

# BETA FLEXPRO

Plate & Image Analyzer

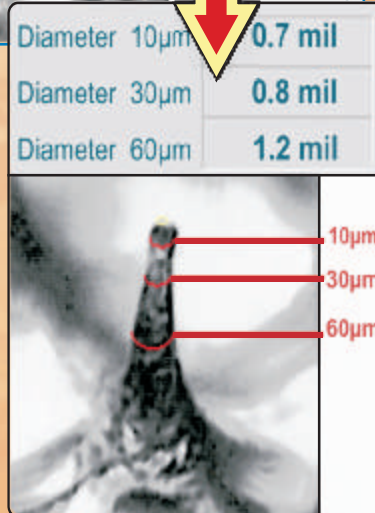
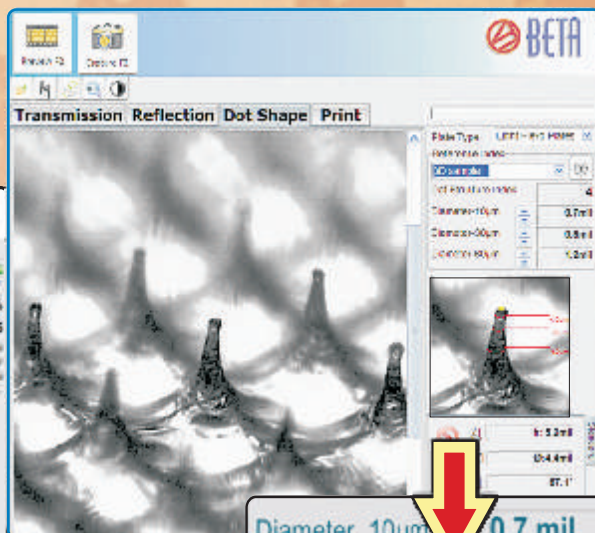
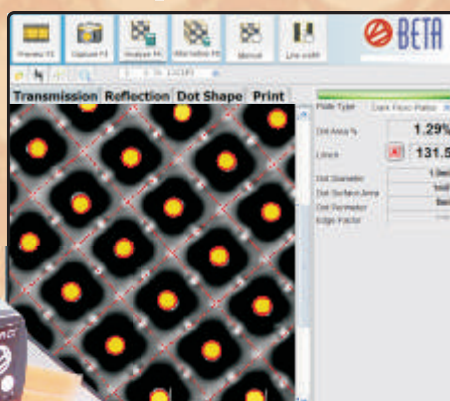
The Precise  
& Productive  
Tool For  
Today's Flexo

**MEASURE HD FLEXO WITH 3D IMAGING**  
**.5% HIGHLIGHTS AT 300 LPI & BETTER**

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

Color Separation  
Analysis

Image  
Comparison



3-D DOT

STRUCTURE  
ANALYSIS

**NEW!**

Topographical Visualization  
and 3D Imaging Assures  
Highlight Dot Integrity

ENLARGEMENT OF 3D DOT STRUCTURE IMAGING  
MEASURED AT 3-POINTS FOR HIGHLIGHT STRUCTURE

**SAVE • TIME • MONEY • MATERIAL**

**The Key to High Quality Flexo**



**The Quality Control Company**

Contact Beta or Your Dealer  
for a **Free 10-Day Trial**  
[www.betascreen.com](http://www.betascreen.com)  
[www.betascreen.net](http://www.betascreen.net)



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**The Problem** - Process Variability, Uncertain Results, Wasted Material

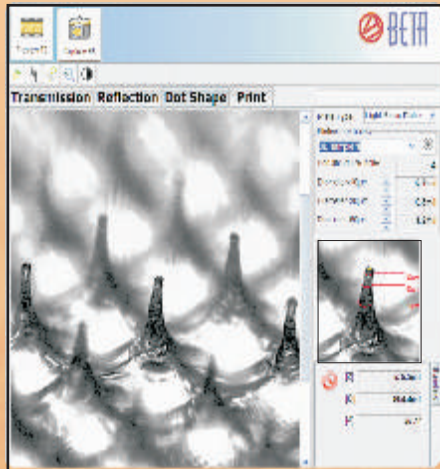
**The Solution** - The Betaflex system simplifies process control with a familiar interface, unparalleled accuracy, and a powerful toolbox of functions

**The Benefits** **DETECT PROCESS VARIATIONS BEFORE EXPENSIVE ERRORS SPREAD THROUGH 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

# BETA FLEXPRO

## Plate & Image Analyzer

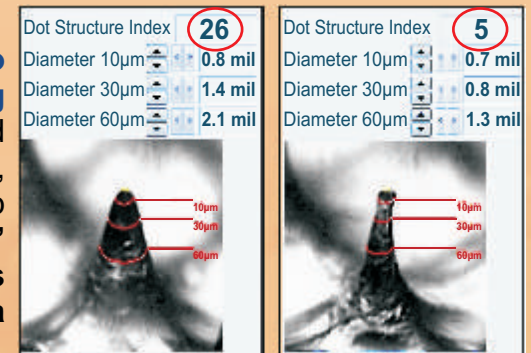
## 3D Dot Structure Imaging



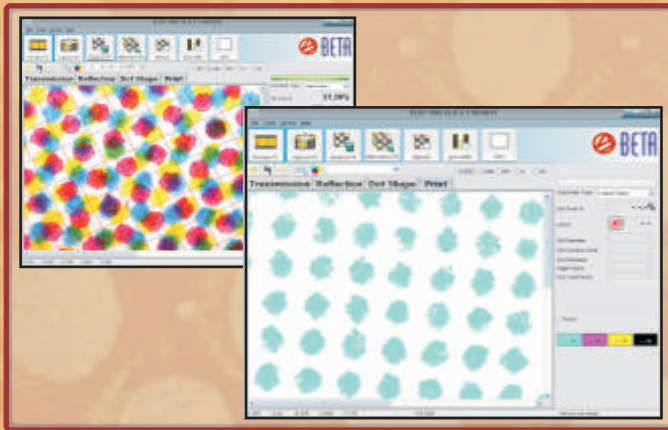
**3D Imaging is the Only Way to Calibrate and Control HD Screening Techniques.** Photopolymer and elastomer plates are easily imaged, analyzed, and compared to the shop standard. **"Dot Structure Index"** simplifies the production worker's job while detailed measurement data is available to the QC manager.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

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.

### GOOD DOTS BAD DOTS



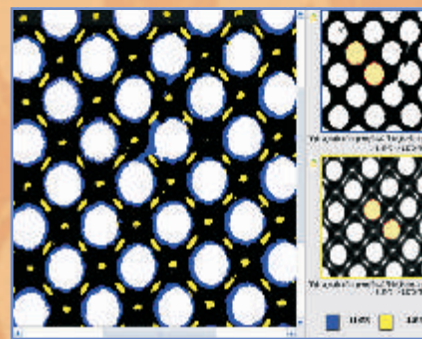
**Using reflection illumination, plates are analyzed before or after mounting, flat on the bench, or mounted on the press. Plate wear and damage can now be evaluated before committing to running potentially bad plates.**



**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 targets.

### 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.



#### SYSTEM REQUIREMENTS

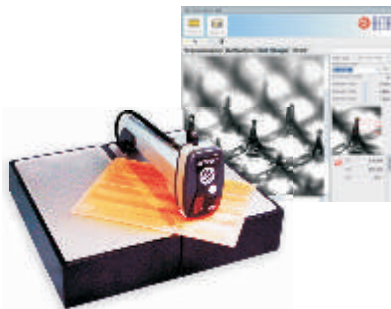
- Windows 7 or preferred 10 (64 Bit)
- 8 GB RAM • 3 GHz Processor
- USB 2.0 port • 1920x1080display
- 400 MB for program & images

#### HARDWARE SPECIFICATIONS

- 1.3 MegaPixel mono camera
- USB powered • 1.7 microns/pixel
- Self-contained case:  
6x8x15 inch (15x20x38) cm.
- Weight 13 lbs. (5.89 kg.)

#### FUNCTION SUMMARY

- Dot Area%, Diameter, Perimeter
- Surface Area, Edge Factor
- AM & FM Dot Area • Line Width
- Mean, Range, Standard Deviation



### 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.**

## 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)

## FlexoEye Plus Software



The new optional 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**, see below

## Flexi-Gage Digital Micrometers



**Measure plate gauge, relief of thermal, aqueous, solvent, and direct ablation plates with Flexi-Gage Digital Micrometers** to add the data directly to FlexoEye Plus Software. Use your plate gauge table with Flexi-Gage Light uses your plate table while the Betaflex Pro sensor can be mounted on the Sleeve Adaptor to measure sleeves in 2D and 3D mode with, **Flexi-Gage Standard** for sleeves from 80" X 16.7" (200 x 42 cm.)

## XXL Long Arm Adaptor



### FOR LARGE PLATES

Mounts Betaflex Pro sensor head and or Flexi-Gage 30" into the plate. Mask, plate and print halftone analysis as well as plate thickness and relief measurements with optional Flexi-Gage Digital Micrometer.

## Roll Mount



### DOCUMENTS 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 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..... 1.7 $\mu$ /Pixel  
3 D OBLIQUE VIEW Image resolution..... 1 $\mu$ /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  $\mu$  / 0.1mil  
Dot Surface Area 1 $\mu^2$  / 1mil<sup>2</sup>  
Dot Perimeter & Edge Factor  $\mu$  / mil  
Mask Stain Density  
Auto Line Width by click in 0.1  $\mu$  / 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  $\mu$  / 0.1mil  
2D Angle measurement with ruler in 0.1 $^\circ$   
Dot Structure Index  
Dot Diameter at -10 $\mu$ , -30 $\mu$ , -60 $\mu$  depth  
3D Minimum Dot Display  
3D Diameter, Height, Angle 0.1  $\mu$  / 0.1mil, 0.1 $^\circ$   
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: 18" x 14" x 12" / 45 cm x 35.5 cm x 30.4 cm  
Weight: 10 lbs. / 4.53 kg. (Shipping: 16 lbs. / 7.25 kg)  
Language Versions: English, German, French, Spanish, Italian

## 1) BETAFLEX PRO SPECIFICATIONS & ACCESORIES

### a) Analysis Modes

- Transmission mode for Flexo Plates, Films, and Masks.
- Reflection mode for prints, & Letterpress Plates, and Offset Plates
- Dot Structure Mode for 3D imaging
- Color Separation mode with halftone analysis
- Image Comparison mode
- Bar Code/Line Width Analysis
- Mottle Analysis
- Stain Density

### b) Included Complete (No Additional Charges)

- Betaflex Pro analyzer hardware
- Betaflex Pro software complete  
(See section 3a, FlexoEyePlus Software for additional database functions)
- ISO Calibration plaque
- All cables
- Training (See section 2a)
- BetaColor Viewer 3 (See section 2b)

### c) Minimum Hardware Computer System Requirements

- Windows 10 (preferred) or 7, Must NOT be server editions, 64 bit
- minimum 8 GB RAM • 3 GHz Processor
- minimum 1024 x 768 video, preferably higher
- minimum 2 x USB ports "high power" or powered USB hub, when using the [FlexiGage Micrometer](#), 3 USB ports are required
- Administrator File Permissions needed only for installation.
- 100 MB for program & images

### d) Betaflex Pro Hardware Specifications

- 1.3 MegaPixel mono camera USB powered
- 1.7 microns/pixel
- Self-contained case 6x8x15in. (Standard BetaFlex Pro)
- Shipping Weight: 13 lbs. (Standard BetaFlex Pro)

### e) Function Summary

Dot area %, diameter, perimeter, surface area, edge factor, stain density, AM & FM dot area, Line Width, Mean, Range, Standard Deviation

## 2) FREE & INCLUDED ITEMS

**a) TECHNICAL SUPPORT AND TRAINING:** Free and unlimited via phone/webinar directly from Beta Industries

**Contact:** Larry Goldberg, Technical Director, Beta Industries

**Email:** [larry@betascreen.com](mailto:larry@betascreen.com), Phone: 800-272-7336 (U.S. & Canada), 201-939-2400

**b) EVERY BETAFLEX PRO PURCHASE INCLUDES A FREE BETACOLOR VIEWER, VALUE \$439.** This is the latest generation of the [BetaColor Viewer](#). CMYK color contrasting LED's for critical examination of production color. The industry standard for critical visual color evaluation.

## 3) AVAILABLE OPTIONS & ACCESSORIES

**a) [FlexoEyePlus Software](#)** Streamlined Automatic Data Collector & Report Generator for Betaflex Pro

**b) [FlexiGage Micrometer](#)** Digital Plate micrometer for use with Flexo-Eye Plus retrofitted by the user to their existing plate micrometer table

**c) [Roll Mount](#)** Measure plate wear on the press 3D Measurements & Web print samples

**d) [Betaflex Pro XXL Long Arm System or Adapter](#)** Mounts the Betaflex Pro or Flexi Gage 30 inches (75 cm.) from the edge of the plate. Required for large transmission plate, mask & print analysis. 3D, print, and thickness/relief analysis of large samples

**e) [Betaflex Pro Sleeve Adaptor or System](#)** For measuring plates-in-the-round.

**f) [BetaFlex Pro 4.0 Software Upgrade](#)** Units with serial numbers prior to 630 are eligible for the upgrade

- Upgrade your existing Betaflex Pro to measure the latest surface screening technologies
- View 3D images with increased high resolution