

Who touched your cleanroom wiper?

Contamination Risk and Product Variability

People constitute the greatest contamination risk in any cleanroom. We carry a variety of particulate and microbial contamination with us into a cleanroom, and while gowning protocols may serve to mitigate this contamination risk, the only true way to minimize it is to eliminate the presence of people in controlled environments¹. In order to deliver on this promise, Texwipe as the industry leader in cleanroom wiper technology, embarked on an ambitious quest – to manufacture cleanroom wipers without any human exposure whatsoever.

The Next Level of Clean™

With our comprehensive new line of Vertex™ Cleanroom Wipers, Texwipe has once again launched a revolution on the way to The Next Level of Clean™. Vertex wipers are manufactured HandsFree™ in a fully-automated, small-footprint, ISO Class 3 enclosure. Each and every step involved in the manufacture of a cleanroom wiper has been automated from Roll2Bag™ in sequence, thereby eliminating any manual intervention that would otherwise be necessary. We place a quality assured roll of specially engineered polyester fabric at one end of this isolated enclosure. What emerges from the other end is sealed bags of ultra-clean, premium Vertex wipers that have been untouched by human hands. From our innovative, patent-pending cleaning process, to sealing the edges, to our high-resolution, full-color image analysis for inspection, to stacking and packaging of the wipers, every single step is now completely automated. Users can have a very high level of assurance that their Vertex cleanroom wiper reaches them untouched by the primary source of contamination.

One of the measurable benefits resulting from automation of cleanroom wiper manufacturing is that the quality of the end-product is no longer susceptible to the vagaries of human intervention. Conventional cleanroom wipers continue to be manufactured in a cleanroom laundry using a significant amount of manual handling. This is completely undesirable from the standpoint of minimizing contamination risk in the cleanroom. The data shown in Figure 1 clearly illustrates that one of the direct consequences of manual handling is the undesirable variability in the quality of the final product.

Not Just Clean, Consistent Clean™

Consistency Charts, such as the one shown in Figure 1 serve to indicate the consistency with which a cleanroom wiper can be manufactured over time². Anyone can produce a cleanroom wiper with a magnificent test result – once. However, Figure 1 indicates that it is only through complete automation that one can manufacture cleanroom wipers with extraordinary consistency. Consistency Charts (also referred to as Box and Whisker Charts) provide a statistically valid method to assess the true quality of cleanroom wipers. Lower medians, smaller boxes and shorter whiskers together indicate a cleaner and more consistent wiper.

Consistent Clean™ Vertex wipers provide a very high level of assurance to a user that every wiper in the bag will be just as clean as every other, and that the cleanliness levels reported will repeat predictably and reproducibly, bag after bag, lot after lot, over an extended period of time. Such consistency is the only realistic measure of the true level of cleanliness of a cleanroom wiper.

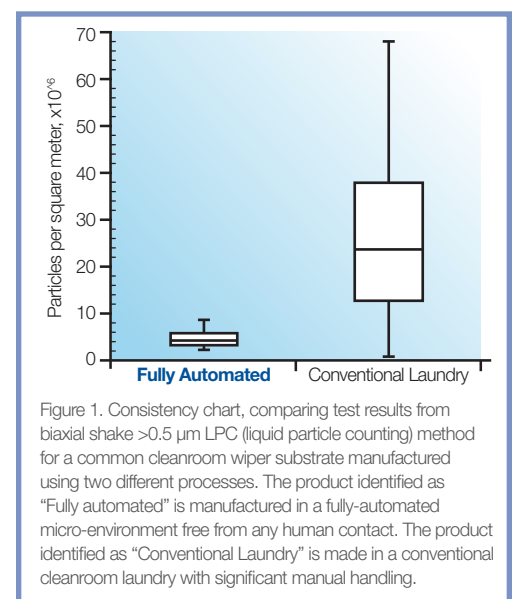


Figure 1. Consistency chart, comparing test results from biaxial shake >0.5 µm LPC (liquid particle counting) method for a common cleanroom wiper substrate manufactured using two different processes. The product identified as "Fully automated" is manufactured in a fully-automated micro-environment free from any human contact. The product identified as "Conventional Laundry" is made in a conventional cleanroom laundry with significant manual handling.

1. Akers, J. and Agalloco, J. "Clean Rooms, RABS and Isolators: Validation and Monitoring in the Diverse World of Aseptic Processing"; American Pharmaceutical Review, 14(4), 2011, p 105-109.
2. Kalkar, S. and Postlewaite, J. "Consistency as the True Measure of Cleanroom Wiper Quality"; 2011; manuscript submitted for publication.



Our Competition Can't Touch This.

(Actually, we don't either)



Texwipe's revolutionary HandsFree™ manufacturing assures the cleanest wiper on the market. You'll always be the first to touch a Vertex™ wiper and achieve **The Next Level of Clean™**.



Connect with us:    

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