

OenoFoss™

Instant quality control throughout the winemaking process



ANALYTICS BEYOND MEASURE

OenoFoss™ is a compact, simple-to-use analyser that measures multiple parameters of grape must, must under fermentation or wine in just two minutes.

Fast analysis throughout the winemaking process

Replace time-consuming analysis with a single test performed whenever you need it. With test results in just two minutes you can analyse more frequently, giving you valuable objective information to support your decisions from grape maturation to bottling.

All you need to know from a few drops of grape juice

With Oenofoss, a few drops of must juice is enough to analyse grape samples. The parameter list includes organic acids, sugars and soundness indicators, allowing you to monitor grape maturity and plan your harvest accordingly. The multiple quality parameters allow you to segregate grapes precisely for maximum value.

Cost effective control of your wine process

Oenofoss gives you real-time analysis of the vinification processes. You'll still have to consider optimal growth conditions for the yeast and the risk of stuck fermentation, but with Oenofoss you can track trends in a tight measurement programme and avoid problems before they arise.

Sample types

Grape must, must under fermentation, wine

Parameters

Most critical quality control parameters

Technology

FTIR (Fourier Transform Infrared Spectroscopy)

Specifications

Applications

Components	Unit	Ranges within product type*			Sweet wine	comments
		Must	Must under fermentation	Finished wine		
Absorbance A420 nm	Absorbance units			0.002 – 1.20		2 mm cuvette
Absorbance A520 nm	Absorbance units			0.08 – 3.0		2 mm cuvette
Absorbance A620 nm	Absorbance units			0.02 – 0.40		2 mm cuvette
Alpha amino nitrogen	mg/l	25 - 275				
Ammonia	mg/l	20 - 150				
Density	g/ml	1.04 - 1.15		0.99 - 1.03		
Ethanol	% Vol.		0.5 - 12.5	10 - 16	8 - 19	
Fructose	g/l			0.2-10.2		
Gluconic acid	g/l	0.2 - 3.2				
Glucose	g/l			0.2-10.5		
Glucose/fructose	g/l		5 - 240	0.2-20	5 - 140	
Lactic acid	g/l			0.2-3.5		
Malic acid	g/l	0.5 - 8.1	0.5 - 6.2	0.2 - 5.5	0.2 - 4.5	
OD 280	None	10 - 80				
pH	None	2.9- 3.9	3.1- 3.8	2.9- 4.0	2.8- 4.0	
Tartaric acid	g/l	2 - 7				
Total acidity	g/l	2 - 12	2.2 - 6.2	2.6-6.5	2.2 - 5.5	Expressed as sulphuric acid
Total sugar	g/l			1 - 50		
Total soluble solids	°Brix	12.5 - 22.5				
Volatile acidity	g/l	0.1 - 0.6 **	0.1 - 0.7	0.2 - 1.1	0.1 - 1.2	Expressed as acetic acid.

*Performance details are available in the application notes corresponding the components and product type.

**Calibration based on acetic acid.

Technical specification

Analysis time	FTIR wine unit; 2 minutes
Temperature for sample and instrument:	10°C - 35°C
Instrument warm up time	1 hour
Sampling	
Sample volume	1 ml.
Sample preparation	Clarification and degassing required. Particle size less than 10 µm. Clarification by filtration or centrifugation. Degassing by vivid shaking in closed container.
Maintenance	
Cleaning	With a regular tissue and commonly used detergent cleaning liquids
Test	Self-test with Instrument Diagnostic Reagent (IDR)
Options	
Calibrations	FOSS provides ready to use calibration – see application list below
Colour unit	2 mm cuvette

Installation requirements

Power supply	100 - 240 VAC ± 10%, 50 - 60 Hz
Power consumption	66 VA [max of Power supply]
Ambient temperature	10°C - 35°C
Ambient humidity	< 93% RH
Weight	Wine unit: 6,3 kg. Colour unit: 3,8 kg
Dimensions (h × w × d)	189 × 154 × 321 mm (excl PC), same size for each module
Environment	Place the instrument on a stable surface away from excessive and continuous vibration. Do not place the instrument in direct sunlight or close to an open window

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