### **FRONTMATEC**

**Slaughter lines for** 

cattle







# 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.

#### **Stunning boxes for cattle and calves**

The Frontmatec stunning boxes are designed to enable cattle and calves to be stunned efficiently and ergonomically at various capacities and sizes. The program includes ritual killing boxes, certified for halal and kosher slaughtering.

The cattle are easily driven from the lairage area to the stunning box and are discharged by means of a unique integrated active discharge mechanism. The animals fall out of the stunning box precisely onto the landing platform for shackling.

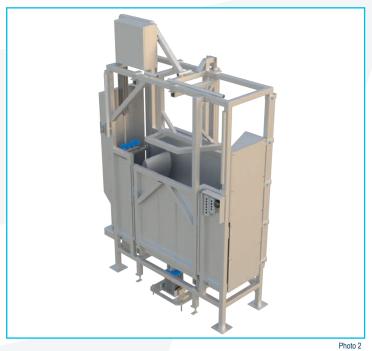
The low-noise PLC controlled stunning boxes are available at various capacities with the options for increased flexibility:

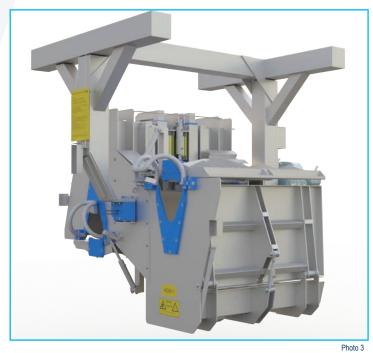
- Hydraulically/pneumatically adjust the box for all sizes and types of animals (cattle and calves)
- Fixate the animal in an animal-friendly way (including head fixation)

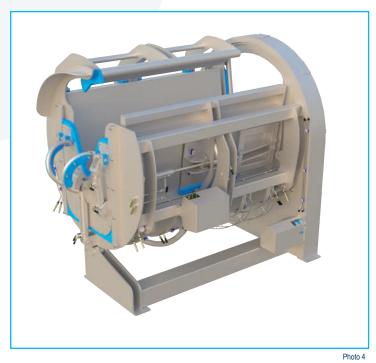


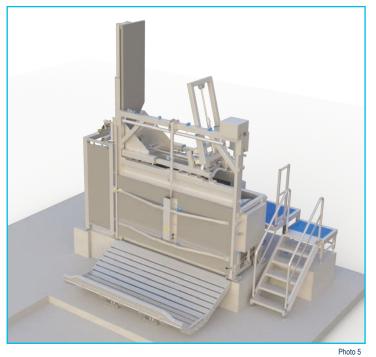
Photo 1











#### Animal welfare above all

Based on more than 100 years of development in cartridge fired stunning tools, the Frontmatec Accles & Shelvoke **CASH®** range of captive bolt stunners are used across the world in meat production industries in varied situations - from large and small meat plants to on-farm dispatch requirements.

The **CASH**® range ensures human estunning for improved meat quality securing the highest level of an imal-welfare. From calves, and with the **CASH**® Special XL the world's most powerful pistol shaped stunner, to the largest bulls and bisons.

Animal welfare concerns require that the stunning tools are working efficiently and effectively every time and is compliant with the legislations. The **CASH®** Captive Bolt Stun Check measures the precise velocity of the penetrative captive bolt to determine its effectiveness within specified tolerances for audit.









## Complete slaughter line solutions for cattle and calves

In close cooperation with our customer we will develop the optimal solution, be it for a rebuild or a complete green field project from concept layout, engineering, mechanical installation, electrical installation to the automation and control system. We can supply the concept layout, the engineering, the mechanical installation, the electrical installation and automation. We will install the line and start it up.

Frontmatec offers both start/stop lines, which in general are recommended for line speeds below 75 carcasses per hour, while faster lines will benefit more from the continuous line concept. Regardless of the concept, Frontmatec offers a range of hooks and conveyors including twin-track, flat rail, tube rail or Duoplan conveyors.

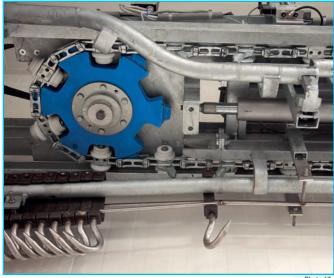


Photo 17



Photo 18





Photo 19 Photo 20



Photo 21

#### Hide pullers and platforms

Besides efficiency and reliability, ergonomics and hygiene form the guiding principles for our series of hide pullers. We supply a hook relief system for top-down dehiding as well as foreleg fixation platforms for bottom-up dehiding.

Our hide pullers are available with the following options:

- Electrical stimulation to prevent product damage and ensure good product quality when processing at high capacities
- Manual or automatic setting to animal size
- Choice of various lifting platforms
- Head dehiding

We supply all kinds of fixed and height adjustable platforms in various widths and depths. Our platforms are ergonomic, hygienic, robust and adjustable to different situations and with flexible options such as choice of floor material, drip trays, hand and apron cleaning unit and tool sterilization unit.



Photo 22



Photo 23



Photo 24





Photo 26

#### **Carcass grading and traceability**

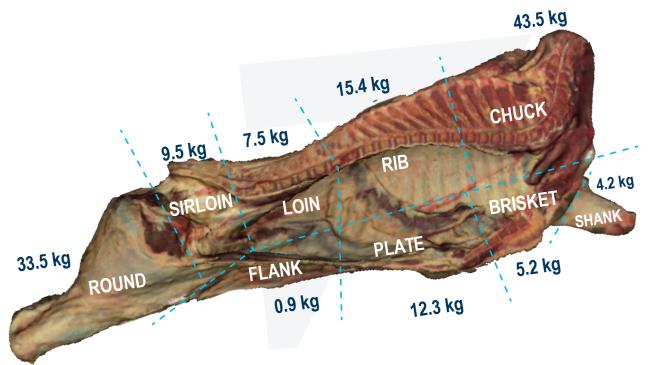
BCC-3™, a state-of-the-art carcass grading system, takes the slaughterhouses into a new era. It is a fully automatic online system based on advanced multi-view stereo imaging building a full 3D image of the carcass.

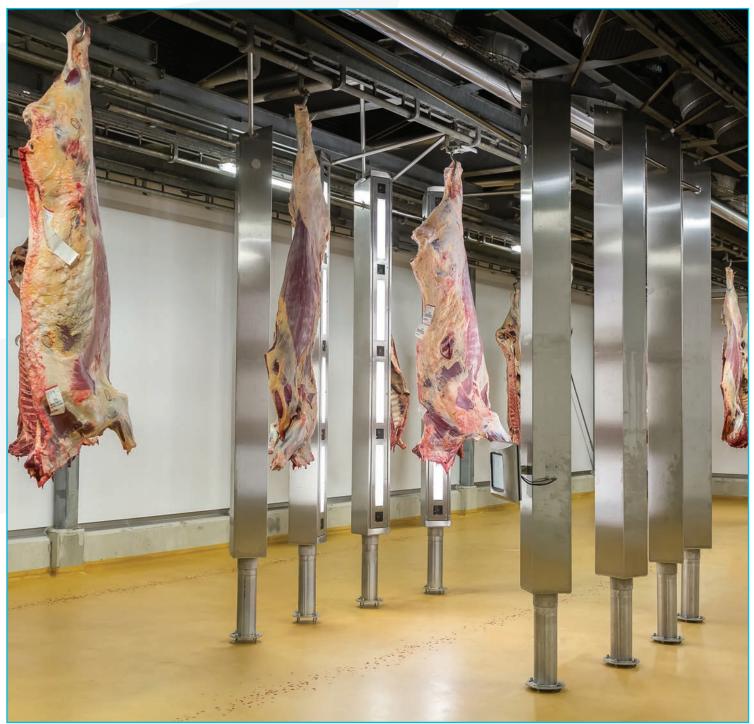
The advantages of the BCC-3™ are:

- Conformation and fat cover classification according to EUROP and similar standards
- Precise grading of carcass composition: Predicts primal weights of each carcass half
- BCC-3™ will help to optimize your production by achieving higher yields
- Breeding optimisation by feedback to the farmer
- Fully-automatic, accurate, reliable and no risk of cross-contamination



Photo 2





## 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 weight loss (drying 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 blast chill rooms, equalization chill rooms and chilled dispatch areas. From manually operated to fully automated systems for half 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 drip loss.



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 BCC-3<sup>TM</sup> 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 35



Photo 3



Photo 37









Photo 39 Photo

## 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 41



Photo 42



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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.

Barcelona, Spain

Phone: +34 932 643 800

E-mail: barcelona@frontmatec.com

Beckum, Germany

Phone: +49 252 185 070 E-mail: beckum@frontmatec.com

Birmingham, UK

Phone: +44 121 313 3564 E-mail: birmingham@frontmatec.com

Grodzisk Mazowiecki, Poland

Phone: +48 227 345 551 E-mail: grodzisk@frontmatec.com

Jining, China

Phone: +86 537 371 3266 E-mail: jining@frontmatec.com

Kansas City, MO, US Phone: +1 816 891 2440

E-mail: kansascity@frontmatec.com

Kolding, Denmark

Phone: +45 763 427 00

E-mail: kolding@frontmatec.com

Lünen, Germany

Phone: +49 2306 7560 680 E-mail: luenen@frontmatec.com

Moscow, Russia

Phone: +7 495 424 9559
E-mail: moscow@frontmatec.com

Rijssen, the Netherlands

Phone: +31 886 294 000
E-mail: rijssen@frontmatec.com

Shanghai, China

Phone: +86 215 859 4850 E-mail: shanghai@frontmatec.com

Skive, Denmark

Phone: +45 975 250 22 E-mail: skive@frontmatec.com Smørum, Denmark

Phone: +45 445 037 00

E-mail: smoerum@frontmatec.com

St. Anselme, QC, Canada

Phone: +1 418 885 4493
E-mail: quebec@frontmatec.com

Tandslet, Sydals, Denmark

Phone: +45 744 076 44
E-mail: tandslet@frontmatec.com

frontmatec.com