



AMADA WELD TECH

SOLUTIONS

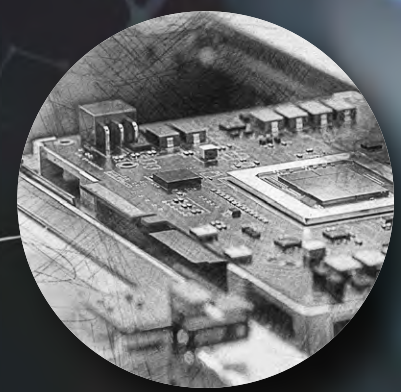
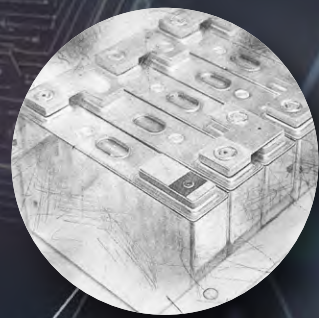
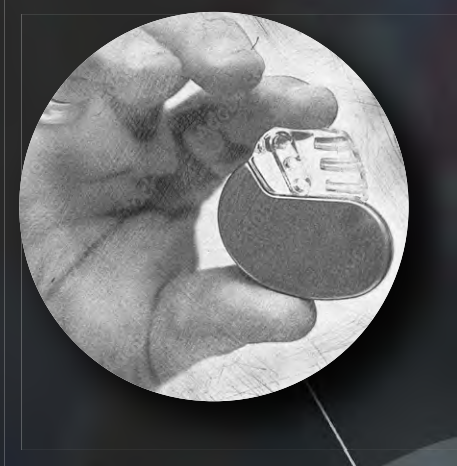


Table of Contents

About AMADA WELD TECH

- Company profile 3
- Key markets 4
- Define - Design - Deliver: our process 5
- Manufacturing processes at a glance 6

Resistance Welding

- Overview and typical applications 7
- Resistance welding power supplies 8
- Weld heads 8
- Weld quality monitors and checkers 8
- Resistance welding systems 8

Micro TIG Welding

- Overview and typical applications 9
- Micro TIG welding power supplies 10
- Torches and accessories 10

Laser Welding

- Overview and typical applications 11
- Laser welders 12
- Optics 12
- Laser welding systems 12

Laser Marking

- Overview and typical applications 13
- Laser markers 14
- Standard laser marking systems 14
- Custom laser marking systems 14

Laser Micromachining

- Overview and typical applications 15
- Laser micromachining subsystem 16
- Laser micromachining systems 16

Laser Cutting

- Overview and typical applications 17
- Laser stent and tube cutters 18

Hermetic Sealing

- Overview and typical applications 19
- Parallel seam sealers 20
- Projection welders 20
- Gloveboxes 20

Hot Bar Reflow Soldering & Bonding

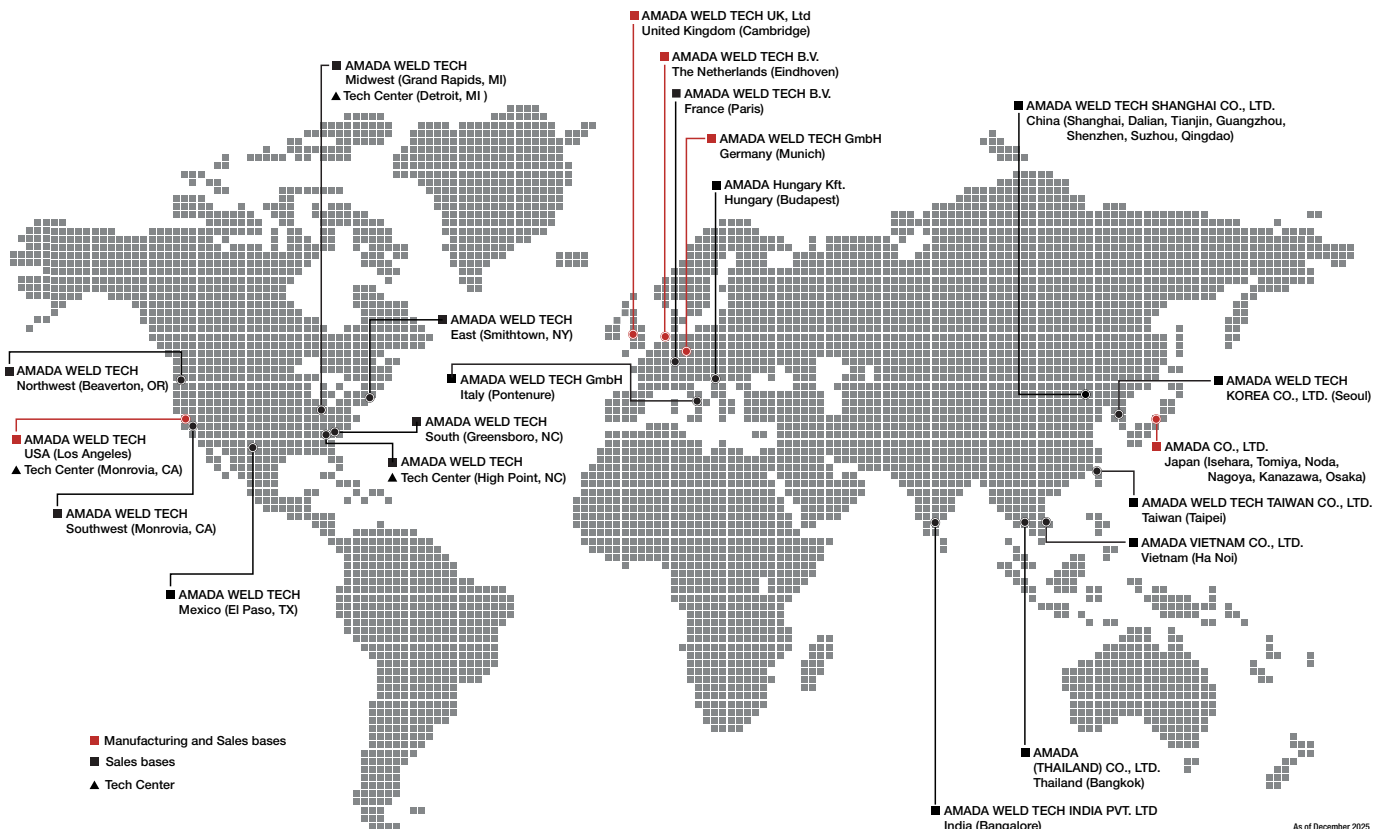
- Overview and typical applications 21
- Pulsed heat hot bar reflow soldering power supplies 22
- Hot bar reflow soldering & bonding heads 22
- Standard and custom hot bar systems 22

Systems

- Overview 23
- System solutions 23

Value-Added:

- Technical Support and Application Development 24



WHO IS AMADA WELD TECH?

Since 1948, AMADA WELD TECH has worked to achieve one goal: to solve customers' manufacturing challenges. Knowing there is no one solution that fits all, we strive to provide customers with innovative and reliable manufacturing technology solutions in an effort to be their single source provider.

Our headquarters is located in Monrovia, California with state-of-the-art facilities for developing, producing and servicing the solutions offered to our worldwide customer base. A global company, AMADA WELD TECH also has sales offices and applications laboratories located in Detroit, Michigan and High Point, North Carolina.

Company timeline

- 1948** Unitek Corporation founded in Pasadena, CA to manufacture orthodontic appliances.
- 1950** Weldmatic Division organized; produced a complete line of electronically operated resistance welders for missile, aircraft, electronics, and metal working industries.

- 1965** Moved into current Headquarters location in Monrovia, CA.
- 1971** Unitek Equipment Division established.
- 1978** Unitek Corporation acquired by Bristol Myers Squibb. Development and patent of force firing systems critical to small parts welding.

- 1987** Unitek Corporation acquired by 3M.
- 1988** Divested from 3M as Unitek Equipment Division of KVA Holdings Corp.

- 1991** Name changed to Unitek Equipment Inc.
- 1994** Acquired by Miyachi Technos and reorganized as Unitek Miyachi Corporation with merger of Miyachi America Company.
- 1994** Established Integrated Systems division.
- 1995** Acquired Weld-Equip companies in Holland, Germany and France, and Miyachi Technos Europe in Germany.
- 1995** Received ISO 9001 Certification.

- 2000** Acquired Peco Welding Systems, GmbH.
- 2001** Acquired Benchmark International, Inc.
- 2005** Renamed Miyachi Unitek Corporation, consolidated Benchmark International to California.
- 2008** Reorganized European companies into single entity: Miyachi Europe Corporation.

- 2010** Opened applications lab in Detroit, MI.
- 2011** Opened sales office and applications lab in Brazil.
- 2013** Miyachi Corporation acquired by AMADA CO., LTD.
- 2014** Renamed Miyachi America Corporation.
- 2015** Reorganized as Amada Miyachi America, Inc.

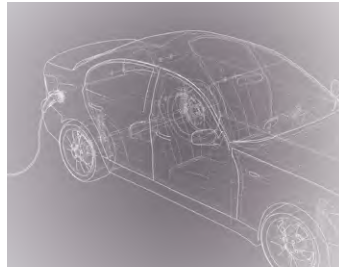
- 2020** Renamed AMADA WELD TECH INC.
- 2022** Opened East Coast Technical Center in High Point, NC.



Key Markets

Automotive

Automotive manufacturers rely on AMADA WELD TECH for precision, reliability, and traceability in critical production processes. Our equipment delivers consistent, high-quality joints and marks that keep pace with the industry's shift toward advanced electronics and electric vehicles.



From sensors and safety systems to battery assemblies and wire harnesses, we help customers achieve process stability, improve quality control, and maintain long-term performance. With advanced monitoring, data insight, and decades of application experience, AMADA WELD TECH supports the drive toward safer, more efficient, and more intelligent vehicles worldwide.

Electronic Components

Electronic component manufacturing demands exceptional precision, repeatability, and low heat input to produce and protect delicate parts with reliable, long-term performance. AMADA WELD TECH provides advanced solutions that not only address these needs but also support miniaturization and reliability in high-density assemblies across multiple industries.



Our equipment is used worldwide to weld, seal, and mark components including connectors, sensors, lead frames, microelectronic packages and more.

Batteries

As global demand for efficient, high-performance batteries grows, manufacturers face increasing pressure to improve power density, charge speed, and reliability. AMADA WELD TECH works with leading battery producers to develop joining, sealing, cleaning, and marking processes that deliver consistency and traceability in production.



Our systems are used for applications including tab-to-terminal welding, internal and external connections, can sealing, and part identification across lithium-ion, nickel, and other chemistries. Through precise process control, data monitoring, and deep materials expertise, AMADA WELD TECH helps customers enhance weld quality, streamline production, and meet the evolving requirements of battery manufacturing worldwide.

Medical

Precision and reliability are essential in medical device manufacturing, where every component can impact patient health and safety. AMADA WELD TECH works closely with leading medical device companies to develop production solutions that meet demanding quality and regulatory standards, from single-use instruments to implantable devices.



Our equipment and systems support high-precision joining, micromachining, cutting, and marking of the metals, plastics, ceramics, and biologics used in cardiology, neurology, oncology, and minimally invasive surgical applications. Through advanced process control, monitoring, and decades of applications experience, AMADA WELD TECH helps manufacturers improve consistency, traceability, and yield—advancing the creation of safer, more reliable medical technologies worldwide.

Aerospace

Aerospace manufacturing demands absolute precision, reliability, and traceability across every component from sensors and hybrid packages to propulsion units and flight control systems. AMADA WELD TECH provides advanced welding, sealing and marking solutions that meet the stringent quality and regulatory standards of the aerospace industry.



Our systems are used worldwide in the production of aircraft, spacecraft, and defense components where performance and safety are critical. Through our fine process control, monitoring, and decades of experience in high-reliability applications, we help manufacturers achieve consistent quality, reduce rework, and maintain compliance.

Digital Infrastructure

Digital infrastructure encompasses the essential physical components that enable the storage, processing, transmission, and exchange of data worldwide. It serves as the foundation for modern business operations, digital services, and the broader digital economy. This includes high-speed cabling, high definition hard drives for data storage, cooling manifolds and valves, backup energy storage, and much more.



AMADA WELD TECH services this industry by supplying a range of equipment and systems for these microwelding applications.

Motors & Coils • Photonics • Semiconductors • Sensors • Solar • Tools ... and more

Our Philosophy: Define - Design - Deliver

Developing a unique solution geared for advanced manufacturing is complicated. Our approach? Define-Design-Deliver. This methodology helps us design the ideal system to meet your manufacturing needs and budget while maximizing your equipment ROI and meeting your production goals.



Process Assessment

- Determine part usage and success
- Optimize part designs
- Select material

Sample Qualification

- Process sample parts
- Determine optimal production settings



Equipment Specification

- Meets production, quality, and budget criteria
- Product flow
- Customer requirements

Product Assembly

- Engineer oversees project
- Work with customer & technicians



Test and Verification

- Rigorous testing
- System acceptance
- Customer directed

Installation and Support

- Install system and verify functionality
- Train engineers and operators
- Provide continual, ongoing support



Manufacturing Processes at a glance

AMADA WELD TECH provides equipment and systems for a wide range of joining and materials processing solutions. Our manufacturing technologies support applications from fine-wire and micro-component processing to larger, production-scale assemblies across diverse industries.

Resistance Welding

Resistance welding is a process in which heat is generated at the interface of the parts to be joined by passing an electrical current through electrodes and into the parts for a precisely controlled time and under a controlled pressure (force). Very small heat affected zones and very light forces are possible. This process is suitable for metal joining applications from fine wires to sheet metal.

Laser Welding

Laser welding is a non contact, single sided process suitable for welding a wide range of joint geometries and materials. Advantages include low heat input, tailored weld dimensions, and high speeds. AMADA WELD TECH offers lasers capable of welding foils as thin as 10 microns up to 0.25" thick metal parts. Lasers offer a highly flexible heating source that can be precisely controlled and easily adapted to many different system integration motion platforms and manufacturing environments.

Laser Marking

Laser marking is achieved when focused light from a laser interacts with a material to produce a high quality permanent mark. AMADA WELD TECH's laser markers are capable of marking alphanumeric characters, bar-codes, 2D matrix codes, serial numbers, logos and graphics on a variety of materials including metals, semiconductors, plastics, ceramics and other more.

Laser Cutting

Lasers are well suited to precision cutting, producing a narrow kerf with high edge quality and dimensional accuracy. Because they provide a non-contact manufacturing solution, they are able to process mechanically delicate parts. A variety of laser sources, including Yb: fiber and ultra fast technology, can be used according to the application. Each offers a unique processing capability. Femtosecond lasers can cut both metals and plastics with virtually no heat input into the part and provide burr free cuts even in materials like nitinol. With focused spot sizes down to 10 microns, laser cutting provides the ultimate precision cutting technology.

Laser Micromachining

Laser micromachining is a precision non-contact process that uses a laser beam to remove small layers of material – often only microns (tenths of a thousandth of an inch) thick – from a sample surface. Laser micromachining can be applied to a broad range of applications such as precision milling and selective ablation, wire stripping, drilling, surface texturing, and marking.

Hermetic Sealing

Hermetic sealing, a process closely associated with microelectronic packaging, is a specialized resistance or laser welding technique performed in a controlled, dry environment. It encapsulates and protects moisture-sensitive devices within a leak-tight enclosure, preventing the escape of dry process gases and blocking the entry of ambient moisture or contaminants that could compromise performance.

Micro TIG Welding

Micro TIG (tungsten inert gas) welding, also known as gas tungsten arc welding (GTAW), is an arc welding process that utilizes a constant current welding power supply to generate an electric arc between the tungsten electrode and the workpiece, using the resultant heat to create the weld. Micro TIG welding is a non-contact process and produces high quality welds with minimal heat affected zone. Micro TIG welding is suitable for welding both conductive and dissimilar metals and is perfect for welding small components.

Systems

AMADA WELD TECH's broad range of technologies, products, and systems makes it possible for us to provide complete solutions for both simple and complex manufacturing challenges. The path to solving even your most difficult materials processing needs begins with our technical sales experts. Working with our applications engineers, our broad, experienced team offers insightful feedback on process feasibility and part design to maximize production reliability. Application/sample qualification in our labs helps you determine the best choice of equipment for a robust, production-ready process. If a system is needed, our team of system engineers with expertise in motion, tooling, vision and software deliver smart and innovative solutions tailored to functional requirements and budget.



Resistance Welding

AMADA WELD TECH offers a full range of resistance welding equipment including power supplies, weld heads, and weld quality monitors and checkers.

TYPICAL APPLICATIONS



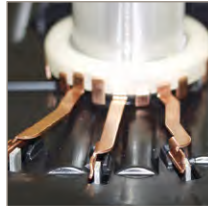
*Spot welding
pacemaker*



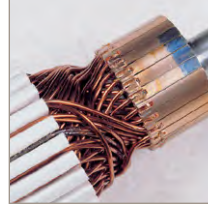
*Resistance welding
JBox connections*



Battery tab welding



*Projection welding
radiator connector*



*Resistance welding
motor tangs*



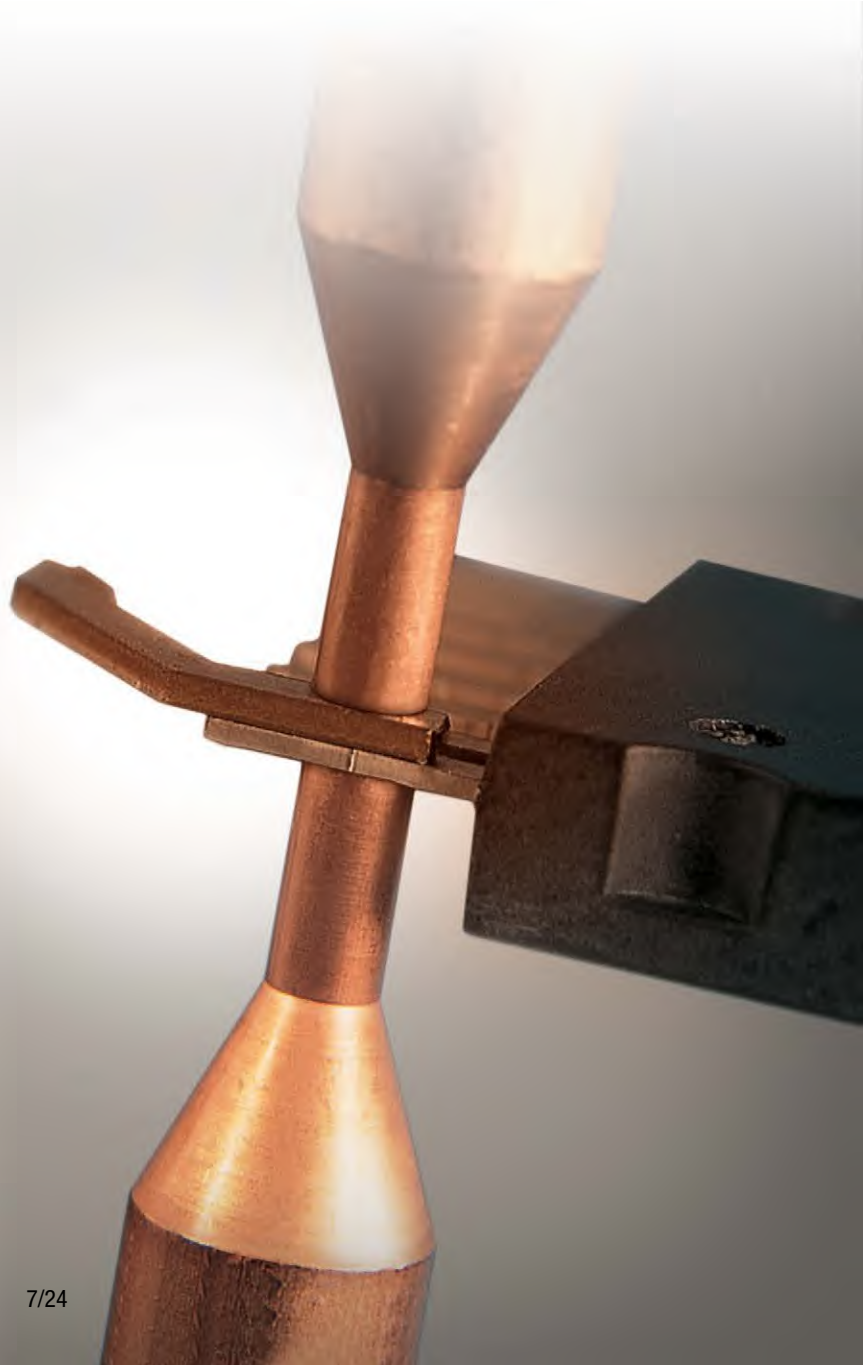
*Stranded wire crimping
and compacting*

TECHNOLOGIES

- High frequency DC power supplies
- Mid frequency DC power supplies
- Linear DC power supplies
- Capacitive discharge (CD) power supplies
- Alternating current (AC) power supplies
- Motorized electromagnetic weld heads
- Motorized servo weld heads
- Pneumatic weld heads
- Manual weld heads
- Resistance weld process monitors
- Systems

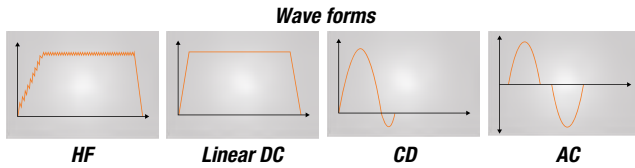
CAPABILITY

- Weld most metals
- Thermocompression bonding
- Spot welding
- Seam welding
- Wire compacting
- Hot crimping



Spot Welding Power Supplies

- Closed-loop and open loop models
- Technologies offered: high frequency inverter, linear DC, capacitive discharge (CD), AC and AC inverter
- 5 - 80,000 amps output power



UB-1500B Linear DC Welder

IS-800CA Mid-Frequency Inverter

Weld Quality Monitors & Checkers

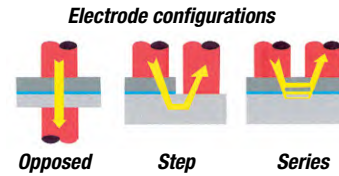
- Handheld and desktop units
- Measure current, voltage, time and displacement
- Gather and store data
- IIoT ready



Weld Monitors & Checkers

Weld Heads

- Electronic, pneumatic or manual actuation
- Single operator benchtop operation, or integrated for automation
- 0.39 - 1800 lb force

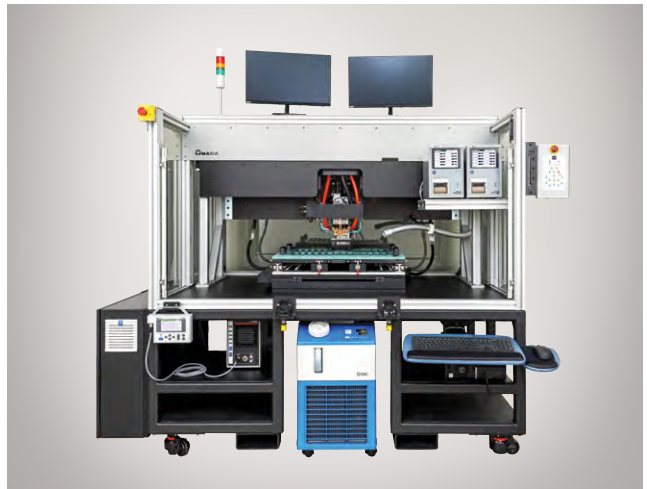


TL-080B-EZ Weld Head

SL-320A Low Force Electronic Weld Head

Resistance Welding Systems

- Standard and custom systems
- Integrated PLC to control operation of electronics, motion, power supply, gas, and other peripherals.



Resistance Welding System

Micro TIG Welding

AMADA WELD TECH offers precision arc welding power supplies and accessories for welding a range of metals. This fusion welding process is an excellent method to weld copper and also excels in welding dissimilar materials.

TYPICAL APPLICATIONS



Prongs



Bus bars



Electric motor hairpin repair



Magnet wire



Motor coil

EQUIPMENT SOLUTIONS

- Power supplies
- Torches

CAPABILITY

- Weld conductive metals - up to 5 mm x 5 mm area
- Weld dissimilar metals
- Bus bar welding
- Coil and terminal welding
- Coated wire welding
- Thin magnet wires

Micro TIG Welding Power Supplies

- 5 to 50 A or 30-300 A output power
- “Pulsation” feature significantly reduces porosity
- “Touch start” controls and identifies weld location
- Digital programming interface for easy control of pulse form
- Multiple weld schedules can be stored and recalled
- Integration into production lines



MAWA-300B Pulsed Micro TIG welder

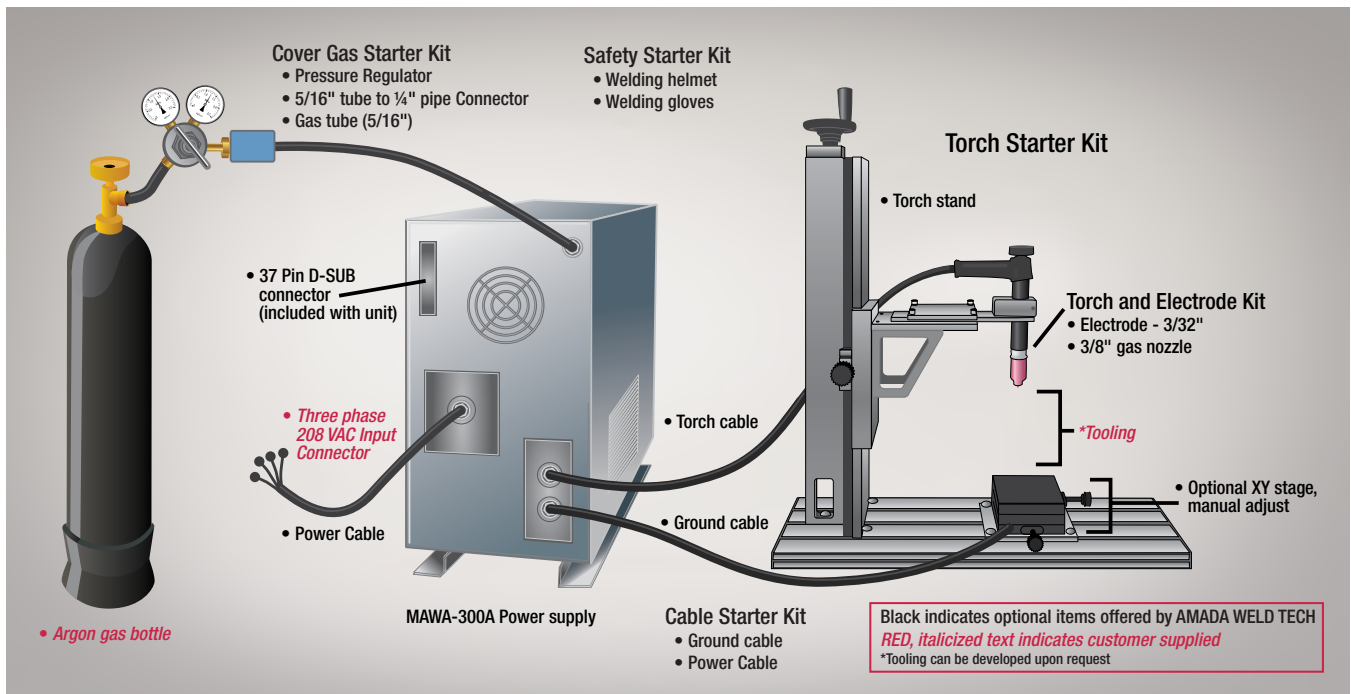
Torches & Accessories

- Torches and automated and manual torchstands
- Lanthanated tungsten electrodes
- Various diameter gas nozzles for coverage optimization
- Cables - power and torch cables
- Safety equipment



Welding torch and stand

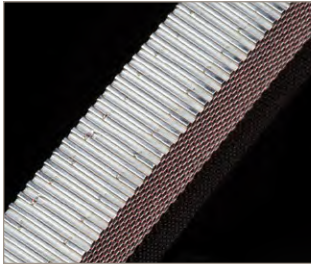
Generic Setup



Laser Welding

Lasers produce a beam of high-intensity light which, when focused into a single spot, provides a concentrated heat source, allowing narrow, deep welds and fast welding speeds.

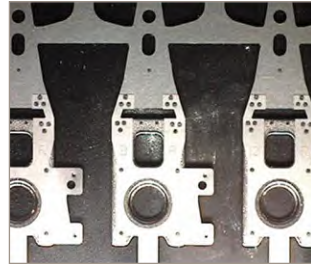
TYPICAL APPLICATIONS



Laser welding aerospace honeycomb



Laser seam welding high-pressure gas cartridge



Laser spot welding disk drive arms



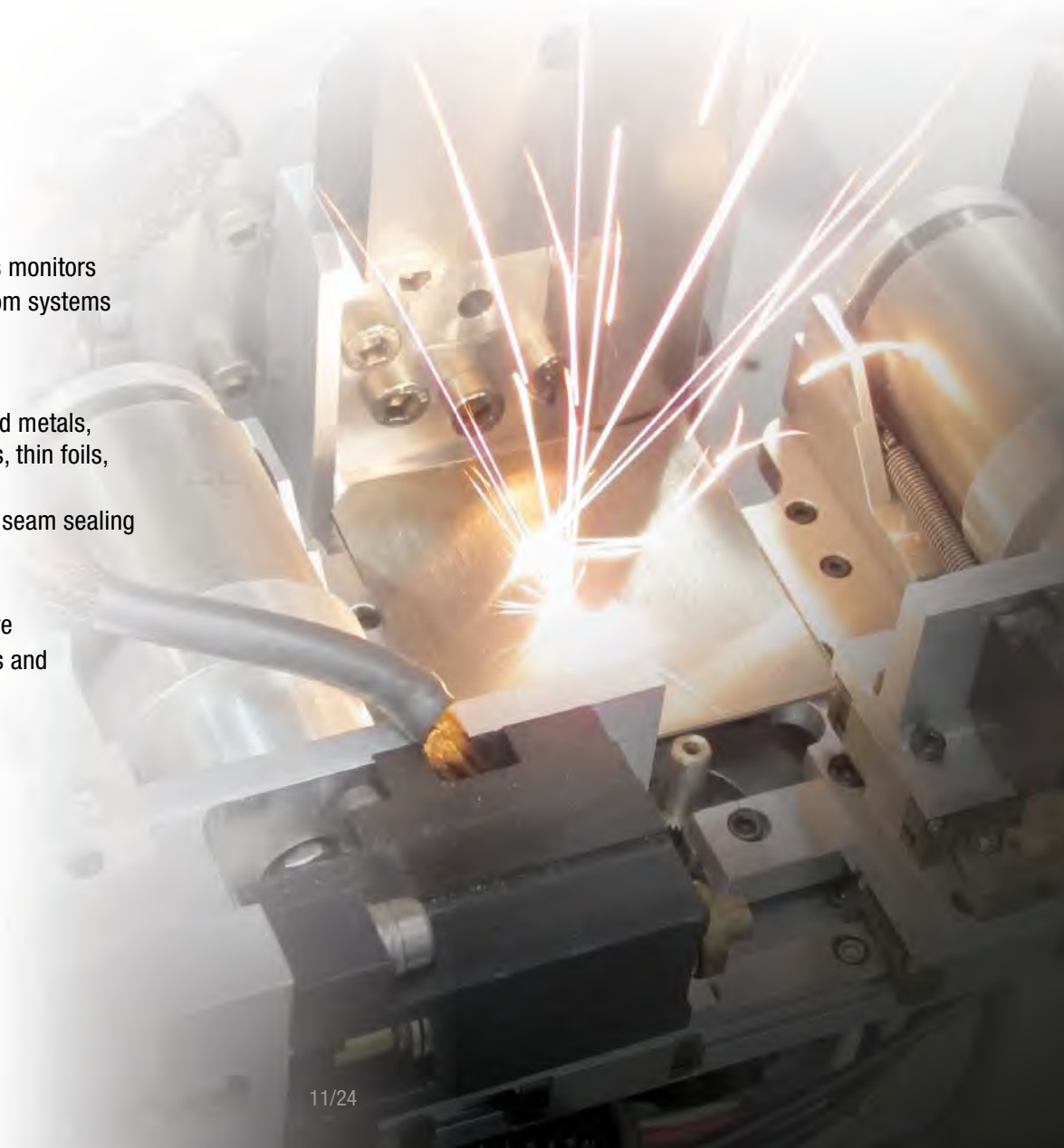
Welding of dissimilar materials for battery packs

TECHNOLOGIES

- Fiber lasers
- Nd:YAG lasers
- Blue diode lasers
- Laser weld process monitors
- Standard and custom systems

CAPABILITY

- Spot and seam weld metals, dissimilar materials, thin foils, and some plastics
- Implantable device seam sealing
- Tool assembly
- Catheter assembly
- Battery manufacture
- Automotive sensors and assemblies



Laser Welders

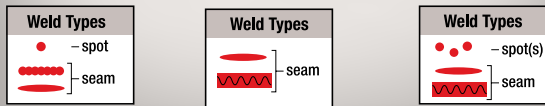
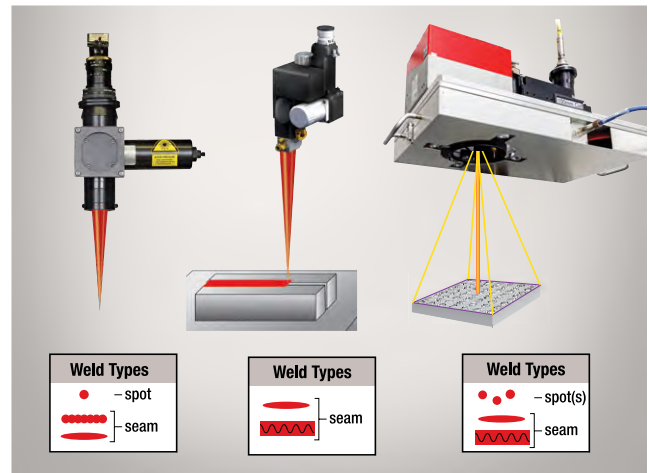
- Yb: fiber, Nd:YAG and Blue Diode technologies
- 450 nm (blue), 532 nm (green), 1064 nm and 1070 nm operating wavelengths
- 0.25 W - 3 kW output energy power
- Real time power feedback
- Pulse shaping
- Ramp up and ramp down
- Energy and time share options
- Blue diode technology



Fiber Laser Welder Nd:YAG Laser Welder Laser Weld Monitor

Optics

- Range of focus heads to adapt spot size to meet application demand
- Collimators
- Focusing optics: CCTV, straight and inline configurations, wobble heads, and galvo scanning heads
- Fiber beam delivery (pulsed Nd:YAG) for flexible equipment positioning
- In-line camera systems with cross hair generators



Fixed head Wobble/weave Galvo scanning

Laser Welding Systems

- Standard and custom systems to meet production requirements
- CDRH class 1 eyesafe enclosures
- Position based firing in up to 5 axes of motion
- High-precision quick change tooling optional
- Integrated vision optional
- Optional real-time laser weld monitoring to inspect the weld and ensure quality, throughput and traceability



Delta Series Laser Processing Workstations WL-300A Precision Laser Welding Workstation Laser Welding Glovebox Systems

Laser Marking

Laser marking is achieved when focused light from a laser interacts with a material to produce a high quality permanent mark. A non-contact process, it has no consumables, making it clean and energy-efficient.

TYPICAL APPLICATIONS



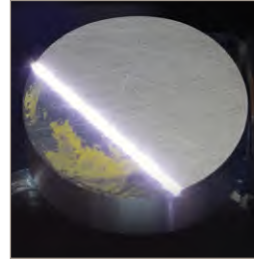
Laser marking on glass filled plastic



Wire stripping



Laser engraving on tool steel



Ablation laser cleaning



Black marking

EQUIPMENT SOLUTIONS

- Pulsed fiber markers 10-70 W
- Picosecond lasers 50 W
- Standard benchtop, CDRH Class 1 marking workstations
- Custom integrated system solutions including tooling, vision, motion, optics

CAPABILITY

- Laser mark metals, plastics, and ceramics
- Processes: engraving, ablation, annealing, bleaching/foaming
- Advanced processes: cutting or welding of thin metals
- Direct part marking of medical devices
- Black, corrosion resistant marking of stainless steel
- UDI marking to comply with FDA regulations
- Wire stripping
- Surface cleaning
- Surface roughening for increased adhesion

Laser Markers

- Pulsed fiber laser and picosecond laser options
- Single mode and multi-mode options
- Frequency range from 2 - 500 Hz
- 10 - 70 watts power
- Integrated motion controller for up to 4 axes of motion
- Multi-language software support



Fiber Laser Marker

Standard Laser Marking Systems

- Compact design for benchtop operation
- Fast and precise motorized Z-axis
- Easy access to parts and tooling
- Large viewing window
- F-Theta 100 mm, 160 mm, 254 mm, 330 mm and 420 mm lens options
- Integrated with AMADA WELD TECH's industrially proven LM-F Fiber Laser Markers (10 - 70 W)
- Optional rotary



WL-P100A (Laser Processing Workstation) WL-P300A (Standard System)

Custom Laser Marking Systems

- Fully integrated standard and custom systems
- Simple, intuitive software
- Motion and vision options
- Laser source selection including fiber and picosecond
- Barcode scanning for job load and mark verification



Conveyor Fed Laser Marking System

High Precision Battery Marking Workstation

Laser Micromachining

Laser micromachining is a precision non-contact process that uses a laser beam to remove small layers of material – often only microns (tenths of a thousandth of an inch) thick – from a sample surface. Laser micromachining can be applied to a broad range of applications such as precision milling and selective ablation, wire stripping, drilling, surface texturing, and marking.

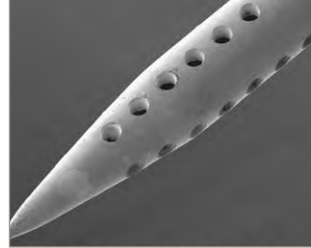
TYPICAL APPLICATIONS



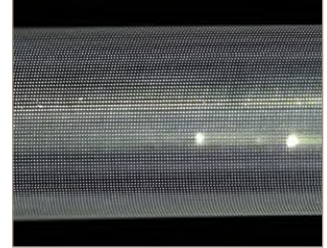
Hole drilling in ceramic microfluidics



Polymer selective ablation



Hole drilling in stainless steel cannula



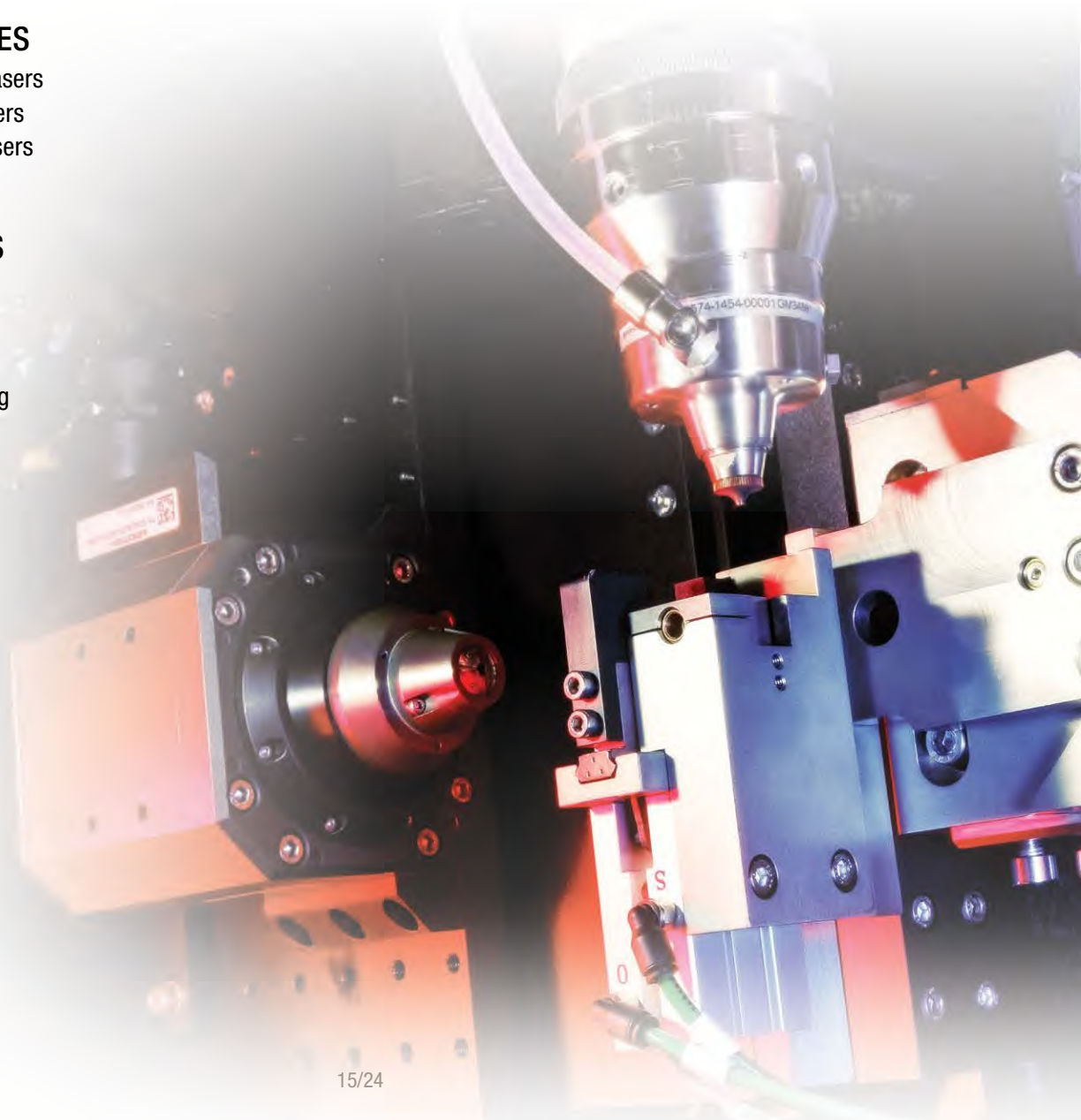
Surface texturing metals, polymers, and ceramics

TECHNOLOGIES

- Femtosecond lasers
- Picosecond lasers
- Nanosecond lasers
- Fiber lasers

CAPABILITIES

- Micro cutting
- Micro drilling
- Micro milling
- Micro patterning
- Micro scribing
- Ablation
- Wire stripping



Laser Micromachining Subsystem

- Femtosecond IR, green and UV wavelength options
- Air or water-cooled
- Up to 120 W output power
- Easy-access utilities panel
- Galvanometer scan head with multiple lens options
- Optional fixed-optic focus head
- On-axis and off-axis vision options
- Optional motorized Z-axis for focal point adjustment
- Multiple form factor options for flexible integration



Sigma LS Laser Micromachining Subsystem

Laser Micromachining Systems

- Femtosecond, picosecond, nanosecond and fiber lasers
- IR, green, and UV wavelength options
- High-precision motion stages and control systems
- Standard and custom systems to meet high-volume production requirements
- CDRH class 1 eye-safe enclosures
- R&D-ready systems for prototyping programs
- Advanced automation capabilities for part load and unload



Standard Micromachining System



Custom Automation-Ready Micromachining System

Laser Cutting

Manufacturers are continually looking for more reliable, faster and more cost effective manufacturing solutions to stay competitive in the global marketplace. One area where this need is especially prevalent is fine cutting or precision cutting of metal and polymer tubes for medical, electronics and industrial applications. Laser tube cutting systems provide the perfect blend of high-precision, flexible, and repeatable cutting capabilities.

TYPICAL APPLICATIONS



Cannula tubing



Flexible tubing



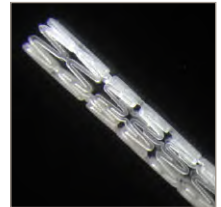
Medical tool



Hypodermic needle



Stents



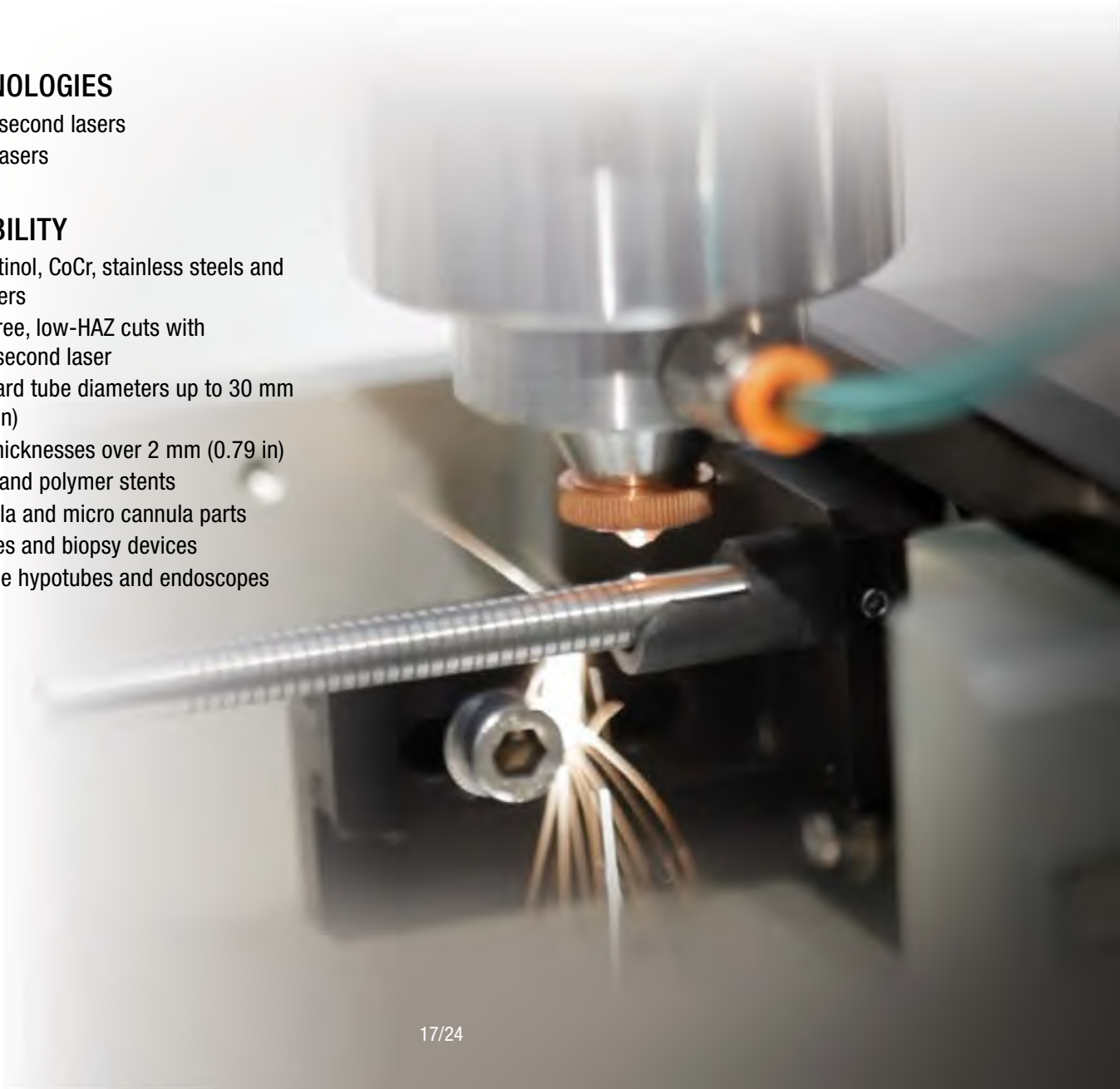
Polymer stent

TECHNOLOGIES

- Femtosecond lasers
- Fiber lasers

CAPABILITY

- Cut Nitinol, CoCr, stainless steels and polymers
- Burr-free, low-HAZ cuts with femtosecond laser
- Standard tube diameters up to 30 mm (1.18 in)
- Wall thicknesses over 2 mm (0.79 in)
- Metal and polymer stents
- Cannula and micro cannula parts
- Needles and biopsy devices
- Flexible hypotubes and endoscopes



SIGMA Laser Stent and Tube Cutters

- Compact footprint to minimize floor space
- 4-axis precision motion system
- System design focused on vibration isolation
- Proprietary-designed software and GUI
- Standard tube diameters up to 30 mm (1.18 in)
- Dry and wet cutting options
- Automated tube loading option for long tube stock
- Robot and machine vision integration options for precision load and unload
- Standard and custom part collection and off-loading options
- Quick-install flat cutting option
- Designed with high-quality components to be low-maintenance and reliable

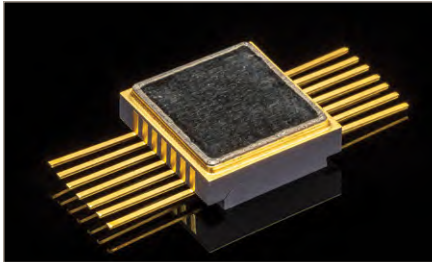


SIGMA® Laser Stent and Tube Cutter

Hermetic Sealing

Hermetic sealing is the process of encapsulating an electronic device in a metal can or ceramic package to protect it against ambient atmosphere. This can be achieved with either a resistance or laser seam welder integrated into a glovebox (atmospheric enclosure). The base of the package is placed in a fixture and the lid is positioned onto it either manually or automatically utilizing an integrated, vision assisted pick and place system. Once in place, the weld joint can be made by delivering overlapping weld spots along the perimeter of the lid resulting in a hermetic seam welded joint.

TYPICAL APPLICATIONS



5G communication devices



TOSA/ROSA devices



Round TO packages

EQUIPMENT SOLUTIONS

- Seam sealing systems
- Lid placement and tacking systems
- Projection welding systems
- Gloveboxes
- AMADA WELD TECH resistance welding power supply
- Standard and custom engineered system solutions including tooling, vision, motion

CAPABILITY

- Weld Kovar, stainless steel, mild steel and more
- Parallel seam sealing
- Lid handling, placement, alignment and welding
- Controlled atmosphere welding
- Transistor outline (TO) packages
- Rectangular hybrid modules
- Gas and pressure sensors
- RF and photonic devices



Parallel Seam Sealers

- Manual load or automated lid placement models
- Programmable electrode force
- Constant current control
- Vision
- Integrated with AMADA WELD TECH welding power supplies



SM-8500A Parallel Seam Sealing System

AF-8500A Lid Placement, Tack and Seam Sealing System

Projection Welders

- Available in 1000, 3000, 6000, 9000 and 12000 Joule models
- AMADA WELD TECH capacitor discharge power supplies
- Full control over output power and force
- Robust dual post welding head
- No tool / quick change electrodes



KN-200A Projection Weld Head

Gloveboxes

- Standard and custom systems
- Designed for integrated seam sealing, projection welding, laser or stand-alone use
- Vacuum / backfill bakeout ovens and antechambers
- Secure inter-locking doors
- Programmable logic controlled ovens and antechambers
- Single and dual gas column purification systems
- Manual or computerized operation
- Integrated process gas analyzers for moisture, helium and oxygen



Alpha Series Glovebox

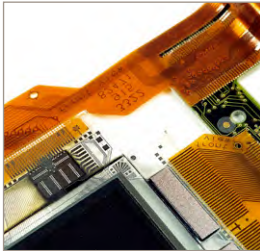
MX2000 Modular Glovebox

AX5000 Advanced Glovebox

Hot Bar Reflow Soldering & Bonding

Hot bar technology is used to transfer heat into a dedicated area in order to create an electro-mechanical interconnection between one or more materials. Depending on material specifications, design of parts and required functionality of the end product, different hot bar processes can be used.

TYPICAL APPLICATIONS



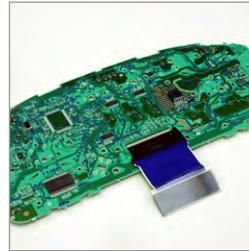
ACF heat seal bonding flex circuits to PCB and LCD flat panel



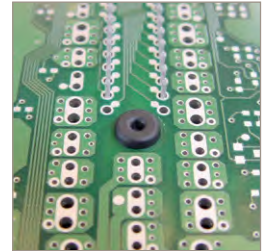
Solder reflow bonding battery tab to PCB



Solder reflow bonding LCD display flex circuit to PCB



ACF heat seal bonding LCD flex circuits to automotive dashboard PCB



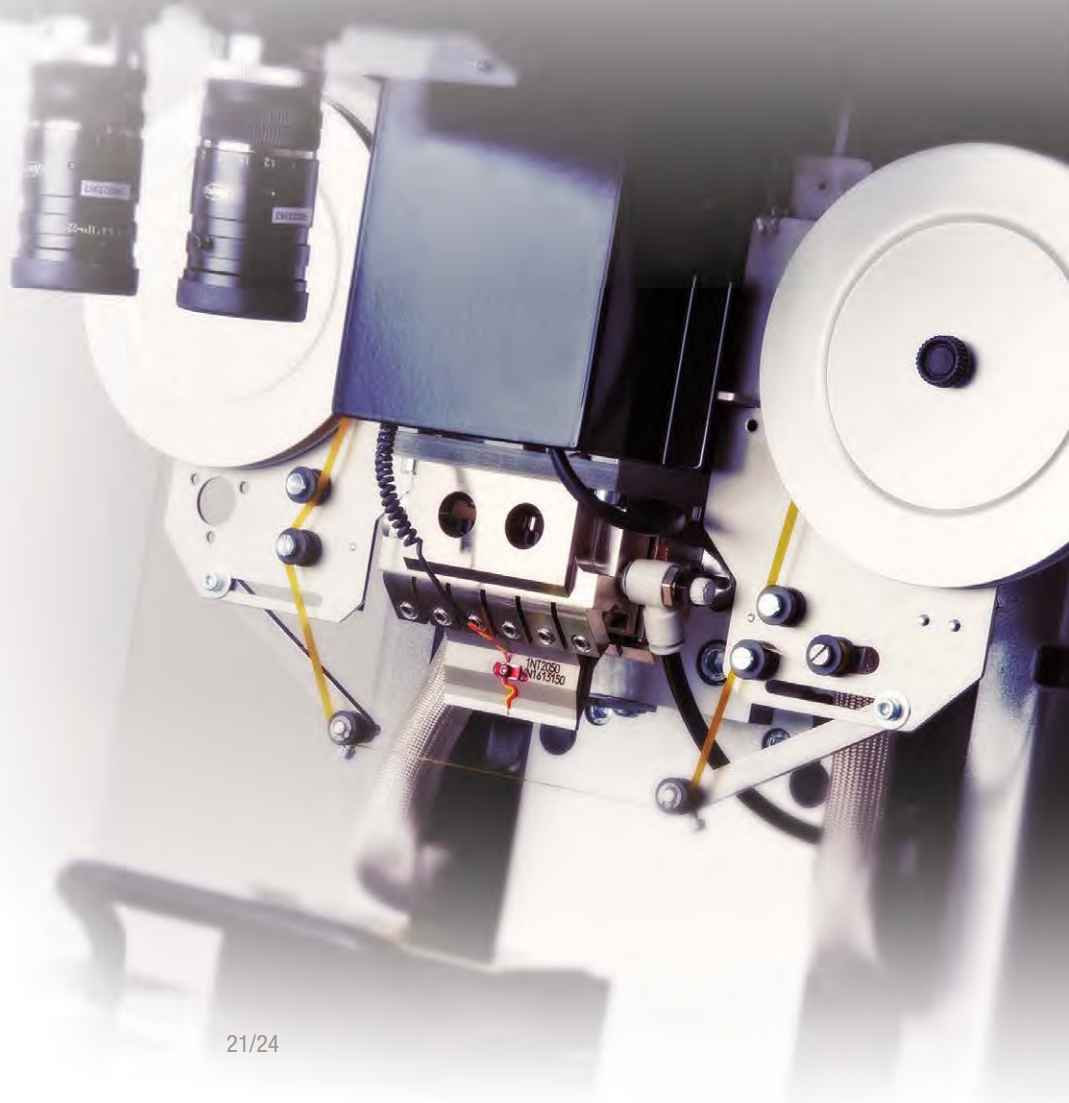
Heat staking PCB into plastic housing

EQUIPMENT SOLUTIONS

- Pulsed heat reflow soldering power supplies
- Bonding heads for benchtop use or automation
- Thermodes
- Standard and custom engineered system solutions including tooling, vision, motion, optics

CAPABILITY

- Hot bar reflow soldering
- ACF bonding
- Heat staking
- Flat panel to LCD
- Flex to flex
- Battery tab to PCB
- Flat panel to PCB
- Flex to glass
- Flex to PCB
- Heat staking plastic



Pulsed Heat Reflow Soldering Power Supplies

- Hot bar reflow soldering, bonding, and heat staking
- Closed loop temperature and time control
- Remote programming
- Simple but comprehensive user interface
- Store 63 heating profiles
- Available with built-in or remote transformer



UF-4000A Pulse Heated Reflow Soldering Power Supply

UF-R4000A Remote Pulse Heated Reflow Soldering Power Supply

Reflow Soldering & Bonding Heads

- Benchtop or automation modules
- 1.8 - 281 lb force
- Adjustable force firing
- Air cooled
- Planarity adjustment
- Force and displacement sensors



THIN-LINE® TL-087B-EZ Mid Force Pneumatic Reflow Soldering Head

Bonding Head Module for Integration

Thermoplane Thermodes

Hot Bar Reflow Soldering Systems

- Standard, custom manual and automated systems for hot bar reflow soldering, ACF laminating and final bonding, heat staking, and LCD repair
- Robust construction

- Linear or rotary motion
- Manual or pneumatic bonding head actuation
- X-Y coplanarity adjustment



newhorizon Heat Staking System

newhorizon Hot Bar Systems for ACF or solder reflow applications

Jupiter Hot Bar Bespoke Bonding Systems

Custom Systems

Some products and processes are so specific that a system needs be designed and customized to meet the outlined manufacturing requirements. Our engineers work with customers to come up with the perfect system solution, taking into consideration things like materials, part accessibility, throughput, quality, operator safety and more.

Almost every integrated system is unique in one way or another, but using standard components as building blocks, and leaning on years of experience ensures that the system is built to specifications and has robust components for high up-time - and the engineering teams at AMADA WELD TECH love the challenge! We build custom systems for resistance welding, hot bar reflow soldering, laser welding, laser micromachining, and more.

The image shows a large industrial machine, likely a laser welding or micromachining system, with a control panel on the left and a robotic arm on the right. The machine is labeled 'AMADA' and 'MIYACHI SIGMA SERIES'. Red dots on the machine indicate the locations of various components and callouts.

- Process Monitoring**
 - Resistance welding
 - Laser welding
 - Micro TIG welding
 - Hot bar reflow soldering
- Material Handling /Automation**
 - Robotic arms
 - Conveyors for part delivery
 - Rotary tables
 - Automatic tube loaders
 - Custom tools and fixtures
 - Multi-axis motion stages
 - Pinch rollers
- Laser Beam Delivery**
 - Fixed beam
 - 2D galvo scanning
 - Wobble/weave heads
- Integrator Packages**
 - Laser micromachining
 - Laser welding
 - Laser marking
 - Resistance welding
- Standard Systems**
 - Laser welding
 - Resistance welding
 - Laser stent & tube cutting
 - Gloveboxes
 - Hermetic sealing
 - Hot bar reflow soldering & bonding
 - Laser marking
- System Options**
 - Motion
 - Viewing systems
 - Vision systems
 - Lighting
 - Custom software
 - Cover gas
 - Debris management
- Safety Enclosures**
 - Standard
 - Custom
 - Gloveboxes

Our Resources, Your Success

Understanding the product and the process - ensuring success! Not sure your application is feasible? Want to know which technology is best suited to your process? Does your existing process require some modification or re-optimization? Our experienced team of Application Engineers are ready to provide assistance!

Technical Centers

- Western Technical Center
- Monrovia, CA
- Midwest Technical Center
- Wixom, MI
- Eastern Technical Center
- High Point, NC

- **Range of Beam Delivery Options** - Fixed, 2D and 3D galvo-scanning, wobble head, trepanning head, multi-axis taper-free cutting head
- **Range of Resistance Welding Power Supplies** - Linear DC, High Frequency, Cap Discharge, and AC Resistance Spot Welding Controls (5 A – 80,000 A)
- **4 and 5 Axis Laser Welding and Laser Micromachining Workstations**
- **Gloveboxes for Processing in an Inert Atmosphere**

Experienced Application and Process Engineers

- 12 full-time application engineers and technicians

Dedicated Development Resources

- **Core Technologies** - Laser welding, resistance welding, laser marking, laser micromachining, laser tube cutting, micro TIG welding, reflow soldering, hermetic seam sealing
- **Facilities** - 10 state-of-the-art application labs for all core technologies
- **Range of Lasers** - CW, QCW and dual beam fiber lasers, diode-pumped solid-state (DPSS) lasers, Nd:YAG lasers, picosecond lasers and femtosecond lasers



Western Technical Center



USA Headquarters and Western Technical Center

AMADA WELD TECH
1820 S. Myrtle Ave. • Monrovia, CA 91016 US • T: (626) 303-5676
info@amadaweldtech.com • www.amadaweldtech.com
ISO 9001:2015 Certified Company • 24/7 Repair Service: 1-866-751-7378

AMERICAS

AMADA WELD TECH
(Eastern Technical Center)
High Point, North Carolina
T: (941) 544-5762
southsales@amadaweldtech.com

AMADA WELD TECH
(Midwest Technical Center)
Detroit, Michigan
T: (248) 313-3078
midwestsales@amadaweldtech.com

AMADA WELD TECH SHANGHAI CO., LTD.
Shanghai, China
T: +86-21-6448-6000
jwu@amadaweldtech.com.cn

AMADA WELD TECH KOREA CO., LTD.
Seoul, Korea
T: +82-31-8015-6810
sales@amadaweldtech.co.kr
sales2@amadaweldtech.co.kr

AMADA WELD TECH TAIWAN CO., LTD.
Taipei, Taiwan
T: +886-3-328-3511

AMADA (THAILAND) CO., LTD.
Bangkok, Thailand
T: +66-2170-5900
info@amada.co.th

AMADA VIETNAM CO., LTD.
Ha Noi, Vietnam
T: +84-24-6261-4583
thuyet@amada.co.jp

AMADA WELD TECH INDIA PVT., LTD.
Bangalore, India
T: +91-80-4092-1749
info@amadaweldtech.in

Specifications subject to change without notice. Copyright© 2026 AMADA WELD TECH INC. The material contained herein cannot be reproduced or used in any other way without the express written permission of AMADA WELD TECH INC. All rights reserved.



follow us on: