



# BRS

**High-end instruments  
for breweries**

**Let's be(er) together**

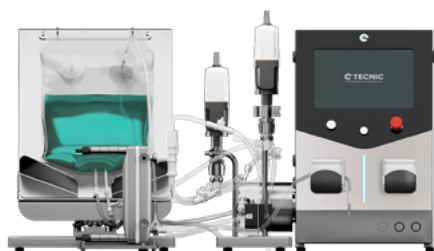




## eLAB Advanced Bioreactor

Designed with scalability and versatility in mind, this bioreactor empowers scientists and researchers across academia, industry, and R&D to achieve optimal results in their bioprocesses.

Highly scalable, with the ability to connect up to 12 vessels in series by adding additional modules, making it an ideal option for bioreactor scale-up and bioprocess scale-up.



## eLAB® TFF Single-Use

Enables a fast and efficient process for separation and purification of biomolecules. Single-use plastic tank with a volume of 2 to 5 liters and a filtration membrane with a surface up to 0.7 m<sup>2</sup>.



## eLAB® TFF

Enables a fast and efficient process for tangential flow filtration (TFF) of your biomolecules. It holds 5 or 10L vessels with a maximum filter membrane area of 0.5 m<sup>2</sup>, specifically designed to support the most challenging applications.

## Vertical Floor-standing Laboratory Multipurpose Autoclaves

RAYPA

With the TLV-S Series, Raypa offers multipurpose autoclaves for solids and liquids designed to cover the sterilization needs in industrial and research settings.

- Integrated steam generator with automatic filling.
- Integrated vacuum pump that allows 1 prevacuum cycle.
- 7" Capacitive color touchscreen.
- FDA & GMP-compliant controller and connectivity to PC, cloud, intranet and LIMS.
- Bacteriological filter for air inlet and outlet.
- Automatic water feed from water network.
- Water-cooled discharge.
- Working volumes: 58 - 81 - 118 - 155 litres



## LAUDA Ultracool: The next stage of Energy-Efficient Temperature control

LAUDA

Process circulation chiller with cooling capacity of up to 10 kW or 265 kW from -5 to 25°C for industrial applications.

- Suitable for setup outdoors.
- Ready-to-operate "Plug & Operate".
- Incl. cold water container, centrifugal pump and internal bypass.
- Standard temperature sensing prevents freezing of the heat exchanger.
- Integrated pressure switches to protect the circuit against pressure limits.
- Chiller casing made of galvanized steel panels coated with epoxy resin protected against corrosion even in aggressive production environments.





## Gravity and alcohol measurement in BEER



SCHMIDT  
HAENSCH

**The VariRef: Refractometer on the bench for fast and precise measurements.**



- Peltier system for automatic temperature control
- Energy saving durable LED's
- Small footprint
- Easy to use
- Modular

**The VariPol Compact Laboratory Polarimeter makes polarimetry faster than ever.**



- Great modularity
- Fastest temperature control
- Flat sample room, easy to clean
- LED light source
- Virtually maintenance free

**The VariDens Density Meter takes the proven SuH technology to a new level combining it with new innovations and all advantages of the VariFamily.**



- Great flexibility
- Precise monitoring of the concentration of alcohol in all kinds of beverages
- Optional Moisture and Air pressure sensor

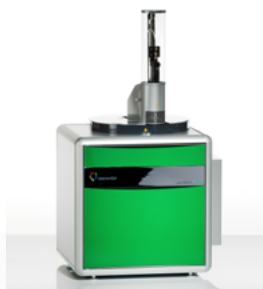


## High precision nitrogen and protein analysis in beer brewing

### The Rapid MAX N exceed offers maximum sample flexibility due to crucible design and unique post-combustion technology

The brewing process is affected by the protein content of the associated liquids and solids, ultimately influencing total protein content of the beer. **Protein content of beer is related to many of its key properties such as the flavour, the foam building and the retention capabilities.**

The ability to measure protein concentrations in grains of the grain bill, in wort, clarifying agents, spent grain, and beer itself, increases the quality and profitability of any brewing operation. Thus, protein determination methods need to be accurate for a wide variety of sample types.



The Dumas combustion method provides a reliable and matrix-independent option for determining total nitrogen in a wide variety of samples. This cost-effective method involves high-temperature combustion of sample followed by separation and detection of the resulting gases, **without the need of toxic or corrosive solutions.**

Measurements can typically be completed in a few minutes with little-to-no sample preparation. This Dumas combustion approach facilitates frequent protein monitoring for all stages during the brewing process and provides timely results for any needed corrections to reliably maintain the expected product taste and texture.

The Rapid MAX N Exceed is a robust, precise, easy-to-use instrument for all of the N/Protein analysis applications of the brewery and beer industries.

Some results are shown below:

*Results for three different malt types. The AOAC 997.09 sample data has an RSD of 2.2%*

SAMPLE	N (%)	PROTEIN (%)	RSD (%)	Factor better than AOAC
Wheat malt	1.62	10.1	0.54	4.1
Summer barley malt	1.77	11.1	0.80	2.8
Munich malt	1.61	10.0	0.23	9.6



# BioSPX



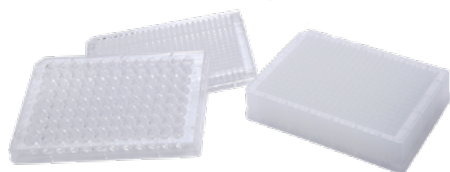
The BioTek Synergy HTX is a compact, economical multimode reader for 6- to 384-well microplates and Take3 microvolume plates. The unique dual optics design provides superior performance for UV-Vis absorbance, fluorescence, luminescence, and AlphaScreen/AlphaLISA workflows. With incubation and shaking, plus a dual reagent injector module, the system will meet all your assay requirements now and in the future. Synergy HTX is controlled by the easy-to-use, yet powerful, Gen5 software for data collection, analysis, exporting, and reporting.



The BioTek Synergy LX multimode reader automates many common microplate assays.



- Affordable multi-mode reader
- Supports common endpoint assays
- Micro-volume quantification with Take3 plates
- Continuous UV-Vis wavelength selection: 200 nm to 999 nm
- High performance, high blocking filters for fluorescence and luminescence
- Touchscreen: Easy operation, immediate data display
- Output to USB flash drive, printer or Gen5 Software



BioTek's absorbance readers provide total flexibility for many applications. From basic ELISA's to high throughput detection. The absorbance readers offer tremendous functionalities.

The filter-based systems are great when you only need limited wavelengths while the monochromator-based instruments provide flexibility with wavelength selection from 200 -999 nm.

Besides, the monochromator enables the possibility to perform micro-volume measurements with the accessory Take3 plate.



### Epoch 2

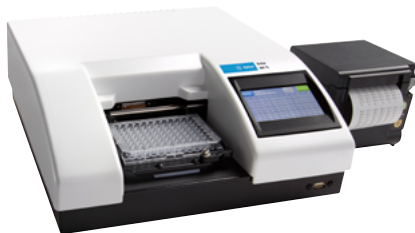
Epoch 2 Microplate Spectrophotometer offers excellent performance for UV-Vis measurements in 6- to 384-well microplates, cuvettes and in micro-volume samples with the Take3™ Micro-Volume Plate. The optional touchscreen interface makes it easy to choose from pre-defined protocols or to define custom programs.

- UV-Vis wavelength selection in 2 µL micro-volume samples, cuvettes and 6- to 384-well plates
- Color touchscreen with available WiFi, Bluetooth and flash drive connectivity
  - Full Gen5™ data analysis onboard or PC for all read modes
  - Advanced incubator design to 65 °C and new Condensation Control mode
  - Advanced shaking profiles including linear, orbital and double orbital



### 800 TS

- High quality, high performance at an affordable price
- Application versatility: ELISA, protein and other endpoint assays to kinetics and cell based assays
- Color touchscreen for quick, easy programming
- USB flash drive for convenient data export, Gen5 import for analysis
- High precision and accuracy for quality results





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SciSPX

## Special action

Are you interested in one of our instruments? Contact us, and when you're ready to acquire your instrument, don't forget to mention the code SPX-2-BEER to get your special attention.