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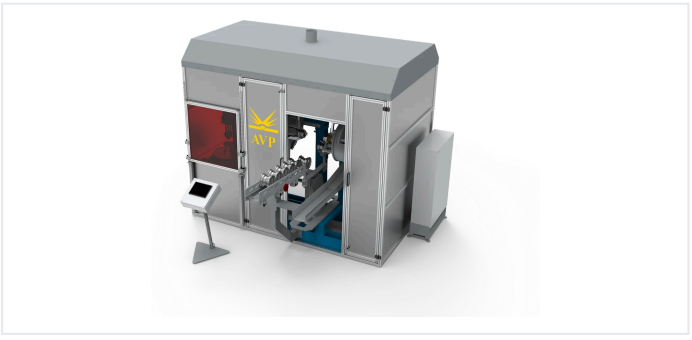
Robotic Welding Cells and Systems

Turnkey cells and systems for laser, MIG/MAG and robotic welding – from the compact VCS Mini to cobot systems and gantries for large workpieces.

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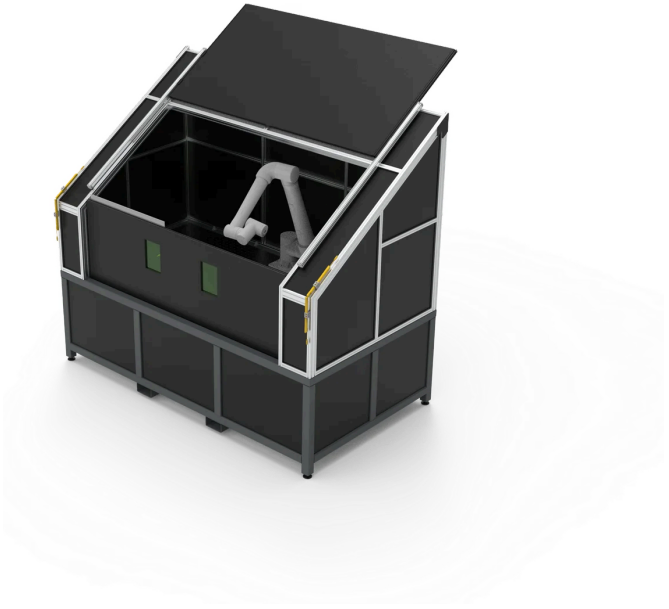






2.1 Laser Welding Cell: OmniLaser

Cell for robotic laser welding. **New**



Description

The OmniLaser is a laser welding cell for robotic laser welding. The cell has an aluminium frame with panels, pneumatic doors, laser safety curtains and an observation window with full laser protection.

Inside the cell are the welding table, the clamping system and a cobot. A connection for fume extraction is provided.

Features

- Aluminium frame with panels
- Pneumatic doors
- Laser safety curtains
- Observation window with full laser protection
- Welding table and clamping system
- Cobot
- Extraction connection

Cell

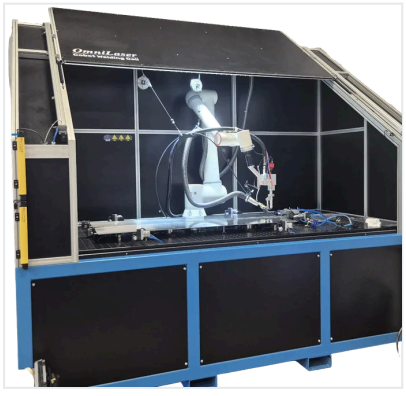
Dimensions (L × W × H, doors closed)	2,150 × 3,300 × 2,950 mm
Weight	2,300 kg
Clamping surface (work table)	3,000 × 1,500 mm
Door opening (W × D)	2,500 × 1,000 mm
Doors	Pneumatic, automatic
Door opening / closing time	~6 s
Connected power	2 kVA
Supply voltage	3 × 400 V, 50 Hz
Control voltage	24 V DC
Compressed air	6 bar

Work table (hole grid) and backing bar by agreement.

Robot

Type	6-axis collaborative
Payload	20 kg
Reach	1,850 mm
Repeatability	±0.1 mm
Max. TCP speed	2 m/s
Max. joint speed	180°/s

Photos



OmniLaser cell



Top view



Side view

2.2 Laser Welding Cell: VCS Mini

Laser welding cell. The classic version has a single nest with manual loading; automatic feeding, multiple nests and workpiece ejection are options. **Costs less than a robot arm**



▶ *Video*
Scan to watch

Description

The VCS Mini is a compact, laser-safe welding cell – a complete laser welding solution for companies that currently weld manually with MIG, TIG or a handheld laser. It is used, for example, in the production of EV batteries and housings, aluminium heating and cooling plates, beverage and food equipment (inlets, taps, handles) and stainless products (valves, housings, couplings).

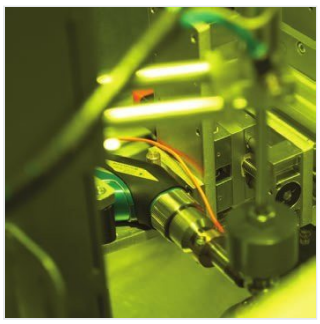
The recommended laser source is the IPG LightWELD 1,000 (1 kW, optional wire feeder), fully integrated with the cell (page 54). When manual welding is needed, the handheld laser torch can be removed from the cell in minutes: the quick-release holder and connectors mean a second welding source is not needed.

Classic version

- Laser-safe cell with observation window, 1,000 × 740 × 1,900 mm (ISO 11,553-1)
- Steel base with removable aluminium cage
- Single nest, manual loading through a door
- 10.1″ touchscreen with easy program creation, program library and part counter
- Servo axis for longitudinal or circumferential welding
- Laser torch on cross slides with automatic torch retraction
- Quick-release system for torch and clamping tools
- Automatic (pneumatic) clamping fixture for at least 3 workpiece types
- Optional extraction connection

Common options

- Automatic feeding, multiple nests, workpiece ejection
- Precision manual torch positioning (2 axes, 0.1 mm) – recommended
- Cell type: VCS (compact) or VCW (open cell with movable laser walls)
- Torch movement: servo linear axes (up to 3), manual precision axes, angle / tilt adjustment, robot or cobot (Fanuc / UR)
- Indexing table, external axes, automatic door, fume extraction
- Safety: light curtains, door lock, two-hand controls, part presence detection
- Welding table with clamping system; base on wheels
- Custom HMI, language and logo; quality logging or AI defect recognition; digital gas flow control
- Custom clamping tools for your parts



Custom-made laser torch holder and clamping tools



Automatic feed-out after welding



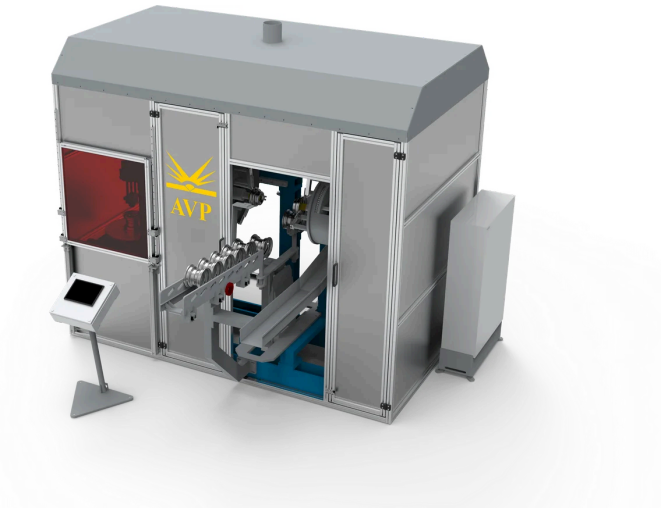
VCS Mini



Operator touchscreen

2.3 MIG/MAG Welding Cell: VCS

MIG/MAG welding cell with automatic loading and unloading, workpiece clamping and welding with several torches at once.



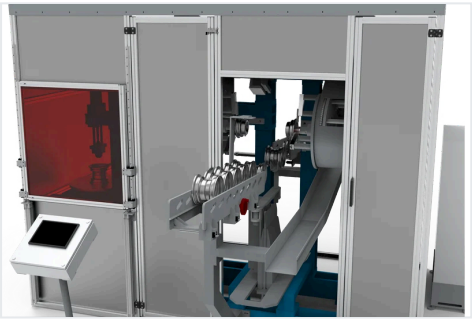
Description

The VCS is a MIG/MAG welding cell in an enclosed cabin with extraction. Workpieces are loaded and unloaded automatically, clamped, and welded with several torches at the same time.

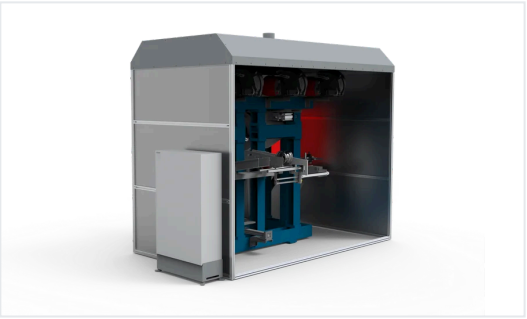
Features

- Automatic loading and unloading
- Workpiece clamping
- Simultaneous welding with several torches
- Enclosed cabin with extraction

Photos



Loading and unloading



Inside the cabin



VCS cell