SpectraAlyzer WINE

SpectraAlyzer SPIRITS

Quality is the reward

ZEUTEC

made in Germany

SpectraAlyzer WINE & SPIRITS

Smarter Analysis for Superior Spirits

SpectraAlyzer WINE & SPIRITS is a **simple, fast solution** for routine analysis of key quality parameters in spirit production and craft distilling. It enables distillers to check crucial quality metrics – like **alcohol content, sugar content, and density** – within just a few seconds, right at the distillery. There's ***no need for any sample preparation or chemical reagents***, which means you can analyze samples at **any stage** of the production line without delays or extra costs.

From Grain to Glass

While focused on finished spirits, the analyzer is part of a complete quality control system. For raw materials or fermentation monitoring, **SpectraAlyzer FLEX** and **GRAIN NEO** provide accurate analysis of grains, powders, pastes, and other inputs. Together, these devices enable end-to-end monitoring from raw grain to bottled spirit.

Rapid, Modular Results

The system delivers results in just **45 seconds**, allowing quick process adjustments. Pre-calibrated for core measurements and easily operated by distillery staff, it integrates seamlessly into your workflow. Its **modular design** offers tailored configurations to match your needs.

Optimize Yield and Consistency

Immediate, precise data lets you control distillation, dilution, and blending with confidence. The analyzer helps maximize yield, reduce waste, and maintain consistent flavor across batches.

Accuracy Across All Alcohol Levels

Validated up to **98–99% vol.**, the instrument delivers reliable readings for both strong spirits and liqueurs. Alcohol measurement remains accurate even in high-sugar samples, ensuring **true results every time**.

Rugged Design & High Throughput

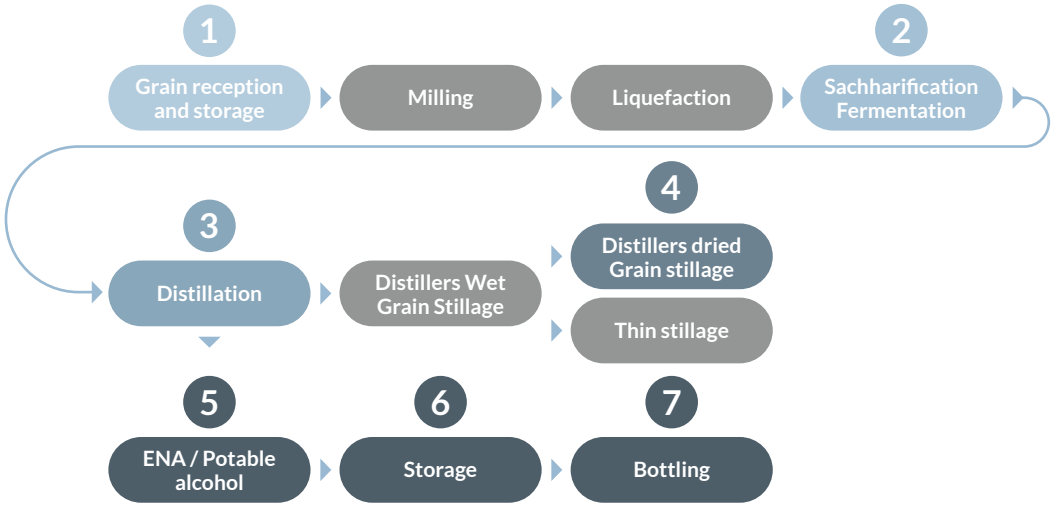
Built for lab or production use, it resists **humidity, dust, vibration, and shocks**. With optional autosamplers and pumps, throughput can exceed **60 samples/hour**, scaling from craft to industrial production.

Standards Compliance

The analyzer complies with **OIV-MA-BS-08** (Type IV NIR method for alcohol), giving confidence in results that align with global reference standards.

By combining **speed, accuracy, and rugged versatility**, the SpectraAlyzer WINE & SPIRITS 2.0 is the **all-in-one solution** for quality assurance, ensuring every bottle meets the highest standards – consistently and efficiently.

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.

SpectraAlyzer WINE & SPIRITS

Raising the Standard of Wine Quality Control

The SpectraAlyzer WINE & SPIRITS is a state-of-the-art instrument for **fast, reliable** quality checks in wine production. Results for major quality parameters – **alcohol, sugars, acids, and density** – are available in as little as 45 seconds, enabling routine control throughout production without bottlenecks.

Easy and Intuitive Operation

As a stand-alone system, the analyzer is **easy to use** with minimal training. Installed close to the **production line**, it provides immediate feedback on product quality – a major advantage in fast-paced environments.

Rugged, Production-Ready Design

Built for industrial conditions, the SpectraAlyzer withstands temperature fluctuations, vibration, and dust. The dual-beam optical design ensures stable results, reducing downtime and maintenance while maintaining **long-term accuracy**.

No Sample Prep or Reagents

There's **no need for complex preparation** or reagents. Simply load juice, fermenting wine, or finished product – the analyzer delivers highly accurate results at virtually no extra cost, while eliminating waste and chemical hazards.

High Throughput and Connectivity

Optional autosamplers allow automated **sequential analysis** of dozens of samples. The system integrates seamlessly into LIMS and data networks, with an **embedded web server** for instant company-wide data visualization.

Consistency and Yield Optimization

Fast verification of key parameters ensures every batch meets your standards. The system supports brand consistency, customer satisfaction, higher yields, and **reduced costs** by enabling proactive process control.

Configurations to Fit Your Needs

Every operation has unique needs, so the **SpectraAlyzer WINE & SPIRITS** comes in multiple model configurations to match your specific quality control requirements:

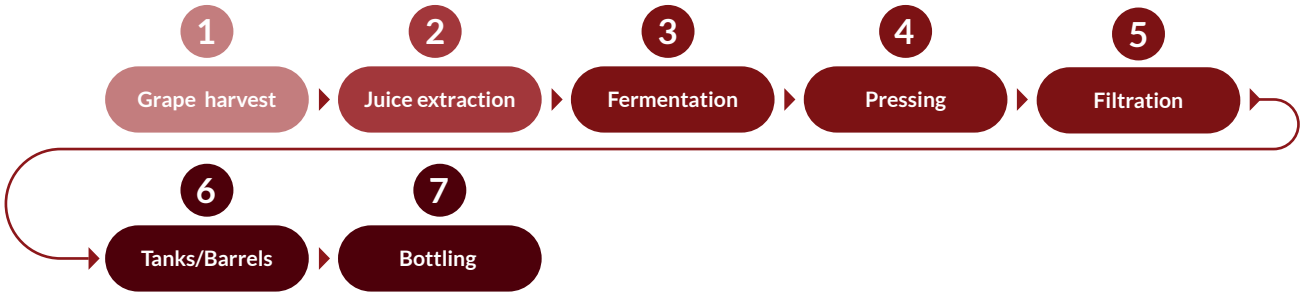
- **WINE & SPIRITS** – Alcohol
- **WINE & SPIRITS S** – Alcohol + Sugar
- **WINE & SPIRITS D** – Alcohol + Density
- **WINE & SPIRITS SD** – Alcohol + Sugar + Density
- **WINE & SPIRITS PRIME** – Comprehensive analysis including acidity, pH, and more

Modular design means easy upgrades as your requirements grow.

International Standards Compliance

The SpectraAlyzer is **fully compliant with OIV reference methods** (**OIV-MA-BS-08**, Type IV NIR for alcohol). Results align with global standards, providing **laboratory-quality accuracy in seconds** – in a robust, production-ready package.

Production process flow diagram



Grape harvest 1

Before harvesting: determine the important parameters to choose the optimal harvesting moment. °Brix, Density, pH, tot. Acidity, vol. Acidity and others.

Juice extraction 2

During extraction: check on the quality must parameters e.g. Extract, Density, Alcohol, vol. Acidity.

Fermentation, Pressing, Filtration 3 4 5

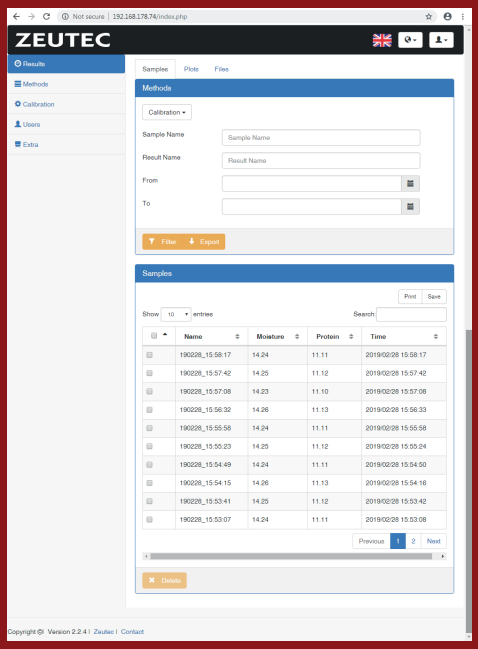
During fermentation and further processing: Ethanol, Density, Glucose + Fructose, red. Sugar, Malic acid, Lactic acid, pH, tot. Acidity, vol. Acidity.

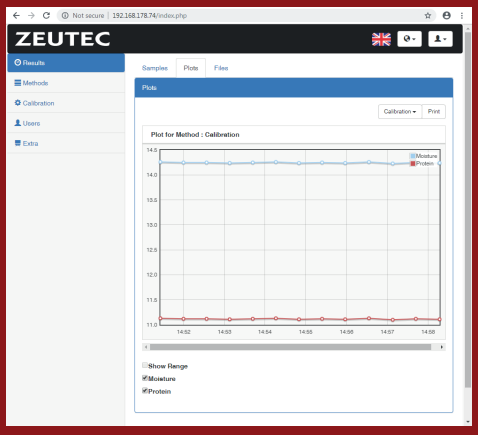
Filtration, Bottling 6 7

During maturation and final bottling: Ethanol, Density, Glucose + Fructose, red. Sugar, Malic acid, pH, tot. Acidity, vol. Acidity, colour OD (420/520/620 nm)

Online Electronic Lab Logbook

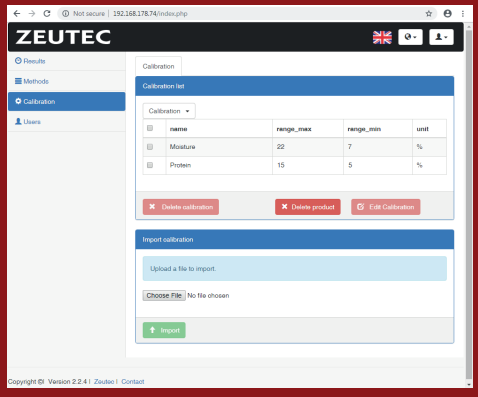
- Full sample and analytical results history
- Filter results by time or sample name
- Search for samples
- Export to Application Worx
- Copy, print or save (PDF / Excel) samples





- 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 hygenic instrument operation.

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

Web server / Cloud conectivity
for direct instrument access via LAN and internet from anywhere, any time.

User friendly
sample presentation and easy to operate.

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 G2), Pump, AutoSampler, Colour module

Liquid cell

Sample temperature control	15 - 50 °C ± 0.01 °C
Liquid ports	¼"- 28 UNF
Synchronization to SpectraAlyzer, integrated soft control via SpectraAlyzer	

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	22 kg

Order information

SpectraAlyzer 2.0 - WINE & SPIRITS	110-A100-12
SpectraAlyzer 2.0 - WINE & SPIRITS S	110-A100-20
SpectraAlyzer 2.0 - WINE & SPIRITS D	110-A100-21
SpectraAlyzer 2.0 - WINE & SPIRITS SD	110-A100-2
SpectraAlyzer 2.0 - WINE & SPIRITS PRIME	110-A100-19

ZEUTEC Opto-Elektronik GmbH

Friedrich-Voß-Straße 11
24768 Rendsburg
Germany

(+49) 4331 - 136650
moreinfo@zeutec.de
www.spectraalyzer.com

ZEUTEC

SpectraAlyzer SPIRITS

SpectraAlyzer WINE