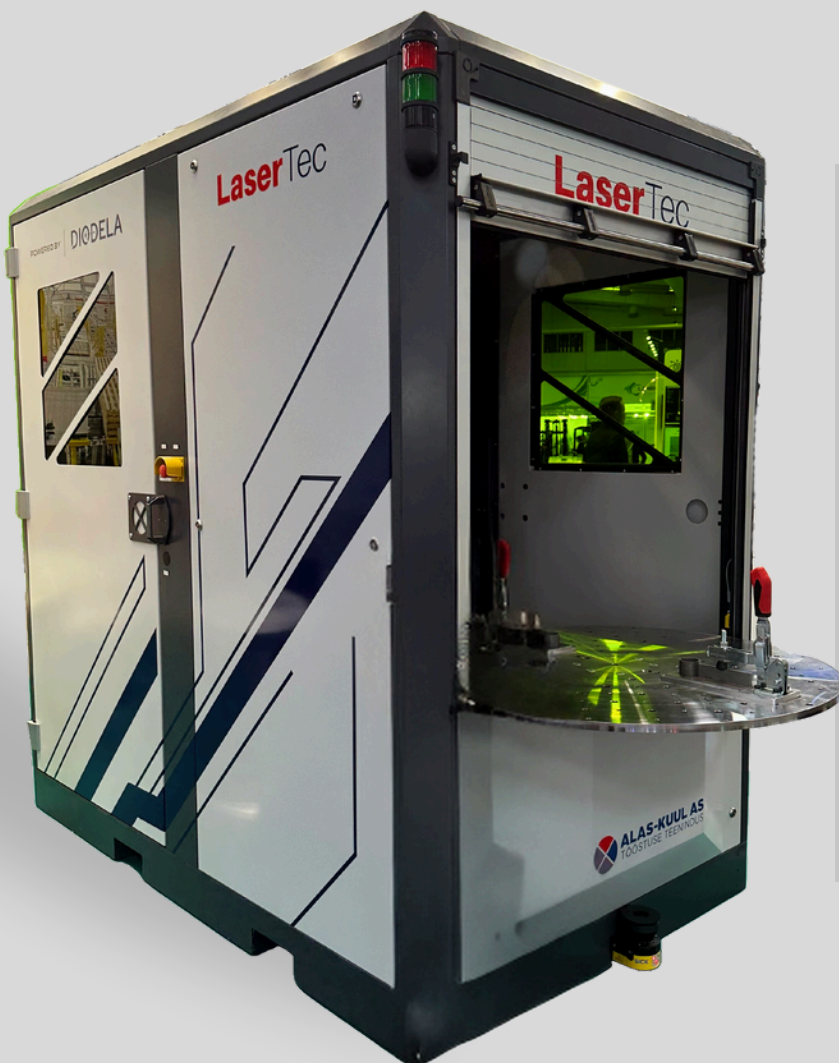


# ROBOTIC-BASED VERTICAL LASER WELDING CELL

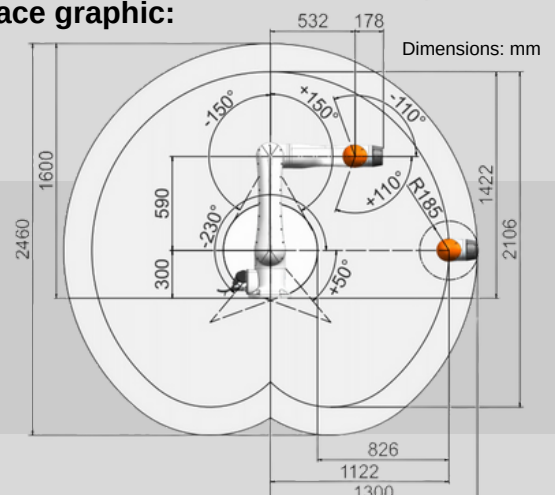
Ultimate Precision | Consistent Quality | 24/7 Operation



## MAIN BENEFITS

- **Diodela software** is integrated into **KUKA control and interface**;
- **Effortless startup** of basic applications in just 30 minutes;
- **User-friendly interface** requiring no programming skills & teaching by hand;
- **Little to no technical knowledge** is required to automate numerous tasks using robots;
- **User-orientated cell customizations** and laser welding optionals;
- **Vertical laser welding**: ability to weld a wide range of angles;
- **CCD and weld seam tracking**;
- Manufactured in the **European Union**;

Workspace graphic:

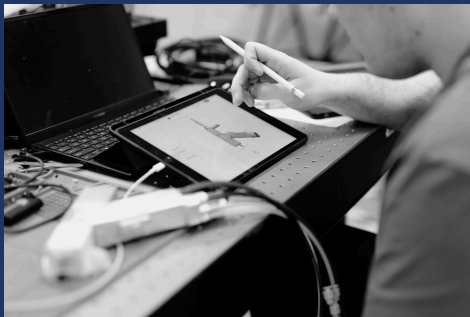


Developed for industrial manufacturers to reduce reliance on welding labor, increase weld quality and production efficiency. Laser Welding Robotic Cell is a full solution that includes: cabin, laser system, control unit, robotic arm, software, wire feeder, safety features.



Integrated with  
**KUKA**

**Diodela** is a European Photonics solutions manufacturer for industry. Due to a close collaboration with laser science centers and vast experience in photonics, our team is able to build innovative and precise laser systems that meet all industrial needs. We export to more than 15 countries across Europe, North America, and Asia.



DEVELOPMENT



ASSEMBLY



SERVICE

## DIODELA

Diodela, MB  
Nalšios st. 11, Vilnius,  
Lithuania

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### PRODUCT INFORMATION

**Vertical laser welding** is a sophisticated and advanced welding technique that combines the benefits of laser technology with the precision of robotics. This technique is particularly useful in applications where a precise and high-quality weld is required in challenging or vertical positions, such as automotive, aerospace, and general manufacturing. Vertical laser welding offers several advantages over traditional welding methods, including minimal heat input, reduced distortion, and the ability to weld a wide range of angles.

### SPECIFICATIONS

<b>Standard Robot Model</b>	LBR iiisy 11 R1300
<b>Protection Class</b>	IP 54 (IEC 60529)
<b>Laser Safety</b>	Comply to EN 12254, EN 207, EN 60825-1
<b>Reach</b>	Up to 1300mm
<b>Rotary Table</b>	continuous 360deg (compressed air-controlled)
<b>Diameter of Rotary Table</b>	1100mm (standard)
<b>Pose repeatability (ISO 9283)</b>	0.05 mm
<b>Ambient Work Temperature</b>	0 °C to 45 °C
<b>6-axis With Speed</b>	A1: 200 °/s, A2: 200 °/s A3: 200 °/s A4:230 °/s A5:260 °/s A6:430 °/s
<b>Cell Size (Incl. Rotary Table)</b>	L2831mm x H2259mm x W1430mm
<b>Cell Weight</b>	700 kg

- Water-cooled Diodela laser system with continuous operation 24/7;
- Diodela laser welding system output up to 6kW IR 1080NM;
- 6-axis control;
- Servo-based wire feeding;
- CCD and weld seam tracking (optional);

