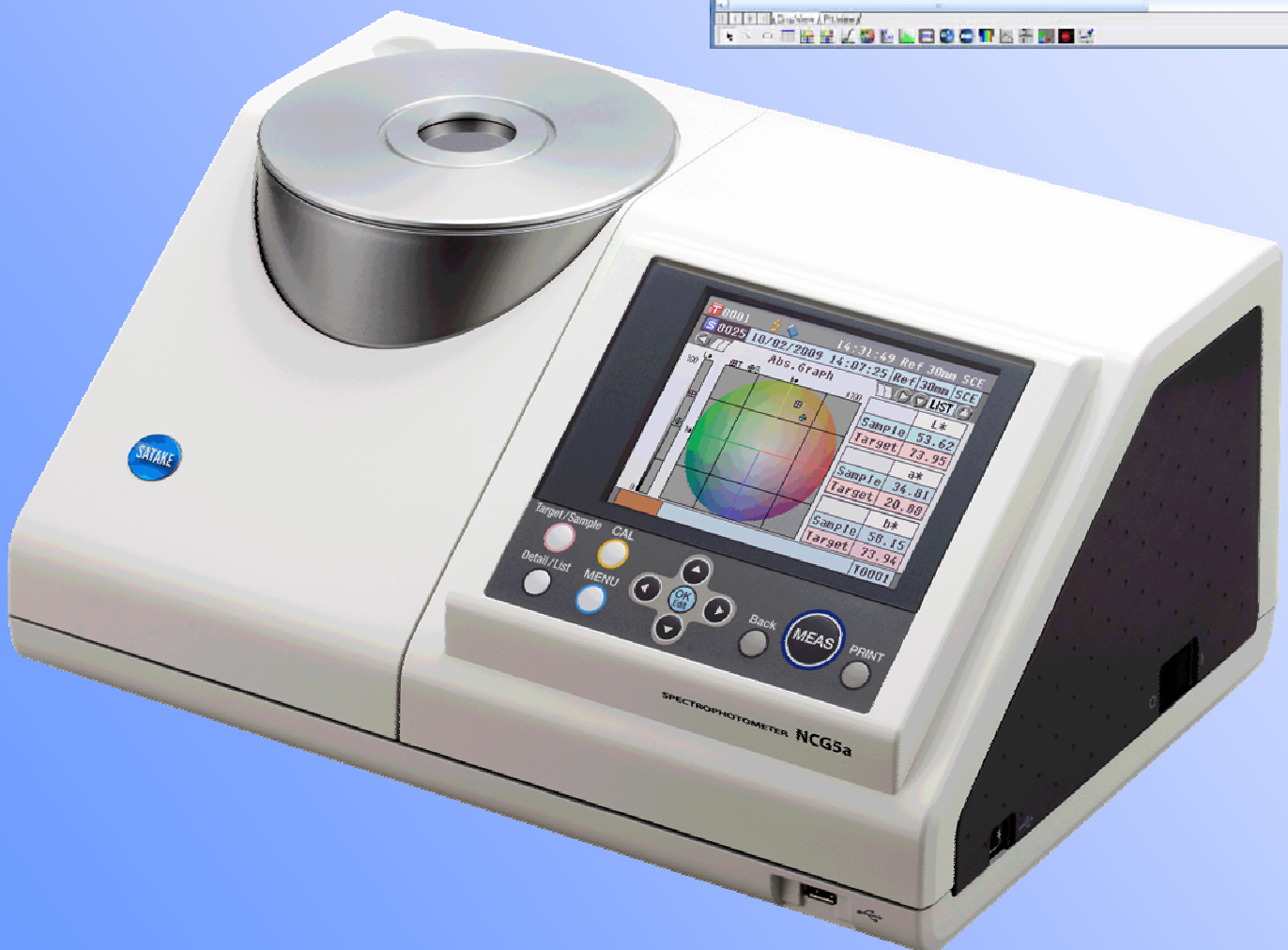
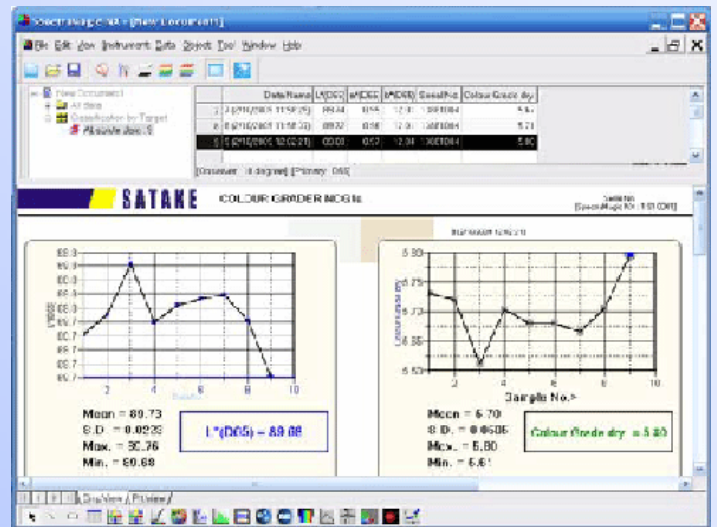


Tristimulus Spectrophotometer

Flour Colour Grader

NCG5a



Description

The Satake NCG5a Spectrophotometer is a highly accurate d/8° geometry, top-port instrument designed for flour whiteness measurement.

Operation is performed stand alone or via computer software to provide simple, efficient colour monitoring from the research laboratory to the factory floor.

The system software has been tuned to make traceable **Tristimulus L*a*b* flour whiteness readings**. (L* a component of Whiteness – is used as a standard in many countries including Japan, Australia and now in use by many millers in the UK for Flour Trade quality assessment.)

The tristimulus system of measurement, in using three primary colours, gives powerful discrimination qualities. It therefore lends itself to being used as the basis for many other colour type measurement across the full colour spectrum -not just whiteness!

Kent Jones Colour grade value is also indicated-

Due to Satake's previous history with the Kent Jones Colour Grader it was thought beneficial to determine a secondary calibration for use inside the NCG1a – based on samples taken from reference Series 4 colour graders in real laboratory use. This new software calibration enables the NCG5a to derive a Colour Grade reading alongside the newer Tristimulus information reading.

Wet or dry presentation is possible. Some customer calibration may be required before use of this feature.

Sample Cell

A quick fill top loading sample cell is supplied with the system.



Calibration Check System (L*)

The system is supplied with auto-calibration check tile .

Operation

Colour Grade

For Kent Jones Colour Grade one prepares the sample as previously for wet paste method. This sample is then placed on the sample port before pressing the sample key from the PC. Sample analysis takes a few seconds. Overall Analysis time is approximately 3 minutes.

Dry sample can also be presented - however some adjustment to calibration may be needed .

Tristimulus L*a*b*

Sample is prepared dry and presented in the sample cell as shown below. Tristimulus Colour is given in terms of L* a*b* values. A PC is required for the data presentation. Analysis time 3 seconds.

Various other colour measurement standards are viable via use of software display templates -

Specifications

Geometry	Reflectance:d/8 diffuse illumination/8° viewing angle; meets ISO and DIN standards for d/8 geometry; also meets CIE and ASTM standards for d/0 geometry. Transmittance:d/0 (diffuse illumination/0° viewing angle)
Detector	Dual 40 element silicon photodiode arrays , planar diffraction Grating.
Measurement Time	3 seconds
Measurement Area	Reflectance: 30mm (Colour Grade and Flour measurement) /11mm/8mm via optional presentation mask Transmittance : 22mm via optional presentation brackets.
Suitable Materials	Flours, Flour Paste, Pasta (Spaghetti) – plus all easily presented items.
Accuracy	dE*ab 0.15 (inferred from L*a*b* data)
Wavelength	360 – 740 nm (10nm spacing)
Interface	USB Interface, USB memory stick.
Light Source	Pulsed Xenon Arc – long life cycle
Dimensions	385x192x261mm Weight: 5kg (not include PC)

PC Requirements

Operating System	Microsoft Windows versions: XP/Windows Vista or 7 professional Vista or 7 Home/ Premium/Business 32 or 64 bit
Memory	2 Gbyte minimum
HDD	160 Gbyte min
Processor	Pentium 4 3 Ghz or higher
Communications	USB port required

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