Portion Cutting

Intelligent, high-precision & economic

Optimised yield
User-friendly software

Unmatched accuracy
Hygienic & easy to clean

In partnership with marelec

Contents

Introduction

When MARELEC launched its first PORTIO back in 2008, it answered a growing demand in the food processing market. The machine was first introduced for fish processing, but soon after, the 3-camera version was developed for the meat industry. This was the start of a successful product line that quickly developed into dedicated versions, to be used worldwide in all segments of the fish, meat and poultry processing industries.

Today we are proud to present a complete range of intelligent portion cutters, from the high capacity PORTIO 1DAP for small products to the massive PORTIO 3-400 for the biggest pieces of meat. All models have been created with a customer centric focus and built based on our expertise in food processing since the early nineties.

We kindly invite you to browse through our brochure to find out more about the different models, applications and our unique selling points. Our brochure will also identify which model is most suited for your needs and products. Our sales team is ready to answer any questions you may have.

As we are a worldwide leader with this technology and regardless of the PORTIO that you need, your choice of MARELEC will ensure that you are working with a service oriented company, one that listens to your specific needs and a flexible partner with a human approach. We look forward to our cooperation!

Unique Selling Points

The PORTIO combines state of the art technology for creating a high precision yet economic portion cutting machine.

1 // OPTIMIZED YIELD

Due to our ability to scan to the highest accuracy and our highly intelligent cutting algorithm all portions are within margins and with less trim. The PORTIO software always calculates to leave zero waste on the primals, to maximize the yields. The easy fine-tuning interface allows you to make conditional programs resulting in increased yields. Fixed weight, fixed thickness or a combination of variable weight and thickness allow to portion the primals to a maximum yield.

2 // UNMATCHED ACCURACY

The latest laser vision technology, featuring a 400Hz camera, ensures unparalleled accuracy. 1 camera from the top perfectly scans flat products such as fillets, where the 3 cameras (from the top and 2 from the sides) scan the contour of more rounded products such as meat primals or whole fish. This will transform the shape of the product into a 3D model. Knowing the density of the product, the intelligent software will then calculate where to cut to get the target weights.

3 // MODULAR BELT

The uniquely designed MARELEC modular belt combines perfect synchronisation with an unrivalled lifetime. Automatic stretch compensation guarantees optimal accuracy over the years, using the same belt. If a small part of the modular belt gets damaged, only this small part needs replacement. The unique belt surface keeps the products in place and prevents them from moving during portioning. A quick release on the belts allows swift removal of the belts, without the need for tools.

4 // USER FRIENDLY SOFTWARE INTERFACE

Setting up cutting programs is very intuitive and user-friendly. Each program shows the cutting pattern of the product on the screen along with the indication of the thickness and the weight of every portion. This allows very fast and easy fine-tuning of the programs to get the maximum yields.

5 // EXTREMELY HYGIENIC, EASY TO CLEAN

The PORTIO is designed and built to comply with the most stringent hygiene standards. A CIP (cleaning in place) rinses the belts both from the top and the bottom to guarantee a fast and thorough cleaning in between shifts or when different products are portioned after each other. All doors can be opened or removed, leaving a completely open structure to pressure wash and disinfect the entire in- and outside. All electrics and electronics are in completely sealed cabinets, with heaters, fans and a unique drying system inside to prevent condensation building up.

6 // MAINTENANCE

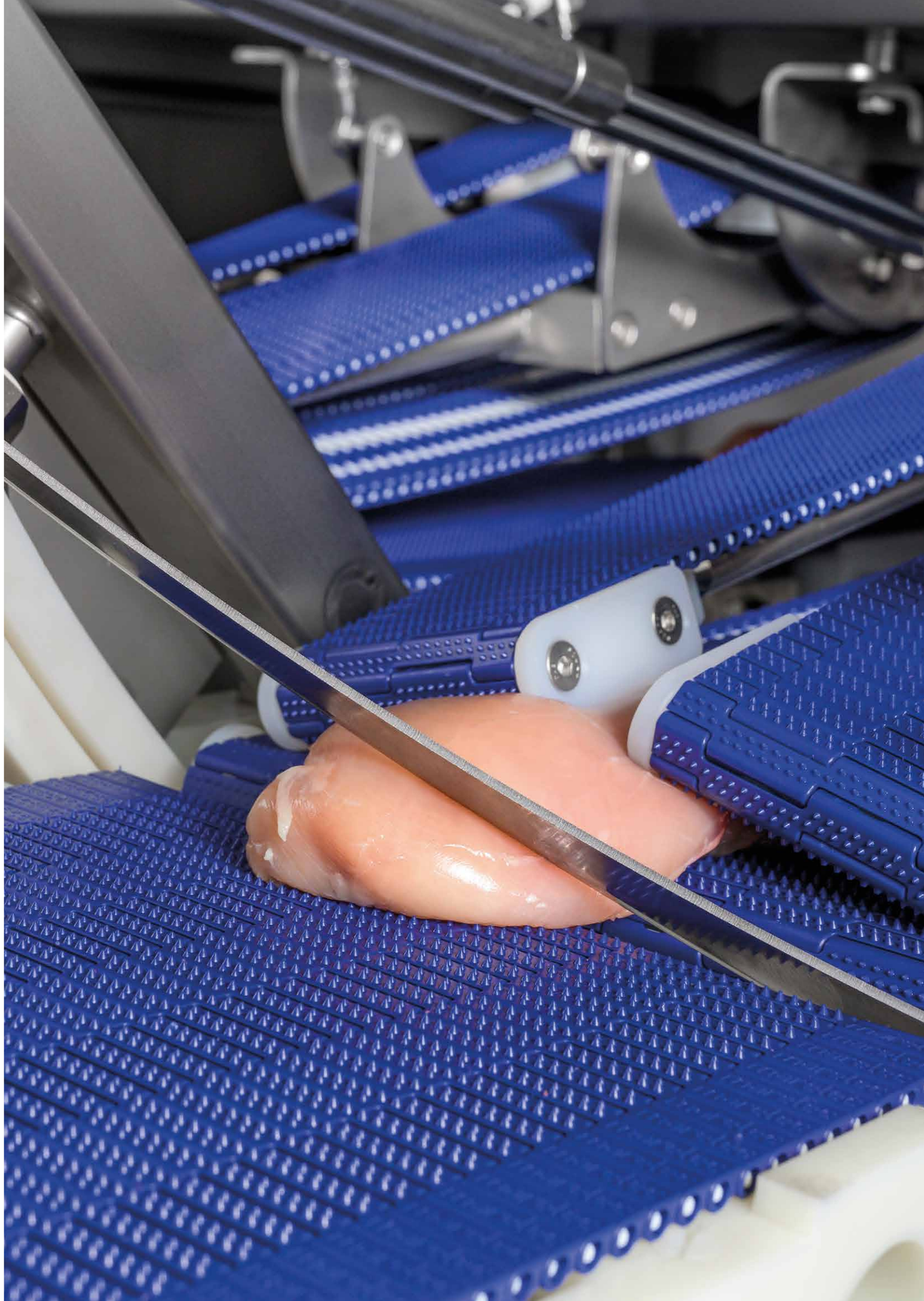
MARELEC has opted to use well reputed international brands for electrical, pneumatic and other components. All motors and encoders are situated away from the wet area, which ensures a long lasting lifetime. There are limited lubrication points. This results in the lowest operational cost.

7 // SERVICE

MARELEC has built a very strong reputation for its after sales service. A team of service engineers is available 24/7 to reply to your queries. The machine can be connected to the internet, which allows our service team to diagnose the status of the machine from our head office. This puts us in a position to react on the spot to assist you.

8 // LOW NOISE

The PORTIO is praised in the industry for its low noise level during operation, creating a pleasant environment for the operators.



Overview

Model	Applications	Lanes	Cameras	Cutting angle	Belt width (mm)	
				(°)	(mm)	(inch)
PORTIO 1		1	1	0	254	10
PORTIO 3		1	3	0	254	10
PORTIO 1A		1	1	0/30/45	254	10
PORTIO 3A		1	3	0/30/45	254	10
PORTIO 1F		1	1	0	254	10
PORTIO 3 - 300		1	3	0	305	12
PORTIO 3 - 350		1	3	0	356	14
PORTIO 3 - 400		1	3	0	406	16
PORTIO 3D		2	2 x 3	0	305	12
PORTIO 1DAP		2	2 x 1	0/15/30/45/50	229	9

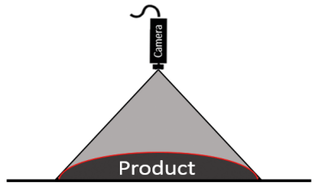
Max product dimensions (l x w x h)		Max cutting rate*	Available options							Page
(mm)	(inch)	(cuts/s)	APH	OPH	BH	RO	DS/DIW	FH	HSC	
950 x 240 x 150	37,5 x 9,5 x 6	17	X	X	X	X	X	X		12
800 x 240 x 150	31,5 x 9,5 x 6	17	X	X	X	X	X	X		13
950 x 240 x 150	37,5 x 9,5 x 6	17	X	X	X	X	X		X	14
800 x 240 x 150	31,5 x 9,5 x 6	17	X	X	X	X	X		X	15
700 x 240 x 100	27,5 x 9,5 x 4	17					X			16
800 x 290 x 150	31,5 x 11,5 x 6	14	X	X	X	X	X	X		17
800 x 340 x 150	31,5 x 13,5 x 6	12	X	X	X	X	X	X		17
800 x 380 x 180	31,5 x 15,5 x 7	13	X	X	X	X	X	X		17
800 x 280 x 150	31,5 x 11 x 6	14	X	X	X	X	X	X		18
950 x 210 x 60	37,5 x 8,5 x 2,5	25	X	X			X		X	19

* For UK purchase please consult MARELEC sales department.
Subject to modifications for technical progress.

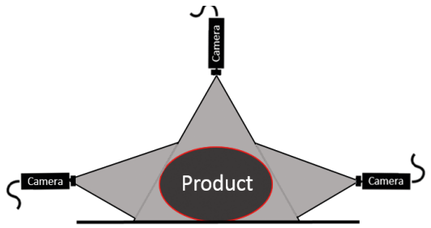
PORTIO features

1 // PORTIO 1 VS PORTIO 3

The PORTIO 1 uses 1 camera from the top. This is perfect to scan the laser line that follows the contour of flat products passing through the laser light. Typical products are flat fillets or products where only fixed thickness is required.



The PORTIO 3 uses the same top camera in combination with 2 cameras from the side. This allows scanning the contour of more rounded products, to prevent blind spots on the edges. Typical products are meat, sausages or whole fish.



2 // PORTIONING AT AN ANGLE (A)

To give a natural look on sliced portions, mainly used on chicken fillets, or to have a bigger plate coverage, products are cut at an angle. MARELEC has a range of PORTIOs A, where the angle of the knife versus the vertical position can be changed from 0° to 45°/50°. This can be made without any compromise on accuracy or capacity. The adjustment of the cutting angle is done without the need for tools and comes with the patented system that automatically adjusts the gap between the in- and outfeed belt to the optimum spacing.

3 // DUAL LANE (D)

The highest possible throughput on the smallest footprint can be achieved with a dual-lane PORTIO. Two lanes are integrated into one machine which run completely independent from each other, each with their own control panel. Certain models also have the option of changing the cutting angle.

Advantages of the dual lane PORTIO:
- Highest througput per sqm/sqft
- Two independent programs
- Optimal throughput / cost ratio
- Accurate cutting at high speed

4 // PRECISION & CAPACITIES

Product	Weight	Capacity*	Precision **
	55 - 150 g 2 - 5 oz 150 g and larger 5 oz and larger	up to 1200 kg/hour up to 2700 lb/hour up to 1600 kg/hour up to 3300 lb/hour	2 g/ 0,07 oz 2%
	55 - 150 g 2 - 5 oz 150 g and larger 5 oz and larger	up to 1000 kg/hour up to 2200 lb/hour up to 1400 kg/hour up to 3000 lb/hour	1,5 g/ 0,05 oz 1,5 %
	55 - 150 g 2 - 5 oz 150 g and larger 5 oz and larger	up to 1000 kg/hour up to 2200 lb/hour up to 1400 kg/hour up to 3000 lb/hour	2 g/ 0,05 oz 1,5 %

* Actual capacity depends on raw material and cutting pattern
** Standard deviation. Precision is product and application dependent

PORTIO 1

This machine is used to portion flat products vertically on fixed weight, such as fish or chicken fillets, or when only cutting to a fixed thickness is required. The PORTIO 1 is the basis for all models. The machine can be upgraded with 2 additional side cameras and all of the bolt-on options described on page 20. This allows modifications to the PORTIO according to your evolving products and applications over the life time of the machine.

L x W x H	135 x 52 x 62 inch
	3425 x 1307 x 1569 mm
Net weight	2095 lb
	950 kg

PORTIO 3

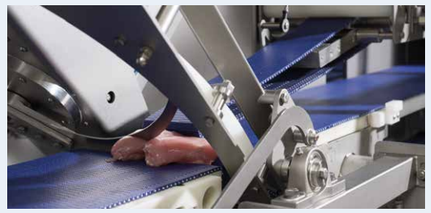
A PORTIO 3 adds two lateral cameras to the PORTIO 1. This allows the machine to improve the scanning and cover blind spots at the side of the product that cannot be detected by the top camera only. It is used for accurate portioning red meat, whole fish or any product with an irregular shape, in a vertical way. The machine can be equipped with the options mentioned on page 20.

L x W x H	135 x 52 x 62 inch
	3425 x 1307 x 1569 mm
net weight	2315 lb
	1050 kg

PORTIO 1A

Cutting at an angle gives a natural look on sliced portions or a bigger plate coverage. The PORTIO 1A has the ability to alter the angle of the knife versus the vertical position from 0° to 30° or 45° in just a few seconds. The PORTIO 1A uses the camera from the top. A typical application for the PORTIO 1A is chicken fillets that are portioned to a target weight and yet look as though they have been cut by hand from the breast caps. The adjustment of the cutting angle is done without the need for tools and comes with the patented system that automatically adjusts the gap between the in- and outfeed belt to the optimum spacing.

L x W x H	138 x 57 x 62 inch
	3502 x 1442 x 1569 mm
net weight	2284 lb
	1036 kg



PORTIO 3A

Cutting at an angle gives a natural look on sliced portions or a bigger plate coverage. The PORTIO 3A has, next to the top camera, the additional 2 lateral cameras for more rounded products, as well as the feature to alter the angle of the knife versus the vertical position from 0° to 30° or 45°. Typical applications for the PORTIO 3A are large chicken fillets that are portioned to a target weight and yet look as though they have been cut by hand from the breast caps. The PORTIO 3A is the most versatile machine for those who process both poultry and red meat. The adjustment of the cutting angle is done in seconds without the need for tools and comes with the patented system that automatically adjusts the gap between the in- and outfeed belt to the optimum spacing.

L x W x H	138 x 57 x 62 inch
	3502 x 1442 x 1569 mm
net weight	2505 lb
	1136 kg

PORTIO 1F

The PORTIO 1F combines the proven scanning and cutting technology from the PORTIO 1, with a compact design, when product lengths are less then 700 mm. Typical applications are flat chicken or fish fillets that are portioned to fixed weights or thickness at a vertical cut, when the option of a product holder is not required.

L x W x H	122 x 42 x 65 inch
	3099 x 1053 x 1643 mm
net weight	1630 lb
	740 kg

PORTIO 3-300

For the larger pieces of meat that exceed the width of 240 mm, MARELEC has added 3 wider PORTIO models to its product range, with a possible belt width of **300mm, 350 mm or 400 mm**. These PORTIOs, all equipped with 3 cameras, feature a robust execution to make perpendicular cuts with ease. The infeed consists of two seperate infeed conveyors to reduce the impact of placing a heavier piece of meat while still scanning the previous piece. The belt support is made stiffer. The 400mm version has a doubled power servo motor to drive the knife through the toughest pieces of meat.

L x W x H	135 x 58 x 67 inch
	3435 x 1475 x 1711 mm
net weight	2799 lb
	1270 kg

* Dimensions above are equal for PORTIO 3-350.
Dimensions of PORTIO 3-400 upon request.

PORTIO 3D

Designed to comply with the demand for high capacities in the meat processing industry, the PORTIO 3D is a dual lane machine featuring 300mm belts and lateral cameras for maximal scanning precision. The two lanes are integrated into one machine which run completely independent from each other, each with their own control panel. As other typical meat machines, it has separate infeed conveyors to reduce the impact of placing a heavier piece of meat while still scanning the previous piece. A variety of options, typically designed for meat processing, are described on page 20.

L x W x H	144 x 83 x 64 inch
	3653 x 2091 x 1616 mm
net weight	5027 lb
	2280 kg

PORTIO 1DAP

For the highest capacity on poultry and smaller fish fillets, MARELEC has developed a dual lane PORTIO with 229 mm belts, allowing to process products with a width up to 210 mm. The two lanes are integrated into one machine which run completely independent from each other, each with their own control panel. The cutting rate is standard increased to 25 cuts per second. Both lanes can independently adjust their cutting angle in 5 positions (0/15/30/45/50), equally featuring the patented auto adjusting outfeed belt. A fully stainless steel servo motor drives the knife, making the PORTIO 1DAP the most hygienic model on the market. Both lanes can be operated individually from one single touchscreen interface, which can be rotated to the operators most ergonomic positions.

L x W x H	144 x 76 x 65 inch
	3655 x 1922 x 1663 mm
net weight	3970 lb
	1800 kg

PORTIO B Introduction

When MARELEC launched its first PORTIO back in 2008, it answered a growing demand in the food processing market. The machine was first introduced for fish processing, but soon after, the 3-camera version was developed for the meat industry. This was the start of a successful product line that quickly developed into dedicated versions, to be used worldwide in all segments of the fish, meat and poultry processing industries.

Today we are proud to present a complete range of intelligent portion cutters. All models have been created with a customer centric focus and built based on our expertise in food processing since the early nineties.

We kindly invite you to browse through our brochure to find out more about our heavy duty portion cutter PORTIO B it's applications and our unique selling points. Our sales team is ready to answer any questions you may have.

As we are a worldwide leader with this technology and regardless of the PORTIO that you need, your choice of MARELEC will ensure that you are working with a service oriented company, one that listens to your specific needs and a flexible partner with a human approach. We look forward to our cooperation!

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IN BALANCE WITH YOUR NEEDS

Unique Selling Points

1 // OPTIMIZED YIELD

The PORTIO software of the portion cutter always calculates to leave zero waste, maximizing the yields. The possibility for conditional programs results in increased yields. Combinations of fixed thickness and various fixed weights allow to portion to a maximum yield for all applications.

2 // UNMATCHED ACCURACY

3 sets of laser cameras, with 120° in between each other perfectly scan the meat primals over 360°. This will transform the shape of the primal into a 3D model. Knowing the density of the product, the intelligent software calculates where to cut for ideal target weights

3 // MODULAR BELT

Automatic stretch compensation of the portion cutter guarantees optimal accuracy over the years, using the same belt. The unique belt surface, especially designed for meat primals will keep the products in place and prevents them from moving during portioning.

4 // USER FRIENDLY SOFTWARE INTERFACE

Intuitive programming of cutting patterns and fast and easy fine-tuning of the programs to get the maximum yields. The cutting pattern is visible on the screen along with the indication of the thickness and the weight of every portion.

5 // MATRIX P

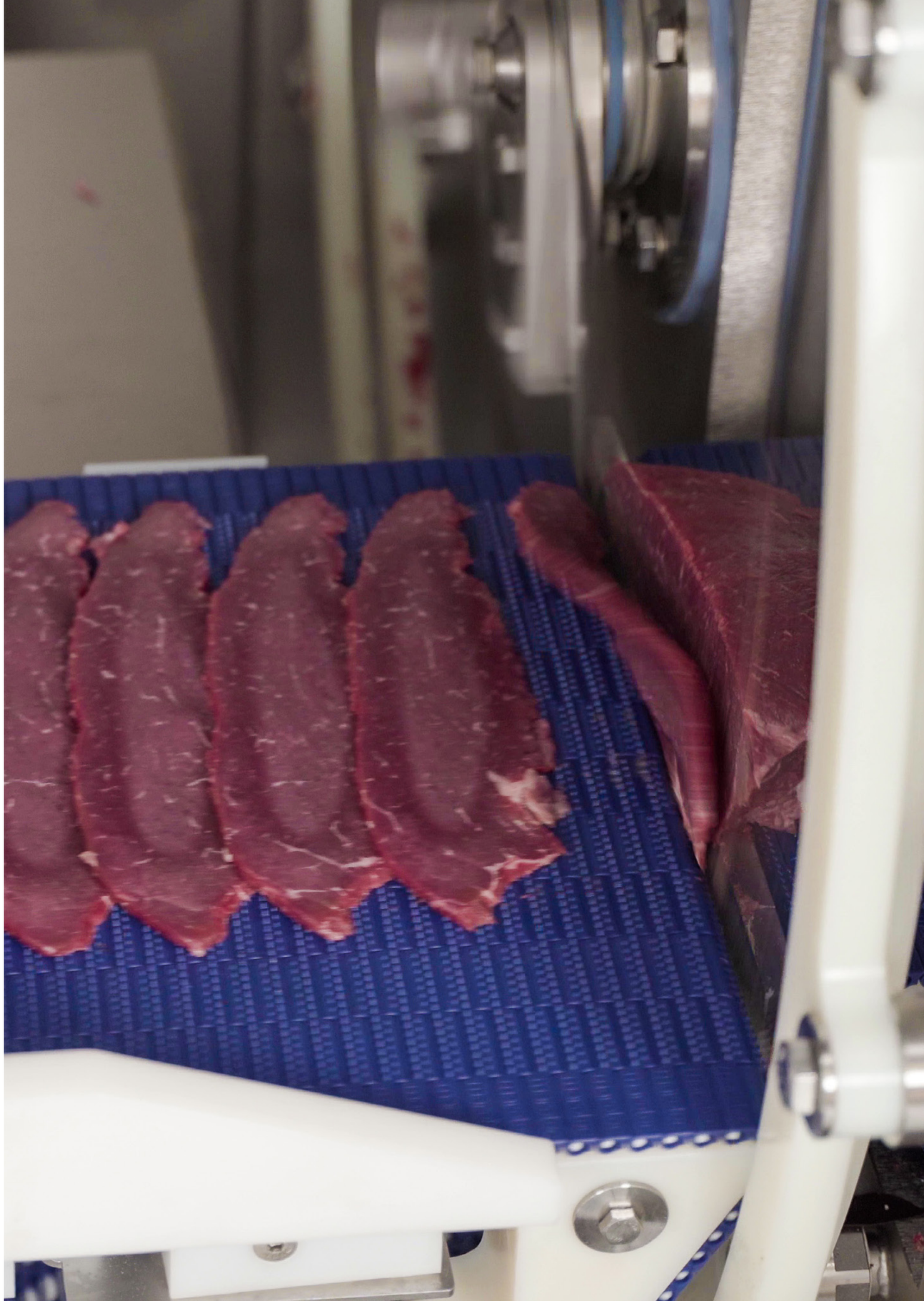
The MATRIX P software collects all production data from the PORTIO B and allows to generate production reports. MATRIX P enables users to remotely make programs offline and monitor the meat slicer status through an event log.

6 // EXTREMELY HYGIENIC, EASY TO CLEAN

The portion cutter complies to the most stringent hygiene standards. The open structure of the portioning machine allows to pressure wash and disinfect the entire in- and outside. A CIP (Cleaning In Place) rinses the belts. All cabinets with electrics and electronics have a unique drying system to prevent condensation building up. Belts can be removed with a quick release, without the need for tools.

7 // SERVICE

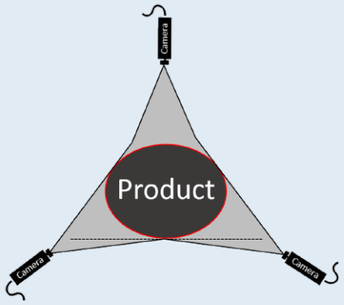
MARELEC has built a very strong reputation for its after sales service. A team of service engineers is available 24/7 to reply to your queries. The machine can be connected to the internet, which allows our service team to diagnose the status of the machine from our head office. This puts us in a position to react on the spot to assist you.



PORTIO B

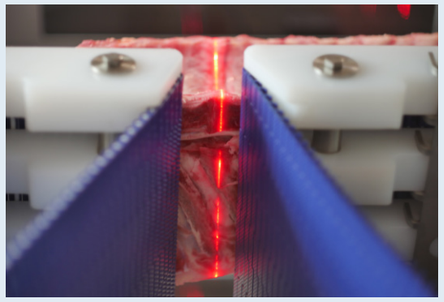
// LASER SCANNING

The PORTIO B uses 3 camera laser combinations, spaced 120° of each other, to perfectly scan the volume around irregular shapes. This allows scanning the contour of more rounded products, to prevent blind spots on the edges. Typical applications are bone in pork primals, crust frozen meat primals, frozen products, cured/dried/smoked meats,...



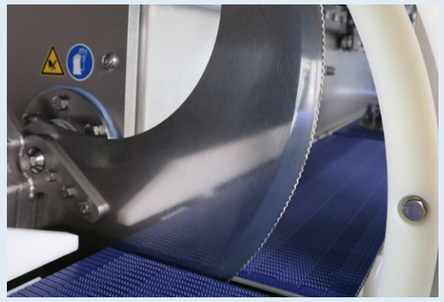
// FEEDING CONCEPT

The infeed consists of two separate infeed conveyors to reduce the impact of placing a heavier piece of meat while still scanning the previous primal. The buffer belt, which transports the primals from the scanning section to the cutting part, is servo driven to optimize capacity. This belt will speed up or down to guarantee a consistent small gap between each primal, without losing any accuracy from scanning or cutting.



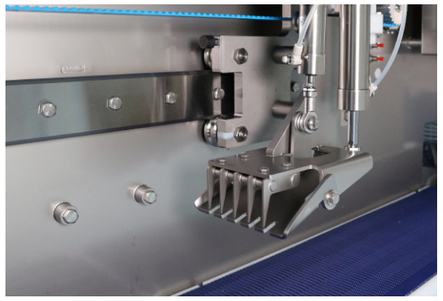
// DEDICATED KNIFE

The knife consists out of a smooth section to cut the softer meat part and a serrated section to cut through bone parts. This combination optimizes the cutting quality.

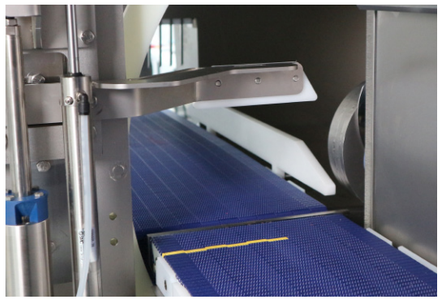


// GRIPPER & TOP HOLDER

The claws from the gripper assure that the primals are moving towards the cutting section without losing the position on the belt after being scanned. The programmable position of where the gripper will hold the product can be optimized to reduce trim and improve yields.



While the gripper assures that the primals don't move backwards, the topholder prevents products from moving sideways on the feeding section. The combination of gripper and top holder will guarantee accurate fixed weight cuts with high cutting quality, ready to be presented in a retail package.



// DYNAMIC INFEED WEIGHER

For specific applications, specially designed options can be bolted on to the portioner at any later stage such as the dynamic infeed weigher to compensate for the possible variation in fat content. Knowing the exact density for each primal will make your giveaway predictable and programmable. The Dynamic Infeed Weigher exists out of 1 infeed belt, which will start and stop for optimal capacity and 2 weighing conveyors. Using the combination of a short and long weighing conveyor will increase the capacity as primals can be fed with less distance in between.

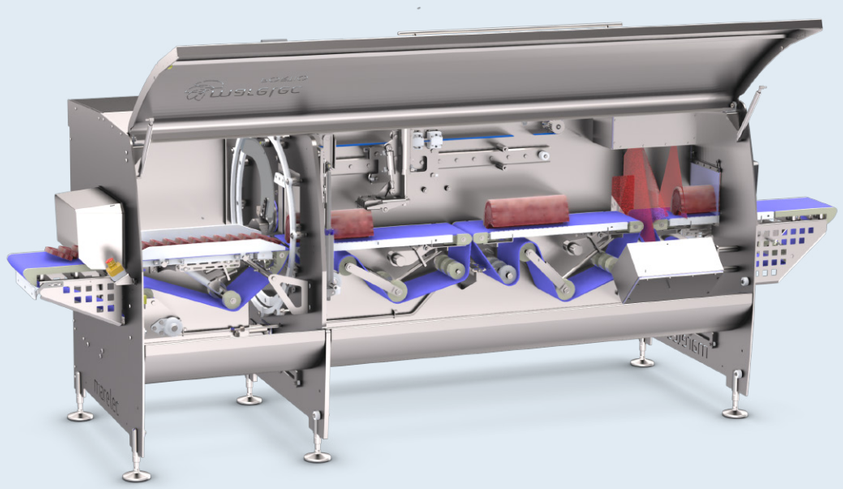
The same result can be obtained with a density scale. This density scale can be used with reverse weighing, meaning the operator can weigh a crate with several primals and feed them one by one. This will allow the density scale to communicate the weight of each individual product to the Portio B which will correct the density automatically.

// SPECIFICATIONS

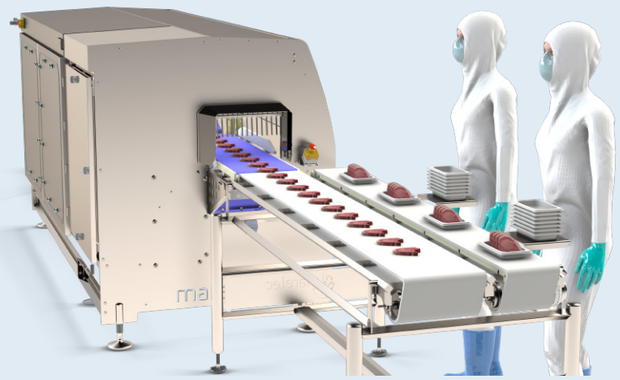
Lanes	1
Cameras	3
Belt width	254 mm / 10 inch
Max. product dimensions	800 x 240 x 200 mm / 31,5 x 9,5 x 7,85 inch

Max. cutting rate	5 cuts/sec
Machine dimensions	4150 x 1350 x 1600 mm / 163 x 53 x 63 inch
Machine net weight	1800 kg / 3968 lb

Subject to modifications for technical progress.



Scan to see the machine in action



PORTIO JET Introduction

When MARELEC launched its first PORTIO back in 2008, it answered a growing demand in the food processing market. The machine was first introduced for fish processing, but soon after, the 3-camera version was developed for the meat industry. This was the start of a successful product line that quickly developed into dedicated versions, to be used worldwide in all segments of the fish, meat and poultry processing industries.

Today we are proud to present a complete range of intelligent portion cutters including the waterjet. All models have been created with a customer centric focus and built based on our expertise in food processing since the early nineties.

We kindly invite you to browse through our brochure to find out more about the different PORTIO JET models, applications and our unique selling points. Our sales team is ready to answer any questions you may have.

As we are a worldwide leader with this technology and regardless of the PORTIO that you need, your choice of MARELEC will ensure that you are working with a service oriented company, one that listens to your specific needs and a flexible partner with a human approach. We look forward to our cooperation!

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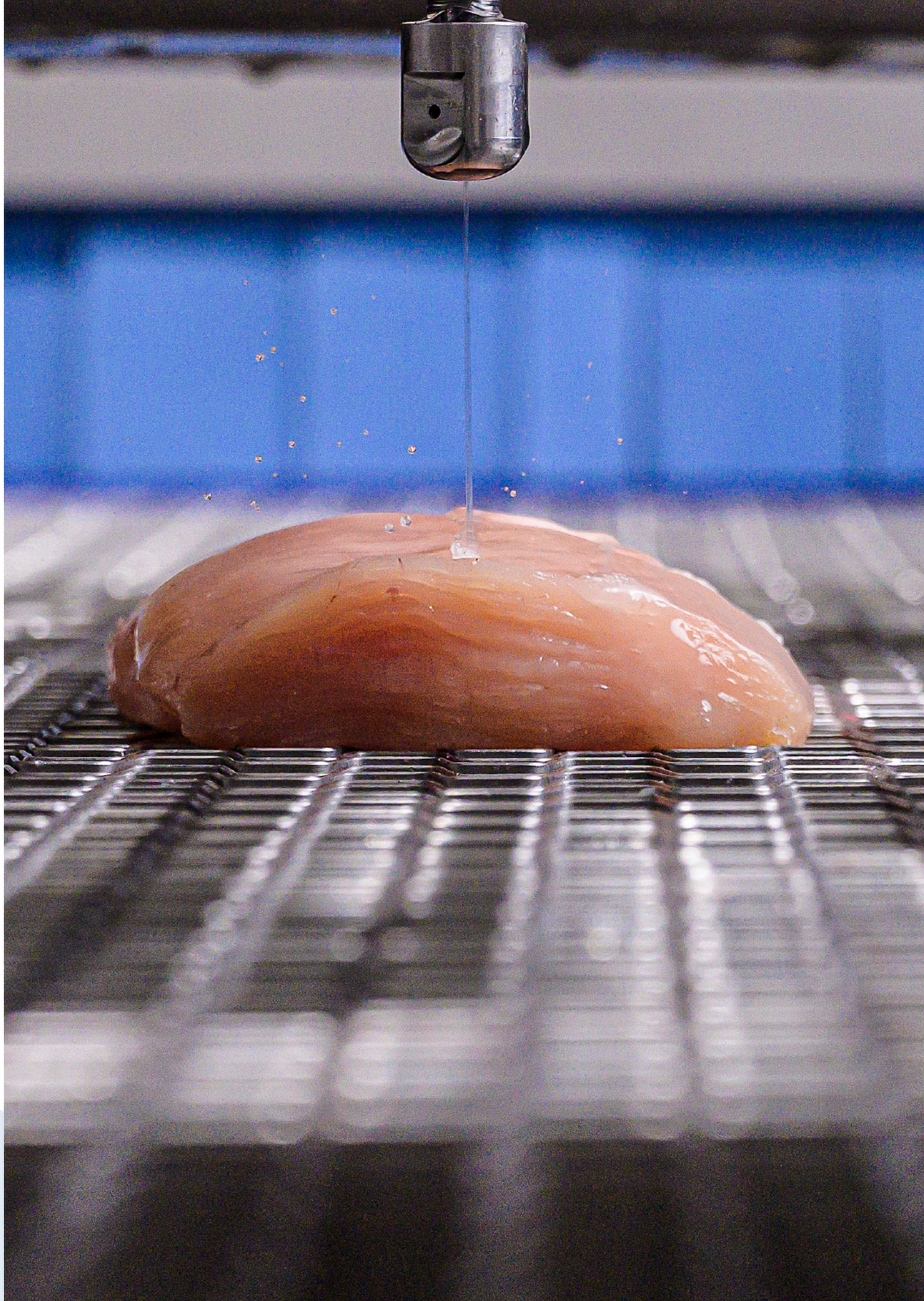


Unique Selling Points

1 // OPTIMIZED YIELD
Combining the proven MARELEC vision technology with the PORTIO JET optimization software and state of the art nozzles results in the highest possible yields.

2 // FLEXIBLE CUTTING ALGORITHMS
The PORTIO JET optimisation software calculates which cuts have priority over others to determine the cutting pattern that results in most value.

3 // UNPARALLELED ACCURACY
The waterjet cutter PORTIO JET uses the latest well known and proven vision technology. A 200Hz camera scans the chicken fillets or boneless leg meat and converts this into an exact copy in a 3D model.

4 // MODULAR DESIGN FOR INCREASED CAPACITY
The base unit of our waterjet cutter exists out of 1 scanning station and a module with 2 high pressure cutting stations. This is called the PORTIO JET 2. Depending on the needs, the PORTIO JET 2 can be extended with 3 more modules with each 2 high pressure waterjet stations, resulting in 8 cutting stations in total.

5 // USER FRIENDLY SOFTWARE INTERFACE
Intuitive programming of cutting patterns and fast and easy fine-tuning of the programs results in maximum yields. The cutting pattern is shown on the screen along with the indication of the thickness and the weight of every portion.

6 // EXTREMELY HYGIENIC, EASY TO CLEAN
The waterjet cutter complies to the most stringent hygiene standards. The open structure of the portioning machine for poultry allows to pressure wash and disinfect the entire in- and outside. All cabinets with electrics and electronics have a unique drying system to prevent condensation building up as well as the dual sealing concept on all doors.

7 // SERVICE
MARELEC has built a very strong reputation for its after sales service. A team of service engineers is available 24/7 to reply to your queries. The machine can be connected to the internet, which allows our service team to diagnose the status of the machine from our head office. This puts us in a position to react on the spot to assist you.

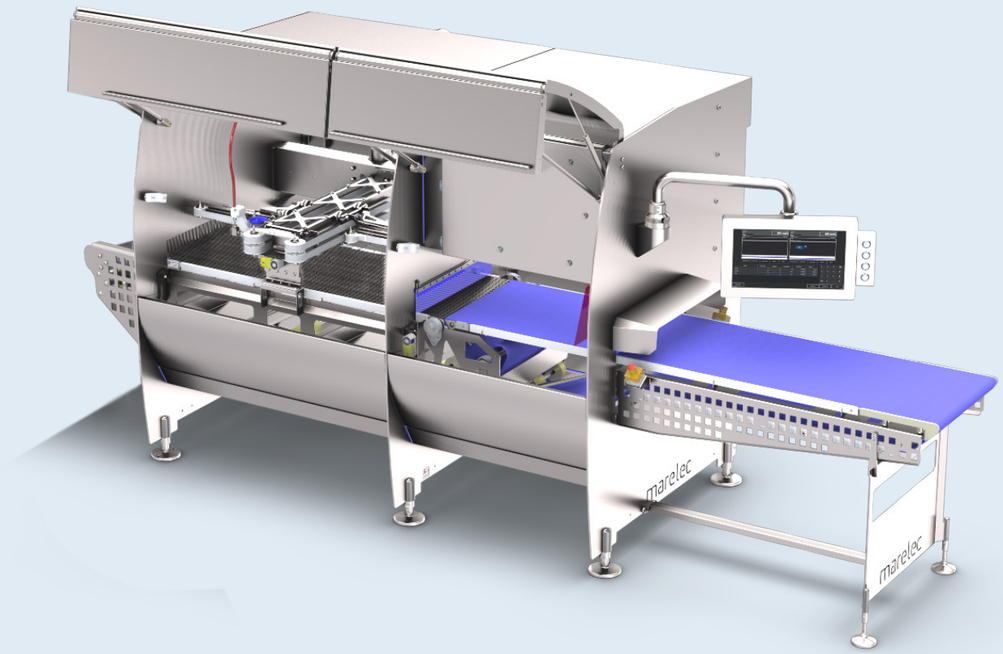
PORTIO JET

The PORTIO JET is developed to maximize yields when cutting predetermined shapes to fixed weights out of poultry fillets or deboned leg meat. The camera laser combination scans to the highest accuracy and the intelligent cutting algorithm calculates the optimal cutting pattern.

There's a list of pre-determined cutting patterns programmed where parameters such as weight and size from the portions can be adapted. There is a mode where the cutting pattern can be drawn on a scanned product to define specs.

Over 300 programs can be stored with a customized name making it possible to switch cutting patterns within seconds. Multiple streams of products can be loaded next to each other on the 600mm/24" wide belt and work with multiple applications simultaneously.

Typical applications are cutting chicken fillets into fixed weight portions, cubes or strips. Boneless leg meat can be trimmed down and portioned into fixed weight portions, better known as steaks or thigh patty. Very popular patterns are strips or cubes, such as karaage, kakugiri or BLK.



The PORTIO JET is built in a modular way. It starts with the base module where all electronics, scanning and HMI are integrated. As a standard this base unit is controlling a module with 2 cutting stations. This combination is called PORTIO JET 2.

The standard unit can be extended by series of modules with 2 high pressure waterjet nozzles up to 4 modules or 8 stations in total. Thanks to the moduler design, these extra stations can be added whenever your volumes would require so.

The MATRIX J software collects all production data from the PORTIO JET and allows it to generate production reports per shift or program and to trace changes on machine level. MATRIX J software enables users to remotely make programs offline and monitor the machine status through an event log.

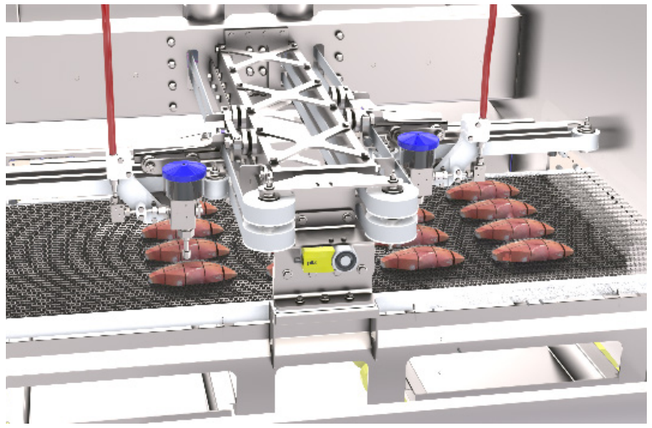
Overview

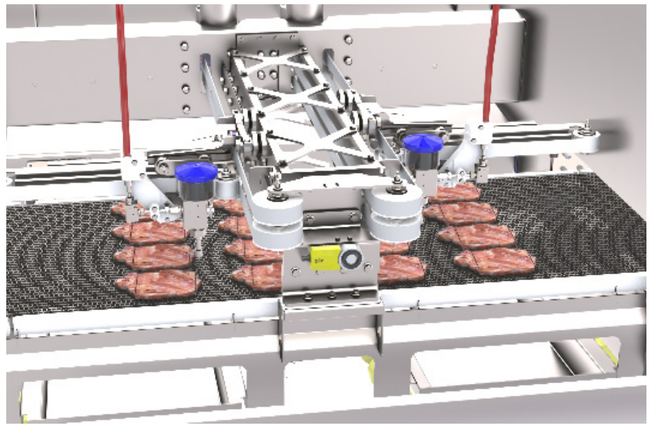
Applications & capacities

			PORTIO JET 2	PORTIO JET 4	PORTIO JET 6	PORTIO JET 8
Product	Raw material	Application	Capacity			
	Fillets ≈ 250 gram	Cubes 15 g	> 500 kg/hour	> 1000 kg/hour	> 1500 kg/hour	> 2000 kg/hour
		Cubes 30 g	> 1000 kg/hour	> 2000 kg/hour	> 3000 kg/hour	> 4000 kg/hour
		Strips 45 g	> 1500 kg/hour	> 3000 kg/hour	> 4500 kg/hour	> 6000 kg/hour
	≈ 120 gram deboned thigh meat*	Thigh patty / steak 85 g	> 1000 kg/hour	> 2000 kg/hour	> 3000 kg/hour	> 4000 kg/hour
	≈ 220 gram deboned whole leg meat*	Cubes / BLK 20 g	> 700 kg/hour	> 1400 kg/hour	> 2100 kg/hour	> 2800 kg/hour

* With optional 6000 bar pump

Specifications depend on product characteristics. Contact our sales team to find out the yield and capacity for your application.

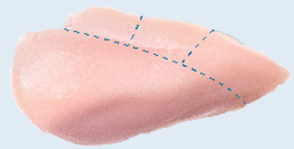


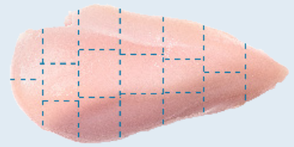


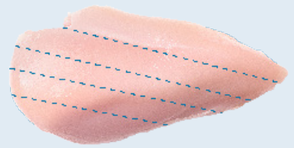
Scan to see the machine in action

Cutting patterns

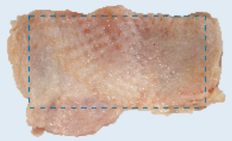
Half-breast Portions

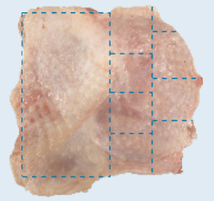


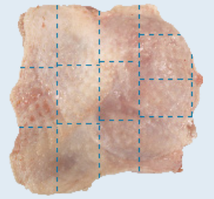




Leg Meat

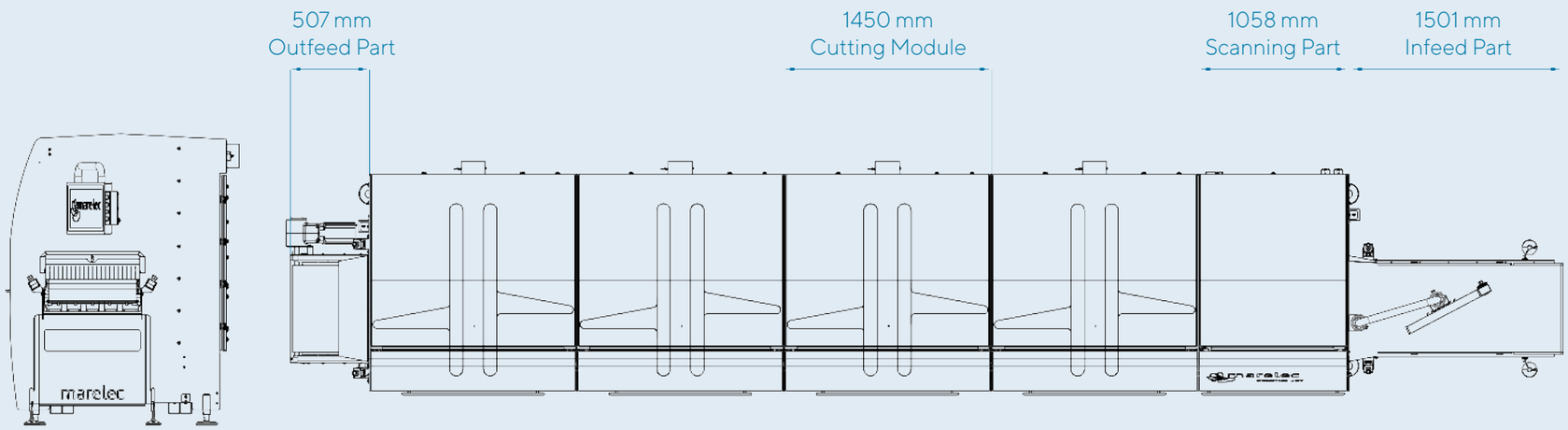


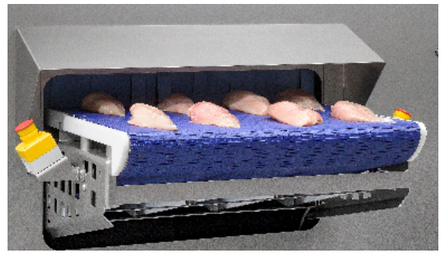


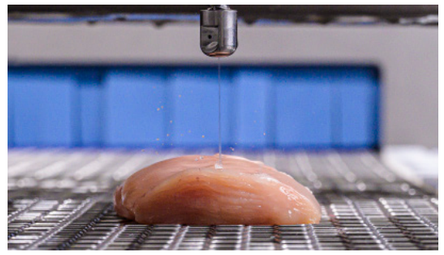


Specifications

	PORTIO JET 2	PORTIO JET 4	PORTIO JET 6	PORTIO JET 8
L x W x H	4550 x 1657 x 2031 mm / 179 x 65 x 80 inch	6000 x 1657 x 2031 mm / 236 x 65 x 80 inch	7450 x 1657 x 2031 mm / 293 x 65 x 80 inch	8900 x 1657 x 2031 mm / 350 x 65 x 80 inch
Net weight	1500 kg	2000 kg	2500 kg	3000 kg
Belt width	600 mm / 24 inch			
Cutting stations	2	4	6	8
Belt speed	50 - 450 mm/s			
Power plug	3 x 400 VAC + N + PE 63A	3 x 400 VAC + N + PE 63A	3 x 400 VAC + N + PE 125A	3 x 400 VAC + N + PE 125A
Power	40 kW	40 kW	80 kW	80 kW
Water consumption	200 liter/hour	400 liter/hour	600 liter/hour	800 liter/hour
Maximum pressure	standard: 3800 bar optional: 6000 bar			
Userdefinable programs	299			







Options

1 // DENSITY SCALE OR DYNAMIC INFEED WEIGHER

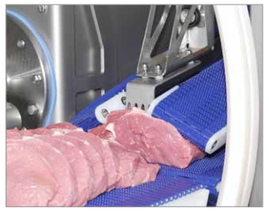
When the density of the products varies, the expected accuracy can be obtained using a Density Scale or Dynamic Infeed Weigher (DIW) before the PORTIO. The weight of each individual product is communicated to the PORTIO which will calculate the correct density automatically, for each separate product.

2 // APH

The **Automatic Product Holder** consists of one or multiple pneumatic controlled arms with conveyor belts. These arms will prevent rounder, slippery or crust frozen products from moving during the cutting. Also recommended when multiple cuts are done at an angle.

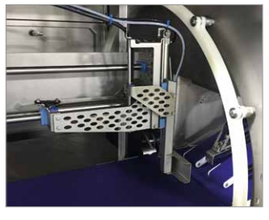
3 // BH

The **Back Holder** combines 2 wide arms of the APH with a fork on a linear guiding in between. The outer arms with conveyors prevent the products from moving during the cutting, where the fork keeps the last portion upwards and prevents it from tipping over before the last cut is made.



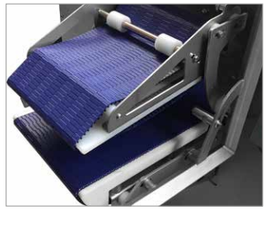
4 // FH

The **Front Holder** is a movable arm with a plate positioned above the outfeed belt. It supports the product from the front in combination with the BH, which is supporting the product from the back. This prevents the product from deforming to a wider shape during the cutting.



5 // OPH

The unique **Outfeed Product Holder** is a conveyor belt at the outfeed of the machine. This option is recommended when a grader is placed in line with the PORTIO, in order to separate the portions. This to avoid that multiple portions are passing over the weighing unit at the same time.



6 // RO

The **Retractable Outfeed** allows to separate the head and/or tail trim from the product. At the end of the outfeed, the belt will retract under the product to drop the trim into a crate underneath. The rest of the portions will be separated by a conveyor behind the RO.

7 // BLOW OFF

To help the separation of the trim from the portions, a pneumatic nozzle blows from the top or from te side at the end of the outfeed conveyor.

8 // HIGH SPEED CUTTING

To reach the highest capacity of the PORTIO 1A and PORTIO 3A, the cutting speed can be increased to 25 cuts per second.

9 // GRADER IN LINE WITH PORTIO

To optimise yields, multiple target weights can be programmed on the PORTIO. To group the different weights together, a grader is put in line with the PORTIO. The OPH on the PORTIO will separate the portions and acceleration conveyors of the grader provides the correct distance between the portions to optimise the maximum capacity by consistent feeding to the weighing unit.

10 // MATRIX CP

The MATRIX CP software collects all production data from the PORTIO and allows it to generate production reports per shift or program and to trace changes on machine level. MATRIX CP enables users to remotely make programs and monitor the machine status through an event log.

11 // MARELEC SHARPENING DEVICE

A sharp knife is crucial when it comes down to cutting fresh products. The MARELEC Sharpening device guarantees the correct angle on the edge of the knife, to ensure a clean cut, the best performance and lowest cutting loss.

Cube Cutting Line

Fixed weight portioning solution

Cutting cubes out of chicken fillets adds a lot of value to your products. The cubes are the basis for various meals all around the world. Controlling the weight is crucial when it comes to preparing the cubes, or when producing fixed weight packs for retail or food service. To be profitable, cutting cubes must be done at high volumes with a maximum yield and no give away or trim.

Key Benefits

- Optimized yield
- Unmatched accuracy
- Modular belt
- Adding options
- User friendly software interface
- Service
- Low noise
- Double infeed
- Production reports MATRIX P
- Extremely hygienic, easy to clean

To cut weight controlled cubes, 2 MARELEC dual lane portion cutters type DAP are put in line. The first PORTIO will, on both lanes, scan and cut the fillets into strips. The strips coming out of the PORTIO are separated from each other by a vertical strip separator. The second PORTIO DAP is placed at 90° so that the individual strips have the correct orientation when falling on the infeed belt, without intervention of an operator. The second PORTIO DAP will then scan the strips on both lanes independently and cut to the requested target weight of the cubes. With a constant and efficient infeed of the fillets, one can easily produce 800 kg of cubes per hour, with peaks of 1 ton/hr.

Specifications

PORTIO 1DAP

Lanes	2
Cameras	2 x 1
Cutting angle	2 x 0/15/30/45/50°
Belt width	229 mm / 9 inch
Max. cutting rate	25 cuts/sec*

Max. product dimensions	950 x 210 x 60 mm / 37,5 x 8,5 x 2,5 inch
Machine dimensions	3655 x 1922 x 1663 mm / 144 x 76 x 65 inch
Machine net weight	1800 kg / 3970 lb

* For UK purchase please consult MARELEC sales department.
Subject to modifications for technical progress.

Demo

// SEEING IS BELIEVING

MARELEC Food Technologies has a state of the art demonstration room where customers are welcome to test the PORTIO with their own products. We strongly believe this is the best way to convince our dear customers of the quality of the cut, the accuracy, capacity and the obtained yields, gains and fast return on investment, using the MARELEC PORTIO.

Please contact the MARELEC sales team to make an appointment. We will make sure to have the correct machine for your application available for a successful demonstration.

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