DENALIWELD

DENALIWELD INC

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www.denaliweld.com

20+

Years of combined welder experience on our engineering team

150+

U.S. cities served through our dealer network

2000+

Machines shipped annually (100 % duty cycle certified)

120+

Preset welding parameters, AWS & EN-ISO validated

Made by Welders, for Welders

Operator-centric laser welding machines engineered and assembled in Illinois, USA

ABOUT US

DenaliWeld INC, is a proud employee-owned fiber laser welding machine manufacturer based in Chicago, USA. The company is bolstered by the most experienced engineers and design personnel in the laser industry with multiple innovative patents for our superior laser welding machines. All DenaliWeld machines are designed in Chicago and manufactured in Chicago factory. All laser welding machines have CE and SGS certifications.

Cooperative Partner

PRODUCTS

JET SERIES

Welds up to 3/8" Stainless Steel (SS) and Aluminum (AL)
100% Duty Cycle for Continuous Operation

WATER SERIES

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JET EZ

Ultra-portable and Budget-friendly
Ideal for On-the-Go Jobs or Entry-Level Applications

COBOT WELDING

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JET MOPA

Non-damaging to Base Materials
Effective on Metal, Wood, Ceramics, and Most Other Surfaces

LASER SAFETY

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Air Cooled Fiber Laser Welding Machine

Introducing the Jet Series Portable Laser Welders – engineered with precision and innovation. Our patented CUAL mosaic laser source ensures reliable continuous operation in extreme environments, ranging from -10°C to 40°C (14°F to 104°F).

- **Compact & Lightweight:** Weighing only 90 pounds, the Jet Series is the smallest and lightest portable laser welder available.
- **Modular Design:** Easy maintenance and repair with a user-friendly modular structure.
- **Versatile Functionality:** Three-in-one capabilities include Welding, Cleaning, and Seam Cleaning.
- **Seam Tracking (Optional):** Enhance precision with an optional seam tracking system.
- **User-Friendly Operation:** All parameters are pre-set for effortless, one-click operation.
- **Data Tracking:** Integrated welding data acquisition system for monitoring operations and calculating costs.
- **Automation Ready:** Seamlessly switch to Cobot/Robot automation with DENALIWELD ROBOX™ at the touch of a button.

Experience the future of portable laser welding with the Jet Series – precision, portability, and power, redefined.

Main Components

DenaliWeld Laser Source

Experience precision and power with the DenaliWeld Laser Source—delivering accurate output and consistently operating at full power.

- **Patented CUAL Mosaic Laser Source:** Ensures continuous, reliable performance across a wide temperature range of -10℃ to 40℃ (14℉ to 104℉), maintaining stability under demanding conditions.
- **Advanced Laser Control System:** Designed in-house by DenaliWeld, this system produces a smooth output curve, enhancing weld quality and delivering superior performance.

Built for accuracy, durability, and efficiency—DenaliWeld sets the standard for high-performance laser technology.

DenaliWeld Welding Control System

- **Intuitive Controls:** All parameters can be quickly adjusted, allowing for seamless operation and faster setup.
- **Flexible Laser Positioning:** Effortlessly adjust the laser positionwithout worrying about laser deviation, ensuring precision every time.
- **Advanced Safety Features:** Built-in safety settingsprovide enhanced protection for both users and observers, ensuring a safer working environment.
- **One-Click Welding:** Select from accurate preset parameters with a simple click to start welding, improving efficiency and reducing setup time.

DenaliWeld Laser Welding Head

Experience versatility and precision with the DenaliWeld 3-in-1 Multifunctional Laser Welding Head, designed to deliver superior performance and ease of use.

- **3-in-1 Multifunctionality:** Combines welding, remote cleaning, and seam cleaningca-pabilities in a single laser head, enhancing efficiency and reducing equipment needs.
- **Intuitive Display with Status Indicators:** Stay informed with a clear, easy-to-read display and indicator lights that provide real-time updates on the machine's operational status.
- **Independent Air-Cooled Design:** Features a dedicated air-cooled channel for stable performance and consistent operation, even under demanding conditions.
- **Optional Emergency stop at will:** An ergonomically designed safety system with a physical safety off button allows for quick and easy start/stop—even while wearing welding gloves—ensuring both convenience and safety.

DenaliWeld Wire Feeder

Designed for precision and ease of use, the DenaliWeld Wire Feeder seamlessly integrates with your welding system to deliver consistent performance.

- **Enhanced Wire Capacity:** The newly designed system supports wire feeding up to 2mm (5/64), accommodating a wider range of welding applications.
- **Double Wire Feeding:** Offers dual-wire feeding capability, increasing efficiency and flexibility for complex welding tasks.
- **Seamless Integration:** Specifically designed to complement the DenaliWeld laser welding machine, ensuring smooth operation and optimal performance.
- **User-Friendly Operation:** Equipped with a physical control buttonfor easy operation, even while wearing welding gloves—ensuring quick adjustments and enhanced convenience.

Technical Parameter

Item	JET1500	JET2000	JET3000
Laser Power	1500W	2000W	3000W
Operating System	3in1 / Cleaning	3in1 / Cleaning	3in1 / Cleaning
Laser Wavelength	1060-1100 nm	1060-1100 nm	1060-1100 nm
Fiber Length	Approx. 10 m (32.8 ft)	Approx. 10 m (32.8 ft)	Approx. 10 m (32.8 ft)
Operating Mode	Continuous/Modulated	Continuous/Modulated	Continuous/Modulated
Oscillation Operation Mode	Spot, Line	Spot, Line	Spot, Line
Positioning	Laser red dot	Laser red dot	Laser red dot
Air Pressure	10-15 L/min (0.35-0.53 ft³/min)	10-15 L/min (0.35-0.53 ft³/min)	10-15 L/min (0.35-0.53 ft³/min)
Voltage	AC220V ±10%	AC220V ±10%	AC380V±10%
Power Consumption	6.5kW	7.7kW	9.2kW
Frequency	50/60 Hz	50/60 Hz	50/60 Hz
Current	29A/10A	35A/14A	14A
Focus Length	150mm (5.91 in)	150mm (5.91 in)	150mm (5.91 in)
Welding Speed	0-80 cm/min (0-31.5 in/min)	0-90 cm/min (0-35.4 in/min)	0-105 cm/min (0-41.3 in/min)
Cooling System	Air cooling		
Laser Protecion Method	security lock + safety button		
Touch Panel	Monitor + PLC		
Wire Feeder	Single/Double Motor Automatic "push" and "pull"		
Wire Thickness (wire feeder)	0.8 mm, 1.0 mm, 1.2 mm, 1.6 mm, 2.0 mm (0.030", 0.035", 0.045", 1/16", 5/64")		
Machine Weight	Approx. 68kg (150 lb)	Approx. 74kg (163 lb)	Approx. 83kg (181 lb)
Machine Measurements	Height 736mm, Width 433mm, Length 883mm	Height 736mm, Width 433mm, Length 883mm	Height 696mm, Width 493mm, Length 936mm
3-in-1 Laser Head Weight		Approx. 900 g (1.98 lb)	
Cleaning Head		Approx. 980 g (2.16 lb)	

WATER SERIES

Water Cooled Fiber Laser Welding Machine

DenaliWeld delivers precision, power, and innovation with our water-cooled fiber laser welding machines. As a proud employee-owned company, we are committed to providing cutting-edge technology and exceptional reliability.

- **High Power Output:** Supports up to 3000Wof continuous laser output, ensuring consistent and efficient performance across a range of applications.
- **Reliable Operation in Extreme Conditions:** Designed for continuous use, with reliable performance in environments ranging from -10°C to 40°C (14°F to 104°F).
- **Modular Chiller System:** Water-cooled with a modular design for easy maintenance and repair, ensuring minimal downtime and optimal cooling.
- **Compact & Lightweight:** Engineered for portability, it is the smallestand lightest machine in its class without compromising power.
- **3-in-1 Versatility:** Combines welding, cleaning, and seam treatment functions in a single machine, providing multi-purpose functionality.
- **User-Friendly Controls:** Pre-set parametersenable one-click operation, reducing setup time and enhancing ease of use.
- **Welding Data Acquisition System:** Tracks operation metrics and cost calculations for better process monitoring and efficiency management.
- **Automation Ready:** Seamlessly switch to cobotor robotic welding with a single click using DENALIWELD ROBOX™, enabling automated precision welding.

Main Components

DenaliWeld Laser Source

Built for precision, power, and reliability, the DenaliWeld Laser Source delivers consistent performance across a range of industrial applications, from robotic to hybrid welding.

- **Accurate, Full-Power Output:** Provides precise, stable laser delivery, ensuring full power output for superior weld quality.
- **Compact & Reliable Design:** Designed for continuous operationin demanding environments, with reliable performance from -10°C to 40°C (14°F to 104°F).
- **Advanced Laser Control System:** Independently designed by DenaliWeld, our system delivers a smooth output curve, resulting in cleaner welds and greater consistency.
- **High-Power Capability:**
  - Up to 8000Woutput for robotic welding, providing speed and precision for automated systems.
  - Up to 20000Woutput for hybrid welding, delivering unmatched power for high-performance industrial applications.

DenaliWeld Welding Control System

- **Intuitive Controls:** All parameters can be quickly adjusted, allowing for seamless operation and faster setup.
- **Flexible Laser Positioning:** Effortlessly adjust the laser position without worrying about laser deviation, ensuring precision every time.
- **Advanced Safety Features:** Built-in safety settingsprovide enhanced protection for both users and observers, ensuring a safer working environment.
- **One-Click Welding:** Select from accurate preset parameters with a simple click to start welding, improving efficiency and reducing setup time.

DenaliWeld Laser Welding Head

The DenaliWeld Laser Welding Head is designed for versatility, precision, and operator convenience, offering advanced functionality for demanding industrial applications.

- **3-in-1 Multifunctional Design:** Integrates welding, remote cleaning, and seam clean-ingcapabilities into a single laser head, enhancing efficiency and operational flexibility.
- **Intuitive Status Display:** Equipped with indicator lights for real-time monitoring, allowing operators to easily track the machine's status and performance.
- **Advanced water-Cooled System:** ensures stable operation for up to four hours without overheating, as verified by test records.
- **Ergonomic Design:** An ergonomically designed welding machine is available with a physical safety off button, allowing for quick start/stop functionality—even while wearing welding gloves.

DenaliWeld Water Chiller

Engineered for efficiency, reliability, and sustainability, the DenaliWeld Water Chiller provides superior cooling performance to support long-term laser operation.

- **Modular Design for Easy Maintenance:** Built with independent modules, allowing for quick maintenance and hassle-free replacement, minimizing downtime.
- **Optimized Cooling Efficiency:** Designed with precise cooling capacity calculations, delivering maximum cooling performancewhile maintaining minimal power consumption, ensuring stable operation during continuous use.
- **Eco-Friendly Refrigerant:** Utilizes R410a refrigerant, which complies with environmen-tal standards, ensuring sustainableand responsible

The Key of Cooling

At DenaliWeld, we use an advanced Copper + Aluminum heat exchanging system to provide superior cooling performance. Unlike the micro-tube exchangers commonly found in 99% of coolers on the market, our system delivers much more reliable and efficient cooling, ensuring consistent and optimal temperatures for your laser equipment. This results in longer operational life, enhanced performance, and increased overall efficiency.

DenaliWeld Wire Feeder

Designed for precision and ease of use, the DenaliWeld Wire Feeder seamlessly integrates with your welding system to deliver consistent performance.

- **Enhanced Wire Capacity:** The newly designed system supports wire feeding up to 2mm (5/64), accommodating a wider range of welding applications.
- **Double Wire Feeding:** Offers dual-wire feeding capability, increasing efficiency and flexibility for complex welding tasks.
- **Seamless Integration:** Specifically designed to complement the DenaliWeld laser welding machine, ensuring smooth operation and optimal performance.
- **User-Friendly Operation:** Equipped with a physical control buttonfor easy operation, even while wearing welding gloves—ensuring quick adjustments and enhanced convenience.

Technical Parameter

Laser Power	**1500W**	**2000W**	**3000W**
Operating System	3-in-1 / Cleaning	3-in-1 / Cleaning	3-in-1 (Cleaning Max. 2kw)
Laser Wavelength	1060-1100nm	1060-1100nm	1060-1100nm
Fiber Length	Approx. 10 m (32.8 ft)	Approx. 10 m (32.8 ft)	Approx. 10 m (32.8 ft)
Operating Mode	Continuous/Modulated	Continuous/Modulated	Continuous/Modulated
Oscillation Operation Mode	Spot, Line	Spot, Line	Spot, Line
Positioning	Laser red dot	Laser red dot	Laser red dot
Gas flow rate	10-15L/min	10-15L/min	10-15L/min
Voltage	AC220V/380V±5%	AC220V/380V±5%	AC220V/380V±5%
Power Consumption	7kW	9kW	11kW
Frequency	50/60 Hz	50/60 Hz	50/60 Hz
Current	32A/19A	40A/24A	29A
Focus Length	150mm	150mm	150mm
Welding Speed	0-95cm/min (0-37.4 in/min)	0-105cm/min (0-41.3 in/min)	0-105cm/min (0-41.3 in/min)
Cooling System	Water cooling		
Laser Protecion Method	laser beam lock + security lock + safety button		
Touch Panel	Monitor + PLC		
Wire Feeder	Single/Double Motor Automatic "push" and "pull"		
Wire Diameter in Automatic Mode	0.8 mm, 1.0 mm, 1.2 mm, 1.6 mm, 2.0 mm (0.030", 0.035", 0.045", 1/16", 5/64")		
Machine Weight	Approx. 80kg/176bl	Approx. 85kg/187bl	Approx. 90kg/198bl
Machine Measurements	Height 810mm, Width 580mm, Length 1170mm	Height 794mm, Width 497mm, Length 984mm	Height 1000mm, Width 720mm, Length 1370mm
3-in-1 Laser Head Weight	Approx. 900g/1.98lb		
3-in-1 Laser Head Size	L: 273.38mm, W: 36.5mm, H: 168.57mm		
remark	cleaning function Max. 2kw for operation		

JET EZ

JET EZ Micro Fiber Laser Welding Machine

The DenaliWeld JET EZ is a compact, lightweight, and versatile laser welding solution, designed for precision and portability. Patented CUAL Mosaic Laser Source: Ensures reliable continuous operation in a wide temperature range of -10°C to 40°C (14°F to 104°F) for consistent performance in diverse environments.

- **Modular Design:** Simplified maintenance and easy repairs with a modular structure for enhanced serviceability.
- **Ultra-Lightweight & Portable:** Weighing only 48.5 pounds (22 kg), the JET EZ is the smallest and lightest portable laser welder in its class—perfect for on-site and remote applications.
- **Dual-Function Capability:** Combines welding and seam cleaning functions in a single machine, providing efficiency and versatility for various tasks.

Main Components

DenaliWeld Laser Source

Experience precision and power with the DenaliWeld Laser Source—delivering accurate output and consistently operating at full power.

- **Patented CUAL Mosaic Laser Source:** Ensures continuous, reliable performance across a wide temperature range of -10℃ to 40℃ (14℉ to 104℉), maintaining stability under demanding conditions.
- **Advanced Laser Control System:** Designed in-house by DenaliWeld, this system produces a smooth output curve, enhancing weld quality and delivering superior performance.

Built for accuracy, durability, and efficiency—DenaliWeld sets the standard for high-performance laser technology.

DenaliWeld Welding Control System

Engineered for ease of use and safety, the DenaliWeld Welding Control System simplifies laser welding operations while providing advanced protection for users and observers.

- **User-Friendly Operation:** All parameters are pre-set for quick setup—easily adjust laser power with the turn of a knob, making operation intuitive and efficient.
- **Enhanced Safety Features:** Built-in safety settings provide greater protection for both operators and bystanders, ensuring a secure working environment.
- **Minimal Training Required:** No need to be an experienced welder—the system is designed for quick learning and can be operated after simple training, making it accessible to both new and experienced users.

DenaliWeld Laser Welding Head

Designed for versatility and ease of use, the DenaliWeld Laser Welding Head combines advanced features with an ergonomic design to deliver precise and efficient performance.

- **2-in-1 Multifunctional Design:** Combines welding and seam cleaning functions in a single laser head, increasing efficiency and versatility for diverse applications.
- **Intuitive Display with Status Indicators:** Built-in indicator lights provide real-time monitoring of the machine's status, ensuring smooth operation and quick diagnostics.
- **Air-Cooled Design for Stability:** Features an individual air-cooled channelto maintain stable performance, even during extended operation.
- **Ergonomic Welding Head:** Comfortably designedfor long-term use, reducing operator fatigue while ensuring precision control.

DenaliWeld Wire Feeder

Engineered for efficiency and ease of use, the DenaliWeld Wire Feeder seamlessly integrates with your welding system, enhancing precision and productivity.

- **Enhanced Wire Capacity:** Newly designed to feed wire up to 2 mm (5/64 inches), accommodating a wide range of welding applications.
- **Seamless Integration:** Specifically designed to complement DenaliWeld laser welding machines, ensuring optimal performance and smooth operation.
- **User-Friendly Operation:** Equipped with a physical control buttonfor easy operation, even while wearing welding gloves, allowing for quick adjustments and efficient handling.

Technical Parameter

Item	JET EZ
Operating System	Welding/Seam Clening
Laser Wavelength	1060-1100 NM
Fiber Length	Approx. 16ft (4.85m)
Operating Mode	Continuous/Modulated
Oscillation Operation Mode	Spots, Line
Positioning	Laser red dot
Air Pressure	10-15L/min
Voltage	208-230V
Frequency	50/60 Hz
Current	10A
Focus Length	150mm
Welding Speed	0.5"/sec (13.5mm)
Cooling System	Air cooling
Laser Protecion Method	security lock + safety button
Touch Panel	Monitor + Knob
Wire Feeder	Single Motor Automatic "push" and "pull"(Optional)
Machine Weight	48.5lbs
Machine Measurements	16.14*7.48*18.86in
2-in-1 Laser Head Weight	Approx. 680g/1.5lbs

COBOT WELDING

DenaliWeld COBOT Welding System

The DenaliWeld COBOT Welding System combines advanced automation with user-friendly technology, delivering precision, efficiency, and seamless integration for modern manufacturing environments.

- **Strategic ABB Partnership:** Compatible with ABB collaborative robots, as well as DenaliWeld air-cooled and water-cooled models, providing flexible integration across multiple platforms.
- **Modular Design for Easy Maintenance:** Engineered for uncomplicated maintenanceand quick repairs, reducing downtime and increasing productivity.
- **Intelligent Cobot Programs:** Features a simple user interfacewith pre-set parameters for one-click operation, making it easy for operators to achieve consistent and precise results.
- **Welding Data Acquisition System:** Monitors and records welding performance, assisting in operation trackingand cost calculations for optimized workflows.
- **Seamless Automation Integration:** With one-click switching, easily transition between Cobot and robot automation using the DENALIWELD ROBOX™ system.
- **Wide Compatibility:** DENALIWELD welding machinesare compatible with most leading Cobot manufacturers, ensuring versatility in industrial applications.
- **Advanced Automatic Welding Head:** Utilizing the Automatic Welding Head (Gofa 5/10/12)enables real-time power adjustments throughout the welding process for enhanced precision and quality.
- **Optional Seam Tracking System:** Available with an optional seam tracking system, allowing for precise weld alignment and improved accuracy.

Features and Configuration

DenaliWeld Collaborative Robots (Cobots) are designed to deliver precision, efficiency, and ease of use, providing a cost-effective solution to elevate your welding operations. With their lightweight, flexible, and intelligent design, these cobots offer best-in-class performance to meet the demands of modern manufacturing.

- **Lightweight and Flexible Design:** Easy to integrate into various production lines, providing versatile welding solutions for a wide range of applications.
- **Intelligent and User-Friendly Operation:** Operators can quickly program the cobots for specific welding tasks, allowing staff to focus on other critical activities and increasing overall productivity.
- **Enhanced Speed and Safety:** With industry-leading operating speeds and advanced safety features, DenaliWeld cobots ensure efficient production while maintaining a safe working environment.
- **Cost-Effective Investment:** Offering affordable automation without compromising quality, DenaliWeld cobots deliver a high return on investment by reducing labor costs and increasing output.
- **Maximum Operational Flexibility:** Seamlessly switch between manual operation and automated welding, allowing for efficient workflow management and adaptability to changing production needs.

ABB Strategic Cooperation

DenaliWeld collaborates with ABB to perform joint testing in the field of welding cobots, ensuring optimal performance, reliability, and functionality to meet the evolving needs of our users. Through this strategic partnership, we offer a wide selection of ABB cobot models, providing flexible and efficient automation solutions.

- **Extensive Compatibility:** DenaliWeld welding machinesare compatible with most cobots on the market, allowing for seamless integration across a variety of manufacturing environments.
- **Proven Performance:** Rigorous joint testingwith ABB guarantees enhanced precision, smooth operation, and consistent results in real-world welding applications.

Seamless Transition from Manual to Automated Welding

DenaliWeld collaborative robotic welding solutions are designed for maximum flexibility, featuring handheld welding torches that enable a smooth transition between manual and automated welding.

- **Quick Switching Mechanism:** The laser welding machine is equipped with a manual/automatic switching button, allowing operators to easily toggle between handheld and robotic welding modes.
- **Enhanced Flexibility:** This dual-functionality design supports customized workflows, enabling users to adapt quickly to changing production demands while maintaining precision and efficiency.

Simple and Easy to Use

DenaliWeld collaborative robotic welding systems are engineered for simplicity, offering quick integration and hassle-free setup across a variety of robotic welding applications.

- **Fast Installation:** Designed for rapid deployment, allowing users to get up and running quickly with minimal downtime.
- **User-Friendly Interface:** Intuitive controls ensure easy operation, making it accessible for both experienced professional-sand new operators.
- **Versatile Application:** Compatible with various robotic welding tasks, delivering consistent performance across different production environments.

Manual Welding Easily Switches to Automated Welding

DenaliWeld collaborative robotic welding solutions utilize handheld welding torches. The laser welding machine is equipped with a manual/automatic switching button to quickly switch between handheld and automatic welding.

Simple and Easy to Use

Designed for easy and fast integration and setup, regardless of the robotic welding application.

Technical Parameters

GoFa 5™

GoFa 10™

GoFa 12™

Specification	GoFa 5	GoFa 10	GoFa 12
Reach (mm)	950 (wrist) 1050 (flange)	1520 (wrist) 1620 (flange)	1270 (wrist) 1370 (flange)
Payload (kg)	5	10	12
Arm load (kg)	1 (mounted on axis 4)	1 (mounted on axis 2, 3, or 4)	1 (mounted on axis 2, 3 or 4)
Number of axes	6	6	6
Protection	IP54	IP67	IP67
Mounting	Any angle, including table mounting, wall mounting, and ceiling mounting		
Controller	OmniCore C30		
Customer power supply	24V/2A supply		
Customer signals	4 signals (for IO, Fieldbus, or Ethernet)		
Tool flange	Standard ISO 9409-1-50		
Functional safety	SafeMove Collaborative included all safety functions certified to Category 3, PL d		
Max TCP Velocity	2,2 m/s	2 m/s	2 m/s
Max TCP acceleration (Controlled motion for nominal load)	36,9 m/s²	28 m/s²	27 m/s²
Max TCP acceleration (e-stop for nominal load)	61,6 m/s²	94 m/s²	79 m/s²
Pose repeatability	0,02 mm	0,02 mm	0,02 mm
Dimensions robot base	165 x 165 mm	200 x 200 mm	200 x 200 mm
Weight	28 kg	51 kg	48 kg

Robots

Robots Technical Parameter

Robot variant	IRB 2600ID-15/1.85
Handling capacity(kg)	15
Reach(m)	1.85
Weight	273kg
ISO Cube Max.velocity	0.85KW
Brakes engaged	0.206KW
Brakes disengaged	0.40KW

JET MOPA

JET MOPA Laser Cleaning Machine

- **Reliable Continuous Operation:** Engineered for consistent performance in environments ranging from -10°C to 40°C (14°F to 104°F).
- **High Power Output:** Delivers up to 300 Wattsof laser power for fast, effective, and thorough rust removal.
- **Modular Chiller Design:** Easy maintenance and repairwith a modular cooling system that ensures optimal temperature control during extended use.
- **Compact and Lightweight:** Space-savingdesign with the lightest weight in its class, providing easy mobility and flexible operation.
- **One-Click Operation:** Pre-set parameters allow for simple, one-click activation, making the machine user-friendly and efficient.
- **Clean Results:** MOPA laser cleaning removes rust, paint, and surface contaminants with high precision—leaving minimal to no trace and preserving the integrity of the base material.
- **Multi-Material Compatibility:** MOPA laser cleaning systems are capable of removing surface contaminants not only from metal but also from non-metal materials like wood, ceramics, and plastics—making them highly versatile for diverse applications.

Main Components

DenaliWeld Laser Source

Built for precision, power, and reliability, the DenaliWeld Laser Source delivers consistent performance across a range of industrial applications, from robotic to hybrid welding.

- **Accurate, Full-Power Output:** Provides precise, stable laser delivery, ensuring full power output for superior weld quality.
- **Compact & Reliable Design:** Designed for continuous operation in demanding environments, with reliable performance from -10°C to 40°C (14°F to 104°F).
- **Advanced Laser Control System:** Independently designed by DenaliWeld, our system delivers a smooth output curve, resulting in cleaner welds and greater consistency.

DenaliWeld Welding Control System

- **Intuitive Controls:** All parameters can be quickly adjusted, allowing for seamless operation and faster setup.
- **Flexible Laser Positioning:** Effortlessly adjust the laser positionwithout worrying about laser deviation, ensuring precision every time.
- **Advanced Safety Features:** Built-in safety settingsprovide enhanced protection for both users and observers, ensuring a safer working environment.
- **One-Click Welding:** Select from accurate preset parameters with a simple click to start welding, improving efficiency and reducing setup time.

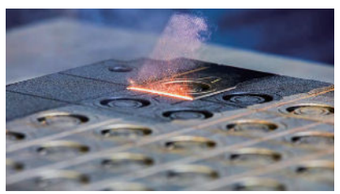
DenaliWeld Laser Cleaning Head

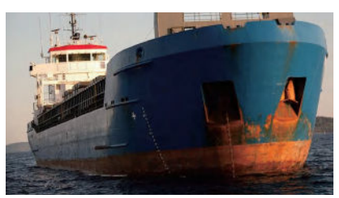
Engineered for efficiency and user comfort, the DenaliWeld Laser Cleaning Head delivers stable performance and intuitive operation for demanding industrial applications.

- **Advanced Cooling System:** Individual air-cooled design channelensures stable operation for up to four hours (based on test records) without the risk of overheating.
- **Ergonomic Design:** Designed for ease of use, providing comfortable handlingeven when wearing cleaning gloves.
- **Enhanced Safety (Optional):** Available with an ergonomically designed welding machinethat includes a physical safety off button for quick and secure start/stop operation—even with gloves on.

Jet Mopa Laser Cleaning Applications

Denaliweld's laser cleaning systems offer non-abrasive, eco-friendly solutions for removing rust, paint, and contaminants from metal surfaces. These systems enhance surface preparation and maintenance processes, improving overall productivity. MOPA laser cleaning systems are capable of removing surface contaminants not only from metal but also from non-metal materials like wood, ceramics, and plastics—making them highly versatile for diverse applications.

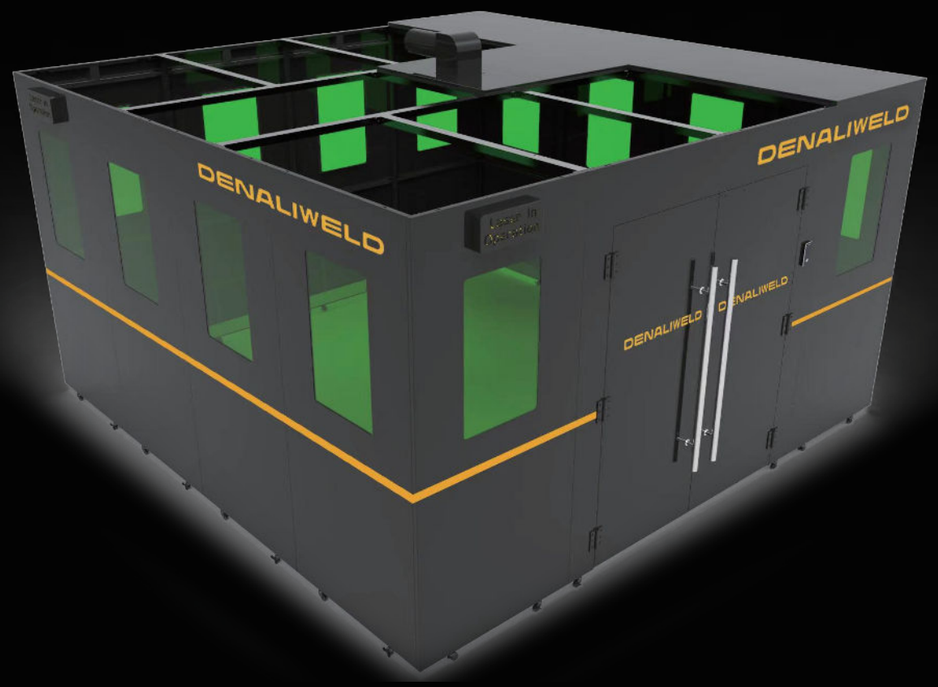


Technical Parameter

Item	Mopa-300W
Laser Power	300W
Laser Wavelength	1060-1070 nm
Fiber Length	Approx. 5 m (16.4 ft)
Operating Mode	Pulse & continuous
Positioning	laser red dot
Gas Flow	15-20L/min (0.53-0.71 ft³/min)
Voltage	AC220V
Power Consumption	1.3kW
Frequency	50/60 Hz
Current	6A
Laser Head Weight	Approx. 980 g (2.16 lb)
Laser Head Operation Mode	Safety button
Focus Length	210mm (8.27 inch)
Swing width	350mm (13.78 inch)
Cooling System	Air cooling
Laser Control Method	Monitor + PLC
Touch Scree	Capacitive

LASER SAFETY



Welding Station

- We offer a wide range of laser protection solutions.
- Welding workstations provide complete protection of the welding area and are suitable for Class 4 laser work. Panels fitted with CE laser protection glass filter out 1060-1100nm wavelength laser light.All-aluminum construction for easy handling and installation.
- Freely adjustable to the shape and size of the site.
- Fitted with a safety door interlock for quick connection to the laser welding machine.

Emergency Stop at Will

- The emergency stop button is positioned on the laser head which allows the users to shut down the machine immediately thereby reducing any potential harmful occurrences.
- Head indicator light indicates working conditions.

Laser Protective Helmet

- In dual-layer design, the outer variable light module can effectively block welding generated light, UV and other potential hazards, the inner layer of the laser protection glass filters the 1060-1100nm wavelength fiber optic laser, which will ultimately protect the user.
- Can be equipped with DENALIWELD respirator, effective filtration of toxic dust and smoke.

Fume Filter

- Multi-Stage Filtration Technology,Pre-filtration + High-Efficiency Filtration + Activated Carbon Filtration.
- All-Aluminum Construction,equipped with mobile caster wheels,Ensures easy movement and installation.
- Available in single or dual configurations with a maximum length of 4 meters.
- Freely Adjustable,Can be customized to fit the shape and size of different workstations.

Distance Sensor

- Patented design.
- The sensor senses the surface position of the target object. The laser stops immediately when the direction of the gun head is unintentionally changed or when the laser head is lifted. Prevents injury to surrounding personnel or equipment during laser work.

Laser safety protective clothing

- Denaliweld laser safety protective clothing,it's an FR exterior with a silver mesh interior.
- What that silver mesh does is it helps protects silver mesh does is it helps protects against any radiation, not just from the laser welder, but from any other high-owered equipment that's in the area.

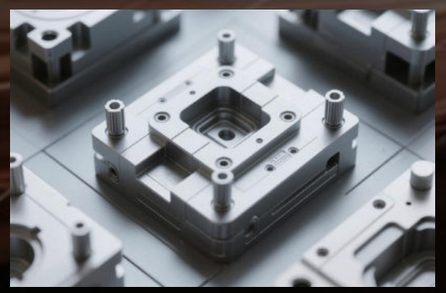
APPLICATIONS

Metal Job Shop

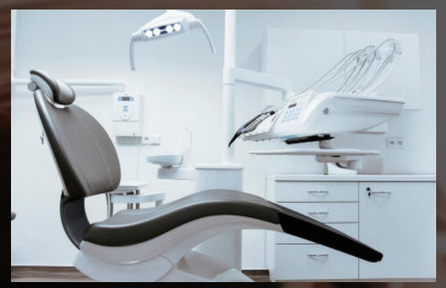
Automotive

Boatbuilding

Aerospace



Molds



Medical Device

Electronics &
Communication

Automated Welding