



BEEF SOLUTIONS // RCS

COMPACT SOLUTION FOR ACCURATE ROBOTIC SPLITTING

The Frontmatec-AIRA RCS for splitting cattle combines a six-axis industrial, with a hygienic configuration, and a highly optimized and specialized tool, equipped with circular saw. The carcasses are split into two halves vertically along the spinal canal, which is symmetrically opened. As the head of the animal has already been removed prior to the division operation, the cut is executed throughout the carcass.

The concept

The Frontmatec-AIRA robotics concept ensures uniform processing, accuracy and high-quality products. With Frontmatec-AIRA robots, continuous operation on the dressing line conveyor is maintained, as the robots are synchronized with the main conveyor line; while carcasses are pulled forward, the position, depth, and angle are determined by the detection unit (vision scanner) and the process is performed in a downward movement.

The high flexibility of the robots set-up allows implementation in lines either operating continuously or Stop-and-Go. The robotic concept is a dynamic concept, as multiple Frontmatec-AIRA 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 cattle slaughter line.

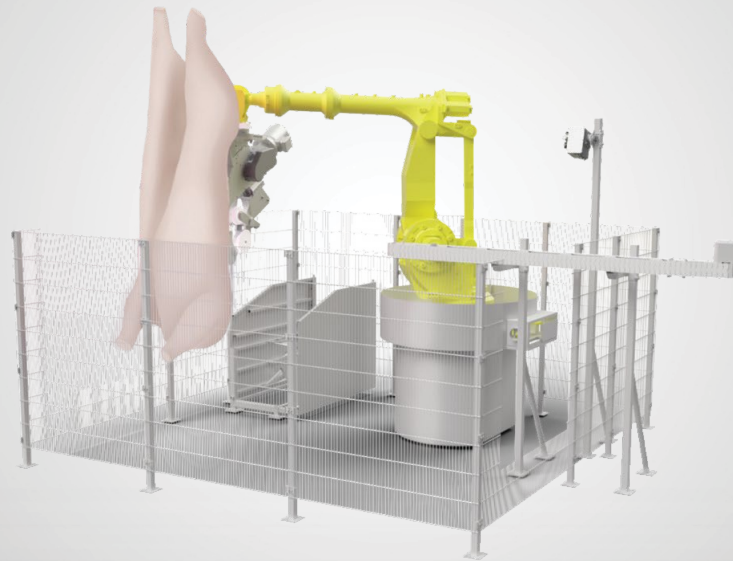
Hygiene

The integrated sterilization system with its unique cleaning set-up secures fast and accurate sterilization between each operating cycle, allowing the robot to operate at high capacity with minimum risk of cross contamination. 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 harsh environments.



Value for you!

- Two different capacities:
 - up to 100 carcasses/hour
 - up to 210 carcasses/hour
- Precise automated splitting
- Minimal risk of cross contamination
- Easy to service with quick and easy change of saw blade
- High level of up-time during production
- Yield improvement



System composed of:

- Robot with a hygienic protective cover
- Cutting tool with circular saw attached to the robot
- Sterilization and cleaning unit
- Vision and analysis system for each operation cycle
- Carcass stabilization system
- Security fencing with secured entrance

Safety and legal requirements

The Frontmatec-AIRA RCS is CE approved and designed to meet the strictest health and safety demands.

The system can be prepared to meet certifications such as UL or CSA, depending on the destination country.

Advantages with the Frontmatec-AIRA concept

- A concept founded on more than 20 years 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 easy human-machine interface to configure and adjust the robot.
- Easy operation and troubleshooting with user-friendly panels.
- Software interfaces with multiple types of monitoring and data gathering systems.
- Fast and easy cleaning process and maintenance.

Pre-conditions

Capacity	100-210 carcasses/hour
Process parameters	Individual cutting parameters for each carcass, customized settings possible
Vision scanner	3D vision system based on optical measuring device
Voltage	380-400V AC 50Hz 3P+N+G (CE) 480-575V AC 60Hz 3P+G (UL/CSA)
Control voltage	24V DC

Requirements

Water	6 bar (min. 4 bar constantly)
Water consumption	Cold (<20°C)
	Hot (>82°C)
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*

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