EuroTier 2008: Improving efficiency and precision

Within the poultry processing sector, efforts are continually aimed at increasing efficiency and improving working conditions. At the EuroTier Exhibition in Hannover, Germany, held 11-14 November, new features were on display, which were geared toward these issues. New and improved deboning systems were launched, new ideas about scalding were presented, and a machine for preparing a new snack - the "wingstick" - was introduced.

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Earlier in 2008, Linco introduced their third-generation 656 fully automatic breast deboning machine, and at EuroTier, the company demonstrated it to the public. With this machine, front halves (with or without wings) are introduced to the infeed conveyor and loaded onto the machine saddles by one or two workers. Putting these on the saddles takes less effort than in the past, because of an improved blocking system, thus making the job less complicated. Wings are first precisely cut into whole or disjointed form. The front half is automatically skinned and then measured prior to reaching the breast deboning tools. Measurements are used to adjust critical cutting tools that focus on the shoulder and wishbone areas. These initial cuts determine the effectiveness of the overall breast removal process. The final steps include a series of scraping tools once automated tender removal has been completed. Finally, the breast frame is discharged. The 656 offers a capacity of up to 65 front halves per minute with wings off, and up to 50 per minute with wings on. Through a new user interface, precise data on the birds can be obtained. This also enables handling birds with 300 g weight variation.

Better ergonomics

Stork Food Systems paid much attention to improving working conditions at loading breast caps, be it from a different perspective. For this reason, Stork developed the semi-automated breast cap loading module, which accurately

Based on very precise measuring, the Linco 656 fully automated deboner accurately adjusts for critical cutting of the shoulder and wishbone areas.

Stork developed an in-line "Wingstick" module. In this machine, the first wing joint is rolled up the bone and marinated onwards.

The new Stork semi-automatic loading module, places breast caps accurately onto a V-shaped holder.

Tenderloins remain attached to the carcass with the Meyn HQ breast deboner. Onwards the machine pulls off the tenderloins from the tendon.

Thanks to a new technique of water pressure, scalding takes only three minutes, rather then 3.45 minutes previously, thus causing considerable energy saving.

places breast caps onto the V-shaped product holder, thereby making work easier at the same time as increasing productivity. A worker puts breast caps manually into the loading system, which then places them centrally on the holder, onto which they are then passed automatically. The only thing workers need to ensure is that the carcasses are placed in the right position in the holder.
Accurate placing of the breast cap also means that less trimming is needed than when caps are loaded manually. Compared to manual loading, the loading module requires one less person. The module is equipped with an adjustable platform, which improves the ergonomics. Existing breast filleting lines can be equipped with this new module.

Chicken on a stick

Stork also developed a machine for obtaining "wingsticks" from chicken meat. These snacks are becoming popular, particularly in France. This wingstick machine is a module that can be installed in existing ACM-MX and ACM-NT cut-up lines. It harvests wings from the chicken carcass by means of a special cutter. The meat on the first wing joint is rolled up the bone, resulting in "meat on a stick". By placing a "ValueDrum" in the line, these wingsticks can also be marinated in the same cut-up line. It marinates in-line, ensuring that additives are distributed uniformly over the product. The ValueDrum is equipped with a number of segments that are linked together. The supply of the product to the machine is done in batches directly from the cut-up line.
A transfer system moves the batches from segment to segment during mixing, and a dosing unit (per segment) can add additives as required. Rotating elements provide the mixing action, which distributes additives uniformly. The result is the wingstick.

Less energy needed

New at Meyn is a jet steam scalder that uses water pressure rather than air pressure. On the bottom of the trough runs a water supply tube with nozzles. Through these nozzles, water comes out in an upstream motion, causing turbulence in the water. However, a cap in the upper part of the trough prevents the upstream movement from ending at the surface. Instead, a downstream motion occurs, "tearing" the birds automatically downwards in the scalding water when entering. The great advantage of this new system is the time saving of 45 seconds. Now, the birds will stay for only three minutes in the water, rather than 3.45 minutes previously. As a result, the scalding line can be shorter, and less water is needed. This means energy expenses will go down considerably. In addition, fewer parts are used, allowing for fast and effective cleaning.

Rapid HQ breast deboner

A new module on the Meyn Rapid HQ breast deboner allows processors to fully automatically produce high quality tendon-free tenderloins. With this new extension, Meyn responds to the growing demand for high quality chicken breast tenderloins in markets all over Europe and the Americas.
The automatic deboning sequence on the new module is adjusted in such a way that when the outer fillet is harvested, the tenderloins remain firmly attached to the carcass. The machine pulls off the tenderloins by the tendon that extends from the top. Finally, the tenderloin is cut loose from the tendon and discharged on a conveyor belt. The tendons are then collected in a separate bin. The result is tendon-free tenderloin without any attachments. The new module fully supports the characteristics of the Meyn Rapid HQ, such as a capacity of 6,000 products per hour and a large weight range of products to be processed within one setting. PPM