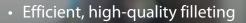


Superior filleting with optimum yield

# Salmon filleting



- Back and belly trimming
- High yield
- Up to 25 fish per minute
- Small footprint

# Filleting machines for salmon and trout

# The essence of filleting

Since the very beginning, filleting machines have been a part of the Marel Salmon division, and today they are among our key products.

Precise and efficient filleting is essential to obtaining a high yield, and we have the experience and know-how to supply you with the very best filleting solution.

Our third-generation filleting machines deliver high-quality fillets and makes the filleting process extremely efficient and advanced with a high level of automation.

# **Convenient design**

# Marel's salmon filleting machines are sturdy, reliable and designed to have a small footprint.

They are made from strong stainless steel with a smooth and easy-to-clean surface. Dampers make it easy to open the cabinet for internal cleaning and maintenance. All materials are FDA-approved and meet the industry's strict hygiene demands.

Processors also benefit from the machine's low energy and water consumption, helping you meet the environmental requirements for fish processing.



## **Range and solutions**

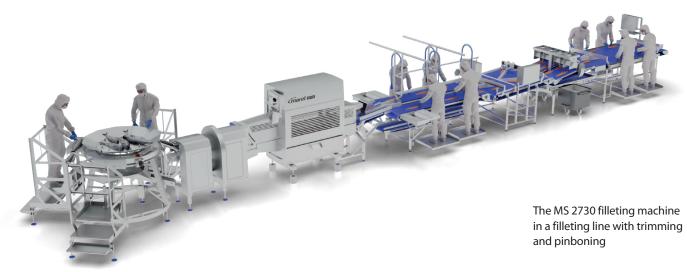
Since Marel launched its first filleting machine in 1996, we have continuously developed and improved our machines, ensuring they always meet the requirements of a modern production line.

The Marel range of filleting machines consists of two main models: the CT 2630 and MS 2730, designed for salmon and trout.

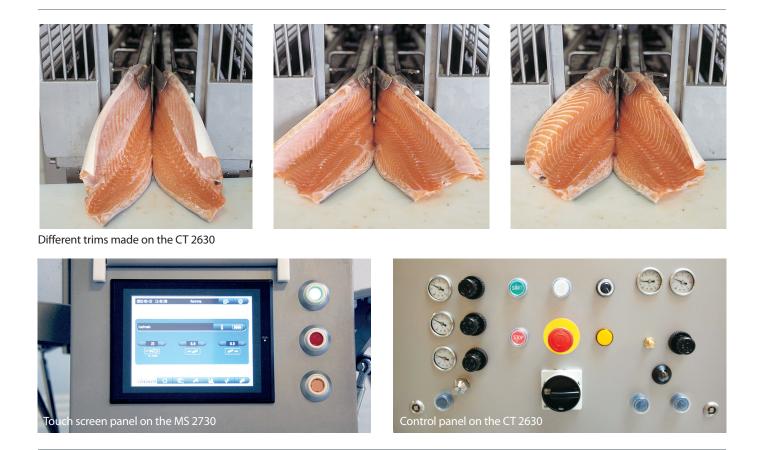
With a combination of band knives and circular knives and mechanical adjustment, the CT 2630 produces high-quality fillets with a high yield.

The advanced MS 2730 model makes filleting highly automated and achieves even greater yield and throughput with electrical adjustment of all settings.

Marel filleting machines are made to fit into an existing or new filleting line easily. We have many standard solutions to meet your manual and automatic trimming needs. We deliver and install complete filleting lines covering all processes from deheading to packing and labeling.



# Efficient,



### Automatic size adjustment MS 2730

The fish is fed into the machine belly down, which makes the infeed much easier and faster. An additional set of circular knives cuts the fish from vent to tail. This cut raises yield, as the meat close to the center bone is included in the fillets.

For the belly bone cut, 4 sets of finger pressures secure maximum control of the fish and enable optimum cutting of both pre-rigor and post-rigor fillets. The result is high-quality fillets with higher yield and output.

The MS 2730 automatically adjusts to various fish sizes, so there is no need to adjust once the program has been switched on. The MS2730 can process up to 25 fish per minute, depending on the length of the fish.

With the built-in system for measuring the fish's profile and size, the electronically controlled cutting tools can automatically adjust the filleting program to the fish's size and shape. The result is higher throughput, quality and yield depending on trim specifications.

With the optional small fish kit installed, the MS 2730 is capable of filleting fish weighing from 500 g up to 4 kg.

### Strong and reliable CT 2630

Thanks to its combination of band knives and circular knives, the CT 2630 treats fillets very gently. The fish is placed in the infeed chute, belly side up. The feeding belts convey the fish to the cutting section, where the band knives automatically adjust to the size and shape of the fish. The circular knives cut as close to the backbone of the fish as possible to achieve a clean cut with maximum yield.

Because the CT 2630 is highly flexible and capable of running different trims according to individual customer requests, it can process most common types of salmon and trout.

#### Easy and safe operation

With Marel filleting machines, there is no need for time-consuming readjustment. All operations on the MS 2730 are managed by a multilingual color touch screen, which is easy and safe for the operator to use. The different parameters for new programs, such as dimensions, tool positions, pressures for belly trim and speed, are entered and stored, making it very easy to change the settings during production if necessary. The filleting machine comes with various programs installed for automatic adjustment and predefined fish sizes.

# Options for greater automation





# **Optimum fixed-pace infeed**

Marel offers an automatic infeed system for filleting solutions, including the automated Salmon Deheader MS 2721V or the PaceInfeeder MS 2725 in front of the MS 2730. The auto infeed unit turns the fish upright so that it always enters the filleting machine in the correct position and at the right speed for optimum filleting results.

The PaceInfeeder ensures a smooth infeed of salmon into the filleting machine. It adjusts the pace of the filleting machine up to 25 fish per minute.

It also improves the performance of the filleting machine and makes the infeed effortless and independent of operator skills. Salmon is released at the set pace into the automatic infeed unit.

The PaceInfeeder can be combined with manual deheading to secure a steady flow on the line, reducing labor costs and raising product quality as the salmon is automatically transferred into the PaceInfeeder without the need for manual handling.



### Profitable tail cutting unit

For additional optimization of the filleting process, a tail cutting unit can be added as a part of the solution. It can be integrated inside the Automatic Deheader, or it can be a unit integrated between the PaceInfeeder and the automatic infeed.

Cutting the tail off before filleting will give a more stable performance, improving the overall effectiveness with fewer downgrades. Automatic tail cutting will also eliminate a tough manual cut, releasing staff for other tasks in the process. As each salmon is measured before the tail cutting unit, the cut will be very accurate and straight every time.

# **Back and belly trimming tools**

The MS 2730 can include tools for trimming the back and the belly of the salmon. The height of each fish is measured at the infeed, and the trim cuts are made based on this measurement by two sets of circular knives. Fillets are delivered with the back and belly trimmed according to the preselected settings, significantly reducing the cost of manual trimming.

The filleting machine can be delivered with one or both trim tools. An MS 2730 that has been installed without the trim tools can be rebuilt at a later stage to include them. This doesn't alter the size of the machine because both trim tools fit into the standard MS 2730 machine. With the trim tools installed, the MS 2730 still performs at a high capacity of up to 20 fish per minute. talled for automatic adjustment and predefined fish sizes.





# Technical data

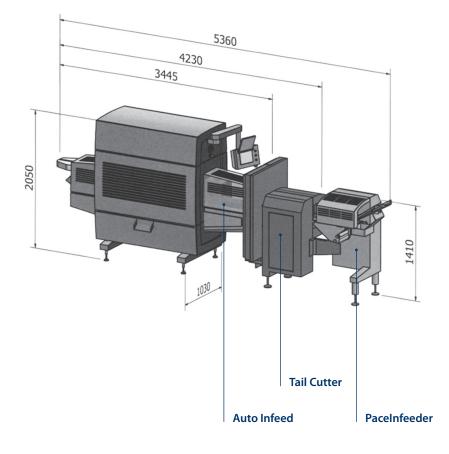
# **Key features**

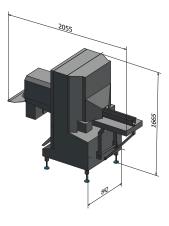
#### MS 2730

- Extra set of round knives for higher yield
- User-friendly touch screen
- Automatic adjustment to various fish sizes
- Optional back and belly trimming tools
- Optional automatic infeed and tail cutting
- Optional small fish kit
- Compatible with Innova software
- Small footprint

#### CT 2630

- Combination of circular knives and band knives
- Easy access for cleaning
- Small footprint





### **MS 2730**

TECHNICAL DATA	
Fish size	1.5 to 8 kg *
Capacity	Up to 25 fish/minute Up to 20 fish/minute with trim tools **
Electricity	3x400V + N + PE / 3x220V + PE
Power consumption	7.0 kW
Water consumption	15 liters/minute
Air supply	230-240 l/min at 7-8 bar
Weight	Approx. 1450 kg / 1780 kg (incl. trim tools)

# **CT 2630**

TECHNICAL DATA	
Fish size	2 to 7 kg
Capacity	Up to 20 fish/minute
Electricity	3x400V + PE / 3x220V + PE
Power consumption	4.0 kW
Water consumption	10 liters/minute
Air supply	Integrated compressor
Weight	Approx. 675 kg

\* With average fish size 4 kg and length of 670 mm, with small fish kit from 0.5 to 4 kg \*\* Within standard fish sizes

# Control your yield performance

## **Monitoring production**

Innova food processing software controls the filleting process by setting up filleting programs for the MS 2730 Filleting Machine. Innova provides a comprehensive real-time reporting function that gives the operator a complete overview of the filleting process.

Real-time data generates reports on throughput, yield, and volume, as well as the standard overview and lists. This data is viewable on dashboards. Based on the valuable KPIs provided by Innova, you can make intelligent decisions to optimize your filleting results.

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Dashboard for monitoring performance



Manual yield sampling unit

#### With Innova you can

- Monitor KPIs in real time
- Register the height, width and length of fish
- Register fillets (pcs.)
- Register alarms and active/inactive time
- Create reports on various KPIs

#### **Key features**

- Reliable, real-time yield management
- Flexible data registration and monitoring
- Generates accurate yield reports
- Increases traceability by logging data on batches received from various suppliers
- Easy for operators to use and understand

# Maintenance and spare parts

### **Manual yield control**

The salmon filleting yield control solution is used as a receiving station at the filleting machine, and monitors yield for individual batches of salmon received under a specific PO, lot or batch number. After initial weighing of the whole fish, the system will record the exact weights of specific parts of the salmon, including heads, frames, belly trim, fillets, etc., and it will report the total yield.

#### Innova Life Cycle Support

With Innova Life Cycle Support, you can reduce operational and financial risk, and gain better control of IT costs. Innova Life Cycle Support offers remote and telephone support during normal working hours.

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Pinebone	Trimmed Filet	Skinned Filet		Output Head Frame Raw Filet Pinebone Trimmed Filet Skinned Filet	0,424	15,009 18,179 44,529 5,879
				Head: 15,0 %) Prebone: 5,9 % Raw Filet: 44,5 %		rame: 18,2 %

**Preventive maintenance** 

#### Your best insurance against downtime

A Marel certified specialist will service and maintain your equipment during a scheduled visit to your site at a time that fits your production schedule.

Our specialist will carry out a physical inspection that includes routine checks, tests on electrical, electronic and mechanical components and functions, replacement of wearing parts and adjustments to each machine as required and in accordance with our own quality standards for optimal performance.

On completion of each visit, you will receive a report on the current status of your equipment, with recommendations for continued maximum availability and peak performance.

#### Fast access to approved spare parts

All our parts are manufactured from high quality materials for optimal performance. Many of our solutions use custom components, making Marel your first choice in providing the right part for the right application.

By being prepared and using approved spare parts, you can help minimize production stops and maximize productivity. Whenever you need any parts or spares, we dispatch these straight to you by courier service.

#### **Benefits**

- Maximize equipment uptime and availability
- Extend the lifetime of your hardware
- Maintain optimal performance of equipment
- Control operational costs
- Reduce downtime

User-friendly touch screen monitor

TRANSFORMING FOOD PROCESSING

