

# In-line NIRS

Near InfraRed Spectrometer - quality & process control

In close cooperation with Carl Zeiss Spectroscopy GmbH Mavitec presents a smart technology to analyze and optimize your process for more profit.

## Function:

A fast, easy and reliable (in-line) continuous quality control for insight in the quality of end-products in protein and tallow/fat/oil. This unit provides valuable data about the products you work with and enables you to extract the highest possible value from each batch or continuous process. NIRS (near infrared spectrometer) provides real-time data for moisture, protein, tallow/fat/oil, ash and FFA and can be used on solid and liquid applications throughout your processes. The result: the best possible quality parameters of your end-products and high value management information.

## Advantages:

- In-line exact and reliable measurement
- Available for solid (protein) and liquid (tallow / fat / oil) products
- Complete protein and fat analysis
- Fast reaction times during process variations
- Immediate adjustments possible
- Optimization of product quality:
  - Increase the quality of your end-product
  - Guaranteed quality according to customer needs and specifications
- Process control: streamline your processes
- Prevent rejects
- High efficiency: save time & costs
- Reduce operation & external lab costs
- Simple integration into all production lines
- Fast payback



Protein (blood / feather / meat / meat and bone meal)	
Measuring point	Measurement parameters
Before storage	Protein, fat, moisture, ash



Tallow, fat and oil	
Measuring point	Measurement parameters
After cooking	FFA, residual moisture, insoluble residues
Before storage	FFA, residual moisture, insoluble residues

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## Quality management & process control

NIR technology enables you to monitor during production:

**Protein (meal):** protein, fat, ash and residual moisture

**Tallow / fat / oil:** FFA, impurities and residual moisture

## Features NIRS (Near InfraRed Spectrometer):

- Compact and robust solution
- Intelligent sensor unit and intuitive user interface
- Integration of NIRS technology with your local network and/or SCADA maximizes process control
- Stationary NIRS for laboratory purposes and in-line NIRS for just-in-time quality control
- Resistant against vibrations and shocks
- Flexible mounting of the NIRS
- ATEX zone 22
- IP 66



## Options for NIRS installation:

1. In your process / production line (after cooking and/or before storage)
2. Stationary (separate lab, remote system)
3. Upgrade existing installation

Due to ongoing product improvements, data shown here is subject to change without notice. Contact Mavitec B.V. for latest specifications.

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