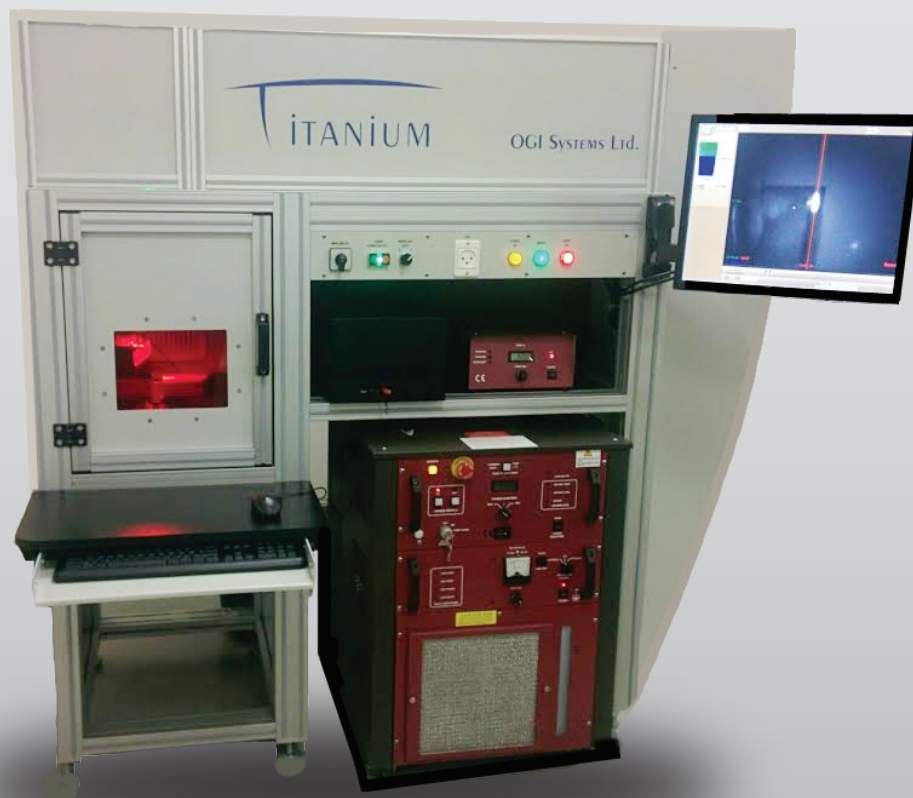


OGI SYSTEMS

Laser Solutions for Ultra Hard Materials



OGI Systems Group

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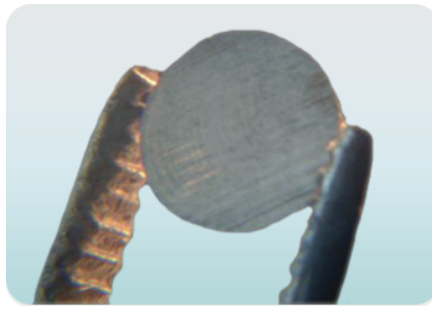
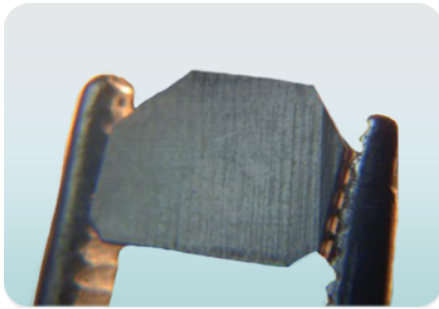


OVERVIEW

Use of ultra-hard materials is growing in various industries and many manufacturers face the challenging need to increase their capability of manufacturing and cutting of these materials.

The Titanium laser system is the next generation powerful American diode pumped laser-cutting system for CVD and super hard materials and has a unique technology for most precise cutting of ultra-hard materials (CVD, PCD, CBN, PCBN, PCB and HPHT).

This technology allows you to easily plan draw and execute sawing and slicing of any shape and form in accurate lines. Sawed surfaces are smooth in all directions (including corners) and consistent thickness is kept with accordance to the customer's requirements.



HIGHLIGHTS

- High quality laser beam enables high cutting speed and accuracy, low kerf width and straight profile.
- High precision linear motor stages with a 0.1um resolution encoder.
- CVD & Hard Materials Package software including Coring, Seeding
- Supports the import of 2D shapes from CAD (Computer-Aided Design)
- Safe laser and processing doors are equipped with safety locks.
- User friendly, easy to manipulation of X-Y stage and Z (focus) axis.
- Built in Cooling System and vacuum cleaner.
- Rugged construction: laser, optics and tables are mounted on a Stabilized steel frame
- Sawing is done in mass production, 24/7.
- Optional 5 Axis model.

Technical Specifications:

Dimensions	190cmL x 180cmH x 90cmW
Weight:	420 kg (926 lbs)
Voltage:	220V
Wave Length:	532 nM
Axis Travel:	200 mm x 200mm x 50 mm (We can supply higher)

Laser Performance

Laser type:	Pumped by Diode
Wavelength (nm):	532
Type ND:	YAG
Transverse Mode:	TEM00
Average Power @5Khz (W):	15
Beam Diameter, nominal (mm):	1
Beam Divergence (mrad):	1
Polarization:	Linear
Beam quality (M²):	1, 2
Electrical Power:	220 ac, 1-phase, 50/60Hz, 16A

Laser Resonator

Laser medium Nd: YAG crystal
This laser unit has been developed for its specific use in the diamond industry
Long pulse configuration, Constant peak power configuration at set frequencies
100W powerful and stable
TEM00 mode, Higher beam quality and stability

Motion Ability:

Optimize XY motion table for best performance
Linear motor technology with performance matched mechanical elements to provide high acceleration, high velocity, and quick settling with accurate highly repeatable positioning
High Strength Aluminum Body
Square Rail Linear Bearing
High Efficiency Ballscrew Drive
Square Rail Linear Bearing
High Efficiency Ballscrew Drive
Square Rail Linear Bearing

About OGI Systems Group

OGI Systems Group is the leading global company for diamond technology tools, providing smart solutions for every stage of the diamond's manufacturing, grading and marketing since 1990.

OGI Systems Group was established and is owned by Mr. Daniel Benjano, who later established subsidiary OGI companies such as OGITech, OGI Systems Europe, OGI India, OGI Asia and OGI Technologies.

Our mission is to supply the most advanced technological tools to the diamonds industry by a strong emphasis on innovation as well as continuous improvement of existing technology in order to suit customer needs.

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