

## February 2014 Update...

In this issue of the Alert! Akrion Systems announces the obsolescence of the membrane contactor used in bubble-free applications on the GAMA, V3 and Rearmount platforms. A replacement system has been developed and is available for immediate installation.

In addition to the obsolescence notice we are offering two new solutions for manufacturers of MEMS and 3DIC devices. These solutions are modules designed to drive chemicals into challenging structures (vacuum priming) and remove liquids from them (vacuum drying).

This issue also includes an announcement of interest to users of Akrion Systems Teflon coated Quartz Carriers. A second source for these products has been qualified resulting in supply chain redundancy.

Contact your area Sales or Service manager to purchase any of these equipment updates.

The final item in this Alert! is the quarterly update for the list of parts classified as obsolete. As you know this up-to-date Excel list is maintained on the Akrion Systems web site. There is a link to the file on the Spare Parts page which can be accessed from the [akrionsystems.com](http://akrionsystems.com) Home Page.

### To Ensure Efficient Parts Ordering:

For Spare Parts Return/Repair Information,  
Inquiries & Purchase Orders:

[parts@akrionsystems.com](mailto:parts@akrionsystems.com)

or by FAX: 1-484-229-0725

### In this issue

#### **OBSOLESCENCE ALERTS**

- Obsolete Bubble-free Ozone Gas Unit for GAMA, V3 and Rearmount platforms

#### **Product Enhancements**

- Vacuum Prime and Dry Modules for complex structures

#### **Product Announcement**

- *Second source for Teflon coated wafer carriers.*

#### **Akrion Systems News**

Please note these links:

**Spare Parts Order/Inquiry Form:**

[www.akrionsystems.com/parts-upgrades](http://www.akrionsystems.com/parts-upgrades)

**Urgent, Critical or Emergency Situations**

(Formal Response Within 24 Hours): email to [alert@akrionsystems.com](mailto:alert@akrionsystems.com)

Akrion Systems proactively keeps you informed about obsolete parts so that you can maintain your fab's capabilities and productivity. If you have questions please contact your local sales or service personnel.

The latest update to the comprehensive list of obsolete parts is always available as an Excel download on the spare parts page at [akrionsystems.com](http://akrionsystems.com).

Stay up to date with the latest Technical Bulletins from Customer Support, sign up for access. Click on the Customer Portal link on the Home Page.



## *GAMA™ Series, V3™ and Rearmount Platforms*

# *Bubble-free Ozone Gas Unit for Ozonated Processes*

### *Effective Immediately*

The ozonated DI water rinse that follows dilute HF must be bubble free. The presence of gas bubbles can cause defects such as defect streaks and particles on the wafer surface. Bubble-free dissolved ozone reduces particulate-related wafer defects.

This notice is to inform you that the bubble-free ozone gas unit used for adding ozone to DI water in Akrion Systems wet stations has been obsoleted by the manufacturer. A replacement parts kit has been identified and is available for immediate installation. Purchasing now, before unit failure, assures that the upgrade can be scheduled so as not to significantly impact production.

Please contact your area Service or Sales Manager to purchase.

**Applications:** All wet stations requiring bubble free rinses

### **Features and Benefits:**

- Chemically compliant fluoro-polymer membrane contactor for bubble-free ozonated DI water
- Interior corrosion resistant micro-porous polytetrafluoroethylene (PTFE) tubes separate gas from liquid (gas and liquid are not mixed directly together)
  - Oxygen is injected outside of the PTFE tubes; the DI water goes through the tubes
  - Gas is diffused through the tubing, but water cannot penetrate the pores

### **Upgrade Kit:**

- Bubble-free ozone gas unit
- Plumbing components
- Mounting assembly
- Installation instructions



Replaces P/N 231420-00

### **General Information:**

- Equipment down-time during installation (estimated): 10 hours
- Resources required to install: Self install or one Regional Field Service / Factory Technician
- Product lead-time from order to shipment (subject to factory production availability): 14-15 weeks

**Consult factory for pricing  
(varies by platform and module)**

## GAMA™ Series Platform

# Vacuum Prime Module for Complex Structures

**Applications:** All GAMA systems used for high aspect ratio applications and complex structures

### Benefits:

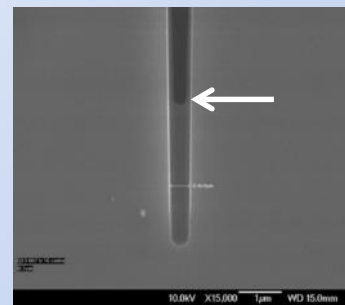
- Proprietary system eliminates pockets of air that prevent chemical processing at the bottom of non-through-hole high aspect ratio features
- Application of a mild vacuum and controlled de-gasified fluid prime the wafer before beginning standard wet batch process steps
- System provides process enabling capability to MEMS and 3DIC device manufacturers

### Upgrade Kit:

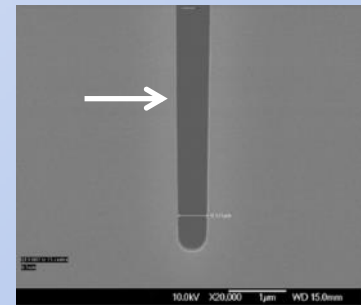
- Vacuum prime module
- 24" Mini-environment / robot extension
- Software updates

### General Information:

- Equipment down-time during installation (estimated): 6 days plus 5 days for process optimization
- Resources required to install: 2 Regional Field Service or Factory Technicians
- Product lead-time from order to shipment – subject to factory production availability): 12 weeks



**Non-primed Via**  
Oxide remains;  
chemical did not  
reach bottom  
of structure



**Vacuum Primed Via**  
Oxide completely  
removed

## GAMA™ Series Platform

# Vacuum Dry Module for Complex Structures

**Applications:** All GAMA systems used for high aspect ratio applications and bonded wafers

### Benefits:

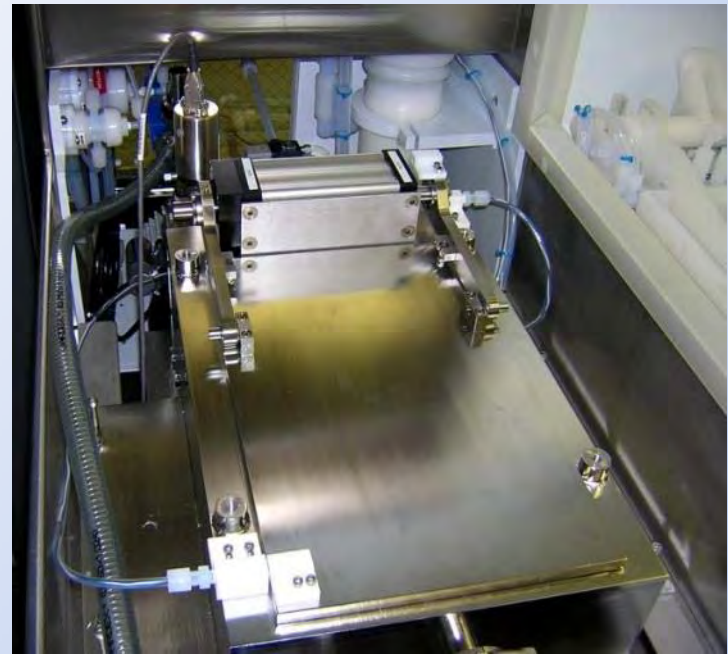
- Traditional drying methods cannot remove liquid from the bottom of high aspect ratio trenches or between bonded wafers
- Our LuCID3 dryer removes 100% of all visible liquid
- The finish stage vacuum dry processor removes any liquid left trapped in complex structures, deep vias or between bonded wafers
- System provides process enabling capability to MEMS and 3DIC device manufacturers

### Upgrade Kit:

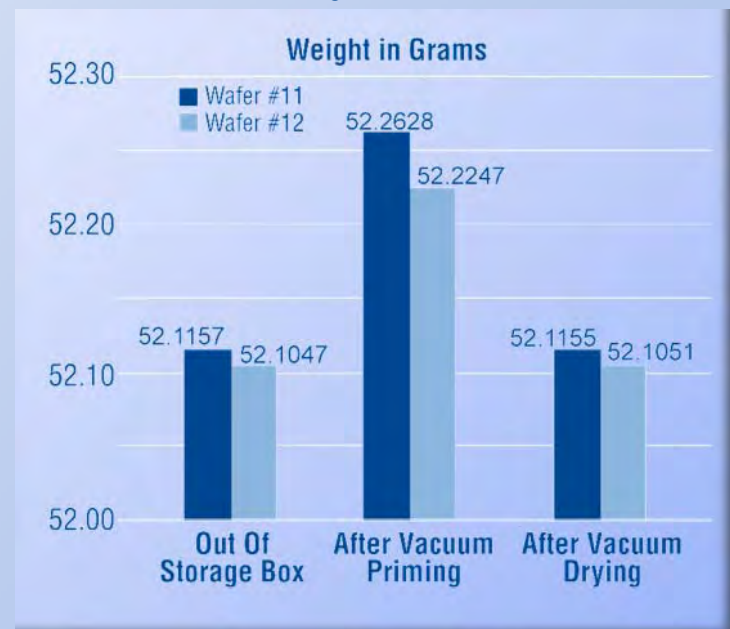
- Vacuum dryer module
- 24" Mini-environment / robot extension
- Software updates

### General Information

- Equipment down-time during installation (estimated): 6 days plus 5 days for process optimization
- Resources required to install: 2 Regional Field Service or Factory Technicians
- Product lead-time from order to shipment – subject to factory production availability): 12 weeks



Vacuum Dryer Performance





## *GAMA™ Series Platform*

# *Teflon Coated Quartz Carrier Second Source*

**Applications:** All Akrion Systems Coated Quartz Carriers

### **Announcement:**

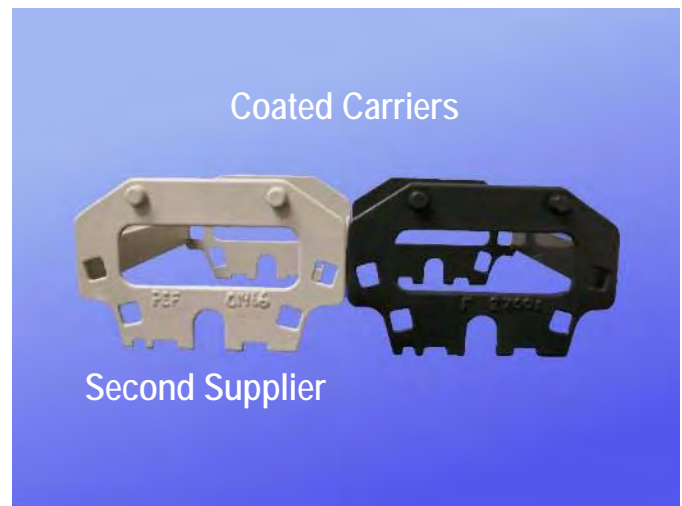
- In effort to keep up with increasing demand and create redundancy in our supply chain for our Teflon coated quartz carriers, Akrion Systems has recently qualified a second source to provide Teflon coating of the quartz frame.
- This announcement applies to all Akrion Systems Teflon coated quartz carriers
- Form, fit, and function are identical between the two sources, the only difference being the color of the base material. They can be used interchangeably on any tool.

### **Product Details:**

- Both suppliers utilize base materials of similar chemical composition
- The pigmentation of components provided by the second source differ in color (tan) from the original (black)
- Most importantly both suppliers use the same clear Teflon based coating material for the outermost layers
- If you should have any concerns regarding this second source please contact your area Sales or Service manager

### **General Information:**

- Product lead-time from order to shipment: 10-12 weeks per carrier



## Replacement Parts List

This is a list of parts that were recently determined to be obsolete. The list includes a short description and the obsolete and replacement parts numbers. Akrion Systems intends to proactively keep you informed about obsolescent parts so that you can maintain your fab's capabilities and productivity. If you have questions please contact your local sales or service personnel. This information will also be posted as an Excel download on the spare parts page at [akrionsystems.com](http://akrionsystems.com)

OBSOLETE P/N	REPLACEMENT P/N	PLATFORM	IN-STOCK*	DESCRIPTION
PMP2A0011	PE Required	GAMA / Rearmount	YES	Pump
PMP1A0063	PE Required	GAMA	NO	Heater
215713-001	PE Required	GAMA	NO	Heater
234987-001	221143-001	GAMA	NO	Motor for FFU
HTR004629	PE Required	GAMA / Rearmount	NO	Heat Exchanger
00049934-00	239697-001	SCP	NO	Power Supply
200514-001	Suggested 239792-001	Rearmount	NO	Chiller (NOTE: FUNCTIONAL REPLACEMENT-DIMENSIONS DIFFER)
201141-001	Suggested 239792-001	Rearmount	NO	Chiller (NOTE: FUNCTIONAL REPLACEMENT-DIMENSIONS DIFFER)
204834-001	Suggested 239792-001	GAMA	NO	Chiller (NOTE: FUNCTIONAL REPLACEMENT-DIMENSIONS DIFFER)
204835-001	PE Required	GAMA	NO	Chiller
PMP014183	Suggested 239792-001	GAMA	YES	Chiller (NOTE: FUNCTIONAL REPLACEMENT-DIMENSIONS DIFFER)
PMP1A0043	Suggested 239792-001	GAMA	NO	Chiller (NOTE: FUNCTIONAL REPLACEMENT-DIMENSIONS DIFFER)
223580-001	223580-002	GAMA	NO	Enclosure for Keyboard

\*NOTE: Limited supply of obsolete part stock on hand; this part will not be re-ordered, consult spare parts department for more information

## Important Information

### General Spare Parts Stocking Policy:

The Akrion Systems LLC spares policy is to maintain a level of inventory for the global market for all product lines based on parts turnover activity. It is not our policy to maintain a safety stock for individual customers or product lines unless obligated by warranty, contract or other commitments.

Customers are expected to maintain their own safety stock based on tool utilization and spare parts usage. Alternatively, customers may develop a contractual arrangement with Akrion Systems LLC for stocking pre-determined safety stock levels of spare parts for their tool sets.

### In Case or Emergencies:

In addition to contacting your local Service Representatives, for *emergency situations* please send an email message to [alert@akrionsystems.com](mailto:alert@akrionsystems.com). You will receive a response from Senior Management along with a tracking number for follow-up within 24 hours. This will insure our support escalation process has been put into motion.