

NOVA1 MIC



NOVA1 CAM

NOVA1 Series Manual Laser Welding Workstation

DESCRIPTION

Laser Welding technology allows our business partners to join, to identify and to customize materials. Laser spot welding for orthodontic appliances, laser spot welding for battery packs and for medical devices are only a few of many applications that the NOVA1 Series can perform successfully.

KEY FEATURES

NOVA1 MIC

- Microscope equipped, safety enclosure and manual workstation
- CE and CDHR Class 1 eye-safe enclosure
- Optimized for small footprint
- Microscope focusing optic for 3 dimensional vision of high quality images
- Integrated crosshair through viewing optics
- Two cross line alignment lasers (for XYZ alignment)
- Fast internal safety shutter for operator eyes
- Foot pedal operated start signal
- Seam weld mode for repetitive welding
- Integrated shielding gas delivery system
- Integrated fume extraction system
- CE certified

NOVA1 CAM

- Camera equipped, safety enclosure and manual workstation
- CE and CDHR Class 1 eye-safe enclosure
- Optimized for small footprint
- Two cross line alignment lasers (for XYZ alignment)
- Foot pedal operated start signal Seam weld mode for repetitive welding
- Integrated shield gas delivery system
- Integrated fume extraction system
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APPLICATIONS



Dental implant



Battery pack



Medical device

FEATURES NOVA1 MIC

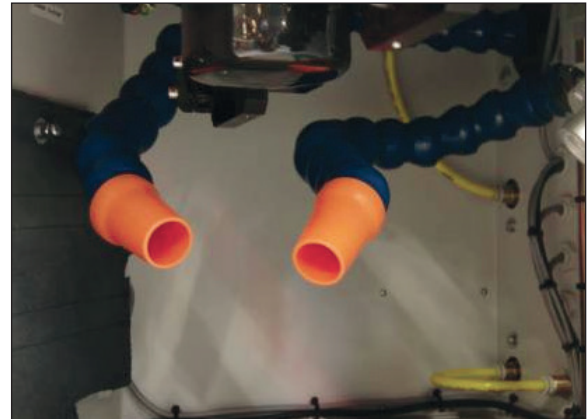
The NOVA1 Manual Workstation for laser welding applications is a modular designed workstation which combines our Pulsed Nd-YAG technology with a safe enclosure. One laser welder can be shared using time-share outputs with three to six NOVA1 workstations (dependent on the laser model and power) to create a high-throughput welding solution.

FEATURES NOVA1 CAM

The NOVA1 CAM has the same features as the NOVA1 MIC. Instead of a microscope, it uses a CCTV color camera and monitor to create maximum freedom for the operator.



Integrated safety shutter



Dual shielding gas nozzle



NOVA1 MIC with laser (multiple possibilities for the ML21xx Miyachi Program) and a fume extraction and filtration unit

TECHNICAL SPECIFICATIONS

MIC version: magnification (times)	10
CAM version: Monitor size (inch)	17
CAM version: Camera specs	752x480 Pixel, Global Shutter,
C-Mount, HQ-IR-Filter	
Visual alignment aid	Two fixed position laser pointers (red light), crossing at weld position
Internal lighting	Two high power LED lamps, adjustable and dimmable
Laser Specifications (ML21xx Serie)	
Average power levels (W)	0,2 to 150
Peak power levels (kW)	1 to 10
Peak energy levels (J)	0,25 to 100
Wavelength (nm)	1064 (optional 532)
Laserhead	FX50 1:1 optic
Collimator lens (mm)	120 (optional 100, 200)
Focal lens (mm)	120 (optional 50, 70, 100)
Optical fiber diameter (microns)	400 (optional 200, 300, 600, 800 and 1000)
Optical fiber length (m)	5 (optional 10, 15, 20, 30)
Fume Extraction Unit Specifications LL-150	
Maximum suction volume (M3/hr)	150
Filter	Three stage filter: prefilter, active carbon, HEPA filter

WEIGHT & DIMENSIONS

Dimensions HxWxD (mm, excluding laser and fume extraction unit)	500 x 600 x 500
Weight (in kg)	80
Internal effective area for workpiece HxWxD (mm)	92,3 x 274 x 280

