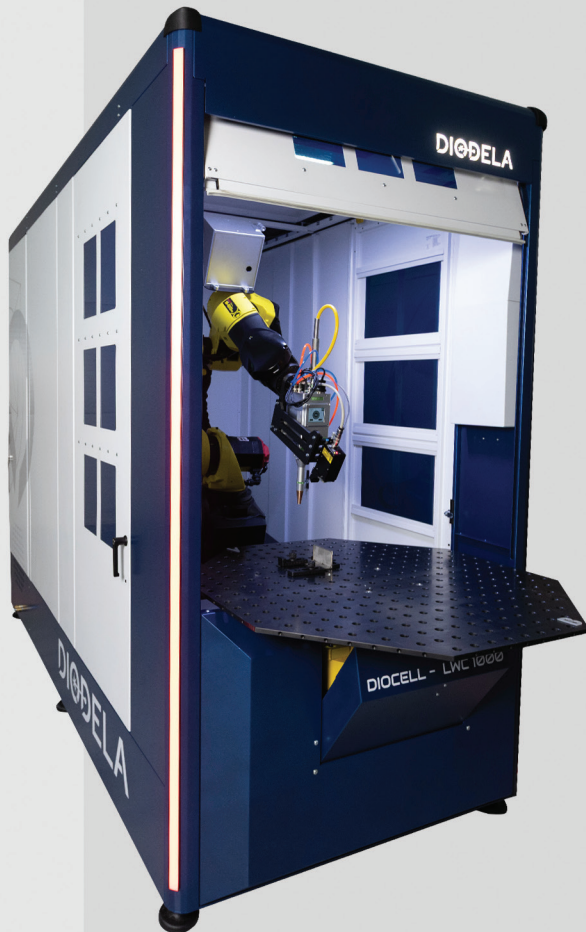


DIOCELL - enclosed robotic laser welding cell

SMART. SAFE. SCALABLE.

A full-stack welding solution for future-ready manufacturers.



KEY ADVANTAGES

SAFETY

- Fully enclosed Class 1 laser-safe system with CE certification.
- Interlocked doors and integrated safety sensors ensure operator protection and regulatory compliance.
- Distance-controlled welding operation prevents improper engagement.
- Integrated Dual Check Safety system to prevent faults and collisions.

FLEXIBILITY

- Dual-position shuttle table enables two working areas: full table engagement or split by partition.
- Operators can safely load/unload workpieces on one side while welding runs on the other.
- Servo-driven positioning table ensures precise and repeatable movement.
- Optional vertical table mounting for specific applications or specialized geometries.

PRECISION

- High-accuracy robot and positioning table (± 0.02 mm based on ISO 9283).
- 3-level real-time weld monitoring ensures consistency and control.
- Precise wire feeder delivers steady wire flow for reliable results.
- Optional weld seam tracking for accurate robot navigation.
- Optional weld quality inspection with automated reporting.

PRODUCTIVITY

- Fast cycle times driven by efficient laser power control and robotic coordination.
- Dual-zone table allows continuous operation with minimal downtime.
- Launching of general robotic welding procedures less in 1 minute.

INTEGRATION

ROBOT BRANDS

FANUC (standard), KUKA, YASKAVA, ABB, UR (optional)

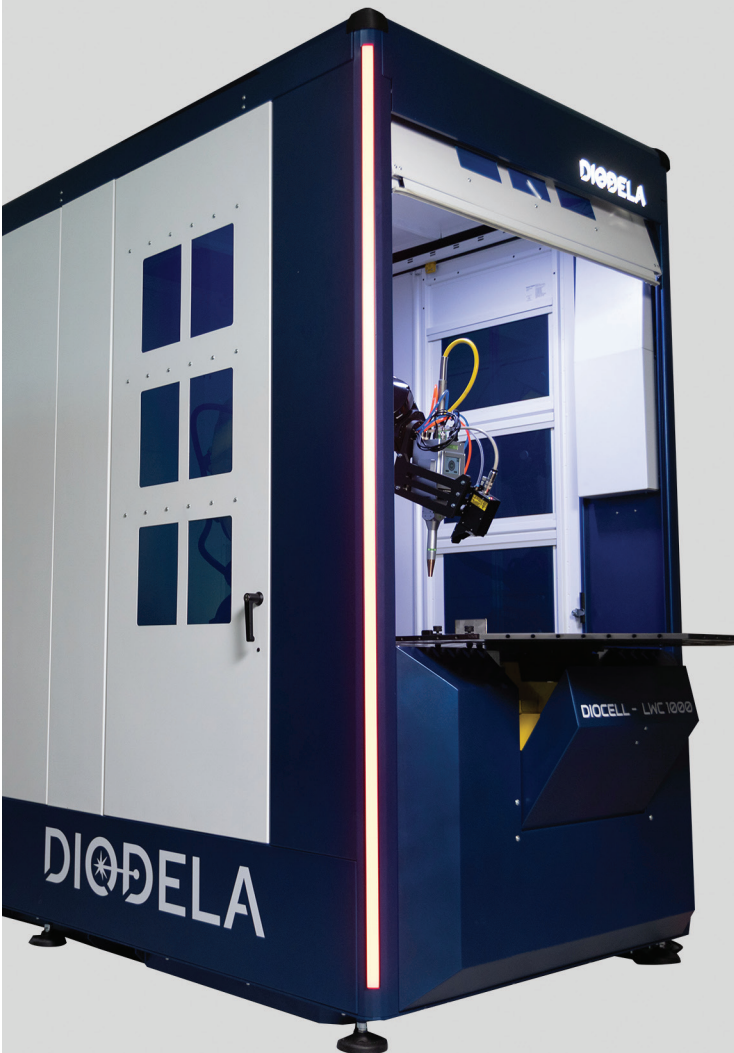
DIGITALIZATION

- Integration with Enterprise Resource
- Planning systems (optional)
- Digital Twin (optional)
- Offline / online programming



DIODELA

Photonics Solutions for Industry



TECHNICAL SPECIFICATIONS

LASER TYPE	Fiber Laser (CW/QCW)
LASER POWER	1 kW / 1.5 kW / 2 kW / 2.5 kW / 3 kW / 4 kW / 5 kW / 6 kW
SPOT SIZE	0.2 mm; Focal Length: 250 mm
COOLING	Water-cooled
WORKING AREA	1000 x 1000 x 1000 mm
TABLE TYPE	Servo driven hexagon desk, type Siegmund System 22, (others on demand)
PAYLOAD CAPACITY	400 kg (standard), 1500 kg (optional)
ROBOT AXES	6+1 fully simultaneous axis with ± 0.02 mm repeatability (ISO9283)
COMMUNICATIONS	Ethernet TCP/IP
ENCLOSURE COMPLIANCE	EN-12254, EN-60825-1, CE marked
FOOTPRINT	2735×1295×2315 mm
WEIGHT	1500 kg
POWER SUPPLY	380V, 32A

APPLICATIONS

- ELECTRONICS
- AUTOMOTIVE
- MEDICAL
- HVAC
- AEROSPACE
- GENERAL INDUSTRY

ABOUT DIODELA

Precision laser technology made in the EU. Diodela is a European photonics solutions manufacturer, born out of Lithuania's FTMC photonics center. With over 20 countries served, we combine deep scientific expertise, industrial reliability, and seamless automation to help manufacturers weld faster, safer, and smarter.



EU Quality & Support



~40% Energy Savings vs. MIG



24/7 Operation Ready



Case Studies Available