

Introduction of YAG Laser Welder Series – 5 Models Are Launched Simultaneously –



NEC Corporation's subsidiary, Nippon Avionics Co., Ltd. (Head office: Shinagawa City, Tokyo, President: Mr. Mamoru Yamashita, hereinafter “Avio”) introduced today a new series of YAG Precision Laser Welders to the market. The new LW-Y Series of YAG Laser Welders weld metal to metal without contact for use in the manufacturing of electronic equipment, electronic components and automobile parts.

Objective of Product Introduction

Avio is a comprehensive manufacturer of micro-joining equipment offering a wide range of products based on various micro-joining technologies including resistance welding of metal components, soldering of electronic components and welding of plastic components. In the area of welding of metal components, Avio has enhanced micro-joining solutions by simultaneously introducing five (5) new

models of non-contact type YAG laser welders thus expanding Avio's extensive line of conventional contact type resistance welders. These new YAG laser welders enrich Avio's product family in the precision welding field, an area in which Avio has vast experience, and contribute to the fabrication of higher density electronic assemblies and miniaturization of components.

Features of New Series

Avio's new line of YAG Laser Welders consists of five (5) different maximum output power models; 8W, 20W, 50W, 150W and 300W. These models offer the user a wide range of choice based upon application, provide high quality joining from ultra-precision welding to welding of mechanical components, and contain advanced technology features including:

1. Stable welding achieved through use of a unique output energy feedback system and precision waveform control.
2. Simultaneous monitoring of output energy and average power.
3. Laser beam energy sharing -- beam is dispersed equally up to four (4) separate output; and time sharing with the laser maximum energy multiplexed among up to four (4) output ports.
4. Ultra precision welding is achieved by use of ultra-fine optical fiber.

Features of each LW-Y Series YAG Laser Precision Welder

- Model LW-Y8 (maximum output of 8W):

This model is ideal for precision welding of electronic components or medical components. Weld penetration is improved by emitting a laser beam of higher brightness while maintaining the same energy level.

- Model LW-Y20 (maximum output of 20W) & Model LW-Y50 (maximum output of 50W):

These models are suitable for applications in the field of electronic components such as termination of copper (Cu) coil wire for motors, tab welding for batteries and welding of optical components. Uniform weld penetration is maintained in both the continuous irradiation and simultaneous irradiation modes resulting in stable welding.

- Model LW-Y150 (maximum output of 150W) & Model LW-Y300 (maximum output of 300W):

These models are excellent for use throughout a wide range of applications including electronic components, medical components and automobile components. Because of the stable, high energy output applications include spot welding of highly reflective material where high energy is required such as copper (Cu), aluminum (Al) and gold (Au), or seam welding where repetitive irradiation is required.

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For Questions Regarding the Above, Please Contact:

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