

Technical Article 3: Reducing the cost of Automated Cell Counting

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One of the major issues associated with automated cell counting is the amount of disposable waste resulting in significant running costs. A typical laboratory may spend between £500 to £1,200 per month on slides yet this is seen as unavoidable or not even considered a problem. Most organisations now have a sustainability policy and are trying to address such issues. However, in many instances, they are not aware of the solutions that are now available.

One approach to reduce waste is to use re-useable slides however they are expensive and easily damaged plus of course require washing and drying. Also not recognised is the need to wash and dry new and unused slides prior to analysis due to potential manufacturing contamination. Until now washing and drying of new slides has not been an option even though scientifically beneficial.

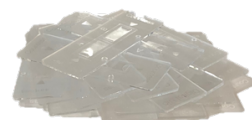
To reduce costs some technicians wash the slides under running water and then try to shake the slide dry. This will never work and is unacceptable lab practice as live cells are potentially being introduced into the environment. Even more significantly a slide washed with tap water will never load correctly so reproducibility will be poor and the process is time consuming as the slide will need to be dried at least overnight with the risk of moisture being left in the well. We discuss this in detail in another article¹.

The ideal solution is to use an **iWash**[®] system as it gently cleans and reconditions the slide chamber before drying to ensure high reproducibility of measurement for many run cycles. The total was and dry cycle is less than 30 seconds per slide. Experiments have shown that it is possible to re-use slides at least 50 times which is a major cost saving plus it improves analytical reliability.



Normally 1000 used slides

OR



Only 20 re-used slides



References:

- 1) Ahmet Imrali¹, Malcolm Lee², Mebs Surve², Technical Note 2: The False Economy of Reusing Automated Cell Counter Slides by Washing in Running Water, available for download on https://swiftanalytical.com/files/cms_product/download_3_file/false_economy_of_washing_slides_under_a_tap.pdf

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