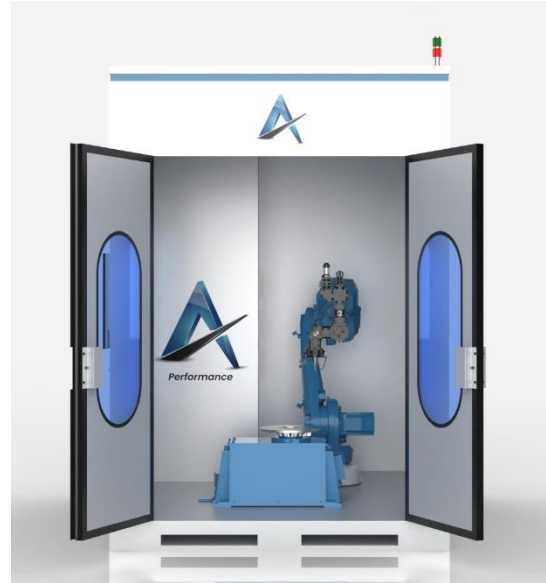


# Performance AMRC-P

## Performance Additive Manufacturing Robotic Cell - Portable

The Performance AMRC-P is the first forward-deployable portable additive manufacturing robot cell rated for reactive materials. The Performance AMRC-P's production-ready capabilities allow for parts to be printed on-demand from anywhere power is available. The system includes a potent 6kW fiber laser configured deposition head and closed loop process controls, affording high deposition rates of up to 4 kg/hr for titanium. The system can print large parts up to 1.8 meters in dimension and can achieve intricate geometries with its multi-axis robotic architecture.

ADDiTEC has partnered with major industrial robot brands, allowing for seamless integration for large scale robotic 3D printing. In addition to titanium, the system can also print in a wide range of materials including titanium, aluminum, copper, carbon steel, mild steel, stainless steel and Inconel.



### Technical Data

#### Deposition Technology

Maximum laser power	6 kW
Laser type	Fiber laser
Laser wavelength	1032 nm
Layer thickness	0.8 – 1.2 mm
Maximum Deposition rate	4 kg/hr
Build volume	5.9' x 5.9' x 5.9'
Wire feed stock	0.8 – 1.2 mm $\Phi$
Processable materials	Iron, nickel, titanium, copper, and aluminum alloys
Shielding	Localized (Argon or Nitrogen)
Cooling	Active water cooling
Deposition software	ADDiTEC
Process control	Melt pool temperature (Pyrometer) based closed loop laser power modulation along with wire feeder control

#### Motion Technology

Motion axes	6+2
Robot partners	ABB, FANUC and YASKAWA
Robotic motion software	Adaxis or Aibuild configured, compatible with other software programs

#### Portable Cell

Cell volume	7.5' x 9' x 10.6'
Atmosphere control	Vacuum pump assisted inert gas environment
Achievable O <sub>2</sub> level	<10000 ppm in the chamber and lower levels around the melt pool through local inert gas shielding
Fume management system	HEPA air filter
Total weight	10,000 lbs approx.