

your partner in chemistry automation



The San<sup>++</sup> Automatic  
Beer & Malt Analyzer



# The San<sup>++</sup> Automatic Beer & Malt Analyzer



**QUALITY ASSURED:** Consumers demand consistent product quality. Skalar knows how important it is to use accurate reliable methods and procedures set out for routine analyses such as EBC, ASBC, and MEBAK. The Skalar San<sup>++</sup> Beer and Malt analyzer has completely integrated these recognized methods and has been successfully installed at many beer and malt laboratories worldwide. The automated analysis achieves better response times, less operator intervention and an increased accuracy in the results.

**TIME EFFICIENT:** Time is one of the most important factors for efficient laboratories. Automation of the analyses with the Skalar San<sup>++</sup> Analyzer not only results in better accuracy, but also reduces the analysis times and increases the sample throughput. The response times to the detection of changes in production are more immediate which ensures a better control of the production process and a reduction in waste.

**COST EFFECTIVE:** The Skalar San<sup>++</sup> Beer and Malt Analyzer has proven to be a robust workhorse for the brewing and malting laboratories. The low operational costs simplify the choice to automate applications, bearing in mind an increase in speed and reliability. In addition, less waste per sample analysis is produced compared to the traditional manual method.

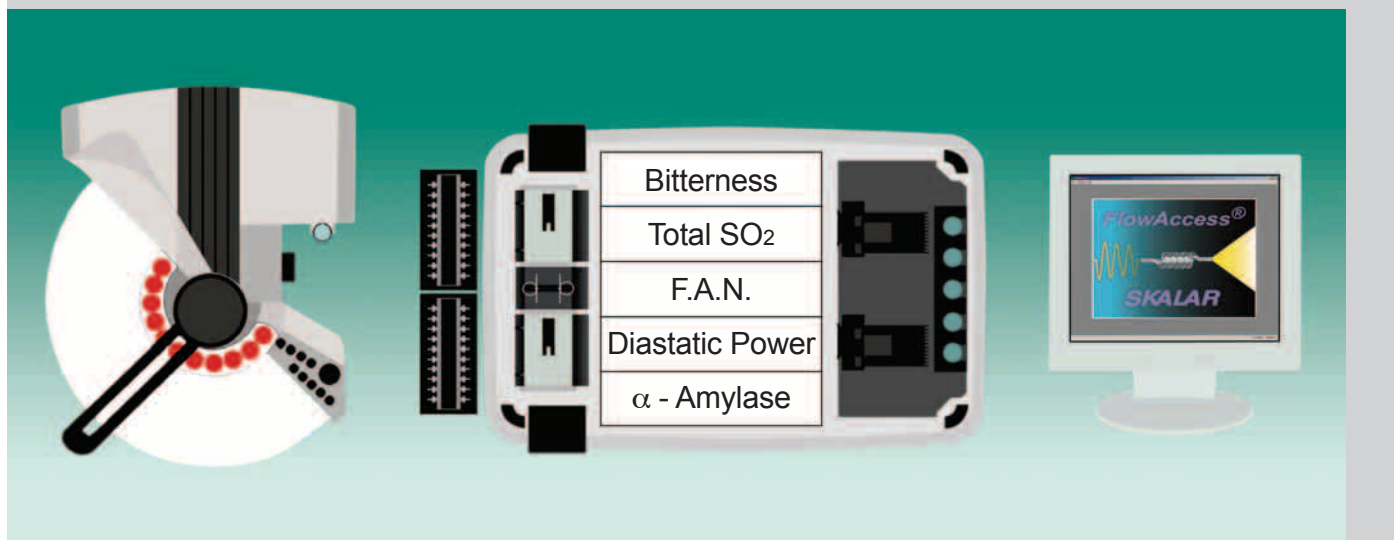
**ACCURATE RESULTS:** The ability of Skalar's instrumentation to give accurate results time after time, is what most people regard as the deciding factor before purchasing a system. Over a period of years, Skalar has worked with brewing and malting laboratories to achieve rapid, accurate and reliable results. The versatile FlowAccess™ software allows the data produced to be easily incorporated into spreadsheets or sent directly into a LIMS.

## Beer & Malt Applications:

Acetaldehyde • Free Amino Nitrogen •  $\alpha$ -Amylase • Viscosity • Anthocyanogen • Bitterness  
Carbohydrates • Carbon dioxide • Color • Density • Diacetyl • Total Reducing Sugars  
Diastatic Power • Ethanol •  $\beta$ -Glucan • pH • Nitrate + Nitrite • Soluble Protein  
Polyphenols • Sulphur dioxide • Thiobarbituric acid value



# Typical Beer & Malt Analyses



The Skalar San<sup>++</sup> Beer and Malt Analyzer is a modular system that can be configured to meet your requirements. Each analytical manifold is configured for a specific parameter and complies with national and international guidelines. A total of 16 parameters can be analyzed simultaneously. A typical five channel San<sup>++</sup> Beer analyzer can hold manifolds for Bitterness, Total SO<sub>2</sub>, F.A.N., Polyphenols and Diacetyl while a Malt analyzer usually carries applications such as Diastatic Power,  $\alpha$ -Amylase, Free Amino Nitrogen,  $\beta$ -Glucan and Color.

There are many possibilities and combinations for the Skalar San<sup>++</sup> analyzers and all applications can be customized to meet the individual requirements of the laboratory for which it is intended. Furthermore, the analyzers are designed as easily expandable systems to facilitate additional parameters in the future.

Skalar's auto-samplers range from a 50 position sampler up to a 540 position sampler with the possibility of an integrated diluter. Multiple sample needle configurations are available when different sample matrices or sample preparation procedures are being applied. Automatic start-up, shutdown and stand-by are just some of the features that can be easily integrated. The system is also designed to run with a range of specific detectors which are supplied by Skalar such as a U.V. detector, fluorimeter and density meter.

Skalar has become a world leader in chemistry automation due to its dedication to working to customer requirements and the versatility of its range of instrumentation. In addition the ease of operation, the decrease in operator time and its robust design have made the Skalar San<sup>++</sup> Beer and Malt analyzer the standard for many international breweries and malting plants.

## Features

- Methods according EBC, ASBC, Mebak and others
- Integration of various detectors for Beer and Malt analysis, such as Fluorimeter and UV/VIS Detector
- Skalar FlowAccess™ software with real time graphics, data calculation and data export to Excel / LIMS
- Integrated Calculations for Real Extract, Apparent and Real Degree of Fermentation, etc.
- Multiple pump speed (normal, high, and stand-by mode)
- Analysis from a single up to 16 parameters simultaneously
- Unattended automatic start-up and shutdown
- Various types of auto samplers with 50 up to 540 sample positions





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