

The Fully Automated Lab for the

Beverage Industry

ALAB 5000 Series



Welcome to the World of

Maximum Productivity

Designed for use in the production environment, the ALAB 5000 series brings automated quality control to the beverage industry. We've integrated our instruments for packaged beverages into an automated solution that provides quick, at-line quality control for various beverages, including beer, wine, soft drinks, water, and sake.

Automated 24/7 operation means no downtime on your production line and maximum productivity. Since all of the instruments come from Anton Paar, your whole measuring system and instruments are seamlessly integrated into one powerful analysis solution.

Decades of experience in the beverage industry have inspired a fully automated measuring system you can rely on. The ALAB 5000 series: Designed for use in the production environment, it maintains repeated sampling intervals and executes quality control of packaged beverages.

Multiple configurations for all your needs

- → ALAB 5000 Analytic: Performs fully automated analysis of bulk and retail packaged beverages (e.g., glass bottles, aluminum cans) for the most important physical and chemical parameters
- → ALAB 5000 Torque: Fully automatically measures the opening torque of twist-off caps and crowns for bottles



ALAB 5000

Analytic

With ALAB 5000 Analytic, measure your most relevant parameters with a single instrument on a single sample.

Our total package oxygen meter TPO 5000 and Packaged Beverage Analyzer (PBA) determine important parameters including density, alcohol concentration, and extract depending on the configuration.

Connect it to new or existing filling lines or use it as a stand-alone solution – the choice is yours.

Robust and ready for the production facility

Protective features – like housing and enclosed cabinets – let it withstand high temperatures and humidity levels. With air conditioning and a dry air supply, it maintains stable ambient conditions so you can move your instruments from your lab to your production line.

At-line measurements for quick results and analysis

Eight-minute measurement times and at-line analysis allow you to conduct more measurements than ever before. Since it's an at-line instrument, anyone on your production team can respond to any deviations so there's no need to get your highly trained QC team involved. What's more, since you respond to deviations on the spot, you save future costs on out-of-spec production.

High-quality instrumentation for reproducible results

Well-proven Anton Paar analytic instruments are used to complete ALAB's analytics: TPO 5000 performs the piercing of the package and measures head-space oxygen and dissolved oxygen. The instrument also supplies the liquid sample to the connected PBA system for further analysis. Eliminate errors, no sample prep needed: Automated sample preparation ensures that each sample is accurately prepared in a reproducible way. Every measurement starts with the same external influences - and there's no operator influence - which ensures highest reproducibility of measurement results.

→ Total package oxygen
 Density
 CO₂
 Alcohol

... and much more



ALAB 5000

Torque

- Fully automatically measure opening torque and ring crack torque in 30 secs (per bottle)
- ✓ Minimize human interaction for higher efficiency and safer operation
- Connect it to new or existing filling lines or use it as a stand-alone solution



Gold bottle verification equals peace of mind

ALAB 5000 Torque comes with our gold-bottle torque verification, ensuring you always get measurement results you can rely on.



Automatic bottle detection

Bottle height and diameter are automatically measured before the torque measurement, which quantifies the correct method for the sample.



One system for various bottle sizes

With its universal adapter fitting a wide range of closure diameters, ALAB 5000 Torque can measure the seal-break torque and ring-crack torque of cap diameters ranging from 25 mm to 40 mm, no matter the material. The torque curve can be shown on the interface or transmitted to a data system.



Flexible Quality Control Wherever You Need It

Bring the lab to your new or existing filling line, and embrace automation to boost the efficiency of your production. Easily connect ALAB 5000 Analytic and ALAB 5000 Torque to your filling lines, or use them standalone to minimize human error, save time, and reduce costs.

- 1 ALAB 5000 Torque
- 2 ALAB 5000 Analytic



ALAB 5000 Analytic

	Trace range sensor	Wide range sensor
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Oxygen in the gas phase	0 hPa to 45 hPa	0 hPa to 1,000 hPa
Dissolved oxygen	0 ppm to 2 ppm	0 ppm to 45 ppm
Density	0 g/cm³ to 3 g/cm³	
Alcohol (optional)	0 % v/v to 12 % v/v	
Original extract (optional)	0 °Plato to 30 °Plato	
Color (optional)	0 EBC to 120 EBC	
CO ₂ concentration	0 Vol. to 5.5 Vol. at 35 °C, 0 Vol. to 10 Vol. at < 10 °C	
Turbidity (optional)	0 EBC to 100 EBC / 0 NTU to 400 NTU	
pH value (optional)	pH 0 to pH 14	
Typical measurement time per sample	8 min	
Ambient temperature	2 °C to 49 °C	
Relative humidity (not condensing)	at 2 °C to 35 °C: 0 % - 90 %, at > 35 °C: 0 % - 50 %	
Package diameter	55 mm to 95 mm	
Package height	80 mm to 300 mm	
Package volume*	150 ml to 2,000 ml	
Dimensions TPO housing (L x W x H)	1,750 mm x 880 mm x 2,430 mm	
Weight TPO housing	Approx. 670 kg (1,477 lbs)	
Dimensions PBA housing (L x W x H)	560 mm x 950 mm x 2,110 mm	
Weight PBA housing	Approx. 230 kg (507 lbs)	

^{*} For TPO only, > 260 ml for TPO and PBA.

ALAB 5000 Torque

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Measuring area	0 Nm to 2 Nm	
Typical measuring time	30 s	
Ambient temperature	2 °C to 49 °C	
Relative humidity (not condensing)	at 2 °C to 35 °C: 0 % - 90 %, at > 35 °C: 0 % - 50 %	
Package diameter	55 mm to 95 mm	
Package height	80 mm to 300 mm	
Cap diameter	25 mm to 40 mm	
Controls	19" Multi-Touch Industrial PC 1920x1080 px	

Trademarks ALAB (017423997)

Reliable. Compliant. Qualified.



Our well-trained and certified technicians are ready to keep your instrument running smoothly.



Maximum uptime

Regardless of how intensively you use your instrument, we help you keep your device in perfect shape and safeguard your investment. For at least 10 years after the discontinuation of a device, we'll provide you with any service and spare part that you might need.



Warranty program

We're confident in the high quality of our instruments. That's why we provide <u>a full 3-year warranty</u>. Just make sure to follow the relevant maintenance schedule. You can also extend your instrument's warranty beyond its expiration date.



Short response times

We know that sometimes it's urgent. That's why we provide a response to your inquiry within 24 hours. We give you straightforward help from great people, not from bots.



A global service network

Our large service network for customers spans 86 locations with more than 600 certified service technicians. Wherever you're located, there's always an Anton Paar service technician nearby.

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