

Case Study

MediAlert develops unique laser welding technique

Rofin-Baasel UK recently supplied a manual laser welding system, the StarWeld Performance, to the MediAlert Foundation. MediAlert is a registered charity (celebrating their 40th anniversary this year), the only non-profit making registered charity providing life-saving identification jewellery for individuals with hidden medical conditions and allergies. MediAlert jewellery 'Emblems' are engraved with the owner's medical condition or allergy, a unique ID number and 24 hour emergency phone number.

Specifically, MediAlert was looking to weld silver jump rings to attach their emblem bracelets and necklets and needed a timesaving alternative to traditional silver soldering. After experimenting with the laser welder from Rofin-Baasel they found they could achieve a better result, with higher throughput and requiring less finishing.

Over the past months the MediAlert production team has been honing the technique of welding silver jump rings



and has reduced the time per jump ring from five minutes to a matter of seconds. The ring is now welded with a single high energy pulse giving an excellent finish.

Rofin laser spot welders are highly versatile and pulse shaping has been one of the major contributing factors to the success of the One Shot Programme. Other key factors were the high pulse energy of the Performance and the patented Sweet Spot Resonator®.

"The development of the One Shot Programme using the Rofin Starweld Performance Laser has made the welding of jump rings on our Silver Bracelets effortless", said Alex Dayton, Head of Laser Welding Technologies at the MediAlert Foundation.

MediAlert are no strangers to laser processing as they had previously purchased two laser engraving machines from Rofin-Baasel to personalize the ID data on their emblems.