



Technical Bulletin

*Place a copy of this bulletin in the front of each Blueprints Manual.
Redline drawings as needed and include a TB reference note.
Reference TB implementation on site Action Item Box-chart and/or
site tool history management log.*

Number: 054
Date Issued: 01/19/06
Expiration Date: 01/19/07

Subject/Key Words:	GAMA LuCID2 Slow Drain Rate; Particle and Performance Problems			
Classification:	<input checked="" type="checkbox"/> Informational	<input type="checkbox"/> Mandatory	<input type="checkbox"/> Safety Alert	<input type="checkbox"/> PM Impact
	<input type="checkbox"/> Warranty Impact	<input checked="" type="checkbox"/> Purchase Parts	<input type="checkbox"/> No Charge For Parts expires ___/___/___. Reference this TB# when ordering NC parts.	
Applicable Akrion Procedures:	OP0398: Functional Test Sheet – GAMA LuCID2 Dryer Module			
Parts/Reference Documents:	1/4" Orifice PN - 218253-002 LuCID2 Dryer Flow Systems Drawing – 216491 rev C or higher			
Attachments:	None			

Issue: Particle performance and drain rate inconsistency.

Symptoms: 1) Particle issues. 2) Minimal adjustability in slow drain valve. 3) Drain rate difference across wafer and below comb level.

Test/Validate: Recommended time from top of wafer to bottom of wafer (within +10 secs.)
150mm wafer (1mm/sec drain rate) = 2 min 30 sec (150 sec)
200mm wafer (1mm/sec drain rate) = 3 min 20 sec (200 sec)
300mm wafer (1mm/sec drain rate) = 5 min (300 sec)

During a slow drain on a LuCID2, water drains through two paths, the slow drain line in the base of the tank, and the drain line from the porous capillary combs that support the wafers. The drain rate in the slow drain line is set by adjusting the slow drain valve. The drain rate in the capillary comb drain line is set by a fixed orifice installed in the capillary drain line after the Activate Capillary Drain Valve. The original orifice size was 3/8".

On some systems with 3/8" diameter size orifices, variations in the 1mm/sec drain rate can occur. The total drain time sensor-to-sensor may be within specification, but the rate at which the liquid level falls will not be within specification.

Solution: Perform slow drain setup as per OP0398. Verify the size of the orifice located in the 3/4" capillary drain line after the Activate Capillary Drain Valve. See drawing 216491. The opening should measure 1/4" not 3/8". Replace all 3/8" orifices with 1/4" orifices. The part number for the 1/4" orifice plug is 218253-002. .

If you have technical questions or require more information, please contact Akrion Technical Support Department via e-mail at techsupport@akrion.com. Authorized service personnel can obtain copies of the latest Akrion procedures and controlled documents from the Akrion Document Control department at doccontrol@akrion.com. Customers must direct all inquires to their local Akrion field service representative. (Form QA1656F1AC)