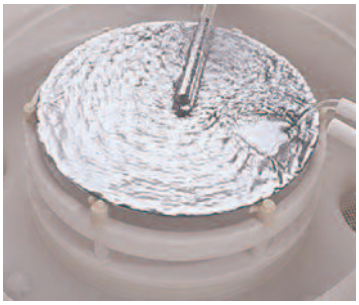
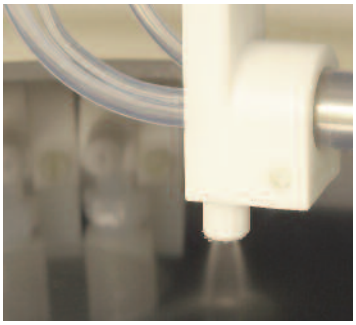
Single-Wafer Goldfinger® Velocity for Wafer Reclaim Cleaning Applications

NAURA Akrion Technology



Patented Goldfinger® megasonics
particle removal
(standard feature)



JetStream™ (patents pending)
combines with megasonics for additional cleaning during DIW rinse
(optional feature)

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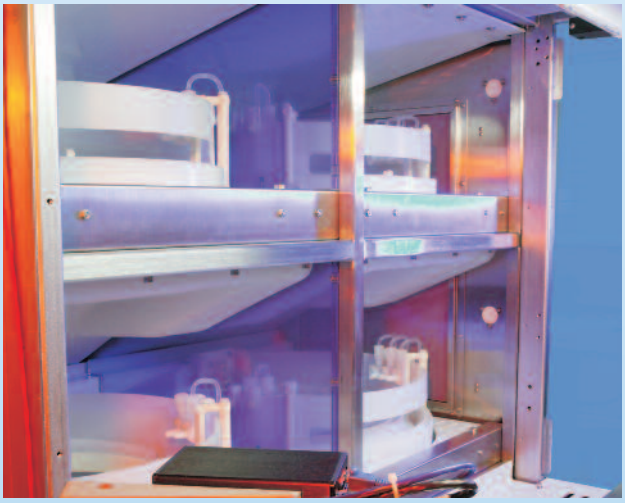
Industry Need

Reclaimed wafer usage is increasing. Reclaimed wafers can be used as particle and etch rate monitors, for characterizing equipment and as furnace barriers. The cost savings to IC device manufactuers is considerable. Akrion Systems cleaning program produces wafers of the same quality as prime test wafers.

Key Benefits

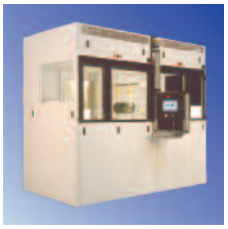
- Small particle removal at 65nm and 45nm
- Patented, controlled megasonics for low material loss
- Simultaneous frontside and backside cleaning
- Multiple wafer size capability
- Use in tandem with Akrion's batch-immersion wet stations for a complete wafer reclaim solution



Complete Solution for 65nm Reclaim Wafer Cleaning

NAURA Akrion 65nm Wafer Reclaim Process Flow

POLISHER +



Post-Polisher
"Gross Clean"

+

GAMA i-Clean
"120nm/90nm/65nm"
Final Clean

+

Single-Wafer Velocity
"90nm/65nm/45nm"
Final Clean

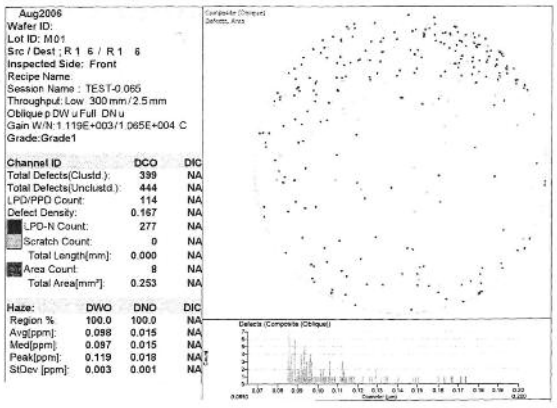
Reclaim Cleaning Specifications

Parameter	Post GAMA/i-Clean	Post Single-Wafer Goldfinger
Single-pass Yield Edge Exclusion Wafer Size	> 70% 3mm 300mm	> 88% 3mm 300mm
Particles: @ 90nm @ 65nm @ 45nm	 ≤ 50 ≤ 150 N/A	 ≤ 50 ≤ 100 *IN QUALIFICATION*

GAMA i-Clean produces clean reclaimed wafers,
Velocity produces wafers as good as a prime test wafers

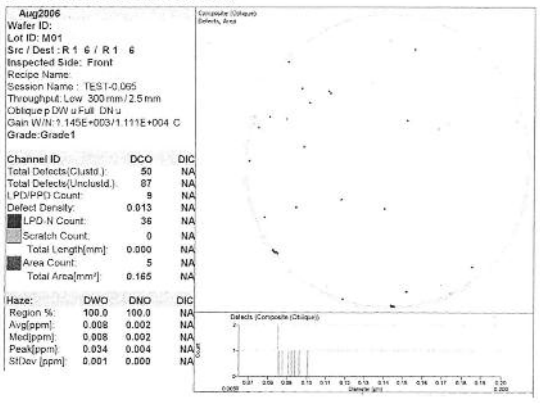
65nm Reclaim Cleaning Wafer Maps

KLA-Tencor Surfscan SP1 MX



Cleaned with GAMA i-Clean Wet Station

KLA-Tencor Surfscan SP1 MX



Re-cleaned with Akrion Single-Wafer System

Single-Wafer and Batch-Immersion Cleaning

NAURA Akrion also has a complete line of batch immersion products for a variety of cleaning, etching and stripping applications. Our batch immersion and single wafer systems are found in leading edge fabs worldwide.

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