

## CASE STORY / Design by DMRI

# Chilling process design for an existing slaughter facility, Goodvalley, Poland (2021-2022)

DMRI scope included

### CHILLING PROCESS SPECIFICATIONS:

Complete documentation of Quick Chill Tunnel, equalizing equipment, and performance specifications; process time, air temperatures, air flow, and carcass spacing, that are relevant to ensure low chill loss and high meat quality. The specifications covered the entire chilling process.

### BUILDING STRUCTURE DESIGN:

Extensive guidelines for correct construction of the insulated structure, containing the Quick Chill Tunnel, that ensures the structural longevity, even with frequent defrosting and re-freezing in connection with cleaning. The specifications also defined best practice for interfacing with other building parts, pipe penetrations, vapor barrier integrity, insulated panel finish and steel column support on insulated floor.

### REFRIGERATION TENDER AND QA:

DMRI analyzed the incoming tenders and evaluated with Goodvalley, to ensure the choice of the best refrigeration contractor, and equipment supplier in correspondence with the specifications was selected. Local Polish supplier Coldex was selected and did the installation with attention to detail. The DMRI-design secured high meat quality and low energy consumption.

### COMMISSIONING AND PERFORMANCE TEST:

Both at start up and when full capacity was reached, DMRI conducted a performance test of the carcass chilling process and all relevant parameters to determine that the refrigeration system was running according to specifications. Adjustments were made to reduce chill loss, optimize meat quality parameters, and reduce energy consumption.



DMRI is focusing on methods and technologies for efficient production of safe meat products of a high quality at competitive prices. At the same time, DMRI is committed to enhance the working environment and animal welfare as well as demonstrating due care to the external environment.



**DMRI** —

Food innovation for the future



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Read more

→ [www.dti.dk/carcass-chilling](http://www.dti.dk/carcass-chilling)



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# Statement: Goodvalley, Poland



"DMRI developed a new design of our chilling process, which solved several current and future problems in one investment project: Significant reduction of chill loss, reduced drip loss and overall improvement of meat quality. The implementation could be executed without disturbing the ongoing production and the new layout enables further expansion of our production capacity in the future.

The detailed design and specification have enabled a trouble-free start-up of the new chilling process and superb performance from day one, with a chill loss well below our expectations of 1,3 %.

Since the QCT-principle improves the slaughter yield by more than one percent, it reduces the net emission per kg produced meat. This corresponds perfectly with our environmental strategy at Goodvalley."



*Chief Executive Officer, Member of Executive Board*  
**Paweł Nowak**

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## PROJECT DATA

Chilling footprint –  
**1300 m<sup>2</sup>**

Slaughter capacity –  
**280 pigs/h**

Chill loss target –  
**1,3 %**

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**ABOUT US** Reduce your environmental impact and boost your business. Partner with us to fully utilise your resources and minimise production waste without compromising product quality and food safety. Based on our extensive R&D programmes and 70 years of experience in the international meat industry, you will be able to draw on our unparalleled services.



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