Primal cut inspection

Vision solution for check of optimal cutting on the primal surface of ham, middle and fore-end

Read more
⟶ www.dmri.com

DANISH TECHNOLOGICAL INSTITUTE

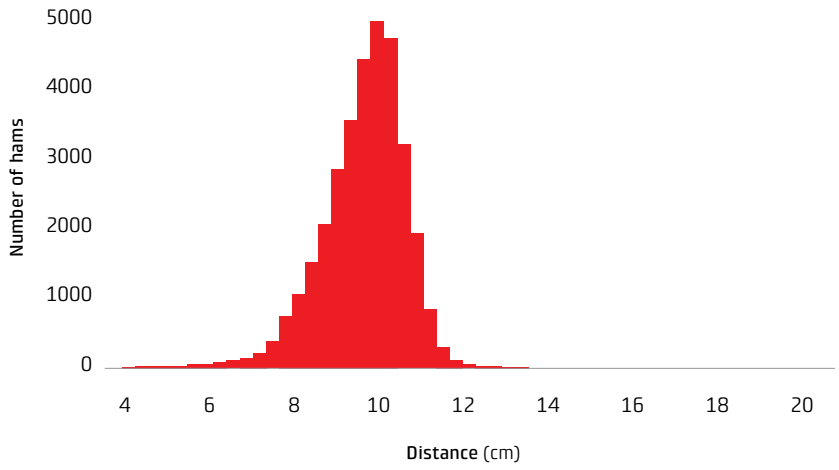
Primal cut inspection

Check optimal cutting on the primal surface of ham, middle and fore-ends.

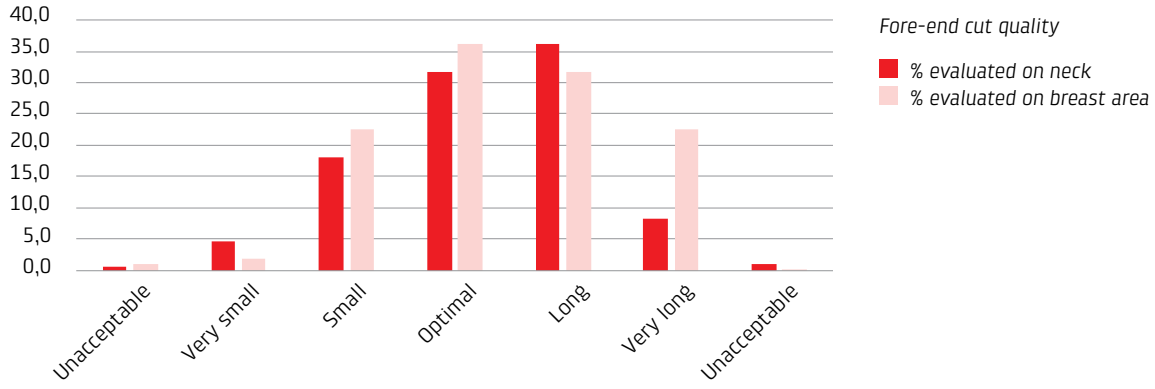
The variation in pig size implies that optimal cutting patterns vary between pig carcasses. A deviation of just 1 cm may change weight and value significantly app. 0.5€ per pig.

Whether the current presentation of the carcass halves for cutting is manual or automatic, it creates value to monitor the results. Monitoring cuts by retro-fitting camera solutions allows to verify how well the production meets the target specification, for fast adjustments when necessary, and continuous pursuit of best practice.

Abscesses visible on the cut surface can be detected. Handled early the risk of contamination of belts and other products is minimized with shorter stop and cleaning time.

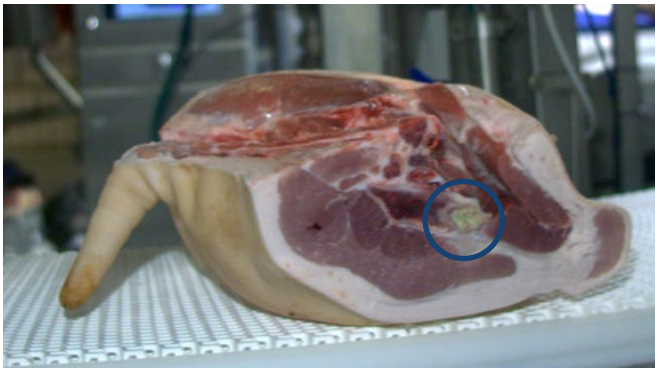


Conforming ham cutting with deviation



CONCERNED ABOUT YIELD AND QUALITY?

- Collars too short?
- Shoulder meat to the long side?
- Cutting to the specification?
- Hams cut between tail and spine bone?
- Alarms for visible abscesses?



PRIMAL CUT INSPECTION OFFERS

- Detection of fore-end cut quality
- Detection of ham cut position for deviations and monitoring of length

- Continuous monitoring allows:
  - Higher yields with fast corrections when quality thresholds are exceeded
  - Analysing quality by sorting groups for cutting strategy
  - Quality results for active routing of products
  - Screen of abscess in cut surfaces to reduce stop time, for fast cleaning, consistent removal and less rework

The results and actual rolling performance against a target is shown real time on a monitor at the line. Library of cuts stored. Thresholds can be set to alert operators, technical service staff, and line managers at repetitive deviations beyond the target performance.

PRIMAL CUT INSPECTION DETAILS

- Power/use: 230 V AC
- Industry wash down cameras
- Standalone PC or server solution
- Measuring
  - Detectable size: Abscess typically to a few cm^2
  - Capacity: line speed

Depending on customers' preference 1 up to 6 cameras are installed at existing belts where convenient to:

- Measure cut surface of fore-end/middle
- Measure cut surface and top of ham
- Measure half-carcass pre-cutting to identify optimal cutting lines for reference points and to document potential and give-away respective inspection after cutting
- Optional real time input to control of automatic saws for straight, angled cuts

The monitor showing cutting performance and contamination can be placed at the relevant workplace.

Blue circles indicate check points for Neck and Breast on fore-end cut

V1. 04-2025

Food innovation for the future

Niels Toftelund Madsen
Business Manager
M ntm@teknologisk.dk
T +45 72 20 26 90
www.DMRI.com

DANISH TECHNOLOGICAL INSTITUTE