



### Semicon PhotoMetrology Solutions LLC

We have many low-cost solutions that can help keep your fab competitive.

- Contamination removal & control
- Light source management
- Tool & component management

**"Helping to keep your tools productive, costs down, and profits high"**



### Semicon PhotoMetrology Solutions LLC

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## **"RetClean"** Reticle Handling Surfaces Cleaning Product



<http://www.semiphotomet.com>

## What is "RetClean"?

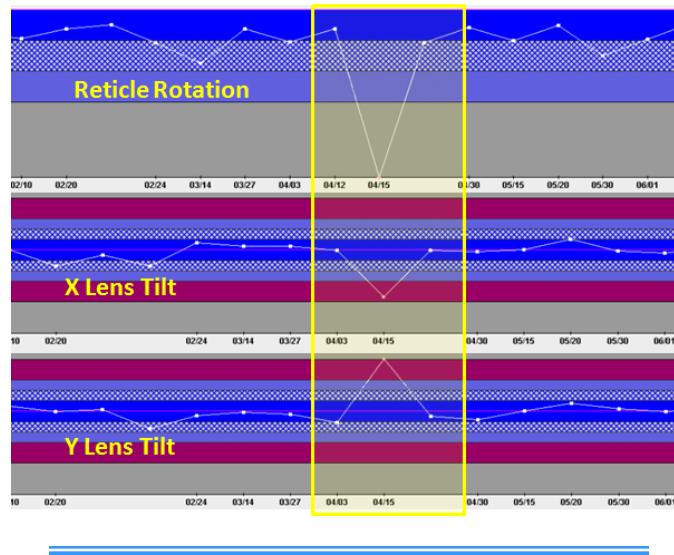
A standard blank reticle with our proprietary polymer applied along the edges that touch surfaces that touch reticles, including robot transfer arm, reticle stages, and reticle stocking and transfer containers. When the polymer comes in contact with "dirt" or "debris" on these handling surfaces, it will conform and trap the contamination and remove much of it. This can be done while the tool is in production or in maintenance mode.

## How does RetClean add value?

- ◊ Helps keep edges of reticles clean by removing contamination on surfaces that they touch.
  - Reduces barcode reading errors.
  - Reduces contamination that might migrate to the "active" area on reticles causing print errors.
  - Reduces reticle inclination on stage that may cause print errors.
- ◊ Reduces tool downtime for cleaning.
  - Cleans surfaces that are difficult to manually clean.
  - Reduces cost of manually cleaning tool.
- ◊ Reduces probability of atmospheric contamination when tool is opened for cleaning.

## Customer Data

Here's an example of how this product removed contamination from a customer's reticle stage and returned the tool to in-spec inclination without taking the tool out of production. This customer was checking the inclination at tool PMs, but after this situation occurred, he decided to run RetClean reticles in his scanners daily from now on to prevent out-of-spec build-up before and printing multiple lots of wafers with poor focus.

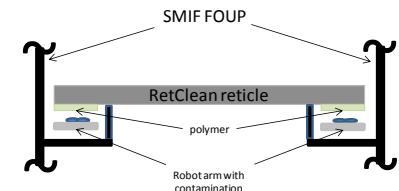


### Truly a revolutionary product -

*There is currently nothing else in the market like this product. No other product can keep your tools and reticles clean so easily or so inexpensively*

## How Does this Polymer Work to Remove Particulate Contamination?

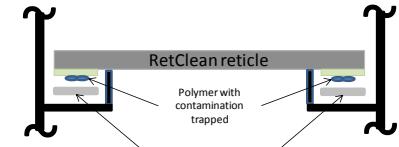
RetClean reticle rests in SMIF POD with poly-side facing down.



Robot arm reaches inside POD to retrieve the RetClean reticle.



Contamination resting on the surface of the robot arm comes into contact with the poly when the robot lifts the RetClean reticle.



RetClean reticle poly conforms and traps contamination on robot arm.

Robot arm returns RetClean reticle to its SMIF POD with contamination attached.