

# Unique ImmJET™ Wafer Processing



## The WaferStorm® Platform

### Metal Lift-Off

- > Heated immersion tank
- > High-pressure spray chamber
- > Lift-off material filtration system
- > High-pressure flow monitoring
- > Low chemical consumption

### TSV Clean, Post-Etch Residue Removal

- > Heated immersion tank
- > High-pressure spray chamber
- > Low chemical consumption

### Photoresist/Dry Film Resist Strip

- > Heated, recirculating, solvent immersion tank
- > High-pressure spray up to 3000 psi
- > HPC needle and HPC fan-spray modes
- > Flow rate monitoring system
- > Low chemical consumption

### Flux Clean

- > Complete flux removal
- > High yield process



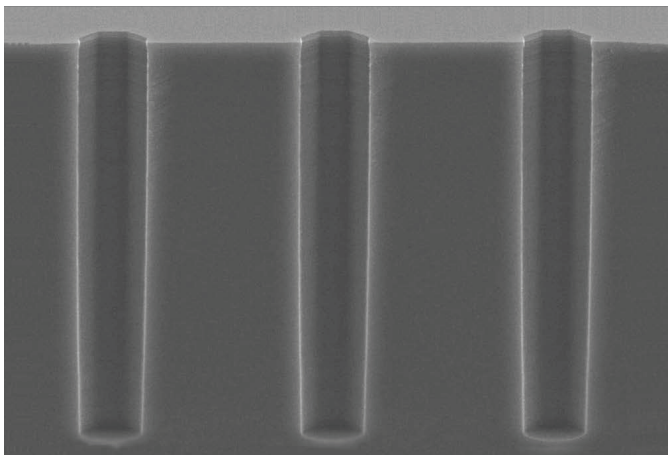
Precision Surface Processing

WaferStorm is a solvent-based platform, available in customizable configurations. All WaferStorm systems are based on Veeco's unique ImmJET technology, which provides improved performance at lower cost of ownership when compared with conventional wet-bench-only or spray-only approaches. The process combines equal soak time in the wet buffer tank for each wafer, followed by spray, and then a final step depending on the process being performed. This unique combination minimizes both spray time and chemistry use, and adds a significant level of control during wafer processing. The reduction in spray time results in increased throughput.

## WaferStorm is available for multiple processes, including:

### TSV Clean

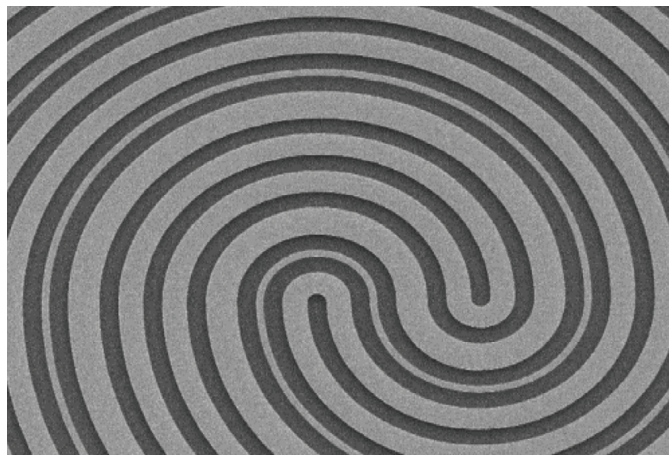
- > Complete sidewall polymer removal
- > Complete photoresist removal
- > Savings in process time



TSV CROSS-SECTION AFTER CLEANING

### Metal Lift-Off

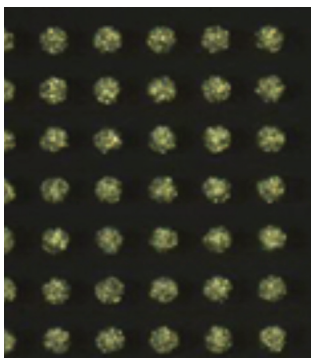
- > Complete metal removal through material filtration station
- > 50% lower chemical use



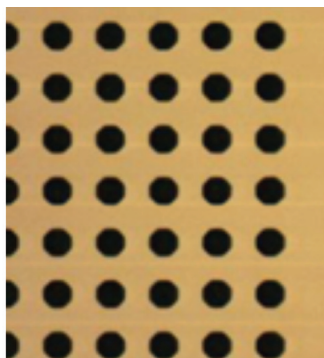
METAL LIFT-OFF TOP VIEW

### Photoresist/Dry Film Resist Strip

- > Patented triple strained
- > Resist removal



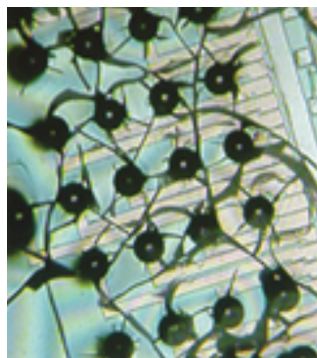
BEFORE THICK FILM REMOVAL



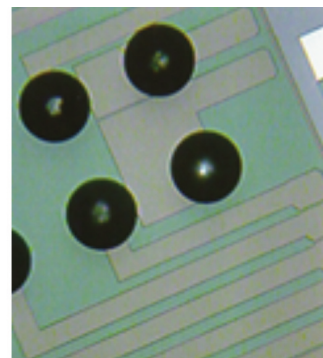
AFTER THICK FILM REMOVAL

### Flux Clean

- > Complete flux removal
- > High yield results



BEFORE FLUX CLEANING



AFTER FLUX CLEANING

Find out more at [www.veeco.com](http://www.veeco.com)  
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