

PORK SOLUTIONS // RLR

FULLY AUTOMATIC TRIMMING PROCESS

The Frontmatec-AIRA RLR leaf lard remains remover is normally used as one of the last applications of the slaughter line, as a part of final trimming. The RLR combines a six-axis industrial robot with hygienic configuration and a highly optimized and specialized tool. When the carcasses are split and the leaf lard has been removed, the robot removes the remains of lard inside each carcass with specialized rollers.

The concept

With the Frontmatec-AIRA robots, continuous operation on the dressing line conveyor is maintained, as the robots are synchronized with the main line conveyor. While carcasses are pulled forward, the position, depth, and angle are determined by the detection unit (vision scanner), the process is performed in a downward movement.

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

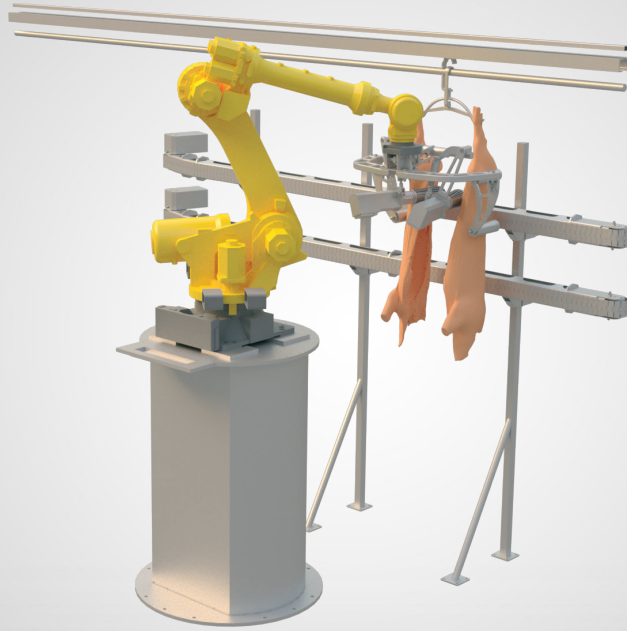
Hygiene

As an option, after each process, a cleaning and sterilization cycle can be performed, depending on customer specifications. An optional cycle of cleanliness and sterilization could be implemented to clean all the parts that are in contact with the product, thus avoiding contamination between carcasses and ensuring a maximum level of hygiene and food safety. 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.



Value for you!

- High capacity: 700 carcasses/hour
- Fully automated trimming of remains from inside carcass surface



System consisting of:

- Robot with a hygienic protective cover
- Specialized removing rollers
- Sterilization system (optional)
- Vision system which is installed along the slaughter line
- Carcass guidance system
- Control unit with transformer box
- Robot fence with secured entrance

Safety and legal requirements

The Frontmatec-AIRA aitch bone cutter is CE approved and designed to meet the strictest demand on health and safety.

Advantages with the Frontmatec-AIRA concept

- A concept founded on more than 20 years of experience in R&D and engineering of automated processing.
- Homogeneous processing and high quality cuts.
- High hygiene level with integrated sterilization of cutting tools, minimizing the risk of cross contamination.
- Reduction of labor 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 Frontmatec-AIRA robots.
- Software interfaces with monitoring systems.

Pre-conditions

Capacity	700 carcasses/hour
Live weight	60-140 kg/132-308 lbs
Process parameters	Individual cutting parameters for each carcass, customized settings possible
Vision scanner	3D vision system based on optical measuring device
Voltage	380-575V AC 50/60Hz 3 phase
Control voltage	24V DC

Requirements

Water	6 bar (min. 4 bar constantly)
Water consumption	Cold (<20°C) 1.0 liter/pig*
	Hot (>82°C) 0.3 liter/pig*
Compressed air	8 bar (min. 6 bar constantly)

**Dry air, free of oil and dust absorbed. Approved for use in the food industry ISO 8573-1:2010 Class 1.4.1*

**Values are based on experience in the field and cannot be guaranteed, as many factors can influence these numbers*

**Technical data may be subject to changes*

Frontmatec-AIRA_V1-0_2024_EN

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