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# TRIM LINE

Intelligent  
deboning and trimming

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# Introduction

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MARELEC built its first weighing devices in the early 1980s, followed in 1992 by its first grader in response to market demands for faster weighing and grading than a traditional bench scale would allow. The grading lanes were originally introduced for fish processing, although these systems were soon deployed to the poultry and meat industries. This was the beginning of a successful product line that was quickly expanded to include additional versions with complementary MATRIX PRO software.

In 2023, Duravant, a worldwide supplier of custom equipment and automation solutions for the food processing, packaging and material handling industries, acquired MARELEC Food Technologies. Leveraging its expertise in engineering, integration, project management and operational excellence, Duravant delivers comprehensive process solutions to customers and collaborators through its extensive global sales, distribution and service networks. Duravant's market-leading trademarks are known for their innovation, durability and reliability, aligning seamlessly with MARELEC's values.

Today, we are proud to present a specialized extension of these well-known graders – the Trim Line. Weighing, distributing and track & trace have been in MARELEC's DNA for decades. Combining exciting technological advances with state-of-the-art designs that ensure the most ergonomic work positions enables us to offer highly competitive solutions for deboning and trimming. Specific customer needs that can't be achieved using machines alone require skilled operators. The Trim Line enables you to monitor well-known KPIs such as yield, throughput and, most importantly, quality.

We kindly invite you to browse through our brochure to discover more about the Trim Line's features and unique selling points. Our sales team is ready to answer any questions you may have.

Our decades of experience have made us a worldwide leader with this technology. Regardless of the grader, portion solution or Trim Line you need, choosing MARELEC will ensure that you are working with a service-oriented company; one that listens to your specific needs and is a flexible partner with a human approach. We look forward to a mutually beneficial cooperation!



# Features

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## 1 // MAXIMIZING EFFICIENCY

The MARELEC Trim Line enables operators to work with maximum efficiency, but also provides a tool to monitor and motivate them where appropriate. This means that capacity, yield and quality is maintained at the level needed to remain competitive.

## 2 // ERGONOMIC WORKSTATIONS

It all starts with achieving optimal table height, which is easily obtained using the adjustable working platforms. Products are presented as close to the operators as possible, reducing movement to the minimum without them losing focus on the task at hand. The operator places finished products directly onto the convenient weighing platform, which then automatically feeds them to the takeaway conveyor. Two trim holes are incorporated in the table, enabling fat and lean products to be easily separated.

## 3 // HYGIENIC DESIGN

The Trim Line complies with the most stringent hygiene standards. Separate supply, takeaway and trim conveyors are used. **The non-tubular design has minimal horizontal surfaces and an open structure** which optimizes access for pressure washing and disinfecting of all surfaces. The electrical cabinets have dual seals and a unique drying system which also provides a slight overpressure.

## 4 // MODULAR CONCEPT

The base unit of our Trim Line consists of one infeed weighing station at the front elevation. Next are the working stations – a minimum of two, with one on either side of the conveyor. Thanks to its modular design, the Trim Line can be easily extended with extra workstations to quickly respond to increased demand.

## 5 // USER-FRIENDLY SOFTWARE INTERFACE

Each operators station is displayed using a user-friendly web interface., highlighting their operators' individual performance. Just one of the many useful features is the line settings function, which allows for either pushing products on the line or allowing operators to receive products on request. MATRIX PRO software displays realtime KPIs but will also store all relevant information, enabling managers to generate comprehensive production reports.

## 6 // SERVICE

MARELEC has built a very strong reputation for its aftersales service. A team of service engineers is available 24/7 to respond to your queries. Each machine can be connected to the internet, which allows our service team to diagnose its status from our head office. This puts us in a position to react on the spot, providing immediate assistance.

# Overview

## 1 // RECEIVING

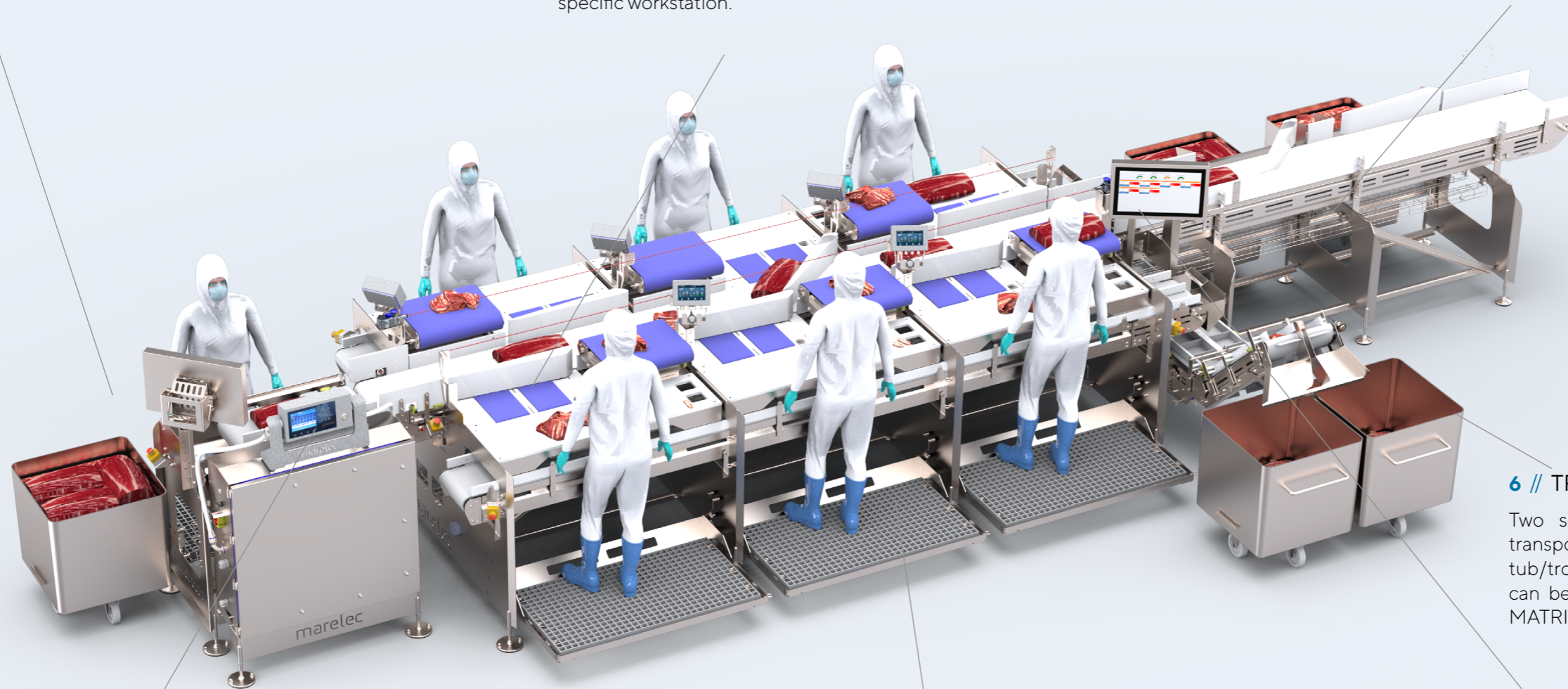
Raw materials arrive at the infeed conveyor from a deboning lane, crates or other. A touchscreen will inform the loading operator of which primal to load, so that each trimmer receives the right amount of raw material.

## 3 // OUT-WEIGHING

A weighing unit to measure the finished product is integrated into each workstation. Once the weight is captured and there is an empty spot on the conveyor, the scale will feed the finished products via conveyor to the end of the line. Traceability on the belt ensures each batch is linked to a specific workstation.

## 7 // OPTIONAL GRADING

When trimming multiple primals at the same time, they need to be separated at the end of the line. Track and trace will ensure that primals are correctly diverted to the preprogrammed destination.



## 2 // IN-WEIGHING

The raw material is then loaded onto an infeed scale that sends the start weight to MATRIX PRO. The primal is then tracked and traced to one of the available operator stations.

## 4 // WORKSTATIONS

Ergonomics are key to a flawless product flow. Each operator has an adjustable work platform, enabling them to select the most comfortable working height so that everything is within reach. The cutting board has a removable section that can be easily replaced when it wears out. Lean and fat trimmings can be placed into separate holes.

## 6 // TRIM COLLECTION

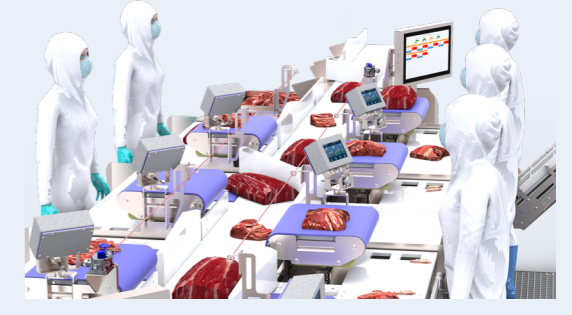
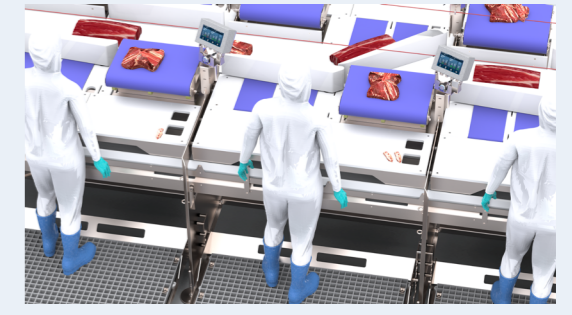
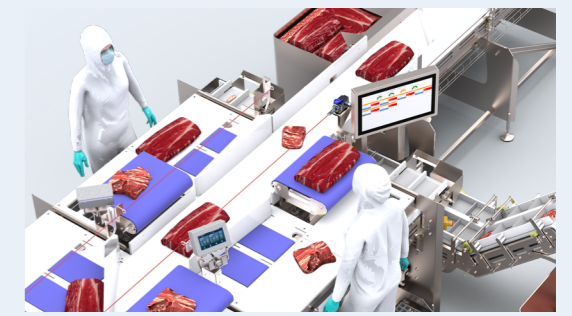
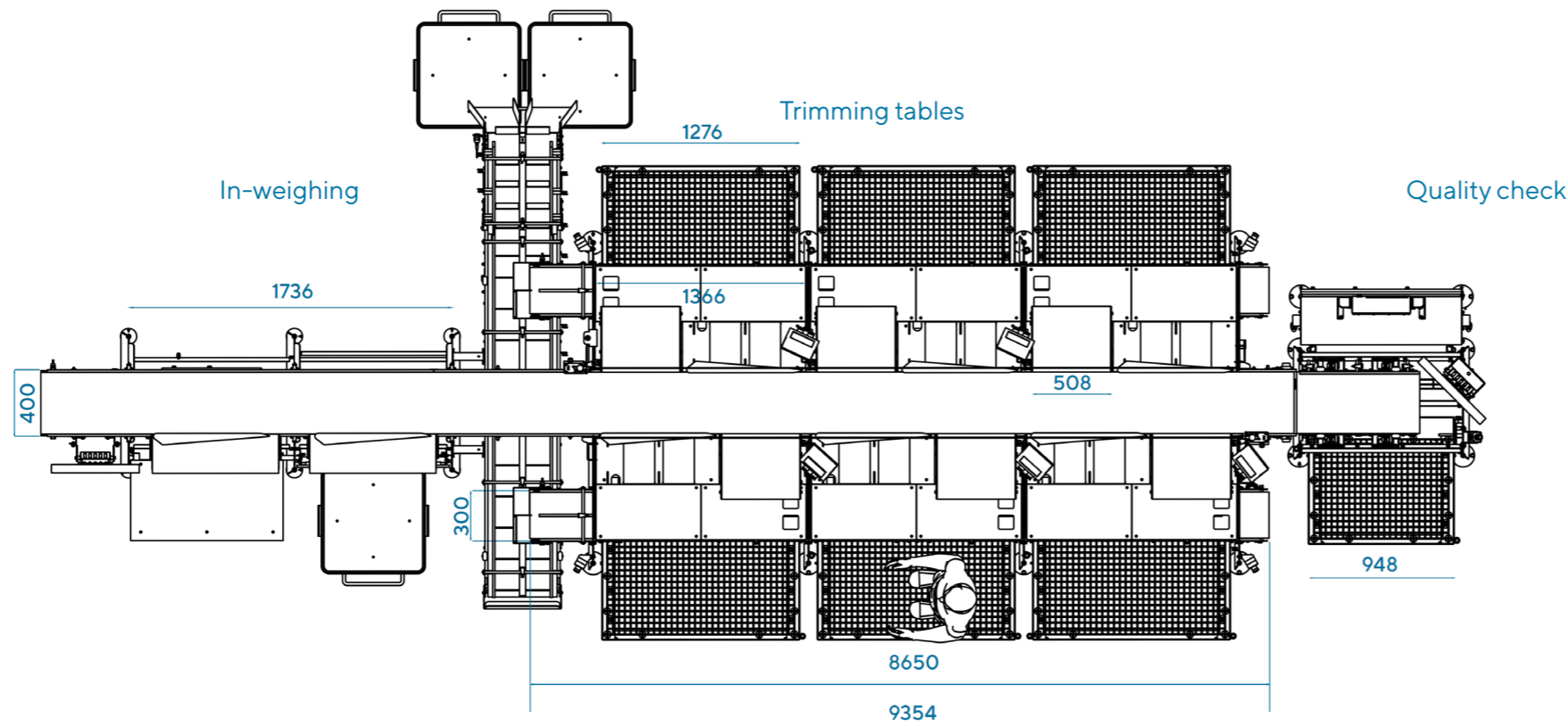
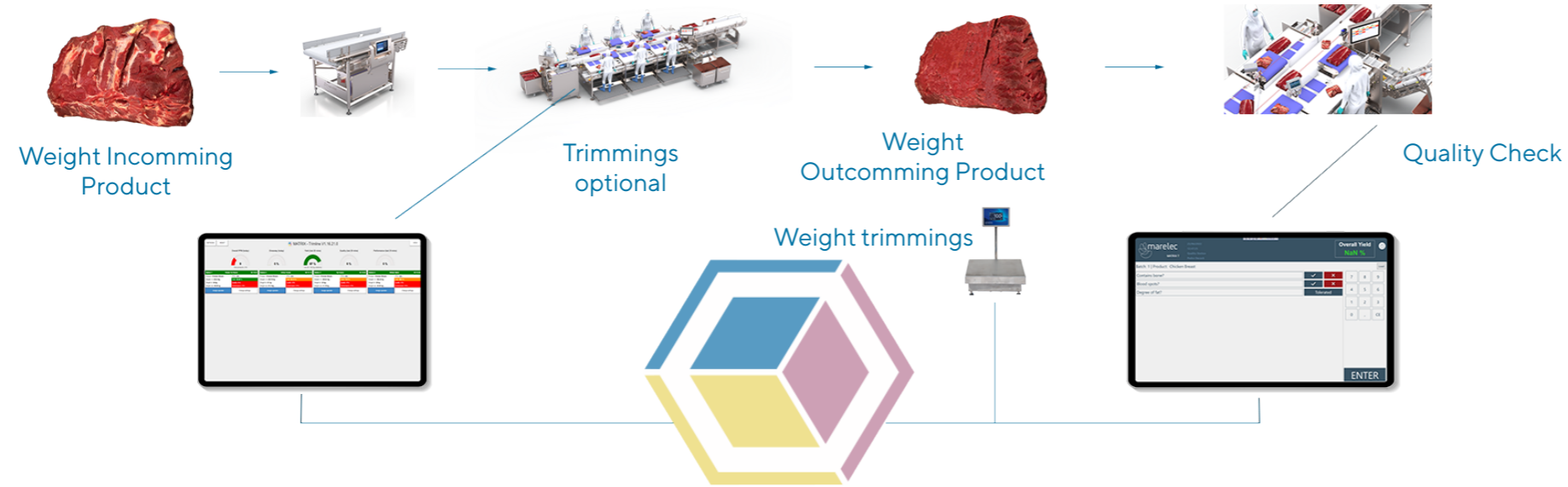
Two separate trim-collection conveyors transport the by-products to an individual tub/trolley. Optionally, these products can be separately weighed and stored in MATRIX for more detailed line performance.

## 5 // QUALITY CHECK

Random or sequential quality checks can take place on the optional quality trim stations. A touch-screen enables the operator to indicate potential defects and make corrections where necessary. Each operator will receive a performance score based on the quality level.

# MATRIX PRO

MATRIX PRO software displays realtime KPIs but will also store all relevant information, enabling managers to generate comprehensive production reports.





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