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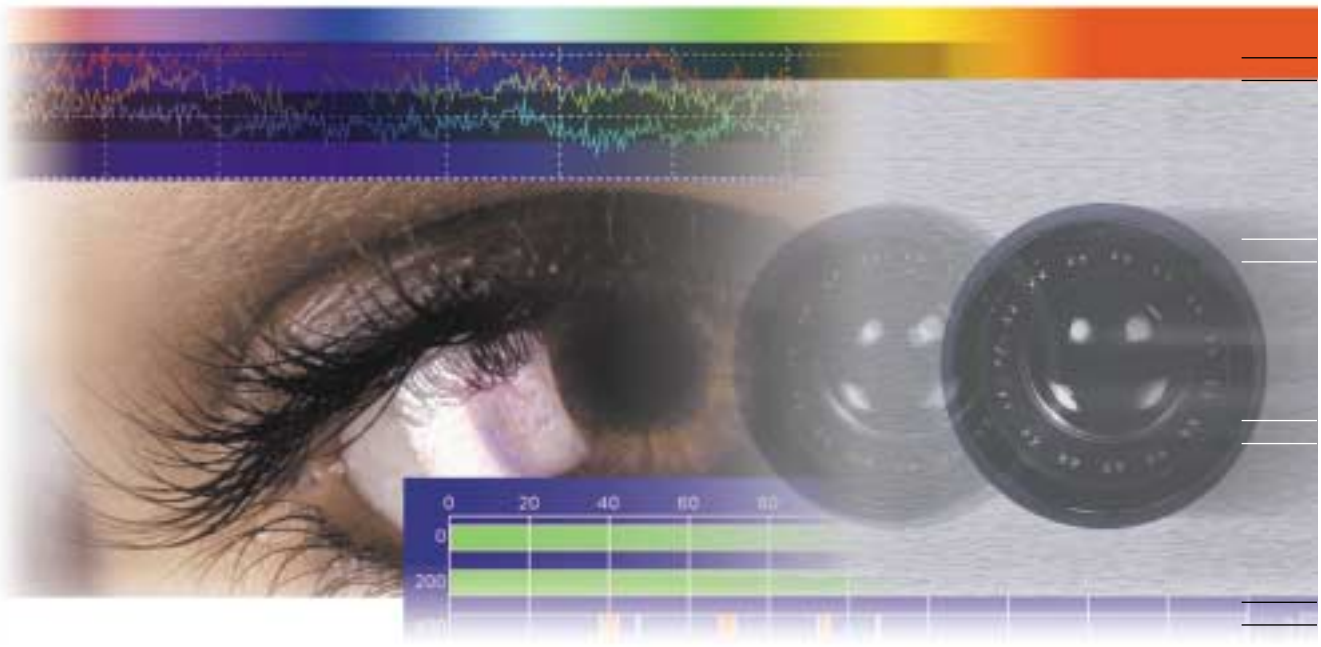

COLORSCAN CIS-12

Colour Inspection System

Measurement

Control

Automation

COLORSCAN CIS-12
Colour Inspection System

The err is human – the ability of the naked eye to assess colour

Up to now, the human eye was still the most effective means of assessing colour at the inspection stage, but there was always a very real risk of overlooking slight variations in colour there. The ability to concentrate usually declines rather sharply, even over a short period of time. Fatigue or illness affects even a qualified percher's ability to assess colour. Moreover, the naked eye can only spot slight colour inconsistencies when they are close together. When a piece is unevenly dyed, the colour across and along it varies gradually as a rule over many metres of cloth. The human eye has great difficulty therefore in detecting such subtle variations.
Once the material has been made up into garments, even the slightest difference in shade between two pieces sewn together will create a very bad impression. The percher really has no option but to cut samples at regular intervals from the piece, and compare them.

Play safe with a COLORSCAN CIS-12

Traversing scanner with halogen lamp and spectrometer

Traverse assembly with colour scanner

A spectrophotometer that runs to and fro across the on-line cloth, and takes measurements at the left, centre, and right, the scanner aligning itself automatically to each selvedge. In doing so, the CIS-12 logs continuously any variations in shade, both across the piece, and along its length. If required, the sensor can also take absolute measurements at one specific point on the cloth.
If required, cross-web profiles can also be displayed graphically.
The internationally-standard CIE lab-system is used to establish the colour values (every type of standard illuminants, various DE-formulas, degree of luminosity).
A CIS-12 compares successive colour values with, for instance, a reference measurement taken at a given point at the centre of the piece (or a manually entered target figure). It then highlights any departures from the reference measurement, or set-point, and documents any colour variations relative to piece length. A pass / fail assessment can also be issued by entering specific tolerances.

CIS-12 at an intermediate inspection point

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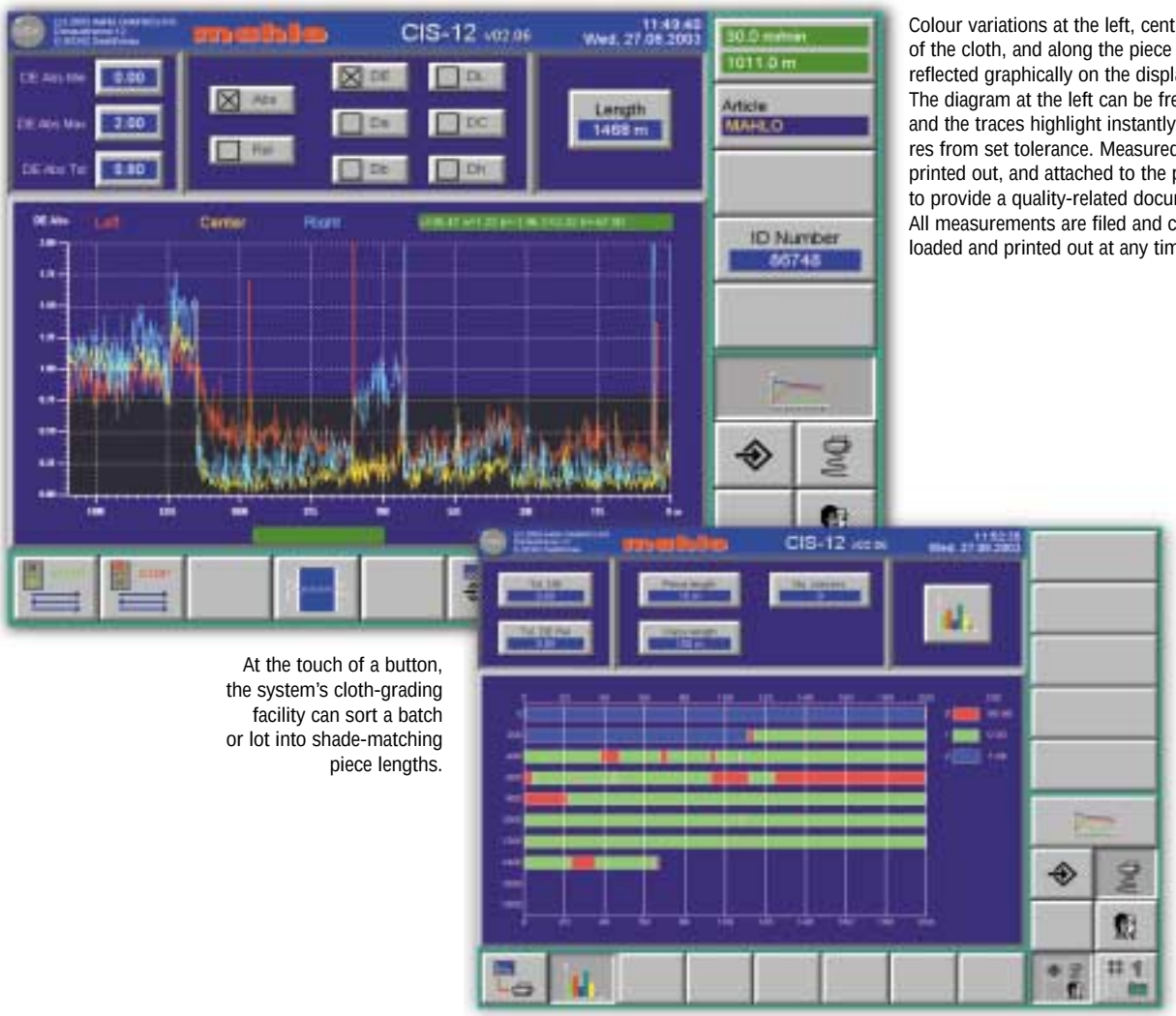
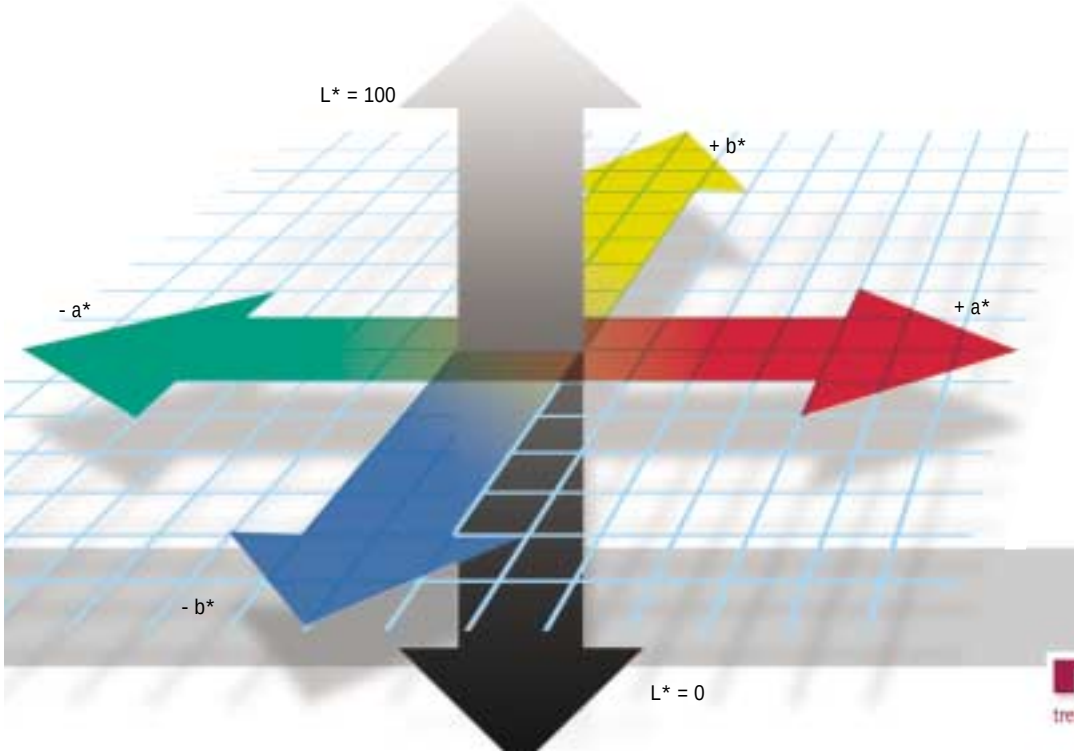


Colour variations at the left, centre, and right of the cloth, and along the piece length are reflected graphically on the display.
The diagram at the left can be freely scaled, and the traces highlight instantly any departures from set tolerance. Measured data can be printed out, and attached to the piece, in order to provide a quality-related document.
All measurements are filed and can be downloaded and printed out at any time.

At the touch of a button, the system's cloth-grading facility can sort a batch or lot into shade-matching piece lengths.



A CIS-12 measures the colour of the cloth with standard geometry (CIE Lab-system). Any variations in shade, chroma, and luminosity can be indicated separately. The colours can be compared objectively on the basis of any inconsistencies.

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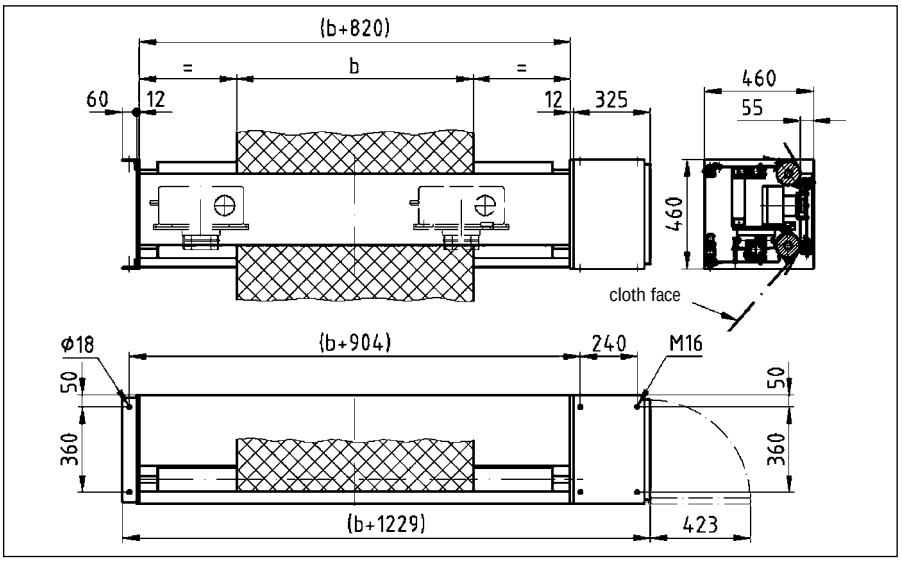
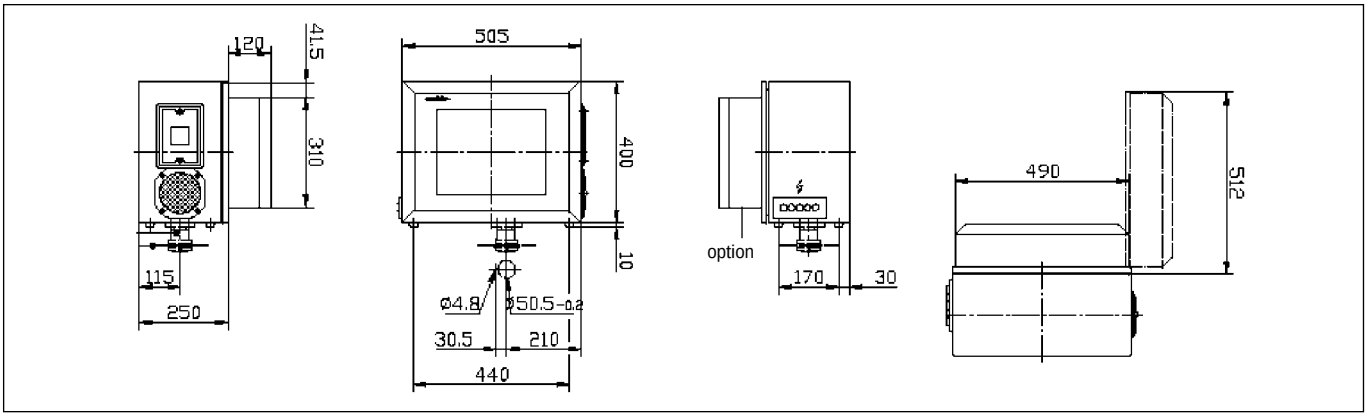
COLORSCAN CIS-12 Technical Data

Computer panel	
Dimensions:	505 x 400 x 250 mm
Safe ambient temp.:	5-45°C non condensible (an optional cooler is available for higher temperatures)
Power supply:	230 V, 50/60 Hz, 1 kVA
Control:	industrial PC with touch-screen, colour LC-Display 15“
Traverse	
Dimensions:	460 x 460 x (b + 1229 mm), bmax = 3200 mm (other widths on request)
Safe ambient temp.:	5-45°C (a versatile „modular“ cooling system is available for higher temperatures)
Features:	automatic selvedge sensors, guide rollers, linear module with frequency-converter drive, and position monitor, and enclosed compact, enclosed construction, option of V2A model (minus cooling fan) assembly with screens on both open sides
Max. rate of traverse:	1,2 m/s
Colour scanner	
Scan geometry:	0°/45° circular, 18 mm scanning spot when stationary, 18 x 80 mm when in motion
Spectrometer:	with halographic grating, and diode cells with 256 elements, temperature compensated
Spectral bandwidth::	380 – 780 nm
Spectral dispersion:	3 nm
Lamp:	steady-light, halogen lamp 10 W, 2500 h





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