

**NOVA1 MIC**



**NOVA1 CAM**

**APPLICATIONS**



**Dental implant**



**Battery pack**



**Medical device**

# 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
- CE certified

**FEATURES NOVA1 MIC**

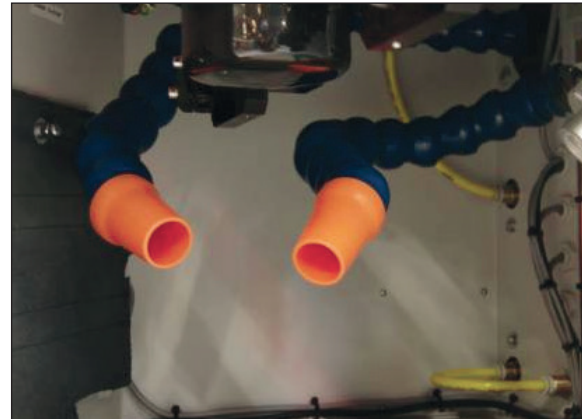
The NOVA1 Manual Workstation for laser welding applications is a modular designed workstation which combines our Pulsed Nd-YAG technology with a safe enclosure. One laser welder can be shared using time-share outputs with three to six NOVA1 workstations (dependent on the laser model and power) to create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

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

## WEIGHT & DIMENSIONS

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

