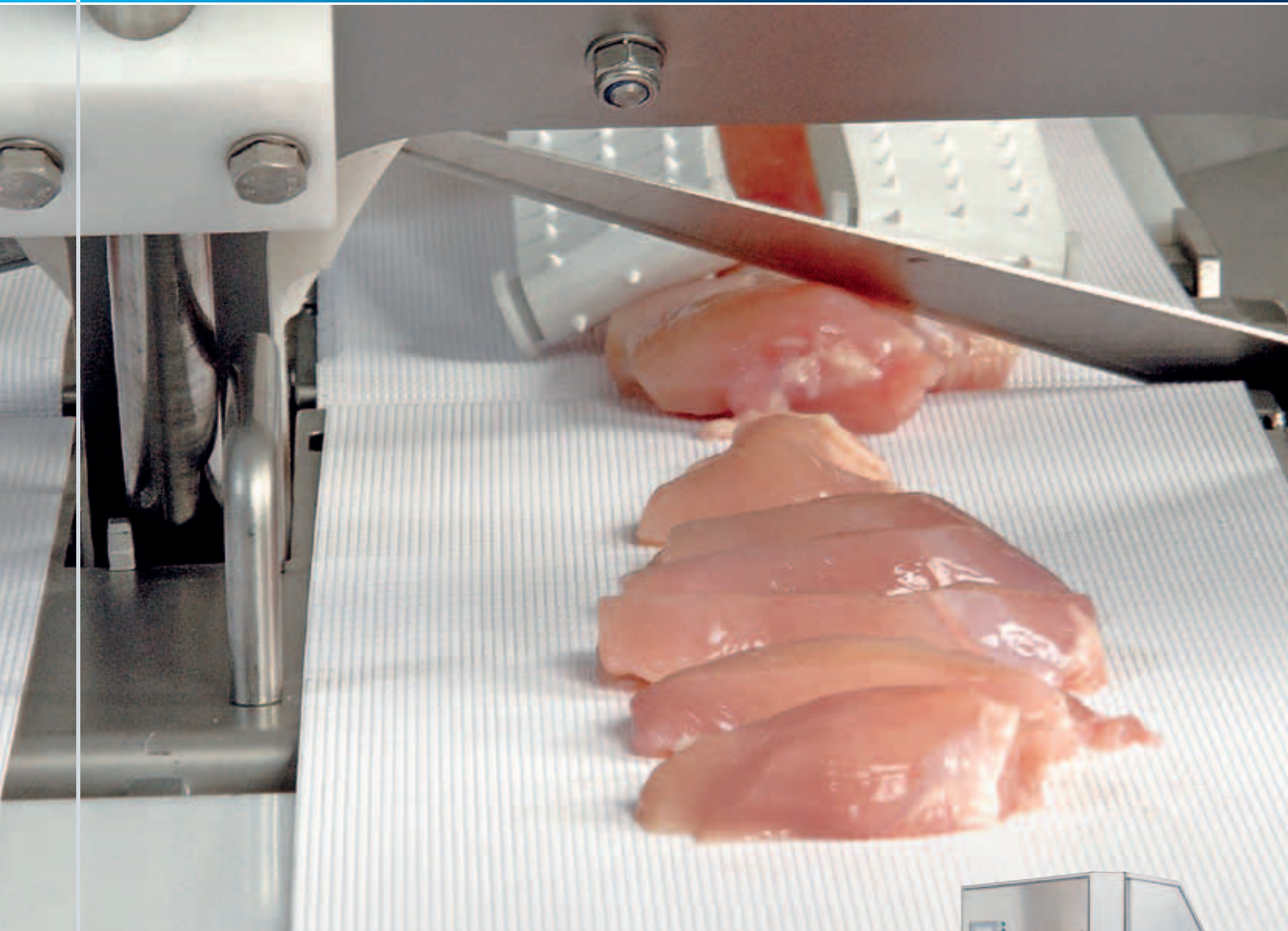


Marel PortionCutters

Accurate, ultra-high-speed intelligent portioning of poultry

STORK
POULTRY PROCESSING

marel



- High speed – 3000 cuts/minute
- Phenomenal accuracy, resulting in minimal giveaway
- Flexible use – cutting angle can be switched in seconds
- Small footprint
- Hygienic and easy to clean



Top performance plus simplicity

I-Cut 22

The I-Cut 22 is an advanced high-speed dual-lane PortionCutter designed for high portioning capacity of fixed-weight and/or length specific poultry products. The I-Cut 22 is ideal for products with a maximum width of 190 mm and height of 40 mm. The I-Cut 22 design uses a high-speed laser vision system to maintain very high accuracy – and still provide a top performance with up to 1500 cuts/minute per knife per lane. The I-Cut 22 has a 45-degree cutting option.

I-Cut 36

The I-Cut 36 is a high-speed, high-precision PortionCutter ideal for cutting poultry to fixed weight and/or length. The high-capacity PortionCutter can make up to 1000 cuts per minute. The I-Cut 36 is extremely flexible, with features that include 45-degree cutting angle. This helps ensure that the cut poultry fillet portions look natural.

Benefits

- 45-degree cutting angle capability
- Maximum profit because of fast payback
- Compact design saves space in the production
- High productivity because of very fast portioning
- Extremely fast cutting speed – multiple cuts even on small products
- Minimised giveaway and best possible yield because of high accuracy
- Maximum flexibility – easy to use with different types of products and cutting angles
- High level of hygiene with easy cleaning























Innova Portioning



You may wonder if your processing equipment is performing according to expectations. With the implementation of the Innova Portioning Module together with your PortionCutter, you will have hard facts and be able to base future decisions on a solid statistical foundation. Innova Portioning is one of several modules in Innova and can be implemented as a stand-alone system or as part of a complete Production Control System.

The module allows for “ease-of use” remote programming, controlling and real-time monitoring and reporting on the actual performance. With the Innova Portioning Module it is possible to report on portion sizes and weights, product yields, throughput and production values based on actual cuts and value. Furthermore Innova Portioning allows sharing cutting programs between more PortionCutters.

When nothing else has been specified the machine runs 400 mm/sec with a spacing of 30 mm.

	Knife angle	Input	Output	Machine	Portion accuracy ¹⁾ < 100 g: g > 100 g: %	Throughput ²⁾ per hour up to
	90°	45 g tender	Nuggets to fixed-weight range	I-Cut 22 I-Cut 36	± 1-1.5 ± 1-1.5	1,000 kg 500 kg
	45°	45 g tender	One natural-looking tender to fixed-weight range, nuggets to fixed-weight range	I-Cut 22 I-Cut 36	± 1,5-2 ± 1,5-2	1,000 kg 500 kg
	90°	45 g tender	Split tender 300 mm/sec	I-Cut 22 I-Cut 36	± 2-3 ± 2-3	1,620 kg 810 kg
	90°	500 g butterfly	Two fillets to fixed-weight range, one middle trim	I-Cut 22 I-Cut 36	± 2-3 ± 2-3	3,600 kg 1,800 kg
	90°	500 g butterfly	Trimming butterfly, 2 cuts	I-Cut 22 I-Cut 36	± 1-1,5 ± 1-1,5	4,300 kg 2,150 kg
	90°	500 g butterfly	Two fillets to fixed-weight range, two side trim, 3 cuts	I-Cut 22 I-Cut 36	± 1-1,5 ± 1-1,5	4,300 kg 2,150 kg
	90°	500 g butterfly	Two fillets to fixed-weight range, two side trim, one middle trim, 4 cuts	I-Cut 22 I-Cut 36	± 1-1,5 ± 1-1,5	3,600 kg 1,800 kg
	90°	500 g butterfly	One folded butterfly to fixed-weight range, two front trims, 1 cut. 200 mm/sec	I-Cut 22 I-Cut 36	± 2-3 ± 2-3	4,000 kg 2,000 kg
	90°	225 g deboned whole leg meat	Kakugiri to fixed weight (Through machine two times)	I-Cut 22 I-Cut 36	± 1,5 ± 1,5	1,150 kg 575 kg
	90°	225 g deboned whole leg meat with skin	Thin strips of whole leg meat with skin 15 mm 120 mm/sec	I-Cut 22 I-Cut 36	N.a. N.a.	840 kg 420 kg
	90°	200 g thigh with skin	Fixed-weight thigh piece and side trim	I-Cut 22 I-Cut 36	± 1,5 ± 1,5	3,600 kg 1,800 kg
	90°	230 g fillet	Diced fillet to fixed-weight range	I-Cut 22 I-Cut 36	± 1,5 ± 1,5	2,660 kg 1,330 kg
	90°	230 g fillet	One fillet to fixed-weight range and nugget	I-Cut 22 I-Cut 36	± 1,5 ± 1,5	2,660 kg 1,330 kg
	90°	230 g fillet	One fillet to fixed-weight range and side trim	I-Cut 22 I-Cut 36	± 1,5 ± 1,5	3,330 kg 1,665 kg
	90°	230 g fillet	Splitting fillet in half	I-Cut 22 I-Cut 36	± 1,5 ± 1,5	3,330 kg 1,665 kg
	90°	115 g fillet	Diced fillet (Through machine two times) two times)	I-Cut 22 I-Cut 36	± 1,5 ± 1,5	680 kg 340 kg
	45°	230 g fillet	One natural-looking fillet to fixed-weight range and nugget	I-Cut 22 I-Cut 36	± 3-4 ± 3-4	2,660 kg 1,330 kg
	45°	230 g fillet	One natural-looking fillet to fixed-weight range and outside side trim	I-Cut 22 I-Cut 36	± 3-4 ± 3-4	3,330 kg 1,665 kg
	45°	230 g fillet	One natural-looking fillet to fixed-weight range and inside side trim	I-Cut 22 I-Cut 36	± 3-4 ± 3-4	3,330 kg 1,665 kg
	90°	230 g fillet	Strips of fillet 20 mm 250 mm/sec	I-Cut 22 I-Cut 36	N.a. N.a.	2,300 kg 1,150 kg

1) +/- 1 std.

2) Throughput depends on product size, portion size and optimal loading

I-Cut 36

– for flexible weight-controlled cutting



Intelligent portion cutting

Pre-programmed calibration enables you to switch product set-ups in seconds. Specialised programs ensure you a highly flexible portioning solution that always makes the right decision prior to the actual cutting. The PortionCutter can be adjusted from the colour touch-screen control panel at any time during the portioning process, which improves performance.

Extremely hygienic

The I-Cut 36 is designed and built to comply with the most stringent hygiene standards. The machine is designed with four doors for easy access to the inside of the machine.

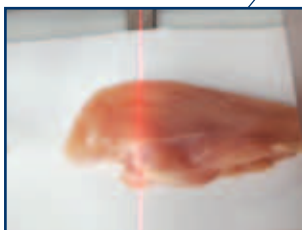
Switch of cutting angle

With the I-Cut 36 it is possible to easily switch cutting angle to 45 degrees.



Safety stop

The PortionCutter is designed to ensure maximum safety for all your staff. If the door is opened during the cutting process, a safety cut-out stops the machine immediately.



Unmatched accuracy

The latest in laser vision technology, featuring a 100 Hz camera, ensures unparalleled accuracy.



Ultra-fast cutting

The knife makes up to 1000 fixed weight cuts per minute – a much higher portion-cutting capacity than ever seen before on a single-lane machine.

No use of water

The quick-release, open knife guide does not require continuous use of water. This reduces the risk of cross-contamination.

Perfect product fixation

Four individual flexible arms hold down each product on top which keeps it stable and helps prevent it rolling backwards or from moving up and down on the conveyor belt during cutting.



I-Cut 22

–Up to 3000 cuts per minute

Small footprint

In relation to the exceptional capacity it provides, the I-Cut 22 takes up less space compared to most other portioning equipment. It is only 1480 mm wide, 3200 mm long (including the conveyor belts) and 1750 mm high.

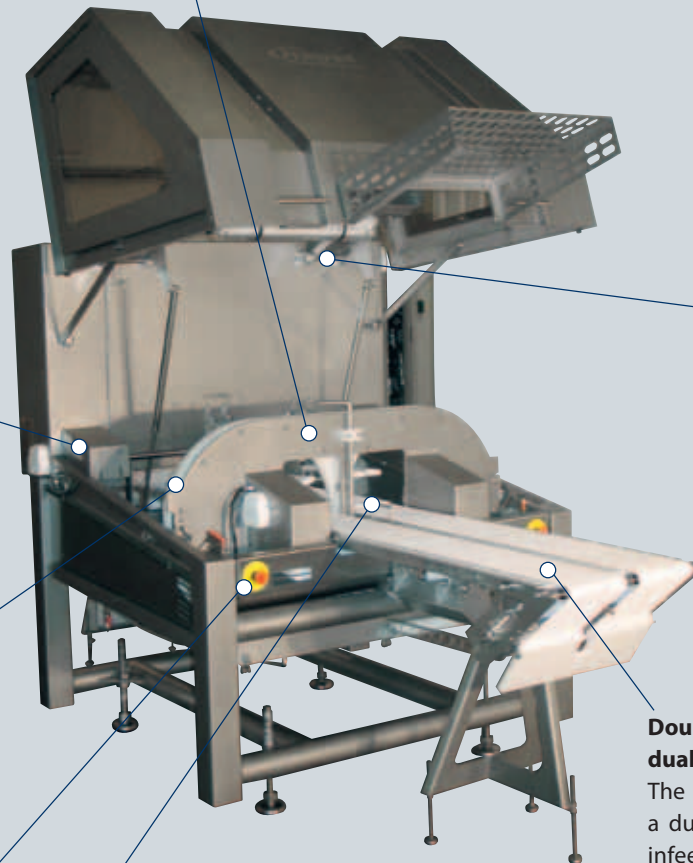


Easy to switch cutting angles

With the I-Cut 22, it takes only seconds to switch cutting angles back and forth between 90 and 45 degrees.

Ease of access

The machine is designed with one single door that gives unrestricted access to everything, for effective cleaning and maintenance. Conveyor belts are easy to remove for inspection and cleaning, with no tools required.



Intelligent portion cutting

Pre-programmed calibration enables you to switch product set-ups in seconds. Specialised programs ensure you a highly flexible portioning solution that always makes the right decision prior to the actual cutting. The PortionCutter can be adjusted from the control panel at any time during the portioning process.

Unmatched accuracy

The latest in laser vision technology, featuring a 100 Hz camera, ensures unparalleled accuracy.

Extremely hygienic

Cleaning is both quick and easy, because there are no horizontal surfaces. Water simply runs right off everything.

Double capacity because of dual-lane system

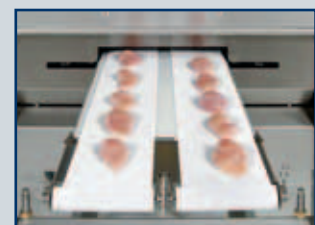
The I-Cut 22 is designed as a dual-lane system with split infeed conveyor and separate servo-motors. I-Cut 22 is delivered with an extra-long infeed conveyor (1145 mm) as standard – giving you maximum room for operators.

Safety stop



Ultra-fast cutting

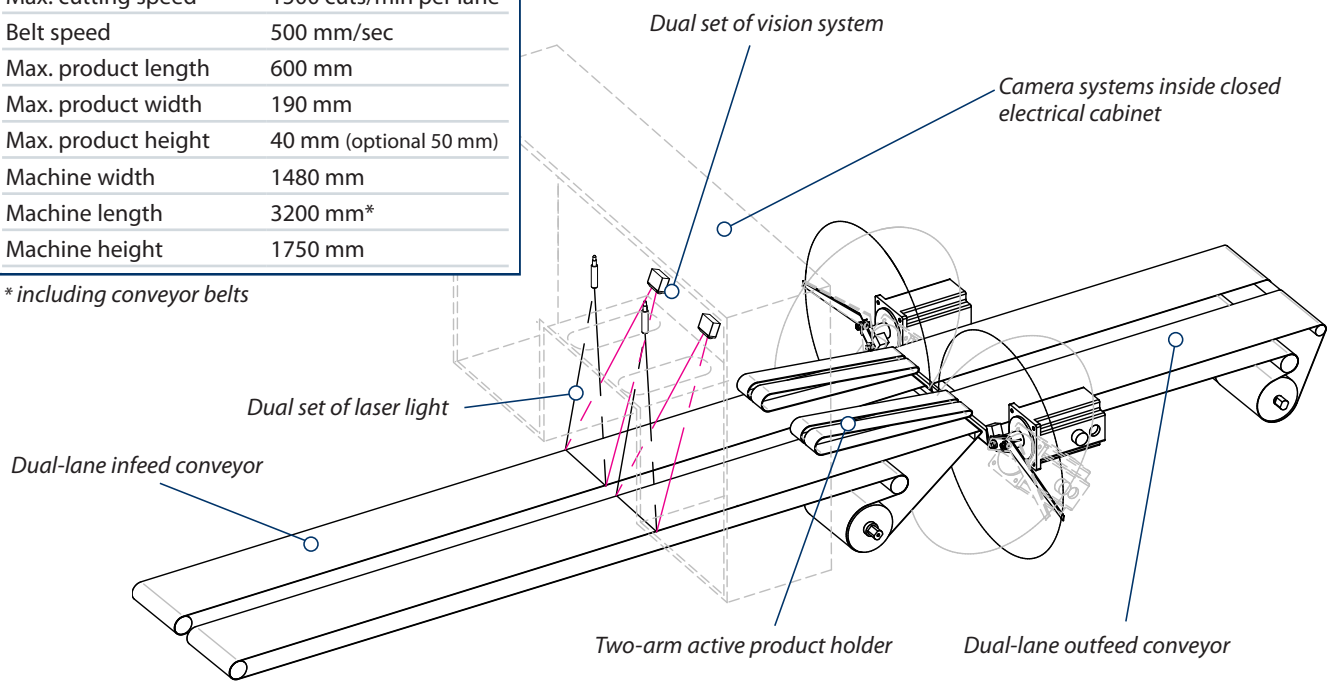
Each knife makes up to 25 cuts per second (1500 cuts per minute), with the dual system doubling this. This is especially useful when cutting small products to a small target weight. The two separate knives, each with its own servomotor, ensure you complete control during the portioning process.



I-Cut 22 principle

Max. cutting speed	1500 cuts/min per lane
Belt speed	500 mm/sec
Max. product length	600 mm
Max. product width	190 mm
Max. product height	40 mm (optional 50 mm)
Machine width	1480 mm
Machine length	3200 mm*
Machine height	1750 mm

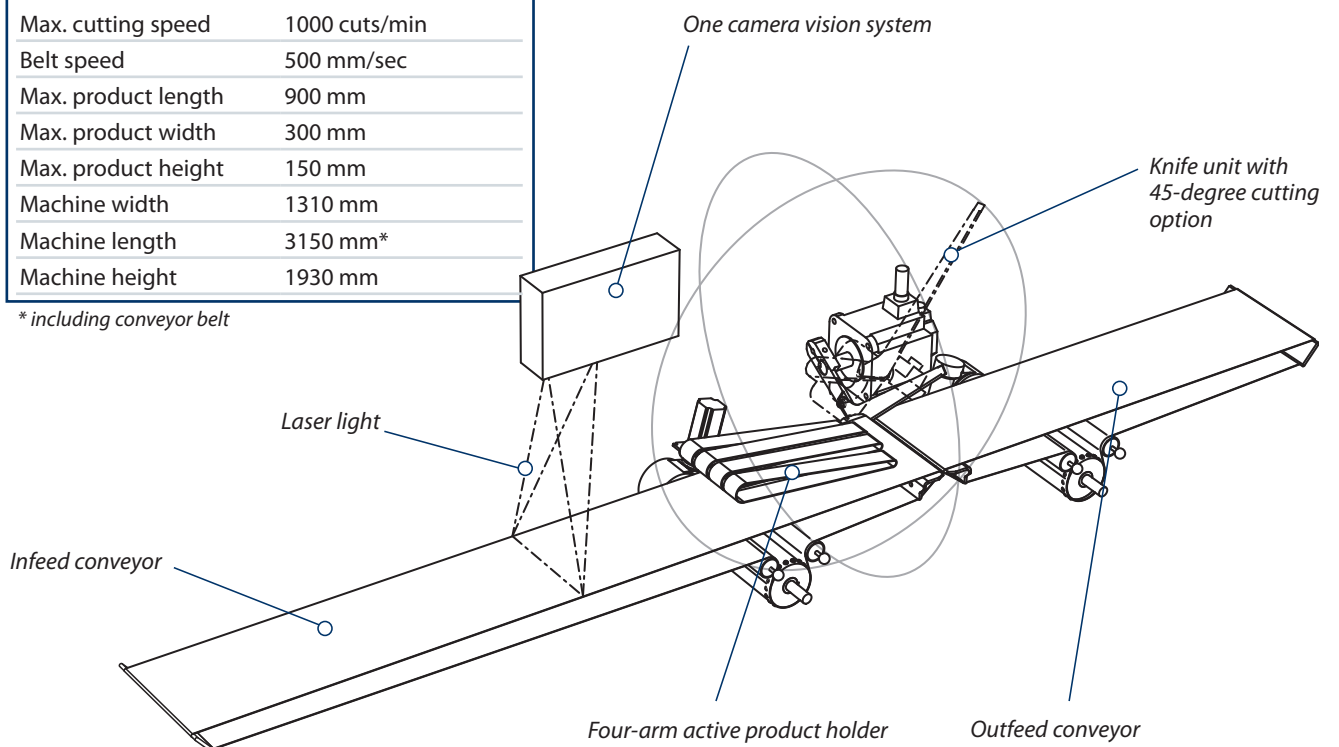
* including conveyor belts

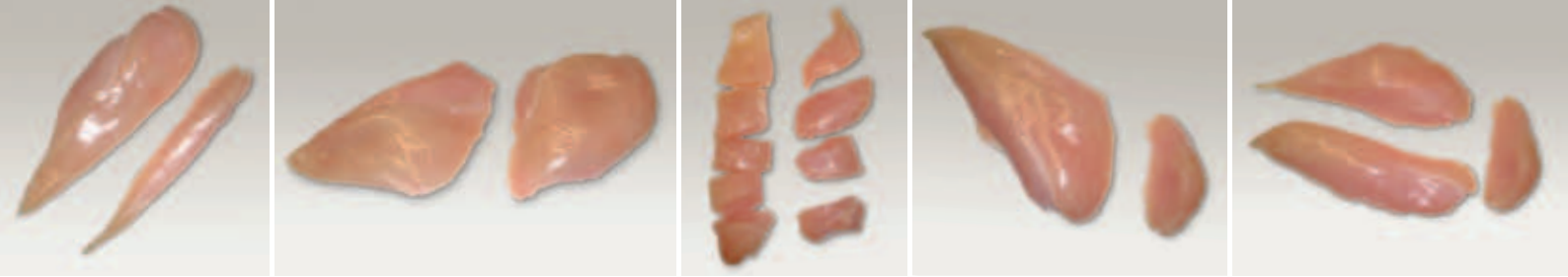


I-Cut 36 principle

Max. cutting speed	1000 cuts/min
Belt speed	500 mm/sec
Max. product length	900 mm
Max. product width	300 mm
Max. product height	150 mm
Machine width	1310 mm
Machine length	3150 mm*
Machine height	1930 mm

* including conveyor belt





The fantastic 45° feature

– because product presentation is so important

Imagine what your company could achieve with big birds that provide large fillets which you can cut down to smaller fillets, yet still keep their natural appearance. That is just what your customers would want, and it would be a win-win situation for both you and them. And you would even have an off-cut that you could use for other purposes, such as nuggets. The ability to make a large variety of split cuts at an angle is currently in high demand in the poultry industry – to fulfill the demand for fixed weight items with natural appearance. With a flexible PortionCutter such as the I-Cut 36 and I-Cut 22, you can produce different cuts based on your individual product

including fixed-weight chicken breast portions, fixed-weight strip cutting, fixed-weight cutting of tenders or 50/50 splitting of tenders and fillets – all possible at 45°. The PortionCutters can easily be switched between two angles – 45° and 90° – but can be configured for other angles in between at request.

High speed – high productivity

The I-Cut 22 is able to make 1500 cuts per minute – even when angle cutting. This means it is no longer the machine that can become the production bottleneck in a production setup – it is more likely to be the operators whose job it is to feed the machine.



Fast payback

I-Cut PortionCutters are developed to ensure you very high throughput combined with extremely accurate portioning results. Together, these add up to a rapid return on your investment. Imagine a situation where a poultry processor has tenders in the 25–75 g weight range. The company has a contract to provide a customer with 5 tons of tenders a day, with a weight of 30 g each.

To supply this customer, the processor sizes the tenders so that they sell everything from 30 g and up.

With an I-Cut 22, you would be able to cut these tenders to a fixed weight of 30 g, with a standard deviation of only 1–2 g and with a 45° cut, so that the tenders still look natural.

The remaining part of the tender (weighing anything in the range 1–45 g) could then be cut into accurately portioned 15 g nuggets and sold to another customer.

Payback calculation parameters*

5 tons of tenders of 30 g each (166,667 pieces). The tenders have a cost price of Euro/USD 2.00/kg and the nuggets have a cost price of Euro/USD 1.5/kg.

Before

10 g giveaway per piece.
Total deficit on unpaid give away:
Euro/USD 3,333.

Future

With the I-Cut 22 PortionCutter, the products are cut to a target weight of

30 g with a 45° natural cut and no giveaway.

The average “saving” of 10 g can now be used for nuggets at a value of Euro/USD 1.5/kg.

Total revenue value: Euro/USD 2,500.

Accumulated revenue

Total earnings from investing in an I-Cut 22 would amount to Euro/USD 5,833 per day or Euro/USD 1,283,260 per year, giving you a payback of less than 6 months.

** In real production please allow for variable size of tenders which may cause a few nuggets not to meet the specified weight range. Labour savings have not been taken into consideration either.*

Demonstrations prove the value

Marel has performed a number of successful equipment demonstrations for the food industry at different locations throughout the world to show how flexible, efficient, and user-friendly our machines are.

We want you to experience the machine on site and to see for yourself that it can handle your products. We are convinced that customers become more aware of the useful and practical functions and capabilities of the machine when they have seen it operate at their own facility.

Testing a Variety of Products

If you have a variety of products, you can test those products during the demonstration and calculate yield, throughput, quality, appearance, and payback time. At the same time, it is possible to test new products that you want to introduce to the market – products that perhaps have not been tested before.

Call us today to arrange a demo – or if you would just like more information about how you can benefit from our poultry portioning know-how.



Compatible with Innova
– Intelligent production control system



Marel

The leading global provider of advanced equipment and systems for the fish, meat and poultry industries.

Marel, Stork Poultry Processing and Townsend Further Processing – Our brands are among the most respected in the fish, meat and poultry processing industries. Together, we offer the convenience of a single source to meet our customers' every need.

For further information please visit www.marel.com

