# Betaffex PRO Plate & Image Analyzer

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

MERSURE 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





RNALYSIS

@ RFTA

Topographical Visualization and 3D Imaging Assures Highlight Dot Integrity

NEW

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

SAVE • TIME • MONEY • MATERIAL

The Key to High Quality Flexo



Contact Beta or Your Dealer for a Free 10-Day Trial www.betascreen.net Email: sales@betascreen.net



The Problem - Process Variability, Uncertain Results, Wasted Material

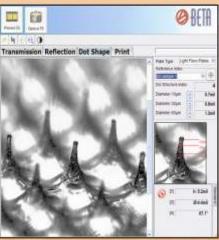
The Solution - The Betaflex system simplifies process control with a familiar interface, unparalleled accuracy, and a powerful toolbox of functions



# The Benefits detect process variations before expensive errors spread

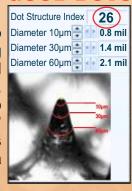
**THROUGH PRODUCTION STREAM.** Automatic data collection, plotting, and statistical analysis keeps the operator informed and the process on target. The built-in calibration function and target system provides maximum accuracy and inter-instrument agreement across the plant and around the world

# 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

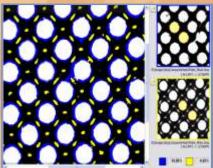




Dot Structure Index gives a simple one-number analysis of the dot shape, diameters at three points along the shoulder accurately describe the stability of the dot, and a reference and sample image comparator give a visual guide to the shape of the dot. Higher Dot Structure Index numbers show a better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





**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
- OSB powered 1.7 microns/pixe
  - 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 PPO 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 Micrometers**





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**



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 above

## **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 1µ2 / 1mil2

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: 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