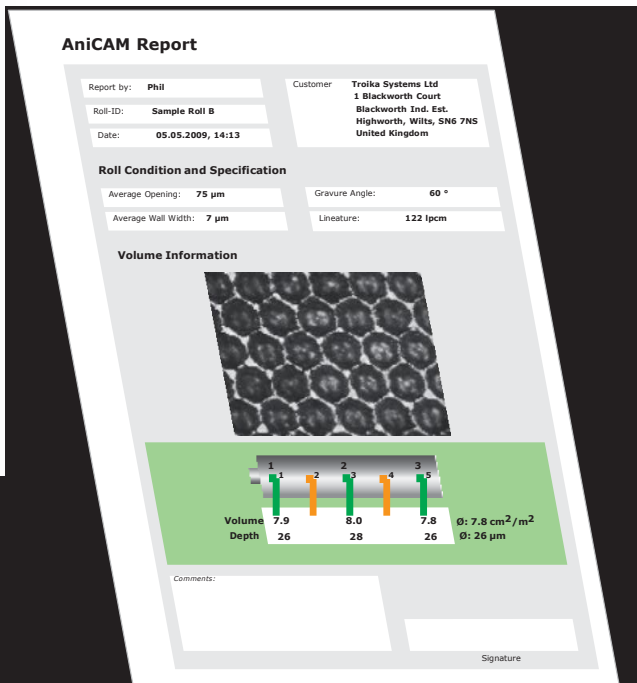
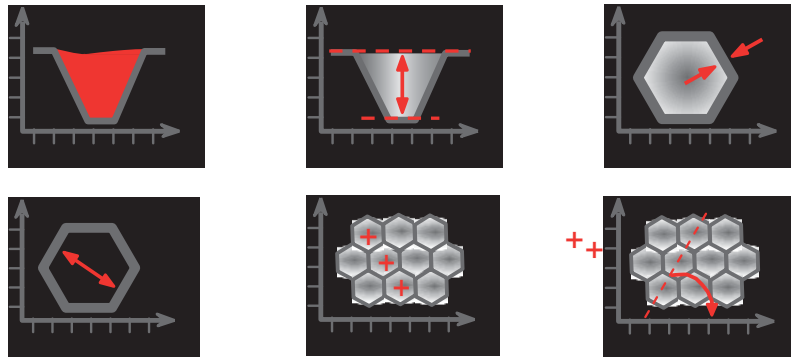


# Anilox QC Application

The *New Standard* in Anilox measurement for volume checking, cell inspection and inventory data archiving



*“Every indication is that the AniCAM system will become the new standard in measuring Anilox cylinders”* (Phil Hall, Managing Director Troika Systems Limited)

## Why Anilox Quality Control?

Knowing the condition of the anilox rolls for a printer converter has been proven to save considerable press setup time and reduce waste which inevitably increases profitability.

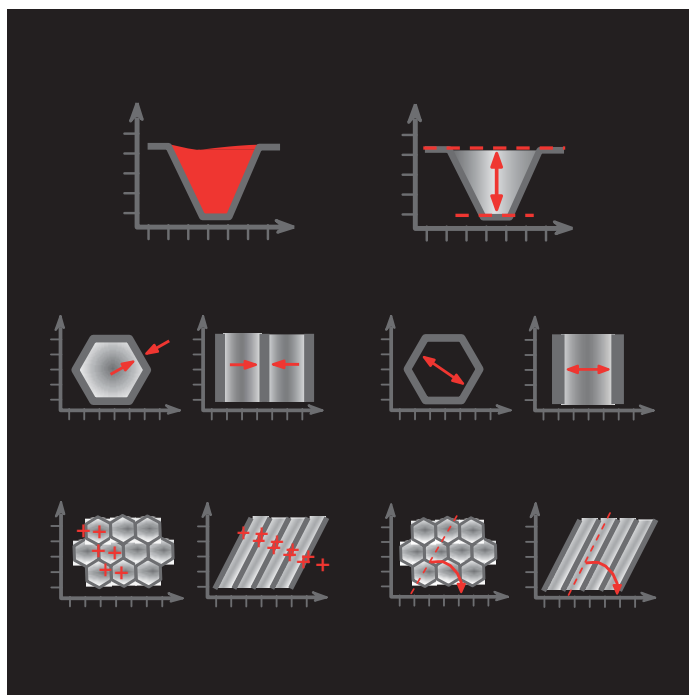
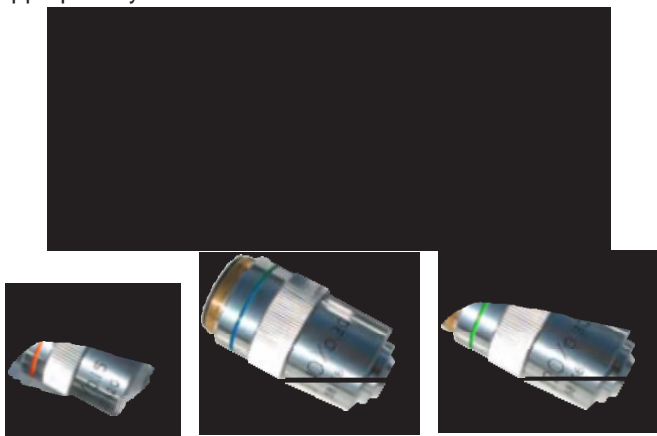
To achieve the required density, the printers are obliged to adjust the ink, when in reality the difference in volume of the anilox's largely influences the imbalanced densities. Until the advent of this easy to use quality control tool, the actual volume of rolls in the anilox inventory was in reality unknown to printers – making it impossible for the printer to know the roll volumes are matched and to optimise press setup.

When discovering that a set of anilox's do not have in reality similar or matched volume capacity – due to either infrequent anilox volume measurement or none at all – many printers realise how much valuable time and cost has been wasted over a period of years; and how quickly they could now make considerable savings for their company by implementing anilox quality control.

Fortunately, due to modern technology the ability to simply and easily measure the volume of aniloxs and archive the inventory information is now a viable and practical for flexo printers.

## Benefits of knowing the condition of your Anilox inventory

- 1 Measuring the inventory with the Anilox QC application and AniCAM 3D scanning microscope allows users to eliminate or replace rolls that would require unnecessary ink adjustments to be made by ensuring the rolls are of a similar volume capacity – not only between a set of rolls but also along the width of a roll.
- 2 Variation across the width of a roll has been identified as one of the biggest time waster in press set up. The variation can be caused for two reasons, either due to poor cleaning or wear – which is caused by too much pressure on one side with the doctor blade often due to poor cleaning.
- 3 Once the inventory is 'balanced' for matched volume and the cleaning system is proven to be giving a satisfactory result, ongoing monitoring and maintenance of the rolls is required to ensure the inventory is maintained in a satisfactory condition and the refurbishment of rolls can be planned appropriately.



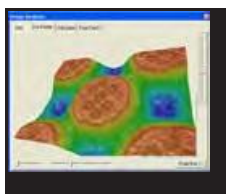
## AMS compatible

Anilox QC application readings can be imported into Troika's Anilox Management System. The AMS database application enables the printer to fully manage his Anilox inventory by tracking the wear, volume and variance of each roll. Over a period of time the roll history identifies wear on the rolls. This information can lead to reduced setup time and ink adjustment – increasing the availability of the presses.

## Anilox QC Options

- *Complex Cells*: a software module for volume and geometric measurement of non-hexagonal cells.
- *Foil Strip Analysis* for measuring foil strips which are the inverse of conventional cells.
- *Comparison Report* for *Before/After Cleaning* comparison on a single printable report page.

## Additional QC Applications



*FlexoPlate Analysis* for 2D and 3D measurement of flexo plates and sleeves (dot height, percentage, screen count, profile, angle, distances etc.).

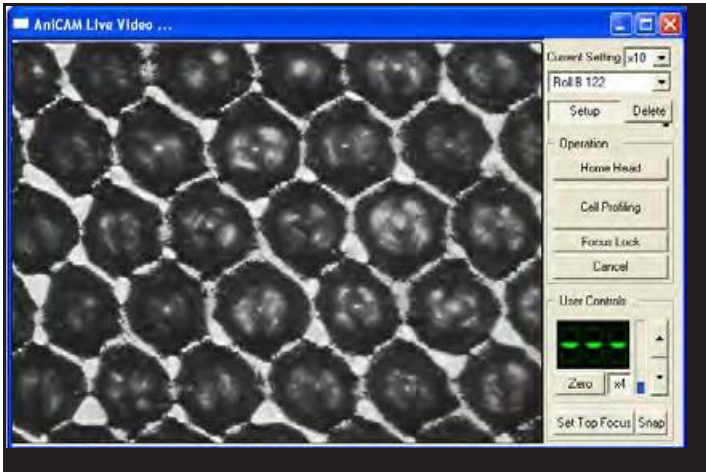


*Gravure Cell Analysis* for 2D and 3D measurement of Gravure Cells (volume, depth, channel width, wall width, opening, screen count, angle, distances etc.).

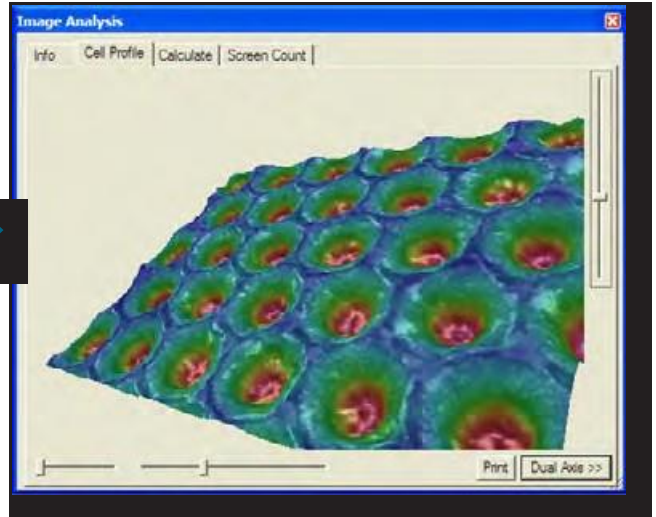
## Easy to use and portable Scanning Microscope

Although the AniCAM 3D Scanning Microscope is a very professional instrument, its operation is really simple: For volume readings place the portable AniCAM 3D Scanning Microscope on top of your Anilox roll, select the appropriate setup and click in the *Cell Profile* button to get a full reading. The image will then be transferred to an Analysis window, which simultaneously displays the info page with the volume and depth readings. The system generates a report which can be printed or the data can be exported to a database or spreadsheet program for further analysis, such as your own reporting method for anilox roll wear analysis.

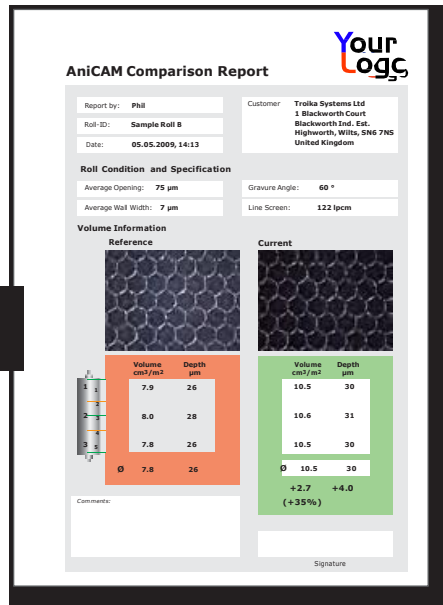
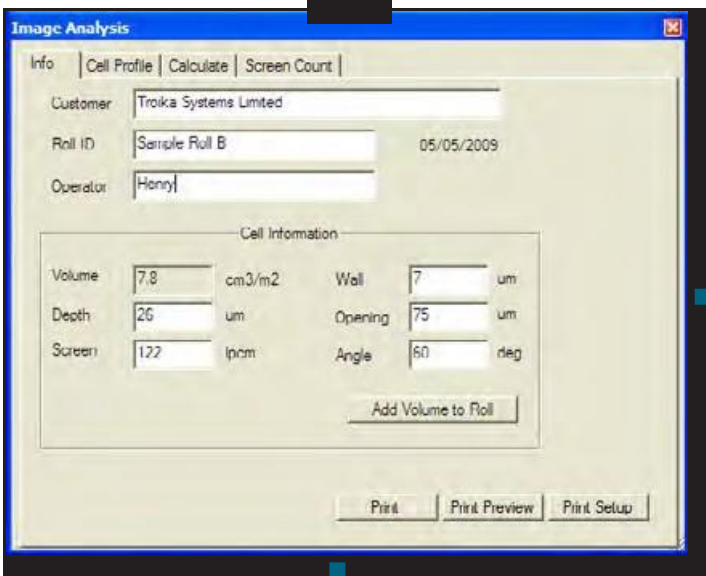
The AniCAM camera window helps you to find the target area



Rotatable 3D View of the cells



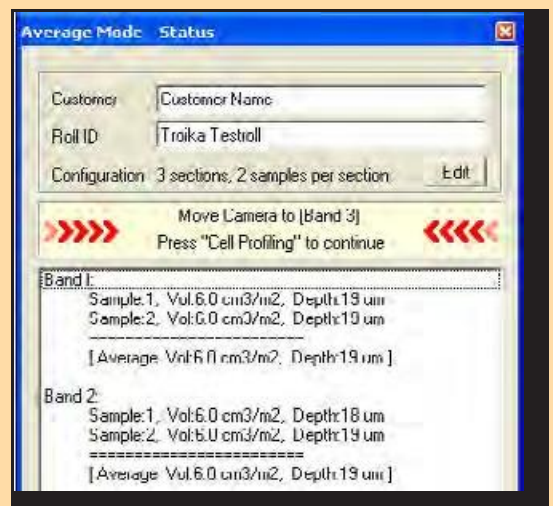
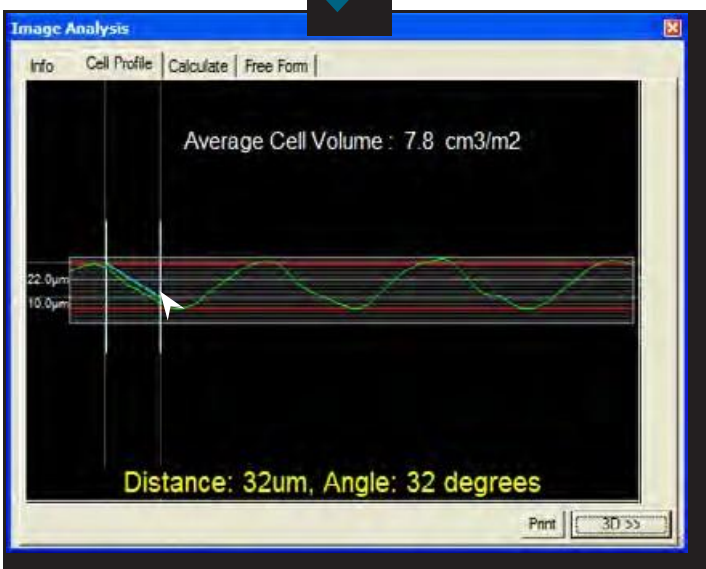
Cell Info window



Report Form printouts of all important readings and calculations.

Left: An optional Report Form allows the comparison between two readings (i.e. new roll vs cleaned roll).

An Average Mode allows to predefine the number of sections to be read across the roll and the number of repetitions per section



## Product Specifications

<b>Media</b>
Ceramic Anilox cylinders; Minimum diameter: 2.5"/ 63mm
<b>Cell Evaluation</b>
Analysis range: Std: x20 lens: 236 - 475 lpcm / 601 - 1200 lpi; cell depth: 5 - 36 µm Std: x10 lens: 88 - 235 lpcm / 225 - 600 lpi; cell depth: 10 - 72 µm Std: x4 lens: 40 - 87 lpcm / 100 - 224 lpi; cell depth: 30 - 96 µm
Anilox volume calculation in cm <sup>3</sup> /m <sup>2</sup> or BCM
Measurements: • Cell Volume • Cell depth • Cell screen count • Cell opening • Cell wall width • Cell angle • Engraving angle
Geometric measurements
Averaged readings over "n" sections across the roll
Integrated Roll Management for easy tracking of roll histories (date and total average volume).
<b>Image Analysis</b>
Images are taken by the camera and transferred via USB to the PC. The image analysis and calculations are done by the dedicated <i>Anilox QC Application Troika</i> PC software.
Software based Vibration detection and suppression (4 levels)
Digital Zoom range 1:1 up to 6:1
<b>Variance of Readings</b>
Volume readings: typically better than ± 1% @ 12cm <sup>3</sup> /m <sup>2</sup>   8 BCM
<b>Data archiving</b>
.acp format (incl. 2D/3D info); JPEG and BMP (bitmap export)
Export of readings (AMS, Spreadsheets, Database applications etc)
<b>Light Source</b>
1 co-axial and 2 x 9 radial white light LEDs (SW-controlled)

## Options

<b>Software Options</b>
AMS Anilox Management database System for controlling the total Anilox
Complex Cells Analysis for analysing non-hexagonal cells
Special Reports (i.e. Comparison Report for before/after cleaning readings)
Additional QC Applications ( <i>separate brochures</i> ): FlexoPlate/Sleeve Analysis and Gravure Cell Analysis
<b>Calibration / Maintenance / Service</b>
X/Y Calibration plate
Z-Axis Calibration tool   Annual Online-Calibration + Certification (Q1 2011)
Annual Service Contract   GTM Online Training and Support
<b>Hardware Options</b>
Battery pack (Available end of Q1 2011)

## Technical Specifications – AniCAM

<b>Electronics</b>
Mono CMOS camera with 640 x 480 pixel resolution.
USB2.0 Control via PC
External ac power supply
<b>Lenses</b>
Three lenses (x04, x10 and x20)
<b>Dimensions</b>
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)
<b>Weight</b>
AniCAM: 2.20 kg / 5.0 lbs
AniCAM with Case: 5 kg / 11.0 lbs
<b>Environmental conditions</b>
Temperature: 16° - 32° C / 60° - 90° F
Humidity: 40% - 60%, non-condensing
<b>Minimum PC-requirements</b>
Intel or AMD processor, 2+ GHz, 2+ GB RAM, 1024 x 768, 24-bit Display, USB2.0, 60+ GB hard disk space
<b>Operating Systems</b>
Windows XP / VISTA / Windows 7
<b>Warranty</b>
12 months return to base. Software upgrades FOC for 12 months.

July 2011, E&OE. – Specifications and details subject to change without notice

## AMS Anilox Management Software

Troika's AMS (Anilox Management System) automatically takes the reading results from the Anilox QC application and shows a list of all measured Anilox rolls with all required information. If the printer is fully aware of the condition of his Anilox inventory he will be able to improve the press set up time, reduce ink matching and improve production and profitability – just by selecting matching rolls for individual print jobs.

Location:	Orion Flexo							
Number of Groups:	5							
Group name:	Undefined							
Roll Count:	3							
Roll-ID	Supplier	LPCM	cm3/m2	Variance	Capacity	Suitability	Last reading	
Anilox 1001	XYZ Supplier	320	7.8	0.4%	100.0%	A - Process Work	04/01/2012	
Anilox 1002	XYZ Supplier	320	7.7	0.7%	97.4%	A - Process Work	02/12/2011	
Anilox 2010	XYZ Supplier	320	7.9	1.1%	98.2%	A - Process Work	13/12/2011	
Gruppenname:	Press 1							
Roll Count:	1							
Roll-ID	Supplier	LPCM	cm3/m2	Variance	Capacity	Suitability	Last reading	
Anilox 1006	XYZ Supplier	600	6.8	4.3%	96.2%	A - Process Work	14/12/2011	

Readings												
Date:	26/04/2009	Examiner:	Phil James	1	2	3	4	5	=	cm3/m2	Variance	Capacity
Reference:				5.1	5.2	5.3	5.2	5.2		4%	100%	
Historical:	23/12/2009	Phil Hall		4.7	4.2	4.4	4.4	4.4		11%	85%	
	25/10/2009	Tim Collins		4.8	4.5	4.8	4.8	4.7		9%	90%	
	10/09/2009	Heinz Röttig		5.1	4.8	5.2	5.0	5.0		8%	97%	
	15/06/2009	Mark Britten		5.0	4.9	5.1	5.0	5.0		4%	96%	

Your authorised local Troika dealer:



Anilox roll cleaning equipment