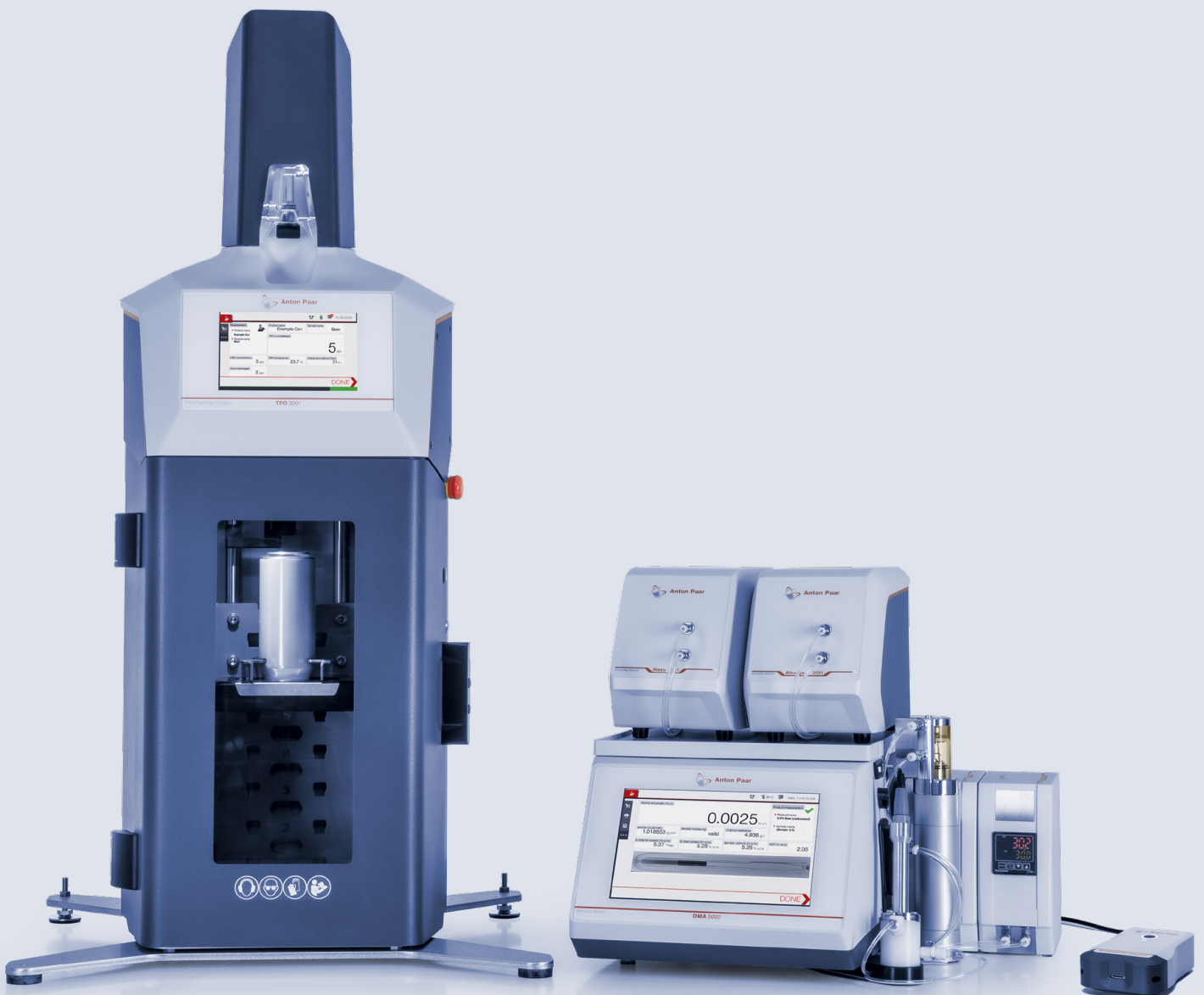


Solutions for Your Excellent Beer

Beer Analysis Overview



The Market Leader in Beer Analysis

We've been the market leaders in analytical solutions for the beverage industry for more than 50 years. Our always-superior solutions increase the accuracy and speed of your measurements, so you can lead too.



50+ years of application experience

Partner with a team backed by over 50 years of industry experience. Access expert application support anytime, anywhere. Trust the same proven expertise relied on by researchers and QC managers worldwide across diverse industries.



50 quality parameters in 8 minutes

Measure all relevant parameters using a single setup. Automate filling and cleaning for up to 32 non-pressurized samples in a row to save time and effort. Ensure top product quality with handheld devices, advanced measuring systems, automated QC labs, and in-line sensors.



10x faster than distillation

Count on the expertise of the market leader in beverage analysis. Boost measurement accuracy and speed while analyzing alcohol up to 10x faster than distillation. Analyze alcoholic, alcohol-free and 0.0 % beers down to 0.000 % v/v ethanol content within four minutes. Reduce waste, improve efficiency, and ensure consistent quality for continuous improvement.

Compliance with 16+ industry standards

Our measurement systems fully comply with more than 16 industry standards set by MEBAK, GB, EBC, BCOJ, ASBC, and AOAC. This ensures reliable, consistent results that meet global regulatory and quality requirements. You can trust our systems to support compliance across diverse markets and applications.



85+ service stations and a 3-year warranty

Our instruments are famously durable, but if support is required, a global service network expert responds within 24 hours – speaking the local language. Every time a new instrument generation is launched, spare parts for predecessor instruments are guaranteed for at least 10 years.

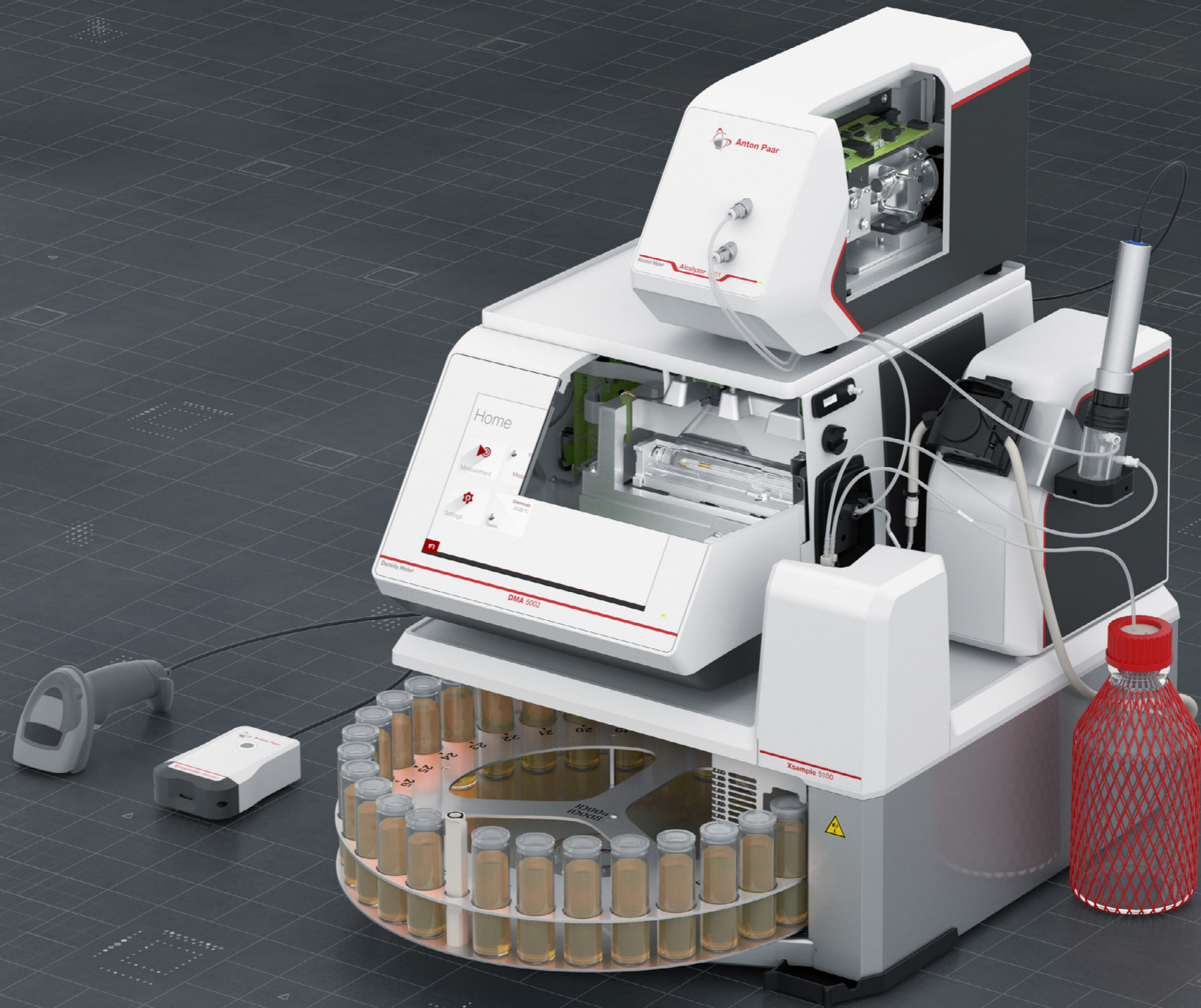


Lab execution system: AP Connect

AP Connect enables paperless, professional data management with access from any computer on your network. It eliminates transfer errors, centralizes data from all instruments, and streamlines workflows through one interface. Save time and support compliance with efficient data flow and optional validation documentation.

Always Superior Technology

Our U-Pulse technology, based on the trusted Pulsed Excitation Method, is combined with patented NIR spectroscopy to deliver unmatched performance and set new benchmarks in beverage analysis.



0.01 % v/v alcohol repeatability
U-Pulse technology backed by FillingCheck™ and U-View™, combined with 0.01 % v/v alcohol repeatability, enables the most accurate calculation of extract and caloric value.

Tailored setup: 22 instruments and modules
Perform measurements covering wort to final product with ease. Analyze all beer types – from light pilsners to dark stouts and 0.0 % radlers – with precision.

Intuitive user interface with 15 guided wizards
Easily access your favorite menu dialogs via the 10.4" screen and quick access area. Assign user levels to prevent unintended changes. Stay informed with system alerts and the real-time status of sample changers or measuring modules.

Density accuracy: 0.000005 g/cm³
We manufacture the borosilicate glass measuring sensors exclusively in-house. Only by fully controlling the fabrication of these extraordinary sensors, and therefore every single facet of the ingenious core DMA technology behind them, can we ensure we deliver to you the most accurate density meter on the market.

Trusted, patented NIR technology
Selective NIR absorption at 1,200 nm offers fast, precise analysis across all alcoholic beverages. Its accuracy and versatility make it a market-leading technology in beverage quality control. Customers can choose Alcolyzer modules for the analysis of up to 12 beverage classes from 0 % v/v to 65 % v/v.

Powering Potential



Market Leader



DMA 35: Portable density meter

- Density accuracy: 0.001 g/mL
- The widest viscosity range on the market
- Fast, reliable fermentation monitoring from -10 °Plato to +85 °Plato
- Sample filling at temperatures up to 100 °C (hot wort); no active temperature control required
- Quick results with just 2 mL sample volume
- Storage and export of 1,000+ results to a printer or PC
- Lightweight: Only 0.66 kg (1.46 lb)



Alex 301, Alex 501: Alcohol and extract meters

- Accuracy:
Alex 301: 0.25 % v/v for beer, wine, sake, spirits <100 g/L; 0.45 % v/v for non-turbid spirits with >100 g/L extract and up to 47 % v/v
Alex 501: 0.2 % v/v for beer, wine, sake, spirits <100 g/L; 0.4 % v/v for non-turbid spirits with >100 g/L extract and up to 47 % v/v
- Measurement of alcohol and extract from 0.5 % v/v to 47 % v/v
- Sample preparation kit for cloudy beers and wines included
- One-button operation with results in under three minutes
- Fermentation curve monitoring for up to 40 batches



Alcolyzer 5001, Alcolyzer 7001: Alcohol meters

- Repeatability:
Alcolyzer 5001: 0.03 % v/v
Alcolyzer 7001: 0.01 % v/v
- Compliance with AOAC, BCOJ, and OIV standards; seamless data transfer
- Analysis of 12 sample types with 0 % v/v to 65 % v/v alcohol content using one device
- Precise results in just two minutes without distillation
- 0.01 % v/v alcohol repeatability via patented NIR technology
- Upgrade with a sample changer and color option at 430 nm for up to 32 samples in one go (7001 only)



CboxQC: Portable dissolved CO₂ and O₂ meter

- Sampling from all common finished packages, process lines, tanks, kegs, and casks
- Use in tough environments: protection class IP67 and rubber housing
- Combined CO₂ and O₂ measurement results in just 90 s
- FillingCheck™: automatic detection of filling errors
- Battery life up to 11 hours (portable recharging capability)
- Compact, lightweight, portable design



TPO 3001, TPO 5001: Total package oxygen meter

- Measurement of total package oxygen directly out of cans, glass bottles, and PET bottles
- Results in down to four minutes
- Automatic self-cleaning function and minimum maintenance
- Retrofittable (TPO 3001) or fully integrated (TPO 5001) selective CO₂ measurement
- Robust, IPX3-rated design for production environments



Top Seller
DMA 5002



DMA 4002, DMA 5002, DMA 6002: Modular benchtop density meters

- Accuracy:
DMA 4002: 0.00005 g/cm³
DMA 5002: 0.00001 g/cm³
DMA 6002: 0.000005 g/cm³
- U-Pulse, U-Dry, U-View™
- One-touch measurement
- Status light and syringe illumination
- Modular extensions available
- Full automation via Xsample series
- Results with four-digit accuracy in 20 seconds

Applications

Wort analysis
Fermentation monitoring
Apparent extract measurement

Fermentation monitoring
Alcohol analysis
Extract analysis

Fermentation analysis
Analysis of unfinished product
Product release control

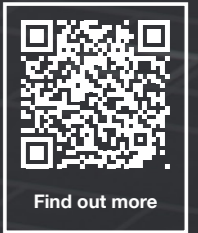
Applications

Dissolved O₂ and CO₂ analysis during process and for finished products

Dissolved O₂, headspace O₂, and headspace volume analysis
Final package analysis
Filler control

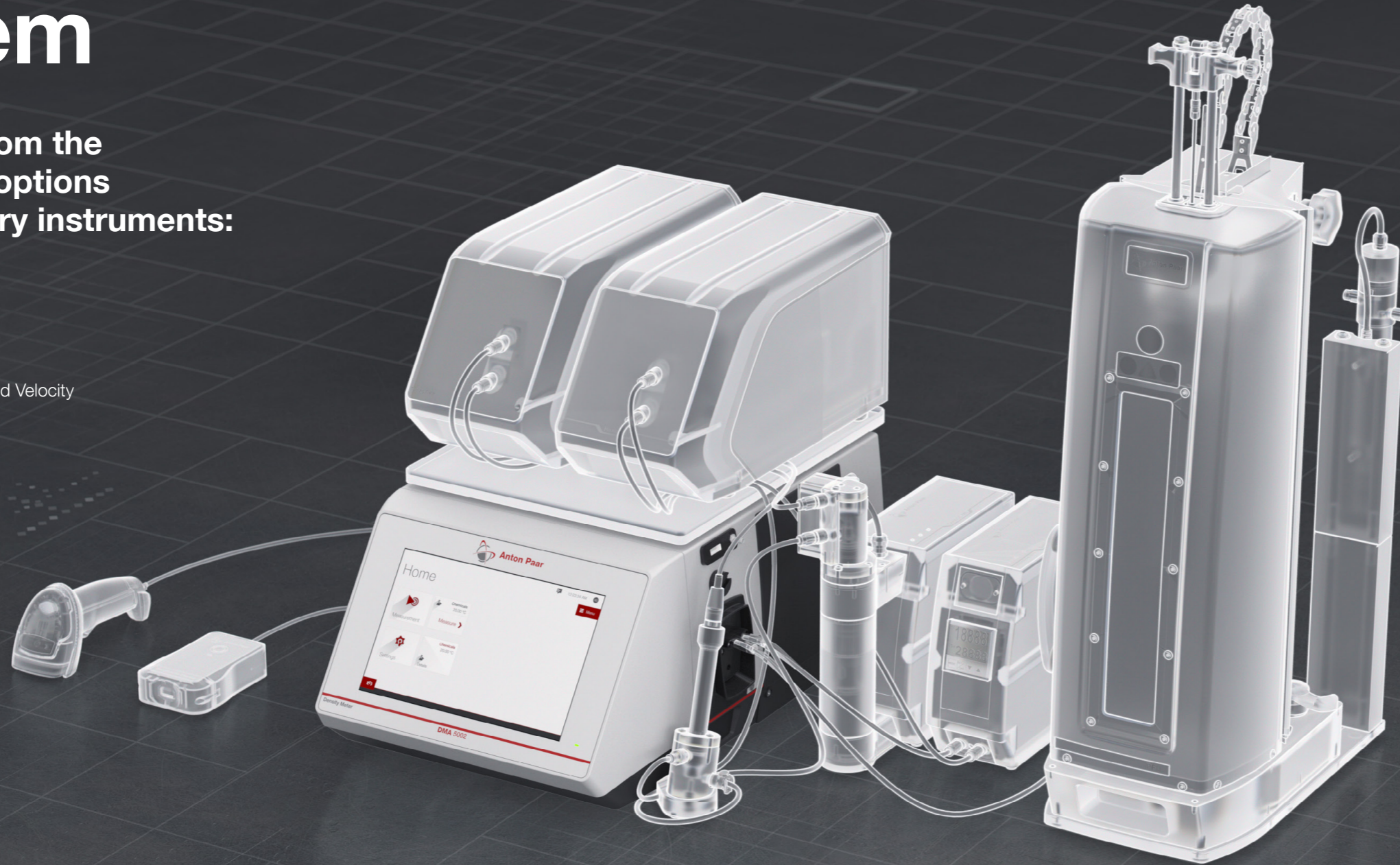
Wort analysis
Fermentation analysis
Controlling device for measurement systems

Measurement System



Choose from the following options and primary instruments:

- DMA 4002
- DMA 5002
- DMA 6002
- DMA 6002 Sound Velocity



pH	Turbidity	Alcohol content	CO ₂ , O ₂	Filling device	Total package oxygen
pH 1102	Haze 3001	Alcolyzer 1001 Beer	CarboQC 1001	PFD	TPO 3001
pH 1201	Viscosity	Alcolyzer 3001 Beer	CarboQC ME	PFD Plus	TPO 5001
pH 3101	Lovis 2001	Alcolyzer 3001	Option O ₂ Plus for CarboQC ME / 1001	Sample Conditioner	Sample changer
pH 3201		Enzymatic Reader			Xsample 3100
pH 3301					Xsample 5100

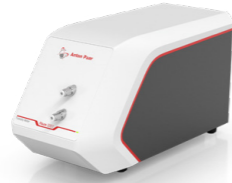
Available options

Modular Extension



pH

- pH is determined alongside other quality parameters
- pH 1101, pH 1201, pH 3101, pH 3201, and pH 3301 modules support pressurized and non-pressurized analysis solutions
- Measurements are performed either directly from the package or from degassed samples



Turbidity

- Haze 3001 uses the approved ratio method, measuring at three angles: 0° transmission, and scattered light at 25° and 90°.
- Eliminates particle size influence on the turbidity value
- Enables detection of impurities
- Safeguards visual properties
- Detects chill haze when combined with a water supply for heat exchange



Viscosity

- Lovis 2001 determines the dynamic, kinematic, relative, and intrinsic viscosity of liquids
- Capillaries are available in different configurations
- Suitable for determining viscosity and predicting lautering time of wort



Alcohol (enzymatic)

- Selective verification of ultra-low alcohol levels from 0.000 % v/v to 0.050 % v/v
- Fast results for 0.0 % beer in under four minutes
- Integration into measurement systems for determining 50+ parameters
- Automated data handling for full traceability
- No calibration, cleaning, or toxic chemicals required



Alcohol (NIR) and color

- Alcolyzer enables selective alcohol measurement for accurate results
- Suitable for beverages such as beer, wine, and spirits
- No product-specific calibrations are required
- Optional color detection enables fast color measurement of beer



CO₂, O₂

- The multiple-volume expansion method eliminates the influence of other dissolved gases such as N₂ and O₂
- Option O₂ Plus is compatible with both new and existing CarboQC ME measuring modules
- Easy retrofitting of Option O₂ Plus is supported



Filling device

- The PFD Filling Device transfers samples directly from a closed container, such as a bottle or a can, into the measuring chamber of a measuring instrument
- Sealed and pressure-driven filling ensures CO₂ is not lost during transfer
- Compatible with a sample conditioner for reliable alcohol measurement at temperatures below 15 °C
- Measuring time is reduced through optimized sample preparation



Total package oxygen

- Fast, selective TPO measurement from cans, glass bottles, and PET bottles
- Retrofittable (TPO 3001) or fully integrated (TPO 5001) selective CO₂ measurement
- Results in down to four minutes
- Modular integration for analysis of up to 50 parameters



Sample changer

- Xsample series offers the widest range of automation on the market
- Enables automatic filling and fully automatic processing
- Samples are automatically measured

Recommended Configurations: Non-Pressurized



DMA 4002
Alcolyzer 1001 Beer
pH 1101
Xsample 3100

Quality control for craft breweries and small batch productions

- The Alcolyzer Analyzing System: dedicated to craft brewing
- Measurement of key parameters in-house
- Every type of beer: no product-specific calibration
- Selective determination of alcohol; compliance with distillation (reference)
- Leading technology recommended by EBC, ASBC, MEBAK, and BCoJ

**Multiparameter measurement system:
Design your Beer Measurement System,
one module at a time.**



DMA 5002
Alcolyzer 3001 Beer
pH 3301
Xsample 5100

Quality control for large and industrial breweries

- Entire production process monitoring from wort to finished beer
- Suitable for all types of beer, cider, hard seltzer, and kombucha
- Product quality authorization for bottling
- Market-leading technology using selective alcohol determination



DMA 6002
Alcolyzer 3001 Beer with Option Color
Enzymatic Reader
Haze 3001
pH 3301
Xsample 5100

The high-end solution for perfect fermentation, storage, and final product control

- Entire production process monitoring from wort to finished beer
- Safeguarding of visual properties
- For all types of beer, cider, hard seltzer, and kombucha
- Four measuring modules, 30+ industry-specific parameters
- Fully automatic check/calibration via built-in SOP
- Ensure legal compliance for products from 0.000 % v/v to 12 % v/v alcohol content

Recommended Configurations: Pressurized



Find out more



DMA 4002
Alcolyzer 1001
pH 1201
CarboQC 1001
PFD

Package control for craft breweries

- Craft beer quality verification
- Selective alcohol determination via unique Alcolyzer technology
- Every type of beer: no product-specific calibration
- Selective CO₂ analysis

Multiparameter measurement system: Packaged Beer Measurement System



DMA 5002
Sample Conditioner
Alcolyzer 3001 Beer with Option Color
Haze 3001
pH 3201
CarboQC ME with Option O ₂ Plus
PFD Plus

Package control for large breweries

- Safeguarding of product specifications in only three minutes
- Fulfillment of legal requirements
- Safeguarding of visual properties and dissolved oxygen levels
- Elimination of sample preparation and operator influences



World's best beer analyzing system

DMA 5002
Sample Conditioner
Alcolyzer 3001 Beer with Option Color
Enzymatic Reader
Haze 3001
pH 3201
CarboQC ME
TPO 3001

The most comprehensive analysis from a single package

- Safeguarding filler performance and final product quality
- Measurement of 50+ quality parameters from a single package
- Data acquisition at the push of a button, with all results combined in a single dataset
- Fully automated cleaning and leak test
- Ensure legal compliance for products from 0.000 % v/v to 12 % v/v alcohol content

Prepare for the Future

Inspired by 50+ years of experience, Anton Paar's analysis solutions anticipate future needs – so that businesses can grow.



Edge 7000

- A powerful process controller with state-of-the-art interfaces and CPUs, offering seamless monitoring across devices
- Cutting-edge performance with a 10.1" projective, multitouch display
- Long-term security and flexibility with a Linux-based operating system
- Platform-independent, web-based management and user interface



ALAB 5000

- Fully automated, 24/7 operation: No downtime and maximum productivity
- Real-time, at-line measurement results for important QC parameters
- No manual sample preparation
- Designed to perform in rough production environments
- Available in analytic or torque variants

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

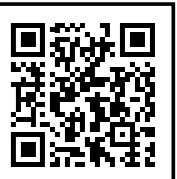
We're confident in the high quality of our instruments. That's why we provide a full three-year warranty. Just make sure to follow the relevant maintenance schedule. You can also extend your instrument's warranty beyond its expiration date.

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 experienced people, not from bots.

Global service network

Our large service network for customers spans 85+ locations with more than 600 certified service technicians. Wherever you're located, there's always an Anton Paar service technician nearby.



Find out more



Beer Measurement Systems

	Quality control for craft breweries and small batch productions	Quality control for large and industrial breweries	The modular solution, for perfect fermentation and storage
Parameters	Alcohol Extract pH	Alcohol Extract pH	Alcohol Extract pH Turbidity Color
Measuring range			
Alcohol	0 % v/v to 12 % v/v	0 % v/v to 12 % v/v	0 % v/v to 12 % v/v
Alcohol (enzymatic)	-	-	0.0000 % v/v to 0.0500 % v/v
Density	0 g/cm ³ to 3 g/cm ³	0 g/cm ³ to 3 g/cm ³	0 g/cm ³ to 3 g/cm ³
Color	-	-	0 EBC to 120 EBC (0 SRM to 60.96 SRM)
pH value	pH 0 to pH 14	pH 0 to pH 14	pH 0 to pH 14
Turbidity	-	-	0 EBC to 100 EBC (0 NTU to 400 NTU)
Repeatability s.d.			
Alcohol	0.05 % v/v	0.01 % v/v	0.01 % v/v
Density	0.00001 g/cm ³	0.000003 g/cm ³	0.000001 g/cm ³
Color	-	-	0.1 EBC (0.05 SRM)
pH value	0.02 in the range pH 3 to pH 7	0.02 in the range pH 3 to pH 7	0.02 in the range pH 3 to pH 7
Turbidity	-	-	0.3 % of the measured value + 0.02 EBC / 0.08 NTU according to formazine reference suspension
Accuracy			
Alcohol (enzymatic)	-	-	16 % of the measured value or 0.0025 % v/v (whichever greater)
General information			
Power features	U-Tube, U-View™, U-Dry, U-Pulse	U-Tube, U-View™, U-Dry, U-Pulse	U-Tube, U-View™, U-Dry, U-Pulse
Minimum amount of sample per measurement	35 mL	35 mL	35 mL
Typical measurement time per sample	4 min (incl. filling)	4 min (incl. filling)	4 min (incl. filling)
Sample throughput	15 to 20 samples per hour	15 to 20 samples per hour	15 to 20 samples per hour
Power supply	AC 100 V to 240 V, 50/60 Hz, fluctuation ±10 %, 190 VA	AC 100 V to 240 V, 50/60 Hz, fluctuation ±10 %, 190 VA	AC 100 V to 240 V, 50/60 Hz, fluctuation ±10 %, 190 VA
Ambient temperature	15 °C to 32 °C (59 °F to 89.6 °F)	15 °C to 32 °C (59 °F to 89.6 °F)	15 °C to 32 °C (59 °F to 89.6 °F)
Air humidity	Non-condensing 20 °C: <90 % relative humidity 25 °C: <60 % relative humidity 30 °C: <45 % relative humidity	Non-condensing 20 °C: <90 % relative humidity 25 °C: <60 % relative humidity 30 °C: <45 % relative humidity	Non-condensing 20 °C: <90 % relative humidity 25 °C: <60 % relative humidity 30 °C: <45 % relative humidity
Standards			
MEBAK	Chapter 2.9.6.3 (B-590.10.181) Chapter 2.12.2 (B-420.01.272)	Chapter 2.9.6.3 (B-590.10.181) Chapter 2.12.2 (B-420.01.272)	Chapter 2.9.6.3 (B-590.10.181) Chapter 2.12.2 (B-420.01.272) Chapter 2.14.1.2 (B-420.01.271)
GB	T 4928-2008	T 4928-2008	T 4928-2008
EBC	Chapter 8.2.2 Chapter 9.2.6 Chapter 9.43.2	Chapter 8.2.2 Chapter 9.2.6 Chapter 9.43.2	Chapter 8.2.2 Chapter 9.2.6 Chapter 9.43.2 Chapter 8.5 Chapter 8.6
BCOJ	8.3.6 Alcoalyzer for alcohol content 8.4.3 Alcoalyzer for real extract Analytical method for beer	8.3.6 Alcoalyzer for alcohol content 8.4.3 Alcoalyzer for real extract Analytical method for beer	8.3.6 Alcoalyzer for alcohol content 8.4.3 Alcoalyzer for real extract Analytical method for beer
ASBC	Beer-4G: Near-infrared and original extract content (2004)	Beer-4G: Near-infrared and original extract content (2004)	Beer-4G: Near-infrared and original extract content (2004)
AOAC	-	-	Method 956.02 (430 nm)

Packaged Beer Measurement Systems

	Package control for craft breweries	Package control for large breweries	The most comprehensive analysis from a single package
Parameters	Alcohol Extract pH CO ₂	Alcohol Extract pH CO ₂ DO Color	Alcohol Extract pH Turbidity CO ₂ DO HSO HSV Color
Measuring range			
Alcohol	0 % v/v to 12 % v/v	0 % v/v to 12 % v/v	0 % v/v to 12 % v/v
Alcohol (enzymatic)	-	-	0.0000 % v/v to 0.0500 % v/v
Density	0 g/cm ³ to 3 g/cm ³	0 g/cm ³ to 3 g/cm ³	0 g/cm ³ to 3 g/cm ³
Color	-	0 EBC to 120 EBC (0 SRM to 60.96 SRM)	0 EBC to 120 EBC (0 SRM to 60.96 SRM)
pH value	pH 0 to pH 14	pH 0 to pH 14	pH 0 to pH 14
Turbidity	-	0 EBC to 100 EBC (0 NTU to 400 NTU)	0 EBC to 100 EBC (0 NTU to 400 NTU)
Repeatability s.d.			
Alcohol	0.05 % v/v	0.01 % v/v	0.01 % v/v
Density	0.00001 g/cm ³	0.000003 g/cm ³	0.000003 g/cm ³
Color	-	0.1 EBC (0.05 SRM)	0.1 EBC (0.05 SRM)
pH value	0.02 in the range pH 3 to pH 7	0.02 in the range pH 3 to pH 7	0.02 in the range pH 3 to pH 7
Turbidity	-	0.3 % of the measured value +0.02 EBC / 0.08 NTU according to formazine reference suspension	0.3 % of the measured value +0.02 EBC / 0.08 NTU according to formazine reference suspension
Accuracy			
Alcohol (enzymatic)	-	-	16 % of the measured value or 0.0025 % v/v (whichever greater)
General information			
Power features	U-Tube, U-View™, U-Pulse	U-Tube, U-View™, U-Pulse	U-Tube, U-View™, U-Pulse
Minimum amount of sample per measurement	150 mL	150 mL	260 mL
Typical measurement time per sample	3 min (incl. filling)	3 min (incl. filling)	8 min to 10 min (incl. filling)
Sample throughput	15 samples per hour	15 samples per hour	7 samples per hour
Power supply	AC 100 V to 240 V, 50/60 Hz, fluctuation ±10 %, 190 VA	AC 100 V to 240 V, 50/60 Hz, fluctuation ±10 %, 190 VA	AC 100 V to 240 V, 50/60 Hz, fluctuation ±10 %, 190 VA
Ambient temperature	15 °C to 32 °C (59 °F to 89.6 °F)	15 °C to 32 °C (59 °F to 89.6 °F)	15 °C to 32 °C (59 °F to 89.6 °F)
Air humidity	Non-condensing 20 °C: <90% relative humidity 25 °C: <60% relative humidity 30 °C: <45% relative humidity	Non-condensing 20 °C: <90% relative humidity 25 °C: <60% relative humidity 30 °C: <45% relative humidity	Non-condensing 20 °C: <90% relative humidity 25 °C: <60% relative humidity 30 °C: <45% relative humidity
Standards			
MEBAK	Chapter 2.9.6.3 (B-590.10.181) Chapter 2.12.2 (B-420.01.272)	Chapter 2.9.6.3 (B-590.10.181) Chapter 2.12.2 (B-420.01.272) Chapter 2.14.1.2 (B-420.01.271)	Chapter 2.9.6.3 (B-590.10.181) Chapter 2.12.2 (B-420.01.272) Chapter 2.14.1.2 (B-420.01.271)
GB	T 4928-2008	T 4928-2008	T 4928-2008
EBC	Chapter 8.2.2 Chapter 9.2.6 Chapter 9.43.2	Chapter 8.2.2 Chapter 9.2.6 Chapter 9.43.2	Chapter 8.2.2 Chapter 9.2.6 Chapter 9.43.2 Chapter 8.5 Chapter 8.6
BCOJ	8.3.6 Alcoalyzer for alcohol content 8.4.3 Alcoalyzer for real extract Analytical method for beer	8.3.6 Alcoalyzer for alcohol content 8.4.3 Alcoalyzer for real extract Analytical method for beer	8.3.6 Alcoalyzer for alcohol content 8.4.3 Alcoalyzer for real extract Analytical method for beer
ASBC	Beer-4G: Near-infrared and original extract content (2004)	Beer-4G: Near-infrared and original extract content (2004)	Beer-4G: Near-infrared and original extract content (2004)
AOAC	-	Method 956.02 (430 nm)	Method 956.02 (430 nm)

Trademarks: FillingCheck (006834725), U-View (006834791), ThermoBalance (006835094)

