Quality Control Applications

AniCAM™

THE STATIONERS' COMPANY · AWARD FOR INNOVATION · 2016

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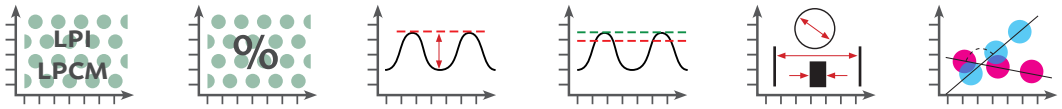
Troika™ TROIKA SYSTEMS LIMITED

Optimum Control of your Flexo Plates and Sleeves:

AniCAM™ FlexoPlate QC



X|Y|Z readings, Screen Count, Percentage, Relief Depth, Compression Simulation, Angles

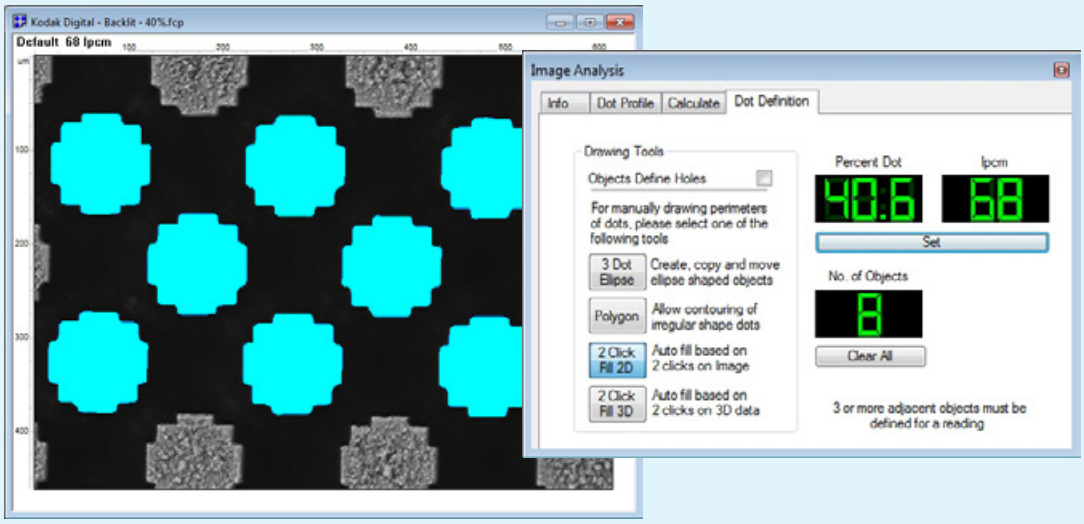
For 2- and 3-dimensional measurements of Flexo Plates . . .

. . . and Sleeves

The FlexoPlate QC workflow

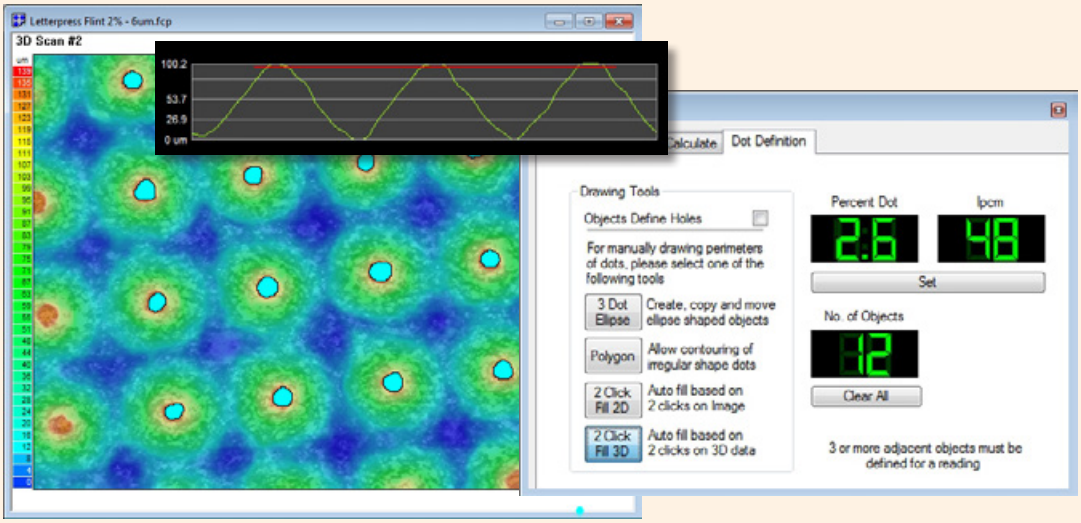
The AniCAM Flexoplate QC Workflow provides two reading methods: ***2-dimensional readings*** *with an automatic reflective or translucent dot detection and a* ***3-dimensional analysis*** *which provides additional information on dot shape, height and relief depths.*

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.

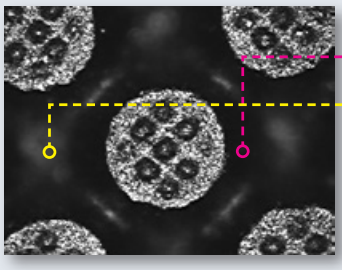
Elastomer and Letterpress: 2D dot analysis utilising 3D data

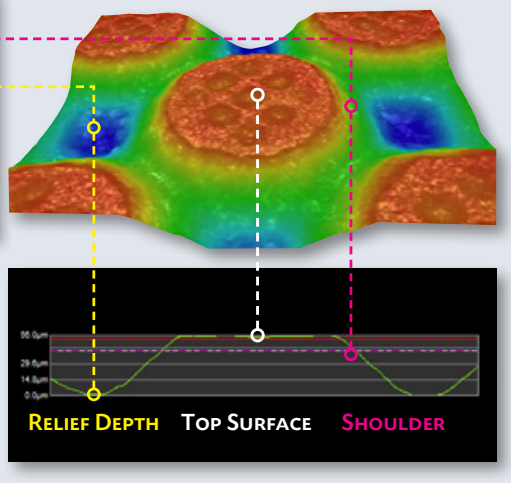


When measuring opaque plates *(e.g. letter press or black elastomer plates)* in most cases the top areas of *(especially highlight)* dots are insufficient visible *(see left example)*.

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.

3D Viewed from the top most dots look fine . . .



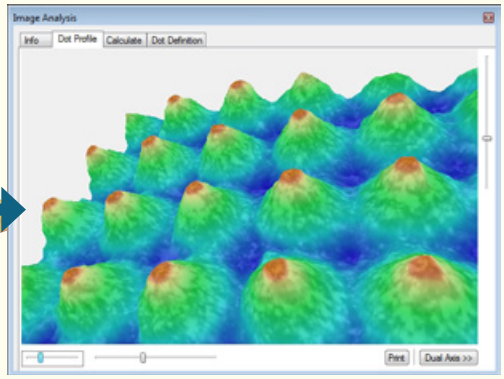


A three-dimensional view and analysis of the surface and dots is extremely informative and helpful. It exposes problems which could never be identified by a two-dimensional reading!

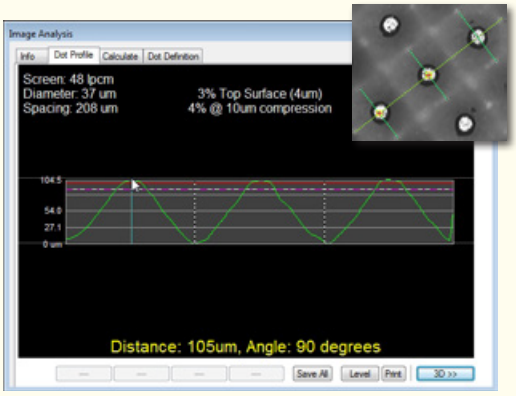
In contrast to two-dimensional readings an electronic profile cut across dots will show much more. Shoulder angles as well as relief and intermediate depths can exactly be determined.

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-and-drag cursor movements directly in the graphical display.

Easy to use:
Simply position the AniCAM camera on the area to be measured and start a 2D- or 2D-reading



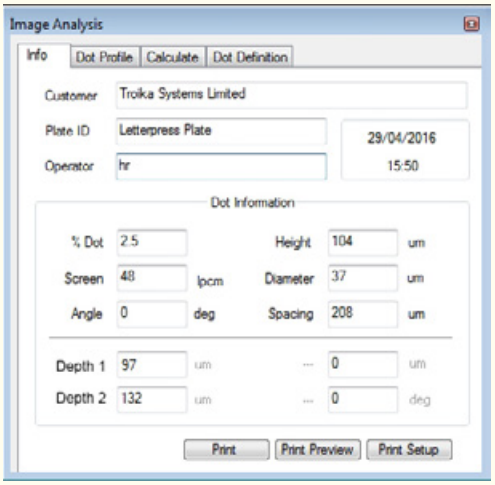
Rotatable coloured 3D-view for visual inspection



and measurement of screen count and dot percentage

Quality Control is essential

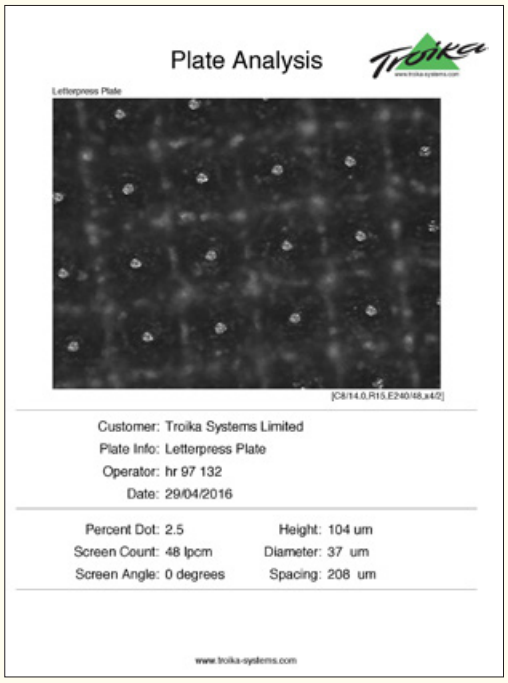
- The time and cost of defective plates will increase waste, reduce productivity and profitability.
- Printers often charge trade-houses for lost productivity if the fault is proven to be theirs – trade houses need to check and maintain their quality to ensure they meet their customers needs.
- Cost 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.



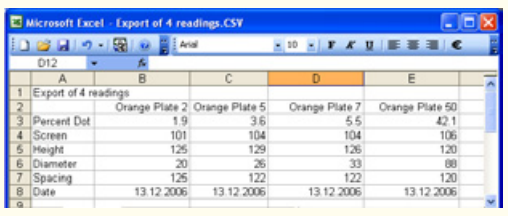
The results are collected in the Info section . . .

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.e. for translucent plates) **and reflective readings** (i.e. for metal-back 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.



. . . can be printed or saved as a PDF report



or exported to be used in spreadsheet applications.

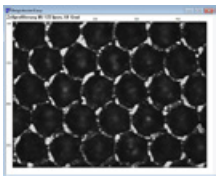
Product Specifications

▼ Media
Any Flexo Plate material and Sleeves – flat or in the round 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 from **1.25 x 0.92 mm** *(at min zoom)* to **0.50 x 0.40 mm** *(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 *(SW-controlled)*

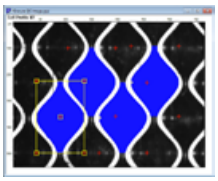
Options

▼ 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. *(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.

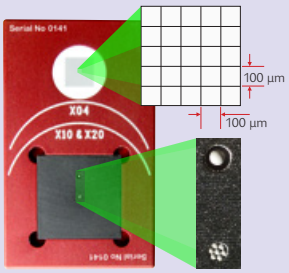


Gravure Analysis for 2D and 3D measurement of Gravure Cylinders *(volume, depth, X/Y Opening, wall width, channel, variance, screen count, angle, distances etc.)*. Plus optional CMS Cylinder Management System.

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.

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.

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.

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v9.x – 03/2017