BetaFlex PRO

Plate & Image Analyzer

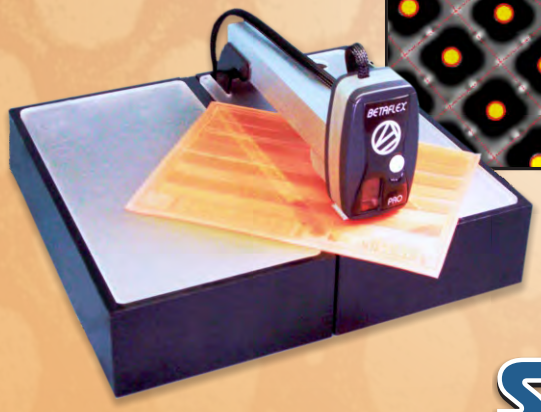
The All-In-One Analyzer For Today's Flexo

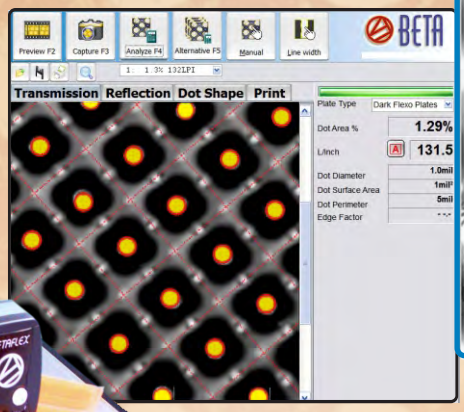
MEASURE HD FLEXO WITH 3D IMAGING

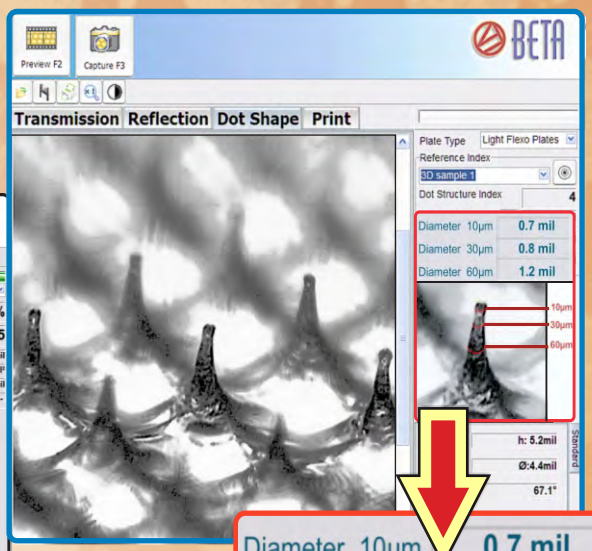
Measure 0.5% Highlights at 300 LPI & BETTER

Flexo Plates • Laser Masks • Film
Offset Plates • Prints • Stain Density
Halftone Dot Area • Letterpress Plates

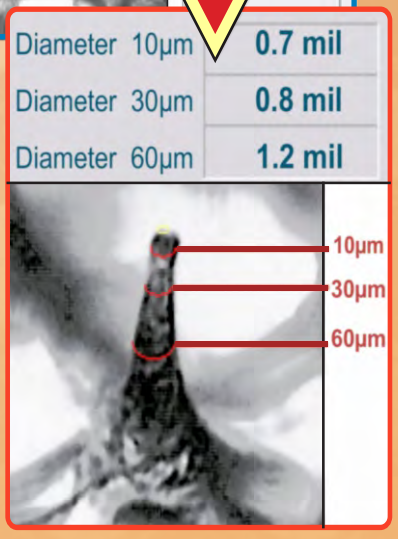
Color Separation
Image Analysis
Comparison







3-D DOT STRUCTURE ANALYSIS



Topographical Visualization and 3D Imaging Assures Highlight Dot Integrity

Enlargement Of A Poorly Formed Dot Using 3D Dot Structure Imaging Measured at 3-points For Highlight Structure

Save Time • Money • Materials

The Key to High Quality Flexo

BETA INDUSTRIES
The Quality Control Company

Contact Beta or Your Dealer for a Free 10-Day Trial
www.betascreen.net
Email: sales@betascreen.net
Tel: 201-939-2400, 800-272-7336

The Problem - Process Variability, Uncertain Results, Wasted Material

The Solution - The Betaflex system simplifies process control with a familiar interface, unparalleled accuracy, and a powerful toolbox of functions

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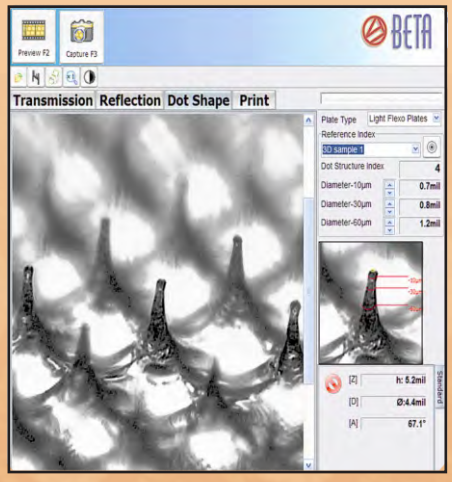
The Benefits Detect Process Variations Before Expensive Errors Spread Through The Production Stream.

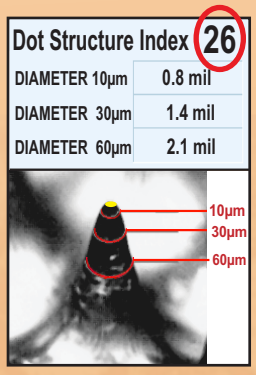
Automatic data collection, plotting, and statistical analysis keeps the operator informed and the process on target. The built-in calibration function and target system provides maximum accuracy and inter-instrument agreement across the plant and around the world.

3D Dot Structure Imaging

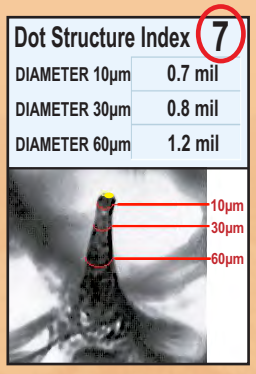


3D Imaging is the Only Way to Calibrate and Control HD Screening Techniques. Photopolymer and elastomer plates are easily imaged, analyzed, and compared to the shop standard. **"Dot Structure Index" simplifies the production worker's job while detailed measurement data is available to the QC manager.**

GOOD DOTS



BAD DOTS



Dot Structure Index gives a simple one-number analysis of the dot shape, diameters at three points along the shoulder accurately describe the stability of the dot, and a reference and sample image comparator give a visual guide to the shape of the dot. Higher Dot Structure Index numbers show a better dot.

Using reflection illumination, plates are analyzed before or after mounting, flat on the bench, or mounted on the press. Plate wear and damage can now be evaluated before committing to running potentially bad plates.

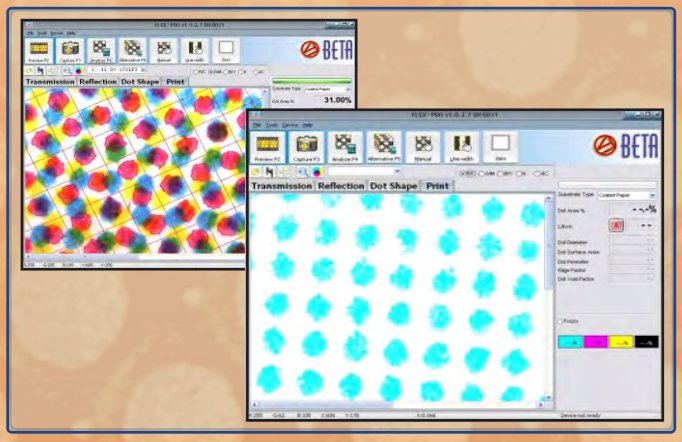
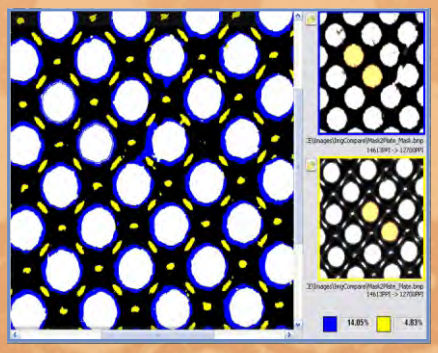


IMAGE COMPARISON



Automatically rotates, scales, and overlays images to display and measure differences in dot area. See dot size change from mask to plate to print, plant to plant, or week to week. See changes in the process or materials, the plant or the method, before expensive errors spread through the system.

COLOR SEPARATION ANALYSIS from printed halftones, separated and analyzed for true halftone dot area analysis & correction. Useful for gray balance control and for printing without

SYSTEM REQUIREMENTS	FUNCTION SUMMARY	HARDWARE SPECIFICATIONS
• Windows 10 (preferred), 7 (64 Bit) • 8 GB RAM • 3 GHz Processor • USB 2.0 port • 1920x1080display • 400 MB for program & images	• Dot Area%, Diameter, Perimeter Surface Area, Edge Factor • AM & FM Dot Area • Line Width • Mean, Range, Standard Deviation	• 1.3 MegaPixel mono camera • USB powered • 1.7 microns/pixel • Self-contained case: 6x8x15 inch (15x20x38) cm. • Weight 9.2 lbs. (4.2 kg.) Shipping Weight: 13 lbs. (5.90 kg.)

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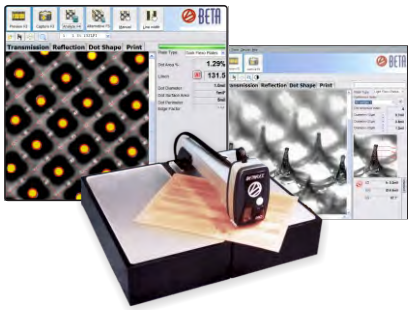
OPTIONS & ACCESSORIES



BETAFLEX PRO FLEXO PLATE & IMAGE ANALYZER OPERATES AT THE HIGHEST POSSIBLE RESOLUTION FOR HD FLEXO to provide the most accurate measurement possible in both

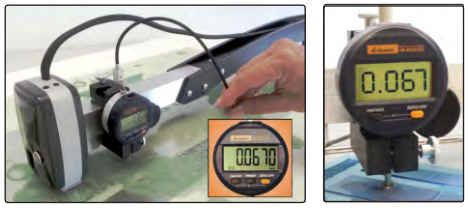
3D DOT STRUCTURE MODE or 2D Mode as well as for stochastic screening. **Other Features: COLOR SEPARATION IMAGING (Print Mode), IMAGE COMPARISON, BAR CODE ANALYSIS.** Measure Dot Area, Screen Ruling, Edge Factor and more. Data and images are easily captured and printed with the integral report generator and statistical analyzer. **Also measure offset plates, masks, & films.**

XXL Long Arm System or XXL Adaptor

FOR LARGE PLATES

Mounts Betaflex Pro sensor (measuring head) and or FlexiGage Micrometer, see below, 30” / 76 cm. into the plate. Mask, plate and print halftone analysis as well as plate thickness, relief measurements with optional FlexiGage Micrometer. **Purchase as a complete system with measuring head or as an accessory to your existing BetaFlex Pro.**

FlexiGage Digital Micrometer



Measure plate gauge, relief of thermal, aqueous, solvent, and direct ablation plates with FlexiGage Digital Micrometers to add the data directly to FlexoEye Plus Software ISO database software, see below. The Betaflex Pro Sensor (Measuring Head) and FlexiGage Micrometer can also be mounted on the Sleeve Adaptor or XXL Long Arm System. The **FlexiGage Micrometer** can also be mounted on your existing plate table.

FlexoEye Plus Software

Software data collector/report generator guides the operator to collect just the data needed for high volume production with no unnecessary steps or obstacles for high production. Convenient PASS/FAIL icons evaluate minimum dot and midtone dot while plotting the day's production on a convenient graph. Data is also input from the new ***FLEXIGAGE DIGITAL MICROMETERS,*** **NOW WITH WORKFLOW AUTOMATION! Relational database to track plates and jobs through the entire process. QR codes, ERP system, and the Esko Automation Engine are used to maintain an active accessible database.**

Roll Mount

Document Plate Wear And Damage While the Plate Is Still On Press. The Betaflex Pro Sensor Head attaches to the Roll Mount, stabilizing the sensor on a stationary plate cylinder for 3D mode measurements. Web print samples can also be imaged on a stationary web over a turning bar or flat area on the press.

Betaflex Pro Sleeve Adaptor

Dual transmission illuminators produce sharp, high-contrast images for accurate halftone dot analysis for the Betaflex Pro Measuring Head in both 2D & 3D modes.

Two Available Options: With Betaflex Pro Sensor Head or w/o to attach your existing Betaflex Pro Sensor Head directly.

Format: Cut off: 12” to 49” (300mm - 1250mm)
Diameter: 3.75” to 15.7” (95.5mm - 398mm)
Width: Maximum 80” (2000mm)

BETAFLEX PRO SPECIFICATIONS

SAMPLE TYPES

Halftone Pos. & Neg. Film, Laser Ablation Mask
Transparent Flexo Plates, Opaque Elastomer Plates
Offset Plates, Letterpress Plates
Color Print on Paper & Film

CAMERA HARDWARE

Camera USB2.0..... 1.3MPixel
2 D TOP VIEW Image resolution..... 1.7µ/Pixel
3 D OBLIQUE VIEW Image resolution..... 1µ/Pixel

ILLUMINATION

Transmission
Reflection RGB & White
3D Illumination

MEASUREMENT RESULTS AND FUNCTIONS

Dot Area 0.5%...98% % in 0.01%
Screen ruling...35 LPI-300 LPI
Dot Diameter 0.1 µ / 0.1mil
Dot Surface Area $1\mu^2$ / $1mil^2$
Dot Perimeter & Edge Factor µ / mil
Mask Stain Density
Auto Line Width by click in 0.1 µ / 0.1mil
Auto, Manual, & Preset screen ruling
Fast alternative selection with drop down list
Full FM Screen Analyses
Manual Dot selection by click
Local Magnifier function
Native Image Comparison
2D Distance measured w/ruler 0.1 µ / 0.1mil
2D Angle measurement with ruler in 0.1ø
Dot Structure Index
Dot Diameter at -10µ, -30µ, -60µ depth
3D Minimum Dot Display
3D Diameter, Height, Angle 0.1 µ / 0.1mil, 0.1ø
Full Image Exchange between devices
Statistical Functions & Report Generator
Dot Area Plot
Mean, Standard Deviation
Data Import and Export
Configurable Report with include/exclude list
Measurement data or images

SIZE AND WEIGHT

Self contained portable case
Transport size LxWxH: 15" x 8" x 6" (36cm x 20cm x 15cm)
Weight: 10 lbs. / 4.53 kg. (Shipping: 16 lbs. / 7.25 kg)
Language Versions: English, German, French, Spanish, Italian, Japanese