

LASER WELDING

Inspire HW1001™

HW1001 Dual Head Laser Precision Welding Machine



Leader In Laser Solutions

Features:

High UPH

Ultra High Speed Motion

Precision Linear Motor XY Stages with +/- 1 micron

Position Repeatability

Microspot Welding

Repeatable Spot Diameter with Auto Power Feedback Control

User Friendly CAD Base Welding Positions Setting Program

Laser Applications for:

✓ Welding



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Technical Specifications

Diode Pumped Solid State Nd:YAG Laser	
Laser Medium:	Nd:YAG
Maximum Single Pulse Energy (J)	50
Power Supply featuring Peak Power (kw)	4.5
Power Feedback Control, Power Ramping and Pulse Shaping	
Provided up to four energy or six time share fiber outputs	
Pulse Rate Maximum (Hz)	200
Machine Structure	
Stopped Index fiber	
<ul style="list-style-type: none"> Mechanical machine structure Dual laser welding heads mounting structure Base plate for mounting of X-Y table. Class I laser enclosure with viewing window XYZ fine adjustment stages for each welding head 	<ul style="list-style-type: none"> 200 – 600 um core fiber delivery Length: 5m
	Focusing Assembly
<ul style="list-style-type: none"> Various collimating and focusing optics assembly options. Includes CCTV camera focus/aperture adjustments and fiber interlock. 	
Camera Viewing System x 2 units	
<ul style="list-style-type: none"> Camera viewing system with crosshair generator 	
Utilities and Environment	
Power Supply for Laser:	220 VAC, 3 Phase, 4 Wires, 13 Amp 400VAC, 3 Phase, 4 Wires, 7 Amp
Power Supply for Laser Controller:	208 VAC, 3 Phase, 5 Wires, 50 Amp
Operating Conditions	
Environment:	Enclosed in Cleanroom Class 100 Standard
Environment:	Area without Condensation
Temperature:	5 to 45 degree celsius
Humidity:	Up to 75% RH maximum
HyScan 200: Scanhead System (Optional)	
Laser Beam Delivery:	Galvanometer Scanhead System
F-Theta Lens Marking Area (mm)	110 x 110 *
* Optional at 60 x 60, 160 x 160	
Vision System (Optional)	
Inspection Time:	0.2 sec per frame
Scanning Area (mm)	110 x 110
Camera:	CCD. Up to 2 Mega Pixels
Front of View (mm)	10 to 3
Resolution	Up to 2 um per pixel



PC Controller

Type of Controller: Windows based PC Controller
 Marking Software: Hypermark CAD Based, GUI marking software for creation and editing of marking layout. Text, Barcode, Data Matrix polygon creation within few mouse clicks

Optional features includes:

- Windows True Font
- Font Editor
- PLT, AutoCAD format import
- RS – 232 Serial Comm.
- TCP/ IP comm. Via Win Socket
- BMP / Tiff marking

Options:

- Automatic & Semi-Auto Handlers
- Data Matrix and Linear Barcode Verifier
- Dust Collector / Fume Extractor
- Red Targeting Laser
- Auto Power Calibration System
- Marking Software Customization

Lens for Field Size (mm)	Working Distance (mm)
60 x 60	100
110 x 110	180
160 x 160	300/311*

* Type S

Note: The table above indicates one selection only that must be fixed at time of purchase.

Dimension

1300 mm (Length) x 1200 mm (width) x 1650 mm (Height)