Why are so many large print groups, press and anilox manufacturers in Europe choosing Advanced Ultrasonics as their preferred anilox cleaning method?

The first short answer is the advancement in measurement of ultrasonic cavitation. This has enabled improvements in the application of high frequency sound into fluid to deliver an incredibly even distribution of ultrasonic activity, making it completely safe and highly effective for even hourly cleaning of anilox rolls. In essence 'if it can be measured, it can be improved'. On the back of these developments, we are now entering the era of Advanced Ultrasonics.

The second short answer is the advancement in volume measuring microscopes such as Troika's AniCam. With this and other such devices it is now possible to forecast the life of the anilox. This ability is of major benefit to larger print groups in particular, enabling them to forward order their aniloxes to gain a price advantage. In fact with several of these groups, the acquisition of a volume measuring microscope is a mandatory purchase for every facility, such is the importance of the knowledge and control it brings.

These two, individually developed technologies have come together to deliver an amazing insight into what is actually happening with an anilox roll to a level never witnessed before.

'The anilox is the heart of the process'

How many times have we heard that? Hundreds for sure, but also how many times did it go in one ear and out of the next? Hundreds too I guess.

The truth of the matter is that:

up to 80% of all print problems stem from the condition of the anilox roll.

So, it makes common sense does it not that if the anilox can be controlled, so will the majority of print problems. The facts being that:

- Print problems cost money
- Inconsistent cell volumes cost money
- Lack of control costs money... and lots of it.

The advancement in volume measurement and indeed the importance of it is hitting home from Labels through to Corrugated, as the knowledge is easily gleaned from the anilox as to it's true condition…with no emotive language, no smoke screens, no self-perceived experts, no lies. Just fact and data.

These devices represent a 'silent revolution' in Flexo

As they are shining a light onto what is actually going on with your aniloxes. Giving control, knowledge and understanding…with the potential for great cost savings.

So where does Advanced Ultrasonics fit into this revolution?

To enable the benefits from the volume measuring microscope data set to be realised, the anilox roll must be maintained 100% clean. By achieving this state, any change witnessed in the cell volume can only be caused by wear on the outside diameter, as the bottom of the cell is clean. Once a series of fingerprints are taken, a pattern will emerge and from this data set, the life of the anilox can be accurately forecast.

Advanced Ultrasonics will render the anilox 100% clean, 100% of the time in a safe, controlled and speedy manner and is the perfect, pre-requisite partner for any volume measuring device.

What else will 100% clean aniloxes deliver?

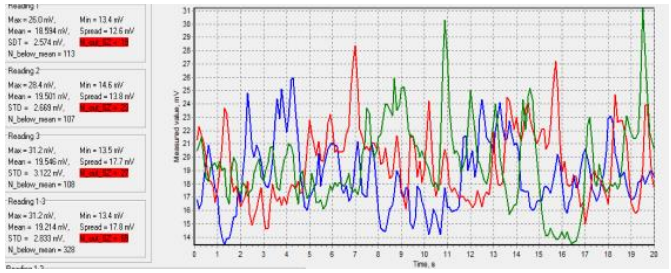
- No requirement to ever over-pigment inks
- Greatly reduced and more consistent make ready times
- Greatly reduced waste stream
- Higher and more consistent Print Quality
- Increased production run hours
- Easier and more efficient anilox inventory management

All of the above will help to deliver a return on investment of the cleaning system and the volume measuring microscope as the data sets produced will be accurate and revealing, enabling cost savings through the above tangible benefits and the forward ordering of anilox rolls through more efficient inventory management.

How does Advanced Ultrasonics consistently achieve what all other cleaning methods cannot?

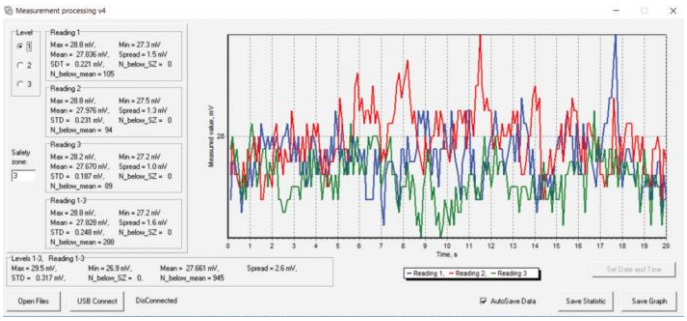
Through the application of a unique technology that is unlike any other ultrasonic cleaning system, or indeed any other methodology on the market.

When high frequency sound is applied into fluid, the dispersion is very erratic, with spikes of sound that can damage cell walls and troughs of sound where cleaning will be poor. The cavitation graph below highlights this fact beautifully. This erratic dispersion is also the cause of the condition known as 'camoflage'



This is clear evidence of why 'commercial grade' ultrasonic cleaning systems can cause damage to a cell wall via spikes of sound generated through the erratic dispersion.

Compare this to Advanced Ultrasonics:



It can be clearly seen that the intensity and evenness of distribution are completely different when comparing the two graphs. The 'commercial grade' system as sold into Flexo has a spread of 17.8mV and the 'Advanced' system shows a spread of only 1.6mV, with the size of the spikes greatly reduced from 11mV to only 0.972mV from the mean voltage.

Alphasonics, the manufacturers of Advanced Ultrasonics have never once had a claim for roll damage in almost 30 years of manufacturing this type of equipment. Their customers have won countless print awards across the world and have recently developed a version of their technology for use in the battle against Sepsis in the Healthcare de-contamination sector. They also offer a written guarantee as to the safety of this technology for anilox cleaning.

This un-rivalled, progressive, scientific approach is opening up great opportunities for Flexography, as the sector strives to develop and grow into the 21st Century and in recognition of this, many large Print Groups, Press and Anilox Manufacturers in Europe are choosing Advanced Ultrasonics as their preferred anilox cleaning method.

Rüdiger Wand from Zecher accepts the ALP demonstration system from the Alphasonics agent for Germany Korhan Kose

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