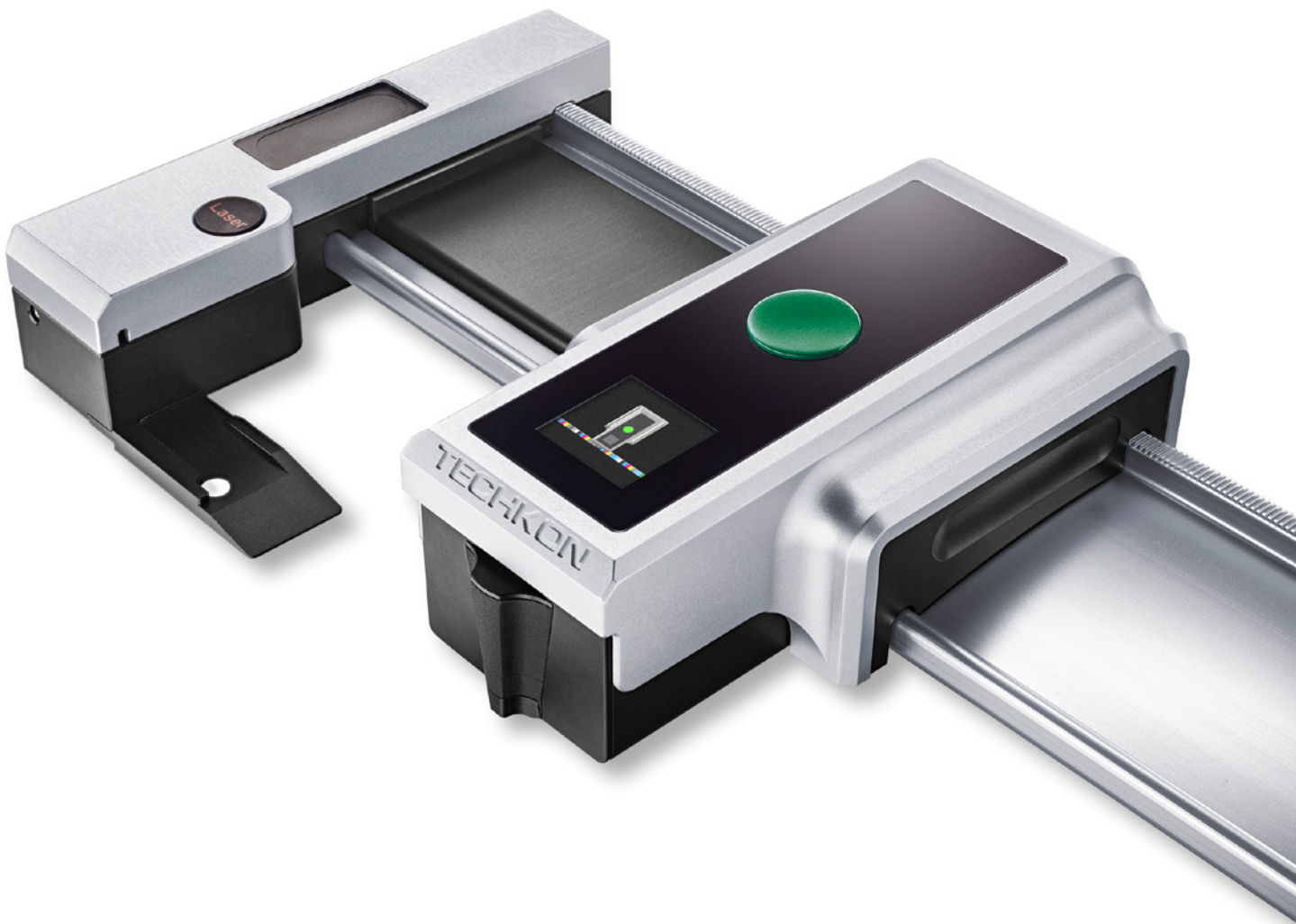# TECHKON
Erfolg ist messbar

TECHKON SpectroDrive

TECHKON SpectroDrive – Scan-Measurement System
Quality on the fast track

High quality and productivity

The new generation of the proven Scan-Measurement System TECHKON SpectroDrive combines decisive advantages: Precise measurements thanks to an ISO-compliant measuring head, technical reliability and high measurement speed. It can be fully integrated into the printing process. The result: a productivity and quality boost for your printing press.

The system consists of two components: The motorized measurement device scans the complete color bar on a printed sheet within seconds and simultaneously sends the spectral measurement data wirelessly to the PC. Here all relevant information for controlling the printing press is clearly displayed by the TECHKON ExPresso 4 software.

Increase profitability

Due to the trend of smaller print jobs and shorter press runs the time from starting a press to getting it "in color" and running with consistent quality is cost critical. SpectroDrive reduces this "non-productive" and therefore expensive set-up time dramatically. You will increase profitability thanks to substantially reducing paper and ink waste and getting more precious time out of your printing press. The system makes your printing jobs predictable and calculable. In addition, the complaint rate will

go down significantly and your customers will appreciate the sensible gain and reliability of the print quality. ISO-compliant printing becomes easier than ever before.

The high rate of return of investment is amazing. The relative low – and only one time – investment will show in recurring profits almost immediately. Also older printing presses get a productivity boost thanks to SpectroDrive.

Ease of use and high speed measurement

Setting up a printing press can be compared with starting a jet plane. It is a time-critical process, where the press operator – like a pilot – must observe and perform a multitude of important tasks at the same time. Hence, during the development of SpectroDrive great care was taken in delivering a system that is easy to use and fast, to make working with SpectroDrive even more intuitive and convenient.

For example, a laser beam can be activated to support the exact positioning of the print control strip. Furthermore the measurement device has only one button to start the measurement process. Installation is simple as well. After a few minutes the system is operable and ready to take measurements. Due to its aluminum unibody case the new SpectroDrive is particularly robust and reliable. Of course SpectroDrive is able to handle

variable scan lengths and fits to any printing press format. The battery charging is inductive, fast and sustainable.
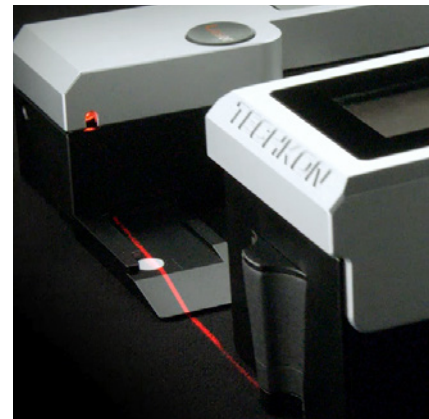
Two measurement systems in one

This statement relates not only to the technical fact that the spectral measurements allow displaying densitometric and colorimetric data. It also points out that SpectroDrive can be used as a scanning device as well as a hand-held instrument for single measurements. Just take the device from the horizontal track and position it wherever you want to take a color measurement. SpectroDrive now also features an integrated display that shows the measurement values of spot measurements directly at the device.

Software ExPresso

The Windows software TECHKON ExPresso 4 has a self-explanatory user interface which can be operated via touch-screen. The software offers a comprehensive tool set comprising measurement of spot colors, support of up to 16 print units, front-side and reverse printing, display of color density, dot gain, gray balance, CIE L*a*b*-values and recommendations on how to adjust the ink on the press. This is only an extract of the complete functionality.

Thanks to its modularity TECHKON ExPresso 4 is expandable and versatile. The measurement data can be exported into other software applications that connect real-time to printing presses to enable a "closed loop" turn-key solution. In addition, the ExPresso software can export measured data to standard applications such as Microsoft Excel™.

Versions and functions

The scan-measurement device SpectroDrive and the Windows software ExPresso 4 form a complete quality control system for increasing productivity and quality of a printing press. There are two different packages available. A post-purchase software upgrade from SpectroDrive Basic to the Pro version can be done easily.

SpectroDrive + Software ExPresso 4 Basic
Consists of the spectral-measurement device SpectroDrive and the Windows software TECHKON ExPresso 4 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 value ▪ Target values and tolerances ▪ OK-sheet ▪ Front-side and reverse printing ▪ Works with any sheet format and color bar length ▪ Display of single measurements when used as a hand-held device ▪ Measurement data export (e. g. JDF format) ▪ Statistical analysis and report ▪ Supports up to 6 printing units

SpectroDrive + Software ExPresso 4 Pro
Same functions as the Basic package and additionally: ▪ Ink zone specific colorimetric CIE L*a*b* and ΔE*a*b* display ▪ ΔL*a*b* ▪ CIE L*C*h* ▪ ΔL*C*h* ▪ InkCheck: recommendation for ink key setting ▪ Display and evaluation according to ISO 12647 (PSO) ▪ GrayGuide (gray balance) according to Gracol G7™ ▪ OBA-Check ▪ Supports up to 16 printing units

Software ▪ TECHKON ExPresso 4; 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 SpectroDrive ▪ Charging console with integrated white standard ▪ AC adapter with universal plugs ▪ Horizontal track with holder ▪ 2 vertical bars ▪ WLAN module for wireless data transmission ▪ USB cable ▪ Manual with ISO 9000 compliant certificate (pdf on CD) ▪ Manufacturer certificate ▪ Screwdriver ▪ 4 screws ▪ Optional: CD with software ExPresso 4, USB dongle   Optional accessories ▪ Color reference SpectroCheck

Specifications

Measurement geometry	0°: 45° optics according to ISO 5-4	Density measurement range	0.00 – 2.50 D
Spectral range	400 to 700 nm in 10 nm steps	Formats	52 (20") for sheet format 00 (B3+, 370 x 520 mm); 74 (28") for sheet format 0B (B2+, 520 x 740 mm); 102 (40") for sheet format 3B (B1+, 720 x 1020 mm); 105 (42") for sheet format 3B+ (B1+, 780 x 1050 mm); special formats (up to 2060 mm) on request
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	Repeatability	0.01 D; 0.03 CIE ΔE*a*b*
		Inter-instrument agreement	0.01 D; 0.3 CIE ΔE*a*b*
Polarization filter	Twice linear crossed, switched on and off per software command	Display single measurement	Color-OLED, 128 x 128 pixel
Measurement time	Approx. 160 mm/s for 4 mm patches (equals approx. 3 seconds for 520 mm sheet length), single measurement approx. 1 second (if SpectroDrive is used as hand-held device)	Data transmission	WLAN module for wireless data transmission with PC-sided USB connection
		Power supply	LiFePO4 battery, regulated recharge via charging console with AC adapter, 100 – 240 V, 47 – 63 Hz
White reference	Absolute and relative; absolute white standard integrated in charging console	Weight	Measurement device: 925 grams
Illumination types	A, C, D50, D65, F 2/7/11	Dimensions	Measurement device: 59 x 96 x 170 mm (approx. 2.3 x 3.8 x 6.7 inches)
Standard observer	2°, 10°		System requirements for TECHKON software: Windows 7, 8 or 10; 32- and 64-bit, minimum:
Density filter	ISO/ANSI T, ISO/ANSI I, ISO E; spectral density Dmax		IBM-compatible PC with Intel Core Duo processor or comparable processor, 4 GB RAM, 2 USB ports; Screen resolution for TECHKON ExPresso 4: minimum 1280 x 1024 pixel

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