

Great taste comes with  
great recipe and great quality





## What it does for you

The **SpectraAnalyzer FLOUR** – Flour Analysis Instrument, is the ideal solution for routine analysis of major quality parameters during flour and starch production.

In modern milling operations, reliable and accurate flour analysis solutions are necessary to provide customers with flour and starch products of highest and – what is most important – consistent quality. In order to be most competitive in the world market, consistent high yields, top blend quality and low production costs are the objectives that need to be achieved.

**Designed as a modular system, the SpectraAnalyzer FLOUR solution presents the analytical results of these major quality parameters within 45 seconds:**

- moisture, protein, gluten, starch and ash content as well as color in all type of flours and starch products

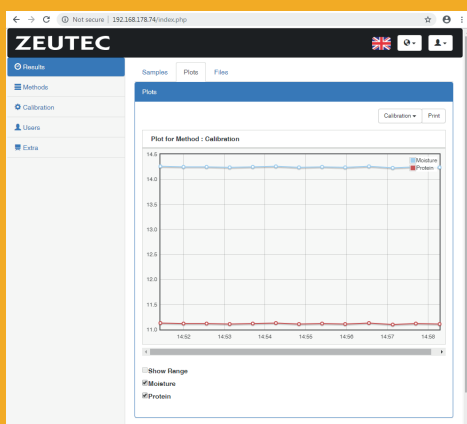
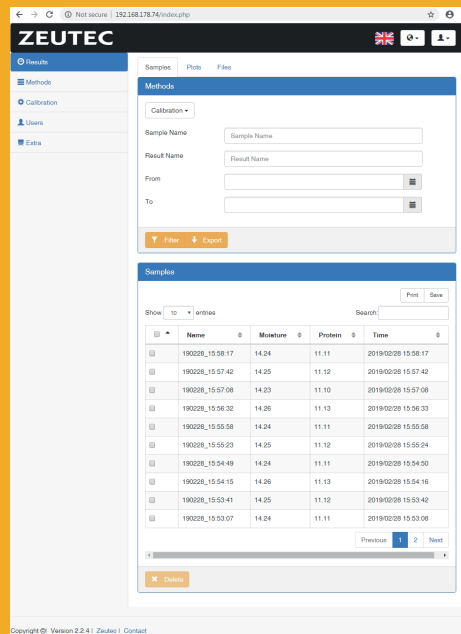
There is no need to manually condition the sample and extra reagents do not have to be used so this analyzer solution provides **highly accurate quality control parameters** at no extra cost.

**As a stand alone system the SpectraAnalyzer FLOUR** all flour analyzer and quality check instrument, can be operated very easily and intuitively - even close to the production line. The rugged construction and unique optical sample/reference setup ensures reliable operation in environments with fluctuating temperatures, vibrations and dust.

**The SpectraAnalyzer FLOUR analyzer** comes with many ready to use calibrations and a powerful software package to facilitate calibration fine tuning, extensive and automated logging as well as database storage of the analytical results on the analyzer, within the mills' intranet and/or the internet.

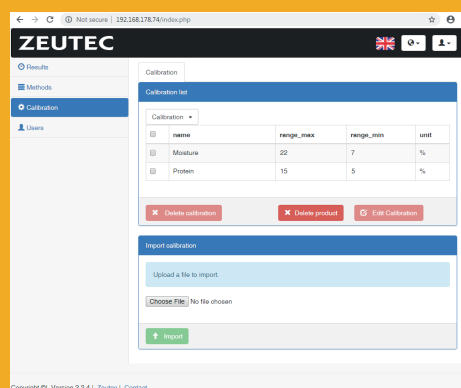
# Online Electronic Lab Logbook

- Full sample and analytical results history
- Filter results by time or sample name
- Search for samples
- Export to Application Worx
- Copy, print or save (PDF / Excel) samples



- Plot multiple properties as graph
- Select / deselect different properties

- Calibration management
- Import feature for new / updated calibrations

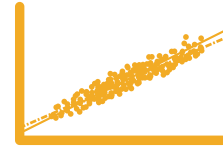


# Key features



## Easy sample presentation

by means of a petri dish on top of the instrument.



## Many mathematical models

for all kind of products included for quick calibration models installation and start-up.



## NIR sample/reference technology

like all SpectraAnalyzer instruments for high sensitive and long term stable measurements.



## Touch user interface

and intrinsically mounted glass touch for straight forward hygienic instrument operation.



## Compact design

optimised for bench top or at-line application.



## User friendly

sample presentation and easy to operate.

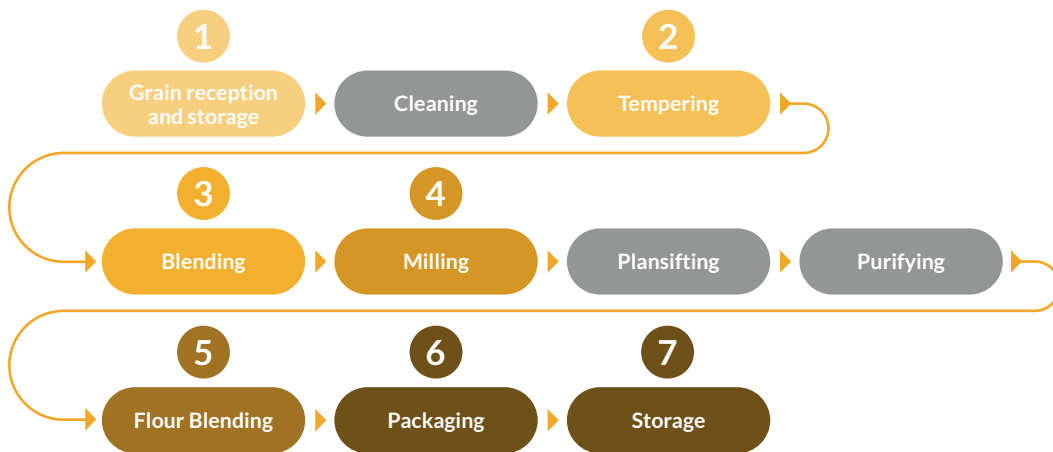


## Web server connectivity

for direct instrument access via LAN and internet from anywhere, any time.



# Production process flow diagram



## Quality observation at grain reception and during storage 1

### Moisture, test weight, protein, hardness, starch and gluten

This ensures good quality raw material with the appropriate chemical composition required for producing the desired flour quality with maximum yield. Grains are then stored in conditions according to their quality parameters.

**If a whole-grain analysis is required, this can be performed with the SpectraAlyzer GRAIN or SpectraAlyzer FLEX.**

## Tempering 2

Moisture measurement during tempering ensures uniform moisture throughout the grain which prevents breakage of bran during milling and easy separation from endosperm.

**If a whole-grain analysis is required, this can be performed with the SpectraAlyzer GRAIN or SpectraAlyzer FLEX.**

## Blending 3

Important quality parameters e.g. gluten, hardness and sedimentation can be checked and different qualities of wheat are blended together to yield the desired flour quality.

**If a whole-grain analysis is required, this can be performed with the SpectraAlyzer GRAIN or SpectraAlyzer FLEX.**

## Milling 4

### Accurate measurement of ash, moisture and protein content

The milling process is mostly adjusted according to the ash content in the obtained flour since it is the major indicator of the flour yield. A decrease in the ash content of the flour indicates a less effective flour extraction.

**If a whole-grain analysis is required, this can be performed with the SpectraAlyzer GRAIN or SpectraAlyzer FLEX.**

## Flour blending 5

Different flour streams are blended together according to the quality (moisture, protein, ash, color, particle size) to achieve a consistent quality of the final product.

## Final product testing 6 7

### Moisture, ash, protein, color, wet gluten, water absorption

This ensures that the flour meets the required specifications set for its end use and that the milling process is effective and yields a consistent flour quality.

# Technical data

## Design

Spectral range 1400 - 2400 nm

Dual beam system, Sample / reference measurement

High signal to noise ratio > 150.000 : 1

Large expandable internal memory for calibrations, methods and history results

Auto-diagnostics

Graphical user interface, projected capacitive glass touch panel

## Optional Accessories

Keyboard, Barcode Reader, Printer, Application work (AWX), Transflection stamp

## Analytical Performance

Please refer to commodity specific performance data sheet

## Specifications

Screen	TFT 800 x 480 pixel
Power requirements	min. 90 V AC (50 - 60 Hz), max. 260 V AC (50 - 60 Hz), 220 VA
Operating temperature	5 °C - 35 °C non-condensing
Interfaces	1 x front USB 2.0, 3 x USB 2.0, 2 x RS232, Ethernet
Dimensions	Height: 310 mm / Width: 300 mm / Depth: 480 mm
Weight	17 kg

## Order information

SpectraAnalyzer FLOUR 110-A100-5

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