



INSTRUMENTS // Q-FOM™ BEEF

OBJECTIVE ASSESSMENT OF MEAT QUALITY

Q-FOM™ Beef is a grading camera designed for fast, easy, and objective grading of ribeye traits, and it can be used both in the chiller and at grading stations.

With an integrated high-performance 1D/2D barcode scanner, camera viewfinder, and handles with physical buttons at the fingertip, it is an efficient and user friendly tool for an operator.

Up to 240 carcasses per hour can be graded on marbling, eye muscle area, meat and fat colors and rib fat thickness. A sorting code table is contained in the grading camera and the sorting code is calculated on the spot.

The grading camera also doubles as a data capture unit. The touchscreen can be configured with one-touch entry of measurements of pH, core temperature, ossification, etc.

Ribeye grading

Grading of the ribeye is done to predict the **eating quality and visual appeal**, especially for the premium cuts of a carcass.

The grading results are used to pay the suppliers for quality, and to sort carcasses in the chiller. Proper sorting of carcasses ensures conformity to quality standards for the meat products and maximizes profit for the slaughterhouse.

The carcass is graded on the cut surface that is exposed when the carcass is “ribbed” prior to or during quartering. Q-FOM™ Beef can be used at any ribbing site from 4th rib (chuck end) to after 13th rib (loin end), and for extra accuracy the instrument uses distinct software packages for each end.



Graded Traits

EYE MUSCLE

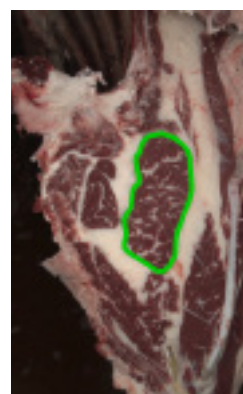
- Marbling (All ribbing sites)
- IMF% (All ribbing sites)
- Eye Muscle Area (All ribbing sites)
- Meat Colour (10th-13th rib)

FAT

- Fat Colour (10th-13th rib)
- Rib Fat Thickness (10th-13th rib)

Ribeye (chuck end)

Ribeye (loin end)





User Experience

Hardware and software of Q-FOM™ Beef has been designed not only for high performance, but also for user friendliness and ease of use.

The camera is designed ergonomically with a large touch screen, handles, and physical buttons to make the camera easy and fast to operate for extended periods of time.

Automated data flow

Q-FOM™ Beef includes and ethernet connectivity. As an option, a GOSystems software module for automating the two-way data flow between the plant's ERP/MES system and the Q-FOM™ Beef grading cameras can be installed.

A complete list of ID's and data on the carcasses ready for grading is then automatically exported from the plant's production system to the Q-FOM™ Beef grading cameras, and the ribeye images, grading results and sorting codes for each carcass ID are automatically sent from the Q-FOM™ Beef grading cameras back to the production system.

Accuracy

Q-FOM™ Beef has been subject of independent approval trials and extended use, and the high accuracy of Q-FOM™ Beef measurements has proven to be very robust and able to handle multiple variations in terms of:

- Breed (dairy/beef/wagyu, temperate/tropical, mixes)
- Category, sex/age (veal, young, heifer, cow, bull)
- Weight/size (small/large, skinny/muscular)
- Feed (grain, grass, mixed feed)

The original measurement calibrations for Q-FOM™ Beef have been made and approved according to the recognized standards of MSA and AUS-MEAT.

Adaptation to other national standards or customer specific standards can be made on request.

Technical data

When used at a grading station, the grading camera is suspended with a spring-loaded hanger to make it easy to grab and operate the camera with one hand. The camera is powered by the internal battery or via a cable, and the data transfer is by ethernet cable.

When used by an operator moving around in the chiller or elsewhere, the camera is carried in a neck strap and powered by the internal battery. Data transfer can be done real time or later by ethernet. The camera has an integrated web browser, so it is easy to download the grading results when the camera is later connected to a LAN network.

Q-FOM™ Beef has sufficient internal memory to store thousands of grading pictures and results with a validation log for audits, but historical data may best be downloaded regularly and stored on a PC or server for later reference.

Working temperature	0 to 45°C (32 to 113°F)
Relative humidity	0 to 100% condensing
Enclosure rating	IP54
Input voltage (PoE++90W)	100 to 240 VAC, 50 to 60 Hz
Batteries	Lithium, 3.7V, 15-30 A
Internal battery capacity	Approx. 3 hours
Touchscreen	10" PCAP
Barcode scanner	1D, 2D, stacked codes
Dimensions	42X19X9 cm (17x7x4")
Weight	2.3 kg (5,1 Lbs.)

CONTACT

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