AMDROiD™
SCALABLE

The AMDroid- S is the first laser-wire based scalable additive manufacturing robot cell rated for all common metals, including reactive materials, with a deposition rate as high as 4 kg/hr. The AMDroid- S provides all the benefits of a robotic architecture in a scalable cell that allows for multi-robot configurations with multi-deposition heads to achieve scalability. ADDiTEC's AMDroid- S is designed, developed and integrated by our innovative engineering team, and powered by a proprietary user interface command center. ADDiTEC has partnered with major industrial robot brands to allow for seamless integration for large scale robotic 3D printing.

Optional multi-robot configuration with multiple processing heads for mass production and/or hybrid production

Robot arm for multi-axis large-scale geometries

Wire feeder rated for common metals

6 kW fiber laser for high deposition rate

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	5.8′ x 4.1′ x 4.5′
Wire feed stock	0.8 – 1.2 mm Φ
Processable materials	Iron, Nickel and Copper 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
Robotic partners	ABB, FANUC and YASKAWA
Robotic motion software	Adaxis or Aibuild configured, compatible with other software programs

Portable Cell

Cell Type	Panel based on-site construction
Cell Size	12′ x 12′ x12′ (Customizable)

ADDiTEC™
Print Different