

A complete Laser Class 1 workstation, unmatched for compactness

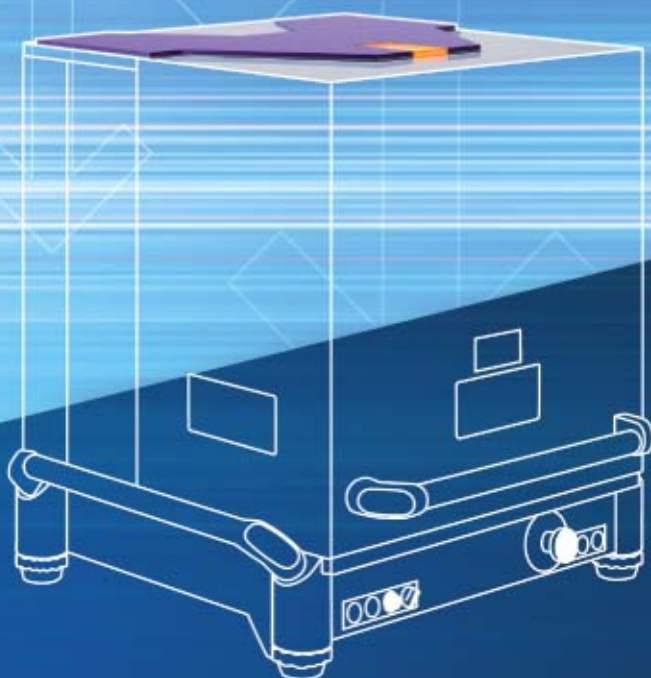
→→ PYROS LASERCUBE™

Laser marking with high-performance, diode-pumped, solid-state laser

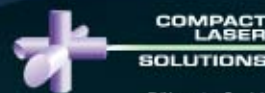
The laser desktop workstation, entirely air cooled: PYROS LASERCUBE™

- For precise and permanent marking of all commonly used materials, including micro-areas
- Effective marking even on areas that are difficult to access, by means of PC-controlled, 4-axis modular system
- Broad spectrum of application by optional selection of wave range 532 or 1064 nm
- Maximum of flexibility in operation owing to minimal setup times
- Plug'n Mark – thanks to the user-friendly, in-house operating system Visual Laser Write
- Minimal operating costs through economical power consumption and an overall system that needs practically no maintenance

Revolutionary technology in a minimum of space



**The Pyros Lasercube™ desktop workstation.
Innovative. Powerful. Reliable.**



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→ PYROS LASERCUBE™

By its unique concept, this desktop laser workstation offers generous workspace for a great variety of applications. Its compact external dimensions – 800 mm wide, 740 mm deep, and 810 mm high (open: 1200 mm) – and its total weight of less than 130 kg make the Lasercube™ the most compact system in its class and with its functionality.

The aluminum portal protective housing conforms to Laser Class 1 requirements. The combination of large working space and fully automatic laser control allows the processing of several objects in one step of work. PLC compatibility and implementation of software modules for communications with higher-level control processors enable integration of the Lasercube™ into industrial production environments.

Extremely high peak-pulse outputs of up to 500 kW, in combination with sophisticated optical systems featuring exceptional laser design, make precision marking possible on metals, plastics, glass, and ceramics – including hard-to-reach surfaces such as for interior glass engraving.

Highly versatile application spectrum, including:

- Serial numbers, product identification, production data, ISO compliance
- Custom identification coding to protect against counterfeit products and branding piracy
- Logos, images, test seals, approval markings, certification symbols, etc.
- True type fonts, images (bitmaps), graphics, and CAD (HPGL format) files
- Bar Code and 2-D Data Matrix Codes
- Custom production of labels and signs (marking & cutting in one step)
- High resolution marking in micro spaces; micro material processing
- Day & night custom template designs (cell phone keypads, on-board equipment switches, cockpit instruments)



Technical Data	Pyros Lasercube™ Workstation
Laser source	
Laser type	Diode-pumped, Q-switched Nd: YAG laser (optional: Nd: YLF; Nd: YVO)
Wavelength range	532 nm/1064 nm
Pulse repetition rate	5 Hz - 50 kHz; optional 100 kHz
Pulse duration	< 10 ns
Peak pulse power	35 - 250 kW; optional 500 kW
Modes	Basic mode (TEM ₀₀)
Laser class	1
Cooling system	Entirely air cooled
Marking Head	
Focusing lens	F-theta 163 flat-field lens (optional F-theta 100, F-theta 254)
Marking field (mm)	110 x 110; 60 x 60; 160 x 160
Focus diameter	min. 20 µm
Pilot Laser	Visible, red-beam pilot laser for easy positioning
3D-control of the laser head	
Electrical axes	z axis: height adjustment (focus); x/y axes: linear c axis: turning module
Maximum working space	580mm wide x 460mm deep x 400mm high
Control unit; electrical ratings; consumption	
Electrical ratings	110 ... 240 V (10%), 16 A, 50 ... 60 Hz
Typical power consumption	< 600W
Computer	Operating system model and type supplied at manufacturers' discretion (WINDOWS® 98; NT; 2000; or XP*)
Interface	RS 422/485
System weight	Max. 150 kg, according to equipment provided

Date of most recent modification: April 2003. We reserve the right to make technical modifications without prior notice. Errors and omissions excepted.

*WINDOWS® is a registered trademark of the Microsoft Corporation, USA

Visual Laser Write Software (VLW)

- Graphic-oriented marking software under WINDOWS® (98, NT, 2000, XP)*
- Simple import of bitmaps created by image-processing programs, vector graphics, and drawings
- Automatic generation of date, time of day, and production shifts, in variable formats
- Comprehensive Bar Code library and Data Matrix code ECC 000-ECC 200 contained in the standard version
- User-friendly flow-chart principle
- Sixteen user-programmable digital inputs and outputs (8 each)
- Adjustment of marking parameters by software (power output, rate, frequency)
- RS 422/485 interfaces for industrial data transfer
- All TrueType fonts, vector fonts, Style Line; Chinese, Korean, Japanese, and Hebrew fonts
- Graphical elements (circles, rectangles, lines)
- Circular marking and free rotation
- Optional selection of language version: German, English, Spanish, and others.
- Open program architecture for individual script programming