

# Millennium Signatures

## Scriba

*Nd:YAG laser marking systems*



## Applications

Laser marking is the technology of choice for permanent product identification, personalisation

and tracking. This is just a small selection of the diverse range of applications:

### Computer Equipment

— Marking text and graphics on plastic computer peripherals. An entire keyboard can be marked in a single operation

### Automotive Products

— Removal of an opaque top coat from a translucent plastic substrate to create back-lit switches, instrument displays and audio bezels

— Marking layout, current ratings and protection information on fuse box covers

### Electronic Components

— Marking epoxy packaged ICs and other micro components with text and graphics for identification

— Cleaning epoxy flash material from capacitor legs to ensure integrity of electrical connections

### Electrical Switchgear

— Production of text and graphics on plastic relays, circuit breakers and switch covers to meet specific requirements of approvals bodies in different markets

# *Millennium Signatures*

## **Medical Implants**

— Placing text graphics and part identification numbers on titanium heart pacemaker cans and surgical steel repair components

## **Surgical Instruments**

— Generating unique two dimensional codes on surgical steel instruments for inventory management

## **Communications Equipment**

— Removing an opaque layer of rubber or plastic from a translucent substrate to create back-lit text and graphics on mobile phone keypads

— Production of text and logos on plastic bodies of telephone headsets

## **Agriculture Equipment**

— Replacement of hot foil marking to generate text, graphics and bar codes on livestock identification tags

## **Promotional Products and Giftware**

— Origination of text and graphics on pen barrels, key rings, knives, trophies, picture frames, plaques, etc.

## **Tools and Gauges**

— Marking logos, text and part numbers on drills, saw blades, milling cutters, chucks and collets

## **Light Shows**

— Removal of metallic coatings from glass discs to produce graphics on gobos used in laser light shows

## **General Engineering**

— Marking text, graphics and part numbers to identify ball and roller bearing races, gears, shafts, etc.

## *Product range*

Laser Type Nd: YAG

Wavelength 1.064  $\mu\text{m}$

Pulse Frequency 0.1 to 50 kHz

Max. Marking Speed up to 5,000 mm/sec

Operating Modes CW or Q Switched

Operating Temperature up to 40 $^{\circ}$ C non-condensing

Resonator Construction Fully sealed against ingress of dust

Marking Areas 85 mm to 350 mm diameter

### **Laser Specification**

User-friendly graphical interface

Full compatibility with Windows 98, 2000/NT, ME and XP

Fast file transfer to the laser

File import formats: PLT (HPGL), AI, DXF, PNL (Electrox), BMP, TIFF

Bar Codes

Two Dimensional Codes including Data Matrix

Automatic Serialisation

File Input Programming (Mail Merge)

Date Coding

Fill Editor

Motion Control (4 Axis)

Multiple I/O Interface

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## Software

### Standard Features

The industry standard *Scriba* range of ND:YAG laser marking systems has, since its inception, represented exceptional value for money. Available as both a lamp pumped laser and a diode pumped system, the *Scriba* range of laser marking systems provides a choice of technologies within the same optical construction.

### Range Characteristics

*Scriba E plus* - entry-level model for low-to-medium volume applications

*Scriba II plus* - the high performance lamp pumped *Scriba*

*Scriba II Duo plus* - the dual head version of *Scriba II plus*

*Scriba D40 plus* - the high performance diode pumped *Scriba*

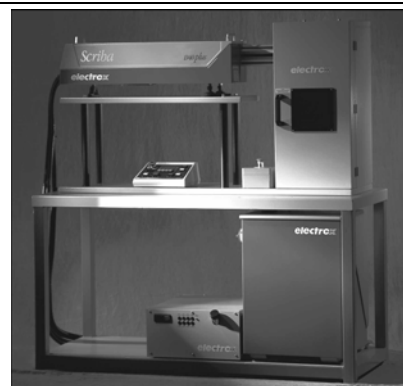
*Scriba D40 Duo plus* - the dual head version of *Scriba D40 plus*

## Workstations and handling options

**Table top workstations:** Choice of welded steel enclosures with hinged door



*Axiom* workstation with turntable



Tabletop workstation



Customised *Maxim* workstation

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## Free standing workstations:

*Maxim* welded steel or *Axiom* aluminium and composite panel construction

Both constructions available in two formats, each with manual z-axis:

- universal enclosure with sliding door
- indexing turntable enclosure with safety light curtain

## Handling Options:

Programmable z-axis, rotary work piece

handling, xy positioning and vision

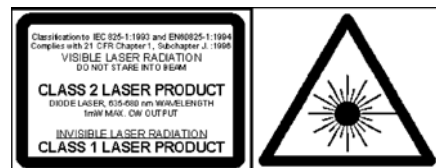
options according to model



xy positioning



Rotary Work Holding



## Benefits

### Advantages of Laser Marking

*"an amplified beam of light, focused to a very small spot, to create a wide variety of images - very much like writing with a pen on paper"*

Indelible- Permanently modifies surface composition of material

Clean and safe- No inks, acids or solvents

Wide range of materials- Metals, plastics, rubber, etc.

Flexible- Text, graphics, logos, bar codes, etc.

User-friendly- Software driven

No tooling to wear- No direct physical contact with the work piece

Cost effective- Virtually no consumables

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## Principal features - all Scriba lasers

Choice of technologies and output powers to address a wide spectrum of materials and throughput requirements

Compact modular construction to make for easy installation onto production lines

Software compatibility with all current versions of Windows to ensure rapid familiarity for programmers and operators alike

## Additional features - Scriba D40 plus lasers

- Diodes guaranteed for 10,000 hours\*
- Single phase power
- Fully integrated cooling system

\*or two years which ever is sooner.

# Installation Requirements

## Scriba II plus and Scriba D40 plus

## Scriba II Duo plus and Scriba D40 Duo plus

Laser Enclosure	269 x 1061 x 232 mm 37kg	268 x 836 x 594 mm 32kg
Control Unit	640 x 490 x 455 mm 86kg	640 x 490 x 455 mm 86kg
Water Cart (lamp pumped lasers)	640 x 335 x 455 mm 80kg	640 x 335 x 455 mm 80kg
Chiller Unit (diode pumped lasers)	222 x 560 x 440 mm 31kg	222 x 560 x 440 mm 31kg

# Utilities

	75 & 90 Watt Lamp Pumped Laser	120 Watt Lamp Pumped Laser	Diode Pumped Lasers
<b>Input Voltage (50 or 60 Hz)</b>	208 or 380 to 480 (3 phase & earth)	380 to 480 (3 phase & earth)	110, 180, 208, 220, 240 (Single phase & earth)
<b>Power Requirement (kVA)</b>	<b>6.5</b>	<b>7.5</b>	<b>2.2</b>
<b>External Cooling Water* (litres/min.)</b> *intermittent demand	<b>19</b>	<b>19</b>	Self contained cooling