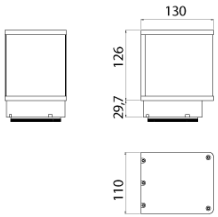
FORMULAMARKER

Laser marking system based on 10W, 20W IR
7 W Green, 2 W UV air cooled diode pumped solid state lasers

FEATURES

- 10-100 KHz Q-Switched operation
- High peak and average power
- High beam quality
- Long lifetime
- Sealed laser head design for high reliability
- Very compact and easy to operate
- Chiller water cooling option
- Manual or automatic 200 mm travel Z-axis
- PC interface



GALVO HEAD SPECIFICATIONS

- Two closed loop galvanometers
- Marking areas 70x70, 110x110, 160x160 mm²
- Marking speed up to 2500 mm/s
- Scanning head size 130(L) x 110(W) x 156(H) mm³

LASER SPECIFICATIONS

		266	532	1064 (Formula II)	1064 (Formula III)
Maximum Output Power	[W]	2	7	10	20
Repetition Rate	[kHz]	from 10 up to 100			
Pulse duration @ 50 kHz	[ns]	11	12	15	13
Energy/Pulse @ 50 kHz	[µJ]	30	140	160	330
Pulse-to-pulse stability	[%]	< 2	< 2	< 2	< 2
Beam Diameter	[mm]	3	3	1.0	1.0
Beam Quality	[M²]	<2.0	<2.0	<1.5	<1.8
Electrical Requirements	[V AC; Hz]	110 to 230; 50 to 60	110 to 230; 50 to 60	110 to 230; 50 to 60	
Electrical Power	[W]	<500	<500	<350	<400
Laser Head Dimensions	[mm³]	436(L)x142(W)x47(H)	436(L)x142(W)x47(H)	236(L)x135(W)x194(H)	
Laser Head Weight	[Kg]	6	6	4	4
Power Supply	[mm³]	422(L)x446(W)x166(H)	422(L)x446(W)x166(H)	422(L)x446(W)x166(H)	
Power Supply	[kg]	14	14	14	14
Beam expander magnification		3x	3x	6x	6x
Conformity ECC		2006/42/CE; 2006/95/CE; 2004/108/CE			
Conformity to EU Standards		CEI EN 60204-1 (2006); CEI EN 60825-1 (2003); CEI EN 61000-6-4 (2007); CEI EN 61000-6-2 (2006)			

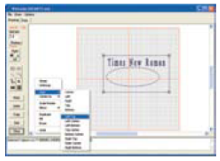
Option for all models: chiller water cooling

ADVANCED MARKING SOLUTIONS INDUSTRIAL DIVISION

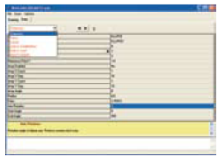
WINCAMSOFTWARE

Designed to support all marking hardware solutions, interfaces and scan heads

Flexible settings for controlling various laser types.

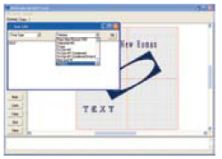


Marking area preview with visible pointer beam. Editable marking parameters.



Importing of vector drawings (HPGL and DXF). Importing of raster images (BMP, JPEG).

Twain interface for image acquisition from compatible devices such as scanners and video cameras. Tools for direct drawing of polylines, curves, rectangles, ellipses, fillings, texts, barcodes.



Vector and true type fonts, circular text. Variable texts (date, time, auto-incrementable serial numbers).

Barcodes 39, EAN, 2 of 5 interleaved, 128, DataMatrix, PDF417. Editing of drawing objects, including scaling, translation, rotation, mirror, grouping. Easy alignment and centering of selected objects. Saving to easily editable script files. Programmable sequences allowing to automate file selection depending on inputs, marking, outputs. Flying marking on moving target. Internally developed product allowing on request customization.

USB interface board
3 TTL outputs programmable for CO2 laser modulation, Neodimium Q-switch control, first-pulse-killer, PWM output. 2 additional analog outputs programmable for laser power setting, acousto-optic RF power or electro-optic modulator control. Spare 4 TTL programmable outputs, allowing step-motor movement, synchronous with marking. Opto-isolated PLC interface I/Os: 6 inputs+6 outputs, including start, stop marking inputs, ready, busy outputs. SPI interface allowing additional programmable I/Os. RS-485 interface for positioning motors.

Stand alone RS-232 interface with laser system controller
Sequence and marking files can be downloaded into non volatile eeprom using WinCadm software. Variable texts automatically updated using internal real-time-clock and plotter style characters font. Integrated into complete standalone marking lasers. Control panel with LCD characters display allowing laser start-up, shutter control, marking sequence enabling, monitoring of I/Os, laser and shutter status. Optoisolated PLC interface I/Os: 5 inputs+5outputs, including programmable start, stop inputs, ready, busy outputs. Additional I/Os depending on customization.