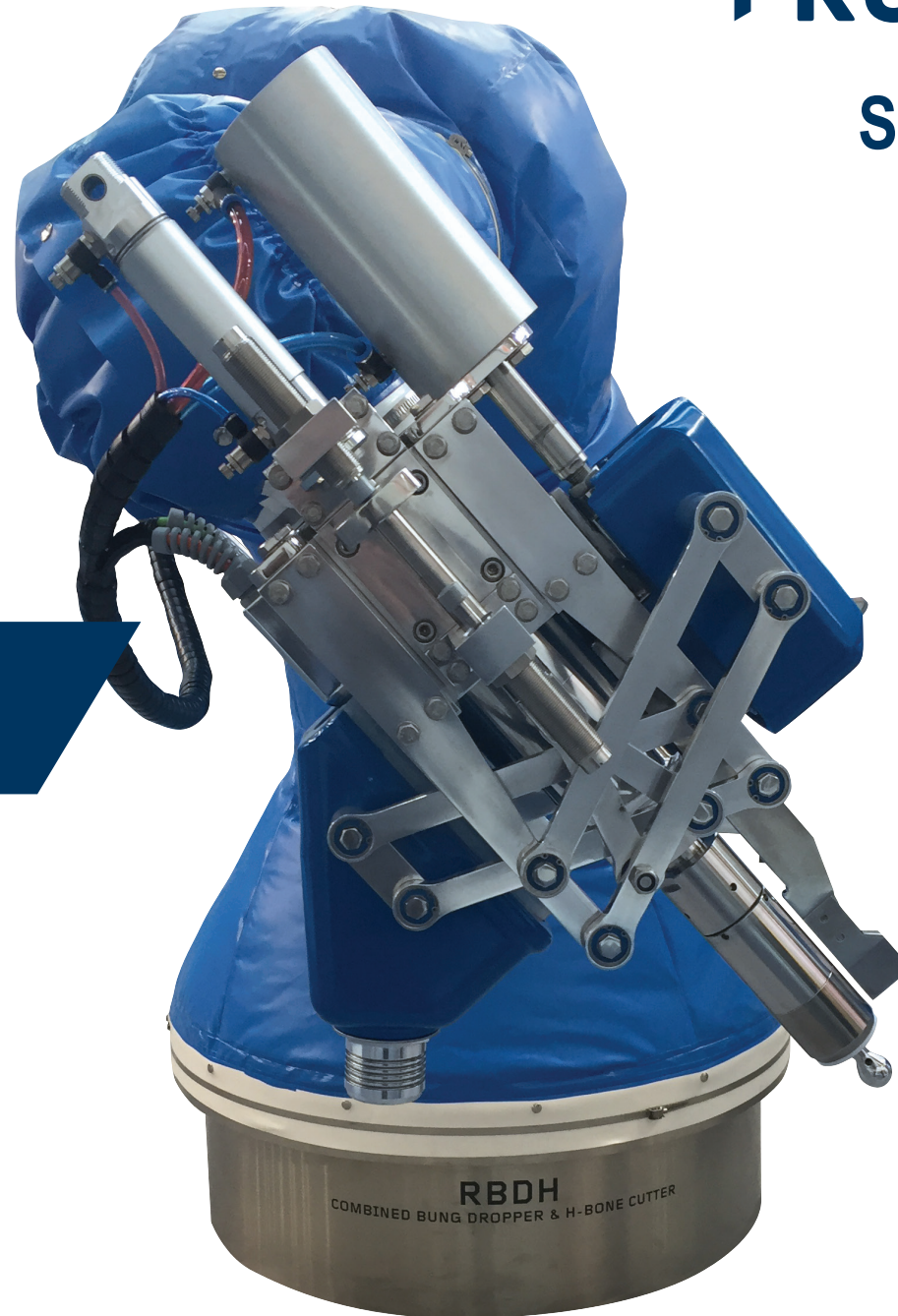


FRONTMATEC

Slaughter lines for
pigs



RBDH
COMBINED BUNG DROPPER & H-BONE CUTTER



With our 1400 employees, a global production footprint and presence in 10 countries, we utilize our knowledge on local market requirements and preferences to develop the best solutions for our customers.



When investing in a Frontmatec solution, you don't just buy features, **you buy benefits** such as high production performance, low downtime and peace of mind

At Frontmatec we are renowned for our high-quality systems for the entire value chain of the meat industry – from carcass grading, slaughter lines, cutting and deboning lines, hygiene systems and control systems, to logistics and packaging. The meat industry is our specialty but we also develop and supply customized solutions for automation in the food industry, other hygiene sensitive industries and the utilities industry.

We are the highly experienced partner that customers count on for every step of the journey – from the initial design phase to the after sales service. Time is of the essence – we react promptly and professionally when dealing with any issue.

Low-stress handling of pigs for improved meat quality

Humane handling and stunning of pigs is essential for a high quality end product. Frontmatec lairage systems provide stress-free and group-wise animal handling, from the arrival of the pigs to the point of stunning. From the lairage pens, animal-friendly, automatically moving push-hoist gates, interlocked with pressure-sensitive devices, gently guide the pigs without harming them through the lairage system to the stunning area.

The Frontmatec CO₂ stunning system features the latest technology for improved meat quality, securing the highest level of animal welfare at capacities from 100 to 1,400 pigs per hour. The Frontmatec speed regulated outlet belt conveyor secures both fast and safe transport for ergonomic shackling and quick delivery of the pigs to the sticking platform.

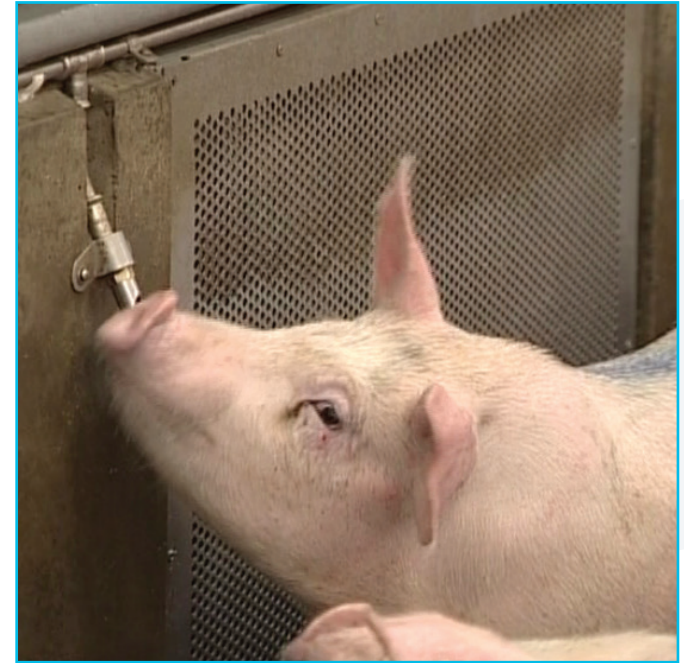


Photo 1



Photo 2



Photo 3



Photo 4



Photo 5

Machine line for automated slaughtering of pigs and sows

Following the stunning and de-bleeding, the pigs enter the unclean machine line. The Frontmatec high-performance machine line is developed to meet today's demands on high-efficiency lines for medium and high capacities.

Typically, the unclean machine line includes solutions for:

- Blood collection systems
- Scalding systems
- Dehairing and gambrelling
- Whipping and polishing
- Flame-off singeing
- Carcass cleaning



Photo 6



Photo 7



Photo 4

Photo 8

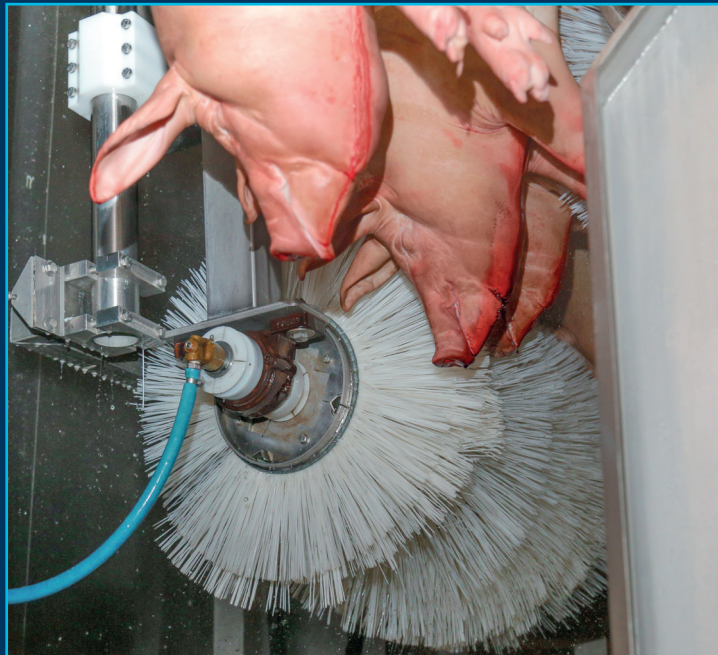


Photo 9



Photo 10

Carcass grading and traceability

Frontmatec offers a wide range of online objective carcass grading systems for modern slaughterhouses. We offer automatic and hand-held systems that grade the quantity and/or quality of pig carcasses.

Grading provides:

- Accurate control of the lean content of each carcass
- Sorting and better utilization of carcasses
- Fair and objective compensation to the farmers according to the commercial value of the carcass

Frontmatec also offers automatic identification systems for carcasses. Individual carcass identification provides the basis for data collection and ensures reliable carcass traceability. Our identification solutions can be integrated with a grading system, e.g. the AutoFom™, thereby obtaining numerous benefits.



Photo 11



Photo 12

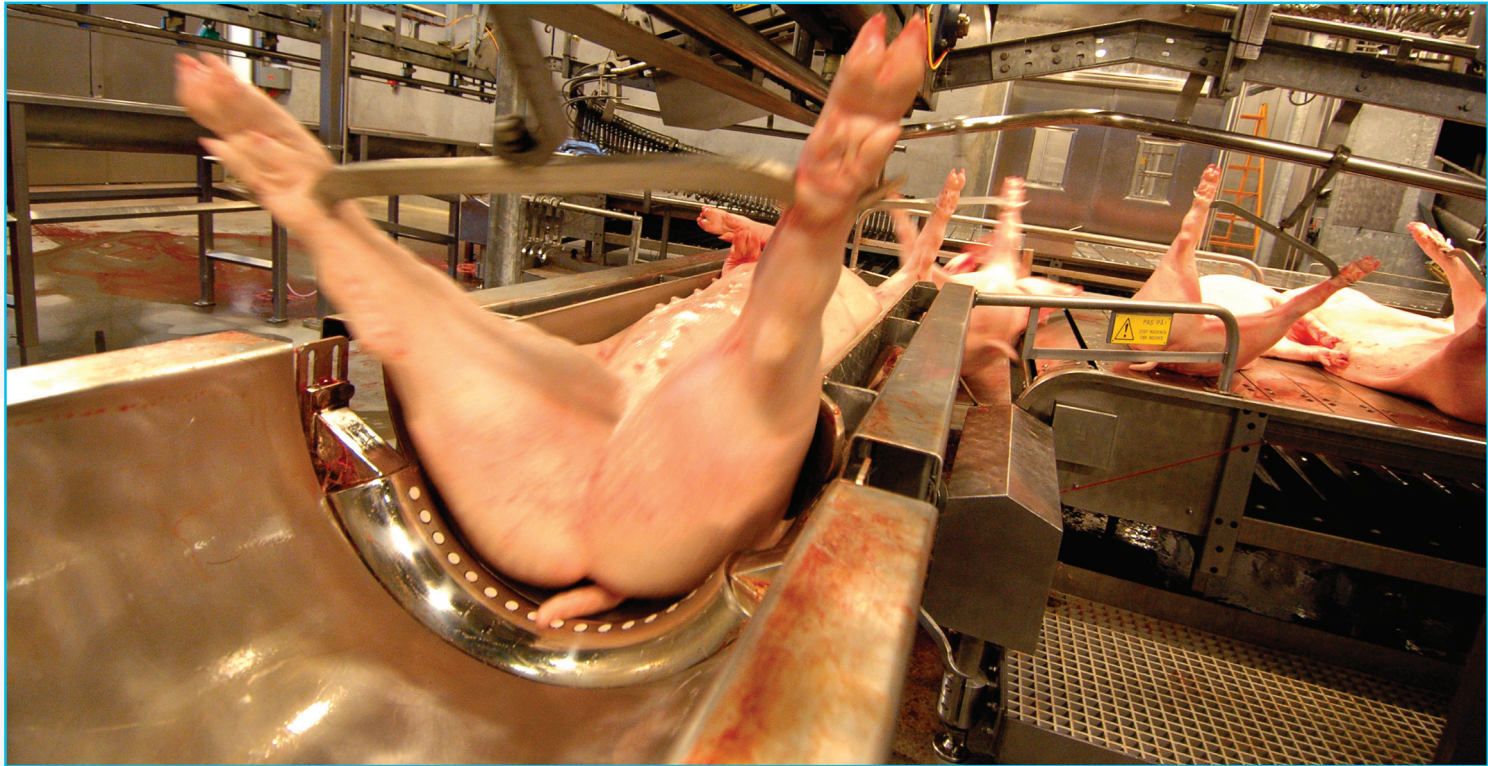


Photo 13



Photo 14



Photo 15

AiRA robots – Plug and play with low maintenance

The AiRA robot program is widely regarded as the broadest program for dressing line robots in the world. Based on industrial 6-axis robots, the AiRA robots are easy to service and maintain thus ensuring a low overall cost of operation. The robots are fitted with a protective cover and mounted with a special tool to perform the required process on the dressing line.

AiRA robots are available for the following processes:

- Bung dropping
- Cutting of H-bone
- Carcass opening and cutting of breast bone
- Neck cutting
- Leaf lard removing
- Carcass splitting saw
- Carcass chopper
- Marking printing
- Measuring of pH level

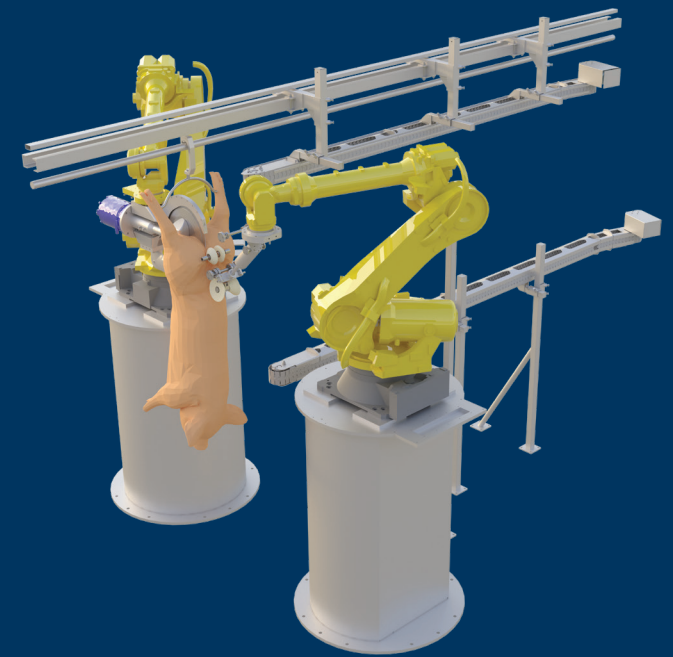


Photo 16

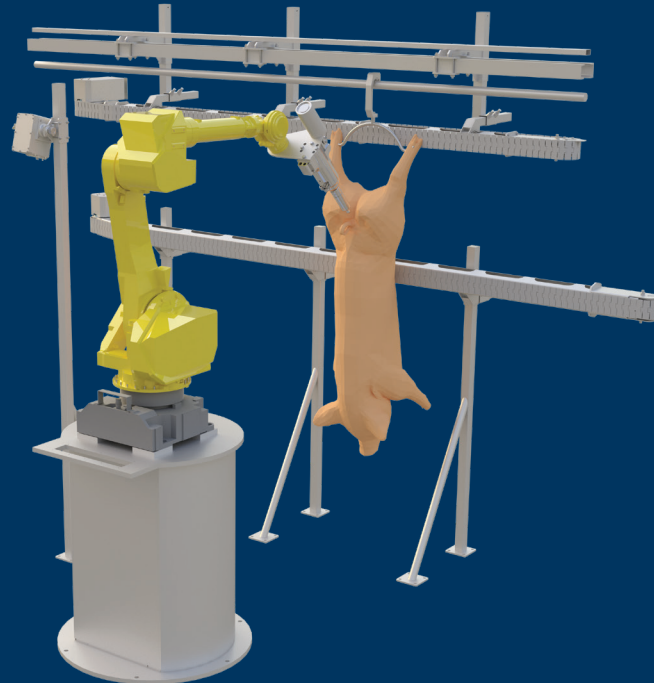


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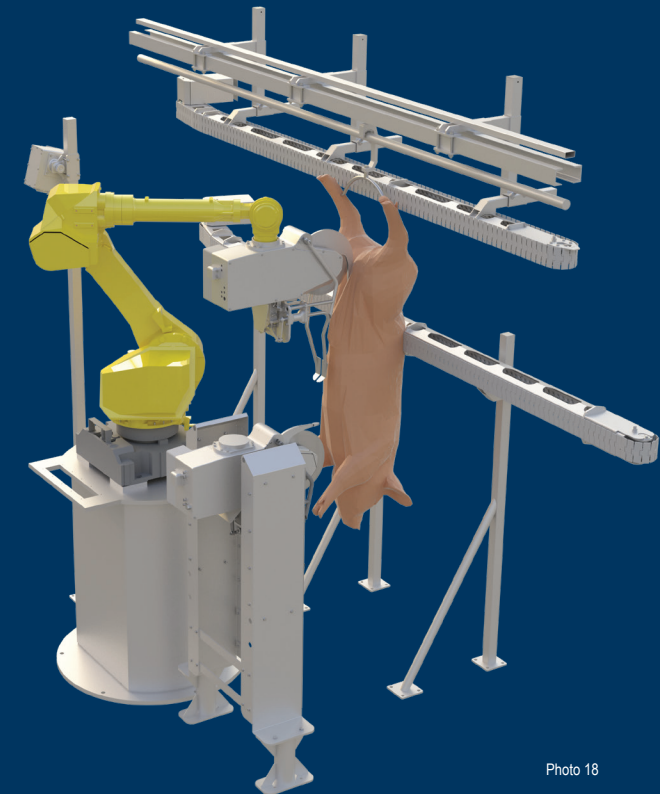


Photo 18



Photo 19



Photo 20



Photo 21

Autoline – based on more than 30 years in dressing line automation

Frontmatec have been leading the automation of the dressing lines for more than 30 years. The Frontmatec Autoline program consists of high capacity, servo-driven, automated machines that guarantee the highest meat quality and maximum yield per pig.

Autoline solutions are available for the following processes:

- Bung dropping
- Carcass opening
- Back finning
- Carcass splitting saw
- Carcass splitting chopper
- Jowl cleaning
- Marking printing

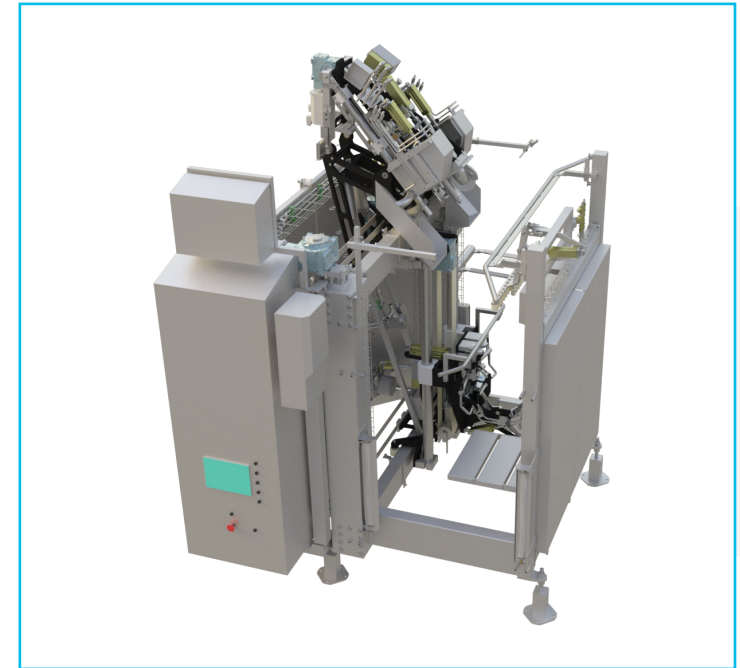


Photo 22



Photo 23

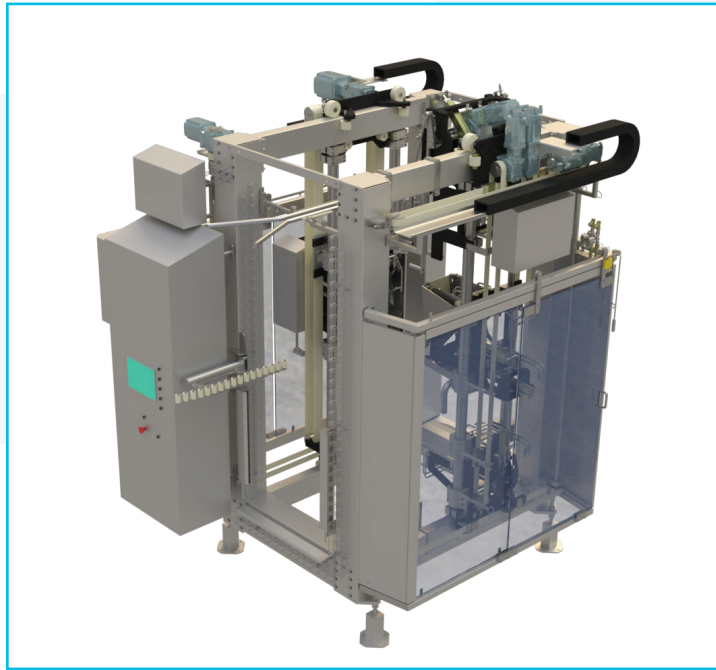


Photo 24



Photo 25



Photo 26



Photo 27

Make the most of the energy spent on chilling

Chilling has a major impact on meat quality. It also effects the yield because good chilling prevents chill loss. However this requires a substantial amount of energy. Getting it right makes a huge difference on the bottom line so it is important to team up with someone with the expertise to develop the right solution for you.

Frontmatec offers a wide range of solutions for all capacities and customer preferences, from quick chill tunnel to equalization chill rooms and chilled dispatch areas. From manually operated to fully automated systems for carcasses, primal cuts or plucks, Frontmatec has the experience and capabilities to design a solution to match any customer preference regarding optimum chill time, utilization of available space and reducing chill loss.



Photo 28



Photo 29



Photo 30



Photo 31



Photo 32



Photo 33

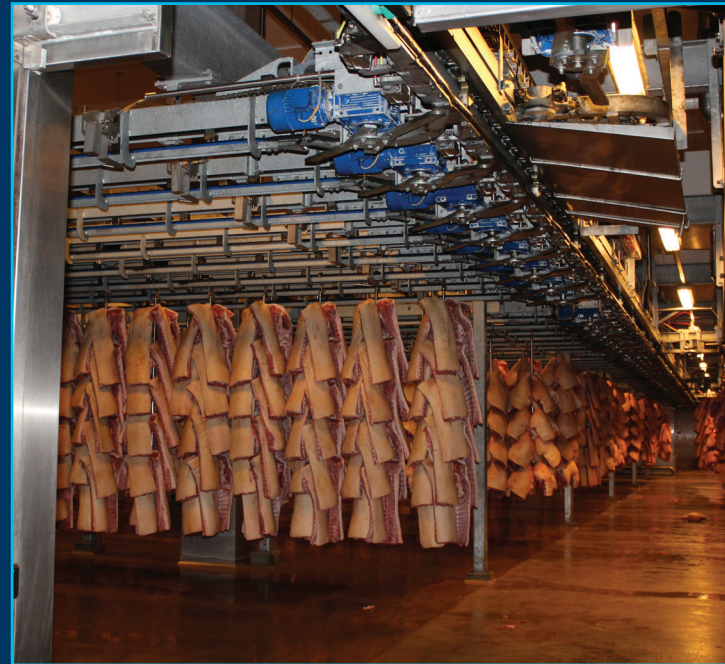


Photo 34

It is all about data

Control of the process is vital throughout the meat industry to reduce loss and achieve full control over raw material. GOSystems collects valuable data into one system, which can be effectively used to make decisions regarding the raw material in production planning, chill room allocations, deboning lines, finished goods warehousing or high runner sales demands.

On reception into the system, supplies are checked for quality and identified according to certain criteria, on which decisions are based at later stages of processing. Information such as animal ID, fat thickness, age, breed, pH value and so on comes from various systems such as AutoFom III™, Fat-O-Meter™ and ear tag. Typical data collection points on the slaughter line are:

- Reception of animals: PO handling and individual registration
- Validation (shoot box): Validation of actual animal registration
- Tag-link sequencing: Linking animal to a unique hook id
- Hide registration: Registration and printing of label to hide
- Inspection: Veterinarian sickness and final quality checks
- Rework: Work carried out based on veterinarian checks
- Classification: Assign classification codes/sort groups
- Settlement: PO usage, register weight based on defined rules

Benefits

- Full animal traceability
- Instantaneous reports on input by yield group, grade and breed
- Simple data collection to ensure fast reception of animals
- Monitors supplies for product quality and supply accuracy

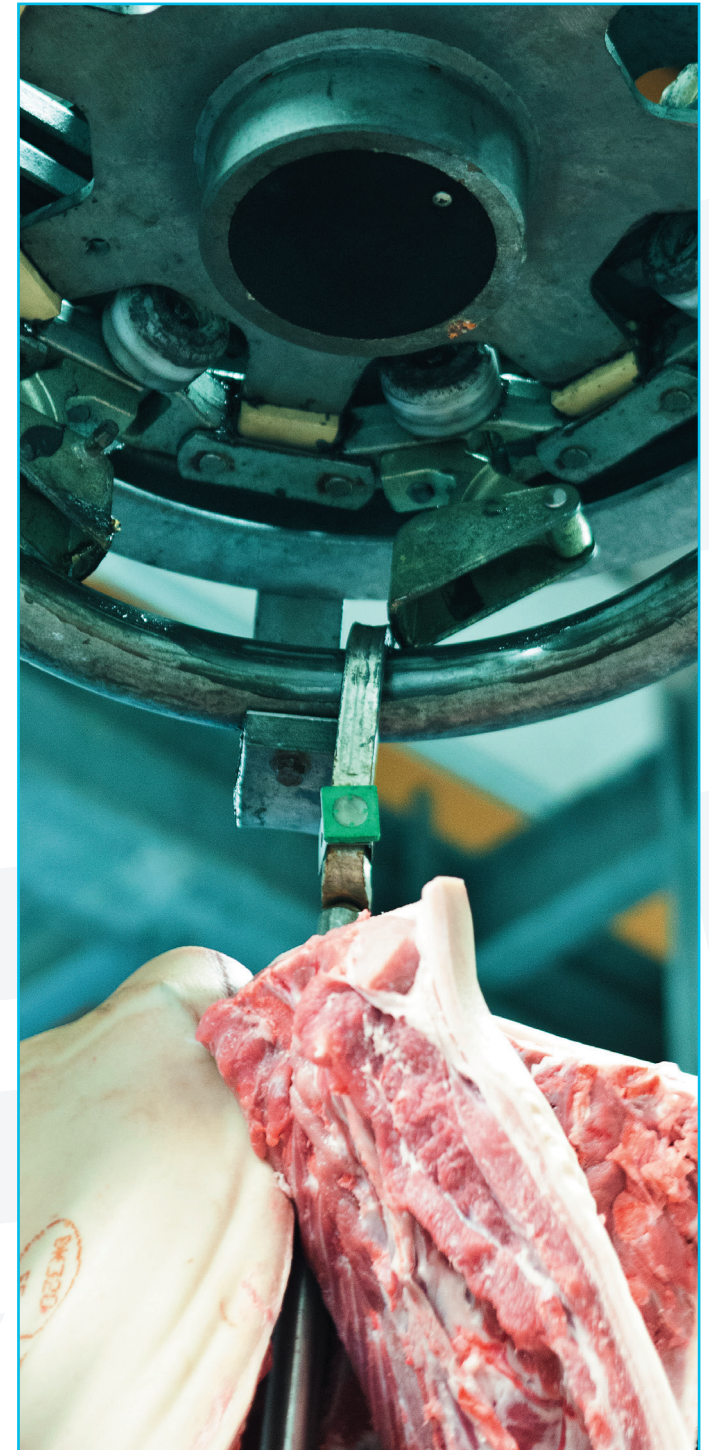




Photo 36



Photo 37

Photo 38

Tailor-made service for a better return on investment

Regular service and maintenance of your production line and equipment will give you a better return on your investment by lowering spare part consumption, ensuring high performance with reduced downtime, and lowering unexpected costs. We offer many on-site services including service on demand, scheduled service and service contracts. Our service contracts are tailor-made according to your specific needs and provide faster service, fixed rates and an ongoing relationship.

With a service contract we will optimize your production by solving issues even before they appear and we provide 24/7 support, help desk, online support and remote monitoring.

Our Service Technicians are highly experienced and trained to provide quality service anywhere in the world. Local teams allow us to respond quickly for all on-site services and repairs. If you wish to do maintenance yourself, we offer service kit rentals for our automated machines and robots containing spare parts and these are always in stock.



Photo 39



Photo 40



Photo 41

FRONTMATEC

Frontmatec develops world-leading customized solutions for automation in the food industry, other hygiene sensitive industries and the utilities industry. We are especially renowned for our high-quality systems for the entire value chain of the meat industry – from carcass grading, slaughter lines, cutting and deboning lines, hygiene systems and control systems, to logistics and packaging.

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