# SPECTROEDGE

Inline Spectrophotometer for Digital Press Manufacturers

SpectroEdge has been designed for inclusion inside a wide variety of digital print engines. It is a compact and highly accurate scanning spectrophotometer that can measure 3,000 samples per-second which allow it to measure at full production press speeds. Inclusion of SpectroEdge inside a digital press allows for linearization, calibration, ICC profiling, and color quality measurements to occur in real-time and without operator intervention for increased color accuracy, increased color consistency, and a more seamless user experience.
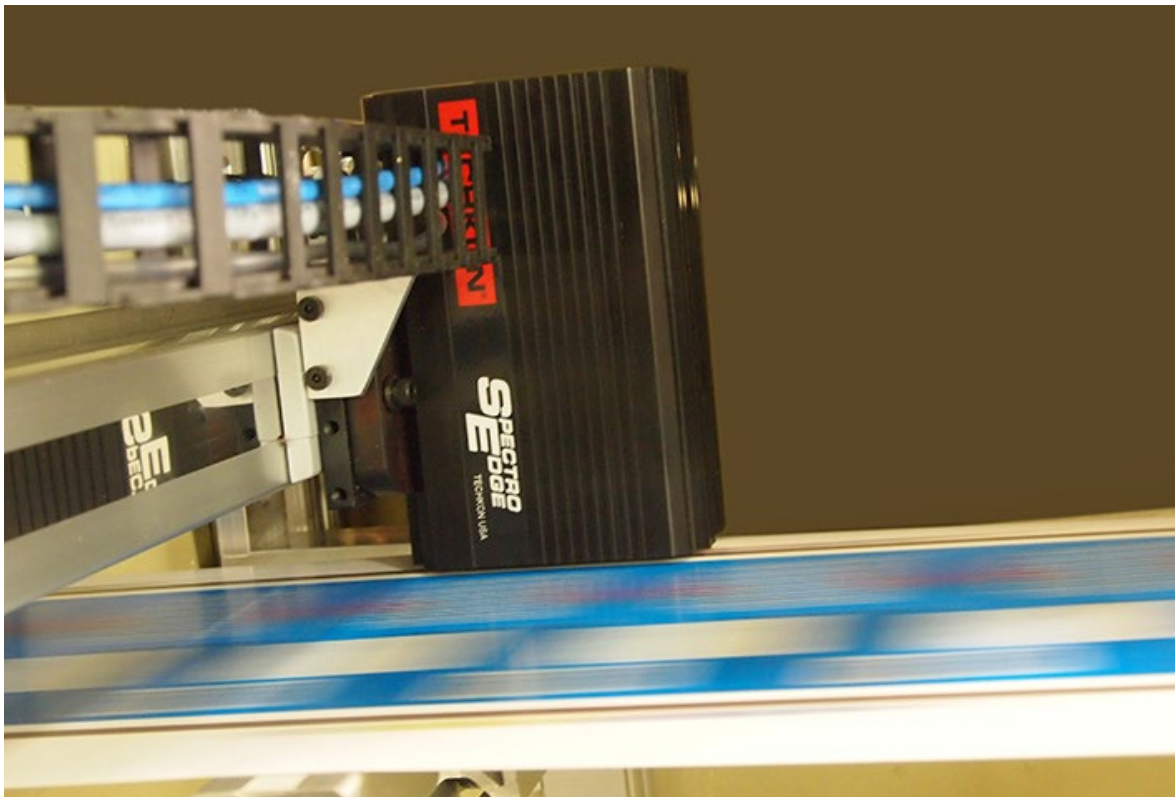
## BENEFITS OF INLINE COLOR MEASUREMENT

Automation for Increased Color Accuracy & Consistency

- Integration inside the press allows for automated spectral color measurements
- Allows for closed-loop color control without user intervention
- Automate the linearization, calibration, and ICC profiling process
- Increases color accuracy and color consistency of the press
- Measurement process is 100% automated & relieves burden from the operator

## THE HEART OF IN-PRESS COLOR CONTROL

- Solution Components

- ES7500 scanning spectrophotometer
- Optional traverse arm for movement across material width
- Software Developer Kit (SDK) to control: ES7500, traverse arm, and receive measurement data
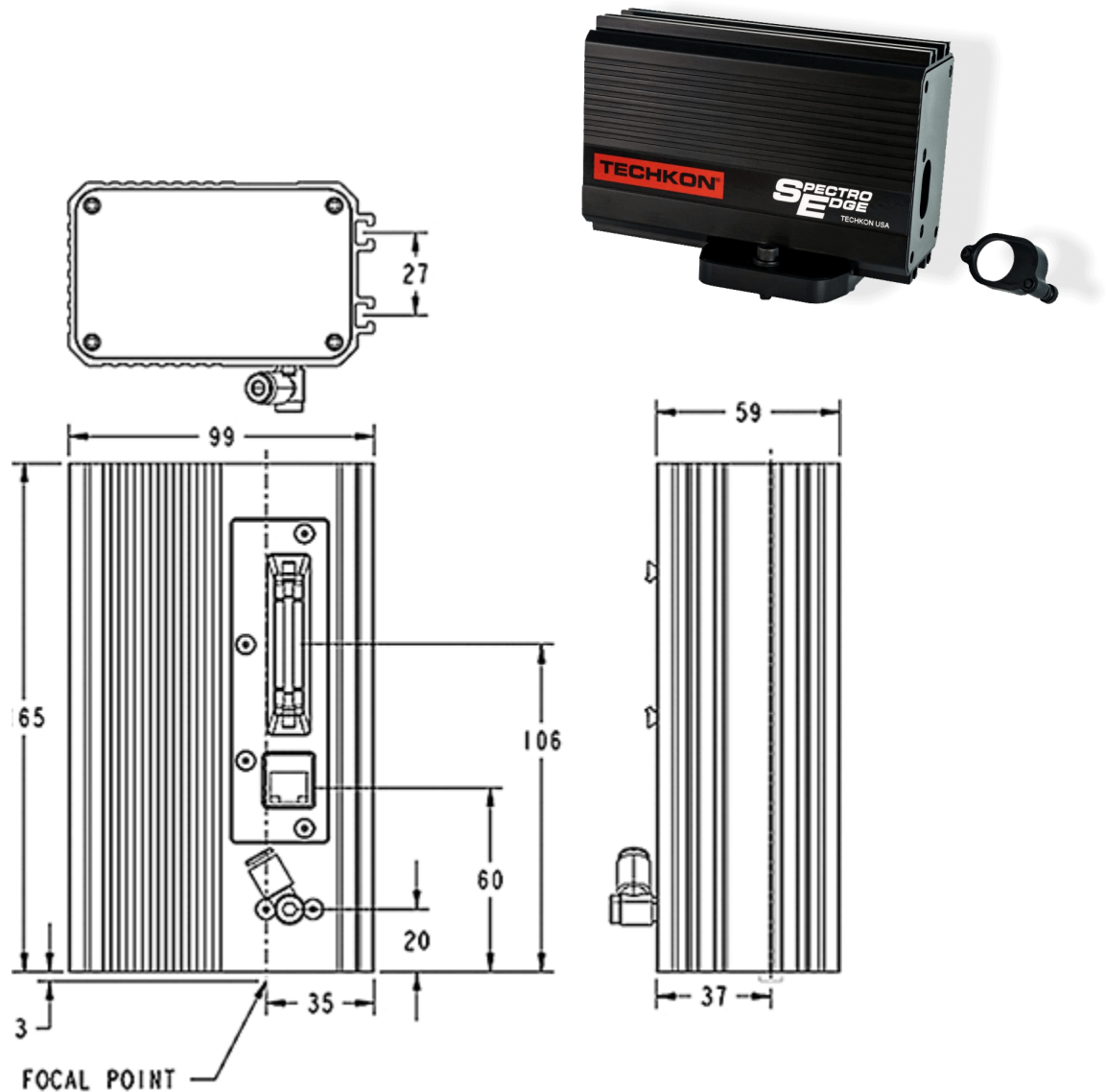
KEY FEATURES:

- Measures at 3,000 samples per-second to accommodate full production press speeds
- Non-contact design operates at 3mm height, accommodating +/- 0.5mm change in distance from media
- Simultaneous measurements of spectral (400nm – 700nm), CIE L*a*b*, CIE L*C*h, and Status T & E densities
- Automatic calibration of integrated ISO white reference plaque
- Compact size allows for placement inside digital presses (165 x 99 x 59 mm)
- Tough, all-metal construction withstanding vibration, and even the impact of a broken web
- Thermally rugged, can be placed in close proximity to IR dryers
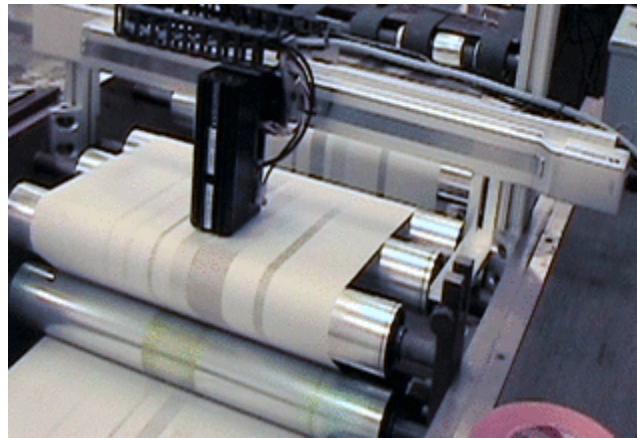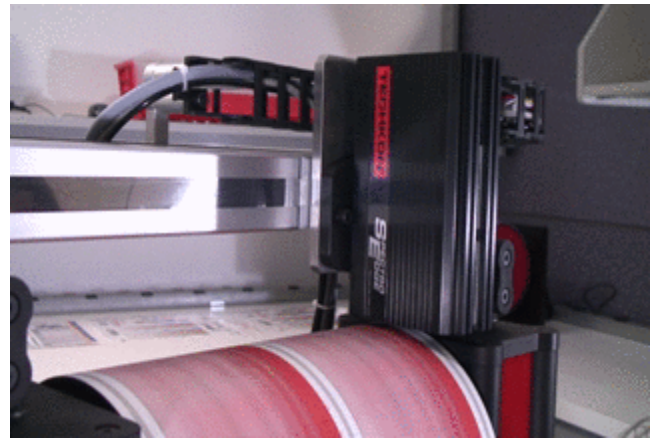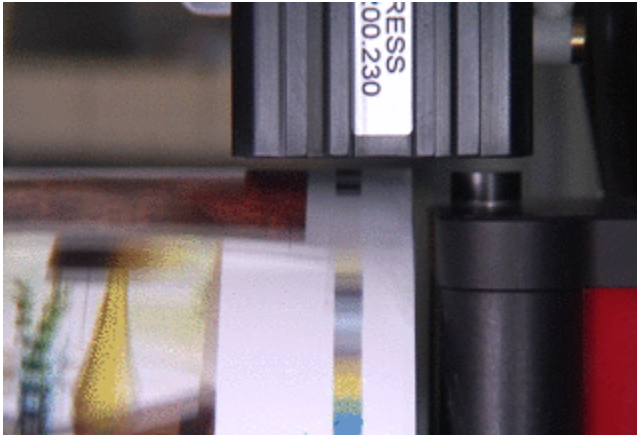
SPECIFICATIONS

- ISO-compliant spectrophotometer measurement unit
- Spectral remission and color density determination to ISO 5-3/4 standards
- Measurement geometry: 45/0˚ to DIN 5033
- Spectral range: 400 to 700 nm (reporting every 10nm)
- Measurement conditions according to ISO 13655:2009:

- M0 – No filter, UV included
- M1 – Daylight, D50
- M2 – UV Cutoff filter, UV excluded

- Measurement sampling rate: 3,000 samples/second
- Measurement aperture: 1.5 mm x 3.0 mm
- Minimum color patch width: 4mm
- Minimum color patch length: 4mm – 10mm. (Patch size varies depending on press speed)
- Distance from media: 3 mm
- Light source: LED
- Short-term repeatability: 0.05 ΔEab on white BCRA tile
- Inter-instrument agreement: 0.30 ΔEab average on 12 BCRA tiles
- Calibration: Automatic on integrated ISO white reference plaque
- Operating environment: 0˚ to 40˚ C (non-condensing humidity)