

AMRC-P

Additive Manufacturing Robotic Cell - Portable

The AMRC-P is the first truly portable additive manufacturing robot cell rated for reactive materials like titanium. The AMRC – P provides all the benefits of a robotic architecture in a compact welded cell that is portable, allowing installation and the first printed parts in just one day. The system is capable of printing parts up to 1.8m in dimension in a wide range of materials. ADDiTEC has partnered with major industrial robot brands to allow for seamless integration for large scale robotic 3D printing. The AMRC-P features state-of-the-art software tools to accommodate complex multi-axis geometries, making printing easier and more accessible for experienced and new users. It offers high customizability, enabling users to meet all their parameter requirements. Users can leverage the touch screen functionality to monitor the process and access proven printing profiles for a broad material range.



Technical Data

Deposition Technology

Maximum laser power	1.2 kW
Laser type	Six 200 W diode lasers
Laser wavelength	976 nm
Layer thickness	0.8 – 1.2 mm
Maximum Deposition rate	0.4 kg/hr
Build volume	5.9' x 5.9' x 5.9'
Wire feed stock	0.8 – 1.2 mm Φ
Processable materials	Stainless steels, tool steels, mild steels, nickel-based alloys, & titanium alloys
Shielding	Localized (Argon or Nitrogen)
Cooling	Active water cooling
Deposition software	Meltio
Process control	Electrical continuity based closed loop laser and wire modulation

Motion Technology

Motion axes	6+1
Robotic partners	ABB, FANUC, KAWASAKI and YASKAWA
Robotic motion software	Adaxis or Aibuild

Portable Cell

Cell volume	7.5' x 9' x 10.6'
Inert chamber system	Vacuum and Argon
Oxygen sensor	0% minimum measurable oxygen level
Fume management system	HEPA air filter
Total weight	7000 lbs approx.