

TECHKON
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TECHKON SpectroJet



TECHKON SpectroJet – Scan-Measurement Device Color control made easy

Accurate, fast and easy-to-use

TECHKON SpectroJet revolutionizes automatic measurements of print quality on print control bars, color wedges and test charts. Color measurement made easy: The compact measurement device is quickly guided by hand along the color bar. Tracking wheels on the bottom of the device ensure a secure and straight run. At longer distances the device can be slid along a guiding track. The measurement data is transferred simultaneously to a PC in order to control the color quality of the printing press.

All-purpose device

Thanks to the modular concept of SpectroJet it can be used for any printing process and quality standard. ISO 12647 (PSO), Fogra media wedge, Gracol G7™ or any other standardization method can be applied: SpectroJet will always deliver all relevant measurement data necessary for evaluating high quality prints.

ISO compliant measurements

By software command a physical polarizing filter can be inserted which is the pre-condition for conforming to the current print standards.

Providing multiple functions – e.g. color densities, colorimetry, printing contrast, gray balance, dot gain or ink setting recommendations – SpectroJet is a versatile and valuable tool for achieving highest print quality and boosting the productivity of a printing press.

Using the latest LED technology, the new SpectroJet provides D50 illumination and therefore fulfills the current M0, M1, M2, M3 measuring conditions in accordance to ISO 13655.

Quality assurance during the complete press run

Increasing customer demands require that the press run is printed according to defined and documented industry print quality standards. TECHKON SpectroJet and the related Windows software TECHKON ExPresso are practical utilities that adhere to the print quality standards as defined by ISO 12647 (PSO) and Gracol G7™.

Software SpectroConnect and ExPresso

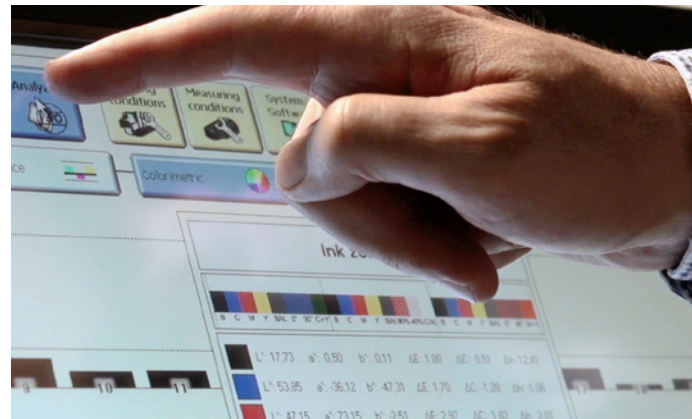
The supplied software TECHKON SpectroConnect displays all measurement values clearly on the computer screen. They are transferred by SpectroJet via a USB connection and can be exported as well into other applications, such as Microsoft Excel™ for example.



Furthermore the comprehensive software package includes the following modules: data evaluation of test charts for color management, colorimetric quality control, recording of printing curves and calculation of the adjustments to be carried out for printing plate exposure, analysis of the Ugra/Fogra media wedge.

The additionally available software TECHKON ExPresso is especially suited for the evaluation and documentation of the print quality according to various quality control methods, e.g. ISO 12647 (PSO) or Gracol G7™.

Thanks to the ink zone specific display of the measurement values the software provides an easy and fast color adjustment on the printing machine.



Versions and functions

SpectroJet is a scan-measurement device for automatic spectral measurements on print control strips, color wedges and test charts. Optionally it can be used for spot measurements as well. There are two different packages available. A post-purchase software-upgrade from SpectroJet Basic to the Pro version can be done easily.

SpectroJet + Software ExPresso Basic

Consists of the scan-measurement device SpectroJet and the Windows software TECHKON ExPresso Basic with the following functions: ■ Ink zone specific density display ■ Color density for CMYK and spot colors (spectral density) ■ Densitometric gray balance ■ Dot area ■ Dot gain ■ Printing contrast ■ Slur/doubling ■ Target values and tolerances ■ OK-sheet ■ Measurement data export (e.g. JDF format) ■ Front-side and reverse printing ■ Works with any sheet format and color bar length ■ Display of single measurements ■ Statistical analysis and report ■ Supports up to 6 printing units

SpectroJet + Software ExPresso Pro

Same functions as the Basic package and additionally: ■ Ink zone specific colorimetric CIE L*a*b* and $\Delta E^*a^*b^*$ display ■ $\Delta L^*a^*b^*$ ■ CIE L*C*h* ■ $\Delta L^*C^*h^*$ ■ InkCheck: recommendation for ink key setting ■ Display and evaluation according to ISO 12647 (PSO) ■ GrayGuide (gray balance) according to Gracol G7™ ■ Supports up to 16 printing units

Software ■ TECHKON ExPresso; delivered on CD with software protection key (USB-dongle) and CD with print control strip TCS Digital

System requirements: Windows 7, 8 or 10; 32- and 64-bit, minimum: IBM-compatible PC with Intel Core Duo processor or comparable processor, 4 GB RAM, 2 USB ports; screen resolution for TECHKON ExPresso: minimum 1280 x 1024 pixel

Contents ■ Measurement device SpectroJet ■ White standard ■ USB cable ■ Carrying case ■ CD with software SpectroConnect ■ Print control strip TECHKON TCS Digital ■ Manual with ISO 9000 compliant certificate

Optional accessories ■ Horizontal track with two vertical bars. Standard lengths: SpectroJet Track 52 (for sheet format: 00), SpectroJet Track 74 (for sheet format: 0B) or SpectroJet Track 102 (for sheet format: 3B); special lengths on request ■ Color reference SpectroCheck

Specifications

Measurement geometry	0°; 45° optics
Spectral range	400 to 700 nm in 10 nm steps
Measurement aperture	1.5 mm, appropriate for measuring patches with at least 3 x 3 mm (h x w)
Light source	LED, provides measurement conditions M0, M1, M2, M3 according to ISO 13655
Polarization filter	Twice linear crossed, switched on and off per software command
Measurement time	Approx. 160 mm/s for 4 mm patches (equals approx. 3 seconds for 520 mm sheet length), approx. 400 mm/s for 8 mm patches, single measurement approx. 1 second
Scan length	Max. 2000 mm
White reference	Absolute and relative
Illumination types	A, C, D50, D65, F 2/7/11

Standard observer	2°, 10°
Density filter	DIN 16536, DIN 16536 NB, ISO/ANSI I, ISO/ANSI II, ISO E; spectral density D _{max}
Density measurement range	0.00 – 2.50 D
Repeatability	0.01 D; 0.03 CIE $\Delta E^*a^*b^*$
Production spread	0.01 D; 0.3 CIE $\Delta E^*a^*b^*$
Data transmission	USB-connection
Power supply	USB-connection
Weight	Measurement device: 360 grams
Dimensions	55 x 70 x 135 mm (approx. 2.2 x 2.8 x 5.3 inches)
System requirements for TECHKON software:	
Windows 7, 8 or 10; 32- and 64-bit, minimum: IBM-compatible PC with Intel Core Duo processor or comparable processor, 4 GB RAM, 2 USB ports; screen resolution for TECHKON ExPresso: minimum 1280 x 1024 pixel	