SpectraAlyzer
SPIRITS

Quality is the reward

ZEUTEC

What it does for you

> The **SpectraAlyzer SPIRITS** is the simple solution for routine analysis of the basic quality parameters in industrial spirits production and (crafts) distilling.

In spirits production, the **SpectraAlyzer SPIRITS** performs the important quality tests such as alcohol content and density within a few seconds. Thus, the distilling process and downstream processing can be closely monitored by analysing samples from any stage of the production line – without sample preparation and the use of reagents or other consumables. To determine quality parameters in the raw materials utilised and the residuals, the **SpectraAlyzer FLEX** can be used. In addition, this device can also be used for whole grain as well as the analysis of powders and pastes, using ZEUTEC multiple predefined mathematical calibration models.

Designed as a modular system, the SpectraAlyzer SPIRITS solution presents the analytical results of alcohol and density within 45 seconds.
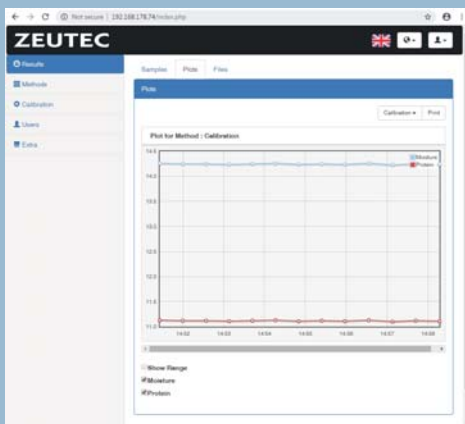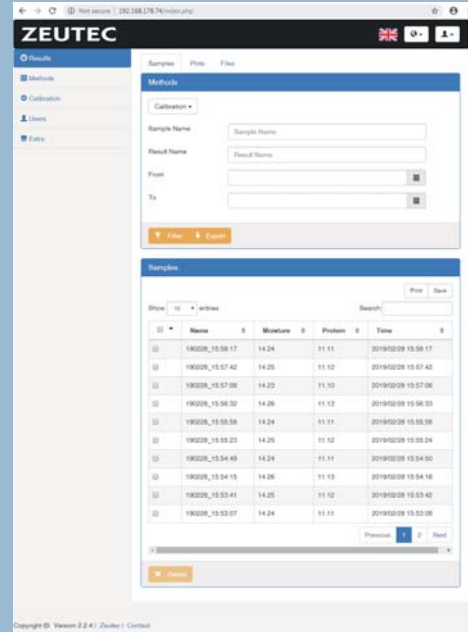
The immediately available, precise quality information enables better process control and thus a higher product yield with consistently good product quality. Whether you want to determine the state of the distillation/rectification process, dilution, bottling process or oversee individual production batches – the **SpectraAlyzer SPIRITS** provides you instantly with the information you need.

Whether high or low alcohol content – the analyser **system shows excellent linearity up to 98 % vol alcohol** content. Even if the sample contains natural or added sugar, the accurate analytical result of the alcohol determination is not affected.

The robust design of the analyser allows flexible installation both in the laboratory and directly in the production process, where humidity, dust and shock have no effect on the accuracy and long-term stability of the measurements. Additional accessories e.g. a peristaltic pump and robotic autosamplers can be added to enhance the sample throughput to > 60 samples per hour.
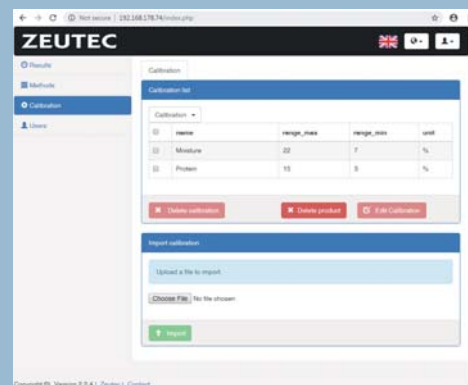
Online Electronic Lab Logbook

- 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
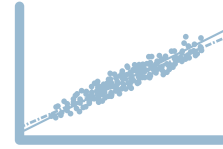- Import feature for new / updated calibrations

Key features

Versatile sample presentation
by means of a syringe, a pump, or an autosampler.

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

NIR sample/reference technology
like all SpectraAlyzer instruments for high
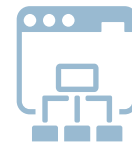sensitive and long term stable measurements.

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

Compact design
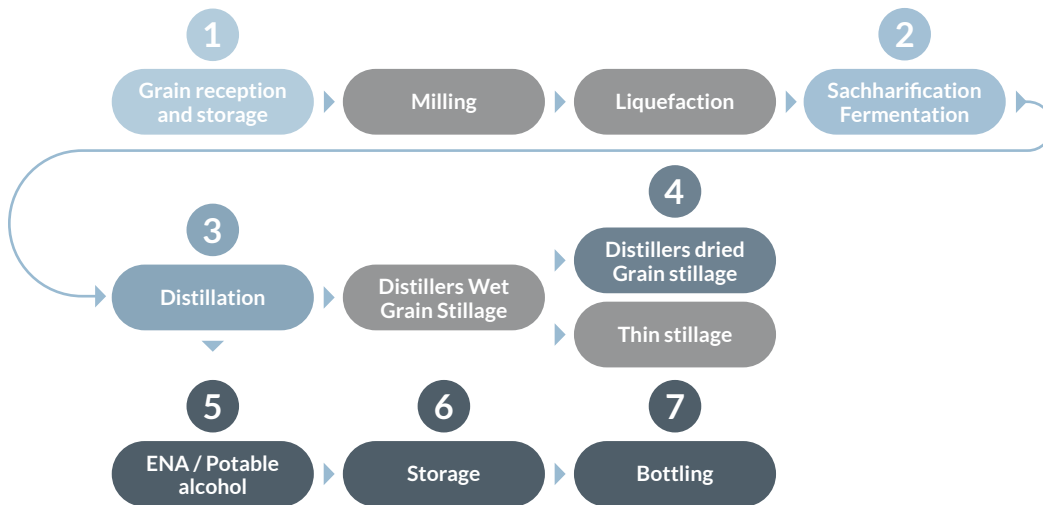optimised for bench top or at-line application.

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 check before milling 1

Starch, dextrin, glucose, ash, protein

This ensures grains contain enough amount of starch and reducing sugars for conversion into alcohol.
Inquire for additional accessories and calibration models.

Fermentation monitoring 2

Ethanol, reducing sugar (glucose/dextrose, fructose, maltose)

This gives information about the amount of alcohol produced, amount of sugars still left for conversion and give estimate of the time remaining for the fermentation process to complete.
Inquire for additional accessories and calibration models.

Distillation 3

Alcohol measurement during distillation gives information about the extent of distillation process and how much more distillation is required to attain desired alcohol levels.

DDGS measurement 4

Protein, dry matter, oil, crude fibre, residual starch, ash

DDGS measurement provides nutritional composition of the distilled grains which can be used as measure of quality for its use as animal feed.
Inquire for additional accessories and calibration models.

Final product testing 5 6 7

Alcohol and density measurement

Alcohol and density measurements with the SpectraAlyzer SPIRITS ensures efficient quality control. Besides alcohol content and density special parameters e.g. fat and sugar content can be added on request.

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, Mouse, Barcode Reader, Printer, Application worx (AWX), Syringe, Pump, AutoSampler

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, constant
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

SpectraAlyzer SPIRITS	110-A100-12

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