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.*
☐ *Document TB implementation schedule request and completion:*

Date Scheduled _____ Date Completed _____

Completed by (name) _____

TB Number: 092
Date Issued: August 8,2013
Expiration Date: None

Subject/Key Words:	Single Wafer Chuck - Preventive Maintenance Mach2HP/MP and Velocity			
Classification:	■ Informational	■ Mandatory	❑ Safety Alert	■ Preventive Maintenance Impact
	❑ Warranty Impact	■ Purchase Parts	❑ No Charge For Parts expires ___ / ___/___. Reference this TB# when ordering NC parts.	
Application:	Guidelines and Parts ID for Single Wafer tool chuck preventive maintenance			
Parts/Documents:	• Chuck parts: 1105064.1 - Rev 7, 1103824.1 - Rev 9, 1101982.1 - Rev 4 • CS2114 – Single Wafer Velocity Process Chamber Preventative Maintenance Procedure			
Attachments:	none			

Issue: Lack of regular preventive maintenance effects the reliability of the tool performance and could cause premature failures of 3-post, 4-post and 6-post wafer chucks.

Symptoms: Broken wafers, missed pickups/drop offs, worn posts, damaged worn chuck ring/plate.

Inspection: Inspect current assemblies for any visible damage, proper revision, and age issues.

Solution: Replace the Chuck Assembly immediately with proper assembly in the event of the following:

-Revision of the chuck is not the current revision
-Chuck assembly is 2 years or older
-There is visual damage to the chuck assembly
-Chuck was previously involved in a wafer crash

Chuck Type	Chuck Assembly
3-Post	1105064.1 – Rev 7
4-Post	1103824.1 – Rev 9
6-Post	1101982.1 – Rev 4

Follow CS2102 – Chuck Assembly Preventative Maintenance Procedure.

Weekly
-Inspect posts for damage, broken screws, O-ring integrity.
-Inspect chuck plate and ring assembly for any signs of damage
Month
-Replace O-ring, Inspect post wear
Annually
-Rebuild the chuck assembly
Bi-Annually
-Replace the chuck assembly

For warranty claims and scheduled annual rebuilds, the chuck must be returned to the Akrion Systems factory for evaluation. Rebuild costs for chucks not under warranty are a billable customer expense.

The following photos show how to identify the part number and revision level of a chuck in order to make the correct rebuild/replace decision.