AniCAM FLEXOPLATE ANALYSIS



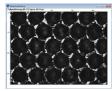
#### **PRODUCT SPECIFICATIONS**

| ▼ Media   |  |  |  |  |  |  |
|---|--|--|--|--|--|--|
| Any Flexo Plate material and Sleeves – flat or in the round<br>Direct laser engraved Elastomer plates and sleeves |  |  |  |  |  |  |
| ▼ Dot Evaluation  |  |  |  |  |  |  |
| Halftone dots from 55 to 250 lpi   22 - 100 lpcm  |  |  |  |  |  |  |
| Accuracy: ± 0.5% over full range of readings  |  |  |  |  |  |  |
| 2D and 3D visual and graphical dot analysis   |  |  |  |  |  |  |
| Geometric measurements  |  |  |  |  |  |  |
| ▼ User Interface  |  |  |  |  |  |  |
| Numeric %-Display   |  |  |  |  |  |  |
| Dynamic Graphic Display   |  |  |  |  |  |  |
| Screen Angle/Ruling calculation   |  |  |  |  |  |  |
| ▼ Optical Range   |  |  |  |  |  |  |
| Field of view typically<br>from <b>1.25 x 0.92 mm</b> (at min zoom) to <b>0.50 x 0.40 mm</b> (at max zoom)        |  |  |  |  |  |  |
| Zoom range (optical magnification) – typically 2.8x - 7.0x  |  |  |  |  |  |  |
| Screen magnification typically 160x - 400x  |  |  |  |  |  |  |
| ▼ Data archiving  |  |  |  |  |  |  |
| .fcp format (incl. 2D/3D info); JPEG and BMP (bitmap export)  |  |  |  |  |  |  |
| ▼ Light Source  |  |  |  |  |  |  |
| 1 co-axial and 2 x 9 radial white light LEDs ( <i>SW-controlled</i> )   |  |  |  |  |  |  |

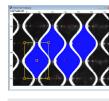
### **OPTIONS**

| ▼ Calibration / Maintenance / Service  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|
| ACP AniCAM Certification Package for $X/Y/Z$ and Volume calibration  |  |  |  |  |  |  |  |
| Annual Service Contract  |  |  |  |  |  |  |  |
| WEB-based training and support   |  |  |  |  |  |  |  |
| ▼ Hardware Options   |  |  |  |  |  |  |  |
| 12V Lithium Battery Pack   |  |  |  |  |  |  |  |
| X-axis micro adjustment for an exact axial positioning of the camera. (Increases the minimum roll/cylinder diameter to 81mm)         |  |  |  |  |  |  |  |
| Y-axis micro adjustment for an exact transverse positioning of the camera.<br>(Increases the minimum roll/cylinder diameter to 81mm) |  |  |  |  |  |  |  |

## Additional QC Applications:



Anilox Analysis for 2D and 3D measurement of Anilox rolls (volume, depth, wall width, opening, screen count, angle, distances etc.). Plus optional AMS Anilox Management System.



Gravure Analysis for 2D and 3D measurement of Gravure Cylinders (volume, depth, X/Y Opening, wall width, channel, variance, screen count, angle, distances etc.). Plus optional CMS Cylinder Management System.



1 Blackworth Court Blackworth Industrial Estate Highworth, Wiltshire, SN6 7NS info@troika-systems.com United Kingdom

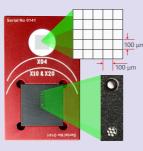
Tel: +44 (0) 1793-766-355 Fax:+44 (0) 1793-766-356 www.troika-systems.com

## **TECHNICAL SPECIFICATIONS – ANICAM**

| ▼ Electronics  |
|--|
| Mono CMOS camera with 640 x 480 pixel resolution.  |
| USB2.0 Control via PC  |
| External ac power supply (Optional: Battery Pack)  |
| ▼ Lenses   |
| Three lenses (x04, x10 and x20)  |
| ▼ Dimensions   |
| AniCAM: 15,5 x 9,5 x 19 cm (W x D x H)   |
| AniCAM Case: 37 x 30 x 17.5 cm (W x D x H)   |
| ▼ Weight   |
| AniCAM: 2.20 kg / 5.0 lbs  |
| AniCAM with Case: 5 kg / 11.0 lbs  |
| ▼ Environmental conditions   |
| Temperature: 16° - 32° C / 60° - 90° F   |
| Humidity: 40% - 60%, non-condensing  |
| ▼ Minimum PC-requirements  |
| Intel or AMD processor, 2+ GHz, 4+ GB RAM, 1024 x 768, 24-bit Display, USB2.0, 150+ GB hard disk space |
| ▼ Operating Systems  |
| Windows 7 / Windows 8 / Windows 10   |
| ▼ Warranty   |
| 12 months return to base. Software upgrades FOC for 12 months.   |
| June 2016 FezOE. – Specifications and details subject to change without notice                         |

June 2016 E&OE. – Specifications and details subject to change without notice

## OPTIONAL ANICAM CALIBRATION & **CERTIFICATION PACKAGE (ACP)**



An accurate X/Y/Z and mathematically proven volumetric measurement system, enabling Troika AniCAM users to test and calibrate their AniCAM systems in-house.

- 06/2016

The ANICAM CERTIFICATION PACKAGE consists of an application designed to allow users to carry out mechanical, optical and electronic tests and subsequently a full Calibration & Certification of their unit that leads to self-certification and address ISO-requirements. The package uses a calibration tool for the X & Y axis calibration tests and calibrated spheres for Z-axis and volume calibration.

Your authorised local Troika dealer:

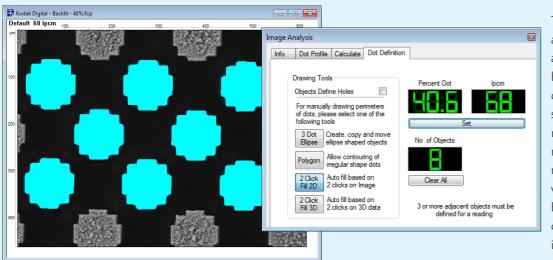




# THE FLEXOPLATE QC WORKFLOW

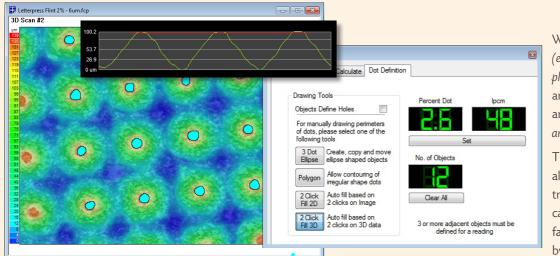
The AniCAM Flexoplate QC Workflow provides two reading methods: 2-dimensional readings with an automatic reflective or translucent dot detection and a **3-dimensional analysis** which provides additional information on dot shape, height and relief depths.

# TRANSLUCENT AND REFLECTIVE PLATE: 2D ANALYSIS



Two-dimensional dot percentage and screen count readings are analysed in a few seconds by taking a simple 2D snap and clicking in 2 adjacent dots. The software then identifies the remaining matching dots and immediately displays the reading results. Additional Distance-, width- and angle readings can be performed by simple mouse click-and-drag functions directly in the displayed image.

# ELASTOMER AND LETTERPRESS: 2D DOT ANALYSIS UTILISING 3D DATA

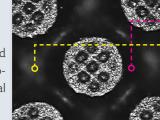


When measuring opaque plates (e.g. letter press or black elastomer plates) in most cases the top areas of (especially highlight) dots are insufficient visible (see left example).

The availability of the 3D data allows to analyse the dots electronically sliced at a certain vertical offset from the top plate surface. This is done fully automatic by clicking on two dots.

RELIEF DEPTH TOP SURFACE SHOULDE

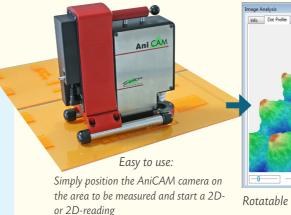
# VIEWED FROM THE TOP MOST DOTS LOOK FINE . . .

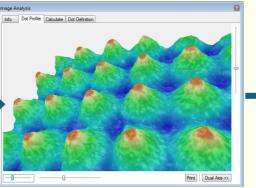


A three-dimensional view and analysis of the surface and dots is extremely informative and helpful. It exposes problems which could never be identified by a two-dimensional reading!

In contrast to two-dimensional readings an electronic profile cut across dots will show much more. Shoulder angles as well as relief and intermediate depths can exactly be determined.

In this manner smallest highlight dots and even the depth and dimensions of top surface screenings can be measured. Distance- and angle readings can be conducted by click-anddrag cursor movements directly in the graphical display.





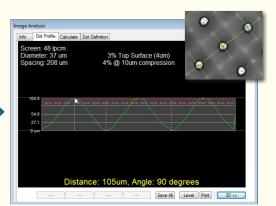
# **QUALITY CONTROL IS ESSENTIAL**

- ▶ The time and cost of defective plates will increase waste, reduce productivity and profitability.
- Printers often charge trade-houses for lost productivity if the fault is proven to be theirs - trade houses need to check and maintain their quality to ensure they meet their customers needs.
- Cost savings made over time through Quality Control on dot shape, relief depths and dot sizes can be significantly high and will result in a fast Return of Investment

# **KEY BENEFITS**

- An **EASY TO USE TOOL** that will verify your plates and/or sleeves are properly calibrated ensuring your jobs are faultless on being mounted.
- Depending on the plate kind the operator can choose between **TRANSMISSIVE READINGS** (i.g. for translucent plates) **AND REFLECTIVE READINGS** (i.g. for metalback letter press plates or elastomer plates and sleeves.)
- ► The application utilises Troikas ANICAM 3D Scanning Microscope as the capturing device. It is easily positioned onto the material and does not physically touch the measuring area, therefore the measured dots are not compressed, ensuring accurate percentage readings and allowing the dot profiling to be achieved.
- The **3D DOT PROFILE ANALYSIS** allows to analyse and visually inspect the dots in their 3D representation and by applying definable electronic cuts. To visually check on exposure or process problems the 3D view can be rotated and scaled in any direction. The profile graph informs about the dot percentage at the top of the media and at a definable simulated compression. Even 1% dots can be measured exactly. The certainty that your highlight dots, dot heights and shapes are correct, helps reducing press setup time and waste.
- Timely checking of archived plates for brittleness and damages before mounting them on press can save a significant amount of time and waste.
- As **THE ANICAM IS PORTABLE**, measurements can be taken in the press room, the plate room or in the plate storage area; with in the round / sleeves and flat material, making it a very practical all-round tool for all the print department.
- All measurement information or images can be printed and/ or exported for use in 3rd party software (like Excel or database programs) for comparison of historic with current information so that you can ensure quality is being maintained.

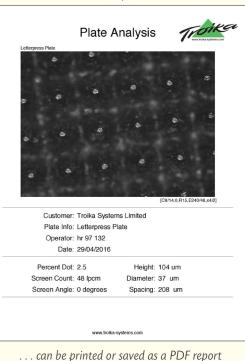
Rotatable coloured 3D-view for visual inspection



and measurement of screen count and dot percentage

| Dot Pr   | Profile Calculate Dot Definition Troika Systems Limited |          |            |       |     |  |  |  |
|----------|---|----------|------------|-------|-----|--|--|--|
| Customer |   |          |            |       |     |  |  |  |
| Plate ID | Letterpre   | ss Plate | 29/04/2016 |       |     |  |  |  |
| Operator | hr  |          |            | 15:50 |     |  |  |  |
|          |   | Dot In   | formation  |       |     |  |  |  |
| % Dot    | 2.5   |          | Height     | 104   | um  |  |  |  |
| Screen   | 48  | lpcm     | Diameter   | 37    | um  |  |  |  |
| Angle    | 0   | deg      | Spacing    | 208   | um  |  |  |  |
| Depth 1  | 97  | um       |            | 0     | um  |  |  |  |
| Depth 2  | 132   | um       |            | 0     | deg |  |  |  |

The results are collected in the Info section . . .



|  |               |                | •              |                |                      |   |  |  |  |
|--|---------------|----------------|----------------|----------------|----------------------|---|--|--|--|
| Microsoft Excel - Export of 4 readings.CSV |               |                |                |                |                      |   |  |  |  |
| 10   | i 💕 🖬 i 🤊     | -   🔀   🕑 🍟 Ar | ial            | • 10 • F K     | <u>u</u>   ≣ ≣ ≡   € |   |  |  |  |
|  | D12 ·         | ▼ fx           |                |                |                      |   |  |  |  |
|  | A             | B              | С              | D              | E                    | _ |  |  |  |
| 1  | Export of 4 r | eadings        |                |                |                      |   |  |  |  |
| 2  |               | Orange Plate 2 | Orange Plate 5 | Orange Plate 7 | Orange Plate 50      |   |  |  |  |
| 3  | Percent Dot   | 1.9            | 3.6            | 5.5            | 42.1                 |   |  |  |  |
| 4  | Screen        | 101            | 104            | 104            | 106                  |   |  |  |  |
| 5  | Height        | 125            | 129            | 126            | 120                  |   |  |  |  |
| 6  | Diameter      | 20             | 26             | 33             | 88                   |   |  |  |  |
| 7  | Spacing       | 125            | 122            | 122            | 120                  |   |  |  |  |
| 8  | Date          | 13.12.2006     | 13.12.2006     | 13.12.2006     | 13.12.2006           |   |  |  |  |
| 0  |               |                |                |                |                      | ~ |  |  |  |

or exported to be used in spreadsheet applications.