

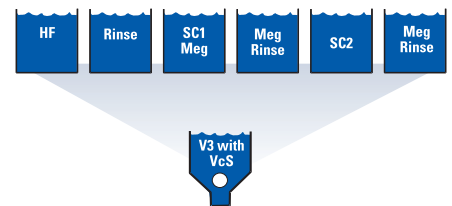
Compact In situ Pre-diffusion Cleaning



ADVANCED TECHNOLOGY, Low COO:

NAURA Akrion took Verteq's proven VcS in situ technology and incorporated it into our V3 with integrated drying for low COO, small footprint pre-diffusion cleaning.

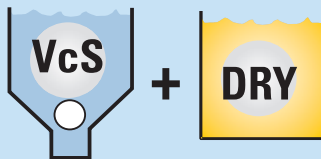
1 Tank = 4 Process Steps!



ULTRA-COMPACT IMMERSION BATCH PROCESSING WITH NAURA AKRION RELIABILITY:

- Single tank patented process that performs SC1 and SC2 in an in situ mode
- Sunburst™ Turbo Plus megasonic for enhanced particle performance and reduced rinse times
- Integrated LuCID2 dryer for dry-in/dry-out processing

ONLY 2 TANKS REQUIRED FOR A COMPLETE PRE-DIFFUSION CLEAN:



PROCESS SEQUENCE:

DHF + Rinse + SC1 Meg + Rinse + SC2 + Rinse + LuCID Dry

SURFACE PREPARATION SOLUTIONS



NAURA Akrion is a NAURA company

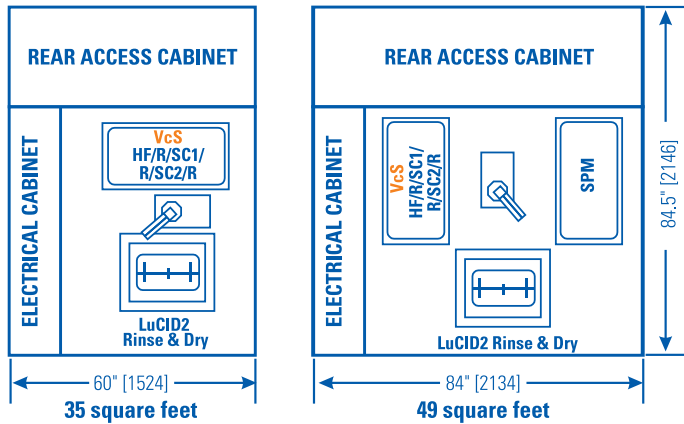
applications solutions *developed for you*

PRE-DIFFUSION CLEANING

VcS in situ technology results in minimal footprint and high performance.

VcS + Dry Parameter	Specification	Procedure
Particles added on	≤ 35 adders (hydrophillic wafers)	Defect Inspection (5mm edge exclusion) KLA-Tencor SP1-TBI, AMAT Excite, or equivalent
Particle Removal Efficiency	97% - Initial particle counts > 3000 @ 0.16 μm (particles deposited on bare silicon wafers)	Defect Inspection (5mm edge exclusion) KLA-Tencor SP1-TBI, AMAT Excite, or equivalent
Thermal Oxide Etch Rate & Uniformity (≥ 500Å etched) – with ICE-1™	2% / 1 sigma across wafer 2% / 1 sigma wafer to wafer 2% / 1 sigma lot to lot	Ellipsometry (5 mm edge exclusion)
Metallics	< 5E10 atoms/cm ²	TXRF, VPD

FLEXIBLE CONFIGURATIONS



RCA Clean

Pre-diffusion Clean

RELIABLE PRODUCT, EASILY SERVICED

- V3 uses the same components as our highly reliable GAMA Series product line for MTBF ≥ 2000 hours (E10-96)
- Easy access serviceability (electrical slide-out panel)
- S/W interface for full system control
- Robust automation



6330 Hedgewood Drive, #150 Allentown, PA, USA 18106
TELEPHONE: 1 610-391-9200

CONTINUOUS IMPROVEMENT THE NAURA AKRION WAY:

Akrion Systems is the technology leader in process development, design and construction of advanced single-wafer and batch immersion surface preparation equipment to the semiconductor and other related industries.

With a primary focus on customer satisfaction, Akrion Systems is committed to an organization-wide continuous improvement program; a program established to carry out the improvement of key process steps and customer driven product enhancements. The company offers advanced automated solutions for cleaning a range of semiconductor-related devices, including ICs, MEMS, and photomasks.



V3: The Fully Capable Compact Wet Station

State-of-the-art cost efficient design that optimizes footprint, price and exhaust.

- Dry to Dry Processing Capability
- Now with VcS in situ processing
 - S2/S8/CE Compliant
 - FM7-7 Compliant
 - SECS/GEM compliant