

DiodAir – AIR-COOLED LASER WELDING SYSTEM

A compact, lightweight and cost-efficient solution for handheld laser welding.



Diodela was founded as a spin-off of the Center for Physical Sciences and Technology (FTMC) in Vilnius, Lithuania. Using laser technologies developed by FTMC and exclusively licensed to **Diodela**, we manufacture industrial laser welding and cleaning machinery.

DiodAir 1200



High Welding Speed

Laser welding can be several times faster than conventional MIG or TIG welding. This helps increase productivity and shorten production times.



Welding without filler metal

Thin materials can often be welded without filler wire. This simplifies the process and helps reduce material consumption.



Reduced Heat Input

Precisely controlled laser energy reduces heat input to the material and helps prevent significant workpiece distortion.



Versatile Applications

The technology is suitable for a range of welds, different workpiece geometries and hard-to-reach areas.



Clean and Aesthetic Welds

Laser welding produces narrow, clean and precisely controlled weld seams. In many cases, this reduces the need for additional grinding or other post-processing.



Repeatable Results

Carefully selected welding parameters help ensure consistent weld quality and repeatable results.

Welding Thickness by Laser Power

Output power	1200W
Steel / stainless steel welding — Weld thickness (one pass)	5 mm
Aluminium welds — Thickness (single pass)	4 mm

COMPACT DESIGN AND ERGONOMICS

Compact Design

Measuring **55 × 55 × 32 cm**, DiodAir is one of the most compact laser welding systems on the market. Its small housing allows more efficient use of workspace.

Low System Weight

The system weighs just **32 kg**, making it easier to transport between production, repair and testing locations.

Lightweight Welding Gun

The ergonomic welding gun weighs just **650 g**. Its low weight reduces strain on the operator's arm and makes longer tasks more comfortable.

OPERATION

Air-Cooled System

Heat is dissipated through air cooling, so the system requires no separate water cooling unit, coolant tank, pump or additional hoses.

Stable Operating Parameters

The system can operate continuously for **up to 10 minutes** while maintaining stable welding parameters.

Quiet and Cost-Efficient Operation

With a noise level of up to **76 dB**, DiodAir is one of the quietest air-cooled laser welding systems on the market. Its simpler cooling design reduces the need for additional equipment and maintenance.

STANDARD EQUIPMENT

- Safety glasses
- Door sensors
- Protective lens set
- Welding nozzle set
- Wire feeding equipment
- Inert gas hose

APPLICATIONS

- Electronics
- HVAC
- Aerospace
- Automotive
- Medical
- General Industry

Distributor



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