DENALIWELD

DenaliWeld Europe AB

Hantverksgatan 3,53333 Götene,Sweden

sales@denaliweldeurope.com

www.denaliweldeurope.com

20+

Years of welding and engineering expertise

150+

U.S. cities served through our dealer network
Expanding presence across Europe

2000+

Machines delivered annually (100% duty cycle certified)

120+

Preset welding parameters developed according to AWS & EN-ISO

Made by Welders, for Welders

Operator-centric laser welding machines engineered

Assembled in Illinois, USA

ABOUT US

DenaliWeld Inc. is an employee-owned company based in Chicago, USA, specializing in the engineering, design and assembly of advanced fiber laser welding systems. Backed by experienced engineers and patented innovations, DenaliWeld delivers reliable and high-performance laser welding solutions.All machines are engineered, assembled and quality-tested in Chicago and certified to CE and SGS standards. For Europe, DenaliWeld operates a dedicated distribution hub in Sweden, ensuring fast delivery, local support and seamless access to our expanding dealer network, meeting the highest European requirements for safety, quality and operational reliability.

Global Dealer Network

PRODUCTS

JET SERIES

Welds stainless steel (SS) and aluminium (AL) up to 6 mm.
100% duty cycle for continuous industrial operation.

WATER SERIES

Advanced water-cooled laser systems designed for long-duty applications.
Ideal for demanding environments requiring stable thermal management.

JET 1000

Ultra-portable and cost-effective.
Designed for mobile repairs and entry-level laser welding.

COBOT WELDING

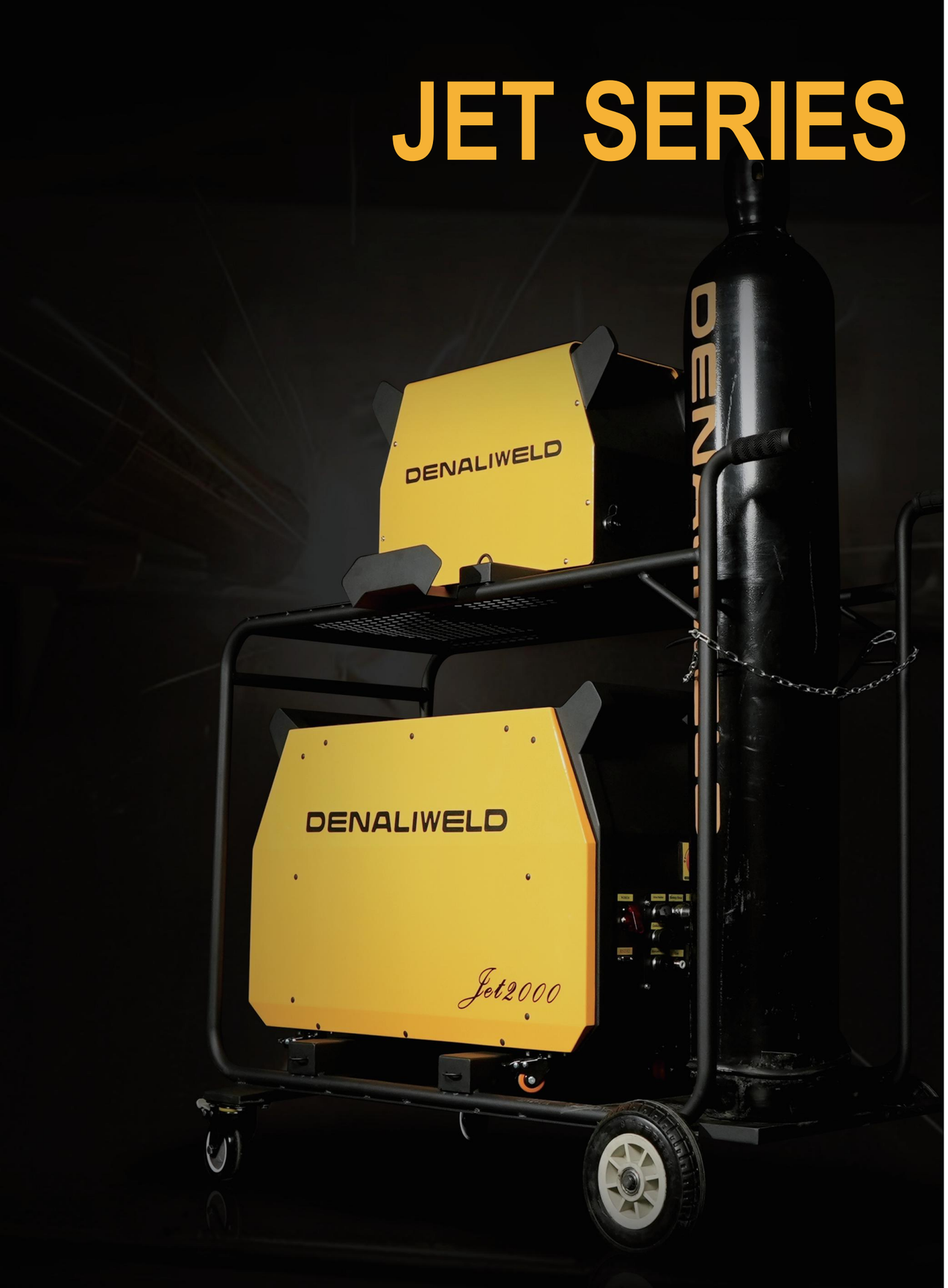
Automated laser welding solutions for increased precision and repeatability.
Compatible with industry-standard collaborative robots.

JET MOPA

Non-damaging to base materials.
Effective on metals, wood, ceramics and various other surfaces.

LASER SAFETY

Certified laser safety solutions for workshops, training centres and industrial environments.
Designed to protect operators and maintain regulatory compliance.



Air Cooled Fiber Laser Welding Machine

Introducing the Jet Series air-cooled laser welders – engineered for durability, precision and consistent performance in demanding environments.
Our laser source is designed for reliable continuous operation across a wide ambient temperature range from –10°C to +40°C.

- **Compact & Lightweight:** Weighing 60 kg, the Jet Series remains one of the most mobile air-cooled industrial laser welding units available.
- **Modular Design:** Easy maintenance with a practical, service-friendly layout.
- **Versatile Functionality:** Three-in-one capability – Welding, Cleaning and Seam Welding.
- **Seam Tracking (Optional):** Enhance precision with an optional seam tracking system.
- **User-Friendly Interface:** All parameters pre-configured for fast setup and stable welding quality.
- **Data Monitoring:** Integrated data logging for welding statistics, usage tracking and cost calculation.
- **Automation Ready:** Seamless integration with collaborative robots via DenaliWeld RoboX*

Experience professional, portable laser welding with the Jet Series – engineered for reliability, mobility and industrial performance.

Main Components

DenaliWeld Laser Source

Experience consistent output with the DenaliWeld Laser Source – delivering accurate power levels for stable welding results.

- **Patented CUAL Mosaic Laser Source:** Ensures continuous, even laser output across varying temperatures.
- **Advanced Laser Control System:** Developed in-house to provide a stable beam profile with high welding quality.
- **Industrial-Grade Design:** Built for reliability, long service life and demanding production conditions.

DenaliWeld Welding Control System

- **Intuitive Control Interface:** Quick parameter adjustments for fast setup and daily operation.
- **Flexible Torch Positioning:** Allows easy adjustment of the welding head while maintaining accuracy.
- **Integrated Safety Features:** Built-in laser safety and operator protection systems.
- **One-Click Welding:** Pre-set welding programs ensure repeatable results and reduced setup time.

DenaliWeld Laser Welding Head

Designed for professional use, the DenaliWeld 3-in-1 Multifunctional Laser Welding Head provides welding, cleaning and seam cleaning in one torch.

- **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.
- **Emergency Stop:** An ergonomically designed safety system with a physical safety off button allows for quick and easy start/stop—even while wearing welding gloves—en-suring 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	3-in-1 / Cleaning	3i-n-1 / Cleaning	3-in-1 / Cleaning
Laser Wavelength	1060-1100 nm	1060-1100 nm	1060-1100 nm
Fiber Length	Approx. 10 m	Approx. 10 m	Approx. 10 m
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 Pressure	20–25 L/min	20–25 L/min	20–25 L/min
Voltage	AC 380–400V ±5%	AC 380–400V ±5%	AC 400–480V ±5%
Power Consumption	6.5kW	7.7kW	9.2kW
Frequency	50/60 Hz	50/60 Hz	50/60 Hz
Current	12–14 A	16–18 A	20–22 A
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	Approx. 74kg	Approx. 83kg
Machine Size (H×W×L)	736 × 433 × 883 mm	736 × 433 × 883 mm	696 × 493 × 936 mm
3-in-1 Laser Head Weight		Approx. 900 g	
Cleaning Head		Approx. 980 g	

Water Cooled Fiber Laser Welding Machine

DenaliWeld delivers stable, high-precision performance with our water-cooled fiber laser welding systems. Engineered for industrial reliability, each system is CE-certified and designed for continuous operation in demanding environments.

- **High Power Output:** Supports up to 3000 W of continuous laser power, ensuring consistent and efficient welding performance across a wide range of materials.
- **Reliable Cooling Performance:** Water-cooled design ensures stable and safe operation from –10°C to +40°C, even during long production cycles.
- **Modular Chiller System:** The modular cooling unit allows easy maintenance, fast servicing and optimal temperature control.
- **Compact & Portable:** Designed for mobility, offering a lightweight footprint without compromising durability or welding quality.
- **3-in-1 Functionality:** Combines welding, cleaning and seam-treatment functions in one machine for maximum versatility.
- **User-Friendly Controls:** Simple operating interface with preset parameters for fast setup and efficient workflow.
- **Welding Data System:** Tracks welding metrics and operating performance to support quality control and cost management.
- **Automation Ready:** Easily integrates with cobots and robotic systems using the DENALIWELD ROBOX™ platform.

Main Components

DenaliWeld Laser Source

The DenaliWeld Laser Source is engineered for precision, durability and stable output, ensuring high-quality results across a wide range of industrial welding applications.

- **Accurate, Full-Power Output:** Delivers consistent laser power with high stability for superior weld performance.
- **Compact & Reliable Design:** Optimised for continuous operation in environments from –10°C to +40°C.
- **Advanced Laser Control System:** Provides a smooth output curve, improving weld cleanliness and overall consistency
- **High-Power Capability:**
  - Up to 8000 W for robotic welding applications requiring maximum speed and precision.
  - Up to 20000 W for hybrid welding, delivering high performance for industrial fabrication.

DenaliWeld Welding Control System

- **Intuitive Control Interface:** 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 Capability:** Performs welding, surface cleaning and seam finishing with one tool, reducing changeover time and increasing productivity.
- **Real-Time Status Indicators:** Clear LED indicators provide immediate feedback on operating status.
- **Water-Cooled Torch:** Stable performance during long welding cycles thanks to efficient water cooling.
- **Operator-Centric Design:** Equipped with a physical emergency stop button for fast and safe operation, even with 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 environmental standards, ensuring sustainableand responsible.

The Key of Cooling

Engineered for higher reliability than standard micro-tube chillers.
DenaliWeld uses a copper–aluminium heat-exchange system designed for greater thermal stability and efficiency.
Compared with micro-tube systems found in low-cost chillers, this design provides more consistent cooling, extends component life and improves overall process stability.

DenaliWeld Wire Feeder

Developed for welding precision and consistent material flow, the DenaliWeld Wire Feeder integrates seamlessly with all Jet Series machines.

- **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:** Optional dual-wire function for increased versatility.
- **Optimised Integration:** Designed specifically for DenaliWeld laser systems to ensure stable performance.
- **User-Friendly Operation:** Simple mechanical controls for easy adjustments, even when wearing gloves.
- **Ergonomic Controls:** Mechanical adjustment knobs for quick and easy tuning, even when wearing welding gloves.

Technical Parameter

Laser Power	**1500W**	**2000W**	**3000W**
Operating System	3-in-1 / Cleaning	3-in-1 / Cleaning	3-in-1 / Cleaning
Laser Wavelength	1060-1100nm	1060-1100nm	1060-1100nm
Fiber Length	Approx. 10 m	Approx. 10 m	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	20-25L/min	20-25L/min	20-25L/min
Voltage	AC 380-400 V ±5%	AC 380-400 V ±5%	AC 380-400 V ±5%
Power Consumption	7kW	9kW	11kW
Frequency	50/60 Hz	50/60 Hz	50/60 Hz
Currentt (400V 3- phase)	14–16 A	16–18 A	24–28 A
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	145 kg	153 kg	250 kg
Machine Size (H × W× L)	810 × 580 × 1170 mm	794 × 497 × 984 mm	1000 × 720 × 1370 mm
3-in-1 Laser Head Weight	Approx. 900g		
3-in-1 Laser Head Size	L 273 mm × W 36.5 mm × H 168.5 mm		
remark	Cleaning mode max. 2 kW		

JET 1000

JET 1000 Micro Fiber Laser Welding Machine

Compact, portable and designed for precise on-site welding tasks.

The DenaliWeld Jet 1000 is a compact and lightweight laser welding system developed for applications where mobility and ease of use are essential.

- **Reliable Laser Source:** Engineered to operate continuously within a temperature range of –10°C to +40°C, ensuring stable output in varied environments.
- **Modular Construction:** Simplifies servicing and reduces downtime through an accessible, easy-to-maintain design.
- **Lightweight & Portable:** Weighing only 22 kg, the Jet 1000 is ideal for field work, on□site repairs and remote applications.
- **Dual-Function Capability:** Supports both welding and surface cleaning, enabling versatile operation in a single unit.

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°C, 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

The Jet 1000 control system is designed for fast adjustments and straightforward field use, giving the operator direct control without complex menus.

- **Simple Power Adjustment:** Output power is controlled manually via a rotary dial, adjustable from 50–500 W for precise tuning during on-site tasks.
- **Wobble Width Control:** Wobble width can be adjusted continuously from 0.1–5.0 mm, enabling flexible weld characteristics depending on material and joint type.
- **Clear Display Interface:** A clean digital interface shows real-time power output and wobble settings for easy monitoring.
- **Operator-Focused Design:** Minimal setup and no need for stored parameters — ideal for mobile work, repairs and fast job changes.
- **Safety Functions:** Integrated safety features ensure secure operation during field use.

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.
- **Real-Time 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 smooth and consistent wire delivery, the DenaliWeld Wire Feeder integrates directly with the Jet Series to support high-precision welding applications

- **Wire Capacity:** Supports wirediameters from 0.8–1.6 mm (2.0 mm optional)
- **Optimised Integration:** Designed specifically for DenaliWeld lasersystems to ensure stable performance.
- **User-Friendly Controls:** Mechanical controls allow quick adjustments, even when wearing welding gloves, enabling efficient handling and reliable operation.

Technical Parameter

Item	JET 1000
Operating System	Welding/Seam Clening
Laser Wavelength	1060-1100 nm
Fiber Length	Approx 5 m
Operating Mode	Continuous/Modulated
Oscillation Operation Mode	Spots, Line
Positioning	Laser red dot
Gas Flow Rate	20–25 L/min
Voltage	220–240 V (Single Phase)
Frequency	50/60 Hz
Current	10A
Focus Length	150mm
Welding Speed	Up to 13.5 mm/s
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	Approx. 25 kg
Machine Size (H × W × L)	410 × 190 × 480 mm
2-in-1 Laser Head Weight	Approx. 680g

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.

- **Independently developed:** Our independently developed welding robots and welding control systems are compatible with both air-cooled and water-cooled Denaliweld 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 ((GCR 5/10/16)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.

Technical Parameters

Denbot 5-910

Denbot 10-1300

Denbot 16-2000

DENALIWELD

Technical parameters	Item	Denbot 5-910	Denbot 10-1300	Denbot 16-2000
Robot body	Maximum Load	5kg	10kg	16kg
	Number of axes	6	6	6
	Maximum speed at the end	3.6m/s	3.8m/s	3.5m/s
	Maximum linear velocity at the end	1.5m/s	1.5m/s	1.8m/s
	Effective working radius	917mm (36.1in)	1300mm (51.18in)	2000mm (78.74in)
	Repeatability	±0.02mm	±0.03mm	±0.05mm
	Power consumption	≈200w	≈400w	≈600w
	Installation method	Ground based、Inverted type、Cantilever type		
	IP Grade	IP54/65		
	Ambient temperature	-10°C to +50°C	-10°C to +50°C	-10°C to +50°C
	Storage temperature	-40°C to +55°C	-40°C to +55°C	-40°C to +55°C
	End I/O port	2DI、2DO、EtherCAT、RS485		
	Robot Package Size (L×W×H)	688 × 588 × 450 mm	958 × 508 × 516 mm	1485 × 516 × 472 mm
	Net weight	22kg	37.8kg	60kg
Control cabinet	Input power supply	'100-240VAC 47-63HZ 10A	'100-240VAC 47-63HZ 10A	220-240VAC 47 -63Hz 10A /100-200VAC 47-63HZ 16A
	IP Grade	IP44	IP44	IP44
	Communication interface	TCP/IP,Modbus/TCP,Profinet(Slave From),Ehernet/IP(Slave From),CAN,RS485		
	IO interface	16DI, 16DO (PNP,24V/Max 500mA) Configurable 8DI/8DO		
	Size	410x306x292mm		
	Weight	13.6kg	13.6kg	13.8kg (30.42lb)
FlexPendant	External dimensions (Excluding grip handle)	295x225x45mm		
	IP Grade	IP54	IP54	IP54
	Screen size	10.4 in		
	Screen resolution	800*600@60HZ		
	Weight	1.3kg		

Independently developed welding robots and welding control systems

DenaliWeld independently developed welding robots and welding control systems, which are jointly tested to ensure optimal performance, reliability, and functionality to meet evolving user needs. We offer a wide selection of collaborative robot models, creating flexible and efficient automation solutions.

- **Full compatibility:** Compatible with air- and water-cooled DenaliWeld models, allowing for flexible cross-platform integration.
- **Proven Performance:** Rigorous joint testing ensures higher precision, smoother 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.

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 W of 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

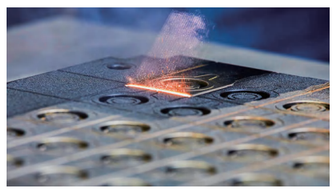
Engineered for efficiency and user comfort, the DenaliWeld Laser Cleaning Head delivers stable performance and intuitive operation for demanding industrial applications.

- **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 MOPA 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.

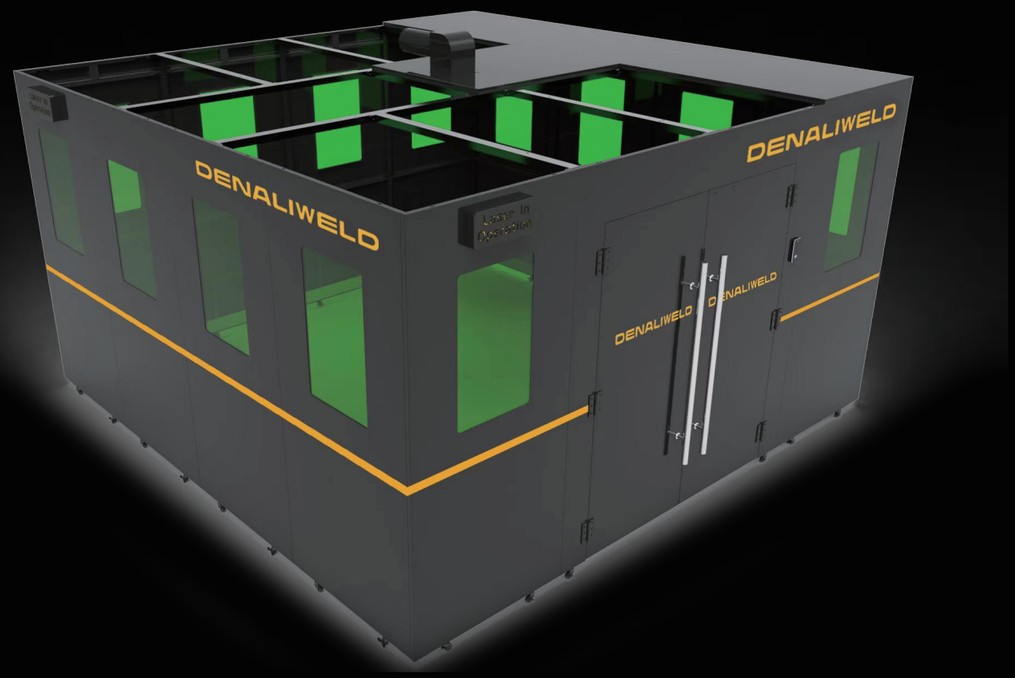
MOPA laser cleaning systems are capable of removing surface contaminants not only from metal but also from non-metal materials like wood, ceramics, and plastics—making them highly versatile for diverse applications.



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	20–25 L/min
Voltage	AC 220–240 V
Power Consumption	1.3kW
Frequency	50/60 Hz
Current	6A
Laser Head Weight	Approx. 980 g
Laser Head Operation Mode	Safety button
Focus Length	210mm
Swing width	350mm
Cooling System	Air cooling
Laser Control Method	Monitor + PLC
Touch Scree	Capacitive

LASER SAFETY



Welding Station

- Complete Laser Protection: We offer a full range of laser safety enclosures designed to protect operators and surrounding work areas during laser welding applications.
- Class 4 Laser Safety: The welding station provides full containment of the laser working zone and is compliant with Class 4 laser safety requirements.
- Certified Laser Protection Windows: Panels are equipped with CE-certified laser protection glass for the 1060–1100 nm wavelength range, ensuring safe visual monitoring during operation.
- Durable All-Aluminium Construction: Lightweight yet strong aluminium framing provides excellent stability and allows for fast installation and repositioning.
- Flexible Modular Design: The enclosure can be freely configured and adjusted to fit the shape and size of the customer's workspace.
- Integrated Safety Interlock: Equipped with a door interlock system for secure connection with the laser welding machine, ensuring automatic shutdown when doors are opened.

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.

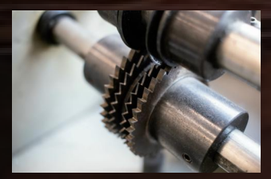
APPLICATIONS

Denaliweld Industrial Fiber Laser Welding Solutions

DenaliWeld laser welding systems are engineered to deliver precision, consistency and high-quality results across a wide range of industrial applications. Our CE-certified fiber laser welders offer excellent control, stable performance and seamless integration into modern production environments.

From micro-welding in medical manufacturing to precision welding in automotive, aerospace and electronics assembly, DenaliWeld solutions enable manufacturers to improve process efficiency, reduce cycle times and achieve consistently strong joints.

With over 120 pre-programmed welding parameters and full support for custom process development, DenaliWeld provides a reliable platform for both manual and automated welding applications.



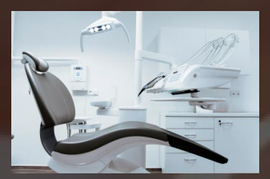
Metal Job Shop

Automotive

Boatbuilding

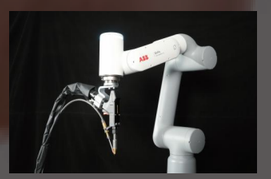
Aerospace

Molds



Medical Device

Electronics & Communication



Automated Welding

Made by Welders, for Welders