and high cy-



The single-chamber machine type EK 1000 comes with a smooth chamber bottom and an infinitely variable transportation belt.

cling rates. Over and above that, the integration of such systems as automatic metering devices, fillers, labelers, printers, or printed films or foils, is thereby becoming a simple and efficient option.

### Packaging as desired

Coextruded hard and soft film or foil, laminated compound packaging film with high-value imprints, pre-fabricated trays and bags: Südpack of Ochsenhausen, Germany, has the complete spectrum of plastic packaging solutions in its overall range. According to its own information, the company places great value on the continued further development of multilayered soft film/foil packaging material which, in turn, continues to gain in general importance as a resource-saving alternative. It is in particular the thinner films with extremely high tear and pierce resistance, excellent transparency and high-level barrier properties that the manufacturer views as a specialty. Another Südpack focal point comes in the form of film or foil-type tray covers. These can, for instance, be provided with a special so-called drum effect intended to provide for a good view of the product inside. Over and above that, universal sealing media based on mono-APET and Alu sealing, or foils with integrated steam cooking function are also part of the range being offered. With its competency centers for flexographic as well as gravure printing, Südpack views itself as a competent partner for imparting products with a specific visual effect. Twelve gravure printing colors which, thanks to a front and reverse side turning cross, are printed with maximum repeat accuracy, and ten flexoprint colors as well as matte varnish and laminates with fleece and paper offer a wide enough field of action in order for the right product outfit to be found. Just which type of packaging is most suitable is a subject matter which customers and Südpack specialists are jointly working on in the company's own development center, in order for the best solution to be found.

### Fast and flexible

The new Sprinter model from Komet of Plochingen, Germany, is smaller and more compact than other deep-drawing systems offered in the marketplace. While that is so, customers purchasing this Sprinter model must not do without operating convenience, as the manufacturer states, but also pointing out that thanks to an overall length of only 2.6 m it fits into small rooms as well. But while small in size, this Sprinter's large material input area assures efficient operation, to quote from Komet's own product statement, where it is also indicated that vario-tooling allows the machine to be used for different products with great flexibility. Fast format changeover is also indicated to be possible, with film or foil changeover done "in a jiffy", in practically no time, that is. In the com-



**The new S 910 B model can be used to package products in a short time, efficiently and with a low personnel requirement.**

pany's own words, this Sprinter is about five times faster than a chamber machine, while also offering a new hydraulic lift system reducing compressed air consumption as another distinctive feature.

As Komet furthermore indicates, the new system not only allows a high press-on pressure, but also makes for maintenance-free input supply of the forming and sealing station as well as for a crosswise cutting option. The hydraulic oil used is as clear as water, without smell and neutral to taste, compatible with food-stuffs and, fully corresponding to FDA and USDA guidelines, without any risk to human health.

Also new from Komet is the automatic continuous-flow S 910 B continuous-flow chamber machine with conveyor belt. This particular vacuum packaging unit has been conceived for efficient packaging of large as well small products coming in great quantities. Transported on the integrated conveyor belt, products are automatically moved from the input to the output line; and products of up to 1,000 mm in size can be packaged in the machine's vacuum chamber, as the company states, adding that the mode of operation can be changed over from "automatic" to "manual" and vice versa. When operation is automatic, two welding jaws with 1,000 mm length each are available, while yet another 530 mm welding jaw can also be put into use, with that option allowing this model to be universally employed for all types of applications, as Komet emphasizes. In addition to the above, and again quoting from the manufacturer's own product statements, the belt speed can also be adjusted to meet both, the operator's and the given product's needs. For extra protection, the vacuum pump itself is accommodated in a stainless steel housing which, being part of the machine, is a subunit that is also easy to clean.

### Complete solutions with a system

With its "Lifecycle Performance" assurance, CFS of Bakel, the Netherlands, offers its customers newly developed packaging solutions, such as pasteurization