



Beta Buzz

Fall 2009

Volume 4, Number 3

What's Happening...

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Volume 4, Number 3.
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.

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BSL Introduces Compliant Chuck for Thin Wafer Applications

At BSL, we come up with solutions to customer problems. Several of our customers are using very thin "potato chip" like wafers and had problems using a standard chuck. The problem was the standard chuck could not pull the wafer flat.

We designed a "Compliant" Chuck to overcome this problem. The chuck has a vacuum gasket that sits ~200 um above the surface of the platen which grabs the center of the wafer, pulling it flat which allows the rest of the wafer to be pulled flat to the chuck. We have eight of these units currently in production and several other customers have asked for quotes.

For more information email us at info@betasquaredlithography.com

BSL Gauge Head Flexure Upgrade Kit

Here is another part that we have made more cost effective for Micralign owners. It's the Gauge Head Flexure Repair Kit, PN 9-400-3007. A better design than the OEM, this High Reliability part is one way to make your Micralign more dependable.

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Compliant Chuck

Gauge Head Flexure

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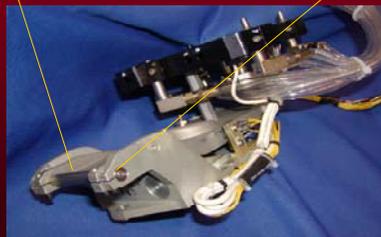
Field Modification Upgrade Kit

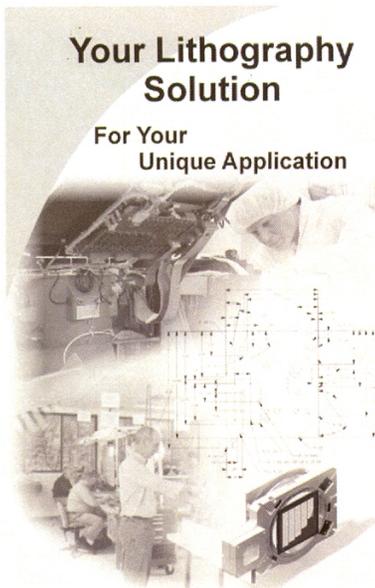
- High Reliability
- Cost Effective

Kit, Gauge Head Flexure
(New Design)



Gauge Head Flexure
(Old Design)





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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Narrow Band Secondary Lens

The Narrow Band Secondary lens (NBS) (2-350-0002) is a Dichroic-coated Secondary lens that operates in only the UV4 Band (G, H, & I lines). This is a much narrower band than the standard Aluminum-coated Secondary lens (2-350-0007) that is broadband UV (220 – 460 nm).

Benefits of the NBS include:

- Increased energy delivery in the UV4 band
- Reduced heating of Projection Optics because NBS does not reflect the IR band. This prolongs the life of the Projection Optics and avoids optical effects from 'heat slearing'
- Increased lens life due to the more durable Dichroic coating

Prefix Legend

(as used in BSL Price list)

No Prefix: New part. Does not require the old part to be returned to BSL. (New part is the highest cost to customer)

E: New part (requires exchange of old part).

X: Part is Refurbished to New condition. There might be cosmetic blemishes that have no effect on operation (e.g. scratches) (Fairly reasonable pricing since we re-use castings and or parts that are non-wear and non-critical items to the assembly).

RE: Refurbish/Exchange means that a Refurbished part (see X above) will be sent to you immediately upon placing the order. You must, at your earliest convenience, return your defective part to us pre-paid. (RE is priced more economically than X since we get your part in return and it is a high usage item that we regularly refurbish and hold in stock ready for your order)

R: Repair. You send us your faulty part we will repair it and send it back to you. (Cheapest, most economical for the customer)



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

Beta Squared Lithography Sales, Service & Support

BSL, Inc. is the most innovative, comprehensive and cost-effective photolithography maintenance company in the semiconductor industry. We provide 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, Nano-technologies, SSL, LED & HBLED 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)
- Backside Alignment

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

We have a huge inventory of **Micralign™** tools 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. Whether you need service, parts, training or a new machine, Beta Squared Lithography will strive to meet your needs and expectations.

