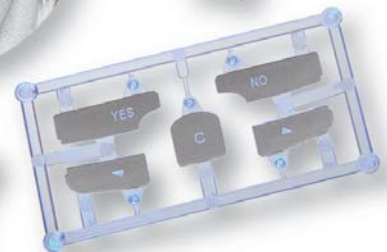


Cobra-G

frequency doubled, diode pumped, Nd:Vanadate
laser marking systems



- high speed fine detailed marking
- spot size does not vary with laser power
- marks extended range of colored materials
- marks coated materials without damaging delicate substrates
- compact, light weight construction
- diodes guaranteed for 15,000 hours/2 years
- air cooled
- single phase power
- user friendly Windows™ software for optimum marking performance
- available as modules for production line integration or with choice of workstation for turnkey solution



Cobra-G

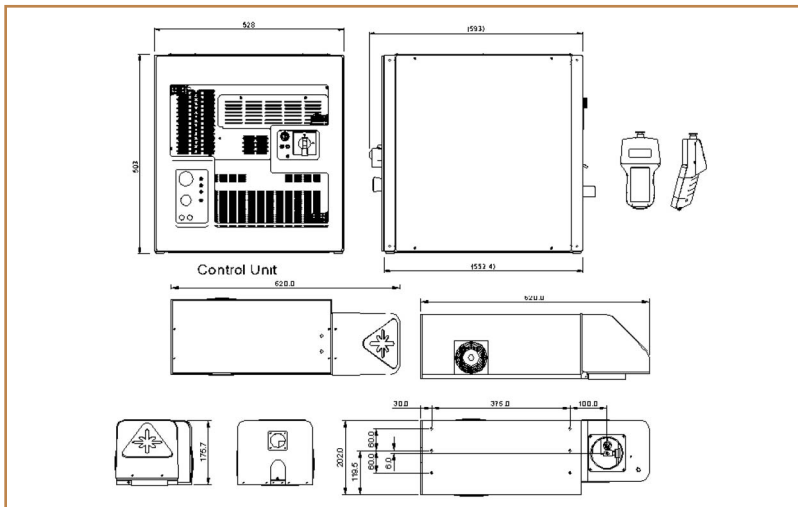
frequency doubled, diode pumped, Nd:Vanadate
laser marking systems

marking area parameters

flat field lens focal length	maximum square marking field	maximum marking diameter	working distance
90 mm	55 mm	78 mm	91 mm
148 mm	84 mm	119 mm	164 mm
234 mm	142 mm	202 mm	299 mm
376 mm	225 mm	319 mm	473.2 mm

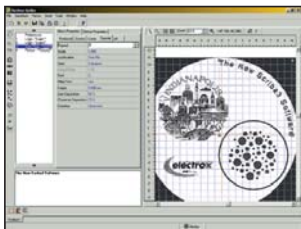
dimensions

	Height (ins) (mm)	Length (ins) (mm)	Width (ins) (mm)	Weight (lbs) (kg)
Laser Enclosure	7 176	24 620	8 202	33 15
Control Unit	19 492	21 528	23 593	132 60



software

Electrox laser marking software has been developed in conjunction with Cobra-G to ensure optimum marking performance.



- 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 Serialization
- File Input Programming (Mail Merge)
- Date Coding
- Fill Editor
- Motion Control (4 Axis)
- Multiple I/O Interface

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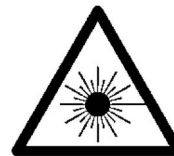
laser specification

Laser Type – frequency doubled, diode pumped, Nd:Vanadate
Wavelength – 532 nm
Pulse frequency – 0.1 - 100 kHz
Max marking speed – 10,000 mm.s⁻¹
Operating mode – Q-switched
Operating temperature – 15°C - 40°C (non condensing)
Construction – Dust sealed with galvo delivery
Laser average CW power – 4 W and 10 W
Pulse energy at 50 kHz – 0.15 mJ (4 W), 0.3 mJ (10 W)
Peak power at 10 kHz – 4 kW
Pulse duration at 10 kHz – 60 ns
Peak to peak stability at 10 kHz – <5%
Min. spot size – <20 µm (90 mm lens)
Beam quality – <1.4 mm.mrad (M² <2) 4 W
 <2.8 mm.mrad (M² <4) 10 W

Control electronics – 19 inch rack mounted module

utilities

input voltage single phase + Earth, 50 or 60 Hz;
100 - 240 V
power requirement 1 kW



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