

# Case Study

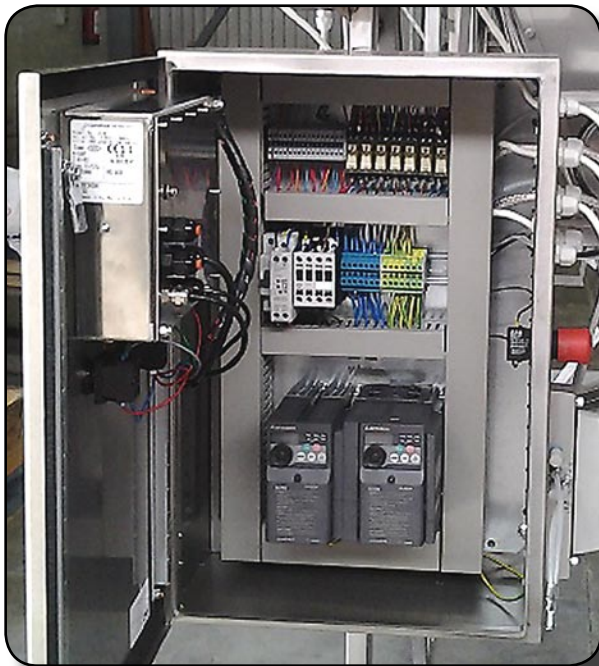


## Tradition Integrates Technology Staying Afloat in the Fish Processing Industry

In Northern Europe, located on the shores of the Baltic Sea and the Gulf of Finland, lies the Republic of Estonia where fishing has been a mainstay for generations. Though the fishing industry has been a part of Estonia's history for so long, the methods today are anything but. As companies attempt to outmaneuver each other in these competitive waters, those that seek to stay afloat must utilize the latest in the industry to maintain a competitive edge.

### Weighing 300 Ton Hauls

For Morobell OU, an Estonian fishing and fish processing company, that competitive edge has been provided by Cardinal Scale, a world leader in weigh systems at the forefront of the industry.



Sixteen batching systems were equipped with Cardinal Scale Model 210 indicators by Paivet OU, an official Cardinal-authorized dealer in Estonia since 1996.

Morobell's batching systems are designed specifically for small fish, typically sprat and herring, to be output into standard 10kg (~22 lb) units. Each batching system is operated entirely by a single Cardinal 210 indicator calibrated to 30kg x 10g and utilizing all three relay outputs of the 210. Each of the 16 systems drives two conveyor belts, one wide and one narrow, and can batch up to 6 units per minute. The systems working in tandem can process more than 300 tons of fish per day.

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## Precision Weighing: A Prize Catch

In a wet, cold room, the process is initiated with the push of a button, as the conveyors begin to feed the fish into each batching unit. Each is equipped with a pneumatic flap, which has a piston with special sensors that control the timing and amounts of each conveyor as they fill the container.



When the first programmed relay of 9kg is reached, the wider conveyor stops. When the second programmed relay of 9.9kg is reached, the narrow conveyor stops. A plastic bag is inserted into the system output, then a release switch is flipped, and the system is held open in case any adjustments need to be made according the third programmed relay of 0.1kg.

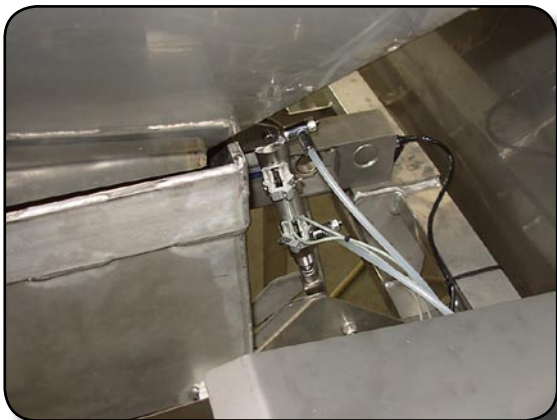
Once completed, the flap closes and the system automatically begins the process again. The processed bag is removed from the output chute and placed into a special aluminum refrigeration box, ready to be stored or shipped around the world.



*Model 210  
Indicator*

**Cardinal Scale Dealer:** Paivet OÜ (Estonia)

**Conveyor Design and Metal Works:** Haapsalu Metal OÜ



 **Cardinal**<sup>®</sup>  
Cardinal Scale Manufacturing Co.