



TRIMLINE

Intelligent
deboning and trimming



Introduction

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 TrimLine. 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 TrimLine 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 find out more about the TrimLine'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 cutter or TrimLine 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

1 // MAXIMIZING EFFICIENCY

The MARELEC TrimLine 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 near as possible to the operators to reduce movement to the minimum without them losing focus on the main task. Finished product or trim is placed into a compartment which is automatically positioned on the takeaway conveyor.

3 // HYGIENIC DESIGN

The TrimLine 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 TrimLine consists of one infeed weighing station, a module with four workstations and one outfeed weighing station. Because of its modular design, the TrimLine can be easily extended with extra workstations in response to increased demand.

5 // USER-FRIENDLY SOFTWARE INTERFACE

The user-friendly touchscreen displays each of the operator stations, 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

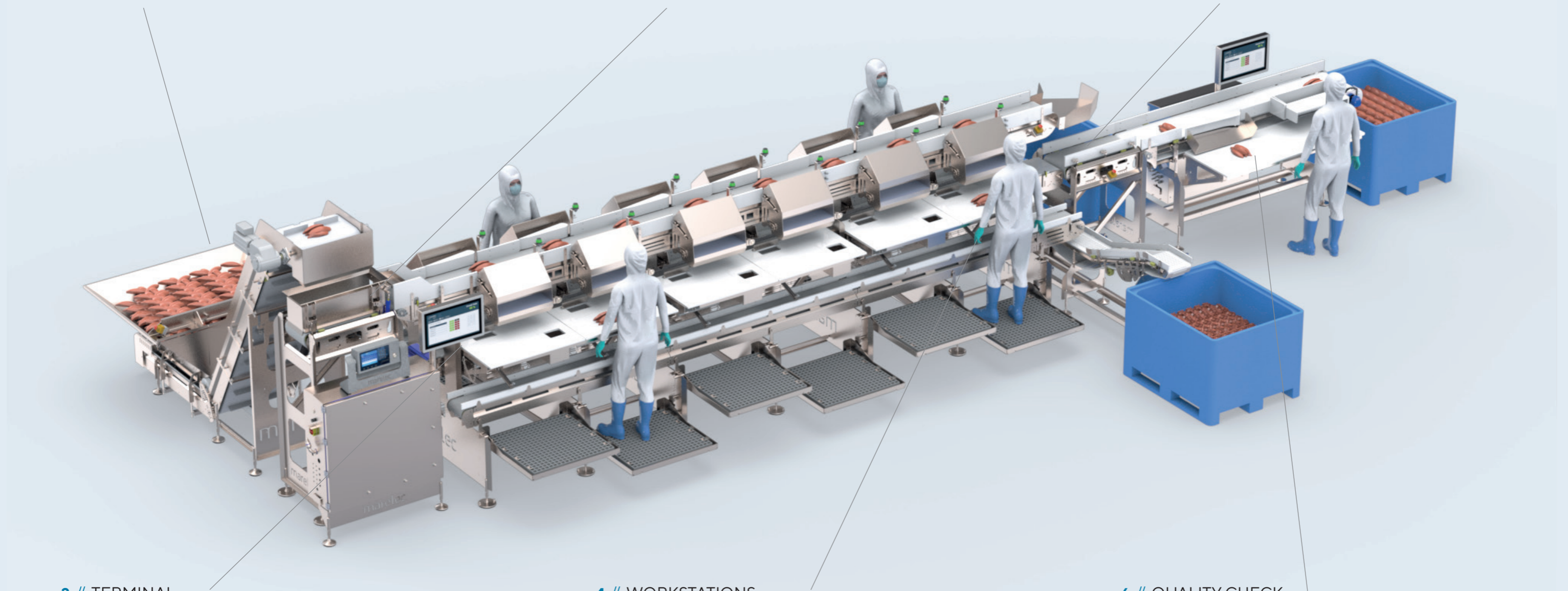
Raw materials arrive at the infeed conveyor from a deboning lane, crates or other. The speed of this conveyor is controlled by the weighing device that aims to deliver fixed-weight batches. Most often, a small buffer is provided which accumulates products while the weighing device is cleared.

3 // IN-WEIGHING

A static weighing system accurately captures the batch weight before allocating it to one of the trim operators. Once the target weight is reached and recorded, the batch is tracked and traced to one of the available operator stations.

5 // OUT-WEIGHING

The dynamic weighing conveyor is integrated in the takeaway belt and captures the weight of the deboned or trimmed product. Traceability on the belt makes sure the batch is linked to a specific working station.



2 // TERMINAL

The raw material specifications can be programmed in the system's HMI on the production floor or through the MATRIX PRO software. Operator workstations can be enabled, as well as the selection of custom programs.

4 // WORKSTATIONS

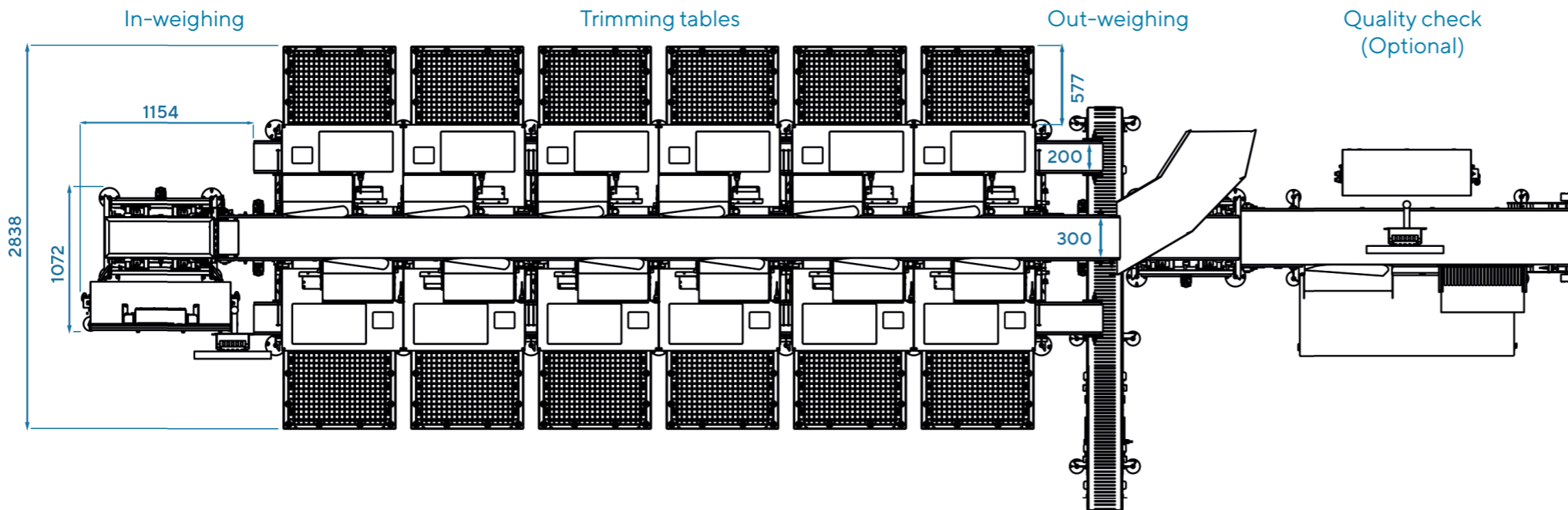
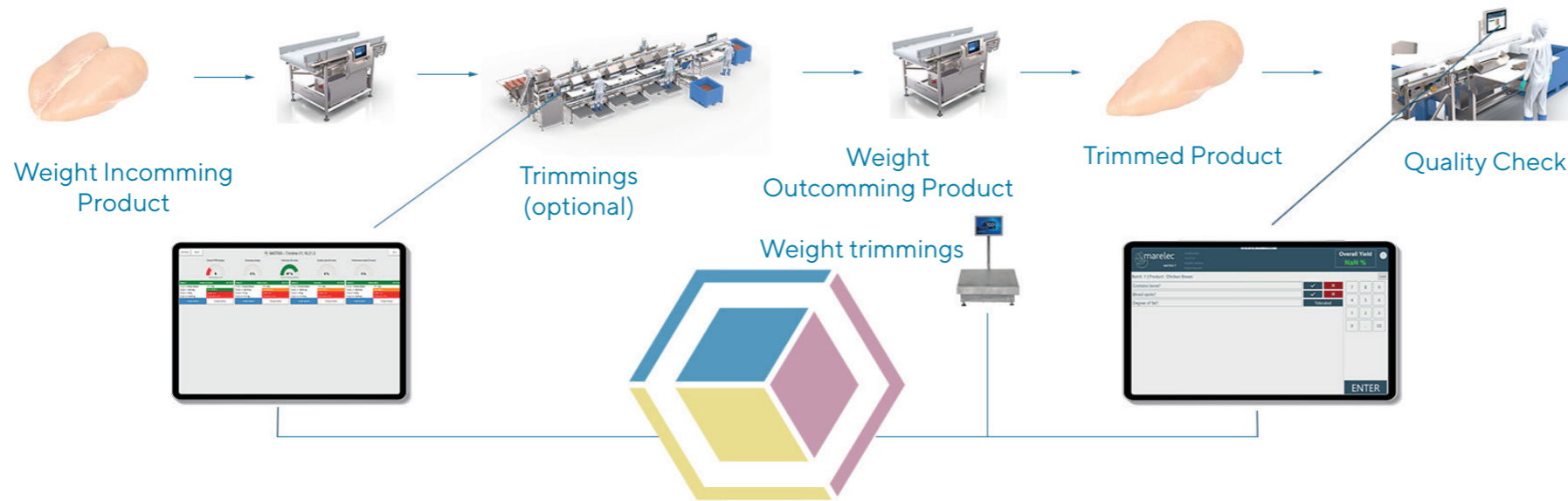
Ergonomics are key to a flawless product flow. Each operator has an adjustable work platform which enables them to select the most comfortable working height. The cutting board has a removable section that can be easily replaced when worn out by the cutting process.

6 // QUALITY CHECK

Random or sequential quality checks of batches can take place on the optional quality selection stations. 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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