



# SF DIRECT

## PRODUCT CATALOGUE

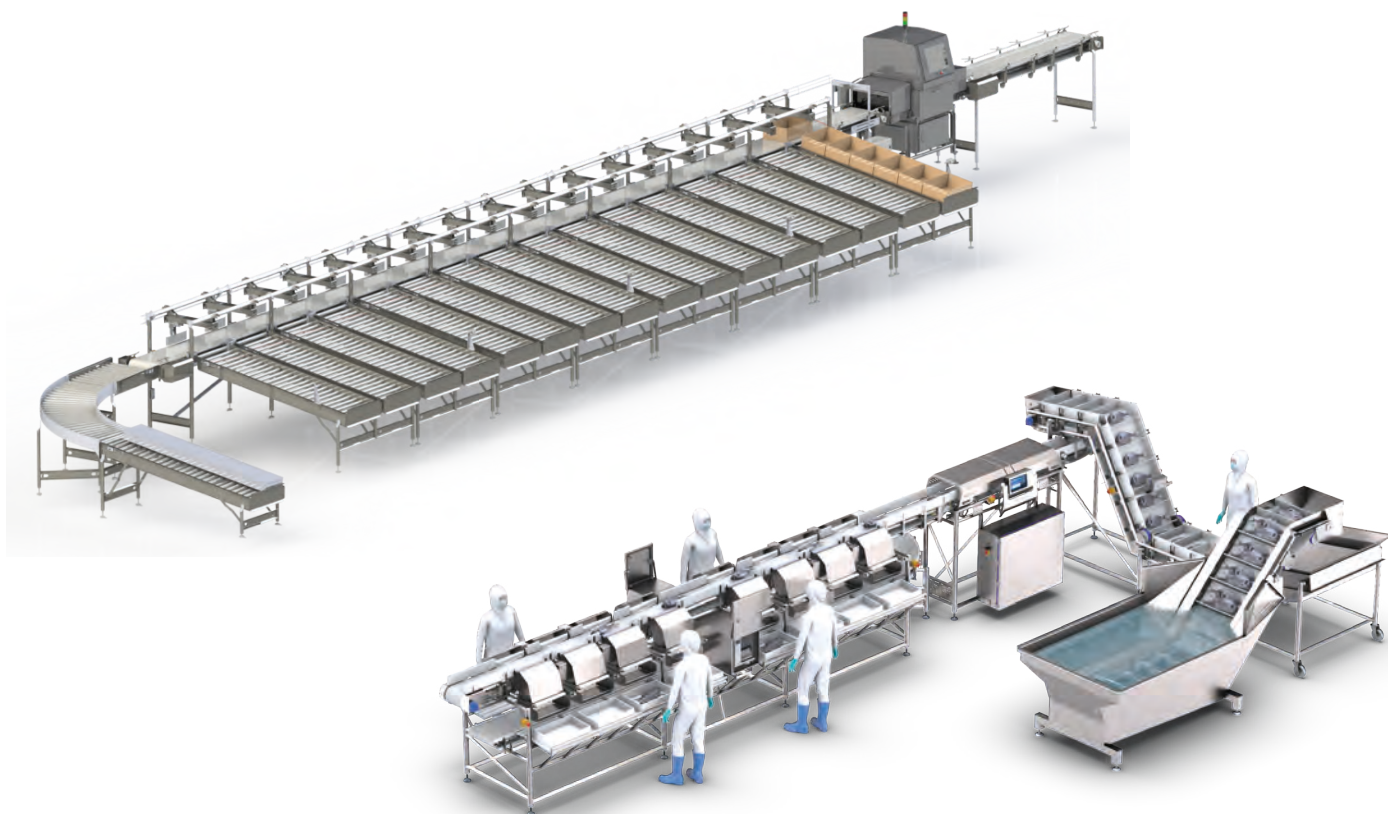
Issue 1





## Advanced production line solutions for the global food industry

We take pride in delivering solutions that make a difference.



## Stand-alone equipment

From a fully integrated design solution to a single stand-alone machine, we offer professional and informed advice from concept to completion and after-sales support.





With state-of-the-art manufacturing facilities located on the west coast of Ireland and in the east of England, SF is perfectly positioned to serve the growing operational needs of the food processing industry around the world.

Our focus is to improve our customers’ yield, increase production efficiency, and maintain product quality through the delivery of our standard and custom-built solutions.

Our approach is to ensure that we encompass a professional, competitive, and flexible philosophy in all aspects of our business.



We employ 120 people across two manufacturing sites and we have designed, manufactured, and installed food production lines and solutions in 63 countries across all seven continents.

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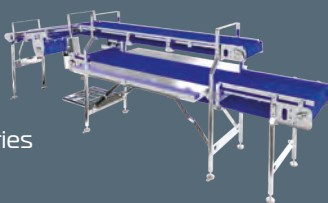
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## Real-time inspection and control of CL values in fresh, frozen, bulk, or blended meat

Eagle FA3 inline fat analysis systems use Dual Energy X-ray Absorptiometry (DEXA) to discriminate between fat and lean portions of 100% of product throughput, providing Chemical Lean (CL) measurements to better than +/- 1CL accuracy of all meat product. This non-invasive system provides lab accuracy at the speed of normal production.

Our fat analysis solutions are built in partnership with our customers. We specialise in incorporating fat analysis technology into the unique processes of each butchery and processing plant. This scalability is what sets us apart from similar systems and allows our customers to maximise the potential of this technology.

Our unique x-ray systems also measure weight and inspect 100% of the product for contaminants such as:

- Glass shards
- Metal fragments (including metal wires)
- Mineral stone
- Some plastics and rubber compounds
- Calcified bone

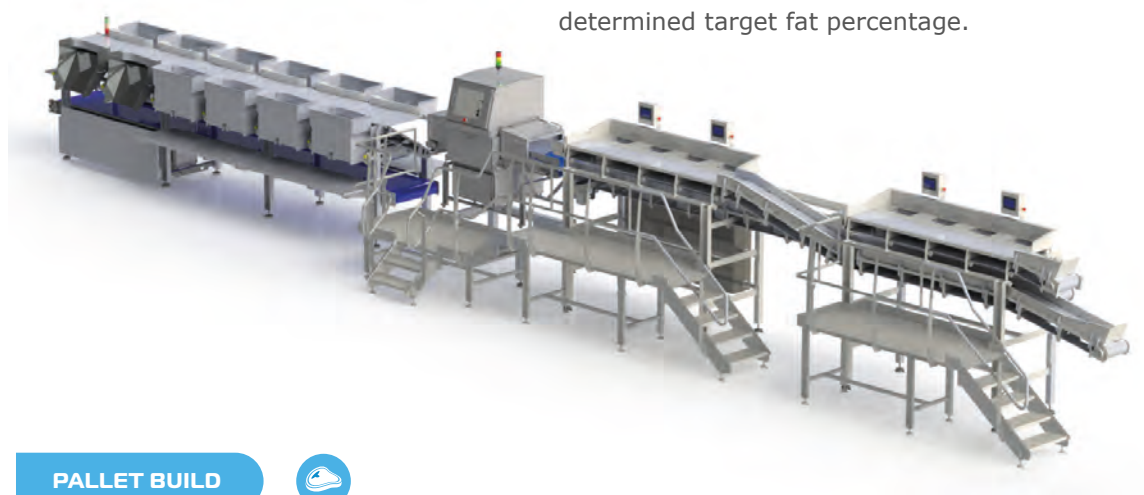
Our fat analysis systems simultaneously perform the following inline product integrity checks:

- Contaminant detection
- Protein calculations
- Fat analysis
- Moisture calculations of the meat
- Chemical lean
- Mass measurement

### TRIM MANAGEMENT



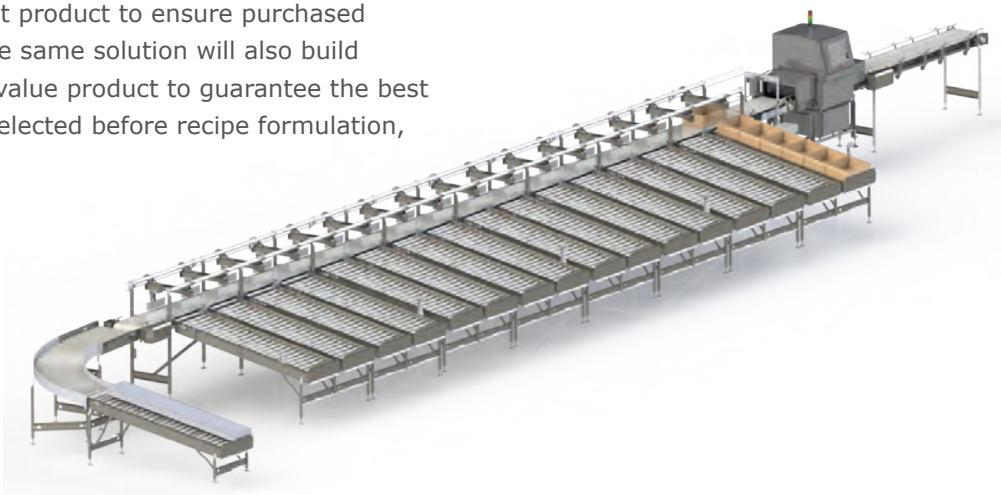
Designed for butcheries and slaughterhouses, the SF Trim Management System allows you to accurately analyse the CL ratio of red meat and manage your trim into batches of a pre-determined target fat percentage.



### PALLET BUILD



Our pallet-built solutions for meat processors effortlessly inspect and grade incoming boxed meat product to ensure purchased meat was accurately priced. The same solution will also build preproduction batches of %CL value product to guarantee the best possible batch combination is selected before recipe formulation, mincing, and blending.



### RECIPE FORMULATION



The SF recipe formulation system enables processors to formulate meat recipes containing one, two, or more meat types whilst achieving a consistent and accurate CL value. This turnkey solution reduces lean meat giveaway, allowing the processor to achieve accurate blending targets. It also eliminates downgrading or recipe re-works and ensures consistent product quality.



# Intelligent portioning machines for meat, fish, & poultry



Watch on YouTube



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Capable of making up to 1,500 fixed-weight cuts per minute\*, this high-precision, economic cutting machine has unmatched accuracy.

## Optimised yield

The PORTIO has the ability to scan to the highest accuracy whilst the highly intelligent cutting algorithm ensures all portions are within margins and trim is reduced. Fixed weight, fixed thickness, or a combination of variable weight and thickness allows you to portion the primals to a maximum yield. This level of accuracy and obtained yield gains have consistently proven to offer our customers a fast return on investment.

## User-friendly software

Setting up cutting programs is very intuitive and user-friendly. Each program shows the cutting pattern of the product on the screen along with an indication of the thickness and weight of every portion. This makes product fine-tuning easy and efficient.

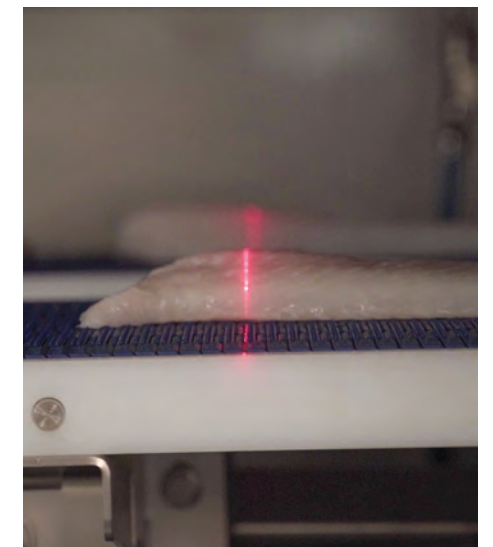
## Unmatched accuracy

The latest laser vision technology, featuring 400Hz cameras, ensures unparalleled accuracy. One camera at the top perfectly scans flat products such as fillets. Three camera configurations scan the contours of more rounded products such as meat primals or whole fish. Understanding the density of the product allows the system's intelligent software to calculate where to cut to ensure optimum target weights.

## Hygienic & easy to clean




Designed and built to comply with the most stringent hygiene standards, the doors can be opened or removed, leaving a completely open structure to pressure wash and disinfect.

\* Using HSC (High Speed Cutting) available as an extra on PORTIO 1/3A. Up to 1000 fixed weight cuts without HSC.





PORTIO QUICK REFERENCE GUIDE

|             |  |  |  | No. of Cameras | Cutting angle     | No. of lanes                            |
|-------------|---|---|---|----------------|-------------------|---|
| Meat        |   |   |   |                |                   |   |
| PORTIO 1    | ✗   | Flat fish   | ✓   | 1              | 0°                | 1                                       |
| PORTIO 1A   | ✗   | Flat fish   | ✓   | 1              | 0°, 30°, 45°      | 1                                       |
| PORTIO 3    | ✓   | Whole fish  | ✗   | 3              | 0°                | 1                                       |
| PORTIO 3A   | ✓   | ✓   | ✓   | 3              | 0°, 30°, 45°      | 1                                       |
| PORTIO B    | ✓   | ✗   | ✗   | 3              | 0°                | 1                                       |
| PORTIO 1DAP | ✗   | Flat Fish   | ✓   | 2              | 0°, 15°, 30°, 45° | 2                                       |
| PORTIO 3D   | ✓   | ✗   | ✓   | 6              | 0°, 15°, 30°, 45° | 2                                       |
| PORTIO JET  | ✓   | ✓   | ✓   | 2              | 0°                | 1 lane<br>2 - 4 jets or<br>6 - 8 jets * |

\* Depending on number of modules

PORTIO 1



|                               |  |
|-------------------------------|--|
| <b>Description</b>            | Cuts fresh fish, boneless meat, and poultry into portions of fixed weight, fixed thickness, or a combination of variable weight and thickness. |
| <b>Max product dimensions</b> | Up to 950 (l) x 240 (w) x 150 (h) mm depending on the cutting program (37.4 (l) x 9.5 (w) x 6 (h) inch)  |
| <b>Cutting rate</b>           | Up to 17 cuts/sec. Depending on knife type and product   |
| <b>Camera</b>                 | 1 top camera   |
| <b>Belt</b>                   | Modular, non-slip  |
| <b>Belt width options</b>     | 254mm (10") / 304.8mm (12") / 355.6mm (14") / 406.4mm (16")  |
| <b>Belt speed</b>             | Adjustable from 40 to 450 mm/sec. or 0.13 to 1.48 ft/sec   |

PORTIO 1A



|                               |   |
|-------------------------------|---|
| <b>Description</b>            | Cuts fresh poultry or flat fish into portions of fixed weight, fixed thickness, or a combination of variable weight and thickness with the option of adjusting the cutting angle of the knife to 0°, 30°, or 45° from vertical. |
| <b>Max product dimensions</b> | Up to 950 (l) x 240 (w) x 150 (h) mm depending on the cutting program (Up to 37.4 (l) x 9.5 (w) x 6 (h) inch)   |
| <b>Cutting rate</b>           | Up to 25 cuts/sec (with HSC). Depending on knife type and product   |
| <b>Camera</b>                 | 1 top camera  |
| <b>Belt</b>                   | Modular, non-slip   |
| <b>Belt width</b>             | 254mm (10")   |
| <b>Belt speed</b>             | Adjustable from 40 to 450 mm/sec. or 0.13 to 1.48 ft/sec.   |

PORTIO 3



|                               |  |
|-------------------------------|--|
| <b>Description</b>            | Cuts fresh whole fish and boneless meat into portions of fixed weight, fixed thickness, or a combination of variable weight and thickness. |
| <b>Max product dimensions</b> | Up to 800 (l) x 240 (w) x 150 (h) mm depending on the cutting program (31.5 (l) x 9.5 (w) x 6 (h) inch)                                    |
| <b>Cutting rate</b>           | Up to 17 cuts/sec. Depending on knife type and product   |
| <b>Camera</b>                 | 3 camera systems – laser top, left and right for 360° view   |
| <b>Belt</b>                   | Modular, non-slip  |
| <b>Belt width options</b>     | 254mm (10") / 304.8mm (12") / 355.6mm (14") / 406.4mm (16")  |
| <b>Belt speed</b>             | Adjustable from 40 to 450 mm/sec. or 0.13 to 1.48 ft/sec   |

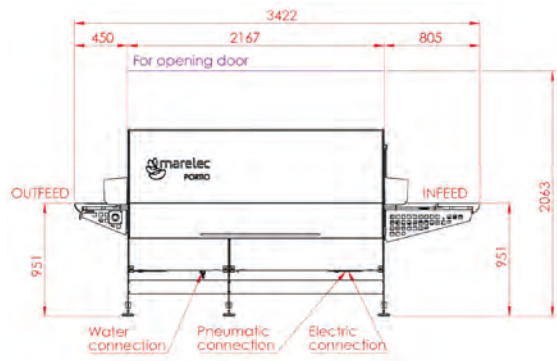
PORTIO 3A



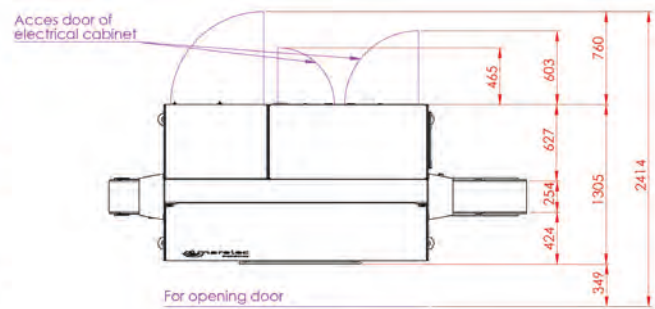
|                               |  |
|-------------------------------|--|
| <b>Description</b>            | Cuts fresh poultry into portions of fixed weight, fixed thickness, or a combination of variable weight and thickness with the option of adjusting the cutting angle of the knife to 0°, 30°, or 45° from vertical. |
| <b>Max product dimensions</b> | Up to 800 (l) x 240 (w) x 150 (h) mm depending on the cutting program (Up to 31.5 (l) x 9.5 (w) x 6 (h) inch)  |
| <b>Cutting rate</b>           | Up to 17 cuts/sec. Depending on knife type and product   |
| <b>Camera</b>                 | 3 camera systems – laser top, left and right for 360° view   |
| <b>Belt</b>                   | Modular, non-slip  |
| <b>Belt width</b>             | 254mm (10")  |
| <b>Belt speed</b>             | Adjustable from 40 to 450 mm/sec. or 0.13 to 1.48 ft/sec.  |

PORTIO 1, & 3  
with 254mm  
wide belt

Side elevation

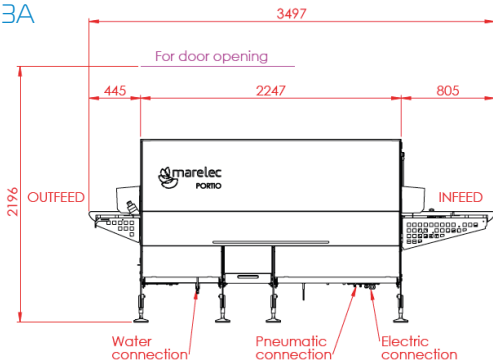


Top elevation

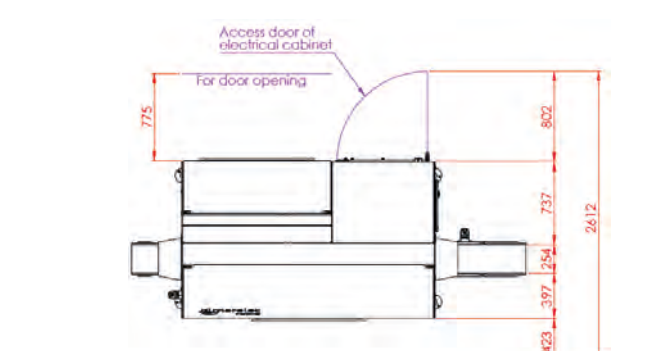


PORTIO 1A, & 3A  
with 254mm  
wide belt

Side elevation



Top elevation

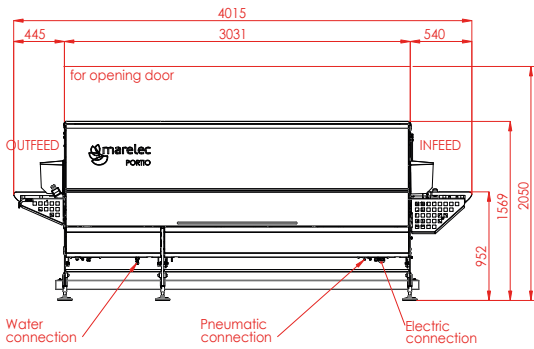




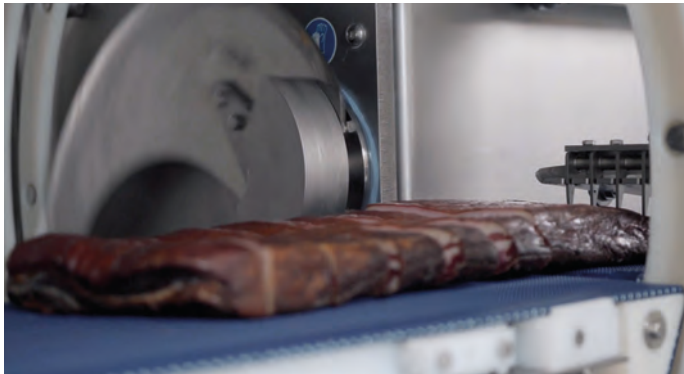
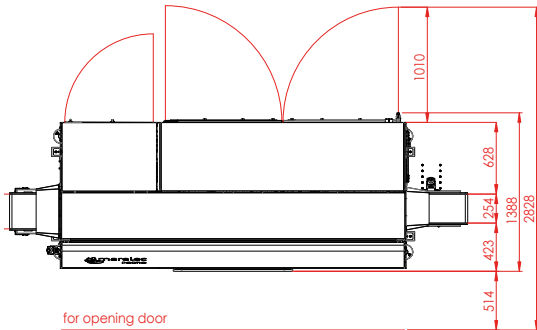
PORTIO B



Side elevation



Top elevation

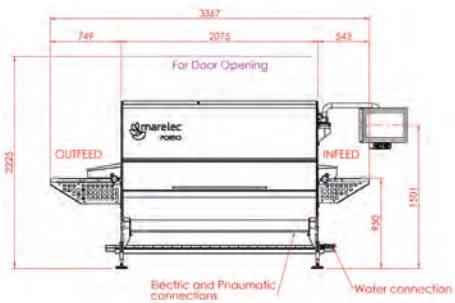


|                               |  |
|-------------------------------|--|
| <b>Description</b>            | Cuts crust frozen bone-in pork loins or crust frozen meat into portions of fixed weight, fixed thickness, or a combination of variable weight and thickness. |
| <b>Max product dimensions</b> | Up to 800 (l) x 240 (w) x 200 (h) mm depending on the cutting program (Up to 31.5 (l) x 9.5 (w) x 7.85 (h) inch)   |
| <b>Cutting rate</b>           | Up to 5 cuts/sec. Depending on knife type and product  |
| <b>Camera</b>                 | 3 cameras/lasers placed at 120° between each to make 360° scans of bone-in products  |
| <b>Belt</b>                   | Modular, non-slip  |
| <b>Belt width</b>             | 254mm (10")  |
| <b>Belt speed</b>             | Adjustable from 40 to 450 mm/sec. or 0.13 to 1.48 ft/sec.  |

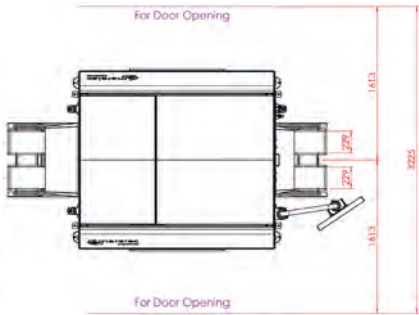
PORTIO 1DAP



Side elevation



Top elevation

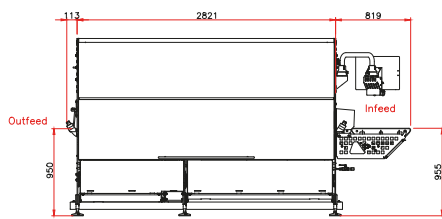


|                               |  |
|-------------------------------|--|
| <b>Description</b>            | Dual lane portioning machine that cuts fresh fish fillets, fresh poultry fillets, or boneless thigh meat into portions of fixed weight, fixed thickness, or a combination of variable weight and thickness with the option of adjusting the cutting angle of the knife in each lane independently to 0°, 15°, 30°, or 45° from vertical. |
| <b>Max product dimensions</b> | Up to 950 (l) x 210 (w) x 60 (h) mm depending on the cutting program (Up to 37.4 (l) x 8.5 (w) x 2.36 (h) inch)  |
| <b>Cutting rate</b>           | Up to 25 cuts/sec. Depending on knife type and product   |
| <b>Camera</b>                 | 2 camera systems – 1 camera per lane   |
| <b>Belt</b>                   | Modular, non-slip  |
| <b>Belt width options</b>     | 228mm (9")   |
| <b>Belt speed</b>             | Adjustable from 60 to 600 mm/sec. or 0.2 to 1.97 ft/sec.   |

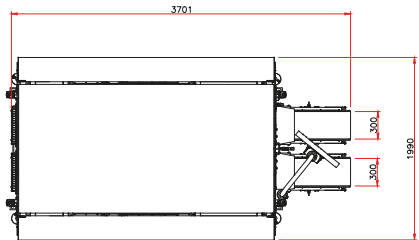
PORTIO 3D



Side elevation



Top elevation



|                               |  |
|-------------------------------|--|
| <b>Description</b>            | Dual lane portioning machine that cuts fresh fish and boneless meat into portions of fixed weight, fixed thickness, or a combination of variable weight and thickness. |
| <b>Max product dimensions</b> | Up to 800 (l) x 280 (w) x 150 (h) mm depending on the cutting program (Up to 31.5 (l) x 11 (w) x 6 (h) inch)   |
| <b>Cutting rate</b>           | Up to 14 cuts/sec. Depending on knife type and product   |
| <b>Camera</b>                 | 6 camera systems – laser top, left and right for 360° view   |
| <b>Belt</b>                   | Modular, non-slip  |
| <b>Belt width options</b>     | 300mm standard, 350mm max  |
| <b>Belt speed</b>             | Adjustable from 40 to 450 mm/sec. or 0.13 to 1.48 ft/sec   |

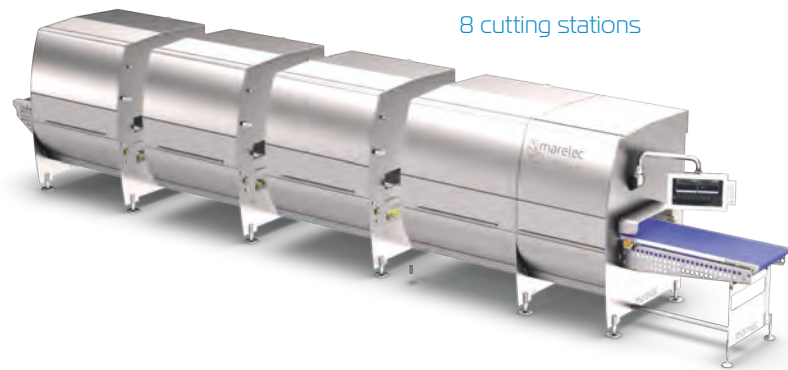




PORTIO JET



2 cutting stations



8 cutting stations

Watch on YouTube



|                        |   |
|------------------------|---|
| Description            | Cuts fresh fish and boneless poultry products into predetermined shapes whilst maintaining fixed weights. By-products can be cut into strips and cubes. |
| Max product dimensions | Max. product dimensions: 800 x 580 x 70 mm / 31,5 x 22,8 x 2,75 inch  |
| Cutting stations       | 2 cutting stations per module as standard. Up to 8 stations with additional modules   |
| Camera                 | 2 top cameras   |
| Belt width             | 600mm (24")   |
| Cutting rate           | Depending on the application and amount of cutting stations   |

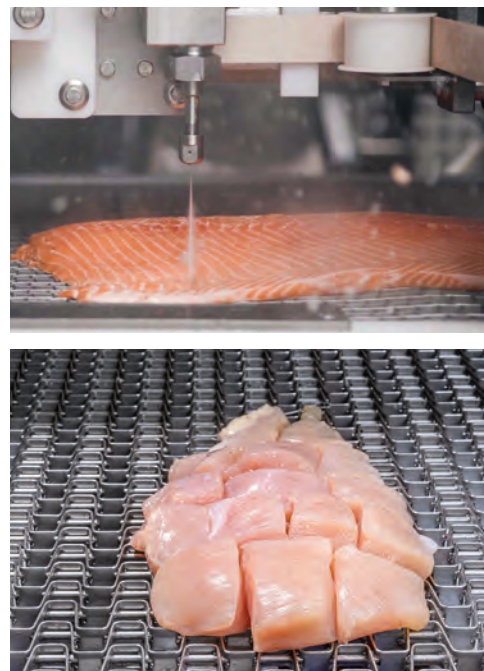
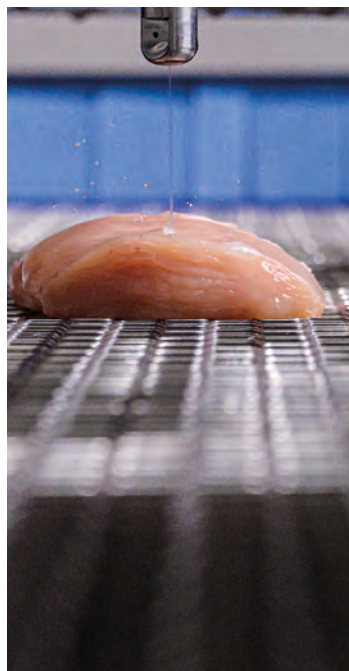
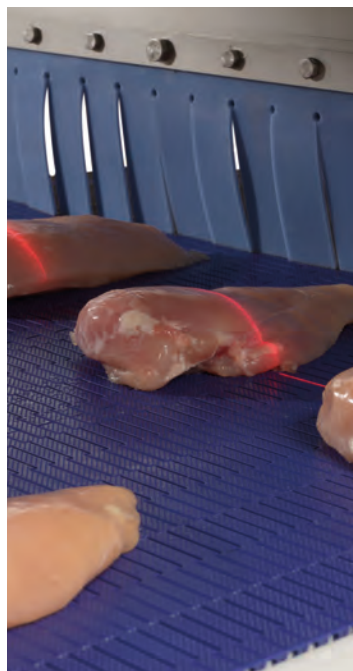
Typical applications



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. Strips or cubes, such as karaage, kakugiri, or BLK, are extremely popular.



Cutting salmon fillets into fixed-weight loin portions, belly trim, and tail section. By-products can be cut into strips and cubes. White fish fillets can also be portioned into several fixed-weight portions.



PORTIO Extras

DYNAMIC INFEEED WEIGHER (DIW) WITH DOUBLE WEIGHING PLATE



|                            |  |
|----------------------------|--|
| Description                | Automatically adjusts the default density value of each individual product by weighing before portioning, enabling the PORTIO to optimise cutting results for individual products. |
| Infeed conveyor            | 750mm   950mm  |
| Weighing belts             | 300 + 450mm   300 + 650mm  |
| Max product dimensions     | 670mm   800mm  |
| Capacity by product length | 670mm : max 35pcs/min   800mm : max 29pcs/min  |
| Resolution of the weight   | 1 gram   |
| Precision                  | Standard deviation 1.5g  |
| Weighing range             | 0-5kg  |
| Control                    | Fully controlled by the PORTIO   |

DENSITY SCALE



|                |   |
|----------------|---|
| Description    | Allows you to adjust the default density value of each individual product by weighing before portioning, enabling the PORTIO to optimise cutting results for individual products. |
| Nominal Weight | 0-15kg  |
| Precision      | 0.1%  |
| Speed          | Maximum 0.5 Seconds   |
| Platform       | 400 x 400mm (15.17" x 15.17")   |
| Loadcells      | Hermetically IP67 protected   |

AUTOMATIC PRODUCT HOLDER (APH)



|             |   |
|-------------|---|
| Description | Recommended to keep the product in place in applications that include frozen crusts, slippery products, smoked products, hard-rounded products, and when cutting on an angle. |
| Arms        | 2   |
| Belt        | Cone top  |
| Belt width  | Each belt is 76mm (3")  |
| Drive       | Stainless steel drum motor  |

DOUBLE AUTOMATIC PRODUCT HOLDER (APH) FOR PORTION IDAP



|             |   |
|-------------|---|
| Description | Recommended to keep the product in place in applications that include frozen crusts, slippery products, smoked products, hard-rounded products, and when cutting on an angle. |
| Arms        | 4   |
| Belt        | Cone top  |
| Belt width  | Each belt is 76mm (3")  |
| Drive       | Stainless steel drum motor  |

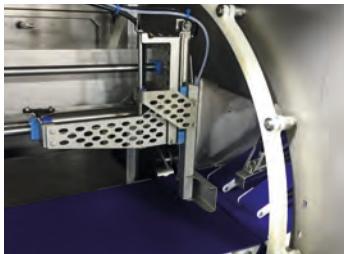


BACK HOLDER (BH)



|             |   |
|-------------|---|
| Description | Recommended to maintain the position of the last portion on high products. The pneumatic-driven fork gently supports the last portion and guides it upwards at the same speed as the in-feed belts to ensure maximum yield. |
| Arms        | 2   |
| Belt        | Cone top modular belt   |
| Belt width  | Each belt is 76mm (3")  |
| Drive       | Stainless steel drum motor  |

FRONT HOLDER (FH)



|                 |   |
|-----------------|---|
| Description     | Recommended to support portions of higher product from the front. A servo-driven plate holds the first portion upwards and keeps all following portions together. |
| Speed           | Plate moves at the same speed as the outfeed belt   |
| Recommended use | In conjunction with the back holder   |

OUTFEED PRODUCT HOLDER (OPH)



|             |  |
|-------------|--|
| Description | Necessary option when a grader is put in line directly after the PORTIO. |
| Belt        | Cone top modular belt  |
| Drive       | Stainless steel drum motor   |
| Control     | Speed controlled by PORTIO   |

RETRACTABLE OUTFEED BELT (ROB)



|                        |  |
|------------------------|--|
| Description            | Retractable belt used for separating trim after portioning |
| Outfeed belt           | 500mm long   |
| Outfeed or infeed belt | 1200mm long   1500mm long                                  |

BLOW-OFF SYSTEMS PER LANE



|             |   |
|-------------|---|
| Description | For use after portioning to remove certain cuts from the belt by air jets |
| Nozzles     | 1 or 2  |
| Fixing      | Adjustable stainless steel bracket  |
| Direction   | Blow direction can be horizontal or vertical                              |
| Software    | Optional to control nozzles   |

PORTIO Additional Extras

|                                |   |
|--------------------------------|---|
| Two Additional Cameras         | Only available for PORTIO 1 & PORTIO1A  |
| High-Speed Cutting (HSC)       | Up to 25 cuts/second. Available on PORTIO 1A / 3A with 2 mm knife   |
| Auto Clean                     | An electro valve for the cleaning of belts with a software option for auto-clean functionality  |
| Side Guides for Round products | Side Guides to prevent round products from rolling  |
| Transformer                    | When the power supply is different from standard  |
| MATRIX P Software              | Software installed on an office computer for generating shift, program, and lane reports. Allows remote access to PORTIO and traces changes at the machine level. Indicates price per portioning lane |
| Knife Sharpener                | Sharpening device for standard Marelec curved knives  |
| X-Laser Projection             | Laser line projection in the form of an X on the infeed belt indicating the correct positioning of the products   |
| Smart Glasses                  | For high-end remote support. With a central camera, our smart glasses allow a remote view from the viewpoint of the wearer  |

Smart, flexible solutions for food grading applications



SF offers a range of batching and grading solutions to integrate multiple steps of your production line. We can provide a total solution that ensures your raw product is weighed, divided, and packaged correctly.

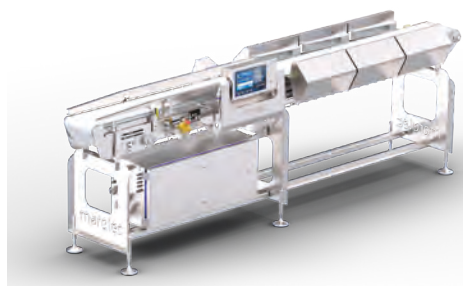
With the growing demand for ready meals and the requirement for food to be packed in a presentable way, we offer customised solutions for a wide range of batching and grading applications.

Our state-of-the-art technology creates highly advanced, accurate, and fast grading solutions for whole or portioned product applications, both fresh or frozen. We offer a full range of batching and grading options to meet all requirements.

[Visit the website](#)

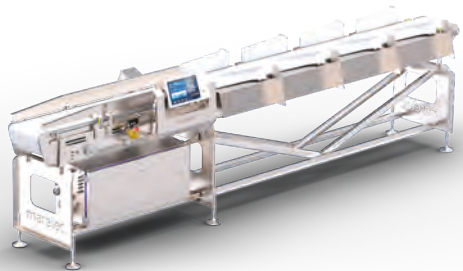


COMPACT GRADER - M3/6P-6025-D



|                               |   |
|-------------------------------|---|
| <b>Description</b>            | Designed for the weighing and grading of small and vulnerable products such as fish, poultry, and meat. Comprising of an in-feed, weigher, and 6 out-feeds in one simple and robust solution. The intelligent batching software can grade to size and number. |
| <b>Max product dimensions</b> | Up to 240mm (w) x 400 (l)   |
| <b>Product weight range</b>   | 20gr – 1.5kg  |
| <b>Resolution</b>             | 1gram   |
| <b>Precision</b>              | 20-500gram Standard deviation 1.5gram 500gram-1500gram Standard deviation 3gram   |
| <b>Max speed</b>              | 120pieces/minute (product length 400mm)   140pieces/minute (product length 300mm)   150pieces/minute (product length (200mm)  |
| <b>Output</b>                 | 6 outputs, 3 on each side without batching  |
| <b>Belt width</b>             | 250mm   |
| <b>Belt speed</b>             | 1.5m/second   |
| <b>Programs</b>               | 100 adaptable programs  |

COMPACT GRADER - M3/6P-6030-D



|                               |  |
|-------------------------------|--|
| <b>Description</b>            | Designed for the weighing and grading of products such as fish, poultry, and meat. Comprising of an in-feed, weigher, and 8 out-feeds in one simple and robust solution. The intelligent batching software can grade to size and number. |
| <b>Max product dimensions</b> | Up to 290mm (w) x 400 (l)  |
| <b>Product weight range</b>   | 0.1kg – 5kg  |
| <b>Resolution</b>             | 1gram  |
| <b>Precision</b>              | 0.1-1.5kg Standard deviation 3gram   1.5kg-3kg Standard deviation 5gram   3kg-5kg Standard deviation 10gram  |
| <b>Max speed</b>              | 100pieces/minute (product length 400mm)   110pieces/minute (product length 200mm)  |
| <b>Output</b>                 | 8 outputs, 4 on each side without batching   |
| <b>Arms</b>                   | Pull arms 100mm high   |
| <b>Belt width</b>             | 300mm  |
| <b>Belt speed</b>             | 1.5m/second  |
| <b>Programs</b>               | 100 adaptable programs   |

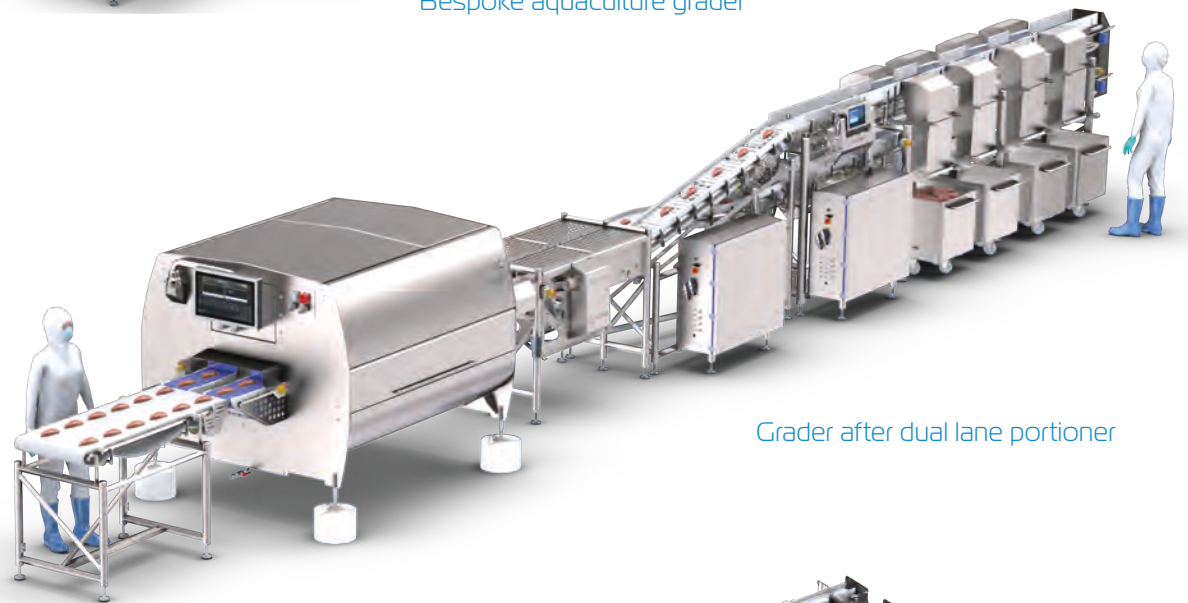
GRADER INLINE WITH PORTIO - M3/6P-6030-D



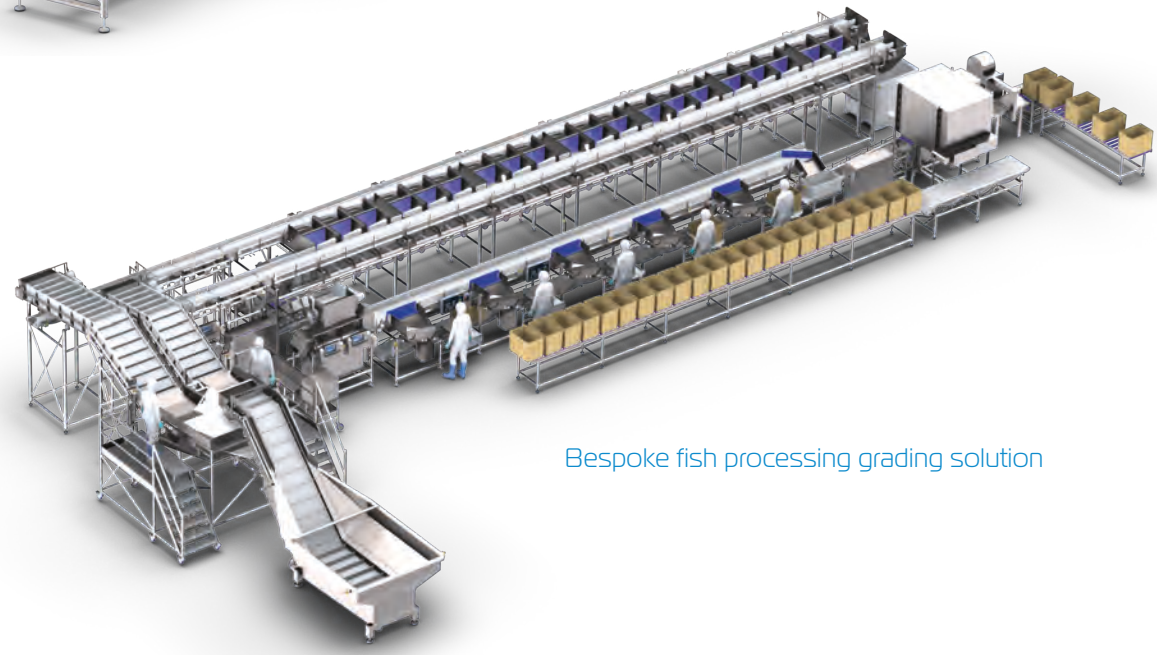
|                               |  |
|-------------------------------|--|
| <b>Description</b>            | Designed for the weighing and grading of products such as fish, poultry, and meat directly from the PORTIO portion cutter. Supplied with a 600mm long in-feed belt and M1 weigher.                                     |
| <b>Max product dimensions</b> | Up to 230mm (w) x 200 (l)  |
| <b>Product weight range</b>   | 200gram – 500gram  |
| <b>Resolution</b>             | 1gram  |
| <b>Precision</b>              | 20-200gram Standard deviation 1gram   200-500gram Standard deviation 1.5gram   |
| <b>Max speed</b>              | 250mm wide 150pieces/min with pull arms, 180pieces/min with kick arms<br>300mm wide 120pieces/min with pull arms, 150pieces/min with kick arms<br>350mm wide 90pieces/min with pull arms, 100pieces/min with kick arms |
| <b>Output</b>                 | 2, 4, 6, 8 grate options   |
| <b>Arms</b>                   | Pull arms or kick arms   |
| <b>Belt width</b>             | 250mm   300mm   350mm  |
| <b>Belt speed</b>             | Theoretical max speed +/-1.6m/sec  |



Bespoke aquaculture grader



Grader after dual lane portioner



Bespoke fish processing grading solution





Watch on YouTube

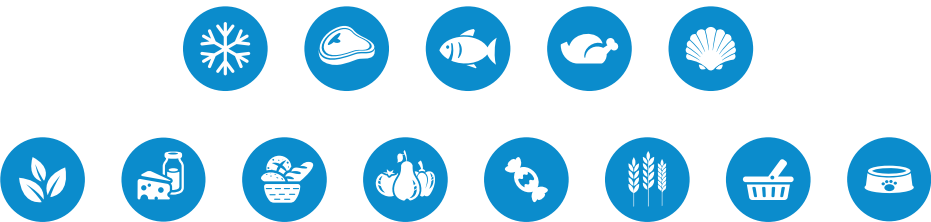


Visit the website



# Multihead Weighers

Combining high-speed operation with unparalleled accuracy and reliability



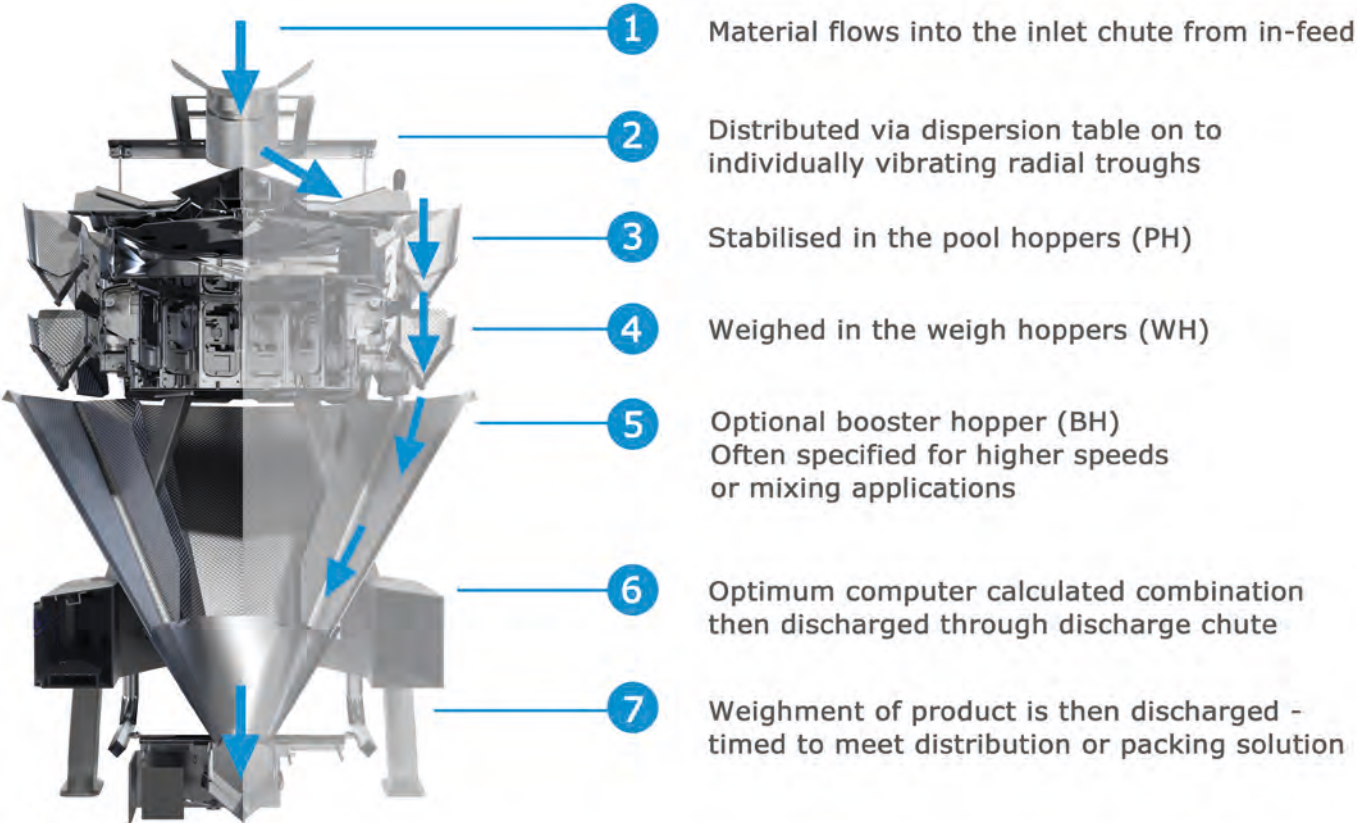
Ishida multihead weighers can be installed as part of an integrated weighing and packing line or interfaced with existing packing equipment. From entry-level to high-specification models, all Ishida's multihead weighers combine high-speed operation with unparalleled accuracy and reliability.

With more than 50,000 multihead machines installed around the world, Ishida has provided solutions for virtually every known multihead application. If you have a unique challenge, Ishida's global engineering capacity means it has the resources and capabilities to resolve it.

## The CCW Concept

Product flow in a circular weigher format.

A multihead weigher, or computer combination weigher (CCW), is an industrial weighing machine that delivers highly accurate, reliable, and high-speed weighing of food and non-food products.





# Multihead Weigher Positioning & Key Features

## SE3 Series Entry-level excellence

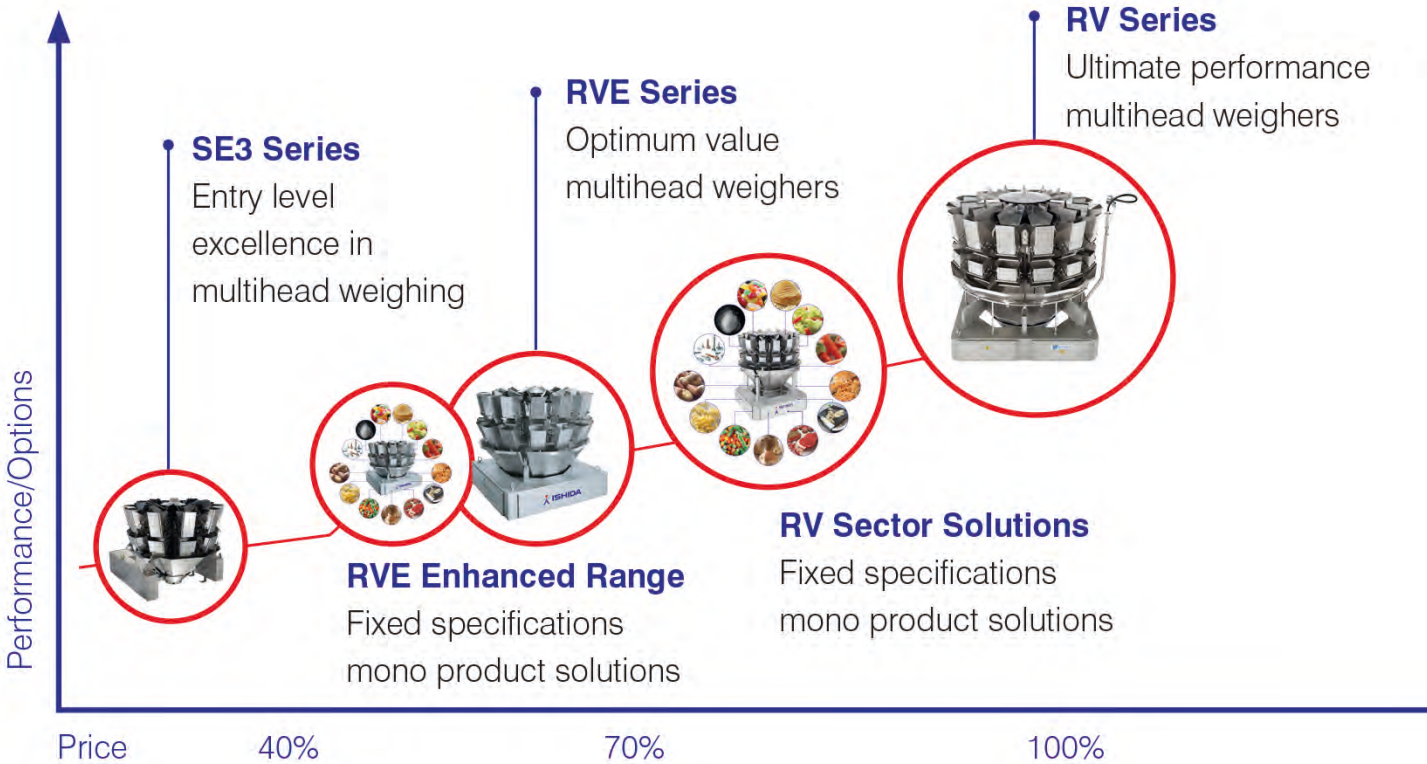
- Ishida-designed and manufactured multihead weigher but with a narrower range of options
- Free-flowing dry products, small target weights
- Entry-level price position with competitive performance where the products can overlap

## RVE Series Optimum value

- Offering features and performance to cover a broad range of applications at mid to high speeds
- Free-flowing and sticky products – for dry, fresh, or frozen applications (small to large target weights)
- Competitive and balanced price/performance position

## RV Series Ultimate performance

- For very high speeds, precision, and accuracy
- Broadest range of solutions from 10-32 heads, 0.05 to 7.0l hopper size, single to 8 mix
- Offers bespoke solutions to satisfy customers’ individual high-performance needs
- Premium price and market-leading performance



## FROZEN PROTEIN WEIGHERS



Specially designed for the medium-to-high-speed weighing of frozen meat, fish, and seafood of large target weights and typically with larger piece sizes such as fish fillets, sausages, and chicken legs.

Featuring all the benefits of the premium RV series, this weigher is ideal for the most challenging frozen and wet weighing and packing environments.

- Top protection in challenging frozen environments
- For large target weights of large piece sizes
- Suitable for certain fragile frozen products
- Achieves speeds of up to 70-100 wpm depending on product
- Steep angled discharge chute for potentially thawing product depending on model

|                                      | CCW-RV-214W-1S-30-WP-QFP1 |          | CCW-RV-214W-1S-70-WP-QFP2   |           | CCW-RV-214W-1S-70-WP-QFP3       |           |
|--------------------------------------|---------------------------|----------|-----------------------------|-----------|---------------------------------|-----------|
| Product                              | Small frozen protein      |          | Medium-sized frozen protein |           | Larger pieces of frozen protein |           |
| Max weighing speed                   | 100wpm                    |          | 90wpm                       |           | 90wpm                           |           |
| Max volume for weighing (per dump)   | 4.5 litres                |          | 10 litres                   |           | 14 litres                       |           |
| Max piece length                     | 130mm                     |          | 150mm                       |           | 240mm                           |           |
| Weighing capacity setting (per head) | 400g                      | 800g     | 2000g                       | 4000g     | 2000g                           | 4000g     |
| Minimum graduation                   | 0.1g                      | 0.2g     | 0.5g                        | 0.5g      | 0.5g                            | 1.0g      |
| Machine target weight range          | 14-500g                   | 25-1000g | 105-4000g                   | 375-8000g | 105-4000g                       | 375-8000g |

|                                      | CCW-RV-214W-1S-70-WP-QFP4       |          | CCW-RV-214W-1S-70-WP-QFP5 |           |
|--------------------------------------|---------------------------------|----------|---------------------------|-----------|
| Product                              | Larger pieces of frozen protein |          | Long fragile frozen fish  |           |
| Max weighing speed                   | 90wpm                           |          | 70wpm                     |           |
| Max volume for weighing (per dump)   | 14 litres                       |          | 14 litres                 |           |
| Max piece length                     | 240mm                           |          | 300mm                     |           |
| Weighing capacity setting (per head) | 2000g                           | 2000g    | 2000g                     | 4000g     |
| Minimum graduation                   | 0.5g                            | 0.5g     | 0.5g                      | 1.0g      |
| Machine target weight range          | 14-500g                         | 25-1000g | 105-4000g                 | 375-8000g |



BAKERY & BISCUIT WEIGHERS

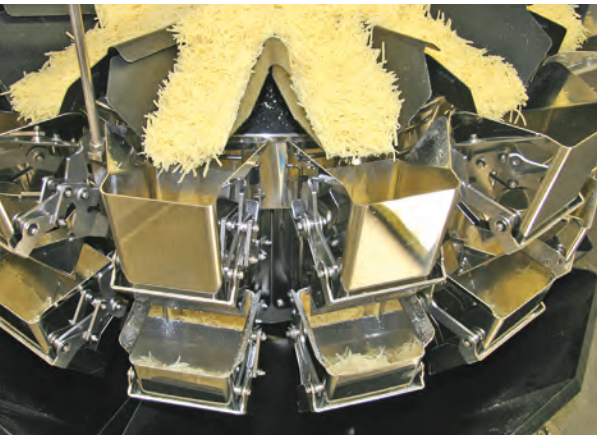


Specially designed for weighing fragile, non-fragile, and frozen bakery products. Featuring all the benefits of Ishida’s premium RV series, this weigher has been thoroughly tested to ensure a best-in-class sector solution.

- Top protection in challenging frozen environments
- Achieves speeds between 80-100 wpm depending on product

|                                      | CCW-RV-214W-1S-30-SS-BCB1            |          | CCW-RV-214W-1S-30-SS-BCB2                         |          | CCW-RV-214W-1S-30-WP-BCB3 |           |
|--------------------------------------|--------------------------------------|----------|---|----------|---------------------------|-----------|
| Product                              | Non-fragile cakes / muffins / bagels |          | Fragile free-flowing biscuits / wafers / pastries |          | Frozen bakery products    |           |
| Max weighing speed                   | 100wpm                               |          | 80wpm   |          | 90wpm                     |           |
| Max volume for weighing (per dump)   | 4.5 litres                           |          | 4.5 litres  |          | 10 litres                 |           |
| Max piece length                     | 70mm                                 |          | 70mm  |          | 150mm                     |           |
| Weighing capacity setting (per head) | 400g                                 | 800g     | 400g  | 800g     | 2000g                     | 4000g     |
| Minimum graduation                   | 0.1g                                 | 0.2g     | 0.1g  | 0.2g     | 0.5g                      | 1.0g      |
| Machine target weight range          | 14-500g                              | 25-1000g | 14-500g   | 25-1000g | 105-4000g                 | 375-8000g |

CHEESE WEIGHERS



Specially designed for the high-speed weighing of sticky dried fruit such as dates, prunes, apricots, and raisins. Featuring all the benefits of Ishida’s premium RV series, this weigher has been thoroughly tested to ensure a best-in-class sector solution.

- Ideal for starched grated cheese
- Top protection in challenging fresh environments
- Achieves speeds of up to 80 wpm

|                                      | CCW-RV-214W-1S-30-WP-CHS1 |          | CCW-RV-214W-1S-30-WP-CHS2 |          |
|--------------------------------------|---------------------------|----------|---------------------------|----------|
| Product                              | Starched Grated Cheese    |          | Unstarched Grated Cheese  |          |
| Max weighing speed                   | 80wpm                     |          | 80wpm                     |          |
| Max volume for weighing (per dump)   | 4.5 litres                |          | 4.5 litres                |          |
| Max piece length                     | 50mm                      |          | 50mm                      |          |
| Weighing capacity setting (per head) | 400g                      | 800g     | 400g                      | 800g     |
| Minimum graduation                   | 0.1g                      | 0.2g     | 0.1g                      | 0.2g     |
| Machine target weight range          | 14-500g                   | 25-1000g | 14-500g                   | 25-1000g |

FRESH PRODUCE WEIGHERS



Specially designed for the high-speed weighing of free-flowing, bulky fresh fruit and vegetables of variable piece sizes. Featuring all the benefits of Ishida’s premium RV series, this weigher has been thoroughly tested to ensure a best-in-class sector solution.

- Ideal for bulky, free flowing fruit & vegetables
- Minimises high product impacts & excessive noise
- Achieves speeds of up to 70 wpm

|                                      | CCW-RV-214W-1S-70-SS-FPR1       |           |
|--------------------------------------|---------------------------------|-----------|
| Product                              | Bulky, free-flowing fruit & veg |           |
| Max weighing speed                   | 70wpm                           |           |
| Max volume for weighing (per dump)   | 14 litres                       |           |
| Max piece length                     | 150mm                           |           |
| Weighing capacity setting (per head) | 2000g                           | 4000g     |
| Minimum graduation                   | 0.5g                            | 1.0g      |
| Machine target weight range          | 105-4000g                       | 375-8000g |

PET FOOD WEIGHERS

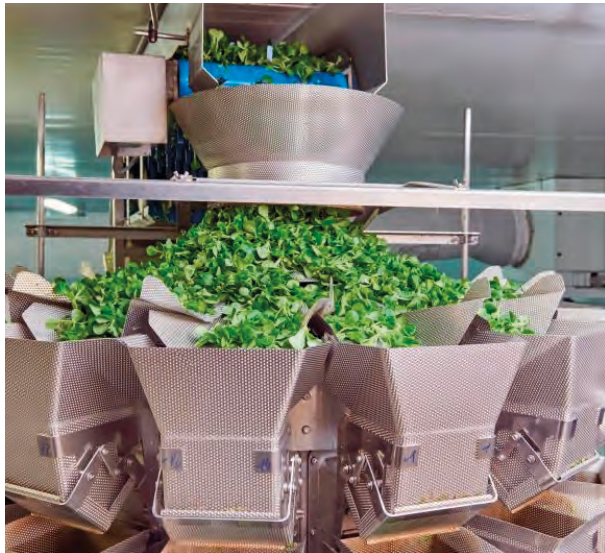


Specially designed for the medium-to-high speed weighing of large bulk volumes of dry, free-flowing pet food products such as biscuits or dried vegetable-based products. Featuring all the benefits of Ishida’s premium RV series, this weigher has been thoroughly tested to ensure a best-in-class sector solution.

- Ideal for large bulk volume of dry pet food
- For large target weights of medium to large piece sizes
- Achieves speeds of up to 90 wpm

|                                      | CCW-RV-214W-1S-50-SS-PTF1               |           | CCW-RV-214W-1S-70-SS-PTF2                  |           |
|--------------------------------------|---|-----------|--|-----------|
| Product                              | Speed weighing of free-flowing pet food |           | Large volumes of free-flowing pet biscuits |           |
| Max weighing speed                   | 90wpm                                   |           | 90wpm                                      |           |
| Max volume for weighing (per dump)   | 10 litres                               |           | 14 litres                                  |           |
| Max piece length                     | 150mm                                   |           | 150mm                                      |           |
| Weighing capacity setting (per head) | 2000g                                   | 4000g     | 2000g                                      | 4000g     |
| Minimum graduation                   | 0.5g                                    | 1.0g      | 0.5g                                       | 1.0g      |
| Machine target weight range          | 105-4000g                               | 375-8000g | 105-4000g                                  | 375-8000g |

SALAD WEIGHERS



Specially designed for weighing leaf salad products of small target weights. Featuring all the benefits of Ishida’s premium RV series, this weigher is ideal for the most challenging fresh and wet weighing and packing environments.

- Top protection in challenging fresh environments
- Achieves speeds of up to 70 wpm

|                                      | CCW-RV-214W-1S-30-WP-SLD1           |          | CCW-RV-214W-1S-30-WP-SLD2           |          | CCW-RV-214W-1S-50-WP-SLD3                           |           |
|--------------------------------------|-------------------------------------|----------|-------------------------------------|----------|---|-----------|
| Product                              | Small leaves / small target weights |          | Small leaves / small target weights |          | Large leaves / Large volumes / Large target weights |           |
| Max weighing speed                   | 70wpm                               |          | 70wpm                               |          | 70wpm   |           |
| Max volume for weighing (per dump)   | 3 litres                            |          | 3 litres                            |          | 6 litres  |           |
| Max piece length                     | 100mm                               |          | 100mm                               |          | 130mm   |           |
| Weighing capacity setting (per head) | 400g                                | 800g     | 400g                                | 800g     | 2000g   | 4000g     |
| Minimum graduation                   | 0.1g                                | 0.2g     | 0.1g                                | 0.2g     | 0.5g  | 1.0g      |
| Machine target weight range          | 14-500g                             | 25-1000g | 14-500g                             | 25-1000g | 105-4000g   | 375-8000g |

|                                      | CCW-RV-214W-1S-50-WP-SLD4                           |           | CCW-RV-214W-1S-50-WP-SLD5                           |           | CCW-RV-214W-1S-50-WP-SLD6                           |           |
|--------------------------------------|---|-----------|---|-----------|---|-----------|
| Product                              | Large leaves / Large volumes / Large target weights |           | Large leaves / Large volumes / Large target weights |           | Large leaves / Large volumes / Large target weights |           |
| Max weighing speed                   | 70wpm   |           | 70wpm   |           | 70wpm   |           |
| Max volume for weighing (per dump)   | 6 litres  |           | 6 litres  |           | 6 litres  |           |
| Max piece length                     | 130mm   |           | 130mm   |           | 130mm   |           |
| Weighing capacity setting (per head) | 2000g   | 4000g     | 2000g   | 4000g     | 2000g   | 4000g     |
| Minimum graduation                   | 0.5g  | 1.0g      | 0.5g  | 1.0g      | 0.5g  | 1.0g      |
| Machine target weight range          | 105-4000g   | 375-8000g | 105-4000g   | 375-8000g | 105-4000g   | 375-8000g |

FROZEN VEGETABLE WEIGHERS



Specially designed for the medium-to-high-speed weighing of frozen vegetables. Featuring all the benefits of Ishida’s premium RV series, this weigher is ideal for the most challenging frozen and wet weighing and packing environments.

- Top protection in challenging frozen environments
- For small target weights of small piece sizes
- Achieves speeds of up to 100 wpm

|                                      | CCW-RV-214W-1S-30-WP-QFV1       |          | CCW-RV-214W-1S-70-WP-QFV2      |           | CCW-RV-214W-1S-70-WP-QFV3       |           |
|--------------------------------------|---------------------------------|----------|--------------------------------|-----------|---------------------------------|-----------|
| Product                              | Peas / beans / mushrooms / rice |          | Frozen mixed veg / onion rings |           | French fries / croquettes / veg |           |
| Max weighing speed                   | 100wpm                          |          | 90wpm                          |           | 90wpm                           |           |
| Max volume for weighing (per dump)   | 4.5 litres                      |          | 10 litres                      |           | 14 litres                       |           |
| Max piece length                     | 130mm                           |          | 150mm                          |           | 240mm                           |           |
| Weighing capacity setting (per head) | 400g                            | 800g     | 2000g                          | 4000g     | 2000g                           | 4000g     |
| Minimum graduation                   | 0.1g                            | 0.2g     | 0.5g                           | 1.0g      | 0.5g                            | 1.0g      |
| Machine target weight range          | 14-500g                         | 25-1000g | 105-4000g                      | 375-8000g | 105-4000g                       | 375-8000g |

|                                      | CCW-RV-214W-1S-70-WP-QFV4       |          |
|--------------------------------------|---------------------------------|----------|
| Product                              | French fries / croquettes / veg |          |
| Max weighing speed                   | 90wpm                           |          |
| Max volume for weighing (per dump)   | 14 litres                       |          |
| Max piece length                     | 240mm                           |          |
| Weighing capacity setting (per head) | 2000g                           | 2000g    |
| Minimum graduation                   | 0.5g                            | 1.0g     |
| Machine target weight range          | 14-500g                         | 25-1000g |



CONFECTIONERY WEIGHERS



Specially designed for the high-speed weighing of confectionery products. Featuring all the benefits of Ishida’s premium RV series, this weigher has been thoroughly tested to ensure a best-in-class sector solution.

- For small to medium target weights
- Achieves speeds of up to 85-180 wpm depending on product

|                                      | CCW-RV-214W-1S-15-SS-CNF1                                       |          | CCW-RV-214W-1S-15-SS-CNF2   |          | CCW-RV-214W-1S-15-SS-CNF3                                   |          |
|--------------------------------------|---|----------|---|----------|---|----------|
| Product                              | Small target weights of non-fragile, free-flowing confectionery |          | Non-fragile, free-flowing confectionery i.e wrapped products & candy-coated chocolate |          | Sticky confectionery i.e oiled or sugared jellies & jellies |          |
| Max weighing speed                   | 180wpm  |          | 100wpm  |          | 85wpm   |          |
| Max volume for weighing (per dump)   | 2.25 litres   |          | 4.5 litres  |          | 4.5 litres  |          |
| Max piece length                     | 70mm  |          | 130mm   |          | 80mm  |          |
| Weighing capacity setting (per head) | 400g  | 800g     | 400g  | 800g     | 400g  | 800g     |
| Minimum graduation                   | 0.1g  | 0.2g     | 0.1g  | 0.2g     | 0.1g  | 0.2g     |
| Machine target weight range          | 14-500g   | 25-1000g | 14-500g   | 25-1000g | 14-500g   | 25-1000g |

DRIED FRUIT & NUT WEIGHERS



Specially designed for the high-speed weighing of sticky dried fruit such as dates, prunes, apricots, raisins, and nuts. Featuring all the benefits of Ishida’s premium RV series, this weigher has been thoroughly tested to ensure a best-in-class sector solution.

- Ideal for sticky dried fruit
- For small to medium target weights
- Top protection in challenging fresh applications
- Achieves speeds of up to 70-100 wpm depending on product

|                                      | CCW-RV-214W-1S-30-WP-DRF1 |          | CCW-RV-214W-1S-30-SS-DFN1       |          |
|--------------------------------------|---------------------------|----------|---------------------------------|----------|
| Product                              | Dried fruit               |          | Dried fruit and nut             |          |
| Max weighing speed                   | 70wpm                     |          | 100wpm nuts / 70wpm dried fruit |          |
| Max volume for weighing (per dump)   | 4.5 litres                |          | 4.5 litres                      |          |
| Max piece length                     | 60mm                      |          | 40mm nuts / 60mm dried fruit    |          |
| Weighing capacity setting (per head) | 400g                      | 800g     | 400g                            | 800g     |
| Minimum graduation                   | 0.1g                      | 0.2g     | 0.1g                            | 0.2g     |
| Machine target weight range          | 14-500g                   | 25-1000g | 14-500g                         | 25-1000g |

CEREAL WEIGHERS



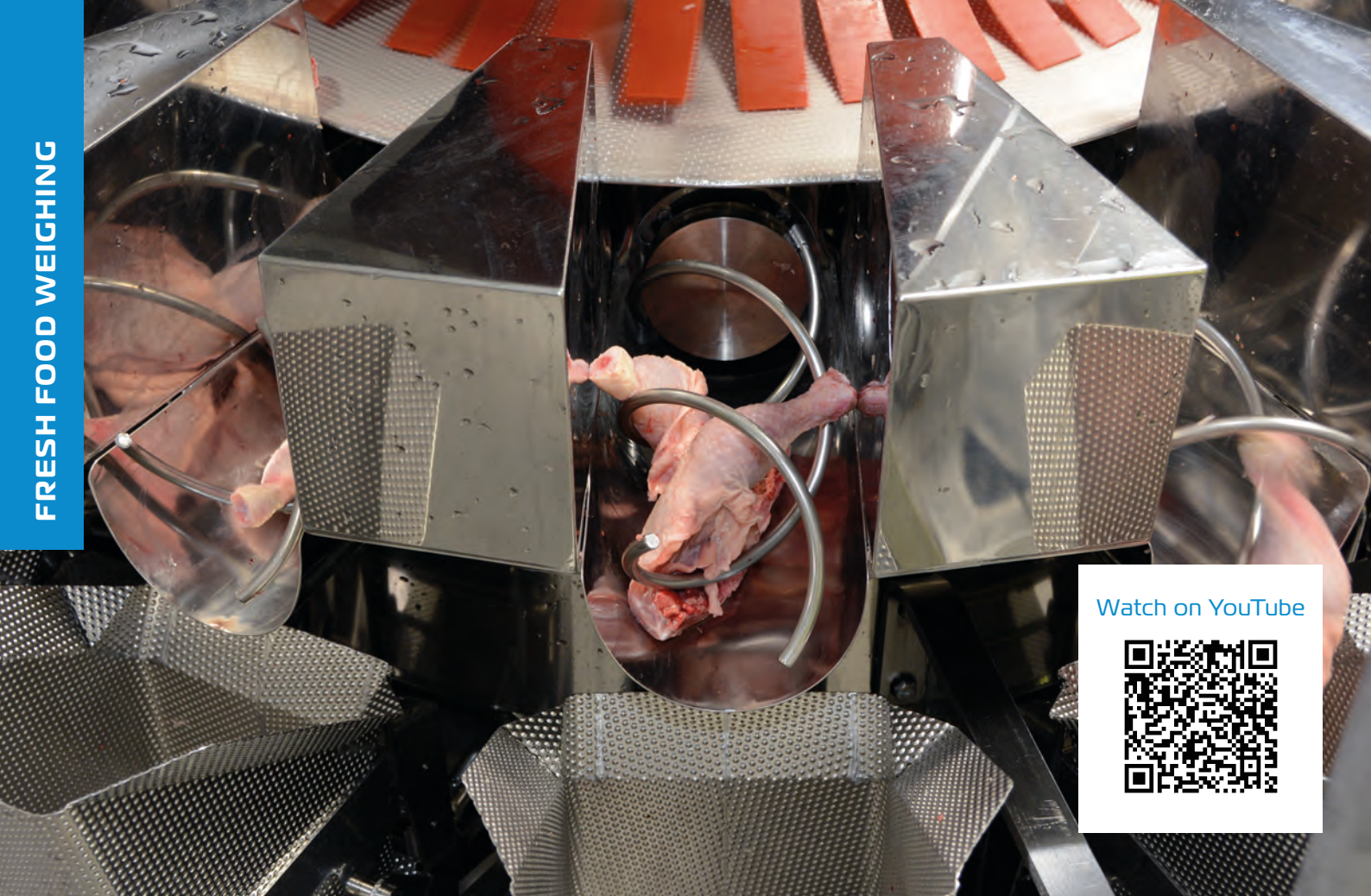
High-speed, proven solution for weighing grains and premixed cereals. Featuring all the benefits of Ishida’s premium RV series, this weigher has been thoroughly tested to ensure a best-in-class sector solution.

- Ideal for grains and premixed cereals
- For small target weights of small piece sizes
- Features a dust containment design – depending on model
- Achieves speeds of up to 90 wpm

|                                      | CCW-RV-214W-1S-30-SS-CRL1 |          | CCW-RV-214W-1S-30-SS-CRL2 |          | CCW-RV-214W-1S-30-WP-CRL3 |          |
|--------------------------------------|---------------------------|----------|---------------------------|----------|---------------------------|----------|
| Product                              | Grains & Pre-mixed cereal |          | Grains & Pre-mixed cereal |          | Grains & Pre-mixed cereal |          |
| Max weighing speed                   | 90wpm                     |          | 90wpm                     |          | 90wpm                     |          |
| Max volume for weighing (per dump)   | 4.5 litres                |          | 4.5 litres                |          | 4.5 litres                |          |
| Max piece length                     | 30mm                      |          | 30mm                      |          | 30mm                      |          |
| Weighing capacity setting (per head) | 400g                      | 800g     | 400g                      | 800g     | 400g                      | 800g     |
| Minimum graduation                   | 0.1g                      | 0.2g     | 0.1g                      | 0.2g     | 0.1g                      | 0.2g     |
| Machine target weight range          | 14-500g                   | 25-1000g | 14-500g                   | 25-1000g | 14-500g                   | 25-1000g |

|                                      | CCW-RV-214W-1S-30-SS-CRL4 |          |
|--------------------------------------|---------------------------|----------|
| Product                              | Grains & Pre-mixed cereal |          |
| Max weighing speed                   | 90wpm                     |          |
| Max volume for weighing (per dump)   | 4.5 litres                |          |
| Max piece length                     | 30mm                      |          |
| Weighing capacity setting (per head) | 400g                      | 800g     |
| Minimum graduation                   | 0.1g                      | 0.2g     |
| Machine target weight range          | 14-500g                   | 25-1000g |





Watch on YouTube



# Weighing fresh & sticky products



Ishida has extensive experience in creating systems that use combination weighing principles to weigh and pack a wide variety of fresh foods with the highest accuracy and consistency. These solutions minimise waste, maximise efficiency, save time, and reduce labour - plus they are simple to operate and easy to clean.



# Screwfeeder Multihead Weighers

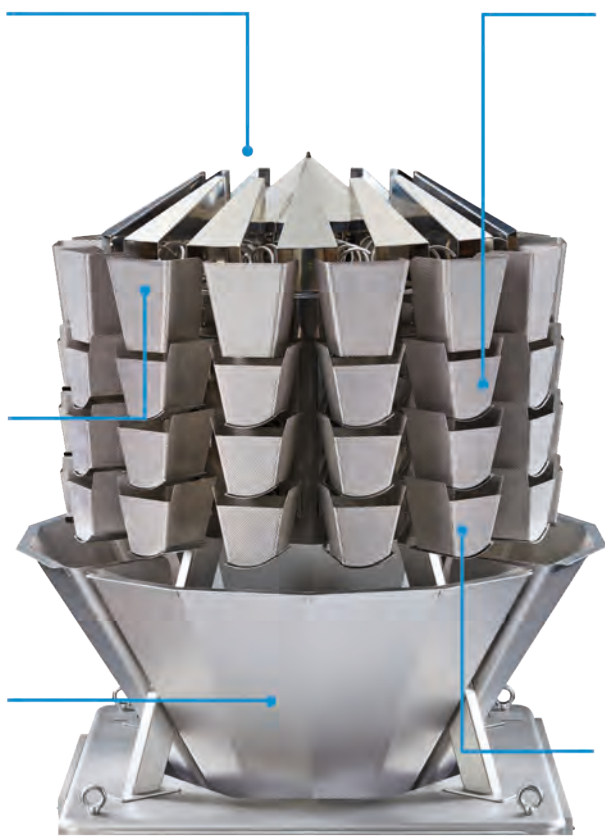
Screwfeeder weighers are engineered to meet the specific challenges faced by the industry. It takes robust equipment to withstand the strong forces needed to disperse incoming pieces, push forward large amounts of sticky product, and endure the toughest of cleaning regimes. The advanced technology behind the speed and efficiency of our screwfeeder weighers also brings greater accuracy. This ensures that every pack of chicken drumsticks, pork medallions, or fish fillets has a greater chance of being close to the target weight, maximising yield and reducing giveaway to fractions of a gram.

## The ideal solution for:

- Marinated Meat & Poultry
- Fresh Fish & Seafood
- Fresh Meat
- Fresh Poultry

## How it works

- 1 Product is fed to the top of the weigher where a rotating dispersion table moves it out towards the feeder troughs. To optimise product flow, Ishida Screwfeeder Weighers now have specially strengthened dispersion tables. These units are very hard-wearing and resistant to impacts and rotational acceleration.
- 2 In each trough, a powerful screw gently transfers product into the pool hopper beneath. Ishida pool hoppers can be fitted with sensors to ensure just one product piece per hopper.
- 3 On some models, the pool hopper has a photocell which controls the screw rotation. This ensures the hoppers are fed with an adequate amount of product. Ishida offers the largest range of hopper types and sizes.
- 4 The integrated computer picks the weigh hoppers whose contents will combine to give the right target weight, and releases only those hoppers. The Ishida combination computer is so fast that it presents not one but three viable combinations for release, greatly increasing efficiency.
- 5 The product released from the opened weigh hoppers is channelled by a discharge chute into the packaging system. In many cases it is made more compact by being collected in a timing hopper. Ishida discharge chutes are specially strengthened to take the rigorous cleaning regimes associated with fresh protein products.
- 6 'Booster' or 'memory' hoppers collect unused weighed product. They provide extra known weights for use in combinations, increasing speed and accuracy. Booster hoppers come as standard on some Ishida models.





SCREWFEEDER WEIGHER RANGE

The standard range is greatly extended by readily available options, such as special attachments for handling large products and fragile fish. There are also hopper and dispersion table options and much more.



|   | CCW-RV-214W-1S-15-WP-SH-SF |             | CCW-RV-214W-1S-30-WP-SF |             | CCW-RV-214WB-1S-30-WP-SF |             |
|---|----------------------------|-------------|-------------------------|-------------|--------------------------|-------------|
| Max weighing speed                          | 55 wpm                     |             | 55 wpm                  |             | 55 wpm                   |             |
| Max volume for weighing (per dump)          | 1.2 litres                 |             | 4.5 litres              |             | 4.5 litres               |             |
| Weighing capacity / range (per single dump) | Up to 500g                 | Up to 1000g | Up to 1000g             | Up to 2000g | Up to 1000g              | Up to 2000g |
| Minimum graduation                          | 0.1g                       | 0.2g        | 0.2g                    | 0.5g        | 0.2g                     | 1.0g        |

|   | CCW-RV-214W-1S-50-WP-SF |             | CCW-RV-214W-1S-70-WP-SF |             | CCW-RV-220W-1D-30-WP-SF |             |
|---|-------------------------|-------------|-------------------------|-------------|-------------------------|-------------|
| Max weighing speed                          | 55 wpm                  |             | 55 wpm                  |             | 80 wpm                  |             |
| Max volume for weighing (per dump)          | 10 litres               |             | 14 litres               |             | 4.5 litres              |             |
| Weighing capacity / range (per single dump) | Up to 4000g             | Up to 8000g | Up to 4000g             | Up to 8000g | Up to 1000g             | Up to 2000g |
| Minimum graduation                          | 0.5g                    | 1.0g        | 0.5g                    | 1.0g        | 0.2g                    | 0.5g        |

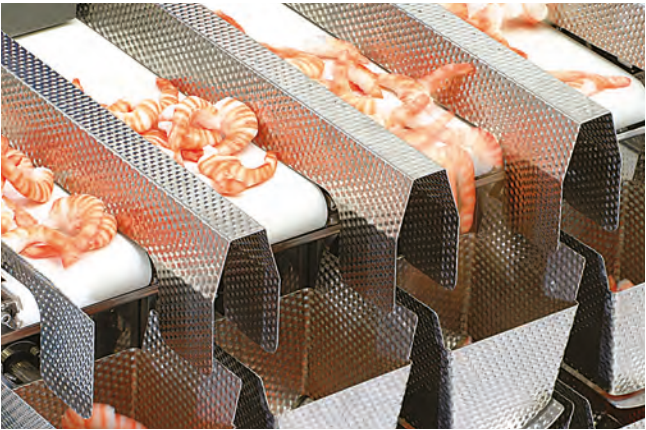
|   | CCW-RV-220WB-1D-30-WP-SF |             | CCW-RV-220W-1D-50-WP-SF |             | CCW-RV-220WB-1D-70-WP-SF |             |
|---|--------------------------|-------------|-------------------------|-------------|--------------------------|-------------|
| Max weighing speed                          | 80 wpm                   |             | 80 wpm                  |             | 80 wpm                   |             |
| Max volume for weighing (per dump)          | 4.5 litres               |             | 10 litres               |             | 14 litres                |             |
| Weighing capacity / range (per single dump) | Up to 1000g              | Up to 2000g | Up to 4000g             | Up to 8000g | Up to 4000g              | Up to 8000g |
| Minimum graduation                          | 0.2g                     | 0.5g        | 0.5g                    | 1.0g        | 0.5g                     | 1.0g        |



Fresh Food Weighers



With the versatility to handle a wide variety of products and customer requirements, these fresh food weighing solutions are ideal for the most difficult-to-handle sticky products, including those with short production runs where fast product changeovers are essential.



Watch on YouTube





# Advantages of a Fresh Food Weigher



### Easy product handling for maximum production efficiency

- Scraper hopper doors easily dislodge product residues, making this an ideal solution for sticky product applications.
- All plastic hoppers are made of resin and the inner walls are ribbed to prevent product sticking.
- Scraper gates fitted on the collection belt conveyors remove product residue and ensure a reliable and precise product discharge.

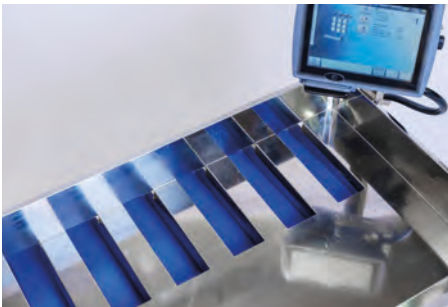


### High accuracy and minimum product giveaway

- Ishida fresh food weighers can achieve consistent high weighing speeds of up to 70 weighs per minute.
- Production output is stabilised thanks to the high level of consistency achieving product giveaway of less than 1%.

### Quick and simple operation

- The user-friendly touch screen RCU (Remote Control Unit) requires minimal operator training.
- Up to 200 pre-sets can be stored in the RCU for quick machine set-up and product changeover.



### Hygienic, easy cleaning

- The waterproof, hygienic design allows for thorough cleaning of the main body and contact parts.
- Downtime is minimised as all contact parts can be easily removed, cleaned, and replaced without using tools.
- Minimum hand intervention ensures compliance with the strictest hygiene standards, such as HACCP.

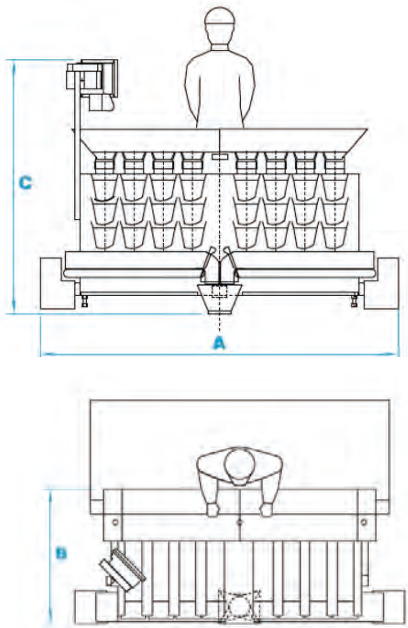


### The economic solution with fast payback

- Ishida fresh food weighers require no more than one or two operators, reducing the number of operators required in manual operation.
- Optional automatic product feeding can further reduce the number of operators required.
- High savings on labour can reduce typical payback periods to just a few months.
- Power consumption has been reduced by 17% compared to the conventional model.



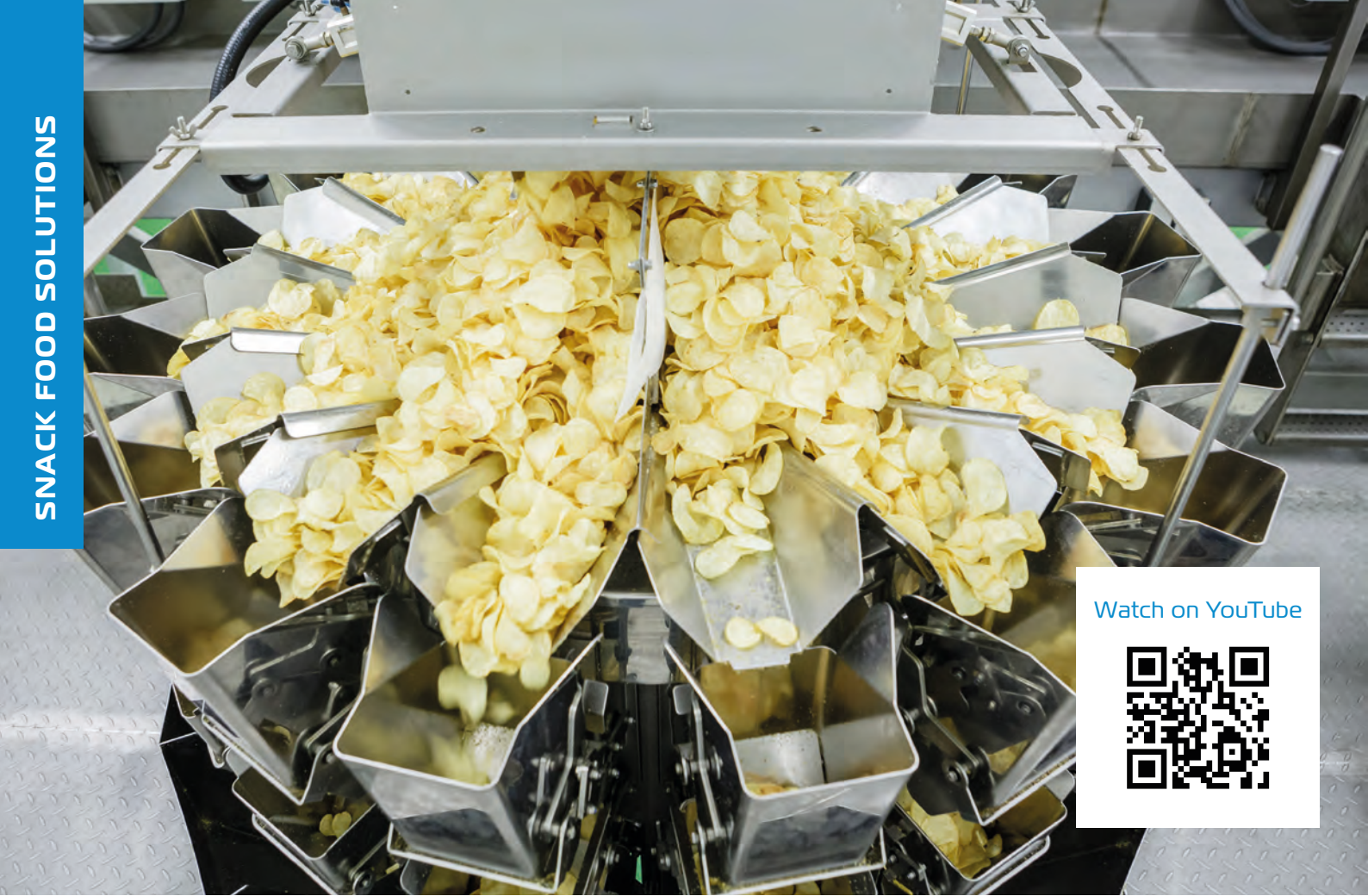
## FRESHFOOD WEIGHER RANGE



|  | CCW-R2-106WB-S/15-WP(-BE) |          | CCW-R2-108WB-S/20-WP-BE |          | CCW-R2-110WB-S/15-WP(-BE) |          |
|--|---------------------------|----------|-------------------------|----------|---------------------------|----------|
| Dimension A (mm)                           | 1355                      |          | 2255                    |          | 2220                      |          |
| Dimension B (mm)                           | 900                       |          | 940                     |          | 900                       |          |
| Dimension C (mm)                           | 1510                      |          | 1600                    |          | 1510                      |          |
| No. of hoppers                             | 6 heads                   |          | 8 heads                 |          | 10 heads                  |          |
| Max weighing speed                         | 35 WPM                    |          | 40 WPM                  |          | 60 WPM                    |          |
| Max weighing volume (per single discharge) | 2.5 litres                |          | 3.5 litres              |          | 2.5 litres                |          |
| Max piece length                           | 70mm                      |          | 180mm                   |          | 70mm                      |          |
| Weighing capacity Setting (per head)       | 400g                      | 800g     | 1050g                   | 2100g    | 400g                      | 800g     |
| Minimum graduation                         | 0.1g                      | 0.2g     | 2.0g                    | 4.0g     | 0.1g                      | 0.2g     |
| Machine target weight range                | 20-500g                   | 20-1000g | 50-1500g                | 50-3000g | 20-500g                   | 20-1000g |

|  | CCW-R2-112WB-S/15-WP(-BE)<br>CCW-R2-112WB-D/15-WP(-BE) |          | CCW-R2-110WB-S/15-WP |          | CCW-R2-107WB-S/05-WP-BE |         |
|--|--|----------|----------------------|----------|-------------------------|---------|
| Dimension A (mm)                           | 2580   |          | 2260                 |          | 920                     |         |
| Dimension B (mm)                           | 900  |          | 900                  |          | 1000                    |         |
| Dimension C (mm)                           | 1510   |          | 1425                 |          | 1340                    |         |
| No. of hoppers                             | 12 heads   |          | 10 heads             |          | 7 heads                 |         |
| Max weighing speed                         | 70 WPM   |          | 40 WPM               |          | 60 WPM                  |         |
| Max weighing volume (per single discharge) | 2.5 litres   |          | 2.5 litres           |          | 0.8 litres              |         |
| Max piece length                           | 70mm   |          | 70mm                 |          | 50mm                    |         |
| Weighing capacity Setting (per head)       | 400g   | 800g     | 400g                 | 800g     | 400g                    | 800g    |
| Minimum graduation                         | 0.1g   | 0.2g     | 0.1g                 | 0.2g     | 0.1g                    | 0.2g    |
| Machine target weight range                | 20-500g  | 20-1000g | 20-500g              | 20-1000g | 5-500g                  | 5-1000g |





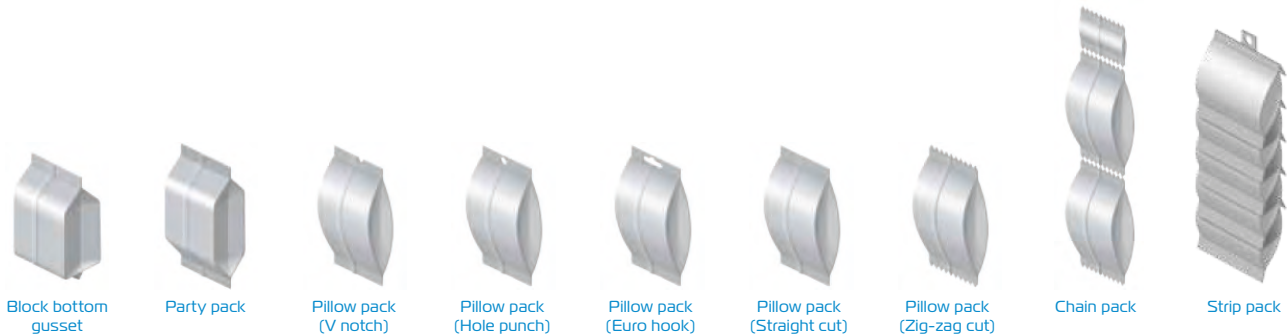
# Snack Packing Solutions

Ishida's integrated total packaging system (iTPS) is available in 'single-tube' or 'twin-tube' versions with automatic air-fill and jaw product in seal detection technology incorporated into the bagmaker to achieve the highest quality of packaging every time.

The high-speed deflation technology delivers consistent pack inflation to maximise your customer's brand quality. An inbuilt flow meter combined with an electro-pneumatic controlled valve allows for the precise delivery of nitrogen to each pack, as defined by the pre-set configuration, minimising nitrogen waste whilst maintaining pack seal performance.

## Types of Packaging

World-leading snacks brands have long trusted us to provide reliable systems that combine speed and accuracy for an efficient packaging solution in multiple formats.



### SINGLE-TUBE ITPS - RV TECHNOLOGY



For fast-flowing products such as extruded snacks and nuts, this single-tube iTPS is capable of speeds of up to 200 bags per minute. The solution comprises an RV-series 14-head weigher over a rotary-motion Inspira bagmaker.

### INSPIRA SERIES BAG MAKERS



### TWIN-TUBE ITPS - RV TECHNOLOGY



With unmatched speeds of up to 300 bags per minute, this unique two-in-one Ishida RV-218 multihead weigher is positioned over a twin rotary motion Inspira bagmaker. Suitable for extruded snacks, baked snacks, and potato chips.

The Inspira Series bagmakers are premium snack packaging machines that boast a smart, mistake-proof design. All models include controls for former positioning and back seals, automated adjustments to nitrogen levels in packs, and systems for pinpoint detection of product in seal. These innovations ensure optimal packs every time by reducing errors and waste, and maximising uptime.

The Inspira comes in a range of models, with optional features to adapt the bagmaker to your pack type, including pillow pack, gusset, block bottom, and chain bags. Choose between intermittent or rotary jaw seal configurations, and get the perfect seal every time.





Watch on YouTube



Visit the website



## Weigh Price Labeller

Shelf-ready products at 100 packs per minute

The Weigh Price Labeller (WPL) is a specialist machine for labelling packed products that are priced by weight. The WPL is suitable for all types of fresh or frozen produce, meat, poultry, seafood, and dairy products. It ensures exact weighments and pricing so your products are ready for retail.



### Weigh Price Labeller main features

- Any combination of printer position, up to two top printers and two under printers.
- High-speed operation maximises production throughput
- Accurate labelling optimises label presentation
- Precise label placement, even onto products with curved or irregular surfaces
- Minimum downtime for maximum production efficiency
- Hygienic design facilitates easy cleaning



### Applicator options

#### Air jet applicator

At a print speed of up to 300mm/sec, the WPL-AI is one of the fastest machines of its kind on the market. Make the most of high-speed printing by using the high-speed air jet applicator which is ideal for flat-top products.

#### Plunger applicator

Independently moving flexible fingers emulate the action of the human hand for perfect label application on curved and slanting products. The plunger applicator copes equally well with products that vary in height from pack to pack.



### Weigh Price Labeller Benefits

- Up to 100 packs per minute
- Direct thermal printing reduces operating costs compared to thermal transfer printing
- Accurate and repeatable label positioning for your products, with quick product changeovers
- Run different products at the same time in one machine

### Additional features and options

- High-speed WPL-AI
- Remote assistance
- Automatic conveyor spacing
- Side guides for irregularly shaped products
- Multi-rank weighing for multi-product lines
- Reject unit
- End-of-line case labelling
- CommsBridge
- LabelDesigner





Watch on YouTube

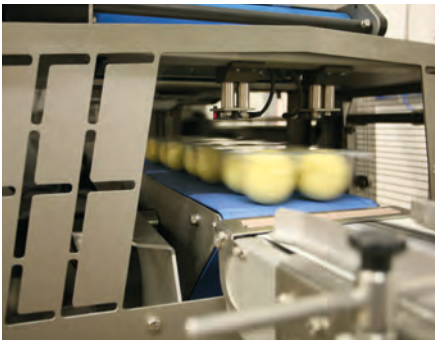


# Tray Sealers

## High-quality seals that help make consumer products more appealing

Achieving consistent tray fills and seals is challenging, especially for producers handling multiple products. Our equipment is designed for easy changeovers and quick adjustments, so you can have the perfect sealed tray every time.

All tray sealers are fully compatible with industry-standard packaging types and processes, including seal only, standard MAP, high-oxygen MAP, skinpack, shrink film, and Mirabella. We are committed to offering eco-friendly producers the best machinery for sustainable packaging. You can use skin on board, cardboard MAP, and mono plastics with our entire QX Flex range.



### QX-300-FLEX



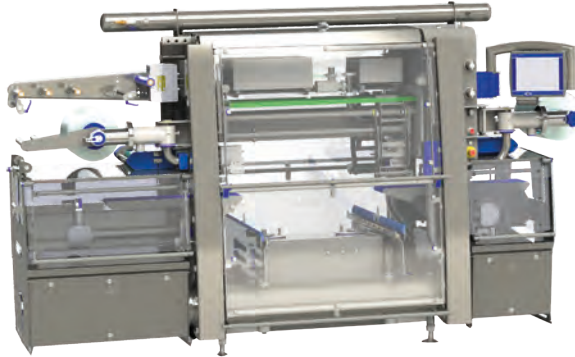
The QX-300-Flex tray sealer is a semi-automatic tray sealing machine. It is a high-quality entry point into tray sealing for small producers and test kitchens.

The QX-300-Flex is highly recommended for low-volume production. It provides consistent top-sealed trays that stay fresh and are compliant for retailers. MAP, high oxygen, seal only, and skinpack sealing options are all available. If you want to speed up tray sealing times and take a step up from manual sealing, the QX300 Flex is an ideal choice.

- Compact footprint and robust hygienic design
- Semi-automatic operation seals up to 48 trays per minute
- Suitable for all types of tray and top film materials
- Fast tool changes and easy-to-use operating controls

Maximum tray width 415mm

### QX-775-FLEX



The QX-775-Flex is a versatile single-lane packing machinefor moderate-to-high throughput.

Often seen as the well-established standard in modern sealing, particularly for fresh foods, the QX-775 can handle all types of trays, delivering top-quality seals at impressive speeds. Owing to their versatility and the ease and speed of changeovers, many QX-775 tray sealers are serving companies that have a wide range of fresh products, each with different pack and atmosphere requirements.

- Up to 15 cycles per minute, sealing up to six trays per cycle (with MAP)
- Excellent results with board, plastic, and aluminium trays
- Handles all pack types, including skinpack and slice-pack, up to 300mm width
- For MAP (modified atmosphere packaging), it features integrated gas mixing, analysing, and coding
- Easy set-up and operation, including rapid, motor-assisted tool changeover
- Robust, hygienic design enables rapid, effective cleaning
- Head redundancy option. This feature allows an impression to be isolated during production in the event of a damaged knife or heater.
- Integrated gas mixing and analysis, with 'wrong mix' automatic cut-out

Maximum tray width 300mm



QX-900-FLEX



Automatic tray sealing for medium-to-high volume production lines

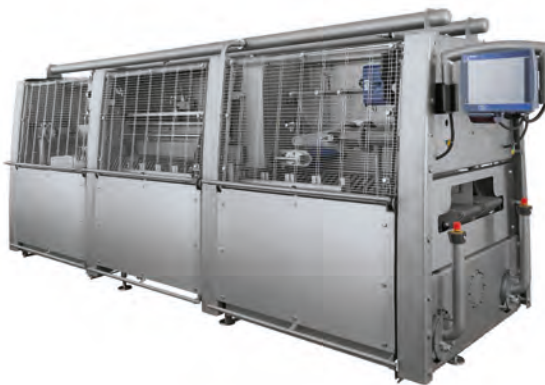
The QX-900 Flex tray sealer enables high-speed sealing within an easy-to-use machine, processing up to 105 trays per minute.

All machine tools are designed for simple changeovers to minimise downtime. The water-cooled sealing tool can be changed in less than 10 minutes, while intelligent servo drive systems provide efficient operation.

- Up to 15 cycles per minute with up to seven tool impression
- Optimised film path offering to reduce downtime from film renewal
- Flexibility for all tray types, including sustainable packaging solutions
- Seal only and MAP (modified atmosphere packaging) capability as standard
- Upgrades available for specialist pack types such as skinpack and skin on board
- Quick and easy tool changes to suit your chosen packaging
- Head redundancy option. This feature allows an impression to be isolated during production in the event of a damaged knife or heater
- Adaptable to sustainable tray materials such as cardboard and mono plastics
- Integrated gas mixing and analysis, with 'wrong mix' automatic cut-out

Maximum tray width 300mm

QX-1100-FLEX



The QX-1100-Flex offers three high-throughput solutions to exactly match your production approach.

It is recognised as a major step forward in smart tray sealer design, with its use of advanced servo technology, intuitive interface, and open, accessible design.

The QX-1100 is available in three different configurations, ensuring a close fit to the types of products you pack, the volume you want to achieve, and the frequency of product or tray-type changeovers.

- Sealing is a high-speed, high-precision operation delivering top-flight appearance and functionality across all pack types, including skinpack and slice-pack
- Selected sealing heads can be excluded (e.g. in the event of a knife or heater issue). Trays are automatically re-routed and production can continue under circumstances that would cause delays with conventional tray sealers
- Operators of all skill levels find the QX-1100 easy to set up and operate
- Thorough cleaning is quick and simple, with quick-release or simple lift-off of parts and rapid self-draining of washdown solutions
- Tool-swapping is largely automated, reducing manual handling during changeovers

QX-1100-Flex Options

QX-1100 SINGLE LANE



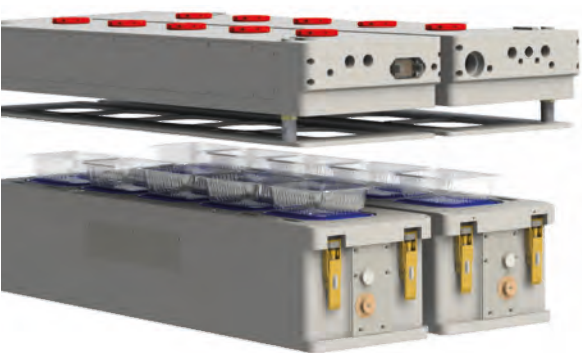
Suitable for high production throughput, especially larger tray sizes. This single-lane version of the QX-1100 Flex can seal large trays (up to 400mm in width), up to seven at a time. At 15 cycles per minute, this means an impressive throughput of up to 105 trays per minute, making it particularly suitable for large production runs.

QX-1100 TWIN LANE



Operating at the fastest tray sealing speeds available to deliver maximum capacity, the QX-1100 Twin Lane is designed for medium-sized and small trays. This twin-lane version, with its maximum of 14 sealing heads, can achieve speeds of up to 210 trays per minute. It is one of the fastest in the industry, allowing you to achieve phenomenal returns on floor space.

QX-1100 SDL (SPLIT DUAL LANE)



The QX-1100 SDL offers extraordinary versatility and speed for complex or varying product ranges. It is particularly suitable where you have a high overall throughput but great variety in run length and more than a few different products to pack. It offers you a unique opportunity to really get the maximum out of your floor space. Each lane of this unique machine can run completely independently of the other, with different speeds and separate products, trays, films, pack atmospheres, and target weights. You essentially have two tray sealers, each fast and highly versatile, running within the footprint of a single machine. That's an immediate space saving of 50%!

|                                | QX-1100-SL Single lane     | QX-110-TL Twin lane | QX-110-SDL Split dual lane |
|--------------------------------|----------------------------|---------------------|----------------------------|
| Maximum tray width             | 400mm                      | 220mm               | 195mm                      |
| Tool Formats                   | Seal only and MAP Skinpack |                     |                            |
| Type of film cut               | Inside or outside cut      |                     |                            |
| Maximum tray height            | 130mm                      |                     |                            |
| Number of impressions per tool | From 1 to 7                | From 2 to 14        | From 1 to 7 per lane       |
| Maximum cycle speed            | 15 cycles per minute       |                     |                            |
| Maximum film reel diameter     | 400mm                      | 400mm               | 400mm                      |





## INTRAY - Electrical Denesters

The comprehensive range of INTRAY denesters provide unparalleled efficiency with reliably low maintenance needs, low energy costs, automatic adjustment of tray drop height, and fast and simple switching of tray denesting tools.

All INTRAY electric denesters are designed for no-compromise hygiene and reliable uptime. Of course, INTRAY denesters fit seamlessly with the rest of QUPAQ's modular tray denesting and handling solutions, so food producers can flexibly and economically change packing lines according to their needs.

## Denesters

### Keeping your packing lines running safely, simply, and profitably

Formed by the merger of Intech and Carsoe's denesting division, QUPAQ, preferred partner of SF Engineering, combines the best of both worlds with a product portfolio that includes the global leader in electrical denesting equipment, INTRAY, and the global leader in pneumatic denesting equipment, ANYTRAY. They have developed and pioneered both denesting technologies, and we will continue to innovate, service, and lead in both.

### INTRAY

INTRAY electric denesters are the most advanced denesting solutions available today. Designed for high-capacity production flows with differentiated dispensing speeds of up to 200 trays per minute, INTRAY denesters enable the lowest operating costs per tray of any current denester.

### ANYTRAY

ANYTRAY pneumatic denesters are the market's leading best-value solution. Designed for production flows of up to 120 trays per minute, ANYTRAY denesters' simple implementation and proven reliability make them the go-to choice for food producers who want the full advantages of packing automation.

#### INTRAY - SMART STAND BASIC



#### 100% electrical servo denester

The Smart Stand Basic is the perfect solution for a production line with limited space and a steady flow of trays. It is supplied with a custom-made-to-tray Smart Tool which can be effortlessly removed and replaced with another INTRAY denester.

- Up to 70 trays per minute (tray depending)
- Electrical driven denesting
- Simple controls – easy to operate
- Space-saving compact and patented solution
- Hygienic design
- Designed for industrial cleaning
- Time-saving tray change

#### INTRAY - SMART STAND TWIN



#### For the denesting of trays on single or double lanes

INTRAY Smart Stand Twin is the perfect tray denester for a production line with limited space and a steady flow of trays. It is supplied with a custom-made Smart Tool Twin and an integrated programmable control unit. The Smart Tool Twin can be effortlessly removed, and another placed in the Smart Stand Twin.

- 200+ trays per minute (tray depending)
- Servo driven denesting
- Space-saving compact patented solution
- Hygienic design
- Designed for industrial cleaning
- Time saving tray change
- Integrated programmable control unit



### INTRAY - BASIC BUFFER



#### Integrated automatic buffer of trays

The INTRAY Buffer Basic is ideal for steady and continuously moving production lines with speeds of up to 70 trays per minute. It is made for denesting on flat belts without flights. The tray conveyor is built into the Smart Stand, saving a lot of space and providing autonomy and the automatic loading of new tray stacks to the denester. It is delivered with a custom-made Smart Tool and an easy-to-use integrated programmable control unit.

- Up to 70 trays per minute (tray depending)
- Large buffer of trays
- From 500 – 2500mm buffer
- Hygienic denesting
- Designed for industrial cleaning
- Time-saving tray change

### INTRAY - SMART STAND SERVO



#### 100% electrical servo denester

Smart Stand Servo is the perfect tray denester for a production line with limited space and a steady flow of trays. It is supplied with a custom-made-to-tray Smart Tool and an integrated programmable control unit.

The tray denester is servo driven, giving you complete control over every stage of the denesting process. When you need to change to a new tray, you can do so and be up and running again within two minutes.

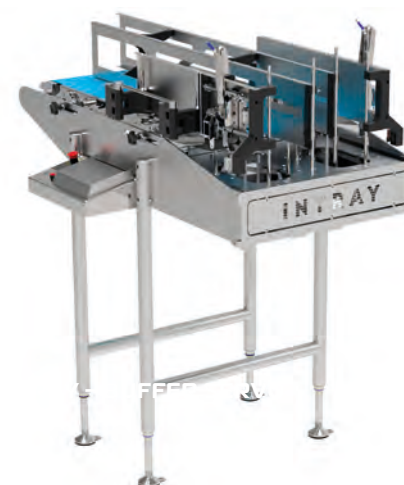
- Up to 160 trays per minute (tray depending)
- Servo driven denesting
- Space-saving compact and patented solution
- Time-saving tray change
- Integrated programmable control unit

### INTRAY - BUFFER SERVO



- Up to 200 trays per minute (tray depending)
- Quick restart at line stop and tray errors
- Intelligent handling of tray faults
- Backup to USB
- Multiple operator access controls
- Create and store tray recipes
- Line signal input/output

### INTRAY - BUFFER TWIN SERVO



- 200+ trays per minute (tray depending)
- Quick restart at line stop and tray errors
- Intelligent handling of tray faults
- Backup to USB
- Multiple operator access control
- Create and store tray recipes
- Line signal in-/output

#### With integrated automatic buffer of trays

The INTRAY Buffer Servo is the ideal solution for a fast-moving production line or a line with little manpower available for tray refilling. The tray conveyor is built into the Smart Stand, saving a lot of space, providing autonomy, and allowing the automatic loading of new tray stacks to the denester.

Buffer Servo is delivered with a custom-made Smart Tool. As in all INTRAY products, the Buffer Servo has an easy-to-use integrated programmable control unit and can be easily cleaned. You also receive the time-saving Smart Tool. Using the Smart Tool, changing to a different tray is done in less than one minute.

With Buffer Servo's new version two software, denesting has never been more efficient. The new and intelligent software will, for example, automatically correct denesting errors, reducing line stops and the need for operators to solve denesting errors.

#### For denesting trays on single or double lanes

The INTRAY Buffer Twin Servo is a 100% electrical servo-driven tray denester. The machine is an ideal solution for a fast-moving production line or a line with little manpower available for tray refilling. It has two integrated tray buffer lanes with independent lane drives for each buffer lane.

The Buffer Twin Servo can be mounted in a position of 90° or 180° for conveyor integration, according to the space at production facilities and other individual needs. At a 90° position, the Buffer Twin Servo denests two trays onto the conveyor. At a 180° position, it denests two trays simultaneously - one on the left lane and one on the right.

The tray conveyor is built into the Smart Stand, saving a lot of space, providing autonomy, and allowing the automatic loading of new tray stacks to the denester. The Buffer Twin Servo is delivered with a custom-made Smart Tool Twin.



INTRAY – EASY LOADER 90



Automatic denesting and placement of product into trays

INTRAY Easy Loader 90 is the solution when you want high-volume, high-speed denesting and the automatic placement of product in trays.

Easy Loader 90 requires very little space compared to the volume and output. It processes up to 90 portions per minute. It comes with a Smart Tool made for your tray. The control unit is built into the denester.

- Up to 90 portions per minute (tray depending)
- Large buffer of trays
- Automatic placement of product into trays
- Integrated programmable control unit
- 100% electrical denesting
- Product has no contact with line personnel during the whole process
- Space-saving compact solution

INTRAY – STEP CONVEYOR



Automatic denester & conveyor to load product into trays

INTRAY Step Conveyor is an automatic denester and conveyor for loading products into trays in combination with a shuttle conveyor. It can load the tray step-by-step and, if necessary, also back and forth. The Step Conveyor requires very little space compared to the volume and output.

With the Step Conveyor, you denest directly onto a conveyor band in steps. This means you will have time to fill in the trays - manually or with other machines - before the next tray drops to be filled with your product.

- Up to 100 portions per min depending on the tray
- Denests in combination with a retraction belt or filling station
- Complete automatic denesting
- Loading of products directly into trays
- Can step back and forth
- Can place the product in multiple rows and layers in the tray
- Integrated programmable control unit

INTRAY – STEP LOADER



|                          |  |
|--------------------------|--|
| Capacity Single portions | Max 90 trays/min   |
| Capacity Double portions | Max 140 portions/min or 70 trays/min (2pcs/tray) e.g. ground beef, pre-sliced cuts, poultry, fish, etc |

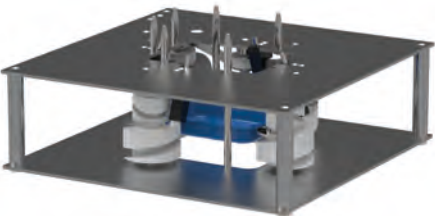
For automatic tray denesting and product loading

The INTRAY Step Loader is designed to automatically denest trays and gently load various product types directly into the trays. The Step Loader offers an in-line compact solution to handle high capacities due to an innovative tray handling design.

The tray handling design enables the machine to load one or multiple products in pre-defined loading patterns in the tray.

Step Loader is the solution when you want to automatically load mince, patties, pre-sliced cuts of poultry, meat, or fish safely and by step into your tray. The Step Loader is your fully automatic solution for loading products carefully and at high speeds into trays.

INTRAY – SMART TOOL



|                   |   |
|-------------------|---|
| Capacity          | Up to 200 trays per minute (tray depending) |
| Maximum tray size | 325 x 265mm (LxW)                           |

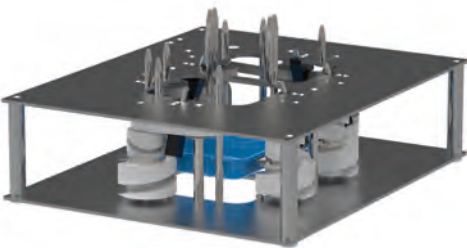
Custom-made tray denesting tool with patented cassette design

Smart Tool is the heart of INTRAY. The denesting tool denests and transports trays from the stack through the tool arrangement onto the conveyor below.

It has multiple patents and is tray-custom-made, thus ensuring perfect denesting of every specific tray.

The Smart Tool can be removed in less than 30 seconds and a new Smart Tool placed in the same amount of time. Production stop to restart takes no more than one minute.

INTRAY – SMART TOOL TWIN



|                   |   |
|-------------------|---|
| Capacity          | Up to 400 trays per minute (tray depending) |
| Maximum tray size | Tray depending                              |

Custom-made twin tray denesting tool

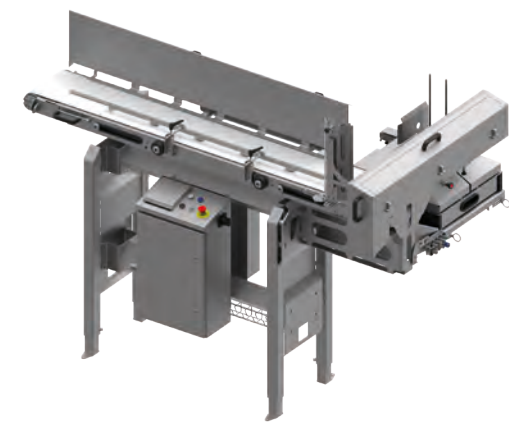
INTRAY Smart Tool Twin has a denesting capacity of up to 400 trays per minute (tray depending). Smart Tool Twin denests and transports two rows of trays simultaneously from the stack through the twin tool arrangement and onto the conveyor below.

The Smart Tool Twin can be removed in less than 30 seconds and a new Smart Tool Twin placed in the same amount of time. Production stop to restart takes less than one minute.





### ANYTRAY – CLEANLINE BUFFER WITH SIDEPUSHER



|                   |  |
|-------------------|--|
| Maximum tray size | 280mm wide x 360mm long                      |
| Option            | Traffic light for low-tray/no-tray detection |

The ANYTRAY CleanLine Buffer with SidePusher is designed to consistently provide the ANYTRAY Denester with trays at a speed of up to 120 trays per minute. Available in left and right versions, it is ideal for the most specialised of tray types, including round trays.

- Capacity up to 120 trays per minute (tray depending)
- Easily integrated into existing production lines
- Ideal for special tray sizes and shapes
- Includes an intelligent electrical control system
- Automatic refilling of trays into the denester
- Few moving parts
- Low maintenance costs
- Hygienic design
- Easy one-minute changeovers from one tray size to another

## ANYTRAY - Pneumatic Denesters

ANYTRAY pneumatic denesters are the market's leading best-value solution, designed for production flows of up to 120 trays per minute.

ANYTRAY pneumatic denesters are designed for no-compromise hygiene and reliable uptime. They fit seamlessly with the rest of our modular tray denesting and handling solutions, so food producers can flexibly and economically change packing lines according to their needs.

### ANYTRAY – CLEANLINE SINGLE RACK DENESTER



|                   |   |
|-------------------|---|
| Maximum tray size | 280mm wide x 360mm long                 |
| Option            | Moveable on four wheels, two with brake |

The ANYTRAY CleanLine Single Rack is a stand prepared for the ANYTRAY CleanLine Denester. It is supplied with an electrical/pneumatic control panel. It is a flexible solution to easily move production from manual labour to an automatic solution with a simple machine from the ANYTRAY product range.

- Max capacity is up to 120 trays per minute - depending on tray shape and size
- Easily integrated into existing production lines
- Full external control over denesting speed
- Few moving parts
- Low maintenance costs
- Hygienic design
- Short return on investment
- Easy one-minute changeovers from one tray size to another

### ANYTRAY – LEANONE BUFFER



|                   |                         |
|-------------------|-------------------------|
| Maximum tray size | 280mm wide x 360mm long |
|-------------------|-------------------------|

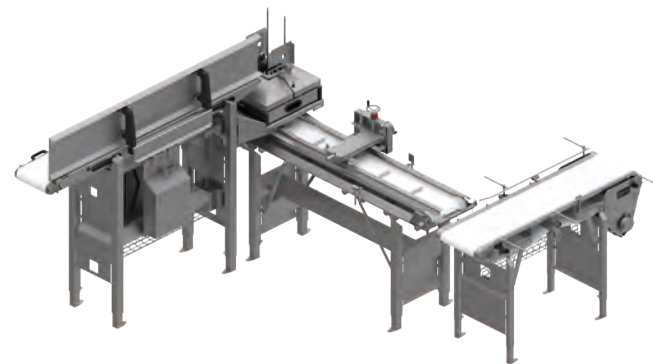
#### For Anytray LeanOne Denester

The automatic feeding of the ANYTRAY LeanOne Denester from a buffer of full-height tray stacks offers less manual intervention and lower operating costs. The system handles trays of many different sizes and shapes. It is a flexible and lightweight solution that changes your production from manual labour to an automatic system with a simple automatic machine from QUPAQ's ANYTRAY product range.

- Low denester weight from 9.4 kg
- Capacity up to 120 trays per/minute (tray depending)
- Max tray size 280 x 360 mm
- One denester for either short or wide-edge leading
- Same denester for buffer & rack solutions
- Easily integrated into existing production lines
- Includes an intelligent electrical control system
- Hygienic design
- Easy one-minute changeovers from one tray size to another



ANYTRAY – STEP & GO 60



|                   |                         |
|-------------------|-------------------------|
| Maximum tray size | 265mm wide x 325mm long |
|-------------------|-------------------------|

For shuttle solutions

The ANYTRAY Step & Go Conveyor ensures fast, accurate, and reliable filling of portions/product into trays and offers multi-stand processing. The shuttle solution is ideal in production facilities where extremely accurate positioning of portions/product into trays is crucial. The Step & Go solution is also ideal in production facilities where products are portioned in a single stand and then taken away in multiple stands.

- Capacity up to 60-70 trays per minute (tray depending)
- Max filling time is calculated individually
- Fast and accurate positioning into trays
- Optimal for multi-stand processing
- Includes an intelligent electrical control system
- Hygienic design

ANYTRAY – PORTION-2-PACK 60



|                   |  |
|-------------------|--|
| Maximum tray size | 265mm wide x 325mm long                      |
| Option            | Traffic light for low-tray/no-tray detection |

The ANYTRAY Portion-2-Pack 60 is an automatic tray-filling system that forwards portions/product from your portioning system, fills the portions/product into trays, and delivers the trays to your tray sealer at a speed of up to 60 trays per minute.

The system is able to handle trays of different sizes and shapes. The ANYTRAY Portion-2-Pack system is designed for the high-volume production of batches of minced products.

- Max capacity is up to 60 trays per minute - depending on tray shape and size
- Easily integrated into existing production lines
- Includes an intelligent electrical control system
- Manual refilling of trays into the ANYTRAY Denester
- Max tray size is 265 x 325 mm
- Few moving parts
- Hygienic design
- Easy one-minute changeovers from one tray size to another

ANYTRAY - PORTION-2-PACK 75



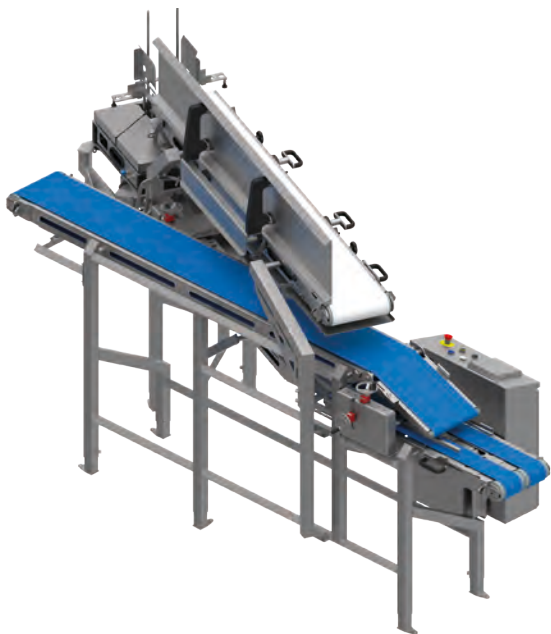
|                   |   |
|-------------------|---|
| Maximum tray size | 265mm wide x 325mm long                           |
| Option            | Operation mode: Manually placing burgers in trays |

With automatic buffer

The ANYTRAY Portion-2-Pack 75 system is designed for high-volume production of minced product. It is an automatic tray-filling system that forwards portions (product from your portioning system), fills the portions/product into trays, and delivers the trays to your tray sealer at speeds of up to 75 trays per minute.

- Capacity up to 75 trays per minute (tray depending)
- Easily integrated into existing production lines
- Includes an intelligent electrical control system
- Automatic refilling of trays into the denester
- Few moving parts
- Low maintenance costs
- Hygienic design
- Short return on investment
- Easy one-minute changeovers from one tray size to another

ANYTRAY – PORTION-2-PACK 135



|                   |                         |
|-------------------|-------------------------|
| Maximum tray size | 265mm wide x 325mm long |
|-------------------|-------------------------|

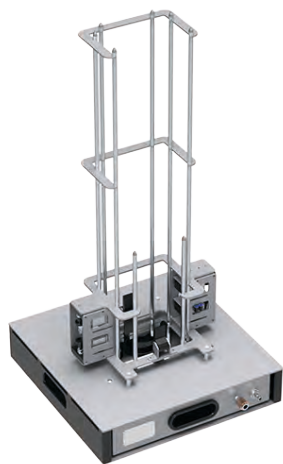
For ANYTRAY CleanLine Denester

The Portion-2-Pack 135 compact system is designed for the high-volume production of batches of minced products. It is an automatic tray-filling system that forwards portions/product from your portioning system, fills the portions/product into trays, and delivers the trays to your tray sealer at speeds of up to 135 trays per minute. With its compact design, the machine is easily integrated into existing production lines and uses a minimum amount of space. The system is able to handle trays of different sizes and shapes.

- Capacity up to 135 trays per minute (tray depending)
- Easily integrated into existing production/packing lines
- Includes an intelligent electrical control system
- Automatic refilling of trays into the denester
- Few moving parts
- Low maintenance costs
- Hygienic design
- Short return on investment



ANYTRAY – LEANONE DENESTER

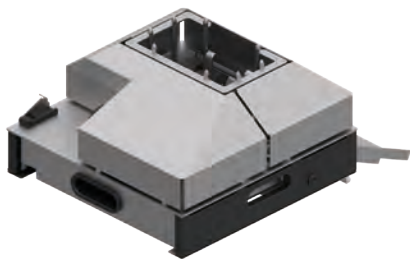


|                   |   |
|-------------------|---|
| Maximum tray size | 280mm wide x 360mm long                   |
| Option            | Guide plate for trays                     |
| Option            | Air blast to remove trays after denesting |

The ANYTRAY LeanOne Denester is an automatic denesting system that quickly and accurately denests trays onto production/packing lines. It allows tool-free, one-minute changeovers from the most common tray types to the most specialised. Each ANYTRAY LeanOne Denester is custom-made for one tray, with a specific length and width. However, the ANYTRAY LeanOne Denester is able to handle trays of different materials and depth measurements.

- Max capacity is up to 120 trays per minute - depending on tray shape and size
- Easily integrated into existing production lines
- Pneumatic driven
- Compact size
- Few moving parts
- Low maintenance costs
- Hygienic design
- Short return on investment

ANYTRAY – CLEANLINE FLATSKIN DENESTER HEAD



|                   |                         |
|-------------------|-------------------------|
| Maximum tray size | 250mm wide x 310mm long |
| Option            | Guide plate for trays   |

Denests FlatSkin cardboards accurately

Accurate and compact, the ANYTRAY CleanLine FlatSkin Cardboard Denester is an electrical denesting system that quickly and accurately denests cardboards onto production/packing lines at speeds of up to 60 cardboards per minute.

- Easy separation
- Safe and accurate dispensation
- Only one by one
- Max capacity is up to 60 trays/plates per minute - depending on tray shape and size
- Easily integrated into existing production lines
- Full external control over denesting speed
- Few moving parts
- Low maintenance costs

Accessories for ANYTRAY & INTRAY

LEANONE DIVERGER AND TRAY TURNER



The LeanOne Diverger splits your product flow from single lane to twin lane. It utilises your tray sealer’s capacity by easily diverging your products into two lanes. This multi-functional machine can also be changed into an effective tray turner, allowing for multiple options to customise it to your production requirements.

| Tray size           | Capacity Examples       |                            |
|---------------------|-------------------------|----------------------------|
| 190 x 144mm (500g)  | Diverging 140 trays/min | Tray turning 100 trays/min |
| 275 x 175mm (1000g) | Diverging 100 trays/min | Tray turning 45 trays/min  |
| 325 x 265mm (3000g) | Diverging 100 trays/min | Tray turning 45 trays/min  |

STAR WHEEL TRAY TURNER



The Starwheel Tray Turner is designed to orient trays so they are presented on the line in the direction required for easy handling. This stand-alone machine is suitable for any existing or new production line, adding value to your processes. The trays are guided into a servo-driven Starwheel that turns the trays 90 degrees in the required direction. The machine can turn tray sizes from very small trays to half gastro sizes.

|                   |                         |
|-------------------|-------------------------|
| Maximum tray size | 325mm wide x 325mm long |
| Max capacity      | 120 trays per minute    |

TRAY TURNER



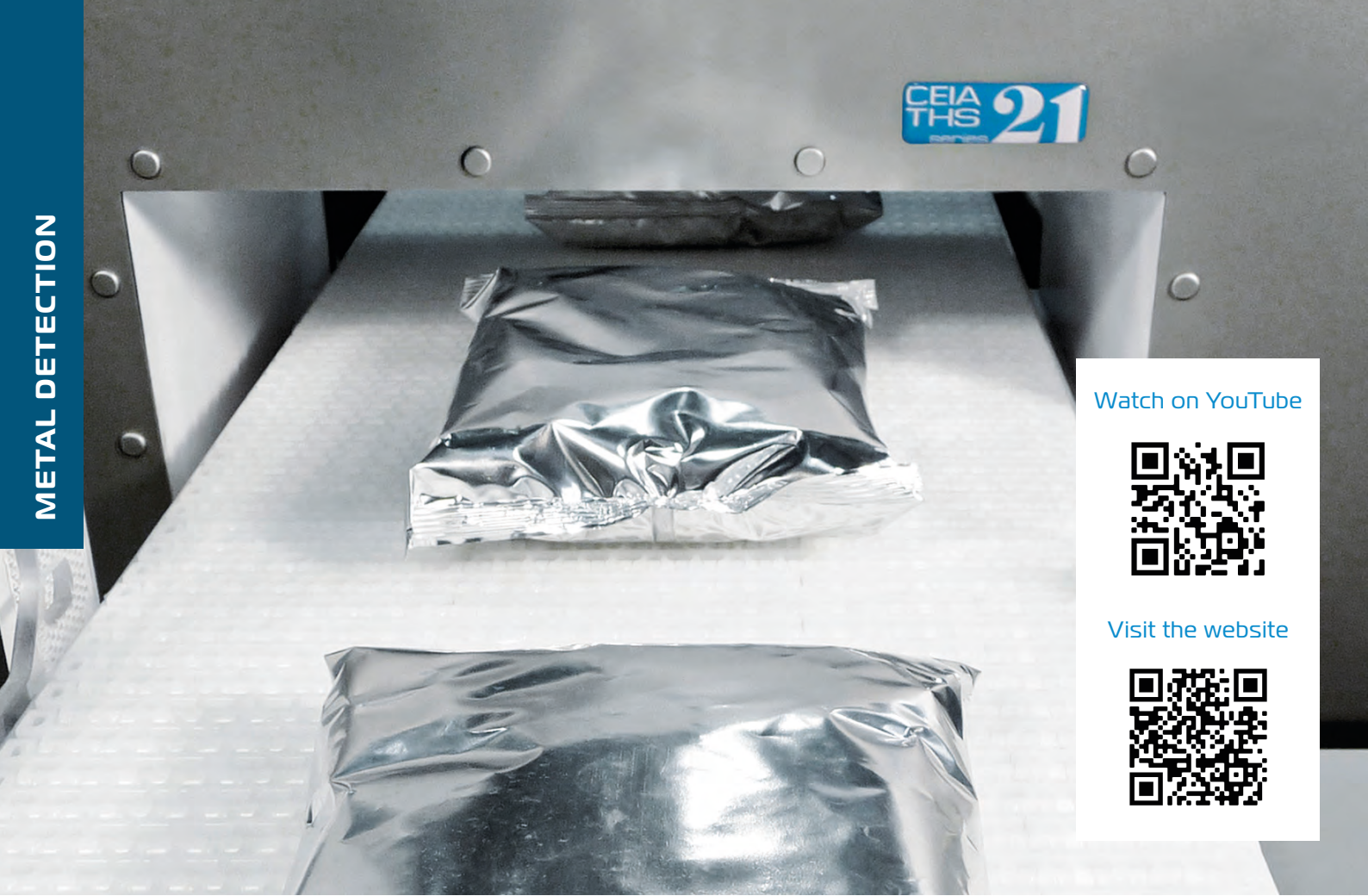
Patented automatic tray turning device

The Tray Turner is an all-round tray turner with a capacity of up to 120 trays per minute. It turns any sealable tray, at high speed, without affecting the product position, from either short side or long side leading.

The Tray Turner can be adjusted for different tray formats and is constructed with automatic speed regulation from the denester.

It can be used in combination with, for example, the INTRAY Step Loader or INTRAY Easy Loader, but it can also be integrated into existing lines.





# Protecting your customers and your brand

## Metal Detectors that exceed the strictest quality control standards

CEIA THS 21 Metal Detection Systems offer detection, construction quality, and reliability characteristics that make them the most suitable and effective solutions for the automatic elimination of metal contaminants on food production lines. They are fully HACCP and GMP compliant, ISO 9001 certified, and constructed from EC and FDA-approved materials.

### The metal detector range

Metal detector heads



Metal detector systems

Metal detectors for free-falling products



Metal detectors for liquid & viscous products

## The advantages of the THS21 Series



## Which metal detector is right for you?

### Single Frequency - 21 and 21E series

Working with a single, non-modifiable frequency that is set in factory according to the inspected product, these options are mainly used for dry products (the 21 series for maximum performance and the 21E series for entry-level performance). The 21E Series is also compatible with wet products for entry-level performance.

### Multi-Spectrum - MS21 series

For ultimate performance, these metal detectors operate over an entire spectrum of frequencies simultaneously. The result is optimum sensitivity with accurate compensation for product effect.

### Multi-Frequency - 3F series

Operating with multiple frequencies (one frequency at a time, automatically selected according to the product), these metal detectors can be used for all products at entry-level performance. This is especially the case with various food products being inspected on the same line, in order to optimise performance.

### Get the guide





# Multi-Spectrum vs Multi-Frequency

THS 21 metal detectors are supplied with either Multi-Spectrum technology or Multi-Frequency Technology.



21 series (21 and MS21) Metal Detectors offer:

- Extreme compensation for product effect
- Ultra-high sensitivity to all magnetic and non-magnetic metals, including stainless steel
- High immunity to environmental interference
- AISI 316L stainless steel construction to IP66 and IP69K protection levels
- Control Panels are listed according to UL 508A and CSA-C22.2 No. 14-05
- Automatic learning and tracking of product effect
- 500 product data memories
- 10,000 storable events
- Local programming: 16 keys, three keys with double function
- Quick Access key for fast programming of user parameters

| Product                           | Examples                                       | Models             |
|-----------------------------------|--|--------------------|
| Dry                               | Snacks, powders & granules                     | THS/21<br>THS/MS21 |
| Wet                               | Meat, fish, cheese, salads, liquids, marinated | THS/MS21           |
| Frozen                            |  | THS/MS21           |
| Product packed in metallised film |  | THS/MS21           |
| Products packed in aluminium foil |  | THS/MN21           |

21E series (21E and 3F) Metal Detectors offer:

- Maximum sensitivity to product effect variations
- High sensitivity to all magnetic and non-magnetic metals, including stainless steel
- High immunity to environmental interference
- AISI 316L stainless steel construction to IP65 protection level
- Control Panels are listed according to UL 508A and CSA-C22.2 No. 14-05
- Automatic learning & tracking of product effect
- 250 product data memories
- 1,000 storable events
- 4 X 20 character alphanumeric display
- Local programming: four keys, three keys with double function

| Product | Examples                                       | Models                |
|---------|--|-----------------------|
| Dry     | Snacks, powders & granules                     | THS/21E<br>THS/21E-3F |
| Wet     | Meat, fish, cheese, salads, liquids, marinated | THS/21E<br>THS/21E-3F |
| Frozen  |  | THS/21E<br>THS/21E-3F |

CONVEYOR INSPECTION SYSTEMS



All THS21 conveyor inspection systems can be supplied as Supermarket Specification Compliant. The inspection system is certified as fully compatible with food product handling (FDA compliant) requirements, as is the protective cover of the ejection area and the container for rejected products.

Customised rejectors available on request

|                 | THS/FBB  | THS/MBB  | THS/MBR         | THS/RB-800                             |
|-----------------|--|--|-----------------|--|
| Belt            | Flat   | Modular  | Modular         | Rounded                                |
| Product         | Loose product  | Packed product   | Packed product  | Packed product                         |
| Ejection System | Belt stop, pneumatic pusher ejection, air jet ejection, deviator arm, belt reversing | Belt stop, pneumatic pusher ejection, air jet ejection, deviator arm | Belt retraction | In-line with existing reject functions |

METAL DETECTOR HEADS



Aperture dimension options:

Width from 100mm to 2,000mm and above (steps of 50mm)  
Height from 50mm to 500mm and above (steps of 25mm)

|                 | THS/21         | THS/MS21       | THS/21E        | THS/21E-3F      |
|-----------------|----------------|----------------|----------------|-----------------|
| Technology      | Mono-Frequency | Multi-Spectrum | Mono-Frequency | Multi-Frequency |
| Sensitivity     | Ultra-high     | Ultra-high     | High           | High            |
| Dry Products    | Yes            | Yes            | Yes            | Yes             |
| Wet Products    | No             | Yes            | Yes            | Yes             |
| Frozen          | No             | Yes            | Yes            | Yes             |
| Metallised Film | No             | Yes            | No             | No              |
| Aluminium Foil  | No             | No             | No             | No              |



SLIMLINE METAL DETECTOR HEADS

Aperture dimension options:

Width from 100mm to 500mm and above (steps of 25mm)

Height from 50mm to 275mm (steps of 25mm)



|                 | THS/SL21       | THS/SLMS21     | THS/SL21E      | THS/SL21E-3F    |
|-----------------|----------------|----------------|----------------|-----------------|
| Technology      | Mono-Frequency | Multi-Spectrum | Mono-Frequency | Multi-Frequency |
| Sensitivity     | Ultra-high     | Ultra-high     | High           | High            |
| Dry Products    | Yes            | Yes            | Yes            | Yes             |
| Wet Products    | No             | Yes            | Yes            | Yes             |
| Frozen          | No             | Yes            | Yes            | Yes             |
| Metallised Film | No             | Yes            | No             | No              |
| Aluminium Foil  | No             | No             | No             | No              |

METAL DETECTOR HEADS FOR FREE-FALLING APPLICATIONS



The THS/G21 series is designed to inspect powders, granules, and other loose materials transported in free-fall through tubes and pipelines.

Aperture diameter options : 50mm, 100mm, 150mm, 175mm, 200mm, 250mm

|                  | THS/GMS21      | THS/G21        | THS/G21E       |
|------------------|----------------|----------------|----------------|
| Technology       | Multi-Spectrum | Mono-Frequency | Mono-Frequency |
| Sensitivity      | Ultra-high     | Ultra-high     | High           |
| Construction     | AISI 316L      | AISI 316L      | AISI 316L      |
| Water protection | IP66 & IP69K   | IP66 & IP69K   | IP65           |

FERROUS IN FOIL METAL DETECTOR HEAD



Aperture dimension options: From (WxH) 350mm x 125mm to 550mm x 200mm

*Note: only magnetic metals (e.g. ferrous) are detectable*

|                | THS/MN21     |
|----------------|--------------|
| Technology     | Magnetometer |
| Sensitivity    | Ultra-high   |
| Aluminium Foil | Yes          |

PIPELINE INSPECTION SYSTEMS



The THS/PL series is suitable for meat, liquid, and viscous products which require maximum sensitivity to product effect variations and high sensitivity to all magnetic and non-magnetic metals, including stainless steel. The fast detection and rejection speed allows for continuous product flow without slowing production.

Pipeline for meat products



|                  | THS/PLVMS21-MEAT          | THS/PLV21E-MEAT           |
|------------------|---------------------------|---------------------------|
| Product          | Vacuum filler meat lines  | Vacuum filler meat lines  |
| Technology       | Multi-Spectrum            | Mono-Frequency            |
| Sensitivity      | Ultra-high                | High                      |
| Construction     | AISI 316L                 | AISI 316L                 |
| Aperture         | 63mm                      | 63mm                      |
| Water protection | IP66 & IP69K              | IP65                      |
| Ejection system  | Integrated ejection valve | Integrated ejection valve |

Aperture diameter options: 38mm, 50mm, 63mm, 75mm, 100mm

Pipeline for liquid and viscous products



|                  | THS/PLVMS21               | THS/PLV21E                | THS/PLVMS21       | THS/PLV21E        |
|------------------|---------------------------|---------------------------|-------------------|-------------------|
| Product          | Liquid & Viscous          | Liquid & Viscous          | Liquid & Viscous  | Liquid & Viscous  |
| Technology       | Multi-Spectrum            | Mono-Frequency            | Multi-Spectrum    | Mono-Frequency    |
| Sensitivity      | Ultra-high                | High                      | Ultra-high        | High              |
| Construction     | AISI 316L                 | AISI 316L                 | AISI 316L         | AISI 316L         |
| Aperture         | See options               | See options               | See options       | See options       |
| Water protection | IP66 & IP69K              | IP65                      | IP66 & IP69K      | IP65              |
| Ejection system  | Integrated ejection valve | Integrated ejection valve | No ejection valve | No ejection valve |





Watch on YouTube



Visit the website



## Complete peace of mind for your product quality

X-ray identifies with the greatest accuracy and reliability when foreign bodies are contaminating your product.



X-ray machines can be used to achieve better results than current metal detector systems and vision systems. X-ray machines also offer the ability to see more than just foreign metal bodies, and they offer a host of other quality control benefits.

X-ray machines are primarily used to detect foreign bodies such as dense plastic, rubber, metal, bone, shell, stones, or glass, preventing these contaminants from ending up in food. Imagine the consequences of a consumer, particularly a child, eating this kind of foreign body.

As well as spotting foreign bodies, X-ray machines can detect a wide range of product defects, in addition to checking product or piece weights.

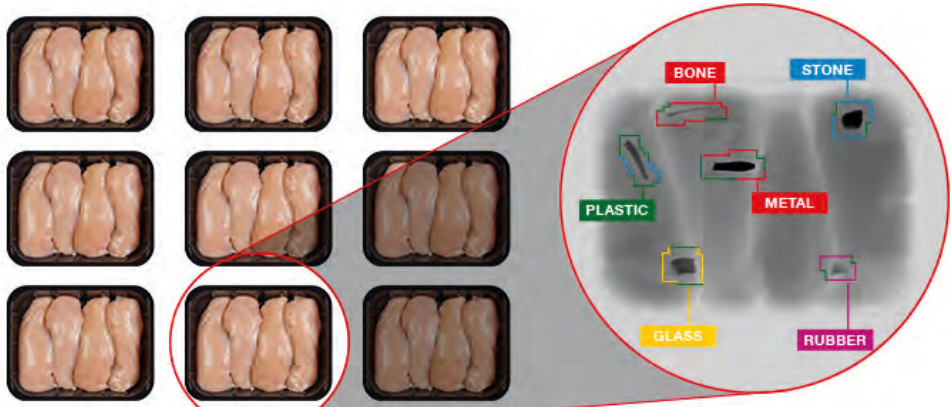
In general, for a foreign body to be detected by X-ray, it needs to have a density that is both greater than water (1g/cc) and also the product that it is within.

### What can be detected

- Dense plastic: from tools, equipment, or fields (depends on the material)
- Stones: in raw food, from the ground
- Ceramics: from fields
- Rubber: from tools, seals, or equipment
- Glass: from fields, including spectacles' lenses and lighting
- Metal: including iron, stainless steel, and aluminium
- Bone: in meat or poultry

### What can't be detected

- Wood
- Insects
- Hair
- String
- Fabric
- Fruit stones or seeds
- Cardboard or paper
- Cigarette butts
- Other low-density materials, such as light plastic or soft rubber
- Moulds – from material in food production

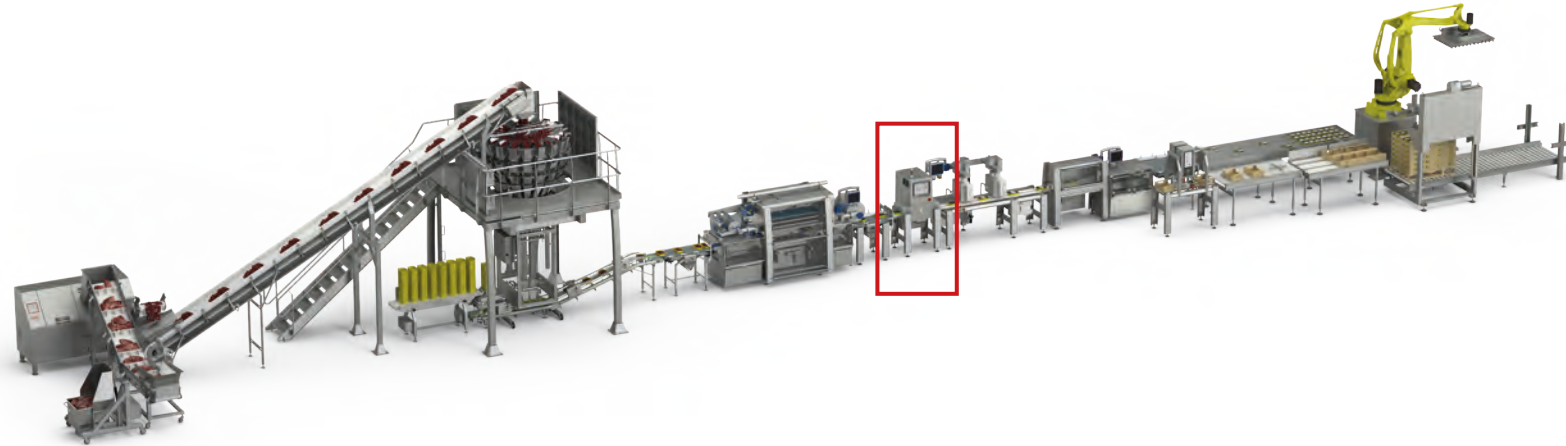


### Where to locate an x-ray machine in your production line

There are various places in the production line where you can integrate an IX x-ray machine. Each has its benefits, but it all depends on what you are looking for. There is no right or wrong answer, as it is about finding the best solution for your particular application.

The four key areas are:

- Bulk production
- Packed
- Unpacked
- Case





# IX Series



## IX G2 Series

The Dual Energy Sensor of the IX G2 Series detects what other inspection systems miss.

The G2 technology enables higher detection rates for calcified bones, stones, and shells, as well as for low-density metals, glass, and dense plastics like rubber, improving the accuracy with which contaminants can be found. This especially applies to soft contaminants where the products can overlap.

## IX GN Series

The definite choice for a wide range of products.

The IX GN Series offers advanced X-ray detection that strikes a balance between optimal sensitivity and economic operation. Suitable for a wide range of products, this X-ray inspection system can be adapted to virtually any application.

## IX EN Series

Your first step into Ishida X-ray technology. This is the X-ray inspection system that enhances quality control on your production line, both affordably and effectively.

The IX EN Series offers reliable inspection performance that is suitable for uniform products. It is easy to set up and integrate into your production line.

## IX EN - ECONOMY RANGE



The economy range offers the latest X-ray inspection technology for entry-level users, making for an easy investment choice.

The IX EN Series is an x-ray inspection system that can be used at any stage on your production line to identify with the greatest accuracy and reliability when foreign bodies are contaminating your product, thus enhancing quality control on your production line, both affordably and effectively.

The IX-EN Series offers reliable inspections suitable for uniform products, and it is easy to set up and integrate into your production line.

Supplied with:

- User-friendly 15" touchscreen control
- Infeed and outfeed tungsten guard
- Reject chute with removable red reject bin
- Single conveyor 1,800mm
- Retail Reject Confirmation (RRC) - Software and hardware
- Radiation dosimeter - RadEye G20-ER10 (682-8767) UK Supply
- Standard set of test pieces (SUS ball, SUS wire 5mm, glass ball, rubber ball)
- ALL DATA SAVE Software
- Time server for "all data storage" software

## Reject options



| Ref              | Belt width | Reject System     |
|------------------|------------|-------------------|
| IX-EN-2493-S-HD1 | 240mm      | HD air reject     |
| IX-EN-2493-S-SP1 | 240mm      | Paddle arm reject |
| IX-EN-4093-S-HD1 | 410mm      | Air reject        |
| IX-EN-4093-S-SP1 | 410mm      | Paddle arm reject |



IX GN SERIES



Perfect for these industries

The IX-GN Series is built to suit your product requirements.

The solution offers exceptional quality control for an extensive range of products. It allows you to optimise the detection of foreign bodies within your products and keep your brand, retailers, and customers safe.

The IX-GN has the sensitivity required to overcome challenging products that can be difficult to inspect, such as cereals, sausage packs, and yoghurt pots. It is suitable for product lengths up to 450mm and weights up to 5kg, and it can operate with conveyor speeds of up to 60m/min.

- Meat
- Poultry
- Fish
- Dairy
- Cereal
- Dried fruit
- Biscuits / Bakery
- Confectionery

IX G2 SERIES



Perfect for these industries

The IX-G2 X-ray inspection system offers unrivalled performance for your production line, including the detection of foreign bodies under 0.6mm. It detects low-density foreign bodies, such as bone, shell, and rubber in complex food products like poultry, overlapping products, or products with uneven surfaces.

The IX-G2 uses dual sensor (dual energy) technology to create high-quality images, generated by using high-energy X-rays for product images and low-energy X-rays for potential foreign body images.

If you have a high-speed line that runs at up to 60m/min and requires the ultimate in foreign body detection, the IX-G2 dual-energy X-ray system could be ideal for you.

- Meat
- Poultry
- Fish
- Ready meals
- Fresh Produce
- Granules & Powders
- Cereal

X-RAY ANCILLARIES

Reject types

Reject devices are mounted within the Outfeed Guard of the system.

By default, a reject system will be chosen based on product weight and speed, but this should be reviewed for suitability.

Standard options are:

- Low Duty Air Blast
- Heavy Duty Air Blast
- Heavy Duty Air Blast – Double Nozzle
- Slap / Catch Arm
- Suspended Paddle
- Drop Belt
- High Speed Pusher

Reject bin options

Once the reject type is selected, the reject bin type needs to be chosen. The default selection will be removable reject bins. However, these can be changed to roller tracks, tables, or a combination of roller track and bin as required. The options available are:

2-Way Rejection (No Additional Inspection Selected)

- Removable Reject Bin (Front or Rear Reject Direction or for Drop Belt)
- Roller Track with Cover
- Reject Table with Cover

3-Way Rejection (Additional Inspection Selected)

- Removable Reject Bin (Front and Rear Reject)
- Removable Reject Bin (Inline Rejection)
- Roller Track with Cover (Front and Rear Reject)
- Roller Track with Cover (Inline Rejection)
- Reject Table with Cover (Front and Rear Reject)
- Reject Table with Cover (Inline Rejection)
- Combinations of above

Single bin reject



In-line 3-way reject



3-way reject



Drop-belt reject



In-line roll-track reject







# Checkweighing

Providing accurate verification of product weight & count



Checkweighers are used to automatically check the weight of packaged foods, ensuring the weight of the packs is within specified limits. This quality control check promotes customer satisfaction and helps you meet the strictest legislative requirements.

We are a preferred partner of Ishida, a world leader in checkweigher technology for the food industry. We supply the full Ishida checkweigher range, with options capable of handling various pack types, including bags, trays, and cartons.

Ishida maintains a strong R&D capability in the development of load cells, electronics, and software. These are developed and brought to market entirely in-house. They offer unique SNR (Signal to Noise Ratio) characteristics that provide both high-accuracy and speed. The weigh cells also offer a variety of novel features like force dislocation mechanisms that protect load cells from excessive loads, along with market-leading AFV (Anti-Floor Vibration) capability.

We offer all our checkweighers with a range of options to meet different application requirements.

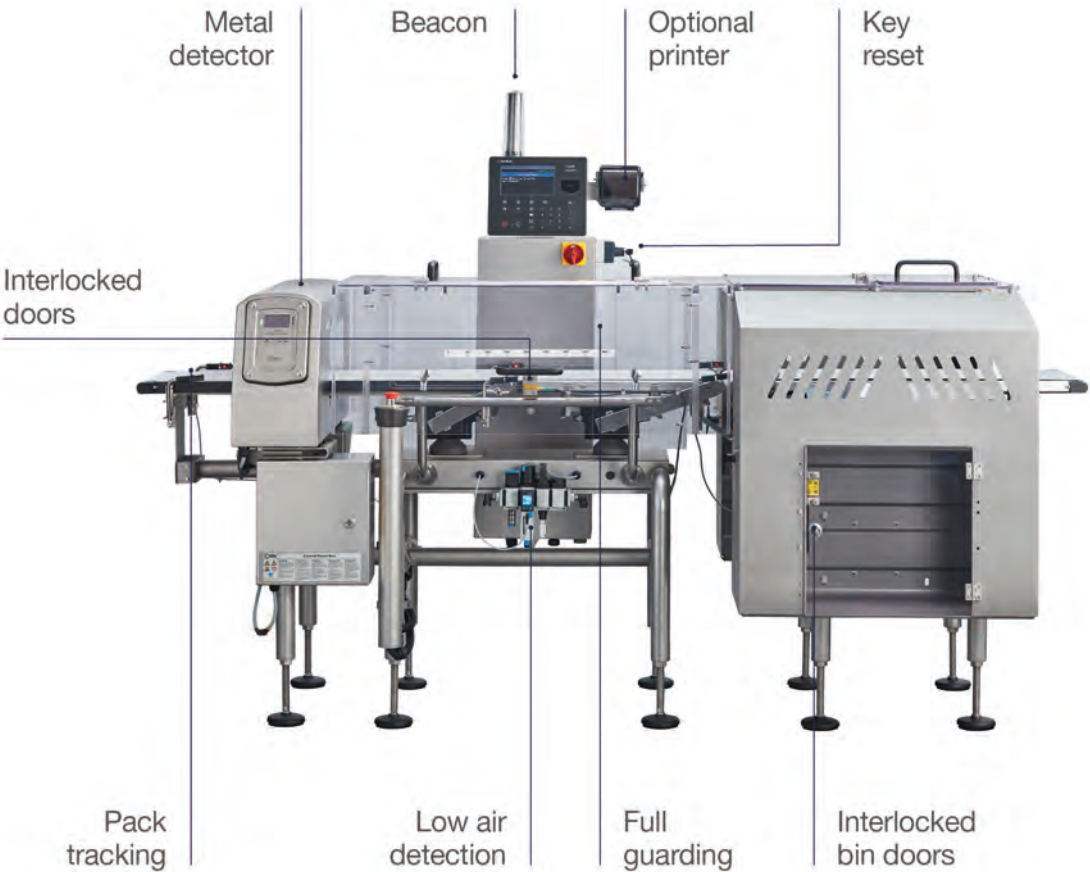
## Optimising the removal of non-compliant product

Product weight, size, shape, and fragility, together with production line speed, will determine which reject system we recommend. For example, a high-powered air blast may be best on fast lines. Mechanical arms often work well for irregular or heavy packs, while a pusher reject is suitable for heavy products moving at relatively low speeds.

## Reject receptacles for safe storage

Receptacles into which product can be diverted include fully enclosed bins of various sizes. Roller tracks can be provided to move more fragile products to reject and inspection, or for re-work.

## Supermarket compliance system





PERFORMANCE LINE



Engineered to deliver performance with value. The Performance-Line checkweigher is suitable for a variety of product types and applications and has a simplified design for ease of use and setup.

Featuring:

- Front USB with approved encryption for the storage of production data
- 300 programmable pre-sets
- 7" LCD user keypad
- Integrated Metal Detector option
- Automatic Reject options
- Supermarket Compliance Specification
- IP54/IP65 (waterproof version)

| Specification                    | DACS-GN-SE012 SS/WP |          | DACS-GN-SE050 SS/WP |        |
|----------------------------------|---------------------|----------|---------------------|--------|
| Weighing compliance requirements | Non MID             | MID      | Non MID             | MID    |
| Weighing capacity                | 1,250g              | 1,250g   | 5,000g              | 5,000g |
| Upper limit of indication        | 1,254.5g            | 1,254.5g | 5,018g              | 5,018g |
| Lower limit of indication        | 8g                  | 8g       | 32g                 | 32g    |
| Actual scale interval (d)        | 0.05g               | 0.05g    | 0.2g                | 0.2g   |

EXCELLENCE LINE



Engineered for versatility and precision. The Excellence Line checkweigher has been engineered to suit a variety of products, applications, and environments.

Featuring:

- Front USB with approved encryption for the storage of production data
- 300 programmable pre-sets
- 7" LCD user keypad
- Integrated Metal Detector option
- Automatic Reject options
- Supermarket Compliance Specification
- IP54/IP65 (waterproof version)

| Specification                    | DACS-G-S015 |          |           |          | DACS-G-S060 |           |           |           |
|----------------------------------|-------------|----------|-----------|----------|-------------|-----------|-----------|-----------|
| Weighing compliance requirements | Non MID     |          | MID       |          | Non MID     |           | MID       |           |
| Weighing capacity                | 600g        | 1500g    | 600g      | 1500g    | 3,000g      | 6000g     | 3,000g    | 6000g     |
| Upper limit of indication        | 601.85g     | 1,504.5g | 601.85g   | 1,504.5g | 3,009g      | 6018g     | 3,009g    | 6018g     |
| Lower limit of indication        | 4-600g      | 15-1500g | 4-600g    | 35-1500g | 30-3000g    | 60-6000g  | 125-3000g | 350-6000g |
| Actual scale interval (d)        | 0.05g       | 0.1g     | 0.02g     | 0.05g    | 0.2g        | 0.5g      | 0.1g      | 0.2g      |
| Verification scale interval (e)  | 0.1g        | 0.2g     | 0.2g      | 0.5g     | 0.4g        | 1g        | 1g        | 2g        |
| Max belt speed                   | 5-90m/min   |          | 5-90m/min |          | 5-90m/min   | 5-60m/min | 5-90m/min | 5-60m/min |

ADVANCED LINE



Where precision checkweighing at speeds of up to 600 packs per minute is needed, Advance-Line checkweighers offer the ideal solution. At belt speeds of up to 120m/min, Ishida's precision force-balance sensor delivers impressive accuracy, with a minimum graduation of 0.1g.

Featuring:

- Front USB for the storage of production data
- 250 programmable pre-sets
- 7" Jog dial/12.1" CTS screen
- Integrated Metal Detector option
- Automatic Reject options
- Flexible configuration
- IP30 Rating

| Specification                    | DACS-G-F015 |          |          |          | DACS-G-F030 |
|----------------------------------|-------------|----------|----------|----------|-------------|
| Weighing compliance requirements | Non MID     |          | MID      |          | Non MID     |
| Weighing capacity                | 750g        | 1500g    | 750g     | 1500g    | 3,000g      |
| Lower limit of indication        | 5g          | 15g      | 5g       | 5g       | 7.5 - 300g  |
| Verification scale interval      | 0.1g        | 0.2g     | 0.1g     | 0.2g     | 0.4g        |
| Max belt speed                   | 120m/min    | 100m/min | 120m/min | 120m/min | 120m/min    |

CARTON LINE



Carton-Line checkweighers are ideal for the inspection of boxes and bags of up to 60kg for weight compliance and to detect where items are missing.

Carton-Line models ensure the inspection process flows smoothly, handling weights from 150g all the way up to 60,000g while keeping heavy lifting by your staff to a minimum. These checkweighers keep inspection moving at belt speeds of up to 55m/min, and they can detect a weight discrepancy as small as 1g thanks to the patented high-speed load cell.

| Specification             | DACS-GN-S150 | DACS-GN-S300 |         | DACS-GN-S600 |         |         |
|---------------------------|--------------|--------------|---------|--------------|---------|---------|
| Weighing compliance       | Non MID      | Non MID      |         | Non MID      |         |         |
| Weighing capacity         | 15kg         | 30kg         |         | 60kg         |         |         |
| Upper limit of indication | 15,000g      | 15,000g      | 30,000g | 15,000g      | 30,000g | 60,000g |
| Lower limit of indication | 150g         | 150g         | 300g    | 150g         | 300g    | 600g    |
| Actual scale interval (d) | 1g           | 1g           | 2g      | 1g           | 2g      | 5g      |
| Max belt speed            | 10-55m/min   | 10-40m/min   |         | 5-20m/min    |         |         |





# Easy Clean vs Low Care

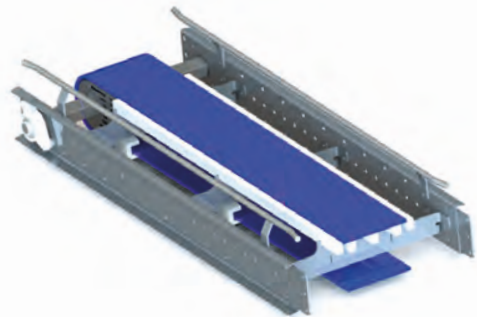
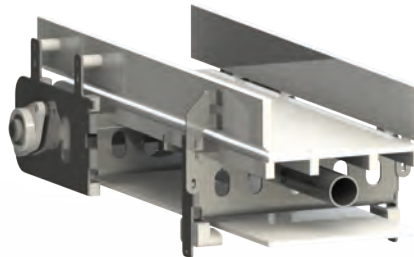
The Easy-Clean Conveyor Range is designed to transport product within a hygienic food production area where reliability is a necessity.

The open tubular construction allows for easy access to all parts of the conveyor without the need to lift up or remove any components.

Cleaning times can be reduced by up to 40% as a result of our easy-access design and the elimination of flat surfaces where product debris can build up.

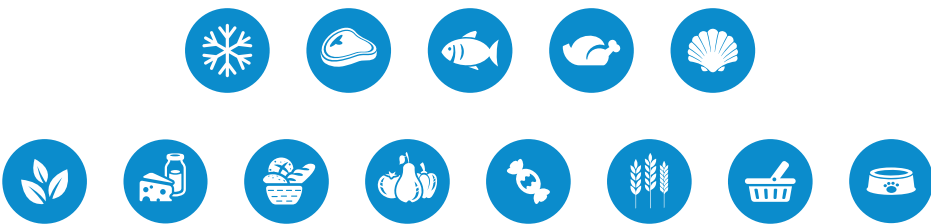
The Low-Care Conveyor Range is designed to transport product within a packing area where reliability is a necessity and the product is not in direct contact with the conveyor belt.

The modular belt design affords easy-to-access replacement parts, enabling maintenance staff to easily complete scheduled maintenance and prevent costly production downtime.



## Conveyor & Handling Solutions

Delivering reliable conveying solutions across the food industry



### General specification:

- 304 Grade Stainless steel construction
- 60mm Tubular spine
- PE 1,000 Plastic wear components
- Intralox modular belting
- Hingeable drip tray
- Quick-release hingeable side guides
- Stainless steel control panel (optional)
- Variable speed control
- Wash down mode on the control panel

### General specification:

- 304 Grade stainless steel construction
- 2.5mm Side panels
- PE 1,000 Plastic wear components
- Intralox modular belting
- Fixed side guards
- Stainless steel control panel (optional)
- Variable speed control

Both conveyor solutions are designed using components that have been proven to last in a 24/7 production environment. Through collaboration with our suppliers, we have designed superior-performing conveyor systems with easy-to-clean features to ensure cost of ownership for the end user is minimised.

Whether you are looking for a stand-alone conveyor, line upgrade, or a complete turnkey system, SF Engineering has the knowledge and experience to handle it. With almost 40 years' experience, our team of experts will create the ideal solution for your conveying challenges.

Our innovative approach has enabled us to deliver successful conveyor systems to a wide range of customers across the red meat, fish, poultry, pet food, convenience, dairy, bakery, fruit & veg, snack, and confectionery sectors.

All our conveyors are modular in construction so that, in the event a production line needs to be changed to meet a customer's requirements, it can be done with minimal disruption and cost.

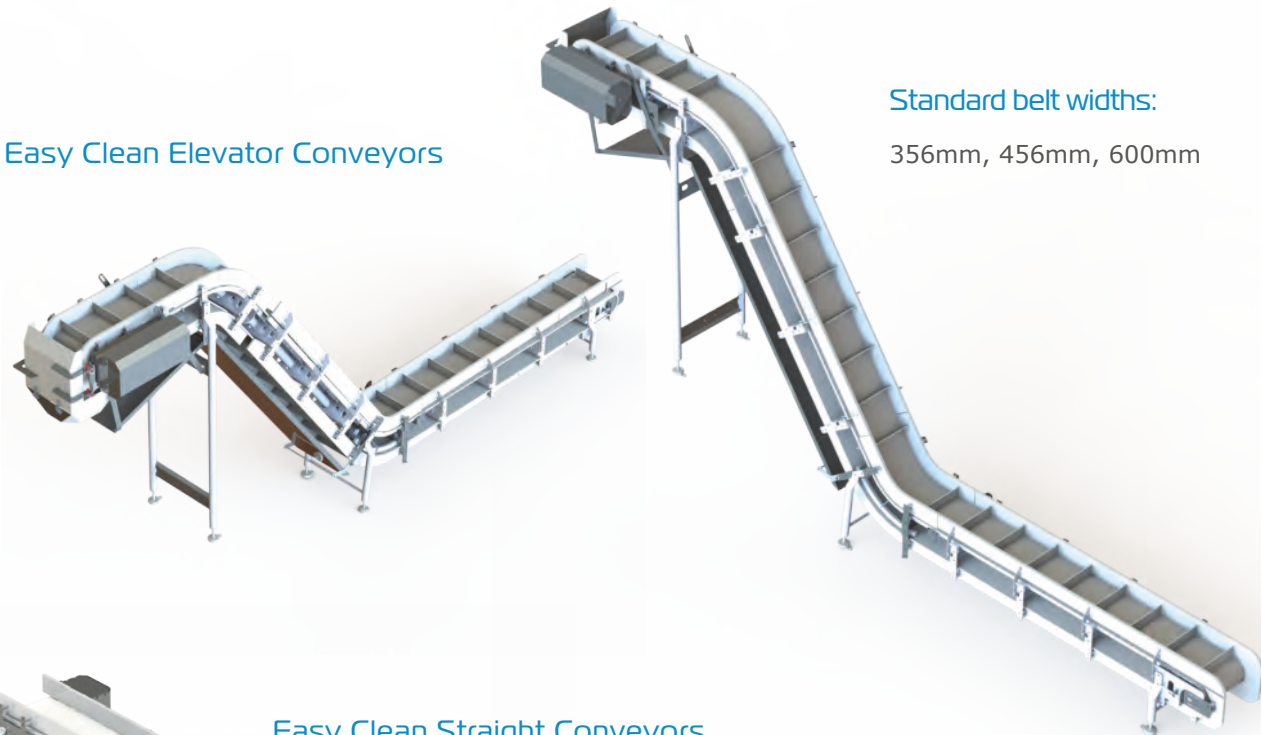




# Easy Clean Conveyors

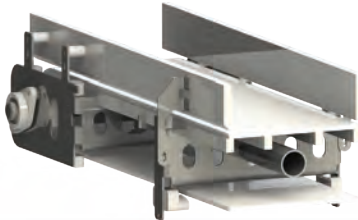
For the transportation of product within a hygienic food production area where reliability is a necessity.

Easy Clean Elevator Conveyors

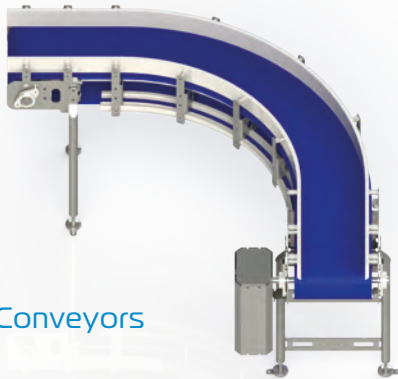
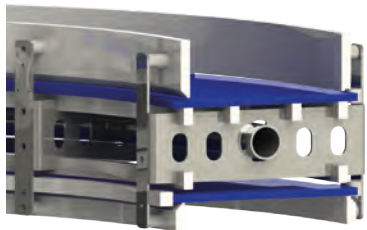


Standard belt widths:  
356mm, 456mm, 600mm

Easy Clean Straight Conveyors



Easy Clean Radius Conveyors



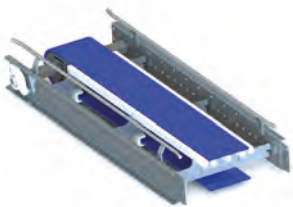
# Low Care Conveyors

For the transportation of product within a packing area where reliability is a necessity and the product is not in direct contact with the conveyor belt.

Low Care Elevator Conveyors



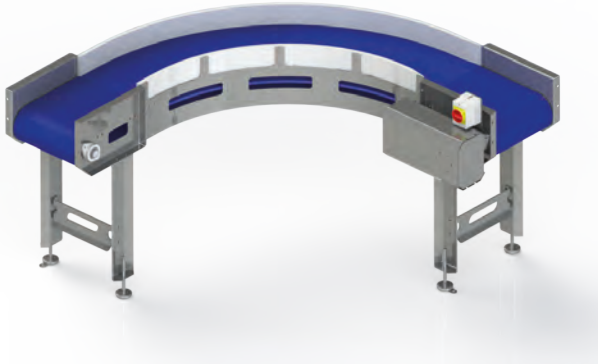
Standard belt widths:  
356mm, 456mm, 600mm



Low Care Straight Conveyors



Low Care Radius Conveyors





## MULTIHEAD WEIGHER PLATFORMS



The Multihead Support and Access Gantry is designed to support Multihead Weighers, allowing operators access to the product feed location for maintenance and cleaning on the Multihead Weigher.

The platform is designed to reduce vibrations through the Multihead Weigher, improving the accuracy of the weigher and helping reduce product giveaway.

The importance of having an accurate weigher to reduce your product giveaway is essential within an increasingly competitive marketplace.

- 304 Grade stainless steel construction
- 4.5mm chequered plate decking
- Box section support frame
- 100mm kick plate
- Access stairs
- 800mm landing at 3m and above
- 40mm tubular handrails
- No flat surfaces on steelwork
- Drainage to one side

### Features & Benefits

SF platforms are designed with no horizontal surfaces to prevent product entrapment and hygiene issues.

The decking has a built-in slope to ensure no water pooling takes place during cleaning.

Investing in the correct specification gantry is essential when installing high-speed accurate weighing lines to ensure your production lines can achieve the maximum efficiencies and throughput while maintaining low product giveaway.



Standard platform height - from 2,000mm to 3,500mm + 1,100mm for safety railing. Customised to suit requirements.

## MULTIHEAD WEIGHER SUPPORT FRAME



The multihead weigher goal post support frame is used below a platform when vibrator feeders are positioned on the main platform. This guarantees the multihead weigher is isolated from vibrations which may cause a reduction in the accuracy of the weigher.

It can be incorporated into layouts in conjunction with access gantries to provide a cost-effective solution to the weigher support and weigher access requirements.

- 304 Grade stainless steel construction
- 150mm x 150mm x 5mm box section

## FRESH FOOD WEIGHER GANTRY

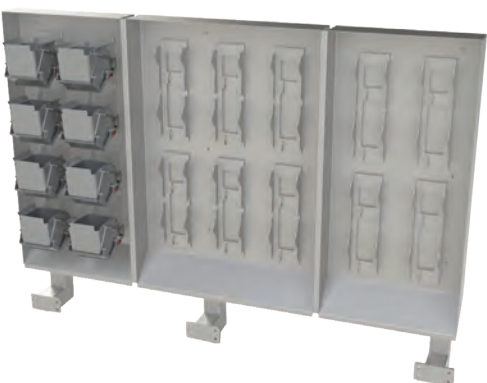


The High-Care Fresh Food Weigher Gantry is designed to support the Ishida range of Fresh Food Weighers and to allow operators access to the product feed locations on the FFW.

The platform is designed to reduce vibrations through the FFW, improving the accuracy of the weigher and helping reduce product giveaway.

It is important to avoid installing a superior weigher on an inferior gantry or the competitive advantage gained can be eliminated.

## PLATFORM WASH WALLS



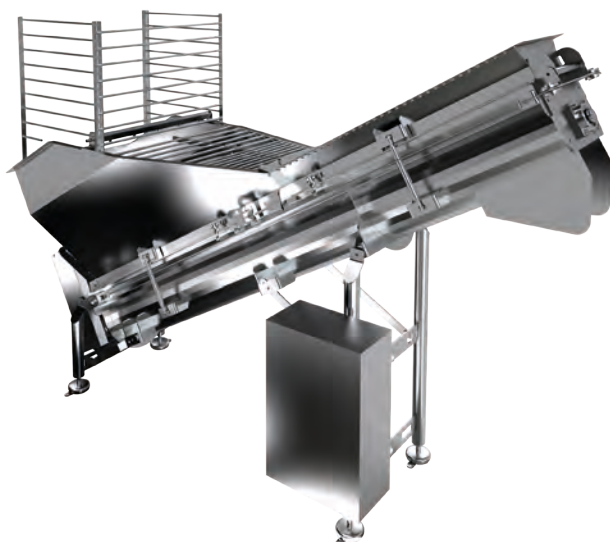
Our wash walls are specifically used to mount the multihead weigher parts during cleaning.

Easily mounted to the side of the platform and designed to suit your multihead weigher, our wash walls give you a hygienic mounting solution that is perfectly positioned to reduce labour time.

The walls are manufactured with an angled area to the bottom to ensure run-off water is held within the platform area. And, by fully welding the hopper spines, we have reduced food traps and minimised audit times.



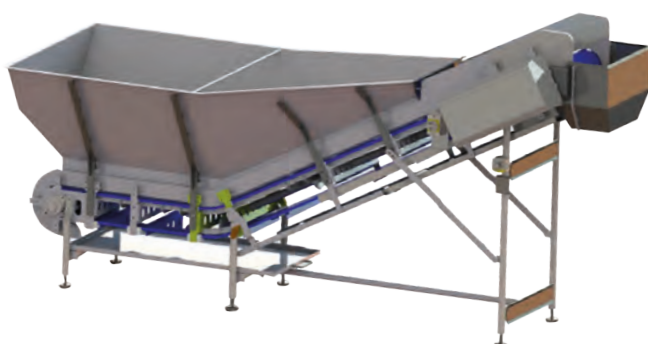
#### FEED SYSTEMS - SCREW FEED CONVEYOR



The Screw Conveyor has an intake hopper to allow 200 litres of product to be loaded from a tote bin and stored in the hopper. The hopper can also be fed from a production line and used as a buffer when the downstream equipment stops. When the production line is started, the product is metered out at a constant pace to suit production requirements.

- 304 Grade stainless steel construction
- 200 litre hopper
- 350mm screw body
- PE 1,000 plastic wear components
- Intralox modular belting
- Motor and gearbox wired to an isolator
- Interlocked hinged covers
- Interlocked hinged hopper with gas struts

#### FEED SYSTEMS - BULK ELEVATORS (200-1,000 LITRE VARIATIONS)



The 200 -1,000 litre bulk elevators have an intake hopper to allow product to be loaded from a tote bin and stored in the hopper. The hopper can also be fed from a production line and used as a buffer when the downstream equipment stops. When the production line starts, the elevator runs and the product is metered out to suit downstream production requirements.

- 304 Grade stainless steel construction
- Relevant hopper size depending on required volume
- 60mm tubular spine
- PE 1,000 plastic wear components
- Intralox modular belting
- Motor and gearbox wired to an isolator
- Hingeable drip tray

#### FEED SYSTEMS - FRESH FOOD WEIGHER FEED ELEVATOR



The Fresh Food Weigher feed elevator is designed to feed a continuous flow of product from a production line to the operator feeding the Fresh Food Weigher. The elevator can also be loaded manually at low level by an operator. The elevator eliminates the need for product to be carried up onto the platform.

- 304 Grade stainless steel construction
- 60mm tubular spine
- PE 1,000 plastic wear components
- Intralox modular belting
- Motor and gearbox
- Quick-release hingeable side guides
- Stainless steel control panel
- Variable speed control
- Wash down mode on the control panel

#### FEED SYSTEMS - GRADER INFEEED

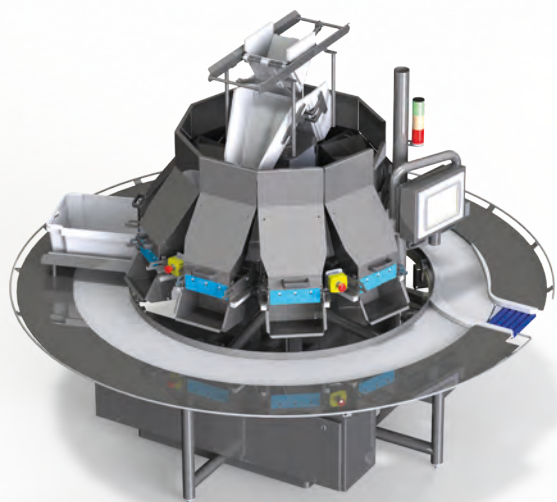


Grader infeed solutions are used to create the required spacing for products being fed onto an Ishida Grader. The conveyors are controlled from the grader control panel and the E-stops and power signals are pre-wired to a junction box.

- 304 Grade stainless steel construction
- PE 1,000 plastic wear components
- Intralox modular belting
- Motor and gearbox wired to an isolator



## DISTRIBUTION SYSTEMS - ROTOBATCHER



The Rotobatcher is designed to deliver product to an operator to allow them to style the product in a retail tray.

The Rotobatcher has seven packing stations with product bins and a buffer shelf to ensure product is always available to pack. It also has a reject chute to handle overweights and error rejects to minimise rejects downstream.

The styled product is placed on a circular tray takeaway conveyor for delivery to downstream equipment.

The Rotobatcher can run at production speeds of up to 50 packs per minute.

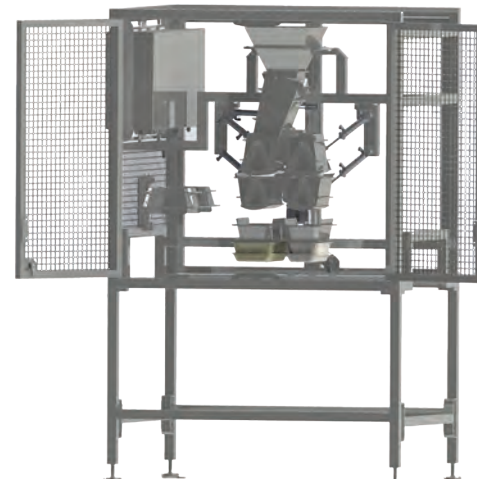
## BATCH DISTRIBUTION SYSTEM

The Batch Distribution System is designed to deliver product to an operator to allow product to be styled in a retail tray. The Batcher can be configured to have 8, 12, or 16 stations with product bins and a buffer shelf to ensure product is always available to pack. The Batch Distribution System can be fed with multiple CCW's allowing mixed products to be packed into the same tray or bag using multi-dump software on the CCW.

There is also a bulk gate to allow product to be manually bulk packed and weighed. The styled product is placed on a tray takeaway conveyor for delivery to downstream equipment. Two target weights can be packed simultaneously and delivered to different end-of-line packing equipment depending on the configuration of the batcher.



## DISTRIBUTION SYSTEM - MULTIHEAD WEIGHER TO TRAY



The Distribution System delivers product from the multihead weigher to waiting trays. It is designed to suit the tray format required and is configured in a 2 x 1 format.

The system is fully enclosed with mesh guarding and interlocked access doors. All the contact parts are clip-in to allow for easy removal during cleaning.

- Swing chute
- Product holding hoppers
- Product pool hoppers
- Dipping funnel
- Festo pneumatics
- C4 contact parts

## DISTRIBUTION SYSTEMS - CHAIN & PEG TRAY FILLING

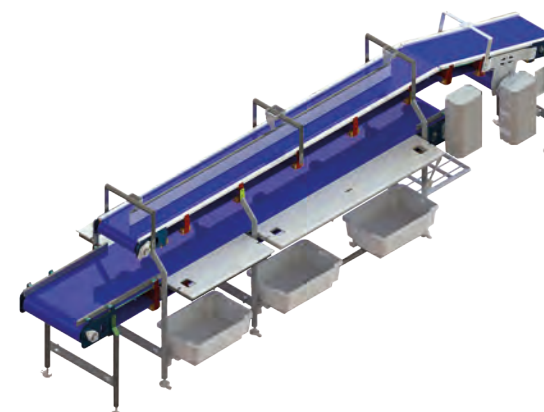


A chain and peg conveyor is used to deliver trays to a filling station where product is deposited into the retail trays.

Sensors are fitted to ensure a tray is in place when it is being filled and also to ensure the tray is in the correct filing location.

A denester can be used to drop empty trays, or they can be placed manually on the chain and peg.

## END-OF-LINE - TRIMMING STATIONS



The Trimming Station is designed to assist trimmers in detecting bone and contaminants in chicken.

There is a light under the trimming board that is illuminated with an 18w light to help highlight any foreign bodies and pieces of bone.

Crate holders are fitted under the trimming tables to collect the waste product.

Trimming Stations can be designed for 8, 12, or 16 operators.



END-OF-LINE - PACKING STATIONS



The packing stations are designed to pack products into cases in an efficient manner. The packing station includes a product infeed conveyor and a carton/crate outfeed conveyor with integrated packing tables.

An empty case shelf can be fitted to store empty crates or cartons above the product conveyor.

END-OF-LINE - PACKING STATIONS



The pace line can be fed from a multihead weigher or a fresh food weigher. The product is delivered between flights on the product conveyor and the other lane is used to carry retail trays.

The tray and product travel along the conveyor side by side and operators can carry out a pre-designated portion of the styling required.

All the product must be transferred from the product belt into the retail tray before the retail tray is transferred to downstream equipment.

END-OF-LINE - BONING HALL PACKING STATIONS

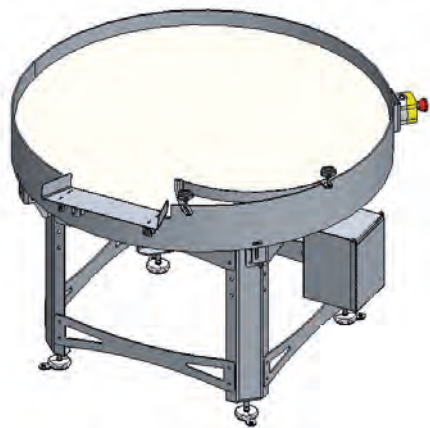


These carousel-style packing stations can be custom designed to suit your site.

These efficient packing systems are ergonomically designed to assist the packer and save labour. After packing, the empty boxes/crates are fed away on a separate conveyor.

The easy clean sturdy design saves valuable time during the cleaning process. The packing line can be modified to feed OCM stations.

END-OF-LINE - ROTARY TABLES



Designed to buffer packaged product at the end of a production line, the SF Rotary Table safely accumulates product and eradicates end-of-line stoppages. Featuring:

- Open hygienic design frame
- 304 Grade stainless steel construction
- Geared motor
- Emergency stop button



| Ref    | Diameter (A) | Height (B)   | Speed    | Top Material      |
|--------|--------------|--------------|----------|-------------------|
| RT120F | 1200mm       | 850 +/- 50mm | Fixed    | Stainless Steel   |
| RT120V | 1200mm       | 850 +/- 50mm | Variable | Stainless Steel   |
| RT121F | 1200mm       | 850 +/- 50mm | Fixed    | Polyurethane (PE) |
| RT121V | 1200mm       | 850 +/- 50mm | Variable | Polyurethane (PE) |
| RT122F | 1200mm       | 950 +/- 50mm | Fixed    | Stainless Steel   |
| RT122V | 1200mm       | 950 +/- 50mm | Variable | Stainless Steel   |
| RT123F | 1200mm       | 950 +/- 50mm | Fixed    | Polyurethane (PE) |
| RT123V | 1200mm       | 950 +/- 50mm | Variable | Polyurethane (PE) |

END-OF-LINE - ROLLER CONVEYORS



The Roller Conveyor can be used to transport and accumulate packed product.

The roller conveyors are fitted with spring-loaded PVC rollers and are manufactured to 300mm wide with 30mm dia rollers or 500mm wide with 50mm dia rollers as standard.



Meat Packing Accessories



With a deep heritage in the red meat industry, we have been at the forefront of innovation in this sector for many years. Our understanding of the butchery process has led us to develop an advanced portfolio of equipment that is designed to improve yield and profitability.

Our meat packing accessories are a great addition to your end-of-line process. All these solutions are manufactured in stainless steel and have height-adjustable leg inserts to improve ergonomics.

ROLL TRACKS



- Stainless steel DP2 finish
- 542mm inside chassis
- Alternating stainless and plastic spring-loaded rollers
- Removable end stop
- Leg inserts for height adjustment from 750mm to 950mm from floor to top of roller
- Screw in feet for fine adjustment with tabs to bolt to the floor

| Code     | Length |
|----------|--------|
| STK-9001 | 2000mm |
| STK-9009 | 3000mm |

Y-ROLL TRACK



STK-9005

The Y-Roll track converges two lanes into one. It can be easily combined with a straight roll track and is mainly used in OCM scale areas.

- Stainless steel DP2 finish
- Alternating stainless and plastic spring-loaded rollers
- Leg inserts for height adjustment from 750mm to 950mm from floor to top of roller
- Screw in feet for fine adjustment with tabs to bolt to the floor

BAGGING TABLES

Stainless Steel troughed tables for collecting and packing meat or similar product. Drainage holes. Leg inserts for height adjustment from 750mm to 950mm (floor to bottom of trough). Screw in feet for fine adjustment with tabs to bolt to the floor. Option with bagging fork brackets on either side of the table for ease of packing primal cuts of meat into bags.

| Code     | Description   |
|----------|---|
| STK-9002 | Bagging table supplied with two brackets and one bagging fork |
| STK-9003 | Bagging table (no fork brackets)                              |



Bagging fork



STK-9002



STK-9003

BAG ROLL HOLDER



STK-9006

- Stainless Steel
- Floor mounted frame
- 6 bag roll holders
- Each holder can be mounted at multiple positions
- Can support rolls of bags up to 150mm in diameter and up to 500mm in length.





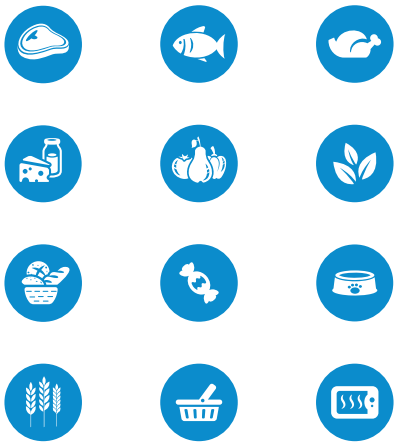
## Lifting & Tipping

Reliable, safe, & hygienic handling solutions for heavy-duty use

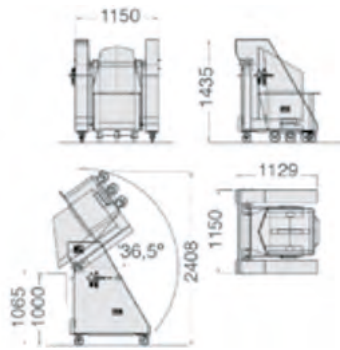
Our range of lifting and tipping equipment is perfectly suited to match the heavy-duty needs of the food industry.

We supply solutions for low as well as high discharge heights for the safe lifting and tipping of bins, containers, and dolavs.

Our systems can be tailored to meet any plant layout or space requirement.



### HYDRAULIC & PNEUMATIC TIPPERS



Suitable for a wide range of bins and containers.

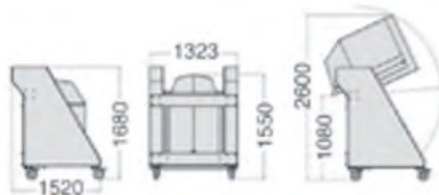
#### MOD.VN-350

- Specially designed hopper to minimise product loss
- Safety side protection
- Easy access electrical control box
- Castors for mobile execution

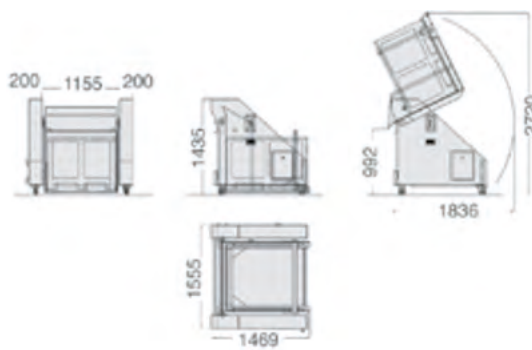
| Ref        | Feet    | Operation | Tipping Height | Bin Size         | Max Load | Working Pressure |
|------------|---------|-----------|----------------|------------------|----------|------------------|
| MOD.VN-350 | Castors | Pneumatic | 1,000mm        | 200L - 300L Bins | 350kg    | 6.3bar           |

#### MOD.VN-500

- Specially designed hopper to minimise product loss
- Safety side protection
- Easy access electrical control box
- Castors for mobile execution



| Ref        | Feet    | Operation | Tipping Height | Bin Size | Max Load | Working Pressure |
|------------|---------|-----------|----------------|----------|----------|------------------|
| MOD.VN-500 | Castors | Pneumatic | 1,000mm        | 500kg    | 6.3bar   | 6.3bar           |



#### MOD.VN-1000

- Specially designed hopper to minimise product loss
- Safety side protection
- Easy access electrical control box
- Castors for mobile execution

| Ref         | Feet    | Operation | Tipping Height | Bin Size | Max Load | Working Pressure |
|-------------|---------|-----------|----------------|----------|----------|------------------|
| MOD.VN-1000 | Castors | Hydraulic | 1,000mm        | 1000kg   | 1.5KW    | 6.3bar           |

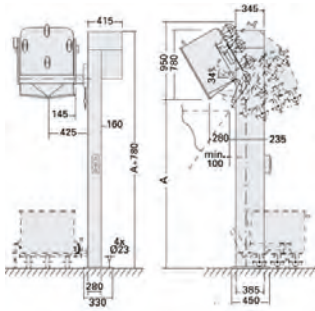


BIN HOISTS



Designed to handle either standard 200L (440Lb) bins or 300L (660Lb) bins.

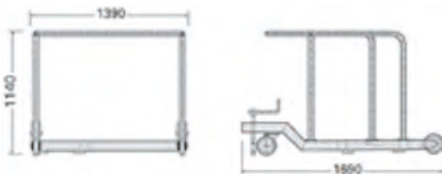
- Lifting speed 5m/min (16ft/min)
- Screw-driven for better safety
- Right or left-hand execution
- Motor protected in a stainless steel box
- Power 2HP (1.5KW)
- Floor mounted



| Ref       | Execution  | Tilting Height |
|-----------|------------|----------------|
| CODE.7571 | Left Hand  | 950-1,450mm    |
| CODE.4052 | Left Hand  | 1,450-1,950mm  |
| CODE.7572 | Left Hand  | 1,950-2,450mm  |
| Ref       | Execution  | Tilting Height |
| CODE.1627 | Right Hand | 950-1,450mm    |
| CODE.1624 | Right Hand | 1,450-1,950mm  |
| CODE.1617 | Right Hand | 1,950-2,450mm  |



Our Mobile Carriage is suitable for use with the Bin Hoist. The special handrail makes the carriage easy to transport, increasing safety standards.

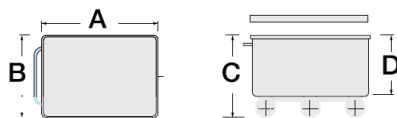


| Ref        | Execution  |
|------------|------------|
| CODE.23709 | Left hand  |
| CODE.23708 | Right Hand |
| CODE.1617  | Right Hand |

BUGGIES & SAUSAGE TRUCKS

Heavy-duty 2mm thick stainless steel bins with a 3mm (11 gauge) thick base and reinforced V-shape support to give strength to the bottom and wheels. The handles are welded to the top to improve ergonomics and save space during storage.

- Fitted with drain and threaded cap
- Fully welded stainless steel bar on the top edge for maximum strength and to eliminate cracking, which is a contamination risk
- All welds are fully welded
- 4 x 150mm diameter wheels

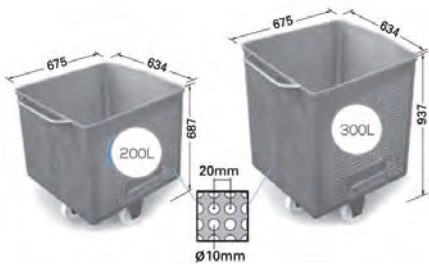
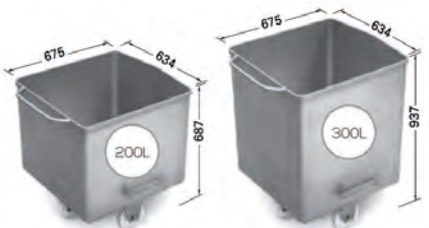


| Ref       | A (mm) | B (mm) | C (mm) | D (mm) | Capacity | Wheel      | Lid       |
|-----------|--------|--------|--------|--------|----------|------------|-----------|
| CODE.3781 | 930    | 620    | 640    | 460    | 250 L    | CODE.12165 | CODE.4321 |
| CODE.3782 | 1,100  | 650    | 745    | 525    | 350 L    | CODE.21038 | CODE.4322 |
| CODE.3783 | 1,300  | 700    | 860    | 580    | 500 L    | CODE.12165 | CODE.4323 |

BINS

Heavy-duty 2mm thick stainless steel bins with a 3mm (11 gauge) thick base and reinforced V-shape support to give strength to the bottom and wheels. The handles are welded to the top to improve ergonomics and save space during storage.

- Fully welded stainless steel bar on the top edge for maximum strength and to eliminate cracking, which is a contamination risk
- Location of lift lugs is suitable for all standard lifters
- All welds are fully welded
- 4 x 150mm diameter wheels
- Drip guard available on request



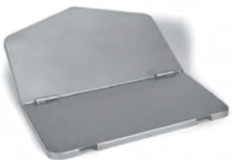
Solid stainless steel

| Ref        | Feet        | Capacity | Empty weight |
|------------|-------------|----------|--------------|
| CODE.5124  | 4 x Castors | 200L     | 40kg         |
| CODE.24541 | 4 x Castors | 300L     | 50kg         |

Perforated stainless steel – sides and bottom

| Ref        | Feet        | Capacity | Empty weight |
|------------|-------------|----------|--------------|
| CODE.5124  | 4 x Castors | 200L     | 40kg         |
| CODE.24541 | 4 x Castors | 300L     | 50kg         |

BIN ACCESSORIES



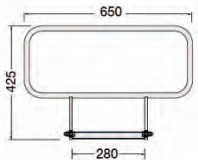
CODE.10053

Stainless steel cover for 200L / 300L standard tipping bins.

CODE.3712

Holder to pile up two bins to dramatically increase the capacity in cold rooms.

It's designed to prevent cross-contamination, as no leaks from the top bin can drop into the bottom bin.



CODE.12705

With this detachable handle, employees can use 200L bins in an ergonomic way, without bending their backs. This handle can be used to push or pull the bin.

It is very strong and easy to use. The same handle can be used on many bins.





# Industrial washing & drying solutions designed for the food industry



When it comes to cleaning, there are only two things that are important: high hygiene and low costs. Our range of industrial washing solutions clean a range of products, including pallets, crates, trolleys, forms, trays, or any kind of utensil, whatever the level or type of pollution. These powerful, low-maintenance industrial washing solutions will help you save valuable labour and utility costs, whilst maintaining the highest level of hygiene.

The food industry requires extremely high levels of hygiene and each industry sector presents its own challenges. From the persistent fouling caused by smoke, fish slime, and scales in the fish industry to the dried meat, blood, fat, and foaming of the meat industry. You can be assured that each of our industrial washers is built to suit your exact pollution requirements.

## Crate Washers

The UNIKON crate washer is modular in design, making it easy to configure to your exact requirements. It has three main modules; pre-wash, main wash, and blower module. Each is available in different sizes. This makes it easy and quick to build the combination system that you require.

In the wash section, all contamination is removed. The water in this section is continuously filtered to ensure good wash quality. The crates are rinsed with clean

water. This water is then re-used for washing, ensuring lower water usage throughout. Lowering water consumption has an effect on chemical and heating power usage.

Even in a later stage when the machine is already in operation, it is possible to add modules to increase capacity, wash result, or drying efficiency. The crate washers use less water and energy, making them extremely efficient at reducing operational costs.

### ECO-MODULAR



|                       |  |
|-----------------------|--|
| Product               | Crates / buckets / bins etc                              |
| Maximum product size  | Up to 450mm wide x 400mm high                            |
| Capacity              | 50-1,000 Products per hour (depending on pollution)      |
| Spray System          | Spray tubes with nozzles                                 |
| In and outfeed height | 1,030mm high   |
| System                | Standard chain transport / one-person operation optional |
| Filter                | Removable sieve tray                                     |

### BASIC CRATE WASHER



|                       |  |
|-----------------------|--|
| Product               | Various types of crates                                  |
| Maximum product size  | Up to 500mm wide x 400mm high                            |
| Minimum product size  | 300mm wide x 70mm high                                   |
| Capacity              | 50-300 crates per hour (depending on pollution)          |
| Spray System          | Spray tubes with nozzles                                 |
| In and outfeed height | 880mm high   |
| System                | Standard chain transport / one-person operation optional |
| Filter                | Removable sieve tray                                     |
| Washer dimensions     | 1,040mm wide x 1,550mm high x 2,200mm deep               |
| Water consumption     | 4-5 litres/minute  |

This compact, basic crate washing machine is ideal for the quick and efficient cleaning of your crates in relatively low throughput factories. The expandable overhead crate return makes it easy to operate by one person.

The Basic is an ideal machine when you need a compact crate washer without compromising on quality.



TROLLEY WASHERS



Supplied with a moving wash frame that is fitted with nozzles on four sides, the washing time and washing power on our trolley washer can be matched to your cleaning requirements.

|                      |  |
|----------------------|--|
| Product              | Trolleys   |
| Maximum product size | Up to 1,000mm wide x 1,000mm deep x 2,000mm high |
| Capacity             | 10-25 Trolleys per hour (depending on pollution) |
| Spray System         | Up and down moving wash system                   |
| Water consumption    | 4-20 litres per trolley (adjustable)             |

CABINET WASHERS



|                       |   |
|-----------------------|---|
| Product               | Very diverse, including crates, baking trays, tools, and with a special basket also suitable for smaller parts. |
| Maximum product size  | 980mm long x 620mm wide x 530mm high  |
| Maximum product size  | In combination with basket no lower limit (mesh 20mm x 20mm)  |
| Capacity              | Cycle adjustable between 3 to 30 minutes  |
| Spray System          | Spray tubes with nozzles  |
| In and outfeed height | 950mm high  |
| System                | Swivel top cover with gas springs   |
| Filter                | Removable filter tray   |
| Water consumption     | 5/15 litres/cycle   |
| Washer Dimension      | 1,200mm wide x 1,500mm high x 700mm deep  |

The T-1200 is a compact cabinet washer that allows you to wash a wide variety of products. The machine is very user-friendly thanks to the easy-to-operate swinging cover with gas springs. This allows you to load and unload the machine from three sides.

As not every pollution needs the same washing programme, the time of the washing cycle and the washing temperature can be adjusted. If your company needs a compact but powerful all-rounder, the T-1200 is an ideal machine.

DEBONING GLOVE WASHER



This patented glove washing machine affords huge labour savings and low maintenance costs, offering a visually and bacteriologically clean result.

- Very low water consumption (only 0.4 L per glove)
- A wash cycle of only 15 minutes (up to 50 gloves per cycle)
- Simple and easy operation
- Low maintenance costs
- Reuse of the washing water by utilising a built-in filter system
- The possibility of drying

BIN / CONTAINER WASHERS



ECO-BIN-TWIN



K-200



PRW-2000

Our cabinet washers clean everything, from transportation and packing equipment to production line components, equipment, and utensils. If necessary, we can create your fully customised cabinet washer to your specific needs.

| Machine  | Product       |               |            | Application      |                 |
|----------|---------------|---------------|------------|------------------|-----------------|
|          | 200 Litre Bin | 300 Litre Bin | Pallet Box | Normal Pollution | Heavy Pollution |
| ECO BIN  | ✓             | ✓             |            | ✓                |                 |
| K-200    | ✓             |               |            | ✓                | ✓               |
| K-300    | ✓             | ✓             |            | ✓                | ✓               |
| K-1000   | ✓             | ✓             | ✓          | ✓                | ✓               |
| PRW-2000 | Special       | Special       | ✓          | ✓                |                 |

With the [ECO-BIN](#) and [ECO-BIN-TWIN](#), the standard trolley turns within a frame in the washing machine. In combination with the powerful spraying system, this guarantees optimum cleaning of the inside, outside, and wheels. Both 200 and 300-litre standard trolleys can be washed without adjustment. Automatic tilting is optional.

The [K-series](#) deals efficiently with water and energy. In combination with the powerful spray system, this guarantees optimum cleaning of the interior and exterior. You can also use the K-series for washing other products, such as drums, bins, pallets, etc. Changing the necessary holders to suit the product is simple.

The [PRW-2000](#) is also a container washing machine that uses water and energy efficiently. The pallet container rotates in the machine. In combination with the powerful spraying system, we guarantee optimal cleaning of the inside and outside.

PALLET / DIVIDER WASHERS



The low entry height makes these machines very user-friendly. Each pallet / divider washing machine can be fully tailored to your needs. From compact, manually operated to fully automatic washing machines, we can customise to suit your production line.

|                      |  |
|----------------------|--|
| Product              | Pallets, dividers, and other products            |
| Maximum product size | Up to 200m wide x 1,000mm high                   |
| Capacity             | 50-200 pallets per hour (depending on pollution) |
| Spray System         | Pivoting spray system, with clip nozzles         |
| Water consumption    | 4-8 litres per minute (adjustable)               |



TUNNEL WASHERS



Our tunnel washers are suitable for a wide range and variety of manufacturing, packaging, and transport equipment, from pallets and containers to chocolate moulds and cheese forms.

Each component passes through the front of the washing machines to the back and comes out clean. Large and small products, standard products or more varied products, the unique pivoting washing system removes even the toughest soiling.

We can provide the optimum washing and logistical solution for your products to match the capacity, from one to thousands of pieces per hour.

CRATE & PALLET SPINNERS

The Unikon Spin Dryer, also called a centrifugal dryer, is a flexible, durable, and innovative solution for drying various types of washed product carriers. Drying pallets and crates before reuse is much more hygienic and ensures the food products are not affected by residual moisture.

Achieve up to 90% Energy Saving

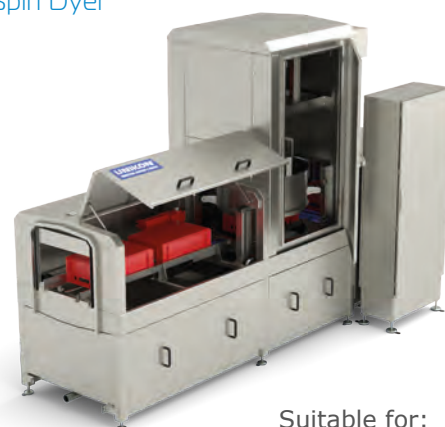
The efficiency of the UNIKON Spin Dryer results in an energy saving of up to 90% compared to air dryers. The Spin Dryer offers an amazing drying result of up to only a few grams of moisture per unit. The dryer can be an extension of your existing washing machine and is effortlessly integrated into your existing washing process.

Pallet Spinner



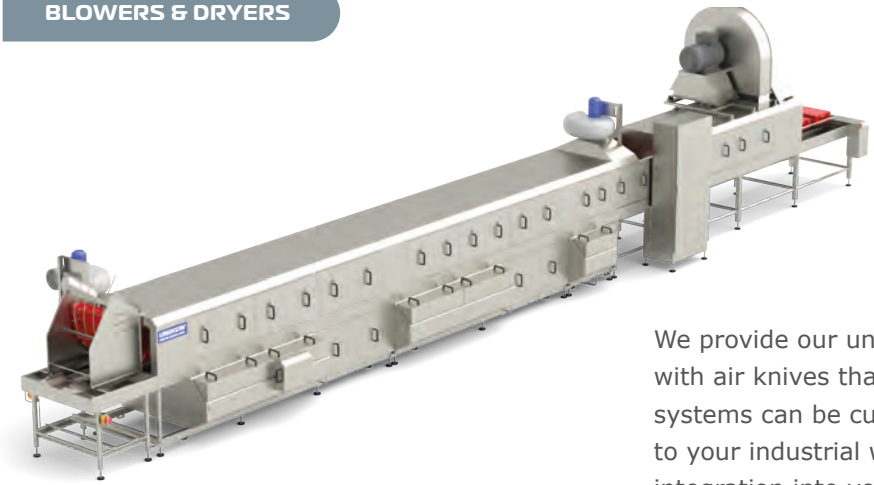
Suitable for:  
Plastic pallets  
Whole or half size pallets  
Other types of pallets

Spin Dyer



Suitable for:  
Crates like E1 & E2 & E3 or  
foldable crates  
Bread tins & baking trays

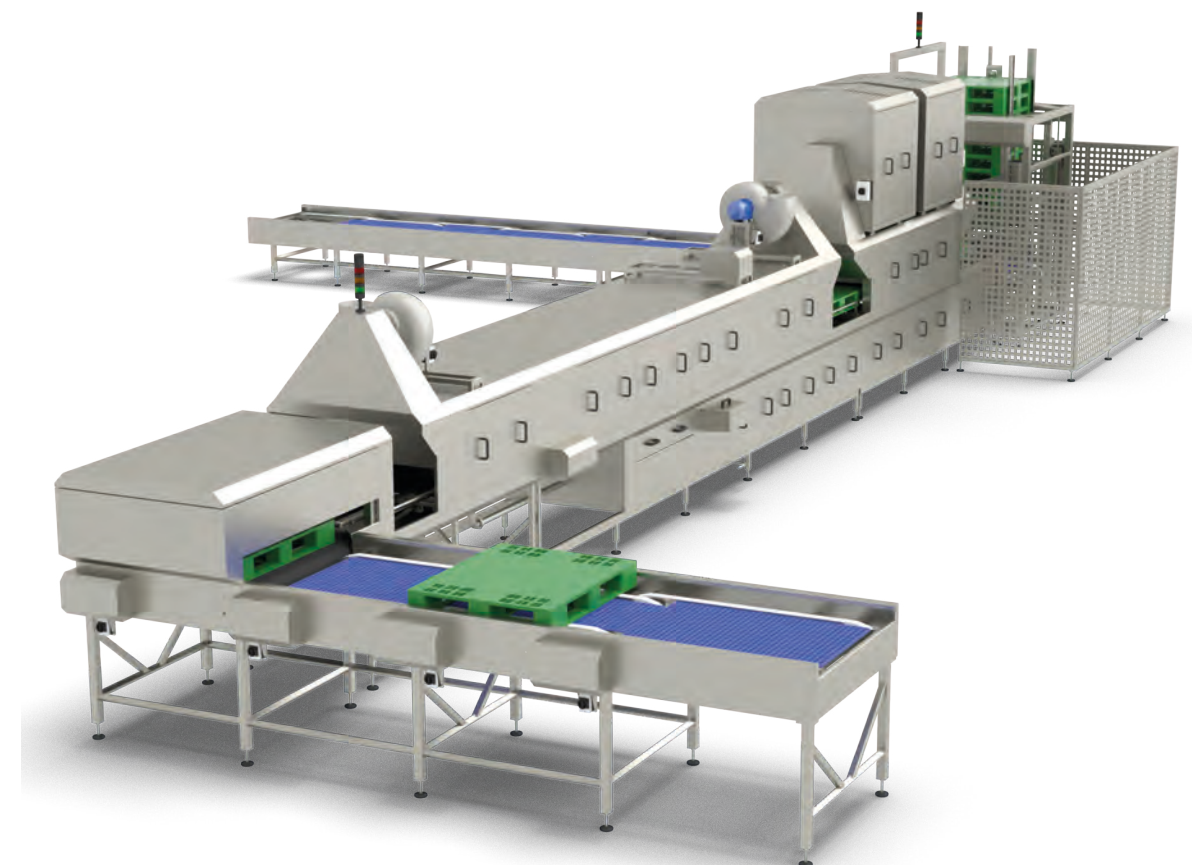
BLOWERS & DRYERS



We provide our uniquely constructed drying systems with air knives that blow hot or cold air. These drying systems can be custom-built to seamlessly connect to your industrial washing machine allowing full integration into your production process.

FULLY AUTOMATED LOGISTIC WASHING & DRYING SOLUTIONS

Our fully automated logistic washing systems have been designed to fully automate the washing process within a food production environment. The speed of the logistics system is linked to the capacity of your washing machine, including systems such as de-palletising or palletising, stacking or de-stacking, feeding and disposal. There is no manpower needed.







Visit the website



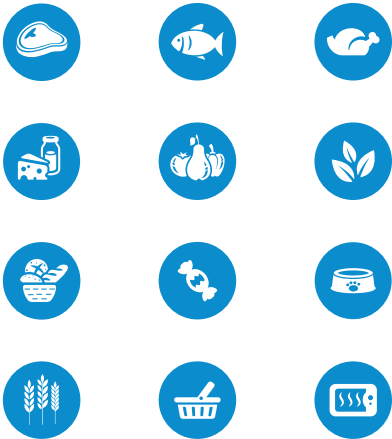
# Prevent the risk of contamination

By controlling hygiene standards in food production environments

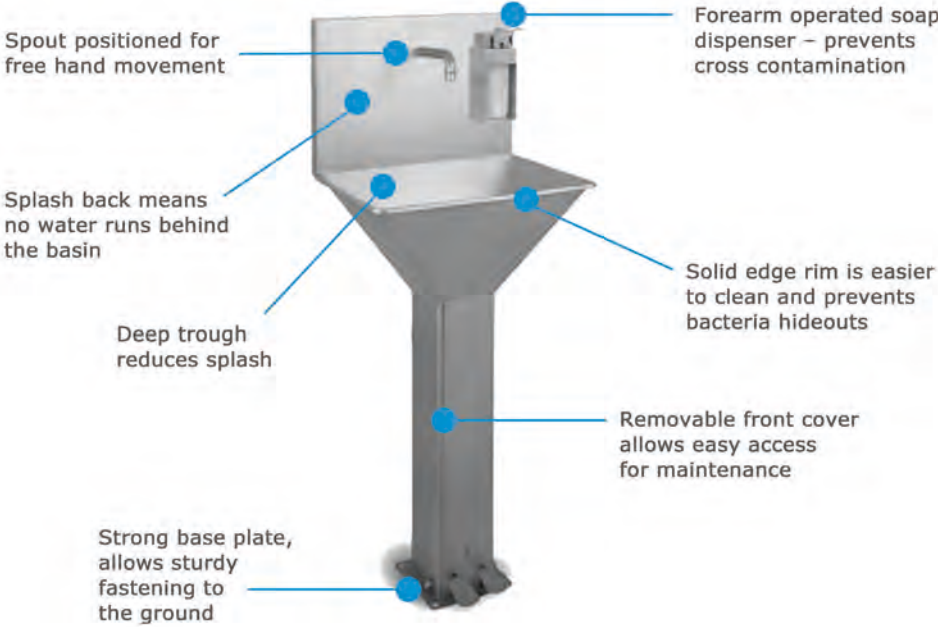
Our range of high-quality stainless steel hygiene equipment is specifically designed for both operational and personal hygiene applications.

We work closely with our customers to ensure all their hygiene requirements are met using the correct hygiene equipment.

Following the correct hygiene protocol is essential in every food production environment to prevent the risk of contamination.



## WASH BASINS



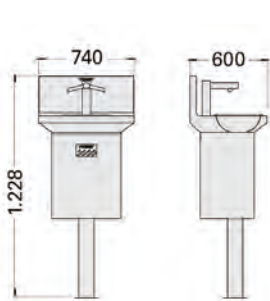
| Code                  | 28111                                       | 28112             | 28116             | 28115           | 28114           | 28130             |
|-----------------------|---|-------------------|-------------------|-----------------|-----------------|-------------------|
| Control               | 2 Pedals                                    | Sensor            | 1 Pedal           | Hip Pedal       | Sensor          | Sensor            |
| Water                 | Hot & Cold                                  | Hot               | Hot               | Hot             | Hot             | Hot               |
| Mount                 | Floor                                       | Floor             | Floor             | Wall            | Wall            | Floor             |
| Dimensions - WxDxH mm | 525 x 415 x 1,320                           | 525 x 415 x 1,320 | 400 x 288 x 1,225 | 400 x 288 x 715 | 406 x 455 x 540 | 406 x 455 x 1,175 |
| Weight                | 16kg  | 16kg              | 11kg              | 9kg             | 14kg            | 17kg              |
| Accessories           | Soap dispenser, waste bin, knife steriliser |                   |                   |                 |                 |                   |

## COMPACT WASH BASIN



With Dyson Airblade Tap

Our compact washing station includes a Dyson Airblade tap that enables the washing and drying of hands in a single step, resulting in huge paper and energy savings.





WASH BASINS

Stainless steel holder  
for tissue rolls of  
ø200 mm.

Splash back means  
no water runs behind  
the basin

MC-1 stainless  
steel double  
chamber knife  
steriliser

Forearm operated soap  
dispenser – prevents  
cross contamination

Stainless steel  
waste paper bin



| Code             | COMBI 1    | COMBI 2 | COMBI 3    | COMBI 4 |
|------------------|------------|---------|------------|---------|
| Control          | 2 Pedals   | Sensor  | 2 Pedals   | Sensor  |
| Water            | Hot & Cold | Hot     | Hot & Cold | Hot     |
| Mount            | Floor      | Floor   | Floor      | Floor   |
| Knife steriliser | ✗          | ✗       | ✓          | ✓       |



COMBI 1



COMBI 2



COMBI 3



COMBI 4

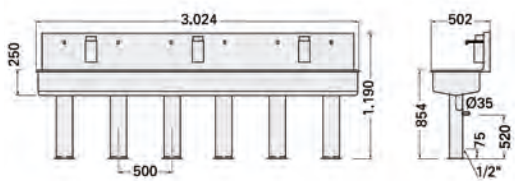
MULTI-STATION WASH BASINS

Splash back means  
no water runs  
behind the basin

Forearm operated soap  
dispenser – prevents  
cross contamination

CODE. 28145

Rounded basin  
hygienic design



CODE. 11738



CODE. 393



CODE. 428



CODE. 1388

| Code        | Stations | Mount | Operation | Water      | Soap         |
|-------------|----------|-------|-----------|------------|--------------|
| CODE. 28145 | 6        | Floor | 2 Pedals  | Hot & Cold | 3 Dispensers |
| CODE. 11738 | 6        | Wall  | Sensor    | Hot *      | 3 Dispensers |
| CODE. 393   | 6        | Floor | Sensor    | Hot *      | 3 Dispensers |
| CODE. 428   | 6        | Wall  | Knee      | Hot *      | 3 Dispensers |
| CODE. 1388  | 6        | Floor | Knee      | Hot *      | 3 Dispensers |



MULTI-STATION WASH BASINS



| Code        | Stations | Mount | Operation | Water      | Soap         |
|-------------|----------|-------|-----------|------------|--------------|
| CODE. 28143 | 4        | Floor | 2 Pedals  | Hot & Cold | 2 Dispensers |
| CODE. 3347  | 4        | Floor | Sensor    | Hot *      | 2 Dispensers |
| CODE. 3404  | 4        | Wall  | Knee      | Hot *      | 2 Dispensers |
| CODE. 11739 | 4        | Wall  | Sensor    | Hot *      | 2 Dispensers |
| CODE. 1472  | 4        | Floor | Knee      | Hot *      | 2 Dispensers |

\* Optional - Thermostatic mixing valve. Stable mixed water temperature + - 1.5° C from 37° C to 45° C. Anti-scalding safety. CODE. 11490



| Code        | Stations | Mount | Operation | Water      | Soap        |
|-------------|----------|-------|-----------|------------|-------------|
| CODE. 28141 | 2        | Floor | 2 Pedals  | Hot & Cold | 1 Dispenser |
| CODE. 2311  | 2        | Wall  | Knee      | Hot *      | 1 Dispenser |
| CODE. 2319  | 2        | Floor | Knee      | Hot *      | 1 Dispenser |
| CODE. 150   | 2        | Floor | Sensor    | Hot *      | 1 Dispenser |
| CODE. 11740 | 2        | Wall  | Sensor    | Hot *      | 1 Dispenser |

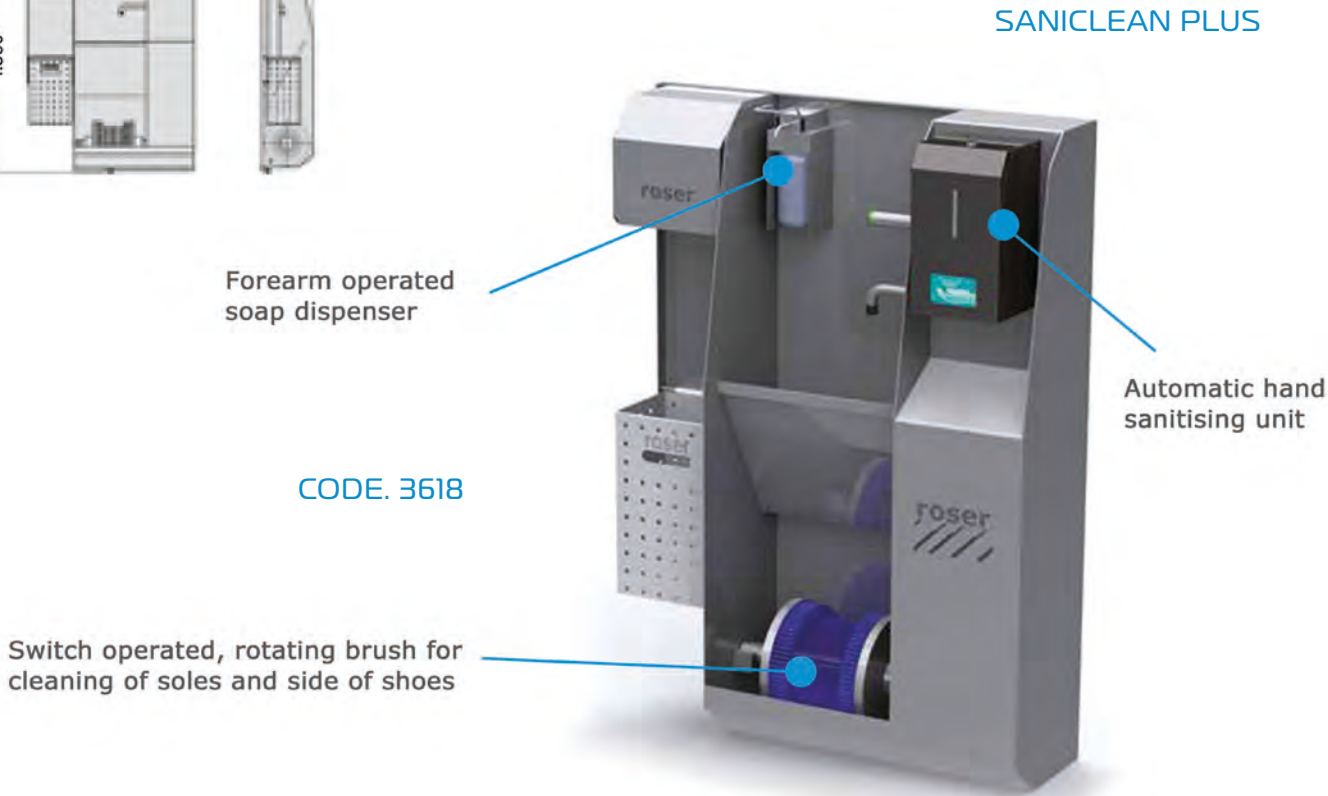
\* Optional - Thermostatic mixing valve. Stable mixed water temperature + - 1.5° C from 37° C to 45° C. Anti-scalding safety. CODE. 11490

COMPACT HYGIENE STATIONS

DUOCLEAN PLUS



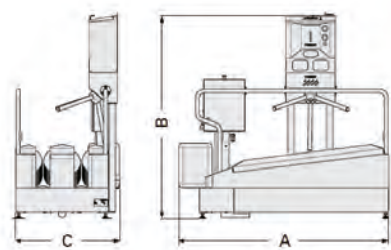
SANICLEAN PLUS



MHS-5 ACCESS CONTROL HYGIENE SOLUTIONS



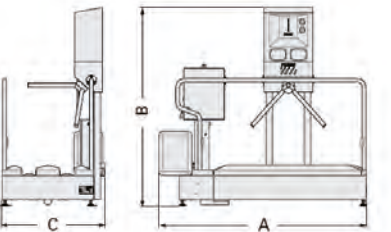
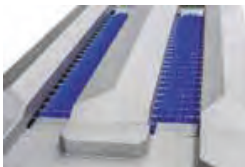
MHS-5-LB



| Model         | Description                         | Access                   | Brush Length | A (mm) | B (mm) | C (mm) |
|---------------|-------------------------------------|--------------------------|--------------|--------|--------|--------|
| MHS-5 LB 800  | Boot washer with integrated DUOMANS | Turnstile once sanitised | 800mm        | 1600   | 1960   | 1010   |
| MHS-5 LB 1200 | Boot washer with integrated DUOMANS | Turnstile once sanitised | 1200mm       | 2020   | 1960   | 1010   |
| MHS-5 LB 1600 | Boot washer with integrated DUOMANS | Turnstile once sanitised | 1600mm       | 2440   | 1960   | 1010   |



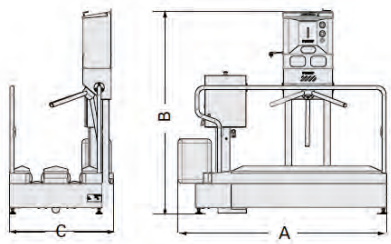
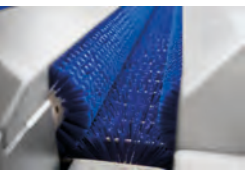
MHS-5-LS



| Model         | Description                         | Access                   | Brush Length | A (mm) | B (mm) | C (mm) |
|---------------|-------------------------------------|--------------------------|--------------|--------|--------|--------|
| MHS-5 LS 1200 | Sole washer with integrated DUOMANS | Turnstile once sanitised | 1200mm       | 2040   | 1960   | 1010   |
| MHS-5 LS 1600 | Sole washer with integrated DUOMANS | Turnstile once sanitised | 1600mm       | 2460   | 1960   | 1010   |



MHS-5-LZ



| Model         | Description                         | Access                   | Brush Length | A (mm) | B (mm) | C (mm) |
|---------------|-------------------------------------|--------------------------|--------------|--------|--------|--------|
| MHS-5 LZ 800  | Shoe washer with integrated DUOMANS | Turnstile once sanitised | 800mm        | 1620   | 1960   | 1010   |
| MHS-5 LZ 1200 | Shoe washer with integrated DUOMANS | Turnstile once sanitised | 1200mm       | 2040   | 1960   | 1010   |
| MHS-5 LZ 1600 | Shoe washer with integrated DUOMANS | Turnstile once sanitised | 1600mm       | 2460   | 1960   | 1010   |

ACCESS CONTROL SOLUTIONS



CODE. 29795



CODE. 29794



CODE. 29099



CODE. 29791

| Code        | Mount | Operation | Sanitation                        | Access                   |
|-------------|-------|-----------|-----------------------------------|--------------------------|
| CODE. 29795 | Floor | Sensor    | Alcohol-based sanitiser dispenser | Turnstile once sanitised |
| CODE. 29794 | Wall  | Sensor    | Alcohol-based sanitiser dispenser | Turnstile once sanitised |
| CODE. 29099 | Floor | Push      | None                              | Turnstile                |
| CODE. 29791 | Wall  | Push      | None                              | Turnstile                |



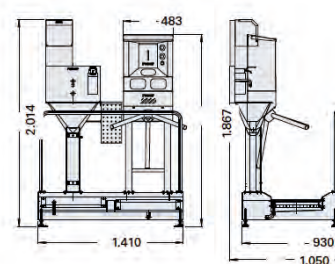
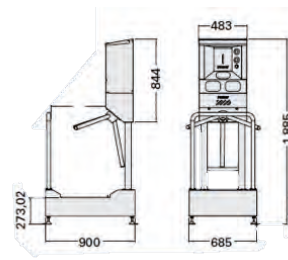
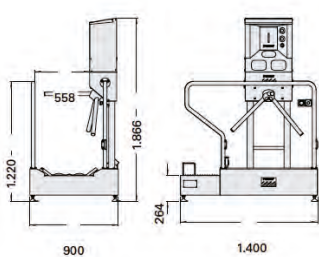
DUOMANS PLUS  
COD. 10278



DUOMANS  
COD. 29796



MHS-BASIC



| Model        | Mount | Operation | Sanitation  | Access                   |
|--------------|-------|-----------|---|--------------------------|
| DUOMANS PLUS | Floor | Sensor    | Automatic sole washer. Alcohol-based sanitiser dispenser  | Turnstile once sanitised |
| DUOMANS      | Floor | Sensor    | Step up base. Alcohol-based sanitiser dispenser   | Turnstile once sanitised |
| MHS-BASIC    | Floor | Sensor    | Hand basin. Soap dispenser. Paper towel dispenser. Bin. Foot Bath. Alcohol-based sanitiser dispenser. | Turnstile once sanitised |

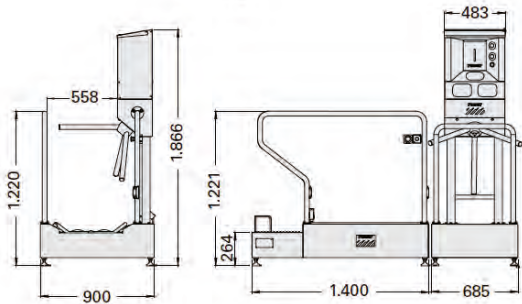


MODULAR ACCESS CONTROL HYGIENE SOLUTIONS



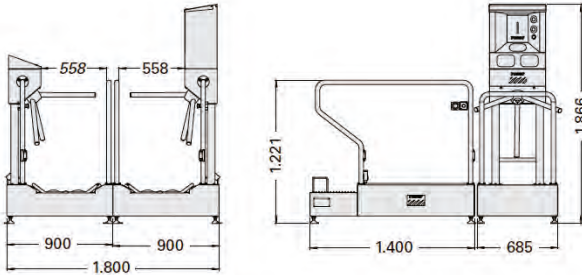
MHS-2

Modular Hygiene System MHS-2 combines an automatic walk-through sole-washer CODE. 11741, with a double hand sanitiser Duomans CODE. 29796



MHS-3

The MHS-3 is a way-in and way-out control. On the way in, there is a Modular Hygiene System MHS-2 that combines an automatic walk-through sole washer with a DUOMANS double hand sanitiser, allowing entrance only to those employees who have sanitised both hands. On the way out, there is an automatic walk-through sole washer with a turnstile door to avoid entrance the opposite way.

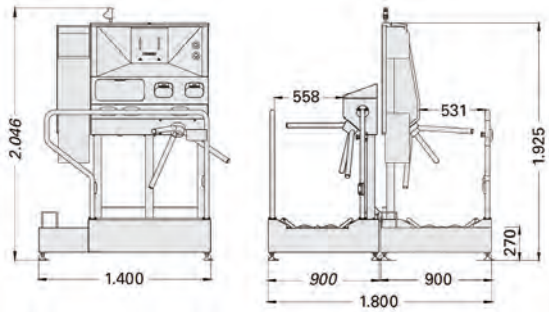


| Model | Mount | Operation | Features   | Access   |
|-------|-------|-----------|--|--|
| MHS-2 | Floor | Sensor    | Automatic walk-through sole washer. Alcohol-based sanitiser dispenser  | Turnstile once sanitised   |
| MHS-3 | Floor | Sensor    | Hand basin, soap dispenser. Paper towel dispenser. Bin. Entry and exit foot bath. Alcohol-based sanitiser dispenser. | Entry - Turnstile once sanitised<br>Exit - Turnstile after foot bath |



MHS-4

The Modular Hygiene System, MHS-4, is a way-in and way-out control. On the Way-IN, there is a SANI-ECO-PLUS. On the Way-OUT, there is an automatic walk-through sole washer with a turnstile door to avoid entrance the opposite way.



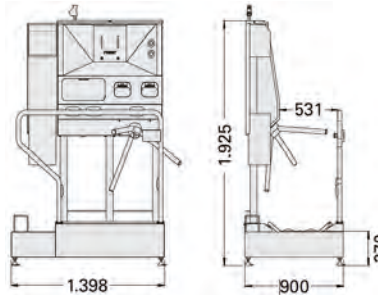
SANI PLUS ACCESS CONTROL HYGIENE SOLUTIONS



SANI-ECO



SANI-ECO-PLUS



Dyson Airblade  
Hand dryer on  
Sani-Eco-Plus



On both units, the turnstile door opens only if the employee has washed and sanitised both hands. A PLC controls all stages for every single worker, accommodating up to one person every 18 seconds.

| Model         | Mount | Operation | Sanitation   | Access                   |
|---------------|-------|-----------|--|--------------------------|
| SANI ECO      | Floor | Sensor    | Hand wash station. Paper towel dispenser. Bin. Foot bath Alcohol-based sanitiser dispenser                     | Turnstile once sanitised |
| SANI ECO PLUS | Floor | Sensor    | Hand wash station. Dyson Airbalde dryer. Automatic walk-through sole washer. Alcohol-based sanitiser dispenser | Turnstile once sanitised |



MODULAR SANITATION ELEMENTS



CODE. 12065



CODE. 12067



CODE. 12068



CODE. 12066



CODE. 29790



CODE. 11741



CODE. 378

| Code        | Mount | Operation | Description   |
|-------------|-------|-----------|---|
| CODE. 12065 | Wall  | Sensor    | Hand wash station, paper towel dispenser & bin, alcohol-based sanitiser dispenser                   |
| CODE. 12067 | Floor | Sensor    | Hand wash station, paper towel dispenser & bin, alcohol-based sanitiser dispenser.                  |
| CODE. 12068 | Floor | Sensor    | Hand wash station, paper towel dispenser & bin, alcohol-based sanitiser dispenser. Turnstile access |
| CODE. 12066 | Wall  | Sensor    | Hand wash station, paper towel dispenser & bin, alcohol-based sanitiser dispenser. Turnstile access |
| CODE. 29790 | Wall  | Sensor    | Alcohol-based sanitiser dispenser   |
| CODE. 11741 | Floor | Automatic | Sanitising Sole Washer  |
| CODE. 378   | Floor | Automatic | Sanitising Foot Bath  |

SANI COMPACT ACCESS CONTROL HYGIENE SOLUTION



Hand wash and  
rinse area



Foot bath for  
sole sanitising

SANI-COMPACT



Paper towel  
dispenser for  
drying hands



Both hands  
are disinfected  
at the same time

SANI-COMPACT-PLUS



Hand wash and  
rinse area



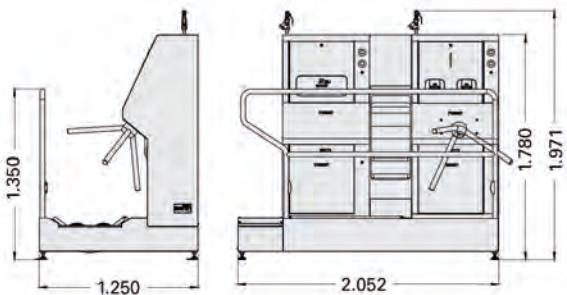
Sole washing  
and disinfecting



Dyson Airblade  
hand dryer



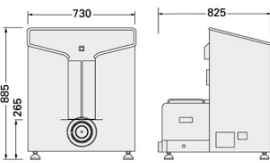
Sole blowing area



On both units, the turnstile door opens only if the employee has washed and sanitised both hands. A PLC controls all stages for every single worker, accommodating up to one person every nine seconds.



BOOT WASHERS

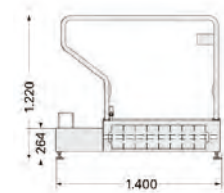


AUTOMATIC BOOT WASHER CODE. 27083

This fully automatic, stainless steel boot washer comes with three brushes. It is designed to wash the sides and sole of one boot at a time. With two rotating brushes for the sides and one rotating brush for the soles. The machine is activated automatically by means of a photocell. Supplied with an automatic soap dispenser. (Soap tank not included).

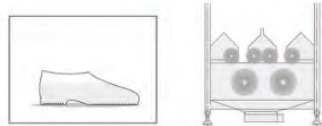
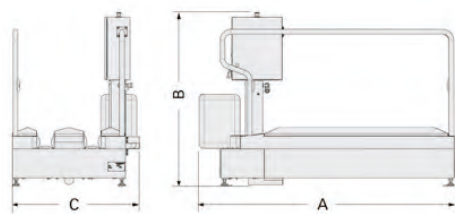
SOLE WASHER CODE. 11741

This automatic walk-through sole washer is supplied with a soap dose valve (soap tank not included). The modular brushes are easily detachable for cleaning or maintenance.



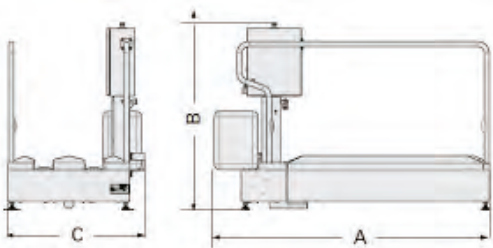
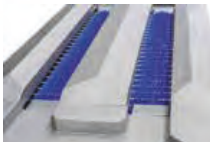
Required services: Water (2-5 bar) and electricity 3-phase. Power: 1HP.

WALK THROUGH SHOE WASHER COD. 12988



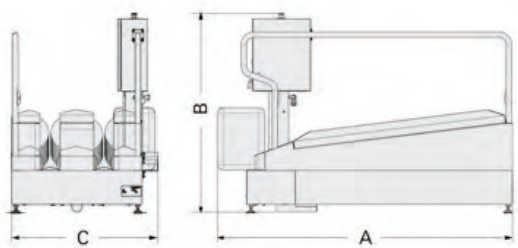
| Model   | Operation   | Description                          | Brush Length | A (mm) | B (mm) | C (mm) |
|---------|-------------|--------------------------------------|--------------|--------|--------|--------|
| LZ 800  | Push button | 6 Rotating brushes – 2 sides, 1 sole | 800mm        | 1620   | 1380   | 1010   |
| LZ 1200 | Push button | 6 Rotating brushes – 2 sides, 1 sole | 1200mm       | 2040   | 1380   | 1010   |
| LZ 1600 | Push button | 6 Rotating brushes – 2 sides, 1 sole | 1600mm       | 2460   | 1380   | 1010   |

WALK THROUGH SOLE WASHER CODE. 2769



| Model   | Operation   | Description                     | Brush Length | A (mm) | B (mm) | C (mm) |
|---------|-------------|---------------------------------|--------------|--------|--------|--------|
| LS 1200 | Push button | 2 Rotating brushes – Soles only | 1200mm       | 2040   | 1380   | 1010   |
| LS 1600 | Push button | 2 Rotating brushes – Soles only | 1600mm       | 2460   | 1380   | 1010   |

WALK THROUGH BOOT WASHER CODE. 12480



Operates in both walking directions.  
(Soap tank not included)

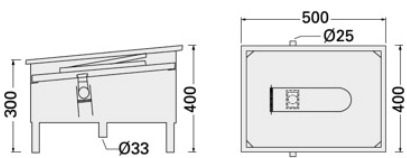
| Model   | Operation | Description                          | Brush Length | A (mm) | B (mm) | C (mm) |
|---------|-----------|--------------------------------------|--------------|--------|--------|--------|
| LS 800  | Sensor    | 6 Rotating brushes – 2 sides, 1 sole | 800mm        | 1620   | 1380   | 1010   |
| LS 1200 | Sensor    | 6 Rotating brushes – 2 sides, 1 sole | 1200mm       | 2040   | 1380   | 1010   |
| LS 1600 | Sensor    | 6 Rotating brushes – 2 sides, 1 sole | 1600mm       | 2440   | 1380   | 1010   |

MANUAL BOOT WASHERS



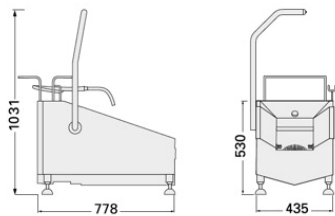
MANUAL BOOT WASH CODE. 3663

This stainless steel boot washer is very easy to install, and no power is required. The water is pumped to the hand-held brush when the operator steps on the pedal.



MANUAL BOOT WASHER CODE. 29748

This stainless steel boot washer is extremely useful in all kinds of industries. It is a rotating sole brush with two fixed side brushes and a hand-held, manually operated brush with an automatic soap dispenser. (Soap tank not included).



ACCESSORIES



HAND SANITISER CODE. 29533

This unit automatically dispenses a quick-drying alcoholic solution that reduces bacteria levels dramatically. Capacity 5 litres. With level indicator.



THERMOSTATIC MIXING VALVE CODE. 11490

The thermostatic mixing valve enables stable mixed water temperature + - 1.5° C from 37° C to 45° C. Anti-scalding safety.



HAND SANITISER CODE. 29533

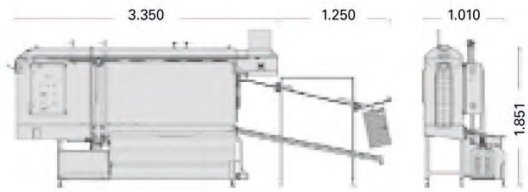
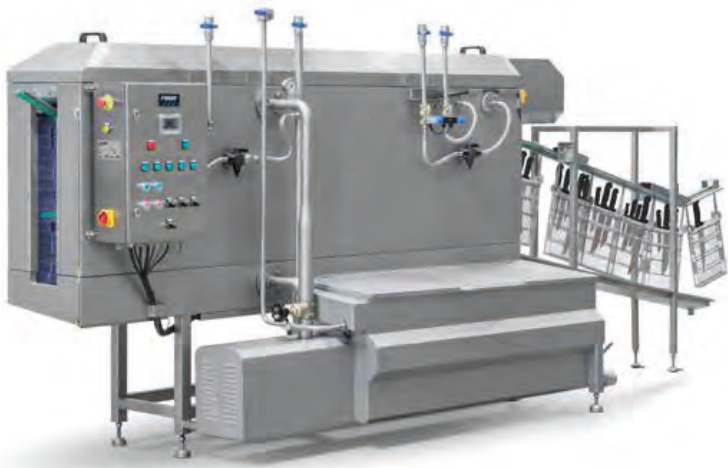
Stainless steel soap dispenser, operated by the forearm. Capacity: 1 litre



TIME CONTROL VALVE CODE. 28135

Time-controlled valve 7 sec.

KNIFE WASHER



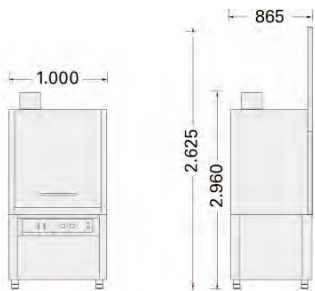
| Code        | Mount | Heat System     | Capacity                         | Process               | Tank Capacity |
|-------------|-------|-----------------|----------------------------------|-----------------------|---------------|
| CODE. 21736 | Floor | Steam heated    | 15-30 knife holders per minute * | Wash, rinse, sanitise | 200 litres    |
| CODE. 21737 | Floor | Electric heated | 15-30 knife holders per minute * | Wash, rinse, sanitise | 200 litres    |

\* Each Roser knife holder supports four knives, one sharpener, and one glove. CODE. 24909

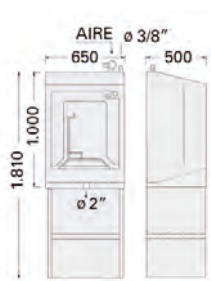
KNIFE WASHING CABINETS



CODE. MC-24



CODE. 7588 & CODE. 1400



| Code       | Mount | Heat System   | Capacity           |
|------------|-------|---|--------------------|
| MC-24      | Floor | Washing machine for knives and tools. Water heated by electric elements | 24 knife holders * |
| CODE. 1400 | Floor | Washing machine for knives and tools                                    | 1 knife holder *   |
| CODE. 7588 | Wall  | Washing machine for knives and tools                                    | 1 knife holder *   |

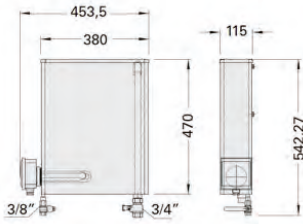
\* Each Roser knife holder supports four knives, one sharpener, and one glove. CODE. 24909



KNIFE STERILISERS



MODEL. MC-1



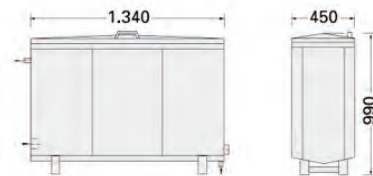
This stainless steel knife steriliser has a double chamber with a recirculating water system, an adjustable overflow system, an electrical element of 1,000W, and a thermostat.

It has a maximum capacity of 10 Knives and two sharpeners or one Roser Knife Holder CODE.24909.



CODE. 7568 - Steam

CODE. 7569 - Electric



With a maximum capacity of 12 Roser knife holders COD. 24909 (not included), this stainless steel knife holder has an adjustable temperature of up to 90°C. Select which water heating system you prefer: steam or 2 electric elements (2 x 6 KW).

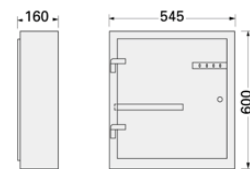
TUV CABINETS



CODE. 3721



CODE. 19177

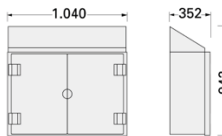


| Code        | Mount | Operation   |
|-------------|-------|---|
| CODE. 3721  | Wall  | Stainless steel cabinet for sterilising knives by Ozone generating TUV lamp |
| CODE. 19177 | Wall  | Stainless steel cabinet for sterilising knives by Ozone generating TUV lamp |

TUV KNIFE STERILISING CABINETS



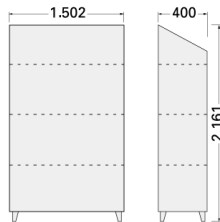
CODE. 5146



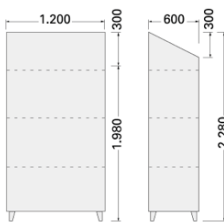
CODE. 23357



CODE. 3077



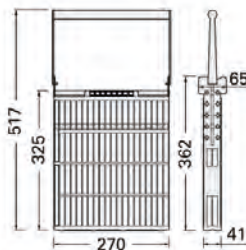
CODE. 22289



| Code        | Mount | Operation  | Capacity           |
|-------------|-------|--|--------------------|
| CODE. 5146  | Wall  | Lockable stainless steel cabinet for sterilising knives by Ozone generating TUV lamp | 12 knife holders * |
| CODE. 23357 | Floor | Lockable stainless steel cabinet for sterilising knives by Ozone generating TUV lamp | 21 knife holders * |
| CODE. 3077  | Floor | Lockable stainless steel cabinet for sterilising knives by Ozone generating TUV lamp | 54 knife holders * |
| CODE. 22289 | Floor | Lockable stainless steel cabinet for sterilising knives by Ozone generating TUV lamp | 72 knife holders * |

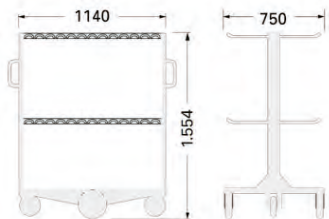
\* Each Roser knife holder supports four knives, one sharpener, and one glove. COD. 24909

ACCESSORIES



KNIFE HOLDER CODE. 24909

Stainless steel knife holder, with side guard. Capacity: Four knives, one sharpener and one mesh glove.



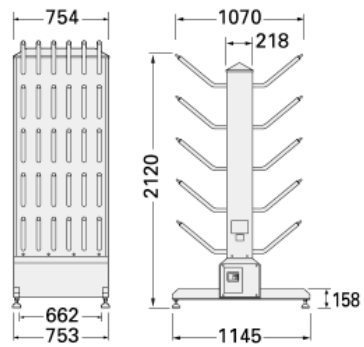
KNIFE HOLDER CODE. 24909

Stainless steel trolley for transporting knives with swivel-mounted wheels. Capacity for 48 knife holders.

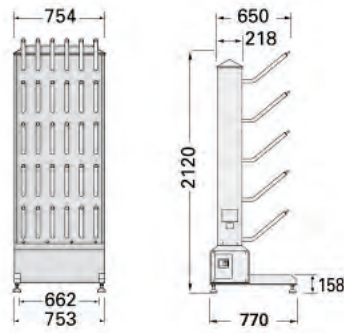
BOOT DRYERS



CODE. 27202



CODE. 11693

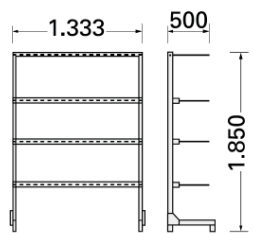


| Code        | Mount | Material        | Operation  | Capacity |
|-------------|-------|-----------------|--|----------|
| CODE. 27202 | Floor | Stainless steel | Electrically heated boot dryer with germicidal 9w lamp and adjustable thermostat. Accurate drying and sterilising of boots, eliminates fungus. | 60 Boots |
| CODE. 11693 | Floor | Stainless steel | Electrically heated boot dryer with germicidal 9w lamp and adjustable thermostat. Accurate drying and sterilising of boots, eliminates fungus. | 30 Boots |

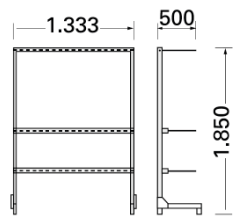
BOOT STORAGE



CODE. 24738

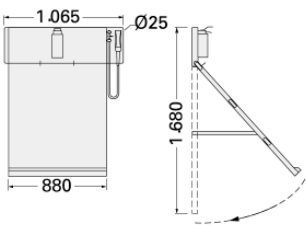


CODE. 3711

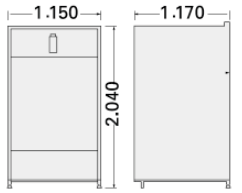


| Code        | Mount | Material        | Operation                   | Capacity             |
|-------------|-------|-----------------|-----------------------------|----------------------|
| CODE. 24738 | Floor | Stainless steel | Boot storage rack           | 40 Boots             |
| CODE. 3711  | Floor | Stainless steel | Boot and apron storage rack | 20 Boots & 10 Aprons |

APRON WASHERS



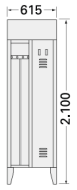
CODE. 4310



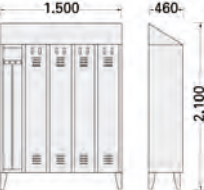
CODE. 19181

| Code        | Mount | Material        | Operation  |
|-------------|-------|-----------------|--|
| CODE. 4310  | Wall  | Stainless Steel | Folding apron washer for plastic aprons. Includes soap dispenser and brush |
| CODE. 19181 | Floor | Stainless Steel | Cabin apron washer for plastic aprons. Includes soap dispenser and brush   |

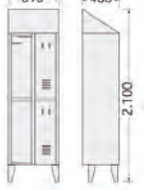
LOCKER STORAGE CABINETS



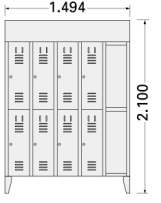
CODE. 26764 & CODE. 5046



CODE. 3923 & CODE. 5050



CODE. 26763 & CODE. 5047



CODE. 6857 & CODE. 5051

| Code        | Mount | Material        | Doors                 | No of Lockers | Description  |
|-------------|-------|-----------------|-----------------------|---------------|--|
| CODE. 26764 | Floor | Stainless steel | Plain - Full height   | 2             | Sloped top & identification card slot on each door |
| CODE. 5046  | Floor | Stainless steel | Slotted - Full height | 2             | Sloped top & identification card slot on each door |
| CODE. 3923  | Floor | Stainless steel | Plain - Full height   | 5             | Sloped top & identification card slot on each door |
| CODE. 5050  | Floor | Stainless steel | Slotted - Full height | 5             | Sloped top & identification card slot on each door |
| CODE. 26763 | Floor | Stainless steel | Plain - Half height   | 4             | Sloped top & identification card slot on each door |
| CODE. 5047  | Floor | Stainless steel | Slotted - Half height | 4             | Sloped top & identification card slot on each door |
| CODE. 6857  | Floor | Stainless steel | Plain - Half height   | 10            | Sloped top & identification card slot on each door |
| CODE. 5051  | Floor | Stainless steel | Slotted - Half height | 10            | Sloped top & identification card slot on each door |





# Customer Partnership Support

## Taking the guesswork out of your processing operations

We are here to help you through every stage of your new project. This can often start in the consultancy stage where we offer feasibility studies that can help to increase product throughput or yield, assessments to reduce product recalls, or evaluations of a greenfield site for a food processing facility.

Once all our assessments are carried out, our Planning, Design, and Project Management experts take over to coordinate the project right through manufacture, installation, and commissioning. All teams are very familiar with the demanding conditions that arise across the food processing industry and have gained a vast knowledge of solving complex industry challenges on a daily basis.

As part of our expert service we offer:

### PARTNERSHIP SUPPORT & CONSULTANCY

Whether the project is a feasibility study to increase product throughput and yield, an assessment to reduce product recalls, or a greenfield site for a meat processing facility, we are called upon for our expertise in the latest processes and design proficiency. If you are seeking capital approval for a new project or site, consulting with our experts can help you calculate:

- Expected throughput
- Improvements in yield
- Cost savings on labour and utilities
- Increased productivity
- Reduced giveaway
- Overall project costs
- Return on investment



### PLANNING

The process planning stage is critical to ensure your project moves forward with minimal hold-ups or unnecessary costs. It will also highlight any limitations and production bottlenecks, so they can be resolved early on, resulting in a complete, future-proof factory layout. Assessing space, layout, and accessibility, as well as putting in place project timelines, responsibilities, and actions, are key components undertaken by our planning team.

### DESIGN

Our designers are experts at optimising production, increasing efficiency, and helping you maximise yield by providing the best equipment layout for your facility. As standard, ergonomics, user safety, and hygiene are crucial factors to get right when designing a new food processing line. This minimises unnecessary lifting and ensures adherence to correct working heights, as well as ensuring conveyor pinch points are safely guarded.



### PROJECT MANAGEMENT

Our Project Management teams focus on delivering high-quality projects on time and within budget. The teams have a vast knowledge of solving complex food industry challenges on a daily basis. Their responsibilities encompass the full cycle from design, engineering, electronics, part and product selection, and on-site implementation. This ensures you get a consistent point of contact and expert customer partnership support on your project.

### MANUFACTURE

SF Engineering has state-of-the-art manufacturing facilities on both the West coast of Ireland and in the East of England. Our team of highly-skilled designers, engineers, fabricators, welders, and assemblers work closely together to deliver the most advanced processing line solutions. Each system is fully assembled and tested before shipping, allowing for adjustments, customer approval, product testing, and training, as required.



### INSTALLATION & COMMISSIONING

Our global installation team has a wealth of experience working in challenging food processing environments. Once the installation is complete, we make sure all the equipment meets the required industry standards and project requirements. This includes visual inspections as well as the testing and calibration of equipment.





#### SERVICE LEVEL AGREEMENTS

Our service level agreements maximise the performance of your food processing equipment within a fixed monthly cost, providing exceptional value and support for your business.

They allow you to keep control of your operational costs with the added reassurance that your equipment is backed-up by our team of experienced engineers.

[Get the brochure](#)



## Service Support

### Maximising the performance of your food processing equipment

SF Engineering offers a range of service packages and service level agreements to maximise the performance of your food processing equipment. Keeping your production lines running at optimum performance is our main priority.

#### ON-SITE SERVICE SUPPORT

Our experienced and knowledgeable service technicians are on hand to solve any production challenges.

If any production problems cannot be diagnosed by our Service Team remotely via the web and phone, a site visit will take place.

We provide a range of Service Level Agreements, allowing you to specify how much or how little support you'd like to include and what kind of emergency cover you want us to provide. This gives you peace of mind should something go wrong.



#### Benefits of a Service Level Agreement

- ✓ Priority service support
- ✓ Machine safety health checks
- ✓ Better departmental budgeting for maintenance
- ✓ Ensures optimum performance of machinery
- ✓ Spare part recommendations for each machine
- ✓ Discounts on spare parts
- ✓ No purchase order paperwork is required for service call-outs

#### Maximising machine uptime

With an SF Service Level Agreement, you can be sure you will receive the necessary maintenance support to achieve the best results from your food processing equipment. Our experienced team will carry out regular service inspections and perform detailed preventative maintenance checks and necessary calibrations to maximise uptime and enhance machine reliability.

#### Included as standard

- Preventative maintenance
- Service
- Calibrations
- Discount on spare parts

#### Additional service options

- Extended to 24 or 36-month cover
- Proactive remote support troubleshooting through SF Support Cloud
- Training plans for operators, engineers, & hygiene staff
- Unlimited callouts
- Conveyor audits



REMOTE SUPPORT

Secure, remote diagnostic support and programming for your machine

Response time is a top priority for our Service team. Being able to remotely diagnose problematic machines or assist with urgent programme changes, is paramount if we want to respond quickly to our customers' requirements.

The SF Remote Support Cloud ensures our service team is available to support you during critical occurrences. Should a problem arise or your line goes down, our team can remotely and securely dial into your machine to diagnose issues. This troubleshooting service saves valuable time in getting your production line back up and running smoothly. It not only saves you valuable time but also reduces service support costs.

- ✓ Troubleshoot machines without going on-site
- ✓ Reducing service support costs
- ✓ Improving customer responsiveness
- ✓ Increasing machine up-time



Retrofitting with ease

Our service team can pre-configure and ship the eWon directly to your factory for retrofitting to existing machinery. Simply place the eWon inside your main panel and connect to a 24V DC power supply, an open internet connection, and your machine. Our Service Engineers can then dial in remotely and provide critical diagnostic and programming support when you need it.

Secure access

Through investment in the Talk2M VPN Cloud Network, we are able to ensure a layered security approach. This means when you require remote access from our Service Engineers, you can be comfortable in the knowledge that SF Support Cloud will safeguard information integrity and confidentiality in a secure and reliable manner.

Continuous monitoring

The eWon VPN devices are monitored 24/7, so if your system goes off-line for more than three hours, an automatic email is sent to report the off-line status. When this system is used in conjunction with our Remote Support Service Level Agreement, you can have peace of mind that response times are reduced and machine downtime is minimised.

PREVENTATIVE MAINTENANCE

Preventative Maintenance is a programme that can help to keep consumers safe, reduce downtime, prevent systems damage, and extend the life of your equipment. If undertaken correctly, preventative maintenance can be a true cost-saver within food processing factories.

Our experienced service engineers provide pre-scheduled check-ups as well as detailed line and factory audits. These inspections help maintenance technicians anticipate the appropriate time to change parts, and they can help diagnose problems when they occur.

TRAINING

Get the best from your investment with our expert focused machine training.

Our training packages will equip you with the knowledge and insight required to get the best from your investment and to understand the full capabilities of your new machinery.

Training ranges from technical equipment to capitalising on product yield to the cleaning and maintenance of machinery. Our experts are on hand to train your production, maintenance, and engineering staff.

CALIBRATION & VERIFICATION

Calibration is needed periodically or after maintenance work to ensure equipment is within specific parameters. It is critical for quantitative measurement. To safeguard the best results from your machine without incurring any measurement errors and product giveaway, regular calibration is required.

Our Service Team is also on hand to carry out verification checks to ensure the safe and correct operation of equipment and processes. These checks ensure you are getting the best return out of your investment and your lines continue to run at peak performance.







## Spare Parts

### Fast-tracked spare parts support to keep your production lines moving

Downtime can be extremely costly in the food industry. Our Spare Parts Team offers a quick and reliable service to keep your production lines moving at optimum performance.

### Spare Parts Packages

We can customise a unique recommended spare parts package for you, allowing you to carry out planned maintenance when required. Alternatively, we can replace component parts quickly, as and when required. This enables you to choose the best option to suit your business, in the most cost-effective way.

### Quality Guaranteed

We only supply the highest standards of genuine parts. This includes belts, motors, sprockets, bearings, electrical components, and pneumatics from industry-leading manufacturers such as Intralox, SEW Eurodrive, Omron, and Key Technology. We are also an official provider of certified spare parts for our partners' product range, including, Ishida, Marelec, Eagle, Ceia, Unikon, and Roser.



|             | INTRLOX | SEW EURODRIVE | LENZE | NORD | TELEMECANIQUE | FESTO | SMC | SIEMENS | OMRON | ALLEN BRADLEY | INTERROLL | IFM | SKF | DRUM MOTOR & MORE |
|-------------|---------|---------------|-------|------|---------------|-------|-----|---------|-------|---------------|-----------|-----|-----|-------------------|
| BELTS       | ✓       |               |       |      |               |       |     |         |       |               |           |     |     |                   |
| FLIGHTS     | ✓       |               |       |      |               |       |     |         |       |               |           |     |     |                   |
| SPROCKETS   | ✓       |               |       |      |               |       |     |         |       |               |           |     |     |                   |
| WEAR STRIPS | ✓       |               |       |      |               |       |     |         |       |               |           |     |     |                   |
| MOTORS      |         | ✓             | ✓     | ✓    |               |       |     |         |       |               |           |     |     |                   |
| INVERTERS   |         | ✓             | ✓     | ✓    | ✓             |       |     |         |       |               |           |     |     |                   |
| PNEUMATICS  |         |               |       |      |               | ✓     | ✓   |         |       |               |           |     |     |                   |
| PLC'S       |         |               |       |      |               |       |     | ✓       | ✓     | ✓             |           |     |     |                   |
| HMI'S       |         |               |       |      |               |       |     | ✓       | ✓     | ✓             |           |     |     |                   |
| ROLLERS     |         |               |       |      |               |       |     |         |       |               | ✓         |     |     |                   |
| SENSORS     |         |               |       |      |               |       |     |         |       |               |           | ✓   |     |                   |
| BEARINGS    |         |               |       |      |               |       |     |         |       |               |           |     | ✓   |                   |
| DRUMS       |         |               |       |      |               |       |     |         |       |               |           |     |     | ✓                 |

When parts need to be replaced, our team offer a quick and reliable service to get you back up and running. We use a range of dependable suppliers, but we are not limited to any source.







SF Engineering Ireland  
Aghagad  
Grange  
Co. Sligo  
F91 YY46  
Ireland

T: +353 71 9163334  
E: [info@sfengineering.ie](mailto:info@sfengineering.ie)

SF Engineering UK  
Ormond House, Nuffield Road  
St Ives  
Cambridgeshire  
PE27 3LX  
United Kingdom

T: +44 1487 740131  
E: [info@sfengineering.co.uk](mailto:info@sfengineering.co.uk)

[www.sfengineering.net](http://www.sfengineering.net)