AniCAM FlexoPlate Analysis

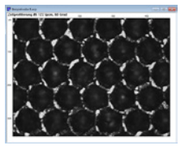
Product Specifications

▼ 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)*

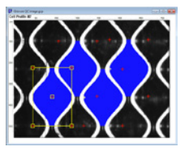
Options

▼ 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.

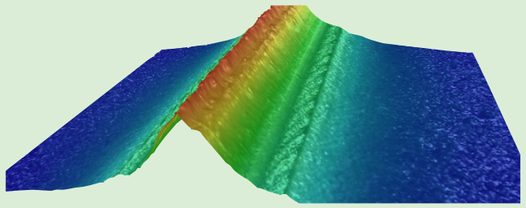
Technical Specifications – AniCAM

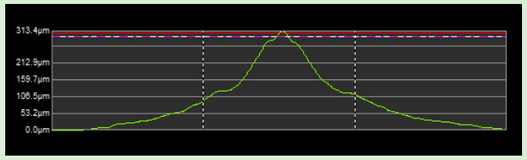
▼ Electronics
Mono CMOS camera with 640 x 480 pixel resolution.
USB2.0 Control via PC
External ac power supply *(Optional: Battery Pack)*
▼ Lenses
Three lenses (x04, x10 and x20)
▼ Dimensions
AniCAM: 15,5 x 9,5 x 19 cm (W x D x H)
AniCAM Case: 37 x 30 x 17.5 cm (W x D x H)
▼ Weight
AniCAM: 2.20 kg / 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 XP / Windows 7 / Windows 8
▼ Warranty
12 months return to base. Software upgrades FOC for 12 months.

June 2014 E&OE. – Specifications and details subject to change without notice

Not just for plates and sleeves . . .

Beyond the measurement of plates and sleeves the AniCAM System with FlexoPlate QC can also be used to inspect further products. The cutting edges of die cut plates for instance can be checked for wear and correct height and accuracy. Damages can easily be identified.





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v8.x – 06/2014

AniCAM Quality Control Applications

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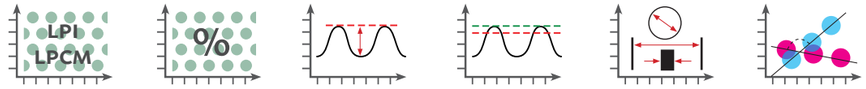
Optimum Control of your Flexo Plates and Sleeves:

AniCAM FlexoPlate QC



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

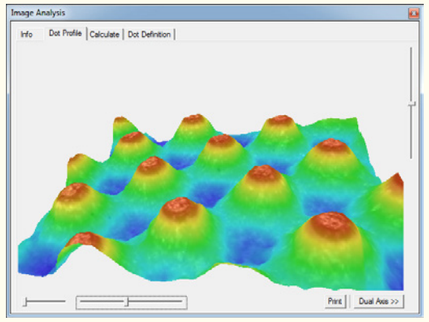
For 2- and 3-dimensional measurements of Flexo Plates . . .

. . . and Sleeves

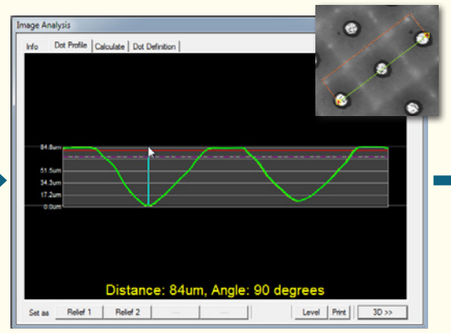
The FlexoPlate QC workflow

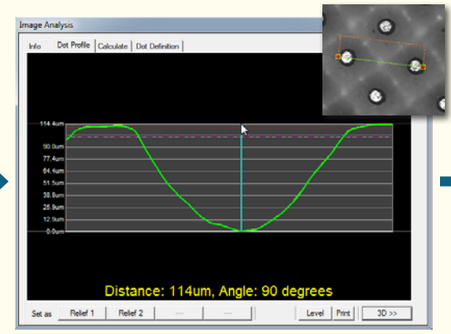
Easy to use:

Simply position the AniCAM camera on the area to be measured and start a 2D-reading (approx. 1 sec) or a 3D-Scan (approx. 1 min).

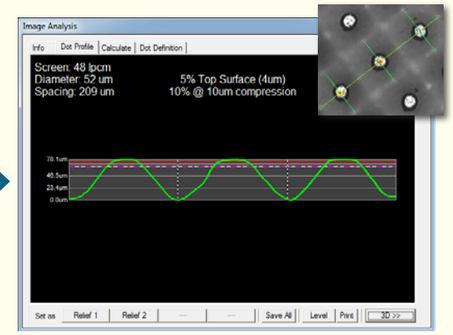


Rotatable coloured 3D-view for visual inspection

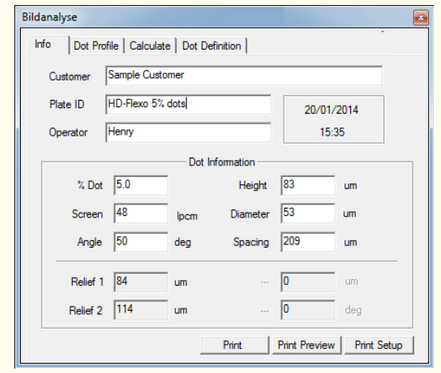




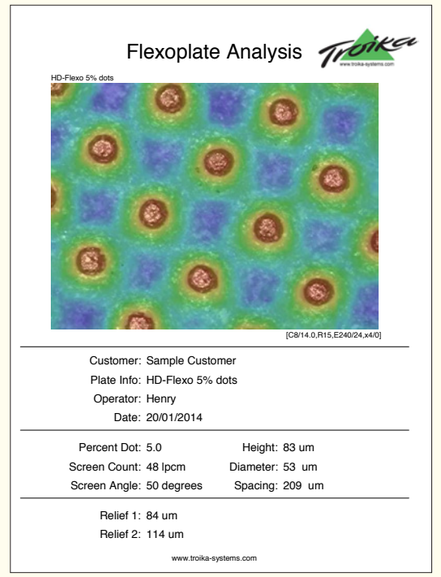
Electronic cuts for relief depth measurements



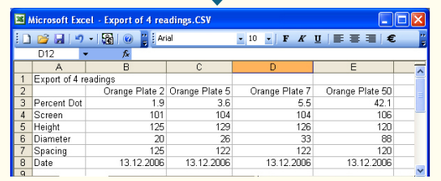
and measurement of screen count and dot percentage



The results are collected in the Info section . . .



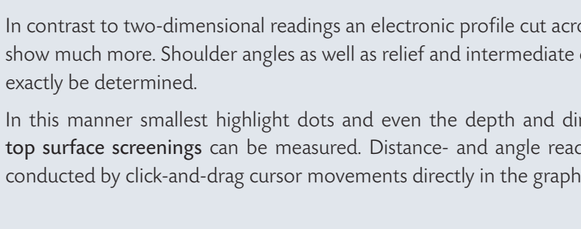
. . . can be printed or saved as a PDF report



or exported to be used in spreadsheet applications.

Printing in all its forms consists of many processes, therefore process control is essential to achieve a desired level of efficiency. Quality Controls are used to ensure the levels of efficiency are achieved and maintained to maximise the production capabilities and reduce waste.

2D and 3D-readings for Dot percentage, Screen count and more . . .



Two-dimensional dot percentage and screen count readings are analysed in seconds by taking a simple 2D snap, while a three-dimensional reading for depth and dot profile information takes approximately one minute from the multi-layer scan data.

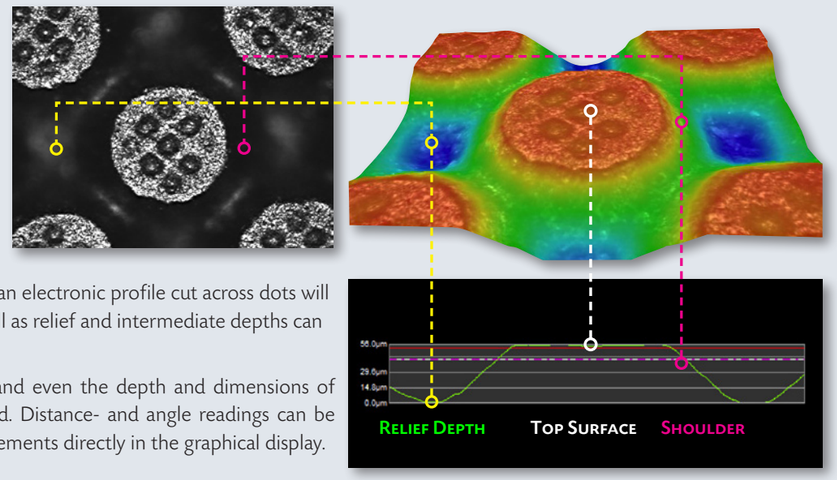
Also distance, width and angle readings to analyse i.e. barcodes or text can be performed this way. As the AniCAM camera utilises a high resolution monochrome CMOS array, the image is displayed monochrome and in a corresponding high resolution.

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.

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.

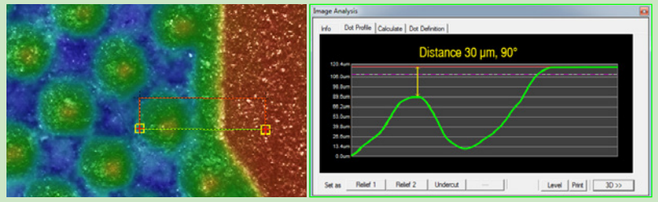
In this manner smallest highlight dots and even the depth and dimensions of **top surface screenings** can be measured. Distance- and angle readings can be conducted by click-and-drag cursor movements directly in the graphical display.

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.
- 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 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.

Undercut-readings

on direct laser engraved elastomer plates and sleeves



In a direct laser engraved plate production the height of highlight dots is often slightly reduced. A three-dimensional reading allows to measure this so called **Undercut** – the distance between the top surface of small dots and the top surface of the plate/sleeve.