

BST QCenter.Spectral
Inline spectral color measurement system
for the best possible color quality

The logo for BST International, featuring a stylized 'S' icon inside a square followed by the text 'BST International'.

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QCENTER.SPECTRAL

Precise color measurement, revolutionary result.

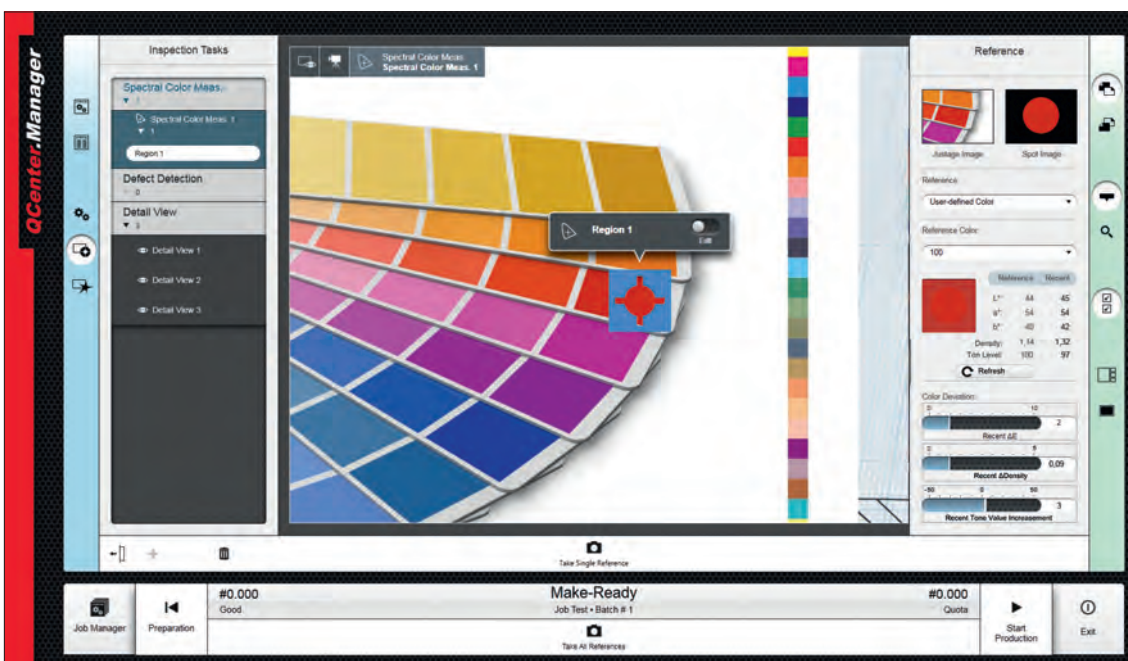
One of the greatest challenges in printing is achieving the most accurate color reproduction possible or accomplishing the desired color quality. This has to be maintained throughout the entire print job and also for subsequent orders.

The fully automatic spectral inline color measurement system QCenter.Spectral provides precise measuring results and thereby meets the ever increasing demand for reliable process data on color quality in roll printing.

See for yourself, QCenter.Spectral sets standards in color quality control on running webs. You receive objective and replicable information about your print:

- Measurements in full-tone patches provide you with all the information you need to make the recipes in your „ink kitchen“ match the reference color tone perfectly without unnecessary stops.
- Moreover, the measurement of half-tone patches also makes it possible to test other machine parameters, e.g. impression settings, more objectively.
- The measurement of polychrome printings (superimposed inks) provides information about the interaction of the different colors.
- The system also automatically provides you with values for density and tone value increasements.

QCenter.Spectral supplies your customers with a clear verification of the quality of their product. Since QCenter.Spectral was developed in close collaboration with the market leader for offline measurement systems, it is able to offer the highest data compatibility with these hand-held devices.



INLINE COLOR COMPARISON NEUTRAL AND STANDARDIZED

Continuous quality assurance for every requirement

BST International has developed a future-proof system for spectral color measurement in printing machines. In doing so, great importance was placed on the system components used assisting the operator in the best possible manner, examples include:

- The completely enclosed spectral photometer module is protected against scattered light. It recalibrates itself automatically in the service unit, whether at regular intervals or on request.
- The traversing background is checked by spectral and image analysis next to the web. It is also easy to clean, when necessary
- The pictures of the additional camera are used for the automatic plausibility check of the measuring. Moreover they are used for fine positioning.

AT A GLANCE:

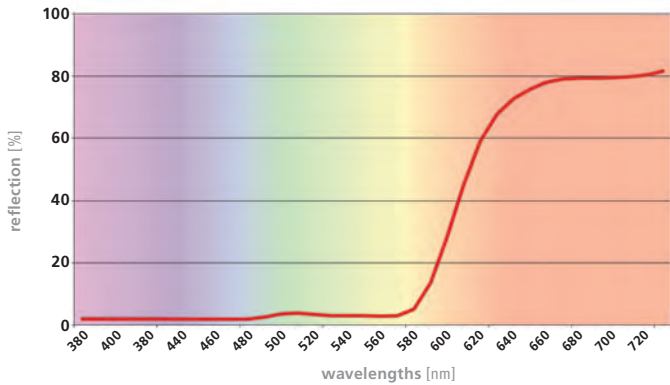
QCenter.Spectral – Technical Information

- **Spectral measuring range** from 380 to 730 nm
- **Spectral color information** offers in addition to the calculation of the CIE L*a*b* results, also all other formats for ink values, e.g., CIE Norm Valences [X,Y,Z] or the Munsell Color System [L, C, h], [x,y,Y].
- **Result output** of both spectral data and color stimulus specification with regard to all conventional standard illuminant types [D50, D65, A, T, etc.] and standard observers [2°, 10°]
- **Result resolution** 10 nm
- **Measurement** is carried out on a homogenous area of 5 mm at any position in the printed image
- **Inline analysis** of the measuring point concerning homogeneity and position
- **Full tone and half-tone colors** can be measured
- **Maximum web speed:** 1,000 m/min
- **Maximum measuring frequency:** 30 measurements/sec
- **Measurement repeat accuracy** from 0.02 ΔE_{ab}
- **Comparability** with offline hand-held devices via XRGB standard guaranteed
- **Conformity with ISO 13655:2009:** Absolute color measurement regarding 45°/0° measurement geometry

Spectral photometer functioning

A spectral photometer measures remission values for the complete light spectrum. This way, the precise location of a color can be determined and deviations from other colors can be calculated. For this purpose, the spectral photometer guides light onto the print or another pattern and splits the

remitted light spectrally to guide it onto an optical sensor. Here, color information is converted to digital format and can be interpreted as a kind of „color fingerprint“ when shown in the form of a remission curve.



Example: remission curve for red color

To learn more, please visit www.bst-international.com.

Your local contact

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