

# QUALITY CONTROL FROM GRAPES TO WINE



## LQA 300 – Multi-parameter FT-IR wine analyzer

The **LQA 300** combines performance, speed, ease of use, uptime, and connectivity – all in a compact instrument. Its intuitive step-by-step workflow analyzes liquid samples and presents results in less than 45 seconds.

The LQA 300 is ideal for routine analysis throughout the entire winemaking process. From harvesting, to vinification to ageing and bottling, it can be used to analyze must, must under fermentation, and finished wine.



## Applications and Benefits

- ▶ **Evaluate** grape soundness and quality quickly to segregate the grapes and plan for the fermentation
- ▶ **Monitor** the vinification to ensure the alcoholic and malolactic fermentation processes take place
- ▶ **Verify** the finished product quality to avoid reprocessing batches
- ▶ **View** results for multiple-quality parameters for must, must under fermentation, or finished wine in under 45 seconds

## Accurate, Reliable Performance

The LQA 300 wine analyzer builds upon our expertise in FT-IR spectrometer development and our long-time experience in advanced wine quality testing. We're the leader in FT-IR for more than 75 years and have supplied over 15,000 units of the spectrometer used in the LQA 300. Its patented technology – such as the Dynascan™ interferometer – delivers unparalleled accuracy and stability.

## Fast Results

For wine producers, it's critical to be able to perform analysis at any time, and the LQA 300 is designed to meet those needs.

The LQA 300 can test and deliver your results in under 45 seconds, allowing you to run at least 60 samples per hour.

## Intuitive, Powerful User Interface

With its large 12-inch touchscreen, and intuitive workflow, the LQA 300 is easy and efficient to use – to analyze a sample, simply place it in the instrument and press “Analyze” The instrument does the rest and presents results in less than 45 seconds. New operators are up and running in just a few minutes, confidently performing routine analyses.

For expert users, the LQA 300 includes powerful features for validation, monitoring and reporting of performance and results. And thanks to Windows connectivity, you can use all standard accessories like printers or barcode scanners. The LQA 300 is easily connected to a local network and can be integrated with LIMS software.

## Remote Access

Our NetPlus™ cloud-based tools let you access results and create reports, including charts and tables, from anywhere at any time. The optional module for instrument management includes powerful tools for performance optimization and configuration maintenance.

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## LQA 300 Wine Analyzer Specifications

Technology	FT-IR				
Wavelength Range	400 – 4000 cm <sup>-1</sup>				
Products	Must, Must under fermentation, Finished Wine				
Parameters & Range Finished Wine	Parameters	Unit	Range		
	Ethanol	%Vol	6.4 - 16		
	Total Acidity	g Tartaric acid/l	3.2 - 7.3		
	Malic Acid	g/l	0 - 6		
	Lactic Acid	g/l	0 - 3.3		
	Volatile acidity	g Acetic acid/l	0 - 1.0		
	Glucose/Fructose	g/l	0 - 25		
	pH	-	3.0 - 4.2		
	Density	g/cm <sup>3</sup>	0.99 - 1.04		
	Parameters & Range Must, Must Ferment	Parameters	Unit	Range	Must
Ethanol		%Vol	1.5 - 16.0		x
Total soluble solids (Brix)		%m/m	17.5 - 28.5	x	
Glucose/Fructose		g/l	16.7 - 296.5	x	x
Glucose		g/l	71 - 152	x	x
Fructose		g/l	82 - 149	x	x
Malic Acid		g/l	0.4 - 5.9 (Must) 0.02 - 4.1 (Ferment)	x	x
Total Acidity		g/l	1.5 - 13.5	x	x
pH		-	2.2 - 4.2	x	x
Density		g/cm <sup>3</sup>	1.0 - 1.12	x	x
Gluconic acid		g/l	0 - 11.3	x	
Glycerol		g/l	0 - 4.65	x	
Sample Capture Time		< 45 seconds		Carry Over	<1%
Sample Temperature	5 - 40°C		Cleaning	Automatic and Programmable	
Sample Treatment	Must and must under fermentation samples need to be filtered with a standard cellulose paper filter or centrifuged		Power Supply	100/230 V, 50/60 Hz, 12 V operation	
Sample Volume	5-10 ml		Dimensions (W x D x H)	460 x 440 x 600 mm	
Ambient temperature	5 - 35°C		Weight	22 kg	
Humidity	Non-condensing		Dust / Water classification	IP22 for main cabinet, hermetically sealed FTIR optics	
Data Interface	2 x USB Ports (for printer, keyboard, mouse or barcode reader) 1 x Ethernet port				
Operating System	Windows™				
Remote Connection	NetPlus				
Display	12" color touchscreen				

