FOSS

WineScan™

Fast and accurate analysis.
From grape harvesting to bottling







ANALYTICS BEYOND MEASURE

WineScan™ ensures full control of the entire winemaking process from grape harvesting to bottling. Ready-to-use calibrations allow for the simultaneous analysis of major wine quality parameters.

Cost effective tool to achieve full process control
With robust multi-component analysis, WineScan provides a full calibration package including 42 robust calibrations based on a FOSS database of more than 150.000 samples. With a low cost per sample, WineScan provides a cost effective way of performing analysis for a fast return of investment.

Secure wine quality and sanity levels
Segregate grapes for better control of final wine quality. With the grape soundness parameter package you can be in control of your final product regardless of fluctuations in grape quality.

A flexible solution to suit your needs
WineScan can be configured to accomodate the need and the level of throughput required in your business. WineScan Auto is configured with an autosampler for the busy laboratory, while WineScan Flex has a manual sample intake as well as the ability to accomodate different calibration packages (must, must under fermentation and finished wines).

Sample type
Grape must, must under fermentation and finished wine

Parameters
Most critical quality control parameters

Technology
FTIR (Fourier Transform Infrared Spectroscopy) interferometer that scans the full infrared spectrum.

Specifications

Applications

		Ranges within producttype *			
Components	**Unit**	**Must**	**Must under fermentation**	**Finished wine**	**comments**
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	35 - 280			
Ammonia	mg/l	20 - 200			
Citric acid	g/l			0.2-1	
CO_2	g/l		400 - 1200	200 - 1100	
Density	g/ml	1.05 - 1.12	0.98 - 1.10	0.98 - 1.03	
Ethanol	% Vol.	0.01 - 0.4	1.6 - 9	8 - 16	
Extract	g/l	150 - 300			
Fructose	g/l	60 - 160		0.2-10; 1 - 45	2 calibrations
Gluconic acid	g/l	0.2 - 2.5		0.2 - 1.5	
Glucose	g/l	65 - 145		0.2-6; 1 - 25	2 calibrations
Glucose/fructose	g/l	95 - 300	5 - 200	0.2-20; 20-50	2 calibrations
Glycerol	g/l	0.2 - 2.0		4-10	
Lactic acid	g/l	0.1 - 2.5		0.1-3	
Malic acid	g/l	1 - 8	1 - 5	0.1 - 4	
pH	None	2.8 - 3.9	3.2 - 3.8	2.8 - 4	
Potassium	mg/l	900 - 3000			
Reducing sugar	g/l	120 -240	5 - 200	0.5-20; 20-150	2 calibrations
Sorbic acid	mg/l			20 - 300	
Tartaric acid	g/l	5 - 8		1-4.5	
Total acidity	g/l	3 - 11	2.6 - 7.1	2-5.7	Expressed as sulphoric acid
Total polyphenol	None			30 - 60	
Total soluble solids	°Brix	10 - 25			
Volatile acidity	g/l	0.05 - 0.5	0.1 - 0.7	0.1 - 1.2	Expressed as acetic acid.

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

Technical specifications

System description	WineScan™ consists of the analyser and Foss Integrator software. Options for WineScan™ include the possibility to upgrade with colour (VIS) module and to automatic version with XY Autosampler - WineScan Flex and WineScan Auto
Analysis time	30 seconds
Auto Sampler capacity	3 rack sizes: 21 positions/30 ml cups; 80 positions/20 ml cups; 120 positions/12 ml cups;
Carry-over	< 1%
Sample temperature	5 - 35°C
Sample volume	Programmable 4 - 25 ml, standard volume is 7 ml for WSC Flex and 8 ml for WSC Auto version.
Cleaning	Automatic and programmable.
Options	
Calibration development	FTIR Calibrator with options for PLS and ASM.
Colour	Colour module (LED)
Sample filtration	Manual filtration unit Vacuum pump

Installation requirements

WineScan™	
Power supply	100 - 240 VAC ±10% – 50 - 60 Hz
Power consumption	Max. 500 VA during measurement, 200 VA in standby
Ambient temperature	5 - 35°C
Ambient humidity	< 80% RH, cyclic up to 80% RH when going from low to high ambient temperature
Weight	89 kg for WSC Flex; 100,7 kg incl. XY Autosampler
Dimensions (h × w × d)	54×88×47.3 cm (excl. PC)
Environment	For best performance, place the instrument on a stable surface away from excessive and continuous vibration.
XY Auto Sampler	
Power supply	100 - 240 VAC ±10% – 50 - 60 Hz 100 - 240 VAC ±10% – 50 - 60 Hz ; 1,04 A Autosampler input: 24 V DC; 3,33 A
Weight	11,7 kg
Dimensions (h × w × d)	62×33×59 cm (with sample probe, cables and tubing mounted)

FOSS

FOSS
Tel.: +45 7010 3370
info@foss.dk · www.fossanalytics.com
GB, September 2018