



Large Particle Counts in Slurries Threaten to Cause Yield-Diminishing Wafer Scratches as Chip Makers Track Moore's Law into Finer Geometries

Embedding advanced slurry metrology within chemical-mechanical planarization tools and slurry delivery systems promises timely corrective action to reduce damaging large particle counts

CAMPBELL, CA – Dec. 3, 2012 – As Vantage Technology steadily ramps SlurryScope™ shipments to major wafer fabs around the globe, one of its customers has begun serious discussions with both chemical-mechanical planarization (CMP) tool companies and slurry delivery system (SDS) providers about the merits of embedding Vantage's advanced slurry metrology into their respective products. Minimizing large particle counts (LPCs) in undiluted slurry at wafer planarization and polishing steps is becoming increasingly critical as complex chips are manufactured at ever finer geometries.

"Our CMP customers and SDS suppliers are showing a stronger interest in embedding our SlurryScope systems, particularly as Moore's Law takes chip makers into 28nm feature sizes and below," said Marty Mason, Vantage Executive VP. "Not surprisingly, major wafer fabs have been quick to recognize the value of using SlurryScope data to take timely corrective actions during in-line slurry delivery and at wafer polishing to circumvent harmful wafer scratching."

Vantage expects its SlurryScope systems to be progressively embedded at all critical CMP and SDS steps to improve the quality of slurry delivered. "The continuous real-time data generated by our metrology tool can also be used to optimize slurry/filter life cycles and eliminate the waste of diluting slurries before analyzing their particulate compositions," added Mason.

According to Mason, SlurryScope shipment momentum remains strong with repeat multiple orders coming from global wafer fabs. "Since we began volume shipments about six months ago, we have delivered dozens of systems, and we anticipate a continuing ramp-up over the next few quarters."

SEMICON Japan

When [Semicon Japan](#) opens its three-day run on December 5th, the SlurryScope System will be demonstrated by [Yokogawa Field Engineering Service Corp.](#) (Booth # 2B-501, Hall 2, Makuhari Messe Exhibit Hall). Mason confirmed that the largest and leading IC technology companies in Japan are showing strong interest in the SlurryScope system to improve CMP process quality.

About Vantage Technology

Operating from headquarters in Campbell, California, Vantage Technology Corporation was founded in 2010 by a cadre of Silicon Valley veterans with extensive experience in wafer fab production and test equipment. Focused on developing real-time micro-analytical metrology tools using advanced laser technology, proprietary algorithms and multicore image processing techniques, the company has targeted its first product at the semiconductor industry. Called the SlurryScope™ system, this real-time tool continuously detects large particles in undiluted slurry. Early detection of oversized particles enables timely corrective action that can minimize wafer micro-scratches and other defects caused by particle agglomeration during the chemical-mechanical planarization process. For more information, visit www.VantageTechCorp.com.

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