



## PORK // AUTOMATIC RIB PULLER

# OPTIMIZED RIB PULLING OPERATION

The Frontmatec Automatic rib puller (ARP) is maximizing yield and producing a much more consistent final product, both optimizing results in the total belly and side ribs operation.

The ARP features the latest vision and robotic technologies combined with advanced computer programming. The result is a highly flexible machine able to simultaneously produce different cutting specifications that always make the best use of raw material.

Use the ARP with other Frontmatec equipment such as the Autoline loin puller and scribing system (ALP) as well as the Autoline belly trimmer (ABT) for complete belly/ribs line optimization.

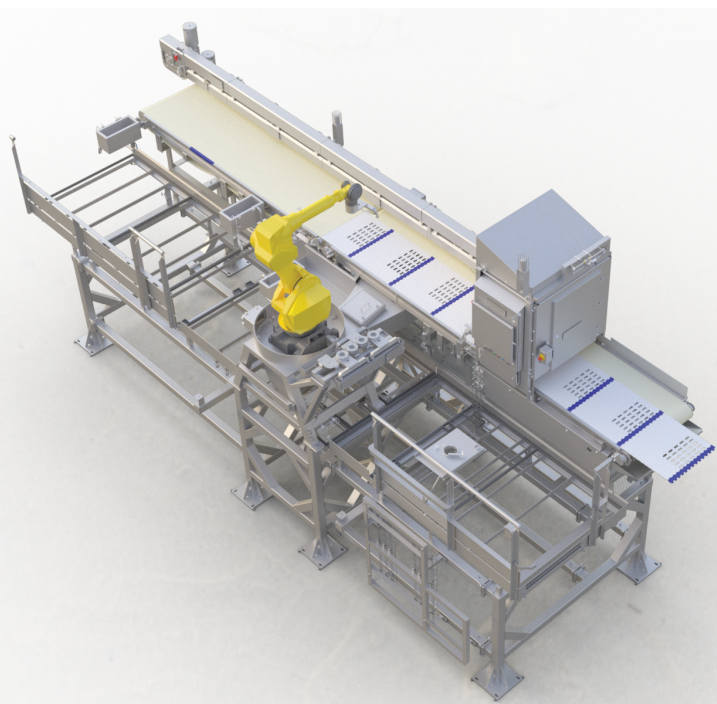
### Working process

1. The vision system acquires over 300,000 measurements to create a precise 3D model used to determine bone-in belly shape (length, width and thickness)
2. The intelligent software determines the ultimate side rib cut path that meets specifications; an operation which maximizes yield while also generating quality products
3. All ribs are classified according to the most profitable products or grading priorities. Additional criteria such as dimensions, weight, shoulder ribs width can also be used for classification
4. A 6-axis robot accurately performs the cutting motion synchronously with the conveyor while the spike chain and vacuum system holds the belly in place
5. In-line scale provides feedback to the ARP for weight validation and dynamic adjustments
6. The customized classifier system is controlled by the ARP, which establishes the specific ribs count/weight for every combo



### Value for you!

- Consistency
- Cut path maximization
- Production optimization with Value Grading
- Simultaneously handle different product specifications
- Reduce labor variability
- Automated knife change
- Minimum maintenance
- Superior uptime



### Hygiene

To ensure high hygiene levels and efficient cleaning, the robot is covered with a strong flexible suit with constant pressured air, keeping the vital part of the robot clean and safe from the harsh environment. The knife is sterilized between cuts several times per minute depending on line capacity.

### Safety

The Frontmatec ARP meets the strictest demands on health and safety.

### Legal preconditions

The Frontmatec ARP is CSA/UL-marked.

### Technical data

Capacity	1,500 ribs per hour
Dimensions	Length: 29' Width: 11' 4" Height: 9'
Power supply	480V / 3PH / 40 AMPS
Water Sterilizer 180F	1 GPM
Air	Connection: 1/4" NPT Total consumption: 3 SCFM

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