

RPH pH measurement



Maximum optimization and traceability in classification and processing

The AiRA RPH pH measurement analyses the pH value in hams for later marking and classification.

The system combines an industrial six-axis robot with hygienic configuration and an optimized tool to perform the puncture, as well as an automatic calibration station. The entire system is equipped and protected to be installed in the room or in the chamber.

The concept

With AiRA robots, continuous operation on the dressing line conveyor is maintained, as the robots are synchronized with the main line conveyor; so while carcasses by drop fingers are pulled forward, the position, depth, and angle are determined by the detection unit (vision scanner).

The AiRA robotic concept is a dynamic concept, as multiple AiRA robots can be fitted along the main conveyor of the slaughter line. The AiRA robots are all “plug and play”, and can operate in any type of new or existing pig slaughter lines.

Hygiene

When the robot is stopped, the electrode is soaked in potassium chloride, which helps the electrode maintenance. To ensure high hygiene levels, as well as easy and efficient cleaning, the robot itself is enclosed in a strong flexible protective cover with constant air flow inside and lightly over-pressure, keeping the vital part of the robot clean and safe in the harsh environment.

Why the RPH pH measurement!

- High capacity: 450 carcasses/hour
- Quality of constant measurement in time, depth and position
- Yield improvement by grading products optimized for further processing



Pre-conditions

The total system consisting of:

- Robot with a hygienic protective cover
- Electrode to perform puncture
- Integrated pH meter
- Machine vision system
- Carcass guidance system
- Control unit with transformer box
- Robot fence with secured entrance
- Auto calibration device system

Safety and legal requirements

The AiRA RPH is CE approved and designed to meet the strictest demand on health and safety.

Technical data

Capacity	450 carcasses/hour
Live weight	60-140 kg/132-308 lbs
Process parameters	Individual cutting parameters for each carcass, customized settings possible
Vision scanner	COGNEX machine vision camera
Voltage	380-575V AC 50/60Hz 3 phase
Control voltage	24V DC

Technical data may be subject to changes



Advantages with the AiRA concept

- A concept founded on more than 20 years in R&D and engineering of automated processing
- Reduction of labour cost with one robot
- Human machine interface for setting and adjusting the robot
- Low maintenance
- Easy and swift to clean and keep clean
- Easy operation and troubleshooting with uniform user-friendly operator panels on the AiRA robots
- The software interfaces with all types of monitoring systems



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