

FleXicut

Production of high value portions with pinbone removal



- Automatic pinbone detection & removal
- High-tech, advanced fillet portioning
- Significantly increases throughput
- Improves yield & quality



Automatic pinbone removal & portioning for whitefish

FleXicut combines high precision bone detection with water-jet cutting for pinbone removal and further portioning of the fillet. This automation of whitefish bone detection and removal reduces the need for skilled labor, and greatly improves overall yield and quality.

FleXicut is intelligent – it optimizes the utilization of the fillet, ensuring the best use of each and every fillet to maximize the production of the highest value cuts. Throughput varies depending on the fillet size. The machine performs at a throughput of up to 50 fillets per minute for 750g cod fillets (450mm long).

Whitefish processing

X-Ray bone detection

FleXicut locates the pinbones to an accuracy of 0.2mm to determine precisely the optimal cut configuration and cutting angle, based on pre-defined specifications. This puts the processor in control of the level of pinbone material and ensures added value, with less pinbone material than in manual deboning – 4 to 6% of fillet weight.

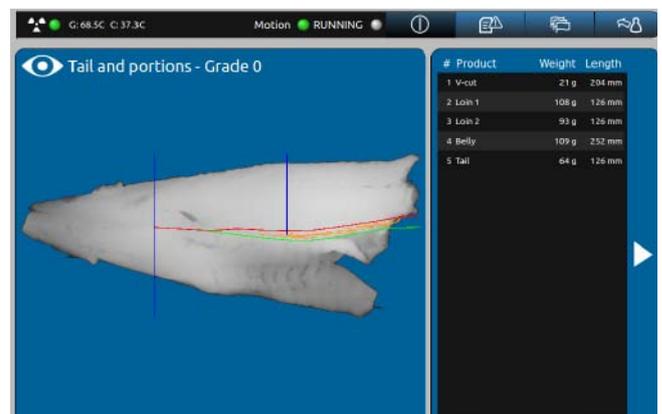
Precision cutting

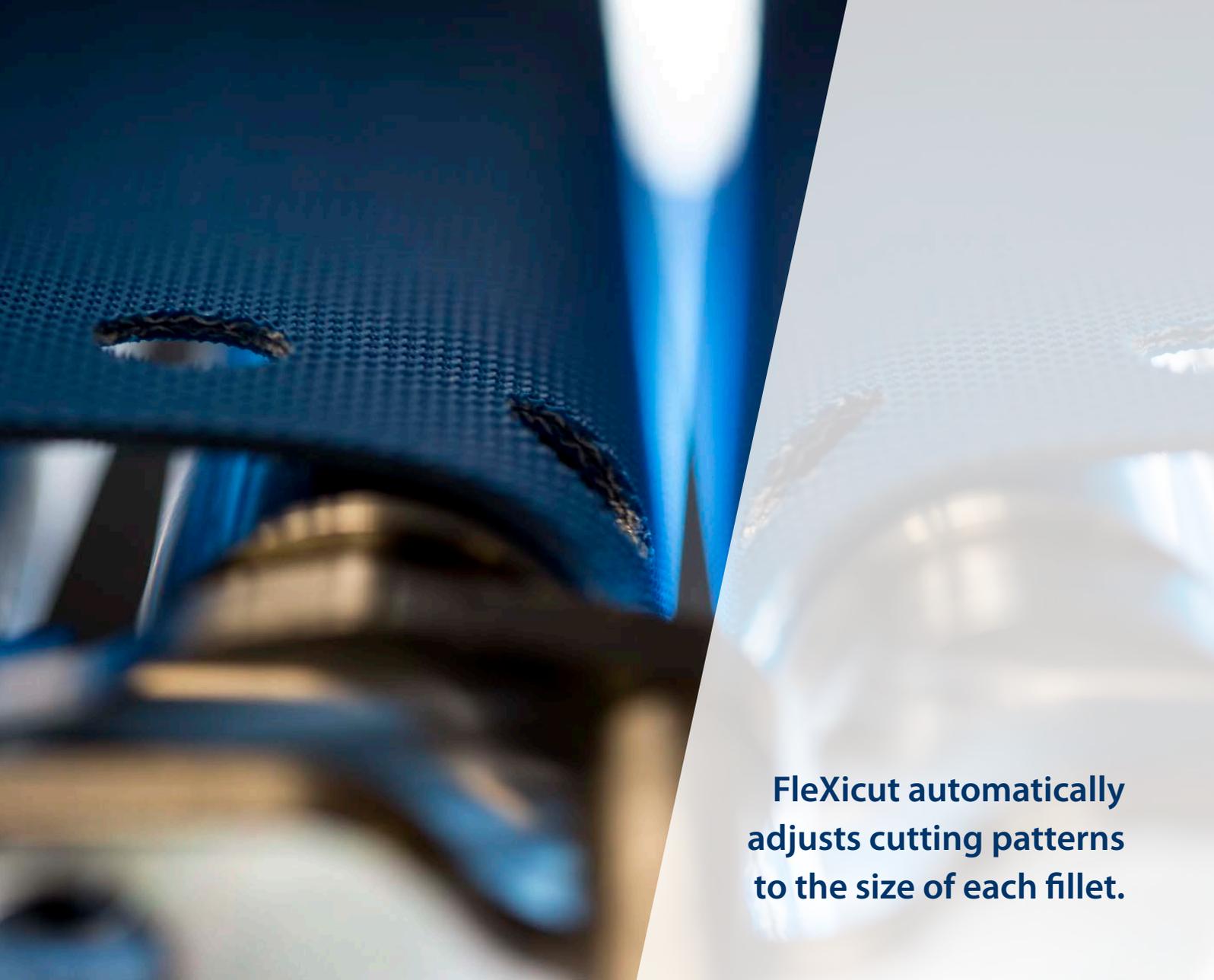
The angle of the FleXicut's water-jet cutters adjusts to the cutting pattern and to the location of the bones, to make a v-cut as close as possible to the pinbones to remove them. The water-jet cutting enables uniform cuts – every time – and can be used for other cuts that need to be at an angle.

FleXicut is equipped with twin blades for dividing the loin, cut the belly flap or tail, or portion the fish to customer specifications. Processors can cut each fillet differently depending on its size and weight.

FleXiSort Intelligent product distribution

The FleXiSort product distribution system automatically allocates each of the various outputs to different packing lines using a modular drop down mechanism. It distributes portions into different product streams specified by FleXicut's software.





FleXicut automatically adjusts cutting patterns to the size of each fillet.

Advanced fillet portioning

FleXicut is designed for various whitefish, like cod, saithe, pollock and haddock, whether fresh, lightly salted, or super-chilled. FleXicut offers a variety of cutting patterns for individual fillets using a combination of straight, angle, and curved cuts. With its high flexibility, the machine automatically adjusts cuttings patterns to the size of each fillet, enabling a very diverse product range.

Diverse product opportunities

Variety in the range of possible cuts is one of the biggest benefits of FleXicut, as it makes a huge difference for processors to be able to maximize the value of the raw material, regardless of whether the fillets are large or small.

FleXicut maximizes the size of the loin, the highest value cut. For larger loins, FleXicut can divide the loin based on customer requirements. The variety of instantly applied cutting patterns delivers significant yield gains for processors.





Step into the future

Demands for full traceability, better handling, higher yield, and greater product diversity are driving the development of the next generation of whitefish processing lines. These demands can only be met by automating the process more and that's where FleXicut plays a key role.

The next generation of processing

FleXicut is the next step towards a new generation of whitefish processing – and one of the biggest steps towards automation that that we've seen for decades. Bringing hi-tech to the heart of the fish processing factory will influence the entire process, and has opened the way to meet the demands of the whitefish industry; processing flowlines, packing, and quality control.

Innovation through partnership

These developments have been made possible thanks largely to Marel's close partnerships with fish processors in Iceland and Norway. Strong partnerships with our customers are the bedrock of this new generation of whitefish processing equipment.

“With FleXicut, Marel is bringing hi-tech to the heart of the fish processing factory and this will influence the entire process,” says Pétur Hafsteinn Pálsson, General Manager of Icelandic fish processor Vísir hf. where a FleXicut was installed in February 2015. “This is one of the biggest steps towards automation that we’ve seen for a very long time in fish processing technology.”



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

With offices and subsidiaries in over 30 countries on six continents and a vast global network of agents and distributors, Marel's expertise in local markets and requirements helps it deliver the best processing innovation for its customers.

Our dedicated R&D teams ensure that we provide the latest technology for all stages of the processing value chain; ranging from single scales to integrated production lines and turnkey systems.