

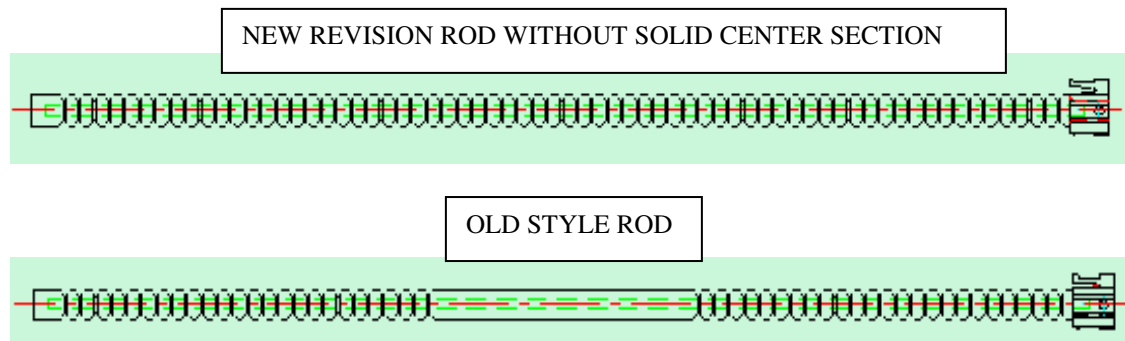
Technical Bulletin

Number: 084a
Date Issued: 08/31/12

Subject/Key Words:	150MM Carrier Rod Style Replacement Difference - New Supply Rev. Change			
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 For _____ Days After Issue Date.	
Parts/Reference Documents:	204759-001 and 204760-001 Carrier Rod Replacement (Annual) and Carrier Frame Replacement (3-Year) on page 2 are reprinted from GAMA PM and System Checks Manual (rev 09/12), pages 14-15.			
Attachments:	None			

Issue: The solid center section was removed on the 150mm lower rods (See PN's listed above). The new revision lower rods have been profiled the entire length as a design improvement.

Do not be confused by this change in appearance.



Caution!

- Whenever rods are changed or a carrier is replaced, wafers should be manually inserted into each rod slot to ensure proper wafer vertical positioning.
- A wafer transfer check should be done to ensure transfer combs and carrier/wafers are properly aligned.
- The checks are critical if the timing of your annual PM upper and lower rod replacement does not coincide or if you are installing a new rod to replace one that has been damaged.

(continued on page 2....)

If you have technical questions or require more information, please contact Akrion Systems Technical Support Department via e-mail at techsupport@akrionsystems.com. Authorized service personnel can obtain copies of the latest Akrion Systems procedures and controlled documents from the Akrion Systems Document Control department at doccontrol@akrionsystems.com. Customers must direct all inquires to their local Akrion Systems field service representative. (Form QA1656F1A)

Carrier Rod Replacement (Annual)

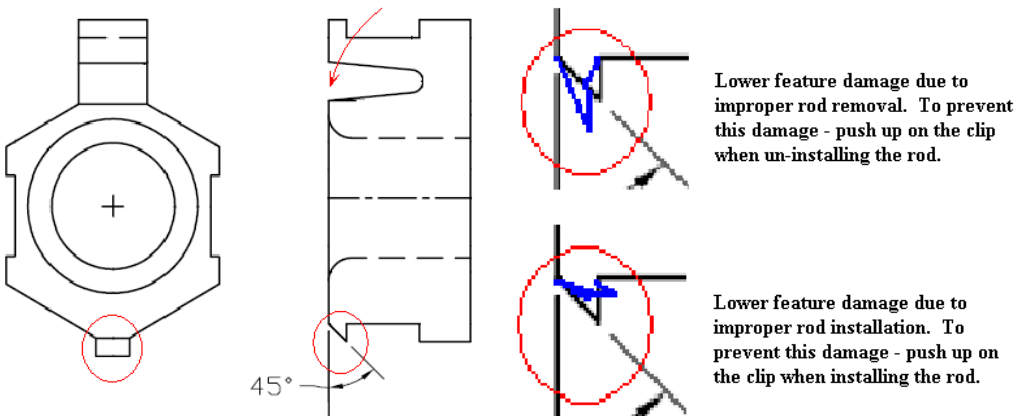
Quartz and composite carrier rods wear over time and should be replaced annually. Refer to your wet station specific spare parts list for exact Akrion Systems carrier rod part numbers

Note: Rods should be replaced as a complete set (4 rods). Replace one rod at a time to help prevent damage to the quartz end plate.

Rinse and dry the carrier and rest it on a firm clean surface. Follow the procedure below.

1. Remove the rod using a rounded or blunt instrument that will not score or scratch the carrier end plate or rod if it slips off the clip. Push down on the end of the clip and pull the rod from the end plate. You must pull upward on the clip until it is removed to prevent damaging the bottom securing feature of the clip as shown below.
2. Install a new rod. Push down slightly on the upper spring clip **AND** pull upward on the entire clip assembly to prevent rounding damage to the lower securing feature.
3. Repeat for the other three rods.
4. Hard clean the carrier and return it to service.

Install rods in a carrier once and do not remove. The small locking feature on the top and bottom of the rod retainer clip is easily damaged upon removal. Once damaged or malformed, a secure fit is lost and problems will occur. Due to this probability for rod damage, Akrion Systems has recommended against rod swapping.



New Rod clip shown undamaged – highlighted areas of concern: lower securing tang and upper spring clip. Once the lower feature is damaged its retaining ability is reduced. Low temperature applications may be tolerant of the diminished feature but high temperature applications are apt to result in rods becoming displaced and subsequent damage to wafers may occur.

Rods with damaged clips should be replaced or refurbished.

To further prevent dislodging rods which may have damaged retaining clips, ensure proper alignment of wafer transfer system lift combs or wafer pushers. Perform several wafer transfers in the WTS to confirm proper alignment and operation. Carrier frames must always be supplied by Akrion Systems to ensure proper dimensional specification tolerances.

Carrier Frame Replacement (3-Year)

Quartz and composite carrier frames wear over time. Carrier frames should be replaced on three-year intervals. Refer to your wet station specific spare parts list for exact Akrion Systems part numbers