

**FOSS**

# CASE STUDY COLLECTION

## FAT STANDARDIZATION AND FOREIGN OBJECT CONTROL WITH MEATMASTER™



# MeatMaster™ Application Description

## Standardization of minced meat for consumer packs

Schiller Fleisch, Hof, Germany



Schiller Fleisch is a privately owned manufacturer of pork products. The company process 1000-1200 pigs daily. Some of the meat is used in-house for production of minced meat consumer packs.

MeatMaster™ is used to standardise the production of the minced meat. The boxes from the cutting & boning dept. are scanned by MeatMaster. In this way, the CL content of each box is obtained. In addition, each box is scanned for foreign objects (bone, metal).



*Hans Jürgen Kummer,  
General Manager*

Mr. Hans Jürgen Kummer, General Manager of Schiller Fleisch, says: "With MeatMaster we carry out fat analysis, weight determination and most importantly, checks for foreign objects allowing us to offer very safe products. MeatMaster allows us to always offer fresh and above all standardised and analysed products."



**Summary:** The information from MeatMaster is used for standardising the batches for the production of minced meat consumer packs.

The MeatMaster at Schiller Fleisch is daily scanning app. 15-20 tons of raw pork in plastic crates.

The pay-back time of the investment in MeatMaster was less than two years.

# MeatMaster™ Application Description

## Standardization of beef trim for resale

San Angelo Packing, San Angelo, Texas, USA



San Angelo Packing is a midsize abattoir specializing in cows and bulls. The facility processes 600 head a day with 300 employees. The daily production of 300.000 lbs is used for food service, mostly hamburgers and other fast food products.

The product is sold in 2.000 lbs combos with a specified lean percentage. MeatMaster™ is used to help in standardizing the combos and to detect foreign objects.



*Mr. Jarrod Stokes,  
Owner*

The owner of the company, Mr. Jarrod Stokes, says that with MeatMaster it is possible to reduce the foreign objects claims and to reduce the fat claims that were received prior to the installation of the MeatMaster.

“The MeatMaster is helping us in optimizing our production to get the most out of our raw material,” says Mr. Jarrod Stokes and continues, “This means that we better can meet the requirements of our customers.”



MeatMaster is fully integrated into the production line at San Angelo Packing where automated foreign objects rejection is implemented.

**Summary:** The MeatMaster at San Angelo Packing is used for guiding the operators in what meat to use, making them able to produce combos with an exact CL according to specification.

The MeatMaster also controls an automatic rejecter for foreign object rejection.

## MeatMaster™ Application Description

### CL determination of lean beef for export

Frigorifico Matadero Carrasco, Uruguay



Frigorifico Matadero Carrasco is an exporter of lean beef. The company has been using a MeatMaster™ since 2005 for CL determination of boneless lean beef for export. The meat is measured in cardboard boxes prior to freezing which are la-belled and sorted according to CL. Production capacity is around ten tons per hour.

Lean boneless export beef is sold in categories / ranges of Chemical Lean. When the packing of the meat was done on a visual basis, it was only possible to operate with three different ranges. This meant that, due to the variation in the visual selection, lean meat was 'given away'.

"We acquired the machine to be able to improve the homogeneity of the lots we carry," says Beatriz Briano, who is the manager of the QC laboratory, and continues: "We have improved very much the work and the quality of the products."



*Beatriz Briano*

Using the MeatMaster, it is now possible to classify each box exactly according to fat content.



*Jose Luis Herrera*

"The equipment provides us with information that has become fundamental for the production" says Mr. Jose Luis Herrera, who is managing the company's IT department.



**Summary:** The MeatMaster is used for classifying each cardboard box according to its CL. This data is then used for creating more product ranges and tighter control. Also, foreign objects and metal are detected.

## MeatMaster™ Application Description

### Standardization of salami production

Casademont, Girona, Spain



Casademont is a family owned manufacturer of different types of processed pork products like fermented sausages (chorizo, salami etc), dry cured hams, cooked hams etc. The company's annual sales are about EUR 250 mio. and it has approx. 400 employees. The daily production is approx. 100 tons.

The MeatMaster™ is used to help in standardizing the production of the fermented sausages. Three to four types of raw material are used. The operator can via a monitor follow the development of the fat-percentage when building the batch. If the fat-content is too high, the operator will adjust by taking boxes with more lean meat.



*Jorge de Bernardo*

Mr. Jorge de Bernado, technical and industrial manager of Casademont says: "With the MeatMaster it has been possible to obtain a more homogeneous product. It results in a more stable product and regularity in the drying process, which in other ways would not be possible. The products with the same fat content have the same loss of water content and therefore the same drying time."



**Summary:** The MeatMaster at Casademont is daily scanning about 15-20 tons of raw pork. It is used for standardising the batches for the production of fermented sausages. The pay-back time of the investment in MeatMaster was less than two years.

## MeatMaster™ Application Description

### Automatic standardization for minced meat

Martinez Loriente, Spain



The company Embutidos Martínez was established in 1988 and the plant in Buñol is a new and highly automated plant, dedicated for the production of minced meat in consumer packs.

“The idea of the factory is that the processes shall include the highest possible degree of automation so that the contact with the product is minimal” says plant manager, Mr Jose Luis Temprado.

Incoming meat is received in plastic crates which immediately are measured by the MeatMaster. Fat and weight is registered in the central factory control system for each crate, where after the crate is conveyed to a temporary holding station.

“When we shall make a formula we use this information to optimize the fat content and the weight in each formula” says Mr. Temprado and continues,

“Later the entire processing is carried out on conveyor belts and therefore the contact with the product is minimal.”



*Mr Jose Luis Temprado*

The standardization is carried out automatically by the computer selecting the right crates from the temporary storage to build the batch.



All handling of the meat is automated in this very modern plant.

**Summary:** The MeatMaster provides information of the fat content of each crate as well as the weight. Foreign objects are also identified and automatically rejected.

# Process control solutions from FOSS



## MeatScan™

MeatScan™ measures fat in raw meat and meat products. It can be used by anyone and placed anywhere in the production for checking incoming raw material, control standardisation of batches etc. The analyser is particular relevant and dedicated for small and medium sized plants.

For more advanced requirements, the FoodScan™ is an ideal upgrade option.

### Parameters:

Fat



## FoodScan™

FoodScan™ is the “gold standard” in meat analysis and is AOAC approved. It is a versatile analyser, which can be used for many purposes: checking incoming raw material, support process control of more production lines, final product control etc. FoodScan is typically relevant for medium and large size plants.

### Parameters:

Fat, Protein, Moisture, Collagen, Salt



## ProFoss™

ProFoss™ is installed in-line for measuring fat content in ground meat from coarse grinder; the results can be used for “real time” batch standardisation. ProFoss is particular relevant for producers of ground meat based products (burgers, sausages, consumer packs of minced meat etc.).

### Parameters:

Fat (Protein and Moisture)



## MeatMaster™

Using X-ray technology, MeatMaster™ gives continuous “real time” results based on scanning 100% of the meat passing through the MeatMaster. Any type of raw meat can be scanned by the solution. Automatic standardisation of a batch is possible. MeatMaster is the optimal solution for medium and large size operations producing raw meat or processed meat products.

### Parameters:

Fat, Weight, Foreign objects (Metal and Bone)

[www.foss.dk/meatmaster-video](http://www.foss.dk/meatmaster-video)

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