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In this issue of Insight Meat Processing we invite you to discover the future – your processing future.

The new DeboFlex – a flexible shackle-based logistical solution for the deboning of pork fore-ends – is one of the innovations we bring you. The DeboFlex has the WOW factor and brings the deboning process to a new dimension.

In the following pages you can also read about our new Trim Management and Incoming Meat Inspection systems, our new ProTEN Meat Harvester and as well as Innova production control software solutions, the StreamLine deboning and trimming line, portioning and sawing equipment and much more.

Marel has worked with progressive and innovative meat processors for more than 30 years and our customers’ focus is our focus. This is why our meat specialists are constantly in contact with customers, putting their expertise, knowledge and experience at their customers’ service. Insight Meat Processing touches upon critical processing topics including food safety, yield and automation also:

Food safety. This is a major priority for processors and retailers alike and goes hand in hand with traceability. Our Innova Software Solutions play a big part in the securing of a close and detailed overview of production and the monitoring of processing data.

Yield. Approximately 60–65% of the total production cost is associated with raw materials. Consequently, red meat processors need to be in complete control of their process and maximize their overall yields wherever possible, especially on their highest value products.

Automation. In the increasingly competitive meat industry, fresh food processors must be able to keep pace with the ever-increasing demands of supermarkets, the food service industry and consumers – and so require new technologies and equipment for increasing throughput, optimizing yield and reducing labor costs.

Enjoy reading!

David Wilson
Managing Director
Industry Center Meat
Marel's Incoming Meat Inspection system calculates the precise chemical lean ratio (CL) of beef or pork trim. It also detects the presence of bones and other hazardous contaminants in the product (bone, metal, stone and glass ≥ 5mm).

By means of x-ray (SensorX) the Marel Incoming Meat Inspection system analyses incoming trim for CL. This enables processors to increase profits by adding fat when CL in incoming product is too high or reduce costs with claims or returns when CL is too low.

Additionally, the Marel Incoming Meat Inspection system provides information about the performance of individual suppliers, so processors can give real feedback and set benchmarks for their suppliers.

This gives processors the ability to manage their trim; optimize profits and provide a more consistent final product.

Innova software collects information about incoming and outgoing product and creates status reports for management purpose.

**Performance:**
Approximately 7.5 tons/hour.
Fat percentage accuracy +/- 1% point from the CL level.

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The Marel Trim Management System is designed for deboning facilities selling meat trim based on a specific VL/CL.

It gives processors the ability to manage their trim; optimize profits and provide a more consistent final product.

Knowing CL value is a great tool, but controlling what comes out of the process will give processors even more added value such as minimizing lean giveaway and avoiding fat claims.

By means of x-ray (SensorX) the system calculates the precise chemical lean ratio (CL) of beef or pork trim and enables processors to hit target fat percentage; when making different batches of precise CL (e.g. 50/50 or 75/25).

The Marel Trim Management System also detects the presence of bones and other hazardous contaminants in the product (bones, metal, stone and glass ≥ 5 mm).

**Performance:**
Product throughput of approximately 4.5 tons/hour to 6.0 tons/hour depending on final batch size. For a 25 kg/55 lbs to 100 kg/220 lbs batch the measurement accuracy will be +/- 2% points from the target CL level. For a 100 kg/220 lbs to 1000 kg/2200 lbs batch the measurement accuracy will be +/- 1% point from the target CL level.
A yield improvement of 1.3% and productivity increase of 20% is reality at Krasno, the largest pork processor in Czech Republic after having installed a StreamLine deboning and trimming system in one of their production facilities.

Reaching goals
Purchasing Director, Tomas Lesa continues, "We bought the StreamLine system to better control and measure yield, get a transparent evaluation of the operators and of course increase productivity. We have reached all of that plus more." In addition to the mentioned measurables, Krasno has also experienced positive side effects, including a very successful connection to their warehouse system, faster run-through time of raw material, new ways of thinking of the operators as well as quality evaluation of supplies.

Krasno buys primal bone-in pork shoulders and legs from a number of EU suppliers. These primal bones are deboned and trimmed to specification at the StreamLine and mostly sent to further processing.

“The StreamLine enables us to make proper use of the products as well as order of work sequences of the operators," explains Tomas Lesa. “Each operator performance is closely monitored in the system, and based on a bonus salary system, he or she can increase the monthly wage depending on work performance.”

Operators at the 16 station StreamLine have specialized tasks – e.g. one group of people are deboning the legs entering the line, these deboned products are sent further down the line for trimming operations according to specification – and subsequently

“Seeing the positive results of the line, we should have made it bigger from the start” says Mr Pilcik, Director and owner of Krasno – about the StreamLine system which was installed in 2011.
Random quality control is performed to monitor, individual operator performance.

Mr. Pilcik, Director and owner of Krasno. A yield improvement of 1.3% and productivity increase of 20% is reality at Krasno after having installed StreamLine.

“We bought the StreamLine system to better control and measure yield, get a transparent evaluation of the operators and of course increase productivity. We have reached all of that plus more”.

Purchasing Director

the finished products are sent to packing and storage.

The trim from the line is automatically conveyed to a trim grading system. All large primals going into the line – and all finished products, trim and bone material are fully traceable in the system via Innova, the system software.

**Innova is the heart of the system**

Marel’s Innova production control software plays a big role in the success of the line at Krasno. Mr Pilcik elaborates “We are now using Innova in more detailed ways as more details are uncovered within the system and within our production. When we bought the system we underestimated our need for Innova knowledge. I would estimate that 75% of the value is in the Innova software and 25% is line itself”. With the system comes a whole new way of thinking – compared to traditional ways of deboning. It is not easy for people (operators and management) to change their way of thinking – but we have seen the results of focusing on fully understanding the system.

**Krasno company profile:**

Krasno was established in the 1950s as a freezing store – but soon ventured into production. Until 1993 Krasno was a national enterprise, but in 1993 it was bought by Mr Pilcik and transferred from being a butcher type production into a modern production plant. When entering the EU in 2003 the management at Krasno also decided that they were going to change their production to fresh meat only and buy primal bone-in elements for deboning and trimming. This has meant that they get large supplies from the EU market. Currently Krasno produce 105 tons of final products (ham, salamis, sausages, smoked meat, bacon and meat cut specialties) in two facilities in Czech Republic.
The Deboflex is a new flexible shackle-based pork fore-end deboning solution from Marel. This groundbreaking logistical solution makes deboning and cutting pork fore-ends so much easier and efficient; bringing production management to a new level. Present pork deboning technology is primarily based on pace line flow systems where products are transported and processed on a belt in a random and sometimes chaotic flow. With Deboflex, that flow is made simple and orderly, which results in higher capacity, increased yield and improved logistics and ergonomics.

Higher capacity
A large proportion of the time spent on deboning in a pace line is currently spent on turning and moving products around. Using Deboflex reduces this handling time – by making the process smoother and more efficient – which increases actual cutting time and thus capacity.

Increased yield
The Deboflex simplifies operations such as hanging, neck removal, deboning, skinning, defatting and eis-bein (shank) cutting. These new, optimized cutting patterns contribute to improving yield because operators are able to focus on their primary task of cutting, and don’t have to perform multiple operations on the same fore-end.

Improved logistics
With the DeboFlex system, the flow of products is more streamlined. The products move in a shackle line from one process step to the next. This results in greater line efficiency, less manual handling and more effective, specialized operator tasks.

Faster processing time
With improved logistics, processing time is automatically reduced. The resulting major benefits include less work in process, less manual handling and improved shelf life.

Optimized work environment
The DeboFlex system is very flexible in design and factory layout. This results in an improved work environment, less stress and fewer work-related strain injuries. The system is both ergonomic and hygienic.

Ergonomic
- Height of work stations can be adjusted according to operator requirements and preferences
The first customer to install the DeboFlex system was Compaxo Meat Ltd in Zevenaar, Holland. At the Compaxo pig slaughter-house, craftsmanship goes hand in hand with the latest technologies and sciences – and the new DeboFlex fits well within that philosophy.

Menno van der Post, Production Manager at Compaxo in Zevenaar, immediately adapted to the new way of working. “We are very happy with the DeboFlex. The flexibility and easy logistics of the system are simply impressive.” The DeboFlex offers many benefits for Compaxo, as Menno explains, “We constantly see new benefits. The efficiency in the production hall has risen, the transport of products has become simpler, the cutting process has become easier and the bacterial counts have dropped. And all this within just a couple of months after installation.”

#### Hygienic
- Limited number of contact points and low risk of contamination
- Decreased in bacteria count
- Less waiting time, e.g. fewer products kept waiting in large tubs
- Products pass rapidly through deboning, without delays

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**COMPAexo MEAT**

The ProTEN is the latest addition to Marel’s range of linear press meat harvesters. It offers harvesting capacity up to 10,500 pounds of pork, beef or lamb bones input per hour – with an extra yield of 5-10% compared to existing systems.

The ProTEN is capable of producing either finely structured meat to be used in cooked products like frankfurter sausages or coarsely structured meat for fresh products like hamburgers and meat balls.

### The ProTEN accepts pork, beef and lamb bones, both primal and deboned parts, such as:

<table>
<thead>
<tr>
<th>PORK</th>
<th>BEEF</th>
<th>LAMB</th>
</tr>
</thead>
<tbody>
<tr>
<td>neck bones</td>
<td>neck bones</td>
<td>neck bones</td>
</tr>
<tr>
<td>loin bones</td>
<td>loin &amp; chunk bones</td>
<td>loin bones</td>
</tr>
<tr>
<td>breast bones</td>
<td>brisket (breast bones)</td>
<td>breast bones</td>
</tr>
<tr>
<td>fresh ribs</td>
<td>rib bones</td>
<td>aitch bones</td>
</tr>
<tr>
<td>aitch bones</td>
<td></td>
<td>rib bones</td>
</tr>
<tr>
<td>blade bones</td>
<td></td>
<td></td>
</tr>
<tr>
<td>picnic bones</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### ProTEN’s flexibility and adaptability allows you to produce the perfect raw material for different qualities and quantities of end products. A number of possibilities:

<table>
<thead>
<tr>
<th>High quality</th>
<th>High capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>hamburgers</td>
<td>hot dogs, frankfurters</td>
</tr>
<tr>
<td>corned beef</td>
<td>mortadella, bologna sausage</td>
</tr>
<tr>
<td>sausage rolls</td>
<td>luncheon meat</td>
</tr>
<tr>
<td>salami, fresh sausages</td>
<td></td>
</tr>
</tbody>
</table>

Input - output 3 mm beef
First Quality, Quality First!

As the first customer in the Netherlands to implement a DMM Meat Harvesting system, Wijnen Meat has a long-standing relationship with Marel. With its focus on quality, Wijnen has high demands to be met. But according to owner Jacky Wijnen, Marel is up to the task.

One of the ways Wijnen stays on top of the volatile, highly regulated and demanding pork market is through innovation. Jacky Wijnen gives an example: “We were the first company in the Netherlands to be rewarded the EKS+ certificate, meaning we can export meat without having to consult a veterinary”. Another first was the Marel DMM50 Meat Harvesting System. Wijnen accounts, “We had it installed about fifteen years ago, being the first company in the Netherlands to do so.

Recovering meat
“We use the DMM to recover meat from the leftovers of our deboning process in the hall next door. Main inputs are rib bones and neck bones. We produce about 17 metric tons of desinewed 3 mm minced meat per week”, Wijnen explains.

“We strongly focus on quality not quantity. Our slogan sums it up nicely: first quality, quality first and we have a dedicated network of customers we know through and through”. Wijnen explains, “There’s just so much low quality filler on the market. We wanted to add value to our byproducts, but we needed a different approach. The DMM helps us to do so. The quality it delivers is high, it’s something we’re proud to sell to our clients. Even the ‘big guys’ in meat processing are happy to use our desinewed meat directly in their sausages!” he adds.

Durable system
Another benefit of using low pressure hydraulics is its durability. “We had already been using this machine for more than twelve years before we finally decided to have it overhauled”, Wijnen says. “But then again we take good care of our equipment.

“The quality the meat harvester delivers is high and it’s something we’re proud to sell to our clients.”

Jacky Wijnen, owner and director of Wijnen Meat

Wijnen Meat was founded in 1978 by Wijnen Sr., father of the current owner and director, Jacky Wijnen. Situated in Oss, the Netherlands, Wijnen weekly produces over 550 metric tons of top quality pork, mainly for the UK and Far East markets, next to desinewed meat for European producers.
Birtwistles goes automatic

Continuing increases in demand, along with the obvious need to remain competitive, led Birtwistles Catering Butchers, to make the decision in 2012 to switch from cutting by hand to automatic portioning.

The search for a portion cutter led Operations Director, Glenn Eastwood to to Marel's I-Cut 36.

Extensive trials took place prior to purchase, and soon revealed the machine's ability to operate with minimal supervision and at a rate that greatly increased production output.

"Before the I-Cut arrived on the scene we had seven employees cutting the meat by hand, but now just two operate the machine. And not only has the installation of the machine meant a release of manpower to be used elsewhere, we have also been able to increase the volume of processed products", Glenn Eastwood explains.

**Easy order handling**

“The machine’s flexibility makes it perfect for our operation. Our orders can quickly change and the I-Cut makes it easy for us to quickly modify production plans. Furthermore the I-Cut is capable of cutting not just beef steaks, but most of our products like pork belly, pork neck or gammon", Glenn Eastwood continues.

He also points out, “This is not just a “steak machine” and you don’t need a large pub contract to have the volume to run with this portion cutter”.

"Operating the portion cutter is not something that requires weeks and weeks of training."

Glenn Eastwood, Operations Director

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Birtwistles Catering Butchers, a fourth generation family business that was purchased in early 2012 by Steve Woollands, are based in Irlam, near Manchester, and have recently opened in Milton Keynes. Birtwistles Catering Butchers employ 165 people. The company operates 24 hours a day, 7 days a week processing meat for some of England’s finest restaurants, football stadiums, ready meal producers, hotel groups and contract caterers, to name but a few.
Beef production goes Hi-Tech

Large food-processing companies know just how important efficient production and inventory control systems are to their business. Wet food processing in particular presents many unique challenges, so today’s top companies in this sector recognize how vital it is to have powerful management software at the heart of their operations.

It is for this reason that Sparta, one of South Africa’s leading suppliers of quality beef and beef products, chose to install advanced production management software at its abattoir and processing plant in the Free State province. Sparta opted for the proven and scalable Innova Software Solution from Marel.

“We chose Innova because of its many unique features, and also because it could be scaled to meet our specific requirements,” says Sean Goodison of Sparta. “Our previous software was outdated, offered no centralized management control, had poor traceability features, and often led to problems with inventory control.”

Significant benefits
Goodison, who had previously worked with Marel, knew that the Innova solution would bring significant benefits to Sparta’s business. Innova is being installed in three phases, with the first two phases - in the company’s two bulk-processing divisions - already operational. The third phase, will introduce vastly improved traceability and inventory control in the value-added pre-packaging side of the business.

“Innova is a production management software suite designed to monitor and control the entire value chain,” says Rodney Macer-Wright, General Manager of Marel South Africa. “This software solution offers complete control, from the receipt of each animal through processing, packaging and dispatching.”

Full traceability
He added that food-processing companies need to trace batches...
With food safety a greater concern than ever before, an effective traceability system is critical for today’s meat processors. The Innova Streamline solution enables full traceability of primal product to animal, breeder, production lot and purchase order. It’s the ideal traceability risk-management tool, allowing meat processors to quickly and easily withdraw or recall products that have been identified as unsafe or incorrectly labeled.

Innova provides a solid foundation for reliable data collection and enables meat processors to keep track of stock and product movements throughout the whole processing chain. The system enables processors to monitor their key performance indicators (KPIs) such as yield, throughput, quality, capacity and labor efficiency, in real production time, as well as ensure conformity to quality and food safety standards.

Innova Software Solutions support a broad range of Marel’s meat processing equipment and can also communicate with other systems, such as ERP or other planning systems. Innova’s toolbox ranges from single device control solutions to total processing solutions adapted to the individual needs of meat processors. Based on modular designs, the solutions are scalable, thereby providing maximum flexibility for processors, ranging from small operations to large, plant-wide systems.

Innova solutions specifically developed to meet the challenges today’s meat processing plants face include Kill Line, Streamline, Boning Hall, Trim Management System and Incoming Meat Inspection.

Throughout the production process, this not only optimizes efficiency, cost-effectiveness and client satisfaction, but also helps ensure public safety. “In the case of a product recall, Innova has the capability to provide full traceability information, enabling a company to react quickly to minimize potential damage.”

Innova’s production management software is online and offers real-time information, which gives managers complete control over the entire production process. “Each animal is registered, weighed and allocated a unique batch number when it arrives from the feedlot, which facilitates a cost/benefit analysis of the feedlot operation. From there they are tracked through the abattoir and processing facility.

The unique bar-coding system enables the processor to trace carcasses and boxed products throughout production and dispatch and receive reports in real time on all aspects of processing, including inventory and stock movements,” says Rodney Macer-Wright.

Lost items and shrinkage trends can be carefully monitored in real time, and orders for large retailers can be made up on a per-store basis. This facilitates the quick dispatch of accurate orders from a central distribution centre. Downtime for inventory checking has also been reduced by 66%: from a period of three days to just one day.

The bottom line
What it boils down to is that if you can’t measure it, you can’t control it. “Marel’s strong focus on both innovative technologies and service provides fully integrated software solutions for every stage of the production process, scalable according to need,” says Macer-Wright.
ValueSpray at Tillman’s: Maximum precision & flexibility

When asked about the first thing that comes to mind when thinking of the ValueSpray, Plant Manager Patrick Borkowski and Production Manager David de Camp of Tillman’s don’t have to think twice. “Precision!”

Tillman’s is the ‘convenience brand’ of Tönnies, one of the largest meat processors in Germany. Since early 2012, Tillman’s has been using two ValueSprays on a number of different lines within their Seasons department.

Season production
“In the seasons department we produce all sorts of typical season products like marinated grill steaks, mostly for winter holidays and the barbecue season”, Borkowski explains. “Batches are relatively small and there is a lot of variation in the products. Therefore this part of the plant obviously needs to be very flexible and adaptable”.

Flexible
This is were the ValueSpray comes in. “With its small footprint, it’s very easy to exchange”, De Camp adds. “We can take it out of production in no time, which makes the change over of recipes easy. It’s just a matter of taking it out, cleaning, changing recipes and marinade and putting it back in. Then we do a couple of test runs to get the settings exactly right, and we’re off!”

Exact settings
The right settings are crucial to both the production process and the product itself. “The ValueSpray runs much cleaner than conventional marinating systems. Those can make a real mess”, De Camp explains.

Less give-away
But there’s another major advantage to the ValueSpray’s precision. “The dosing on the products is much better than with e.g. dippers. Result is better marinade coverage of products, but also less give-away. Not just of marinade but also, and more importantly, of meat”, Borkowski elaborates. “You see, because the ValueSpray is so precise, we can set the dosing values within very strict limits. Meaning that if the weight ratio of meat and marinade should be e.g. 90 – 10 %, the ValueSpray will add almost exactly 10%. With dippers it could be 15%, or only 5%, there’s a lot of variety”.

Manual or inline
“Right now we’re using the ValueSpray as a standalone system for marinating pan fried backs”, De Camp continues. “We have set it up next to a Scanvaegt B55 (now called I-Cut 55), which is a manual system. Also, right behind the ValueSpray packaging is done by hand at the moment.”

TILLMAN’S CONVENIENCE GMBH

Tillman’s is located at the main Tönnies facility in Rheda, Germany. The location is like a small city in its own, with a restaurant, shop and even its own football stadium. Of Tönnies 8,500 employees, 1,700 work at Tillman’s, producing a range of convenience meat products. With a yearly production of 200,000 tons and a turnover of 1 bn, Tillman’s is a major European supplier.
The two ValueSprays at Tillman’s are among the first that were built by Marel. This is a clear example of the partnership between Tönnies and Marel, Borkowski says. “Marel in Germany contacted us at a very early stage about the ValueSpray being developed. When they showed it to us, we were very interested in the concept. So when the first machines were ready to be put to the test in a real production environment, Marel installed two 0-series machines here. We’ve been using them ever since.”

State of the art
There is more Marel equipment on Tönnies’ production floors. “Oh yes, we have a lot of Marel here, there’s Marel packing units, freezers, Opticuts, there’s our Scanvaegt and Townsend machinery. And not to forget the other Marel marinating system, the ValueDrum. We use that one in a continuous, inline process for marinating gyros,” Borkowski adds.

Patented Spiral and Continuous Conditioner system

The new Conditioning system brings frozen products from fully frozen temperature into a stage, where the products are nearly defrosted but still frozen (equalized temperature of minus 2 to minus 4 deg C). By doing that, we can form/press the product into desired shapes for slicing or portion cutting which dramatically improves yield. The new technology offers very significant improvements over conventional thawing systems such as microwave thawing and water thawing:

• Provides up to 5% better yield
• Shows much less bacteria growth
• Requires significantly less power consumption
• Is able to bring products back to fully frozen again, without any quality disintegration.

Standard machines sizes range from 6 to 12 to 24 loins/minute. However, tailor made sizes to accommodate MUCH larger capacity requirements are also available.
Marel’s automatic SpeedBatcher is an excellent solution for processors, who wish to efficiently batch meat by-products.

Over the last few years, the market for meat by-products, such as pig feet, hearts, tails, etc., has changed significantly. The former "low value" products have turned into "high value" largely because of a growing Asian market.

Understandingly, there has not been much focus on batching by-products in the past. Therefore, this process currently requires quite a lot of manpower and space. However, the recent market changes have resulted in many processors looking at optimizing the batching process of by-products and minimizing giveaway.

The SpeedBatcher system can handle up to 12 portions per minute with very high accuracy – and this applies to a wide range of products.

A takeaway conveyor or operator that styles the products in boxes after the SpeedBatcher might slow down the SpeedBatcher capacity.

### SpeedBatcher 3000 Large model: Operational Window for by-products (pigs)

<table>
<thead>
<tr>
<th>Product</th>
<th>Target weight</th>
<th>Weight tolerance</th>
<th>Capacity theoretical</th>
<th>Giveaway</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ear (w/o ear canals)</td>
<td>120 - 160 mm</td>
<td>100 – 140 g</td>
<td>14.960 – 15.040 g</td>
<td>&lt; 0.55%*</td>
</tr>
<tr>
<td>Front leg</td>
<td>200 - 240 mm</td>
<td>400 – 520 g</td>
<td>14.900 – 15.500 g</td>
<td>&lt; 0.55%*</td>
</tr>
<tr>
<td>Hind leg</td>
<td>200 - 260 mm</td>
<td>580 – 760 g</td>
<td>11.900 – 12.500 g</td>
<td>&lt; 0.65%*</td>
</tr>
<tr>
<td>Tail gr. 1 (w/o back bone)</td>
<td>70 - 200 mm</td>
<td>100 – 120 g</td>
<td>9.960 – 10.040 g</td>
<td>&lt; 0.5 %*</td>
</tr>
<tr>
<td>Tail gr. 2 (w/o back bone)</td>
<td>70 - 200 mm</td>
<td>100 – 120 g</td>
<td>14.960 – 15.040 g</td>
<td>&lt; 0.55%*</td>
</tr>
<tr>
<td>Tail gr. 3 (w/o back bone)</td>
<td>70 - 200 mm</td>
<td>100 – 120 g</td>
<td>19.960 – 20.040 g</td>
<td>&lt; 0.65%*</td>
</tr>
<tr>
<td>Tail gr. 4 (w/o back bone)</td>
<td>70 - 200 mm</td>
<td>100 – 120 g</td>
<td>25.960 – 25.040 g</td>
<td>&lt; 0.65%*</td>
</tr>
<tr>
<td>Tongue (w/o root meat)</td>
<td>10.000 g</td>
<td>27.120 – 27.280 g</td>
<td>9 – 11 portions per minute</td>
<td>&lt; 0.75 %*</td>
</tr>
<tr>
<td>Kidney</td>
<td>6.350 g</td>
<td>6.300 – 6.400 g</td>
<td>10 – 12 portions per minute</td>
<td>&lt; 0.75 %*</td>
</tr>
<tr>
<td>Pigs heart</td>
<td>10.000 g</td>
<td>9.940 – 10.060 g</td>
<td>10 – 12 portions per minute</td>
<td>&lt; 0.80 %*</td>
</tr>
<tr>
<td>Liver</td>
<td>27.200 g</td>
<td>27.120 – 27.280 g</td>
<td>8 – 10 portions per minute</td>
<td>&lt; 0.9 %*</td>
</tr>
</tbody>
</table>

*Accurate batching of high-value by-products*

* measured over 100 consecutive weighings
12,000 steak meals a day

-Steak Expert Holdings, Hong Kong

Is it really possible to produce, prepare and serve 12,000 steak meals every day? “Yes, of course it is,” says Andrew Lee, founder and Managing Director of Steak Expert. His 23 highly regarded restaurants serve about 12,000 steak meals every day, a remarkable figure achieved through dedication to consistent quality and high standards.

As well as running and supplying the Steak Expert chain, Andrew’s company, Steak Expert Holdings, imports quality frozen beef and pork which is cut, portioned and processed then sold to other restaurants and fast food chains in Hong Kong. The cutting and portioning of steaks, beef and pork loin is done by an APC Saw that cuts high volumes (usually about 5 tonnes per day) of fixed thickness portions and 5 Marel AEW Delford 400 bandsaws that are in use all day, every day.

15 years of reliable sawing
Andrew is extremely pleased with the bandsaws that he bought some 15 years ago. “The engineering and build quality is of the highest standard,” he says.

Smooth, fast and precise operation greatly reduces operator fatigue, therefore making a huge contribution to safety and of course, productivity. “Our operators work more safely because they don’t have to push the product hard through the saw and we have an excellent safety record,” says Andrew.

The bandsaw 400 runs at significantly higher speeds than conventional saws, and, thanks to the unique blade guidance system, thinner blades can be used to produce cleaner cuts with minimal sawdust and no bone chips or splinters.

More bandsaws
There are 4 models in the Marel range of manual bandsaws, catering for a variety of applications from butchers shops, supermarkets, high volume retailers and processors to fast, high output, precision primal cutting.

Andrew Lee, founder and Managing Director of Steak Expert Holdings
The perfect package
- StreamLine, easily configured deboning and trimming

No matter what size and type of meat processing facility you run – our compact, innovative deboning and trimming line can be tailored to your production needs.

 Capacities start around 10 head of beef and 20 head of pork per hour. For PAD production capacity would start at around 500 kg per hour. The modular StreamLine enables you to monitor and collect data on yield, throughput and quality throughout the entire processing cycle thus maximising efficiency and profitability. Experience has shown that the payback time can be as little as 12 months.

The flexibility of the line gives you the ability to accurately select cuts into the highest price products and thereby maximise yields. The system is highly flexible and is ergonomically designed resulting in less strain on operators. Modules such as skinning, sawing, meat harvesting, trim management and fat analysis can be integrated into the StreamLine system set up.

Key features
- Online monitoring and control
- Tracking of products from intake to dispatch
- Increased yield, throughput and quality
- Optimum product flow
- Seamless integration of key equipment
- Simple ergonomic design

Global meat industry

- At Marel, our aim is to stay at the forefront in providing innovative technologies for the beef and pork processing industry.

- We have the expertise and extended sales and service organisation to deliver advanced equipment and systems to our customers, creating maximum process performance and value.

For more information please see www.marel.com/meat