



(home1.html) PhotoMachining, Inc.

Home (index.html)    About Us (laser-micromachining-team.html)

Products (laser-micromachining-products.html)

Services (laser-micromachining-contract-manufacturing.html)

Applications (laser-micromachining-applications.html)

News (laser-micromachining-news-pr.html)    Videos (laser-micromachining-videos.html)

Contact (laser-micromachining-photomachining-contact.html)

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## EXCIMER LASER SYSTEMS

Excimer lasers were the first method developed for generating UV photons and, prior to about 1995, were the only industrial UV laser.





## Excimer Laser Systems

UV photons can now be obtained from several other different laser sources, but excimer lasers, despite their drawbacks, still can do things no other lasers can do and, in some cases (a lot of small holes on close centers), they can be economic since they use mask imaging instead of single point drilling. The resonator cavity configuration produces a beam ideal for near-field imaging and the high peak power of the laser beam permits ablation of the target material with little or no heat affected zone. The 193-351 nm optical wavelength range permits generation of high-resolution ( $\sim 1 \mu\text{m}$ ) features on the target surface, and the shallow absorption depth permits tight control of feature depth by controlling the number of pulses applied. The large beam cross section accommodates a large imaging mask for near-field imaging.

PhotoMachining engineers have a wealth of experience in excimer laser contract manufacturing and system design. We can integrate custom configurations with simple imaging, all the way up to multi-axes motion, complex optical trains and machine vision.

Optical demagnification from 2x to 30x with purged beam delivery is also available. Excimer production tools are fully enclosed and interlocked, conforming to all CDRH class I requirements. Integrated gas cabinets assure minimal contamination from gas lines.

All excimer systems use PhotoMachining control software. Our fully equipped excimer laboratory allows us to do proof of principle before system design and build.

Light Machinery and Coherent Excimer lasers KrF (248 nm), operating up to 200 Hz, with 60 W average power are typically used, although higher power lasers are available for high throughput applications.



PhotoMachining

(<http://www.photomachining.com>) is

a full service provider of laser

micromachining contract

manufacturing and laser micro

machining systems for industrial

applications.

## LATEST NEWS

PhotoMachining has contracted with Technical Solutions Marketing, LLC

(<http://www.techsolmarketing.com>) for a mobile compatible website and

Search Engine Optimization (SEO)

## CONTACT US

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