

gmSCAN – AUTOMATIC PIG CARCASS AND PRIMAL CUT CLASSIFICATION

1. Introduction

gmSCAN is a Magnetic Induction scanner to automatically grade pig carcasses according to SEUROP scheme.

The scanner predicts the total lean meat percentage of the carcass, the lean meat weight and the total weight of the four main cuts of the pork (ham, loin, bacon and shoulder).

2. Technology

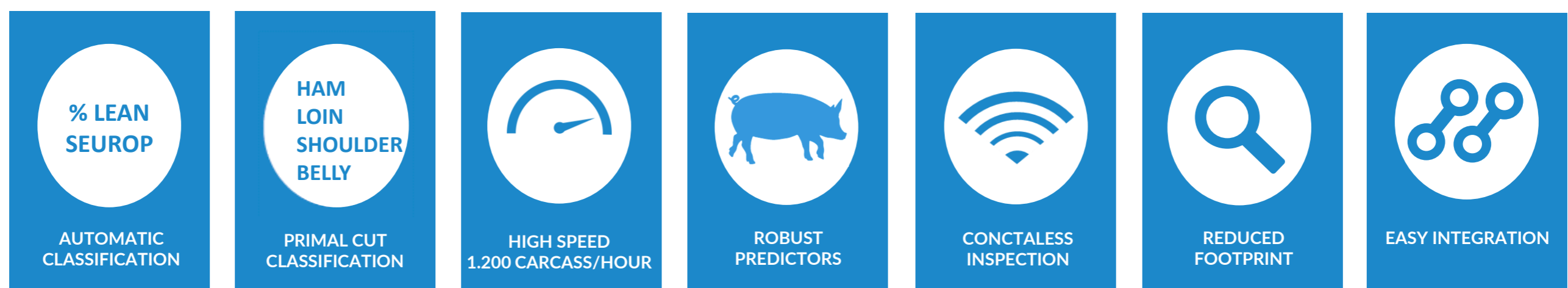
gmSCAN employs a contactless inspection method that preserves the integrity and physical characteristics of the meat and avoids the risk of cross contamination.

The method, developed in collaboration with the company Lenz Instruments S.L (Barcelona) is based on the analysis of the response of the fatty and lean tissues of the carcass subjected to the action of a variable low intensity magnetic field.



gmSCAN	RFID: 8000F580054671E7	COUNTER: 1245	Password	Exit
DATA ACQUISITION		PIG CARCASS GRADING		
QCH1:	1.21	SEUROP CLASS:	S	
QCH2:	1.55	LEAN MEAT %:	61.2	
QCH3:	1.20			
HCW:	99.8			
PRIMAL CUT WEIGHT (g)		PRIMAL CUT LEAN MEAT %		
HAM:	12263	HAM:	75.1	
BELLY:	4245	BELLY:	64.7	
LOIN:	9782	LOIN:	71.4	
SHOULDER:	6662	SHOULDER:	68.2	

3. Main features and functionalities



gmSCAN provides high robustness, accuracy and reliability in the prediction of the total lean meat percentage and the composition of the primal cuts. The magnetic induction response is directly correlated with the amount of lean tissue and is independent of the breed or genetic variations.

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

4. Certification in Spain and Poland during June 2018

The certification trials has been carried out by the competent bodies of each country IRTA (Spain) and IBPRS (Poland) and has been passed successfully in both countries. In short, the European Commission will authorise the use of gmSCAN as a valid instrument for SEUROP classification in Spain and Poland.



INSTYTUT BIOTECHNOLOGII
PRZEMYSŁU ROLNO-SPOŻYWCZEGO
im. prof. Wacława Dąbrowskiego

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 utilization in cutting, deboning and sales (yield optimization)
- 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 data-bases and ERP
- Remote diagnostic available. Secure access via Ethernet.
- Non-contact classification
- Low maintenance costs
- Detailed carcass information displayed in an industrial tactile screen
- Lower investment compared to other automatic grading systems and fast ROI
- Grading speeds up to 900 carcass 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

