



Beta Buzz

Fall 2008

Volume 1, Number 11

What's New...

Routing



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**Backside Alignment Kit
in Field**

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Importance Notice

Backside Alignment Kit in Field

We waited a few extra weeks to release the Fall 2008 edition of the Beta Buzz and with good reason. Several months ago, BSL announced a Backside Alignment 6" Upgrade Kit was scheduled for release late in 2008. We are happy to announce our first upgrade kit has been installed in the field.

The Backside Alignment 6" Kit has cameras that are placed in a position behind the chuck assembly to view the backside of the wafer. The cameras will capture the images (alignment marks) on the back face of the wafer for alignment. The front face of the wafer is left to be exposed with the projected mask image.

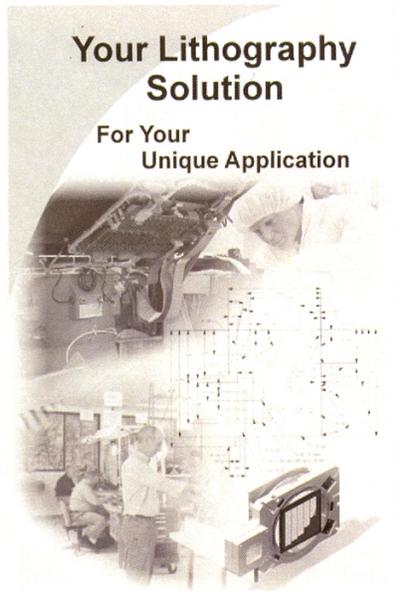
There are 2 cameras that will use Cognex™ software along with the OS2000 Operating System, in conjunction with the original alignment system to report the position of the projected mask targets on the front side of the wafer. The two images will be within 1.5µm tolerance or better.

This system can be upgraded and used as a standard machine, handling all current processes with no changes to specifications.

Some of the *new* features in software include:

- Process selectable function for Backside Alignment or Normal wafer processing
- Process Control setting for illumination of the Backside Alignment Cameras
- Standard Process Offset capabilities to correct for registration errors

For those of you that have a requirement for a BSA process please contact us.



Beta Squared Lithography Inc. has redesigned the Micralign™ today for tomorrow's compound semiconductor requirements, incorporating BSL's trademark reliability and performance upgrades. We currently have systems throughout the world that are processing these substrates/applications:

- Gallium Arsenide (GaAs)
- Silicon Carbide (SiC)
- Sapphire (Al₂O₃)
- Cadmium Zinc Tellurium (CdZnTe)
- Cadmium Mercury Tellurium (CdHgTe)
- Germanium (Ge)
- Quartz (SiO₂)
- Pyrex
- Solar/HD Heads/Ink Jets
- Gyros/Accelerometers

To find out more information or to purchase a refurbished Micralign™ for your compound semiconductor requirements, email us at: sales@beta2L.com



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Multi-Substrate Micralign Shipped

This month BSL shipped a Micralign™ that we retrofitted to vacuum handle, on the back side, 36 x 38 mm, 100 mm round (4"), and 150 mm round (6") substrates on the same machine. The loading of substrates is fully automatic. The substrate surface orientation (Focus & Tilt), alignment and exposure are automatic and controlled by the OS2000 Control System for Micralign.

As you can see, BSL is the only company that has Micraligns that can process unique shaped substrates.

If you have an application that requires a special pre-aligner for unique shaped substrates, call or email us.

Micraligns™ for Sale

Beta Squared Lithography, Inc., the leader in Micralign™ Sales, Service, High Reliability Parts and Equipment Upgrades has a large inventory of Micralign™ Mask Aligners available for sale with or without OS2000. Let BSL configure a Micralign™ that meets your specifications.



"We focus on high reliability, throughput enhancements, and reduced cost of ownership for our customers."

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This publication is designed to give
accurate and authoritative
information in regard to the subject
matter covered for the employees
and customers of
Beta Squared Lithography, Inc.

"Your Outsource Solution"



Beta Squared Lithography, Inc., provides mainstream lithography equipment that incorporate custom-designed solutions to expand and improve the capabilities of the product to the customer. BSL also has a full-service repair facility for many of the repairable parts of the **Micralign™**. These services span electrical / electronic board repair, optics stripping / re-coating / alignment and mechanical repair / alignment.

Compound semiconductors and Nano-technologies are the perfect match for the new Micralign™ technology we offer today. A large depth of focus and 1.0 micron resolution, combined with our **OS2000** control system's flexibility, vision system and global alignment, provides stepper-like automation.

Beta Squared Lithography has a Micralign™ re-build and retrofit service, including:

- Fully refurbished and warranted Micralign™ tools
- Wafer size changes
- Air-track to PAL conversions
- 900, 800 and 300 manifold upgrades

Re-hosing (replacement of every hose in the tool)

The company is headquartered in Brookfield, CT, USA, with satellite offices in Singapore, France, and Korea.

Beta Squared Lithography Sales, Service & Support

Beta Squared Lithography, Inc. has a huge inventory of **Micraligns™** that are completely refurbished to "**Factory Specifications**". The **depth & breadth** of our global inventory consists of "high reliability" parts and accessories that are unsurpassed and ready to ship anywhere. We can completely refurbish, upgrade and customize your existing equipment to meet today's requirements. BSL offers **Process, Maintenance and OS2000 training** for Beginner, Intermediate/Advanced levels along with technical support. Our Field Service and Support Staff is available both overseas and domestic. We provide the highest quality of custom **maintenance services**, based on your needs, available both overseas and domestic.

