BAADER K-factor System for optimized production

The K-factor is a ration of length to weight that is used to rate the condition / quality of a fish.
BAADER has developed a new system to generate the K-factor as part of our well known gutting solution BAADER 142 with automatic feeding!
This unique system is based on the advanced BAADER vision system which has been combined with dynamic scales from the Autofeed System.
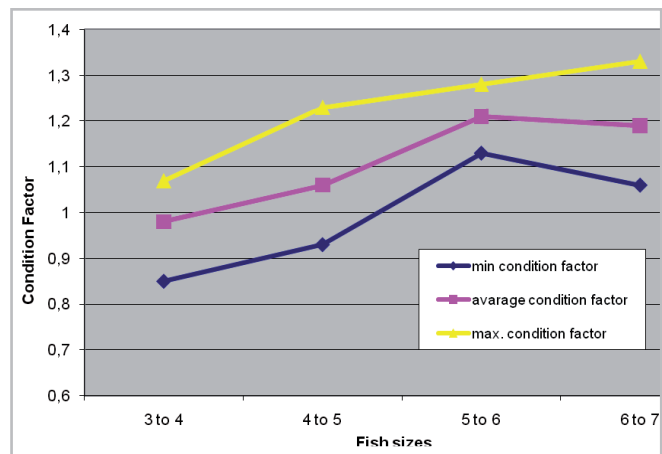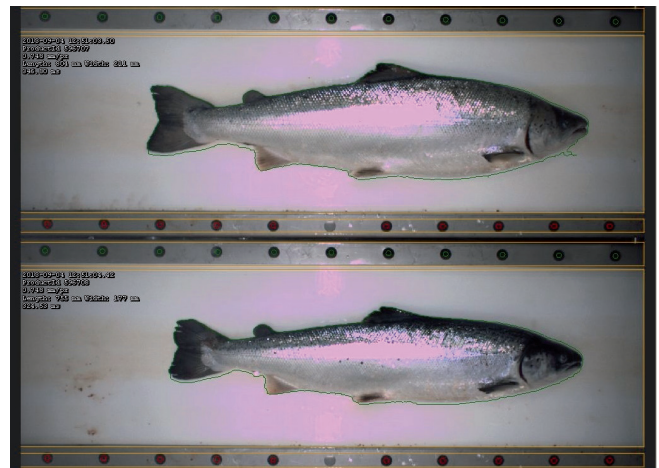
Ideal distribution

Knowing the K-factor makes it possible to predefine which grade suits each type of processing and then distribute the fish to the ideal process (e.g. whole fish packing, filleting or freeze packing). The overall system, including the k-factor and distribution system, is tailor made to meet the demands of our costumers.

In-line system in real time

The BAADER vision system is developed to perform inline. It is image-based and measures the length of the salmon in the production area. A combination of an industrial camera and flashing, high intensity LED's create multi-spectral images of the salmon which is transported by the infeed grader belt below the camera. An image is taken of each salmon and evaluated by using advanced image analysis. First the salmon contour is identified. After that the length is measured - taken any malposition of the salmon into account. These calculations are performed in real-time by a high-performance computer and the result is transmitted to the BAADER grading system.
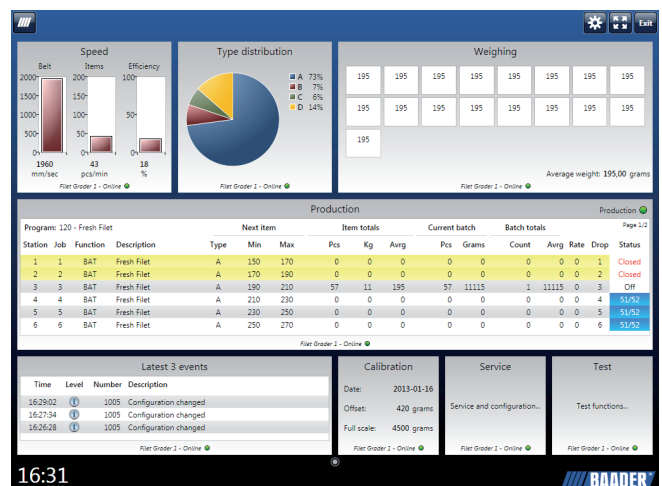Two rulers are located in the field of view to enable semi-automatic calibration of the measurement algorithms. This ensures a length measurement of the salmon with a high precision up to 1000 mm in length.

Decision support for the best supplier

These system will weigh and measure ALL fish entering the factory. This gives a full overview of the raw material condition, not only important for the fish to be processed, but also about the quality of the fish from different supplier or salmon farm (locations).
This will be a tool for the future, and will open up for much more control and information of the conditions of salmon.

BAADER K-factor System

Less handling - no further grading needed

The actual distribution of the fish is done inside the BAADER142 gutting machine; this means that further handling of the fish before further processing is avoided, thereby saving labor cost and reduce the need of further grading.

Hardware is high pressure-resistant, high temperature-resistant, steam-resistant
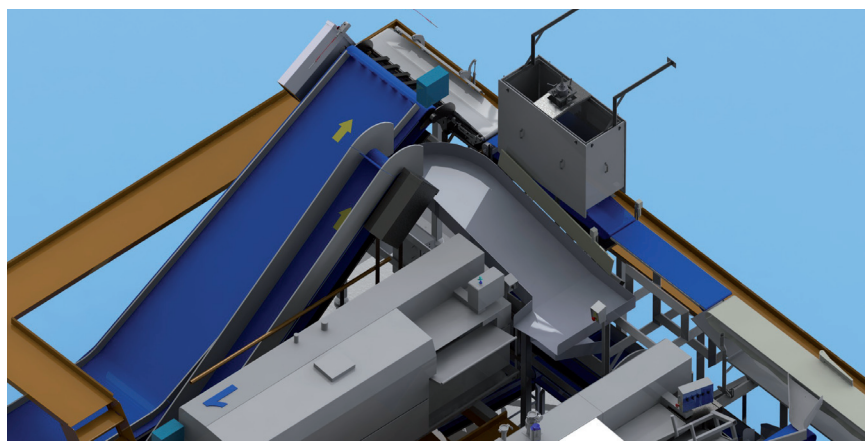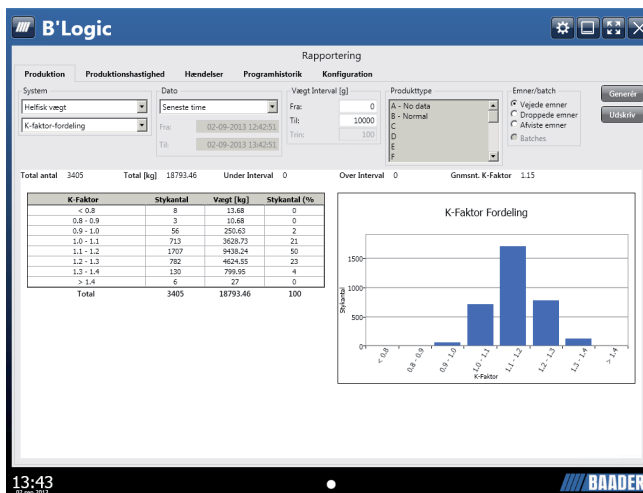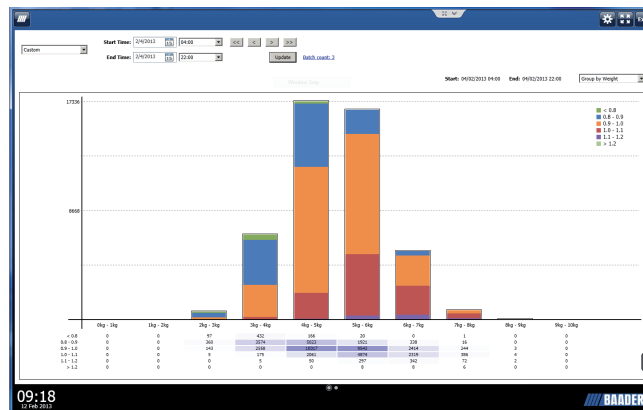
The camera, optics and light print is enclosed in a stainless steel tube, that has been developed and tested to meet the high standards for waterproof components in the food industry, certifying that it will withstand high-pressure, high-temperature and steam cleaning.

B'Logic Software

The B'Logic software: e.g. order handling and controlling of the distribution of the fish to the different process steps. The planned quantity is defined in the Job monitor.
The production job/order is configured with the B'Logic grading module running on an office PC connected to the controller.
The length is measured by a camera, the K-factor is calculated by the controller

Full traceability

If the K-factor is configured, the salmon is given a destination ID and order number.
All products can get a quality ID (e.g. 1,0 to 1,2 for Superior, Ordinary, Production) and a location ID of the respective process step, order number and time stamp for full traceablity.