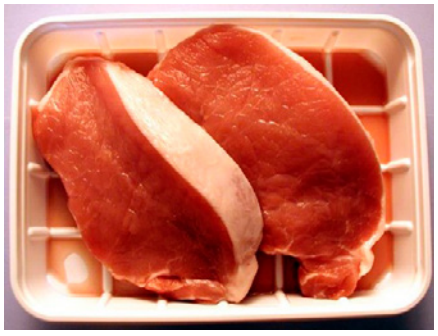
DANISH TECHNOLOGICAL INSTITUTE

Tailored design of carcass chilling processes

Designs provided by DMRI ensure short pay back time on your investment



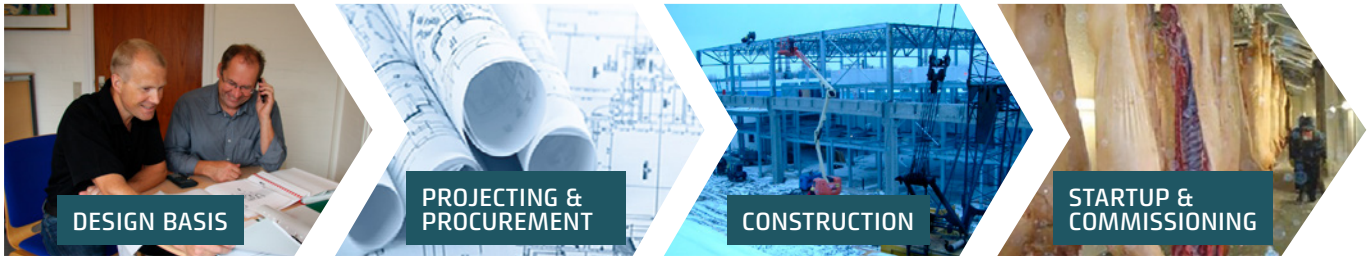
Carcass chilling has high impact on your capability to obtain a cost-effective production. Affected by the chilling process are:

- Yields through drip loss and chill loss
- Quality through drip loss, PSE, toughness, black bones occurrence and shelf life
- Optimal product temperature improving the cut-ability in the succeeding boning processes
- Food safety, decontamination, bacteriological growth and avoiding condensate drip on products
- Energy consumption

A well-designed chilling process will provide a chill loss of 1.0 to 1.2% depending on the speed of the heat extraction.

Looking solely at the profit gain from the chill loss, each percentage (1%) of chill loss corresponds to a profit loss of ~ EUR 1.3/carcass.

DMRI offers chilling designs from idea to reality



Design and implementation of a low temperature chilling process requires a possession of two competence areas, consisting of a complex interface between **Meat Technological Process** and **Technical Process Design**. DMRI is superior in the design of chilling processes, we possess knowledge in both areas.

Meat Technological Process

OPTIMAL PRODUCT QUALITY FEATURES:

- Optimal temperature profile
- Designed to avg. carcass kg & %
- Designed to the correct end mean cutting temperature
- Optimal decontamination

THE GOAL:

- Low shrink loss
- Low drip loss
- Avoid PSE
- Avoid cold shortening
- Postpone black bone occurrence
- Promote long shelf life
- Tender and juicy meat

Technical Process Design

STRICT INTERFACE BETWEEN:

- Conveying system
- Steel structure
- Building structure
- Refrigeration system

HIGH PERFORMANCE:

- Correct air velocity m/s
- Correct evaporator surface m^3/unit
- Optimal de-frosting program
- Avoid condensation
- Avoid infiltration

THE GOAL:

- High operational reliability
- Low energy consumption
- Low maintenance costs
- Long lasting building structure

ABOUT DMRI We conduct research and offer consultancy on methods and technologies for the efficient production of safe, high quality and price competitive meat products. We are committed to continuously improve workplace conditions and animal welfare as well as to take due care of the external environment.

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