

Eliminate bone. Not profit.

SensorX Magna



- Superior bone detection
- Unique reject mechanism
- Highly accurate fat to lean measurements
- Brand protection

A unique trim inspection system

SensorX Magna is a compact, high-capacity, inline trim inspection system that keeps your trim bone-free and fat to lean ratio on target.

Unlike any other system on the market, SensorX Magna automatically rejects bone before the grinding process starts, with an unprecedented low amount of raw material, ensuring yield isn't compromised. It also monitors and enables control of the fat to lean ratio right from the start, streamlining the meat preparation process.

Eliminate bone before grinding starts

SensorX Magna's strategic position in the line allows you to make improvements to the grinding and mixing process that simply have not been possible before. It is located where it has the most impact, at the start of the process where it detects and removes hard contaminants, as well as measures and enables control of the fat to lean ratio, before grinding begins.

Remove bone without destroying your yield

Finding bones is only half the battle – how you remove them makes all the difference. SensorX Magna is the only trim inspection system on the market that can efficiently reject bones from your meat supply without compromising yield or throughput. It makes bone removal a manageable, streamlined part of the grinding and mixing process.

Unique bone detection and rejection

What sets SensorX Magna apart is its powerful combination of industry-leading bone detection and state-of-the-art reject mechanism. It uses advanced X-ray technology to detect bone and other hard contaminants, such as glass and metal, with unmatched accuracy. It then automatically rejects them with less meat than has ever been possible before.

Minimal meat rejected

The reject mechanism cuts a segment weighing just 1.5 kg (3 lbs) out of the product stream. If the contaminant is metal, it is rejected via a dedicated outfeed. If the contaminant is bone, it goes through an automated rework process, which minimizes the amount of meat rejected to approx. 0.3 kg (½ lb).



Traditional X-ray system

Approx. 10 kg (20 lbs) of meat rejected with each bone detected.

SensorX Magna

Approx. 0.3 kg (½ lb) of meat rejected with each bone detected.



Protect and enhance your brand

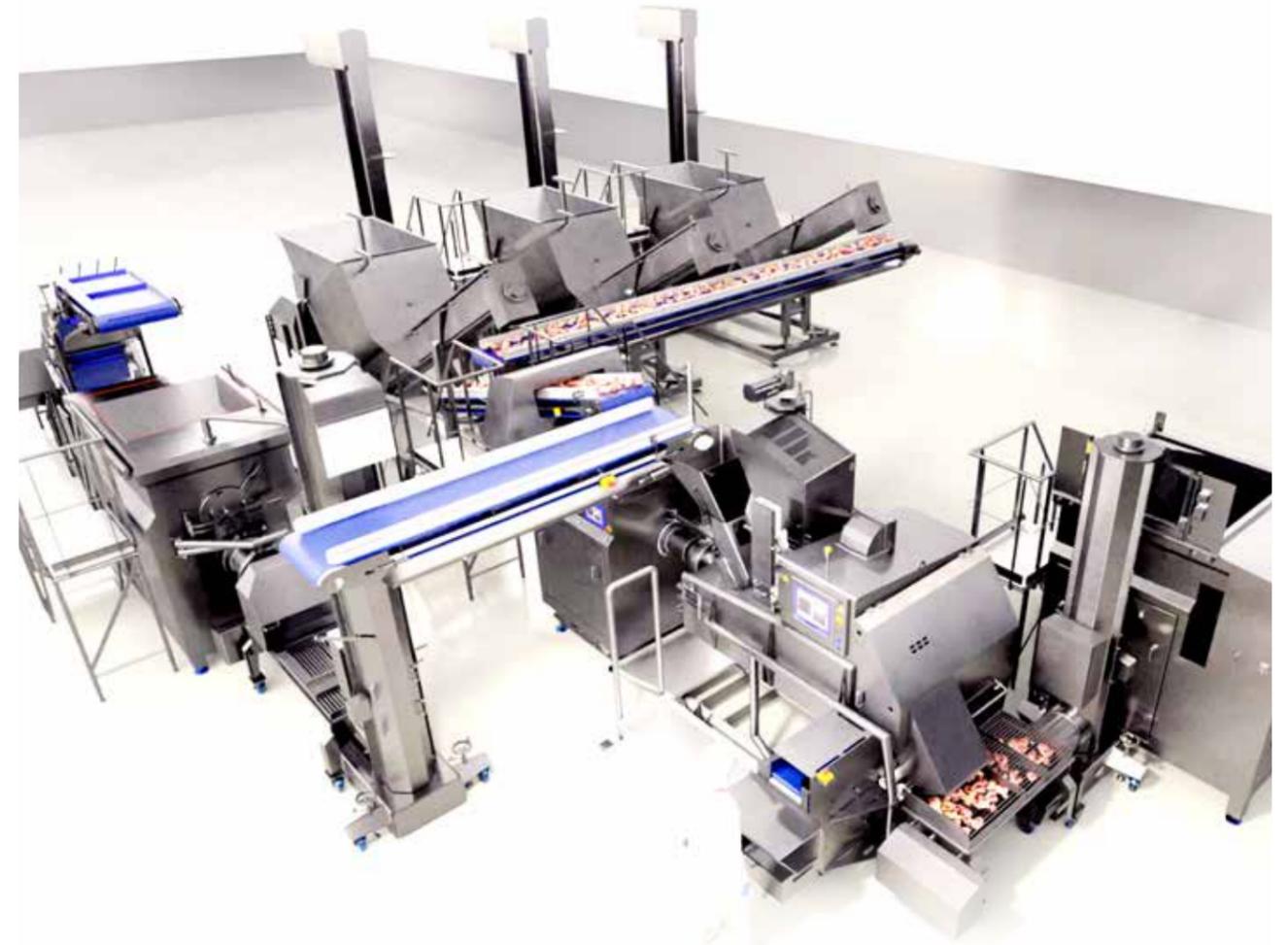
Ensure safe, high-quality products

SensorX Magna gives your customers and consumers confidence that they will always get safe, high-quality products from your brand. Its advanced X-ray technology means that your products will be bone free and with correct fat to lean ratio. You can also be sure that costly customer claims for off-spec products will be greatly reduced.

Develop new product opportunities

Eliminating bone before grinding brings great benefits. It allows you to produce coarser-ground products without the risk of any bone fragments. This opens up numerous possibilities when it comes to creating new, higher quality products with different textures.

Control fat to lean - control your profit



Measure from the start

SensorX Magna ensures the most efficient and accurate fat to lean ratio measurements available at full production speed. It measures at the very start of the grinding and mixing process, giving you a level of control over the blending of fat and lean meat that was previously unattainable.

Process with speed and accuracy

SensorX Magna makes it possible to create the correct fat to lean ratio of the final batch right from the beginning. This allows you to run your production at full capacity, with high accuracy. You can also be confident right from the outset that your products are on spec and that your raw material is being used in the most cost efficient way.

Automate trim standardization

You can combine SensorX Magna with additional Marel equipment and Innova software to fully automate the trim standardization process. We are in the unique position to be able to provide you with everything needed for a full line solution, without the involvement of any third party equipment. This gives you a simple and highly effective way to ensure standardization of a batch to a set fat and weight target, based on your customers' product specifications.



Rotating knife

Bone and metal are cut precisely from the product stream ensuring minimal meat is rejected.

Out feed

Contaminant free raw material with a known fat to lean ratio exits the system.

SensorX Magna

Eliminate bone. Not profit.

- Higher quality, more consistent end products
- Superior bone detection and fat to lean measurements
- Advanced reject mechanism for minimal give away
- Processes both fresh and frozen, beef and pork, trim and whole muscle
- A compact turnkey solution

Frozen infeed

Frozen raw material has a dedicated infeed.

Fresh infeed

A continuous flow of fresh raw material is generated to give optimal scanning results.

X-ray unit

Superior X-ray technology accurately measures fat to lean ratio, detects hard contaminants and weighs product.

Bone rejection

Bone is rejected to a workstation, with an absolute minimum amount of meat per bone.

Metal rejection

Metal is detected and rejected separately from the product stream through a dedicated reject path before it goes through grinding.

Monitor and improve performance

Innova Food Processing Software provides live dashboard views that allow actual performance to be monitored. By monitoring KPIs such as throughput and contaminant rate, opportunities can be immediately identified to streamline processes and enhance operational performance. Innova also has traceability functionality, which ensures you can act quickly to minimize the size of recalls, and trace every product back to its source.

Benchmark suppliers

Innova Supplier Monitoring software is an integral part of SensorX Magna. It collects data on the actual fat to lean ratio and contaminants detected for each individual batch of raw material processed. By doing this, it is possible to benchmark suppliers and make data-driven purchasing decisions.

Service to maximize processing

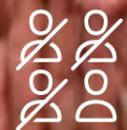
A specific service contract is offered with SensorX Magna, which ensures optimal performance and reliability at all times. More than 1,500 highly skilled service technicians worldwide work continually to keep Marel X-ray systems at maximum performance and give all the support needed.

A global leader in full-line solutions

As a full-line supplier, Marel's state-of-the-art meat processing equipment, systems and software span the entire production value chain, from the reception of live animals to the dispatch of finished products. We work with all processes in the slaughter, cutting and further processing hall as well as case-ready and food service packing, all of which can be integrated with Innova software.

From beginning to end, our preparation equipment for grinding, mixing, emulsifying, feeding and fat analysis, gives you a fully connected system that prepares your meat mass in one smooth, stable production flow. We are in the unique position to be able to provide you with everything needed for safe, high-quality meat preparation, without the involvement of any third party equipment.

Why choose Marel meat preparation equipment?



Minimal labor is required due to fully automated, integrated systems.



Reliable and repeatable processing is ensured by production control software that intelligently handles protein and guides operators step-by-step.



Consistent meat mass is guaranteed via optimal recipe control software.



Long, trouble-free production runs are assured by Marel's reputation for quality, robust equipment.

Meat preparation equipment

Grinders



FRESHgrind 250

- Fresh meat
- Capacity: 2-10 tons/hour
- Options: Bone elimination system



BUFFERgrind 250

- Fresh meat
- Capacity: 2-10 tons/hour
- Options: Bone elimination system



COMBIgrind 200 and COMBIgrind 280

- Fresh and frozen meat blocks
- Capacity: 2-15 tons/hour
- Options: Bone elimination system, extended hopper

Mixers



SPEEDmix

- Mixing volume: 700-2,700 L (185-713 gal)
- Options: Water dosing, heating via steam injection, cooling, weighing cells



SOFTmix

- Mixing volume: 700-5,300 L (185-1,400 gal)
- Options: Water dosing, cooling, weighing cells



SOFTmix Vacuum

- Mixing volume: 700-2,700 L (185-713 gal)
- Options: Water dosing, cooling, weighing cells



SOFTmix 400

- Mixing volume: 100-300 L (26-79 gal)
- Options: Water dosing, cooling, weighing cells

Emulsifier



MixGrind 1000-4000 L

- Mixing volume: 700-2700 L (185-713 gal)
- Grinding head: 250 mm
- Options: Bone elimination, cooling, heating via steam injection, weighing cells



EmulsiMax

- Emulsifier 175 mm
- Capacity: 2-8 tons/hour
- Options: 1, 2 and 3 cutting set

Inspection and analysis

TRANSFORMING FOOD PROCESSING

