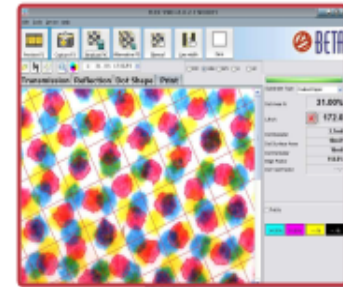
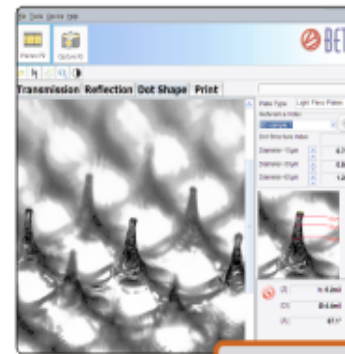
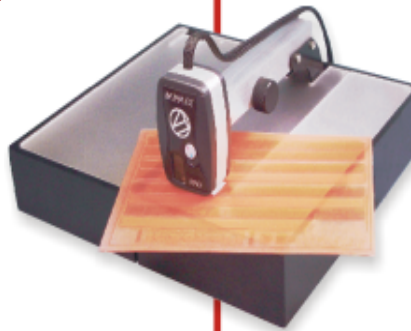


# BETA FLEXPRO

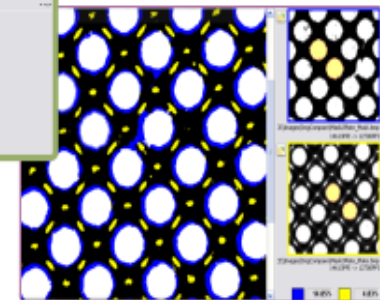
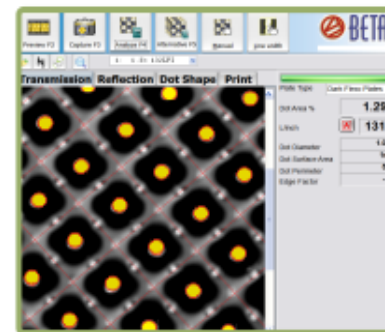
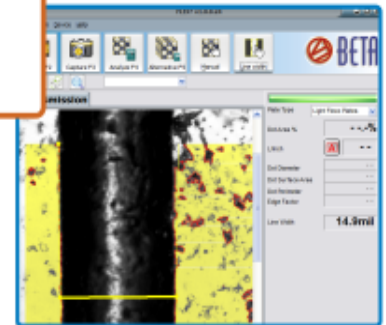
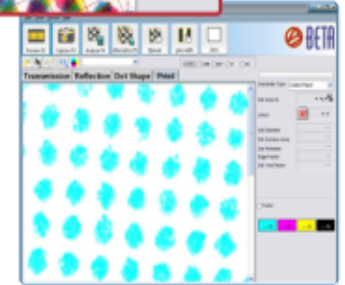
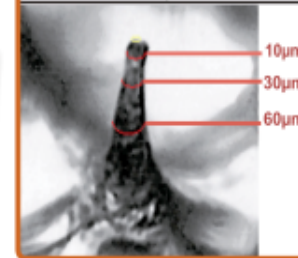
Plate & Image Analyzer

## MEASURE HD FLEXO

- 3D Imaging & Analysis
- 2D Analysis
- 1% Highlights & Better
- Color Separation Analysis
- Flexo Plates • Laser Masks
- Image Comparison
- Bar Code Analysis
- Offset Plates • Prints
- Film • Letterpress Plates



Diameter 10µm	0.7 mil
Diameter 30µm	0.8 mil
Diameter 60µm	1.2 mil



1. Benefits, Value Propositions, Benefits to the Company / 3-5
2. **3D Dot Structure Index Unique BetaFlex Pro Feature / 6-7**
3. **Dot Structure Index Calculation Unique BetaFlex Pro Feature / 8**
4. 2D & 3D Dot Measuring / 9-10
5. **Color Separation Analysis Unique BetaFlex Pro Feature / 11-12**
6. **Image Comparison (12-13) Unique BetaFlex Pro Feature / 13-14**
7. **Bar Code Width Analysis Unique BetaFlex Pro Feature / 15-16**
8. Other BetaFlex Pro Unique Features; Mask Stain Density, One Step Calibration, Remote Sensing / 17
9. Options & Accessories / 18-19
10. Function Summary, PC System Requirements  
Hardware Specifications / 20
11. Free BetaColor Viewer 3 with Purchase / 21
12. Contacts: Sales & Technical Support / 22

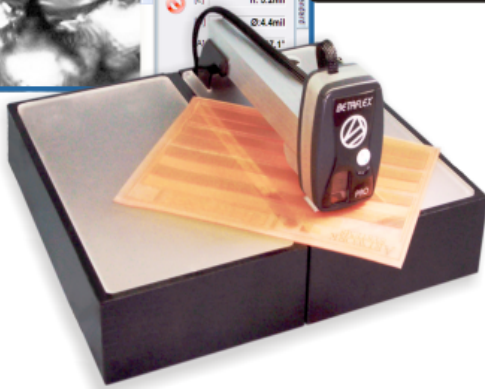
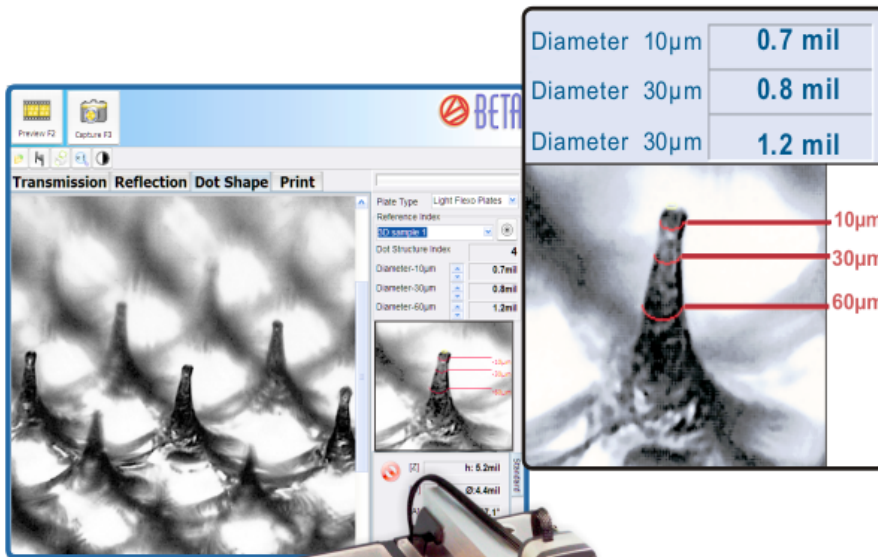
# BETA FLEXPRO

Plate & Image Analyzer

## The Benefits

**Detect Process Variation Before Expensive Errors Propagate Through The System.**

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.



**SAVE • TIME • MONEY • MATERIAL**

# **VALUE PROPOSITIONS**

## **Quality Control of Flexo Plates**

### **SAVING IN TIME & MONEY**

#### **Early Detection of Production Errors**

- Avoid future problems in the production process
- Save ink and paper by running the press only with quality-assured plates

**Reduce Plate Waste** by reducing the number of iterations to obtain a corrected plate

**Improved calibration** of Flexo CTP devices

Data automatically stored in searchable format

## **BENEFITS TO THE COMPANY**

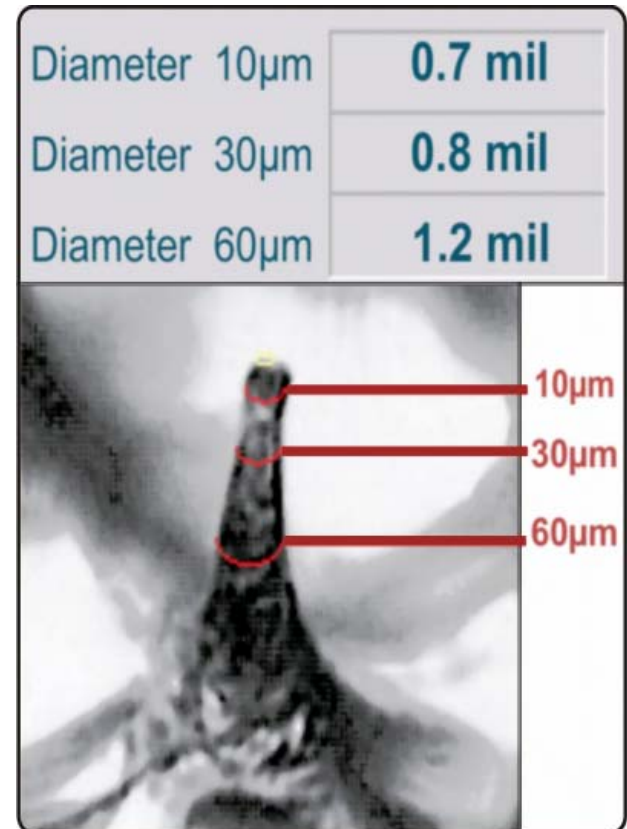
- **Greatly Reduce Wasted Time and Material**
  - Eliminate press downtime due to plate quality
  - Reduce subjective image adjustment on press
- **Increase Print Quality**
  - Improve color fidelity and tone gradation
  - Document quality level for the customer
- **Meet ISO Standards**
  - Relational database stores Quality Control data
  - Support traceability recommendations of ISO

# 3D Dot Structure Index

**FOR SUPERIOR  
HIGHLIGHT DOTS**

**3-D Imaging Insures  
Highlight Dot Integrity**

**Catch Expensive Errors  
*Before* They Spread  
Through the System**



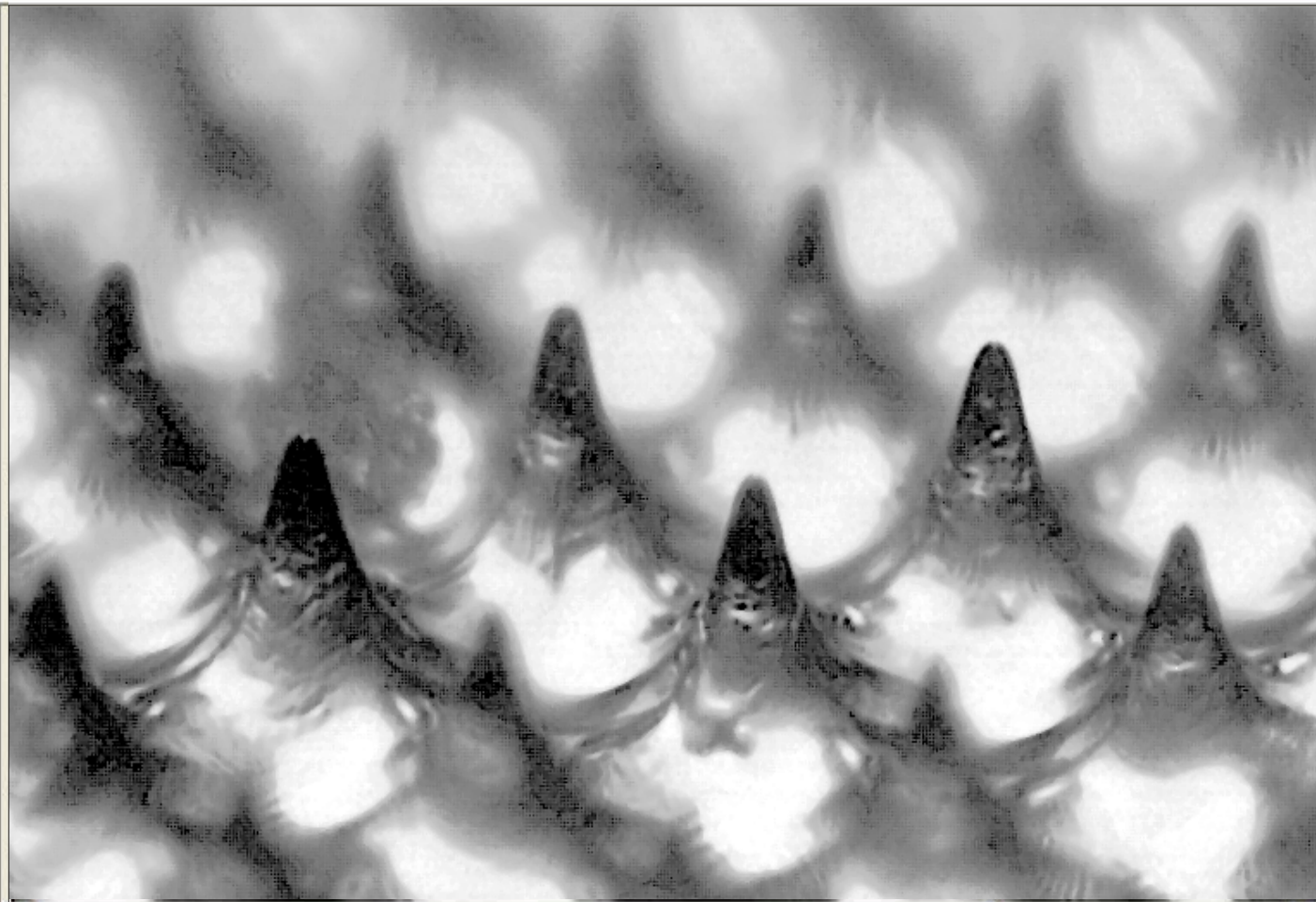




File Tools Device Help



Transmission Reflection Dot Shape Print



\_\_\_\_\_

Plate Type

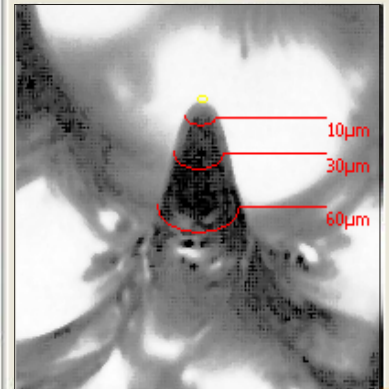
Reference Index

Dot Structure Index

Diameter-10µm

Diameter-30µm

Diameter-60µm



[Z]

[D]

[A]

# Dot Structure Index Calculation

An easy to understand function for checking the minimum. This index determines and compares the dot being tested and viewed and against previously approved dot.



***Dots generally too small or poorly formed***

See first two examples. It is unlikely that these dots will be sturdy enough to print and sustain during the entire run of the job

- Dot Structure Indexes between 1 and 9: Dot shape is regular but probably too steep
- Dot Structure Indexes of 10 and above: Dot Shape is better to sustain a long run

Plate Type: Light Flexo Plates

Reference Index:

Dot Structure Index: -1

Diameter-10µm	<input type="text"/> 0.8mil
Diameter-30µm	<input type="text"/> 0.7mil
Diameter-60µm	<input type="text"/> 1.1mil

Plate Type: Light Flexo Plates

Reference Index:

Dot Structure Index: 5

Diameter-10µm	<input type="text"/> 0.7mil
Diameter-30µm	<input type="text"/> 0.8mil
Diameter-60µm	<input type="text"/> 1.2mil

Plate Type: Light Flexo Plates

Reference Index:

Dot Structure Index: 92

Diameter-10µm	<input type="text"/> 0.9mil
Diameter-30µm	<input type="text"/> 1.7mil
Diameter-60µm	<input type="text"/> 4.8mil



Imaging 248 lpi (97 l/cm.)  
at .54% conventionally  
(left) and accompanying  
3D Dot Structure Index  
(Image 2) indicates an ideal  
repeatable dot shape for printing  
fine highlight halftones  
and a high Dot Structure Index

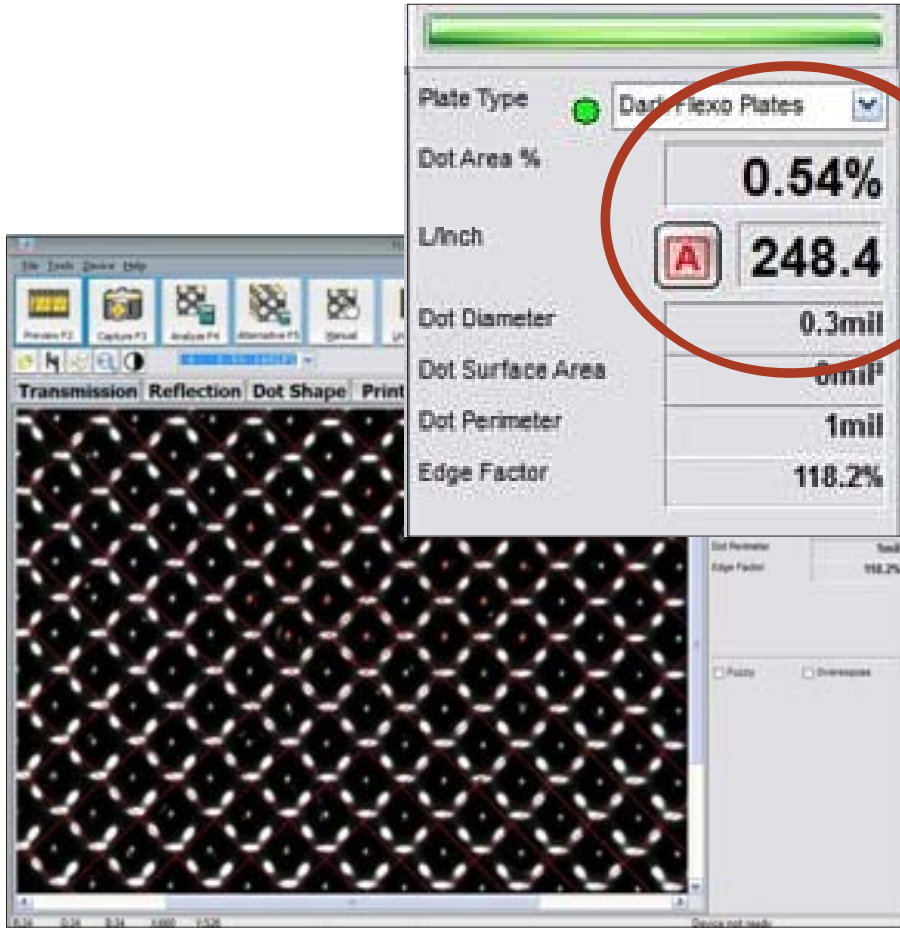
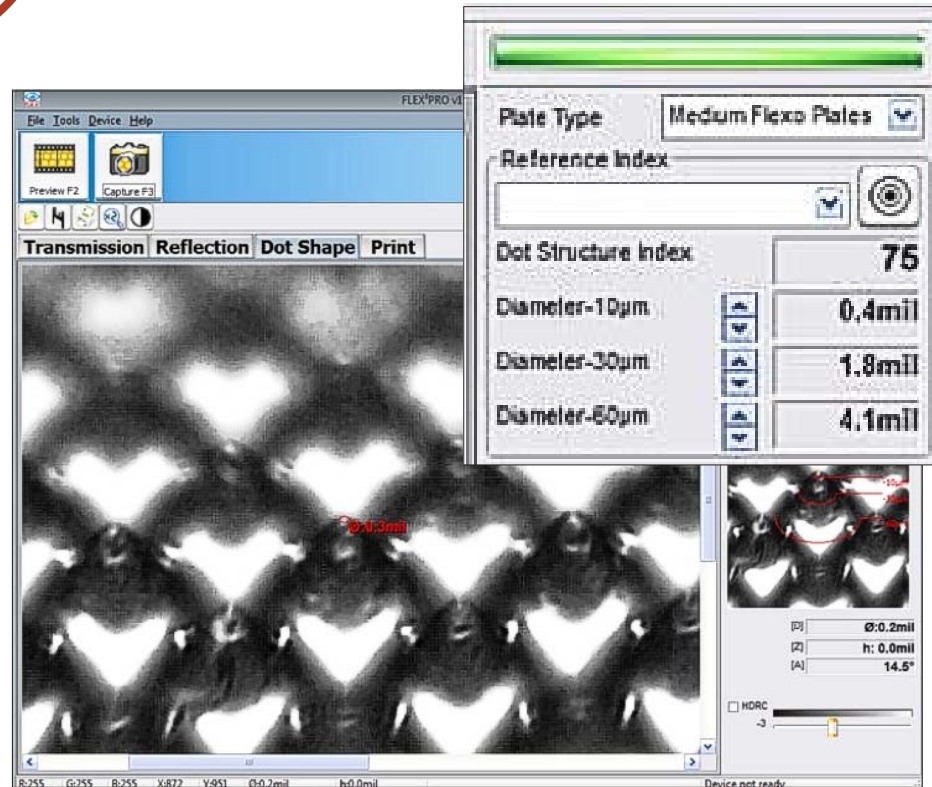
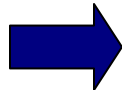


Image 2



Preview F2 Capture F3 Analyze F4 Alternative F5 Manual Line width Line width

6 0.5% 248LPI

Transmission Reflection Dot Shape Print

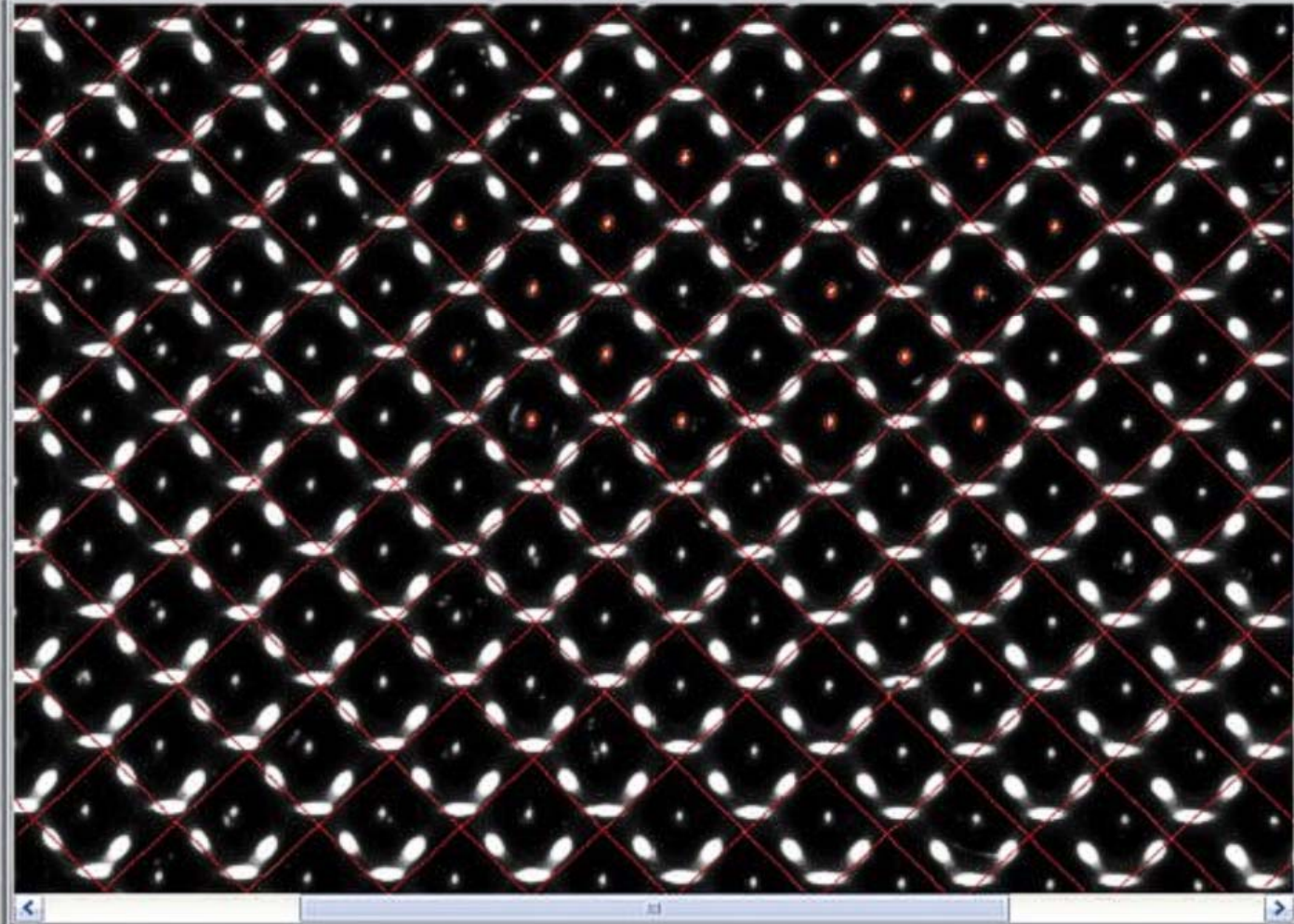


Plate Type  Dark Flexo Plates

Dot Area % **0.54%**

L/Inch **A 248.4**

Dot Diameter 0.3mil

Dot Surface Area 0mil<sup>2</sup>

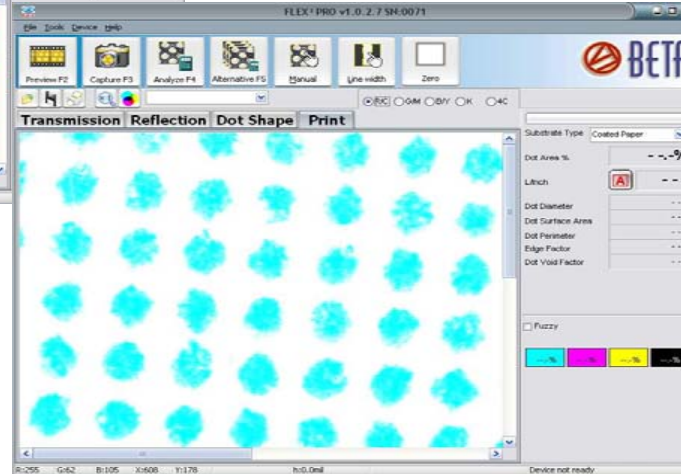
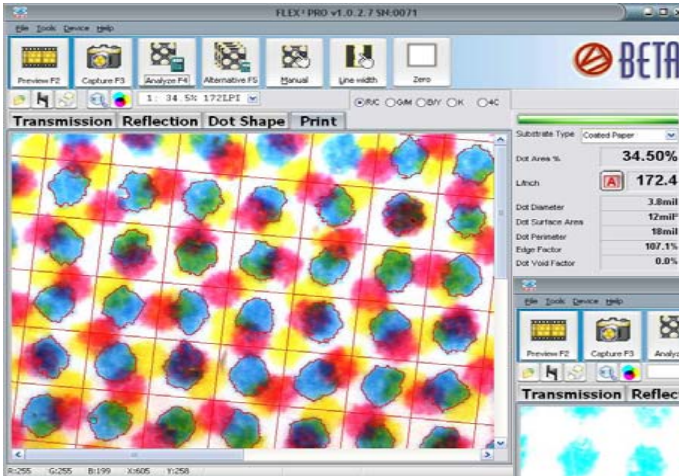
Dot Perimeter 1mil

Edge Factor 118.2%

Fuzzy  Overexpose



# Color Separation Analysis



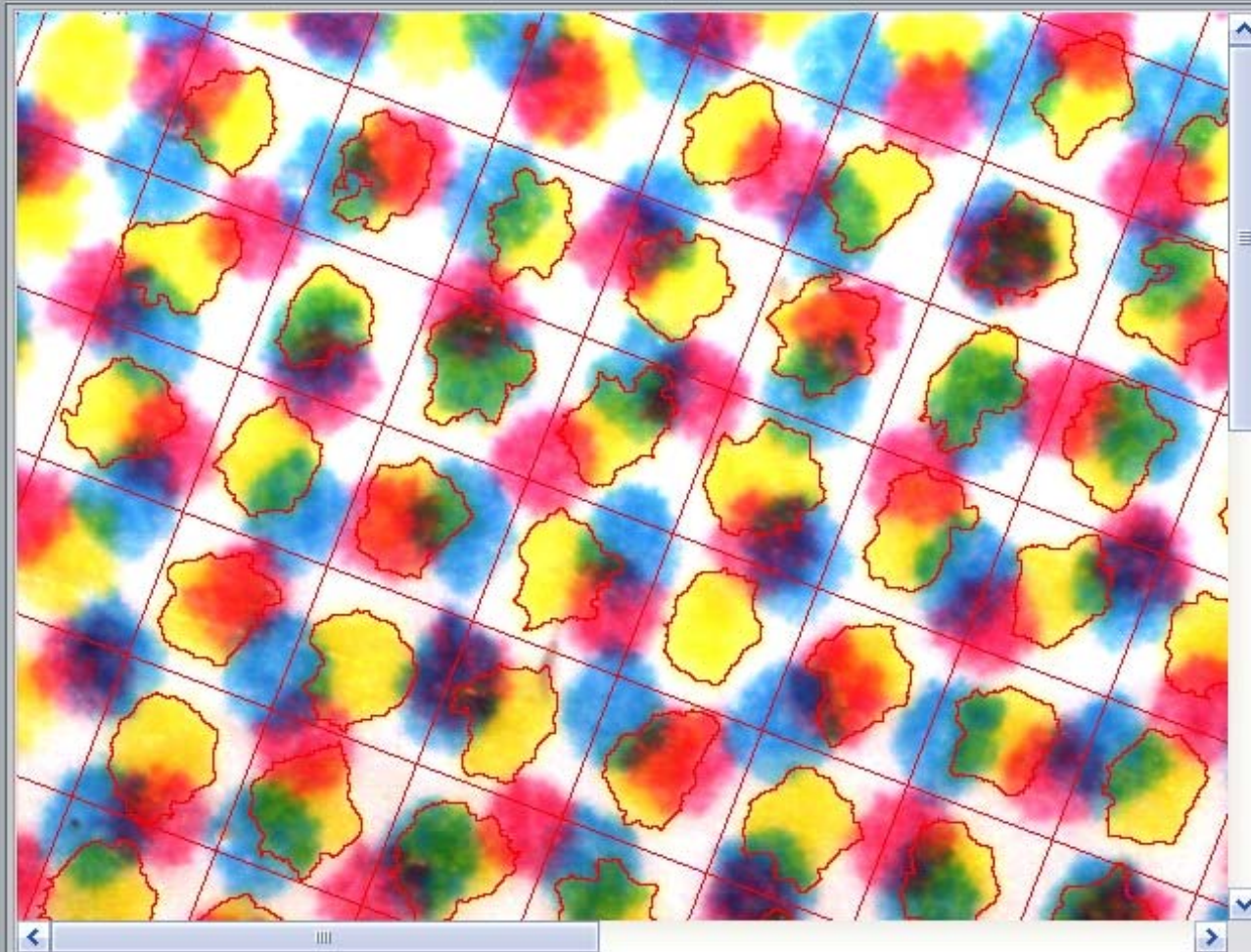
**BetaFlex Pro**  
**UNIQUE FEATURE**

**FROM PRINTED HALFTONES** Separated and analyzed for true halftone dot area analysis & correction. Useful when there is no area available for printed targets such as pharmaceutical or cosmetic printing.

Preview F2   Capture F3   Analyze F4   Alternative F5   Manual   Line width   Zero

1: 40.8% 184LPI    R/C    GM    B/Y    K    4C

**Transmission**   Reflection   Dot Shape   Print



Substrate Type Coated Paper

Dot Area % **40.85%**

L/Inch **A 183.7**

Dot Diameter **3.9mil**

Dot Surface Area **12mil<sup>2</sup>**

Dot Perimeter **19mil**

Edge Factor **115.4%**

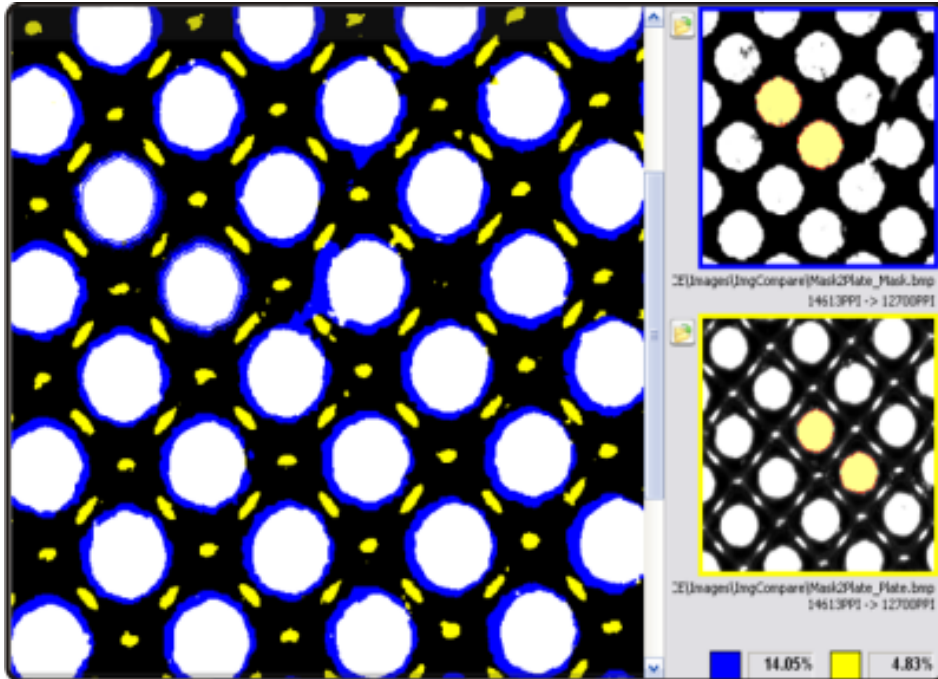
Dot Void Factor **---**

Fuzzy

34.50%   31.00%   40.85%   ---%

# Image Comparison

**BetaFlex Pro**  
**UNIQUE FEATURE**

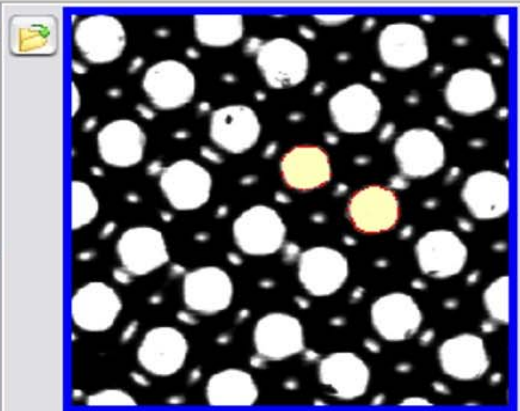
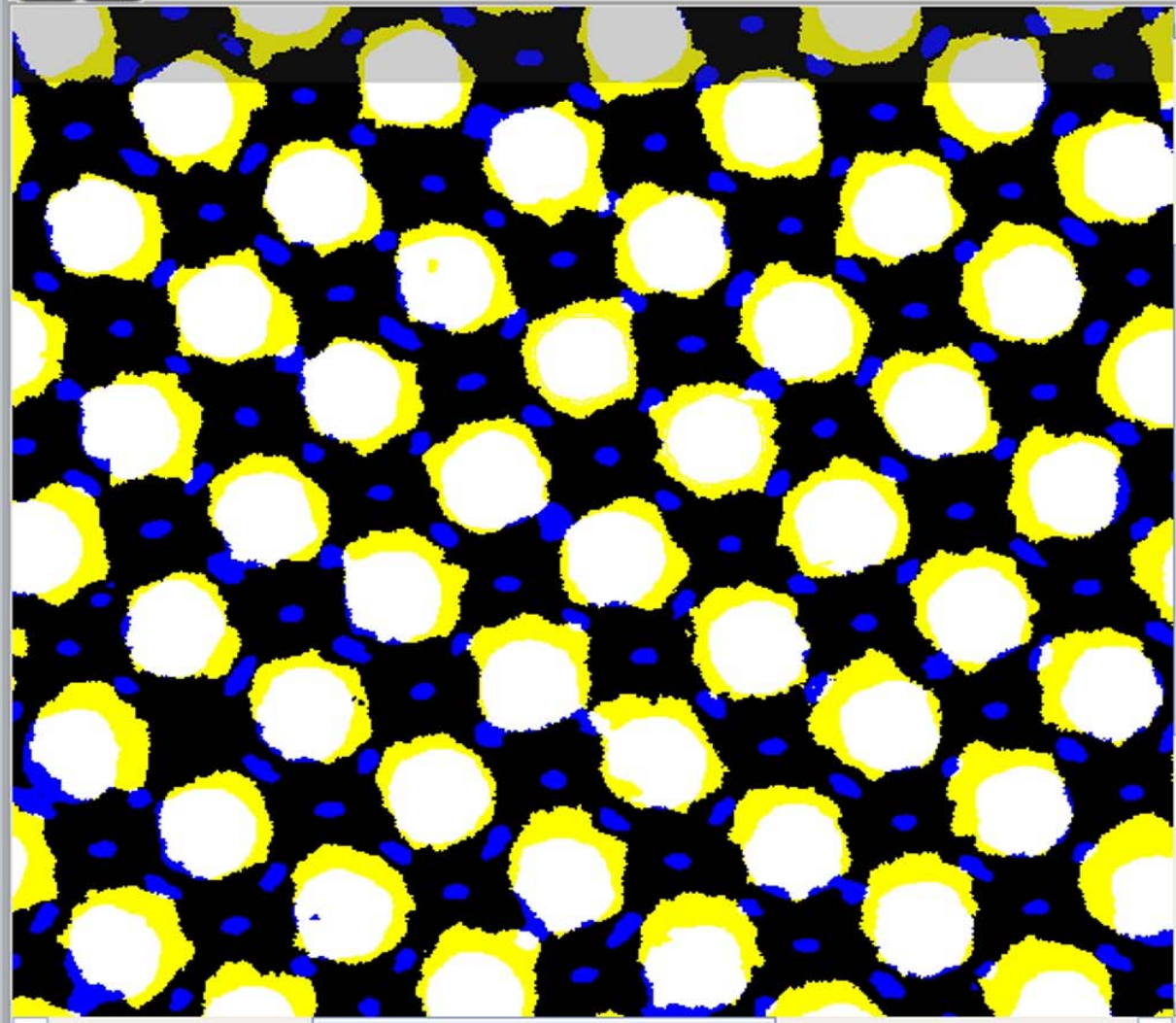


**Automatically Rotates, Scales, and Overlays Images To Display and Measure Differences in Dot Area**

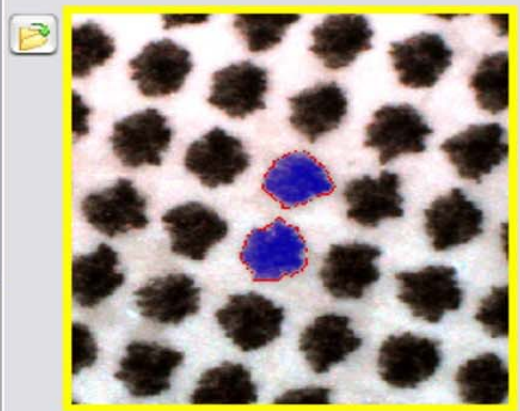
**See dot size change from mask to plate to print, plant to plant, or week to week. See changes in the process or materials, the plant or the method before expensive errors propagate through the system**



Compare **BIN** Compare EXIT  
exit



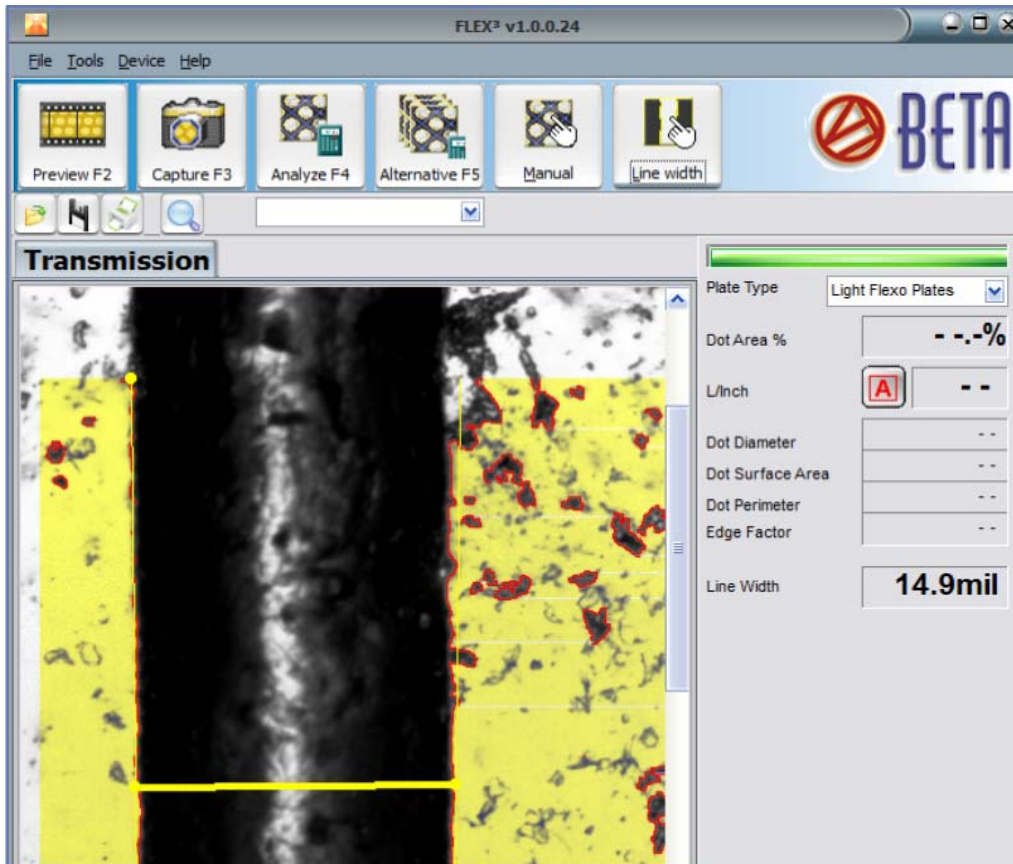
E:\Images\ImgCompare\Plate2Print\_PlateC.bmp  
14430PPI -> 12700PPI



E:\Images\ImgCompare\Plate2Print\_PrintK.bmp  
14430PPI -> 12700PPI

	6.86%		18.57%
---	-------	---	--------

# Bar Code Width Analysis



**BetaFlex Pro**  
**UNIQUE FEATURE**

## Automatic Edge Detection

Eliminates operator error and measures in compliance with industry standards



Preview F2   Capture F3   Analyze F4   Alternative F5   Manual   Line width



Navigation icons: Home, Undo, Redo, Search, and a dropdown menu.

### Transmission

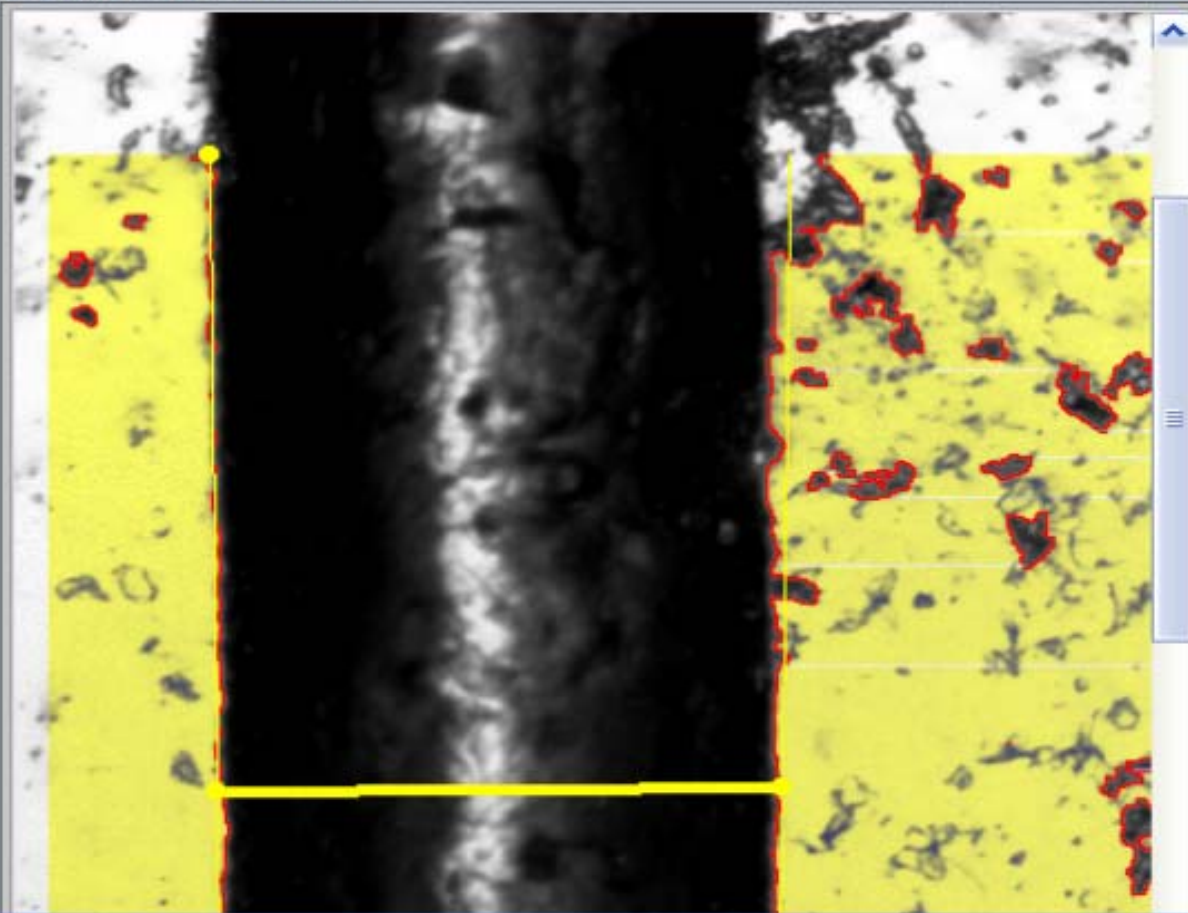


Plate Type: Light Flexo Plates

Dot Area %: - . - %

L/Inch: **A** - -

Dot Diameter: - -

Dot Surface Area: - -

Dot Perimeter: - -

Edge Factor: - -

Line Width: **14.9mil**

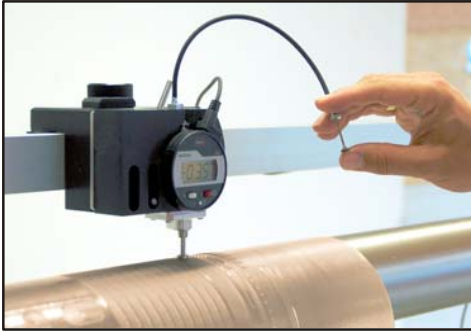
## **Other Unique Features**

**MASK STAIN DENSITY** - Required for laser power, focus, and scan alignment on all CTP hardware. This feature eliminates the need to purchase and maintain a transmission densitometer for this purpose.

**ONE STEP CALIBRATION** - Faster and easier than the nine-step procedure on current systems. One image capture recognizes four halftone targets, measures them, and prints a calibration report.

**REMOTE SENSING** - The sensor head can be removed from the supporting arm and used in reflection mode for print analysis on flat prints. The available cylinder mount allows the head to be positioned on a cylinder or turning bar for examination of a stationary web.

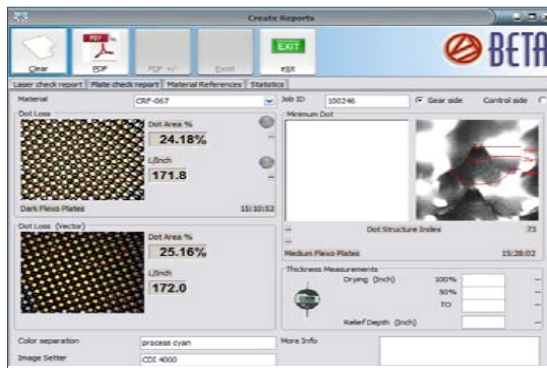
# BetaFlex Pro OPTIONS & ACCESSORIES



**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 FlexoEyePlus 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" (2000 mm x 424.18 mm)

## **XXL LONG ARM ADAPTOR for LARGE Plates**

Mounts BetaFlex Pro sensor head and or Flexi-Gage 30" (762 mm) into the plate. Mask, plate and print halftone analysis as well as plate thickness and relief measurements with optional Flexi-Gage Digital Micrometer.



**FlexoEyePlus Software** 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 **FLEXI-GAGE DIGITAL MICROMETERS**, see above



# BetaFlex Pro OPTIONS & ACCESSORIES



**ROLL MOUNT TO VIEW PLATE WEAR AND DAMAGE WHILE THE PLATE IS 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: Max. 80" (2000 mm.)

# BETA FLEXPRO

Plate & Image Analyzer

## Function Summary

- **3D Imaging & Analysis** dot integrity and dimensional analysis
  - **2D Mode** for dot area analysis, screen ruling, dot diameter, dot surface area, dot perimeter, and edge factor
  - AM & FM dot area • Line Width
  - Mean, Range, Standard Deviation
- Materials: film, Elastomer Plates, Letterpress Plates, printed materials, offset plates

## System Requirements

- Windows XP, Windows 7 & 8 (Windows 7 is recommended)
- 1 GB RAM • 1 GHz Processor
- USB2.0 port • 1024x768 display
- 100 MB for program & images

## Hardware Specifications

- 1.3 MegaPixel mono camera
- USB powered • 1.7microns/pixel
- Self-contained case 6x8x15in. (152.40 mm x 203.20 mm x 381 mm)
- Weight 10 lbs. (4.53 kg.)

# **FREE BetaColor Viewer 3**

*MUST HAVE TO VIEW  
FLEXO PRINTING*

**WORLD STANDARD FOR  
COLOR EVALUATION  
\$439 VALUE**

- Contrast CMYK Colors  
**YELLOW APPEARS  
ALMOST BLACK**

- Easily See Register, Slur, Doubling, Ink to Water Balance (Offset & Gravure, etc.)
- New UV Channel to see metamerism (light influenced color shifts)





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**Fax: 201-939-7656**

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**Stuart Serchuk:** Director, Sales / Marketing

**Technical Contact:** [larry@betASCREEN.COM](mailto:larry@betASCREEN.COM)

**Larry Goldberg:** Technical Director

[www.betascreen.com](http://www.betascreen.com) / [www.betascreen.net](http://www.betascreen.net)