



Anton Paar

Alcolyzer

Beer Analyzing System

::: Unique Density & Concentration Meters



Highly Accurate Results for all Beers

The Alcolyzer Beer Analyzing System is the successor of the Alcolyzer Plus Beer Analyzing System. It consists of an Alcolyzer Beer ME module, DMA M density meter and Xsample 122 sample changer or Xsample 22 filling unit.

The system measures all types of beers, including non-alcoholic beers, beer mixtures, RTD (ready to drink) alcoholic beverages, fermenting beers, and also cider and molasses (bioethanol). The patented near infrared (NIR) measuring method (US 6,690,015, AT 406711) of the Alcolyzer Beer ME module eliminates the influence of other sample ingredients on the alcohol measurement, therefore guaranteeing highly accurate results.

The Xsample 122 sample changer automatically fills up to 24 samples into the measuring system. For routine work, the DMA 4500 M density meter is the right choice. DMA 5000 M is suitable for research work due to its even higher accuracy. The whole system is operated via a touchscreen on the DMA M master instrument.

One Sample - All Parameters

The Alcolyzer Beer Analyzing System determines the alcohol content, and further parameters such as density, original extract, real extract, degree of fermentation, calorie content and optionally also color, viscosity, pH and turbidity - all in one measuring cycle, all from one single sample.

The modular concept enables the easiest and most reliable measurements and adjustments. You always have the option to upgrade your system step-by-step by adding all the parameters you need - now and in the future.

Equipped for the future

Anton Paar has longstanding experience in the brewing industry and works closely with customers to meet their needs. Teams of researchers are dedicated to improving existing Anton Paar products and developing new ones. This means you will benefit from your Alcolyzer Beer Analyzing System as an innovative and modular product for many years to come.



Standardized, Accurate and Easy to Use

The heart of the system is the patented, selective alcohol measurement: A narrow, highly alcohol-specific range of the NIR spectrum is evaluated with a specially developed, highly stable high-resolution spectrometer and suitable algorithms.

In this particular spectral range the influence of other beer ingredients is so small that Alcolyzer Beer ME obtains extremely accurate alcohol results. Due to its selectivity and linearity, the measuring method only requires adjustment with water and an alcohol/water solution. One single adjustment is valid for all sample types. The time and work required for adjustment is therefore minimal.

The measuring method has been checked and approved by MEBAK and corresponds to the EBC and ASBC standards.

User-friendly

All Anton Paar's Generation M instruments provide highly reliable measurement combined with state-of-the-art features. You can connect USB instruments such as a keyboard, mouse, printer, bar code reader or external touchscreen.

The Alcolyzer Beer Analyzing System has a LIMS connection. Data can be exported via a USB flash drive, printer, RS-232 or Ethernet (LAN); reports can be created in common formats such as PDF, TXT and XLS.

Each user logs on to a defined user level and documents work steps as required. The special features of DMA M (U-View™, FillingCheck™) ensure traceable documentation. Sources of error are recognized early.





Everything Under Control

A new generation as the master

- ▶ DMA M as the master instrument
- ▶ Full control: U-View™, FillingCheck™, ThermoBalance™
- ▶ User interface in more than 10 languages including Chinese and Japanese



So easy

- ▶ Fully automatic sample changer
- ▶ Easy adjustment
- ▶ Practically maintenance-free
- ▶ Secure due to different user levels
- ▶ LIMS connection



Everything covered

- ▶ All standards: MEBAK, EBC and ASBC
- ▶ Methods for alcohol measurement when manufacturing bioethanol (molasses) and whisky (wash)

More at any time

- ▶ Color, pH, viscosity and turbidity
- ▶ Bar code reader
- ▶ CO₂ and O₂
- ▶ Xsample 510 automated package sampler for glass bottles, PET bottles and cans



Technical Data

Measuring range	Alcohol content Original extract Extract content Density Color (optional) pH (optional) Viscosity (optional) Turbidity (optional)	0 %v/v to 12 %v/v 0 °Plato to 30 °Plato 0 %w/w to 20 %w/w 0 g/cm ³ to 3 g/cm ³ 0 EBC to 120 EBC 0 pH to 14 pH 0.3 mPa.s to 10.000 mPa.s 0 EBC to 100 EBC <i>(values up 200 EBC are displayed)</i>
Repeatability s.d.	Alcohol content Original extract Extract content Density Color (optional) pH (optional) Viscosity (optional) Turbidity (optional)	0.01 %v/v 0.03 °Plato 0.01 %w/w 0.00001 g/cm ³ (DMA 4500 M) 0.000001 g/cm ³ (DMA 5000 M) 0.1 EBC 0.02 pH (in the range 3 pH to 7 pH) 0.1 % 0.02 EBC
Temperature control	Integrated Peltier thermostat	
Temperature control, turbidity	0.01 °C Repeatability s.d. in the range -5 °C to +40 °C	
Sample volume	approx. 30 mL degassed sample per measurement	
Typical measuring duration per sample	approx. 4 minutes (incl. filling)	
Sample throughput	approx. 15 samples per hour	
Dimensions (L x W x H)	495 mm x 710 mm x 446 mm (19.5 in x 28.0 in x 17.6 in)	
Weight	35.7 kg (78.7 lbs)	
Power supply	AC 100 to 240 V; 50 to 60 Hz; 50 to 80 VA	
Interfaces	4 x USB, Ethernet, VGA, CAN, RS-232	

