SpectraAlyzer

BRAUMEISTER

Brewing
the best quality

What it does for you

> The **SpectraAlyzer BRAUMEISTER** is an instrument for beer quality check and control. It is the ideal solution for routine analysis of major quality parameters during beer production.

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

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

• **Wort:** Apparent Extract, Bitter Units (IBU), Colour, FAN and pH-Value

• **Beers:** Alcohol, Density, Extracts, Bitter Units (IBU), Nitrogen, Calories and Colour (EBC)

• **Beer Mix Drinks:** Alcohol, Density, Sugar Content, Total Acidity and pH-Value

• **Cider:** Alcohol, Density, Extracts, Total Acidity, pH-Value, SO_2, Individual and Total Sugars, Dissolved CO_2

There is no need to manually condition the sample and extra (harmful) reagents do not need to be used. This analyser solution provides **highly accurate beer quality control parameters at no extra cost** at different production areas e.g. mashing, lautering, boiling, fermenting, maturing, filtering, filling.
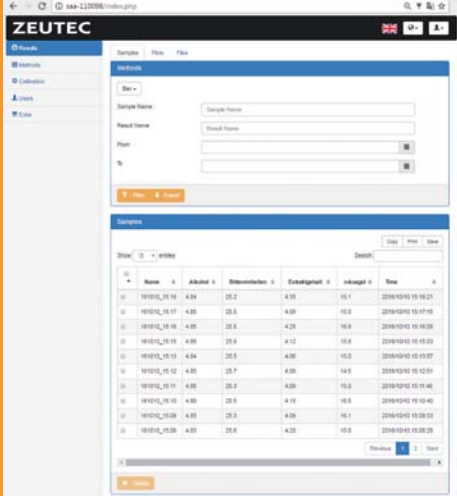
As a **stand alone system**, the analyser solution can be operated very easily and intuitively for **beer quality check and quality control** – even close to the production line. The rugged construction and unique optical sample/reference setup ensure reliable operation in environments with fluctuating temperatures, vibration and dust.

The **SpectraAlyzer BRAUMEISTER** comes with **ready to use calibration models and a powerful software package** to facilitate model fine tuning and extensive and automated logging as well as database storage of the analytical results on the analyser, within the company intranet and/or the internet.

The SpectraAlyzer BRAUMEISTER complies with EBC method: "9.2.6 Alcohol in Beer by Near Infrared Spectroscopy".
The SpectraAlyzer BRAUMEISTER complies with ASBC method Beer-4G: "Alcohol by NIR and original extract content".
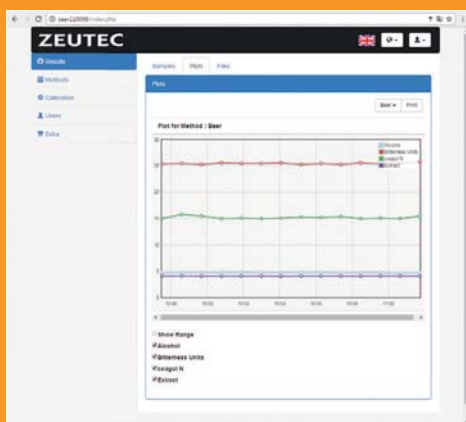
Data visualization via instrument webserver

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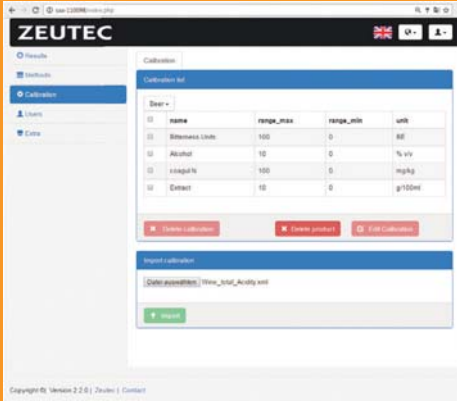- Copy, print or save (PDF / Excel) samples

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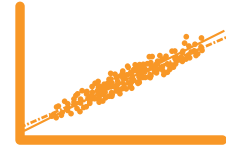
Many mathematical models
for all kind of products included for quick calibration models installation and start-up.

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.

User friendly
sample presentation and easy to operate.

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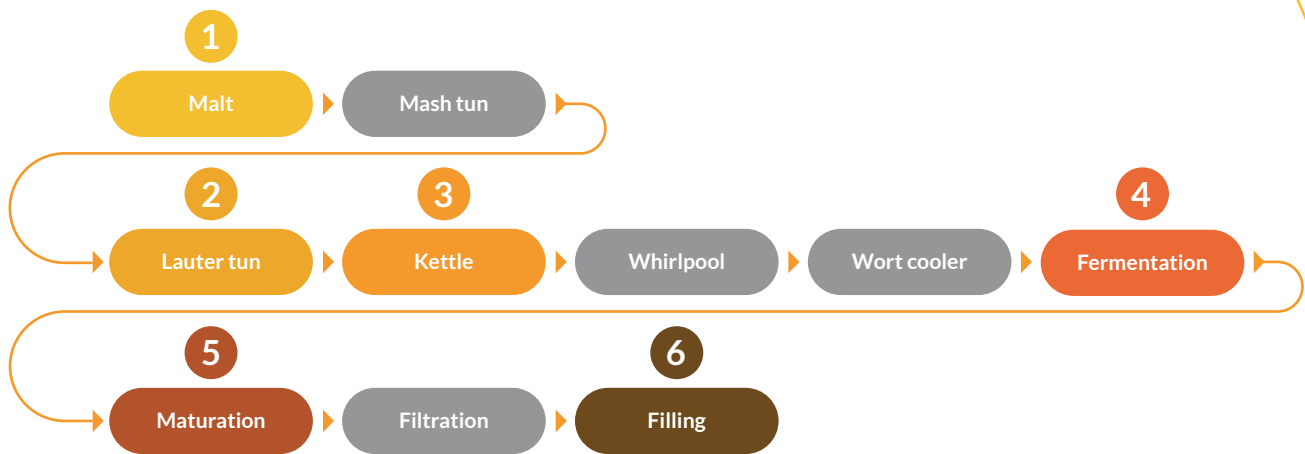for direct instrument access via LAN and internet from anywhere, any time.

Production process flow diagram

Malt analysis ①

The SpectraAlyzer BRAUMEISTER with whole grain drawer (option) determines the important parameters to choose the best malt for your brewing operation:
Extract (low extracts in malt reduce target extract in wort/beer), total Nitrogen (depends on variety, climate and fertilisation), Moisture (High moisture contents reduce the achievable extract and lead to storage losses)

Mashing, Lautering and Cooking ② ③

The **SpectraAlyzer BRAUMEISTER** checks on the quality of wort. Predicting wort real extract (% v/v) determines whether dilution is necessary. Analysing the IBU Bitterunits in wort sets the path for the final beer quality. Determining wort pH is also important for the yeast fermentation and e.g. addition of lactic acid can adjust. The wort color needs to be analysed with the SpectraAlyzer in order to determine the final beer colour.

Fermentation and further processing ④ ⑤

The **SpectraAlyzer BRAUMEISTER** determines: Alcohol, Extracts, Density, Color, IBU Bitter units, FAN, pH. The fermentation control allows for temperature adjustments and possible acid addition. The parameters analysed provide essential information to the brew master in order to produce the best possible beer. On the spot quality control optimises plant capacity utilisation.

Final bottling ⑥

Alcohol, Density, Extract, IBU and Colour determination with the **SpectraAlyzer BRAUMEISTER** ensure consistent beer quality, taste and optical appearance.

Technical data

Design

Spectral range 1400 - 2400 nm

Dual beam system, Sample / reference measurement

High signal to noise ratio > 10000:1

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), 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
Measurements	Height: 310 mm / Width: 300 mm / Depth: 480 mm
Weight	17 kg

Order information

SpectraAlyzer BRAUMEISTER	110-A100-6

ZEUTEC

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