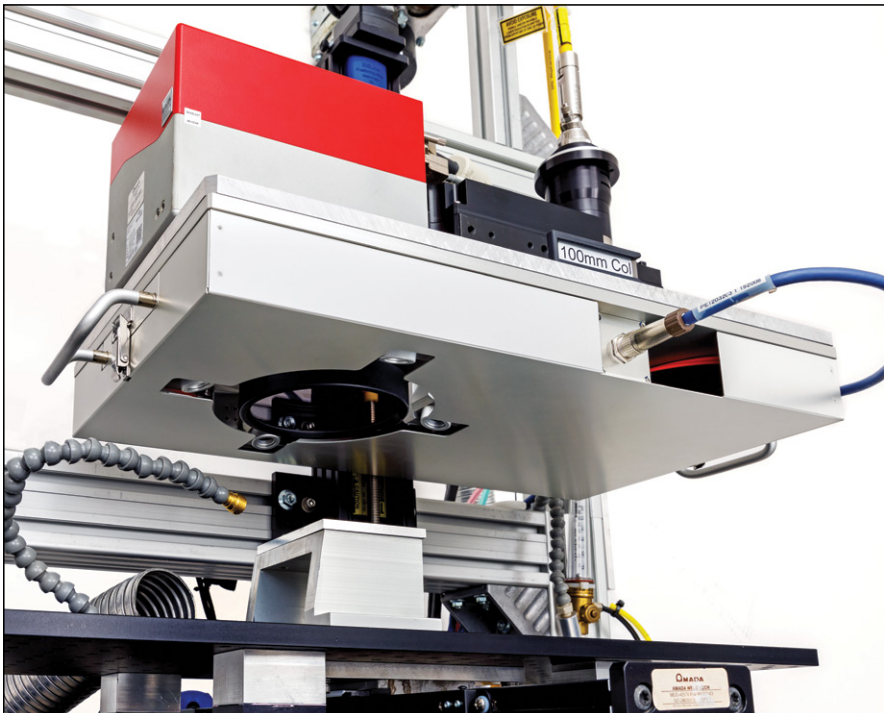


Galvo Scanning Solutions for Laser Welding



Galvo scan heads are used in a variety of laser welding applications to facilitate quick and accurate point-to-point positioning. They are an ideal solution for extending the traditional motion of XY tables or robotics.

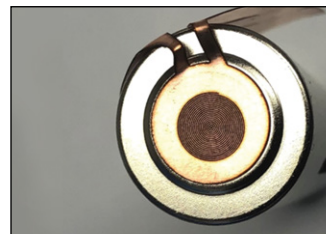
Scan heads are especially suited to high volume manufacturing, where they can shave seconds off cycle times on parts with multiple weld locations by minimizing point-to-point positioning times; a typical 1-inch move will take just a few milliseconds to advance, settle and be ready for welding.

AMADA WELD TECH has extensive experience integrating galvo scan heads into laser welding systems.

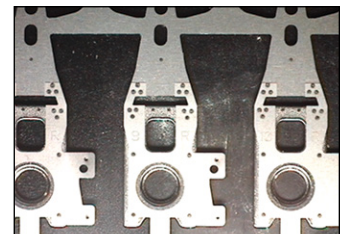
FEATURES

- Advanced, intuitive software dedicated to welding
- Configurable pattern to adjust for part geometry and enhance weld performance
- Integrated safety shutter to ensure safe work environment for operators
- Robust solutions designed to work with lasers up to 3 kW (higher power available upon request)
- Field sizes up to 100 mm x 100 mm
- Integrate with motion for:
 - Welding at different heights (2.5D welding), the Z-axis can be programmed to handle the part height difference
 - Add wobble on top of linear motion for accommodation of tolerances in fit up for seam welds
 - Step and repeat welds

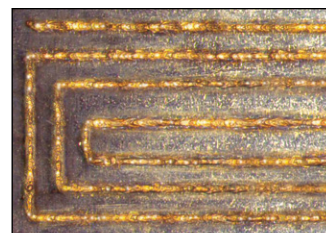
TYPICAL APPLICATION PATTERNS



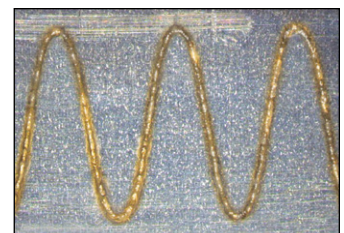
Spiral welding



Multi-point welding

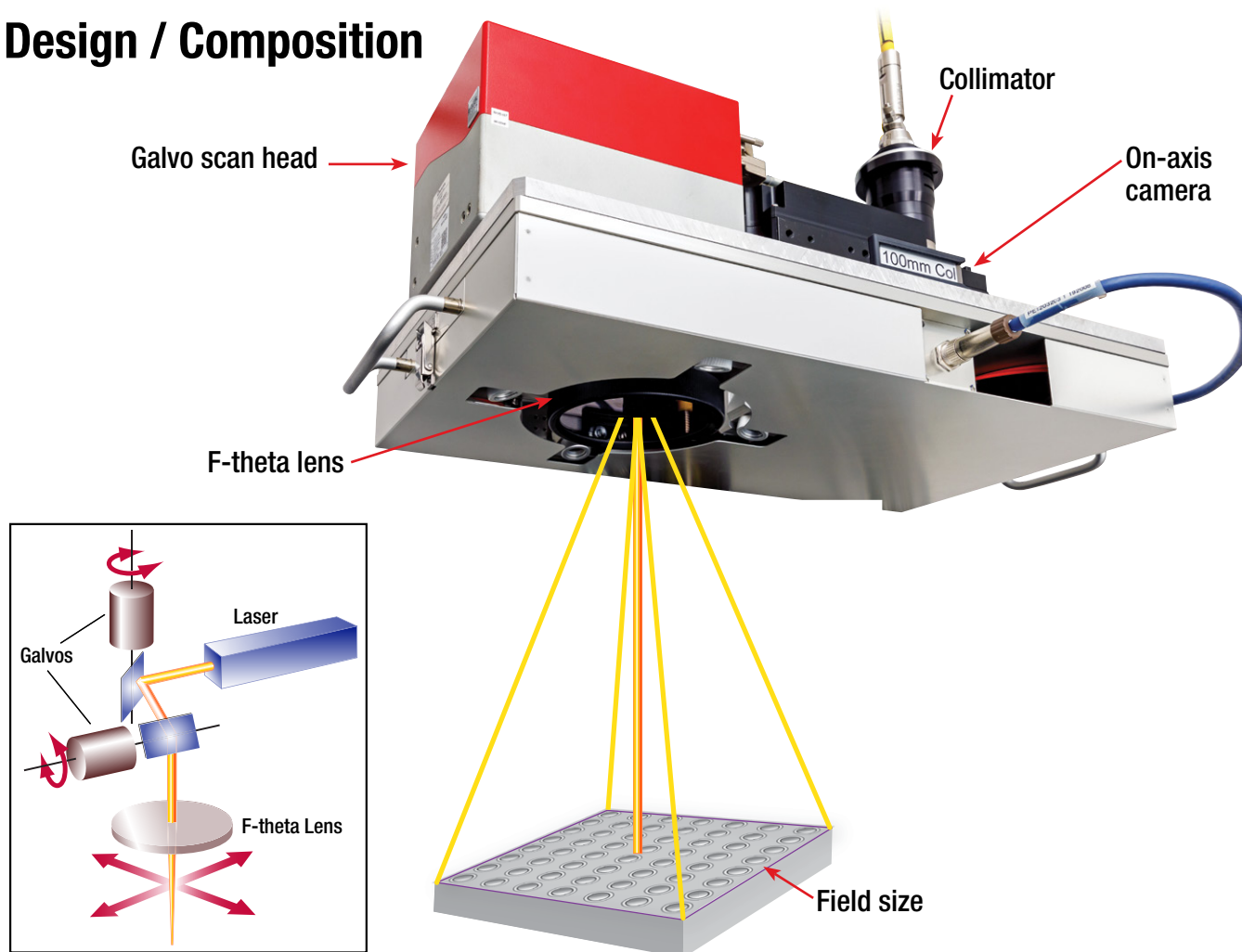


Square spiral



Sinusoidal curves

Design / Composition



OPTIONS	
F-theta Lens	<ul style="list-style-type: none"> • Select for appropriate field size and spot size • Typically telecentric and composed of fused silica • Field sizes – 60 mm x 60 mm, 100 mm x 100 mm
Air Knife	High pressure air nozzle keeps debris and soot off the lens cover.
Vision / Lighting	CMOS camera system looking on-axis through the lens. Lighting added to help see the parts. Optional machine vision features can be added.
Process Monitoring	Monitor the laser welding process in real time, with sampling rate down to 1 microsecond. Data can be stored in a database and further analyzed into SPC, OEE, equipment health, or AI/ML programs.
Autofocus	For parts that have height variation, a displacement sensor can measure the distance and move the head to the appropriate working distance.
Mounting	Gantry, robot

Note: Galvo scanning head is used with class 4 laser. Integration of the head (and laser) needs to follow safety protocols. Guide beams or pilot lasers are class 2 or 3 lasers and must also be addressed when following safety protocols.



AMADA WELD TECH INC.

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
(Mexico Office)
El Paso, Texas
T: (915) 881-8765
mxsales@amadaweldtech.com

EUROPE
AMADA WELD TECH
GmbH
Munich, Germany
T: +49-89-839403-0
infoe@amadaweldtech.eu

USA

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

ASIA

AMADA WELD TECH CO., LTD.
Isehara, Japan
T: +81-463-96-1111
sales@miyachi.com

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

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

AMADA WELD TECH
TAIWAN CO., LTD.
Taipei, Taiwan
T: +886-2-2585-0161



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

AMADA VIETNAM CO., LTD.
Ha Noi, Vietnam
T: +84-4-6261-4583

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

Specifications subject to change without notice. Copyright© 2023 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:



03/23