Training Area: Process Flows

Module: Trim Management System

FFG Training & Development

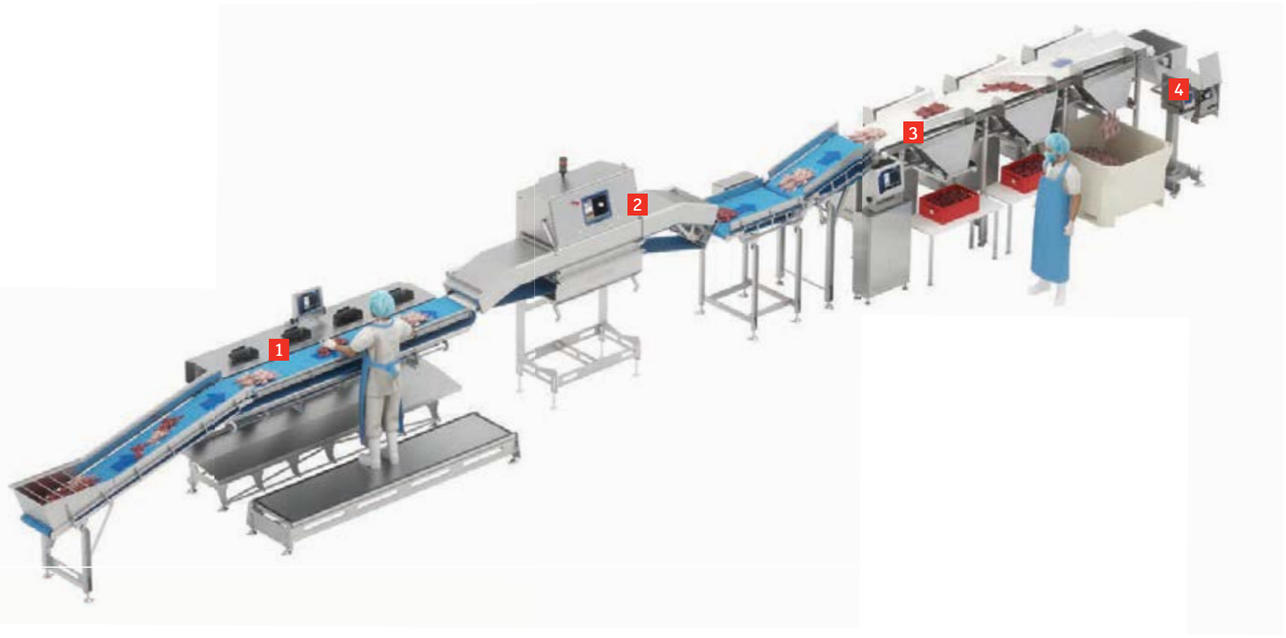
Reach target fat percentage

Marel's new Trim Management System is designed to analyze beef and pork trim for fat/lean ratio (Chemical Lean) and give you the ability to manage your trim and reach batch target fat percentage.

Trim Management
Knowing the accurate fat percentage of incoming product is valuable, but controlling what actually comes out of the process will give you even more added value. Using Marel's grading and batching technology, the system makes different batches of precise fat/lean ratio (CL), based on incoming products and on your requirements (for example 50/50, 75/25 and 80/20).

Fat Analysis
The core of the Trim Management System is the SensorX, which uses x-ray technology to scan the product. This enable the SensorX to detect presence of hazardous contaminants and decide the precise chemical lean ratio of the meat.

Product with hazardous contaminant such as bone, metal or glass is removed from the process, through specified reject gates.



1
Trim is transferred from the deboning line to the infeed unit. 2-4 sorting operators visually grade the trim by placing the trim pieces into one of the available buffer bins (e.g. fat, medium, lean). The bins collect a batch up to 5.5 kg before dropping the product onto the SensorX infeed conveyor.

2
By scanning the meat, the SensorX is able to find accurate CL ofthe batch and detect hazardous contaminants embedded in the meat. Innova collects data on CL and weight for management purpose.

3
Results of each CL measurement are sent to the grading unit – and the meat is sent to the allocated gate to form a large batch of correct fat/lean ratio (CL), specified by you.

4
The Innova software gathers real-time data about CL and final batch-weight for production of box labels. (Innova for box labelling is optional)

- *Less lean giveaway*
- *Fewer complaints, claims and rework*
- *Superior in contaminant detection*
- *Labour savings*
- *Improved process flow*

Technical Specifications	
Max individual product dimensions:	Length: 600 mm Width: 400 mm Height: 100 mm
Throughput:	Up to 6 tons/hour depending on final batch size.
Batch accuracy – 25 kg crate:	For a 25 Kg/55 lbs to 100 Kg/220 lbs batch the accuracy will be +/- 2% from the target CL, in 95% of the cases. In other words: if CL target is 85% - then 95% of the batches are between CL83 and CL87.
Batch accuracy – batching into large dolavs / combos:	For a 100 Kg/220 lbs to 1000 Kg/2200 lbs batch the accuracy will be +/- 1% from the target CL level, in 95% of the cases. In other words: if the CL target is 85%,- 95% of the batches are between CL84 and CL86.
Contaminant detection: (smallest dimensions)	Bones: 5.0 mm Metal: 5.0 mm Stone: 5.0 mm Glass: 5.0 mm
Other Options	
The Trim Management system can be integrated with Marel's StreamLine deboning & trimming system.	