gmSCAN – AUTOMATIC PIG CARCASS AND PRIMAL CUT CLASSIFICATION

The Irish firm gmSTEEL has successfully carried out the homologation process in Spain and Poland of a new system for the automatic classification of pig carcasses called gmSCAN (gmSCAN.eu). The system allows to classify at a speed of up to 900 pig carcasses per hour and provides detailed information on the composition of the different parts of the carcass including the prediction of weight and the percentage of lean meat in the most important pieces such as ham, loin, belly and shoulder.

NEW PRODUCTS AND TECHNOLOGIES

1. Introduction

gmSCAN is a Magnetic Induction scanner to automatically grade pig carcasses according to the SEUROP scheme. The scanner predicts the total lean meat percentage of the carcass, the lean meat percentage and the weight of the primal cuts of the pork (ham, loin, bacon and shoulder).

2. Technology

gmSCAN employs a contactless inspection method that preserves the integrity and physical characteristics of the meat and avoids the risk of cross contamination. The method is based on the analysis of the response of the fatty and lean tissues of the carcass subjected to the action of a variable and low-intensity magnetic field.

3. Main features and functionalities

- Automatic classification (% LEAN, SEUROP)
- Classification of the primal cuts by weight and % Lean (Ham, Loin, Belly and shoulder)
Shoulder)
• High speed of classification (900 carcasses/hour)
• Robust predictors not affected by breed or genetics
• Contactless inspection
• Reduced layout
• Easy integration

gmSCAN provides high robustness, precision and reliability in the prediction of the lean meat percentage and the composition of the primal cuts. The magnetic induction response correlates directly with the amount of lean tissue and is independent of pig breed or genetics.

gmSCAN has been designed for classification of pig carcasses in vertical position. The vertical configuration of the scanner facilitates the integration of the system in the slaughter line and significantly reduces its integration costs.

4. Certification in Spain and Poland during June 2018
The certification trials have been carried out by the competent bodies of each country, IRTA (Spain) and IBPRS (Poland), and have been passed successfully in both countries. In short, the European Commission will vote a decision for the approval of gmSCAN as an official system for SEUROP classification in Spain and Poland.

5. Benefits of the gmSCAN at a glance
• Precise pig carcass grading according to SEUROP
• Accurate prediction of primal cuts (Lean meat weight and weight)
• 100% Automatic grading and value determination of pig carcasses
• Enables payment according to true market value of carcass and primal cuts
• Optimal carcass utilisation in cutting, deboning and sales (yield optimisation)
• Enables production planning decisions based on objective and precise measurements
• Provides valuable feedback for genetic development and feeding strategies
• Easy integration of data with existent databases and ERP
• Remote diagnostic available. Secure access via Ethernet.
• Non-contact classification
• Low maintenance costs
• Detailed carcass information displayed in an industrial tactile screen
• Fast return of the investment
• Grading speeds up to 900 carcasses per hour

6. Normatives and Directives
gmSCAN is CE labelled and complies with the following directives and normatives:
• EMC (Electromagnetic Compatibility) 2014/30/UE
• LVD (Low Voltage Directive) 2014/35/UE
• Hygienic design according to the norm EN1672-2

7. Dimensions
L1600 mm x W1200 mm x H2400 mm

8. Contact details
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Related projects

gmSCAN
Automatic scanner for determining lean meat distribution in pig carcasses

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