Anton Paar

Solutions for Your Wonderful Wine

Wine Analysis Overview

The Market Leader in Wine Analysis

Over the 50 years we've spent as market leader in offering analytical solutions for the beverage industry, we've developed a range of technical innovations that increase the accuracy and speed of your measurements.

Experience: 50+ years of application expertise
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.

15 quality parameters in just 6 minutes
Measure all relevant parameters using a single setup. Automate filling and cleaning for up to 24 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.

Outrun distillation: 10x faster
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. 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, TTB, 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 flows 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 up by FillingCheck™ and U-View™, is combined with the highest alcohol repeatability to enable the most accurate calculation of extract and caloric value.

Tailored setup: Up to 21 instruments and modules
A broad portfolio, from handheld devices to multiparameter systems, covers every stage of analysis. Measurements cover wort to final product. All wine types, from red, white, and sparkling, to ciders can be analyzed with precision.

Intuitive interface with 12 guided wizards
Favorite menu dialogs are accessible via the 10.4" screen and quick access area. User levels can be assigned to prevent unintended changes. System alerts and real-time status indications for sample changers or measuring modules keep users informed at all times.

Density accuracy: 0.000005 g/cm³
The borosilicate glass measuring sensors are manufactured exclusively in-house. Full control of the fabrication of the sensors, and therefore of the core DMA technology behind them, ensures customers receive the most accurate density meter on the market.

Trusted, patented NIR technology
Selective NIR absorption at 1,200 nm offers fast, precise analysis. Its accuracy and versatility make it a market leader in beverage quality control. There's a choice of Alcolyzer modules for analysis of up to 12 beverage classes from 0 % v/v to 65 % v/v.

Powering Potential

Market Leader

DMA 35 Standard
Portable density meter

- Density accuracy: 0.001 g/mL
- One device to replace all glass hydrometers and pycnometers in the workplace
- Widest viscosity range on the market
- Filling of samples at temperatures up to 100 °C; 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 lbs)

Alex 301, Alex 501
Alcohol and extract meter

- 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 meter

- Ethanol 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
- Optional sample changer for up to 24 samples in one go

Top Seller
DMA 5002

DMA 4002, DMA 5002, DMA 6002
Modular benchtop density meter

- 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™
- Four-digit density results in 20 seconds
- Modular expansion: 50+ quality parameters
- Full automation via Xsample series

Lyza 5000 Wine
FTIR wine analyzer

- Density repeatability: 0.0001 g/mL
- Alcohol repeatability: 0.01 % v/v
- Lifelong superior wine-analysis performance
- Results in less than one minute
- 15+ key parameters in wine, must, and must in fermentation
- Adaption of complex models for effortless operation

Applications

Must analysis
Fermentation monitoring

Fermentation monitoring
Final product analysis

Fermentation monitoring
Final product analysis

Applications

Must analysis
Fermentation monitoring
Controlling device for measurement systems

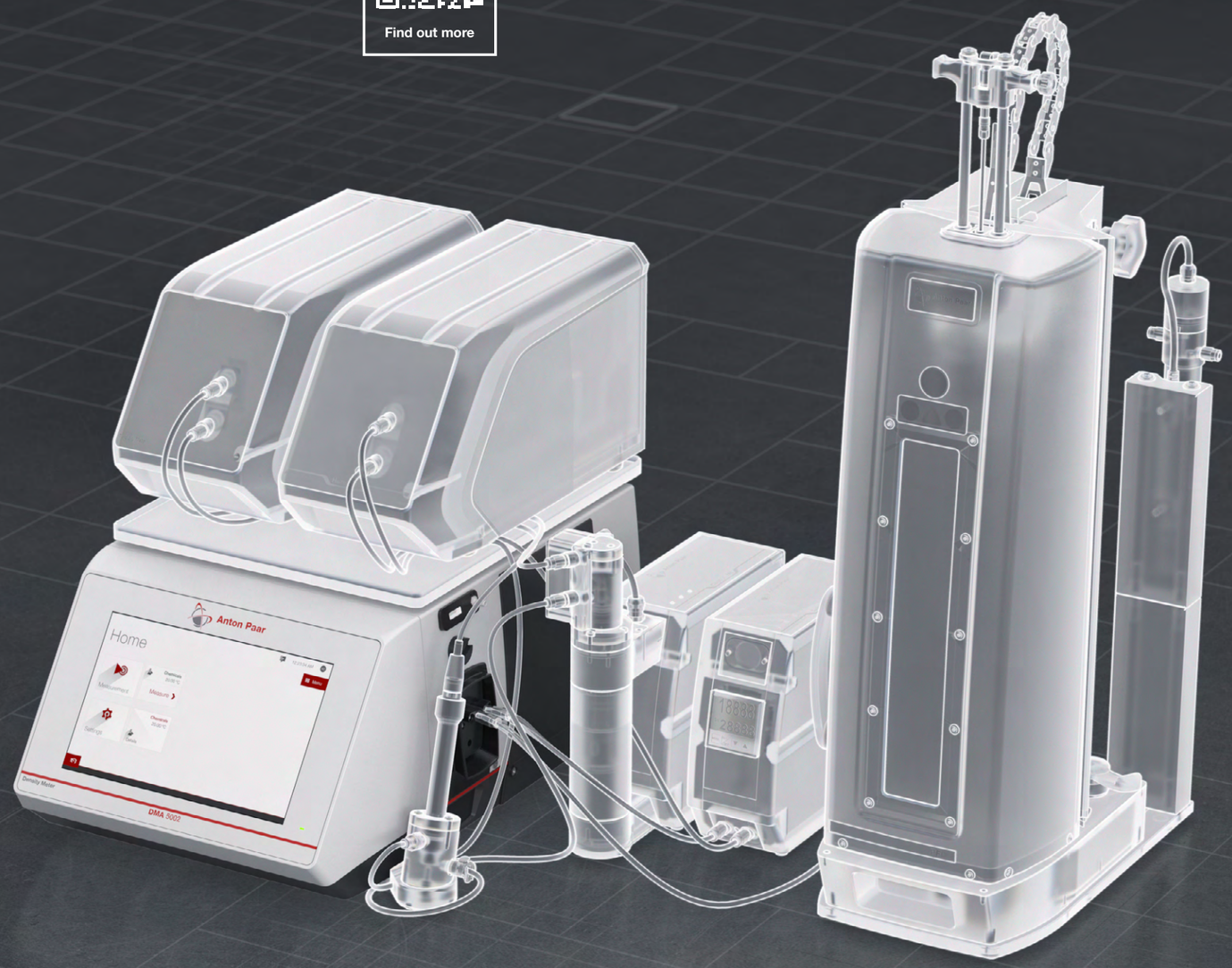
Must analysis
Fermentation analysis
Final product analysis (wine)

Measurement System

Find out more

Choose from the following options and primary instruments:

- → DMA 4002
- → DMA 5002
- → DMA 6002



pH	Turbidity	Alcohol content	CO_2, O_2	Filling device	Sample changer
pH 3101	Haze 3001	Alcolyzer 3001	CarboQC ME	SFD	Xsample 320
pH 3201		Alcolyzer 3001 Wine	Option O_2 Plus for CarboQC ME	PFD	Xsample 520
		Alcolyzer 3001 Sake		PFD Plus	
				Sample Conditioner	

Available options

Modular Extension

pH

- pH measuring modules enable simultaneous determination of pH and other quality parameters
- Versatile configurations support pH measurements at pressures up to 6 bar
- Suitable for use in a variety of liquids, ranging from beverages to chemicals

Turbidity

- Haze 3001 uses the approved ratio method for turbidity measurement
- Measurement at three angles: Transmission at 0°, scattered light at 25°, and 90°
- Eliminates the influence of particle size on turbidity values
- Enables detection of impurities and solid residues
- Safeguards the visual properties of the product

Alcohol content

- Modular setup integrates the Alcolyzer, including the color option
- Combines with density meters and other modules
- Offers different variants tailored for beer, wine, spirits, or an all-in-one combination

CO_2, O_2

- Multiple-volume expansion method eliminates the influence of other dissolved gases like N_2 and O_2
- Option O_2 Plus can be easily retrofitted into a new or existing CarboQC ME measuring module

Filling device

- PFD and SFD piercing and filling devices transfer samples directly from closed containers
- Compatible with cans, glass bottles, PET bottles, and champagne bottles

Sample changer

- Xsample series offers the widest range of automation on the market
- Supports processes from automatic filling to fully automatic processing
- Ensures samples are automatically measured

Recommended Configurations

Find out more

Multiparameter measurement systems: Wine Measurement Systems and Packaged Wine Measurement Systems

DMA 4002

- **Alcolyzer 3001 Wine**
- **Xsample 320**

Must to final product: Alcohol and extract testing

- Alcohol and extract content: Immediate insight into the most important parameters without distillation
- Removal of operator influence with semi-automatic filling
- Assurance of product stability
- Optimization of the maturation process
- Product specification confirmation

DMA 5002

- **Alcolyzer 3001 Wine**
- **Haze 3001**
- **pH 3101**
- **Xsample 520**

Must to final product: High-throughput analysis

- Measurement of up to 24 samples in a row
- Direct and selective alcohol determination
- Fully automatic check/calibration due to built-in SOP
- Monitoring of turbidity to safeguard visual properties

DMA 6002

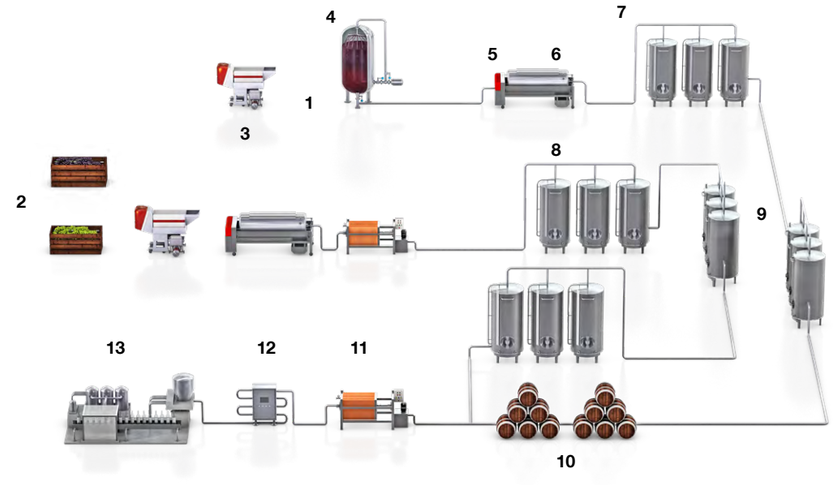
- **Sample Conditioner**
- **Alcolyzer 3001 Wine**
- **Haze 3001**
- **pH 3201**
- **CarboQC ME with Option O_2 Plus**
- **PFD Plus**

Packaged product analysis for all closure types

- Rapid product specification confirmation: More than 6x faster than with distillation
- Fulfillment of legal requirements
- Assurance of consistently high product quality
- Elimination of sample preparation and operator influence

Complete Your Wine Analysis

We're the world's first full-range supplier for wine analysis. With 25 laboratory and process instruments, you can trace 15+ parameters from any location in the plant. Streamlining your wine quality assurance has never been so easy.



	Must					Filtration	Fermentation		Stabilization and storage		Filtration	Bottling		
	Must enrichment (chaptalisation)	**Raw material**	**Destemming/crushing**	**Maceration**	**Pressing**	**Filtration**	**Alcoholic and malolactic fermentation**	**Alcoholic fermentation**	**Clarification | Stabilization**	**Storage | Maturation**	**Filtration**	**Carbonation** (optional)	**Blending | Bottling**	
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	
Density (°Brix)	✓	✓	✓	✓	✓		✓	✓	✓	✓			✓	
Density (SG)	✓		✓	✓	✓		✓	✓	✓	✓			✓	
Dissolved O_2				✓		✓	✓	✓	✓	✓			✓	
Dissolved CO_2										✓	✓	✓	✓	
Alcohol				✓			✓	✓	✓	✓			✓	
Fructose		✓	✓	✓	✓		✓	✓	✓	✓			✓	
Glucose		✓	✓	✓	✓		✓	✓	✓	✓			✓	
Glycerol		✓	✓		✓		✓		✓	✓			✓	
Titratable acidity		✓	✓	✓	✓		✓	✓	✓	✓			✓	
Volatile acids			✓	✓	✓		✓	✓	✓	✓			✓	
Malic acid		✓	✓	✓	✓		✓	✓	✓	✓			✓	
pH		✓	✓	✓	✓		✓	✓	✓	✓			✓	
YAN		✓	✓	✓			✓	✓						
Lactic acid				✓			✓	✓	✓	✓			✓	
Tartaric acid		✓	✓		✓		✓		✓	✓				
Turbidity						✓			✓	✓	✓		✓	
Laboratory measurement	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Process measurement	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

Prepare for the Future

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

AP Connect lab execution system

- Next-level lab data management in existing, and new, labs
- Effortless compliance with regulatory requirements
- Paperless: Elimination of transcription errors for improved accuracy
- Centralization of data from Anton Paar and third-party instruments in one digital space
- Access to, and management of, lab data anytime, anywhere

Edge 7000 process controller

- Connection of process sensors, and display of values exactly where needed – even in the harshest environments
- 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

Reliable. Compliant. Qualified.

Find out more

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 3-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.

Wine Measurement Systems

	Must to final product: Alcohol and extract testing	**Must to final product: High-throughput analysis**	**Packaged product analysis for all closure types**
Parameters	Alcohol | Extract	Alcohol | Extract | Turbidity | pH	Alcohol | CO_2 | Dissolved O_2 | Extract | Turbidity | pH
Measuring range			
Alcohol	0 % v/v to 20 % v/v		
Density	0 g/cm³ to 3 g/cm³		
pH value	-	pH 0 to pH 14	
Turbidity	-	0 NTU to 400 NTU	
CO_2 concentration	-	-	0 vol. to 6 vol. (0 g/L to 12 g/L) at 30 °C (86 °F) 0 vol. to 10 vol. (0 g/L to 20 g/L)
O_2 concentration	-	-	0 ppm to 4 ppm
Repeatability s.d.			
Alcohol	0.01 % v/v		
Density	0.00001 g/cm³	0.000003 g/cm³	0.000001 g/cm³
pH value	-	0.02 in the range pH 3 to pH 7	
Turbidity	-	0.3 % of the measured value, +0.02 EBC / 1.4 ASBC according to formazine reference suspension	
CO_2 concentration	-	-	0.005 vol. (0.01 g/L)
O_2 concentration	-	-	2 ppb (in the range <200 ppb)
General information			
Temperature control	Integrated Peltier thermostat		
Minimum amount of sample	35 mL degassed sample per measurement		150 mL sample per measurement
Typical measurement time per sample	4 minutes (incl. filling)		
Environmental conditions	(EN 61010) Indoor use only		
Ambient temperature	15 °C to 35 °C (59 °F to 95 °F), non-condensing		
Standards			
OIV	OENO 390/2010		
TTB	-	Density measurement in proofing alcohol for tax purposes	

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