

FLY·AIR

LASER MARKING SPECIALIST

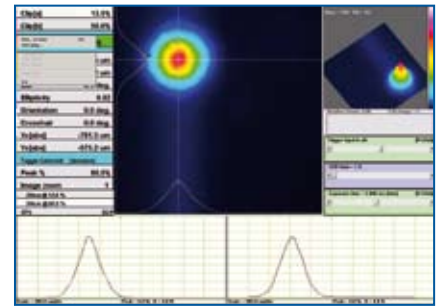


- **Compact**
- **Fast**
- **Modular**
- **Flexible**

LASIT
LIGHT MARKING

LASER MARKING SPECIALIST

The study and the optimization of the laser beam has been carefully adapted to achieve an excellent beam quality - constant at any power and at any frequency - with a very high marking speed.



FLYAIR'S ADVANCED MODULAR STRUCTURE

- **MAINTENANCE FREE:** due to the expected diode life which is in excess of 10.000 hours and also because of the system modules - and also the diode itself - can be interchanged by simply unplugging the units for replacement. This eliminates mistakes and the need to disconnect cables, brackets, etc.

- **POWER SUPPLY MODULE:** to guarantee a longer life of the diode - also in anomalous situations - FlyAir has a standard protection against over-voltage or line drops. The LEDs positioned on the front panel allow an immediate understanding of the system status and a 230V plug is available for servo/stepper motors power supply.



- **DIODE MODULE:** integrates the temperature and the current control systems, the hour-counter, the electronic serial number and the fan speed regulation. In case of a fault and due to its modular design, it can be easily interchanged by the customer, without any specialized technician intervention.

- **LASER MODULE,** with:

· **Scanning Unit** that, according to the specific application and to the requested speed, can be with 8 or 10mm mirrors. Due to a special assembly system, it can be interchanged without any optical realignment and it is simple to rotate the scanning head from $-90/0/+90^\circ$ for marking of parts on different angles.

· **Laser Head completely sealed,** pre-aligned and assembled in a Clean Room, does not require any maintenance. The measuring in real time of pumping and emitting power gives a complete and continuous control of the laser characteristics.

· **Server Unit,** for the control of laser marking system. The server is connected to the company network or to the client PC through 100Mbit/s TPC/IP network communication. There is available an industrial 26pin round connector to directly connect the start/stop signals, the marking warning light and the encoder signals if marking on fly is used.

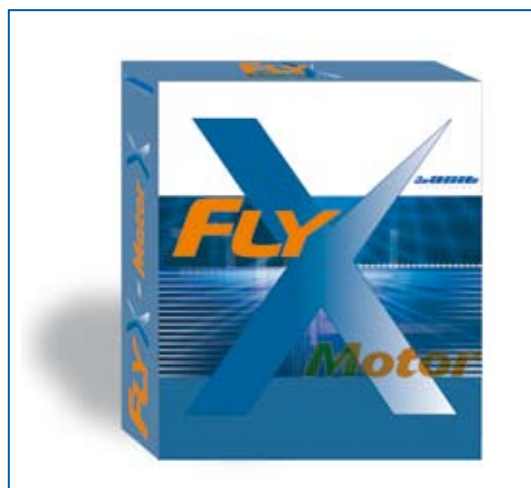
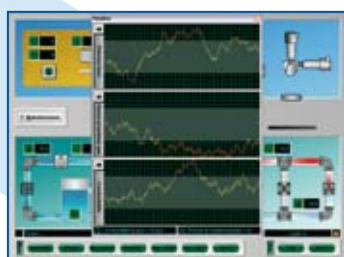
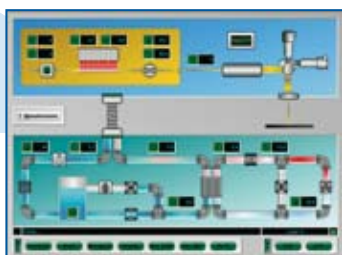
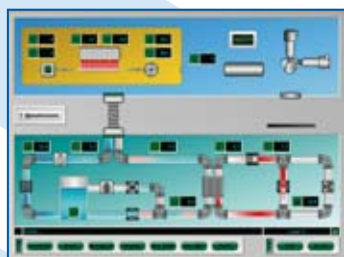
- **FLY CONNECTOR:** for further protection of the fiber and the cables, the connection between the laser and the diode module has been realized with a 25 mm diameter stainless steel connection. This design reduces to a minimum the risk of accidental breakage of the fibre and is also extra protection against electromagnetic interferences and electrostatic discharges.



FlyAir is the ultimate solution for the precision marking on all types of metals and plastics. Extremely compact, modular, perfectly sealed, it is configured for easy integration into any industrial production line. The **FlyAir** system offers the perfect combination of reduced operating costs and high throughput.

FlyAir's design concept allows integration into a production line by easily interfacing to an existing PLC system. Communication is by RS232 or TCP/IP that utilizes the Client/Server concept or by digital signals (Start-Stop, Fault, Marking in progress).

FlyAir - according to the software installed - is a laser marking system ready to be used or a component to be integrated into a Class I laser or a more complex system.



FLYX SOLUTION

FlyX is the software solution for an immediate and completely "open" integration of Fly into a more complex system.

With **FlyX** (ActiveX) the users have a time saving tool that makes easy any kind of integration and gives them the possibility to build - in complete independence - their own specific application. **FlyX** is developed in C++ and can be integrated into any object programming environment like Visual Basic, Visual C++, Visual.Net, Delphi, Lab View. With **MotorX** - the **FlyX** component for the automation area - it is possible to integrate up to 8 motors and an extra I/O system, to control at the same time all the marking functions. **MotorX** supports the use of a Joystick for the three axes X-Y-Z and for the C-axis (rotation movement).

FLYCAD SOLUTION

FlyAir together with **FlyCad** is a laser system ready to mark, in the concept of WYSIWYG (What You See Is What You Get). The simplicity and the flexibility of **FlyCad** software allows the system to incorporate in one .dwg file all the necessary information for marking, every combination of True Type Text, Serial Number, Bar Code, Data Matrix together with the parameters and axis handling.

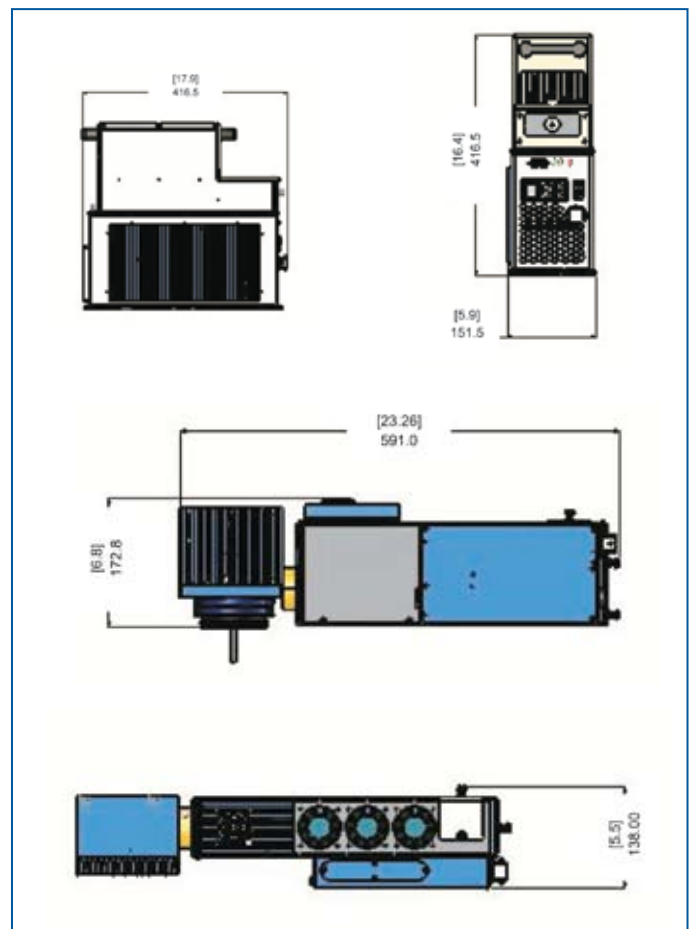


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Technical features

Laser	
CW Output power	12/20 W
Wavelength	1064 nm
Beam quality	M2 < 1.4
Q-switch frequency	10-250 kHz in Q-switch
Power drift (24 h)	< 1.8 %
Pulse width	16-30 nS
Pulse energy	600 microJoule @ 10kHz
Peak power	37.5 kW
Marking excitation	by laser diode 808 nm
Aiming beam for marking preview	635 nm Red Diode
Cooling System	Integrated, Air to Air

Scanner	
Mirror aperture	8 mm or 10 mm
Marking Speed	600 characters/s
Accuracy	2μ



AZIENDA CON SISTEMA QUALITÀ CERTIFICATO DA CSQ UNI EN ISO 9001/2000

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LIGHT MARKING

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