

UNITEK EAPRO

LASER WELDING SYSTEMS

UNITEK EAPRO is a member of the **UNITEK MIYACHI** Group, specialized in the design and manufacture of a complete range of laser welding solutions. Combining our laser welding applications knowledge with automation capabilities and our line of Unitek Miyachi Lasers results in solid manufacturing solutions. Based around the modular design of our workstations we can offer a range of customized solutions which are optimized for your specific requirements. For high volume production we offer a complete turn-key service in which we co-develop the welding process, develop tooling, product handling and custom software. This datasheet introduces you some of our standard solutions.

NOVA-I MANUAL WORKSTATION



Nova-I manual workstation

- CDRH Class I eye-safe enclosure with a small footprint.
- High resolution microscope focusing optic.
- Integrated crosshair and alignment laser.
- Seam weld mode for repetitive welding
- Fast internal safety shutter.
- Integrated shield gas system.
- Datalogging with IMS3000 software.
- Fiber delivery of laser light.
- Share one laser with multiple workstations.
- Fume extraction system.
- Internal lighting.
- CE certified.

NOVA-6 HIGH-END WORKSTATION

- CDRH Class I eye-safe enclosure.
- Windows based integrated user interface (IMS3000).
- Integrated laser programming via IMS3000.
- Mil-Spec datalogging.
- Advanced CNC controller.
- Highly accurate multi-axis (1-5) CNC motion system.
- Linear or Servo motors.
- Vision directed motion.
- Variable speed seam weld mode to weld products with tight corners at high speed.
- Space saving pneumatic vertical door with safety interlocks.
- Large window for process viewing.
- Integrated through the lens viewing CCTV system.
- Base plate with predrilled tooling holes.
- CNC controlled shield gas valves.
- Weld fume extraction and filtration.
- Internal lighting.
- Integrated electronics cabinet.
- Optional Granite baseplate and gantry.

Also available in a larger versions as the NOVA-7



NOVA-6 CNC laser welding workstation



Advanced windows software IMS3000, standard on all workstations. Completely integrates, Vision, CNC Motion, Laser Programming, Partfile management, Remote service, Glovebox control and Datalogging modules

NOVA-T PLATFORM FOR CUSTOM LASER WELDING SOLUTIONS

NOVA-T WORKSTATION

- Modular designed platform for turn-key solutions.
- CDRH Class I eye-safe enclosure.
- Servo driven CNC motion system with up to 4 axis.
- Integrated motorized turn-table for parallel processing to reduce cycle times.
- Can be fitted with measurement systems including Helium leak testing and electrical functionality testing.
- Data logging software for part traceability.
- Integrated marking station available.
- Can be used in semi-automatic and fully automatic mode, using an optional pick and place robot.



NOVA-T modular laser welding platform, configured for laser welding of Aluminum capacitor housings.



A pick and place robot is loading and unloading parts into the NOVA-T.



Interior detail of the NOVA-T showing the three axis CNC motion system.

CONTROLLED ATMOSPHERE LASER WELDING SYSTEM

- CDRH Class I eye safe enclosure.
- High atmosphere purity with < 1 ppm water/oxygen levels.
- Large windows for process viewing.
- Highly accurate servo driven, multi-axis CNC motion system.
- IMS3000 fully integrated system software providing one single user interface to the laser, glovebox and CNC functionality.
- Data logging functions to provide part traceability and improve product quality.
- Interior lighting.
- Base plate with pre-drilled tooling holes.
- Integrates with all Unitek Miyachi lasers.



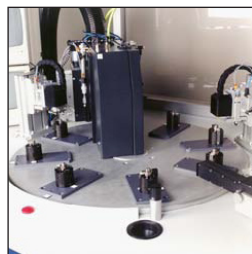
NOVA-CA and NOVA-G3 controlled atmosphere laser welding workstations for demanding applications in the medical and aerospace and defense electronics industries



TURN-KEY SOLUTIONS



Turn-Key laser welding system combining welding with product testing for zero defect manufacturing.



UNITEK EAPRO offers complete turn-key solutions to your laser welding requirements.

Our turn-key solutions include the following:

- Process development.
- Design and manufacture of product specific tooling.
- Manual, semi-automatic, automatic and inline systems.
- Controlled atmosphere systems.
- Vision based alignment systems.
- Helium leak testing.
- Electrical functionality testing.
- Data logging software for part traceability.
- Integrated marking functionality.



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