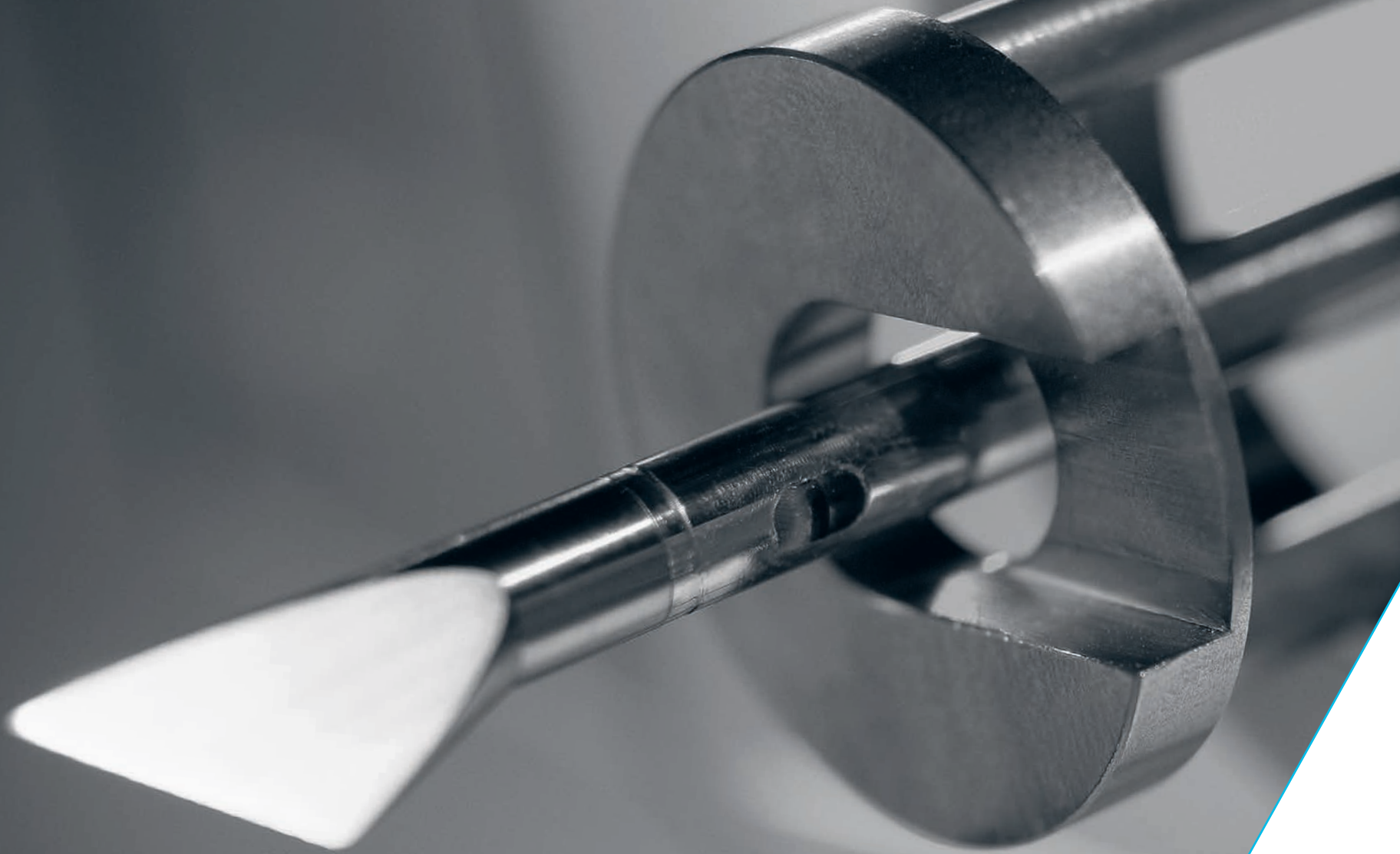# FRONTMATEC

Handheld carcass grading system
Fat-O-Meat'er II™

For 3 decades, more than 1000 Fat-O-Meat'ers have been installed throughout the world. We have packed the experience and knowledge from these millions and millions of hours of operation into the Fat-O-Meat'er II™.

The World's best selling
carcass grading instrument

The Fat-O-Meat'er II™ is a handheld instrument for control of the lean meat content on pig carcasses by measuring fat and muscle thickness in predefined locations on the carcass.
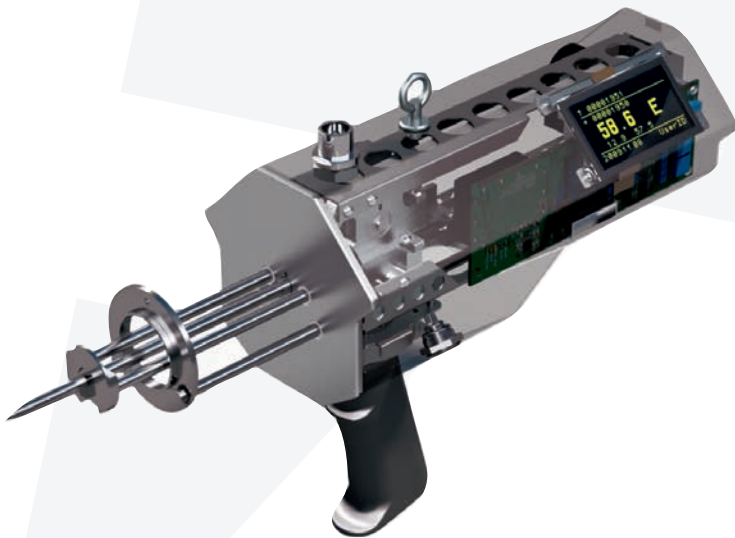
Probe sensor design

The probe sensor is 125 mm enabling the Fat-O-Meat'er II™ to be used on large or fat carcasses, yet with a diameter of only 6 mm the area affected is only half of that affected with an 8 mm probe sensor. Furthermore, the probe sensor is insensitive to ambient light and it is also self-adjusting, which makes it easier to maintain.

Mechanical drive and electronic controls

The mechanical drive of the probe sensor is based on a robust Constant Force Torsion Spring Principle making it much easier to operate correctly. The electronic controls are consolidated into a single integrated circuit board. And even the file system is immune to power failure. The keywords are: few parts – less maintenance.

Improved precision

The axial as well as the optical resolution of the Fat-O-Meat'er II™ is best-in-class. The resolution is just 0.03 mm meaning that measurements are inherently more robust and less prone to operator error. Also, there are no limits to line speed depending on version.

Fat-O-Meat'er II™

Tried, tested and tough

The Fat-O-Meat'er II™ system consists of only the probe and our Touch Panel i15 computer terminal. The computer terminal is IP69K tested and EN1672-2 compliant. Few parts and high ingress protection ensure best-in-class performance on the line. The terminal has a user-friendly, self-explanatory interface and can be mounted on the line, where it will withstand high pressure and high temperature cleaning from any angle without any special care. Even the stainless steel connector is waterproof when not mated. Both the terminal and the probe will withstand alkaline detergents.

Morning test made easy

The morning test and control system integrated into the Fat-O-Meat'er II™ means that verification of the system is easy and immune to operator error.

Versions

The Fat-O-Meat'er II™ system is available in 3 versions: High speed, low speed and basic version.

Product information

Features	Basic version	Low speed version	High speed version
Line speed (maximum)	800	250	No limit
Measurement output for pigs (fat, meat, LMP*)	✓	✓	✓
Measurement output for cattle (fat)	✓	✓	✓
User management	-	✓	✓
External ID number	-	✓	✓
Limit switch	-	✓	✓
Ethernet connectivity	-	✓	✓
RS-232	-	✓	✓
RS-422	✓	-	-
Remote diagnostics	-	✓	✓
PTB approved	-	✓	✓

*LMP (lean meat percentage) only when approved equation is available
Technical data may be subject to changes

Parts	Basic version	Low speed version	High speed version
Measuring probe	✓	✓	✓
Carrying case for measuring probe	✓	✓	✓
Touch Panel i15™ (IP69K approved)	-	✓	✓
Probe cable (10 m)	✓	✓	✓
Test block (NIST traceable)	✓	✓	✓
Aiming plate	✓	✓	✓
Control needle	Optional	✓	✓
Tool balancer (2-3 kg)	Optional	✓	✓
Spare probe	Optional	Optional	Optional
CaroSecure™	-	Optional*	Optional*

*Requirement in Germany and Switzerland
Technical data may be subject to changes

USER: Abcdefghijklmnopqr   SYSTEM ID: XXXXX   DATE: TUE 22 Sep 2009   TIME: MAIN

INPUT

12345678

RESULTS

No. 12345678   22 Sep 2009 - 12 : 16   Fat: 10.4mm - Meat: 44.3mm

58.2%   Class: E

No.	LMP	Class	Fat	Meat
12345678	58.2%	E	10.4mm	44.3mm
12345678	58.2%	E	10.4mm	44.3mm
12345678	58.2%	E	10.4mm	44.3mm
12345678	58.2%	E	10.4mm	44.3mm
12345678	58.2%	E	10.4mm	44.3mm

m1 E F P 0 1 2 3
m2 U O   4 5 6
R V S OK 7 8 9

Highlights

- The World's best selling grading instrument - the industry standard!
- Robust mechanics, electronics and measurements
- Differentiated product offerings designed to serve your needs
- Hygienic design as per EN1672-2 – all stainless steel and FDA approved materials
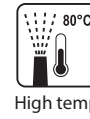- Statistical and diagnostic tools including the option of remote diagnostics

Options in brief

103 bar
Waterproof   Dustproof   Durable   High temp.   IP69K

80°C
kg
IP69K

Remote diagnostics

Secure Shell access via Ethernet for easy remote diagnostics. Reduces cost and down-time.

CaroSecure™

An encrypted solid-state legal log of payment data.

Technical data

Probe

Resolution	0.03 mm (~1/1000")
Retraction speed	<0.2 sec.
Measurement depth	125 mm (5")
Supply voltage	12-24V
Probe interface	RS-422
Power up time	1 sec.
Power consumption	2.5W
Multiple measurement points	1-4
Diagnostics supervisors	Watchdog timer, temperature, supply voltage
Ingress protection	IP64
Weight	2.2 kg

Technical data may be subject to changes

Touch Panel i15™

Dimensions (HxWxD)	40x53x13 cm (16x21x5")
Screen size	15"
Touch	Projected Capacitive Touch (PCT)
CPU	Intel® Atom™
CPU speed	1.6 GHz Hyper-Threading or higher
Ingress protection	IP69K
Weight	18 kg (39 lbs)
Operating temperature	0-45ºC (0-113ºF) 80ºC/30 sec. (176ºF/30 sec.)
Supply voltage	100-240VAC
Data ports	ID, results, log printer
Interfaces	Ethernet/RS-232
Display	Multilingual

Technical data may be subject to changes

Tried and tested

The Touch Panel i15 has been tested and approved by an independent, accredited third party test facility (DELTA) as per EN60529 (IP69K) for water and dustproof capabilities, and for its EMC compliance under EN61326-1:2001, as well as for the FCC compliance part 15, subpart B, class A.

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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