

Pork deboning and trimming line at Finnish meat processor OY Snellman AB

## High Quality Pork Processing Line

*Snellman has become one of the better known convenience food producers of Finland. The company's major markets extend beyond Finland to Sweden, Russia and Japan. The company operates a joint project with farmers, the Best Farmhouses Project to ensure only the best quality meat from suppliers. Snellman's beef and pork processing is located in Pietarsaari – Jakobstad.*

Demands for increased performance, enhanced processing and better production led to renovation in deboning and grading at the Jakobstad facility. The deboning room underwent a complete transformation with the installation of a full Marel Pork Deboning Line that covers the entire process from deboning to packing.

### High Quality System



Staffan Snellman,  
Director of Meat Production

The Marel Pork Deboning Line at Snellman consists of a primary cut up station with in-weighing, deboning and trimming flowline, and weighing and grading units. Production control software provides tracking and quality inspection and delivers a complete overview over the entire production with detailed reports on yield, throughput, quality, and performance.

"The new Marel line is a good, sophisticated system," says Staffan Snellman, Director of Meat Production at Jakobstad. "The pork line started up well and it is doing better and better all the time. The design of the workspaces and the deboning line is very good and I am satisfied with the performance."

The line helps reduce salvage and improve the utilization of higher-priced item. In addition, the line offers better ergonomic configurations with great quality control while giving management the tools to manage the operation better.

### Individual monitoring

Up and running in June 2006, the new pork processing line at Snellman covers everything from primal cut up to final trimming of portions on to packing. The pork deboning and trimming line provides information on individual trimmer performance and information on each piece that goes through. The line's production monitoring software provides all the information needed to completely manage the process and gives feedback on how it can be adjusted for maximum performance.

### Increased throughput with better work conditions

With 36 workstations, the Snellman pork deboning line has increased throughput and performance. The system has delivered the rationalization Snellman needed as deboning volume has gone up 10% with the installation, delivering more per trimmer per day than the previous process.

Each operator has his own workspace equipped with an ergonomically designed worktable and bins for products and trimmings. Each part is weighed and scanned into the system and the deboners receive information on each incoming piece on their station terminal. Meat is automatically brought to the deboners and taken away, eliminating the heavy lifting and changing strenuous physical aspect of the job.





# Pork deboning and trimming with grading and

## 1: Primary breakup - Saw station

The Saw station has a label scanner and a Marel scale, used to scan the carcass into the station and weigh all primary parts going out. Each operator is individually monitored for primary breakup yield.



## 2: Trimming Stations

The pork deboning line has individual operator workstations for deboning and trimming animal carcasses. Each ergonomically designed station has a worktable and bins for products and trimmings. Each operator is individually monitored allowing the implementation of personal achievement systems. The deboning is controlled by the MPS Production Control Software.

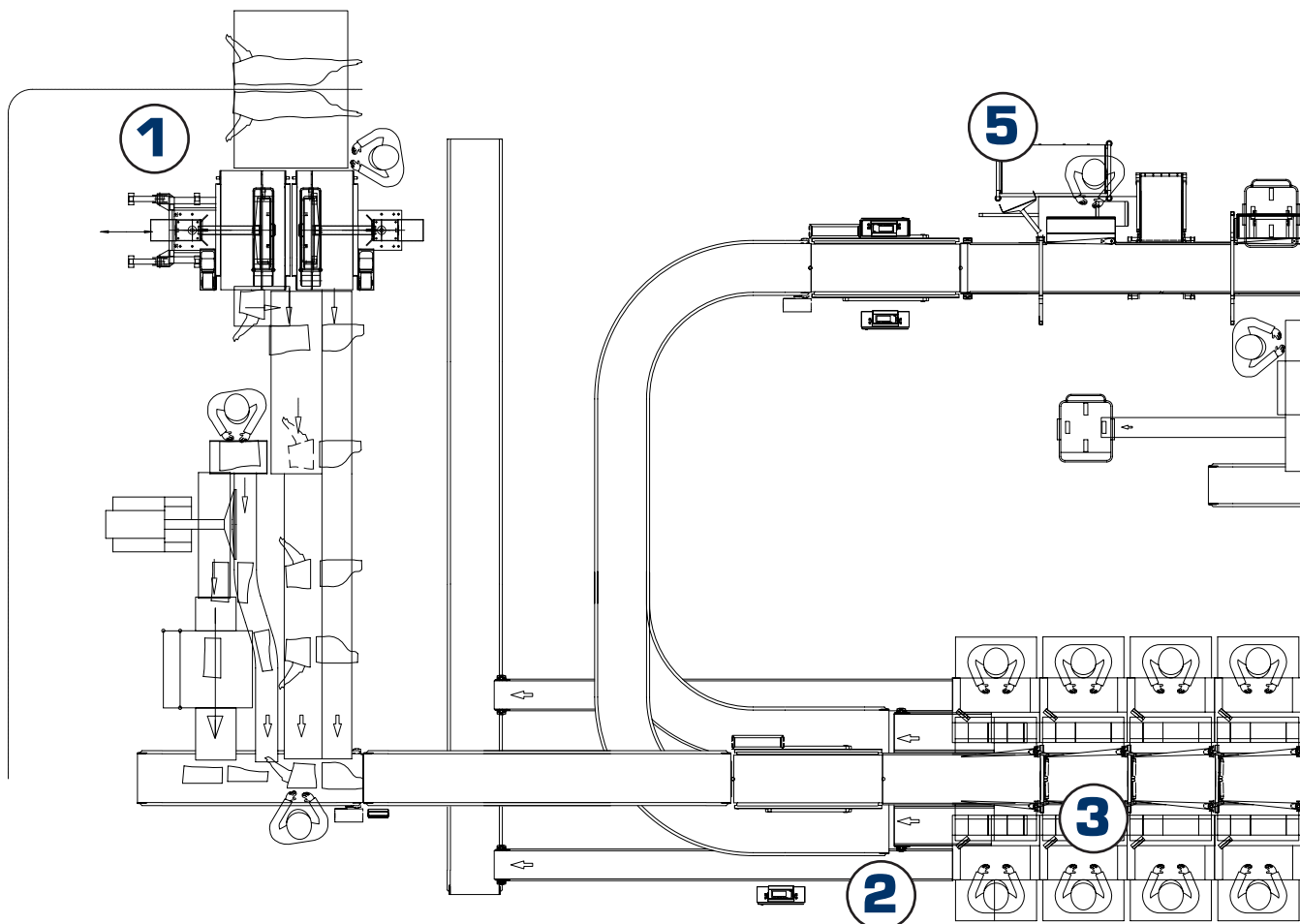


## 3: Buffers

Each deboner logs onto the line on their Instruction terminal on their workstation. The instruction terminal shows what products are to be fabricated from the incoming piece and guides the operator through the process, incoming weight, and weight after deboning are registered for comparison.

## 4: Instruction Terminals

Operators use a simple terminal which guides them through the deboning and packing process. When an operator has completed slicing and trimming a product piece, they push a button to indicate to the system that the piece is ready. The system then transports the piece automatically to the designated grading or packing area.



# combo packing

## 5: QC Station

The QC station for individual quality inspection is equipped with a touch screen terminal. Full traceability is kept through the station. The QC software automatically takes samples from each trimmer and defects are entered into the system. The system will automatically increase inspection of trimmers performing poorly. The station can inspect all pieces from trainees.



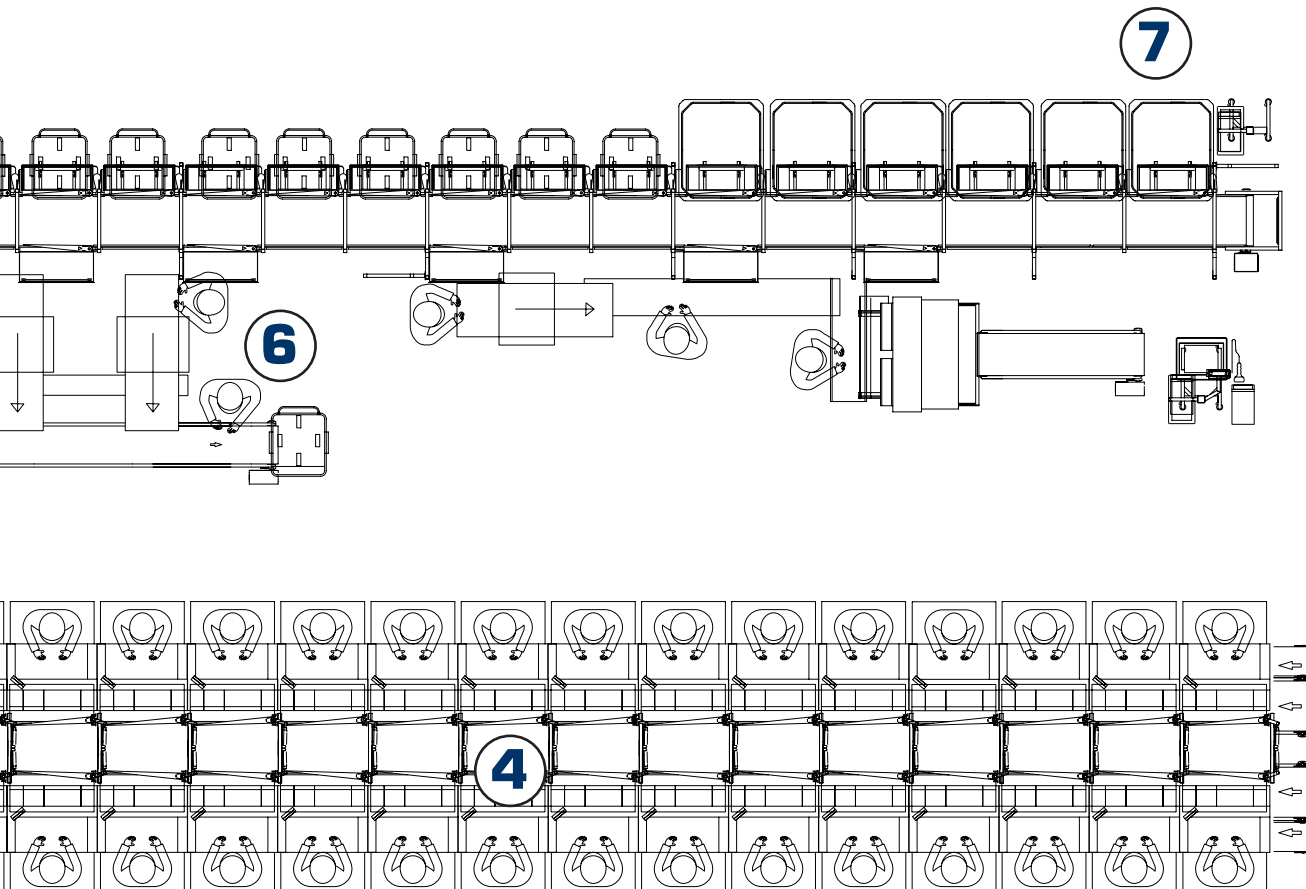
## 6: Skinners

The packing grader has bins for each product being packed into bags and product that goes on to skinning machines. The yield loss at the skinners can be measured with the production control system. This makes it possible to adjust the skinners for maximum yield.



## 7: Combo packing

The packing grader has VEMAG bins for combo packing into tubs and boxes. Trim can be graded directly into VEMAG for further processing.





### Instruction terminals for a better process

Each deboner logs onto the line on their instruction terminal on their workstation. The instruction terminal shows what products are to be fabricated from the incoming piece and guides the operator through the process. Incoming weight, and weight after deboning are registered for comparison. After deboning, the operator delivers the products to different products chutes on the line that carries them into grading or designated packing stations. The system provides a fully automatic grading process, from input to delivery where product is graded into combo bins for different destinations.

### Real-time production tracking

The Marel Pork Processing Line offers real-time production tracking using the MPS software. This technology allows total control over production, quality and yield with real-time data feedback of entire processing operations. The system weighs the incoming raw material and registers information on the selected aspects of processing throughout the operation. Plant managers also have a real-time overview of each worker and separate processes.

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### Deboning software

MPS Deboning is the operating software for the Marel Meat Deboning system. MPS Deboning is a control and data capture system for beef and pork plants. It provides a flowline system that allows full traceability from animal to packed product and back without the use of trays. Configurable cutting patterns and reports make the system easy to customize for individual applications.

