



Duma Optronics Ltd.

Line of Business

QC of laser material processing
Accurate laser alignment
Measurement of laser deformations

Established

1989

Leading Executives

Mr. Oren Aharon
CTO

Duma Optronics is developing and manufacturing of electro-optical instrumentation, specializing in computerized measurement systems for laser beams. The unique state-of-the-art technology developed and owned by the company is under patent pending. The family of products that were developed in Duma Optronics include: Beam analysis systems, optical beam positioning and alignment systems, and electronic autocollimators.



The company was established late in 1989, employs 20 employees, most of them are engaged in R&D. Production is performed by qualified subcontractors, while integration and final product calibration and testing is done internally. The company is privately owned and distributed worldwide by leading OEM companies.

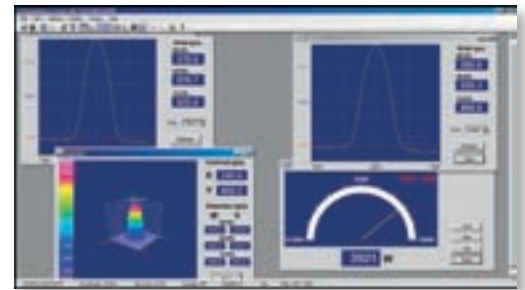
The Automotive market

Duma Optronics makes High Power beam profiler systems. Our beam profilers are suitable for on-line monitoring of lasers used on the assembly line of the automotive industry. Fiber laser technology has made a dramatic progress in output power and beam quality. Kilowatts of power have been demonstrated and implemented for various applications such as cutting, welding, ablating and others. The advantages

of fiber lasers are their high power mechanical stability and good beam quality; however beam quality and beam profile has to be periodically checked.

The following parameters are clearly measured:

- Beam size at the focal point and its distribution
- Output power
- Beam position (beam centroid) with accuracy of less than 10 microns.



Our alignment systems can measure several parameters with high accuracies, such as: shaft straightness, misalignment between various automotive systems and real-time displacement between structural parts while the vehicle is moving. Our capability of measuring high power lasers at focal point, accurately and in real-time is unique and upgrades the QC of a laser processing line. The customer will benefit from the quality of material processing and also will be able to minimize the machine's down time.

Our Offerings

- On and Off Production monitoring of high-power lasers, up to 4 KW
- Laser based alignment equipment (optical)
- Wide range of beam profiles from UV to IR, microscopic beam diameter to meters, standard and high power,
- Beam positioning and alignment for industrial applications using PSD technology
- Electronic Autocollimators for angle deviation of optical setup.

References on the automotive market and beyond

Clients: Toyota (Japan), KLA-Tencor, NEC, Samsung, Hewlett Packard.

Certifications, Accreditations, Complied Standards (in the Automotive sector and beyond):

CE compliance, NIST traceable



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