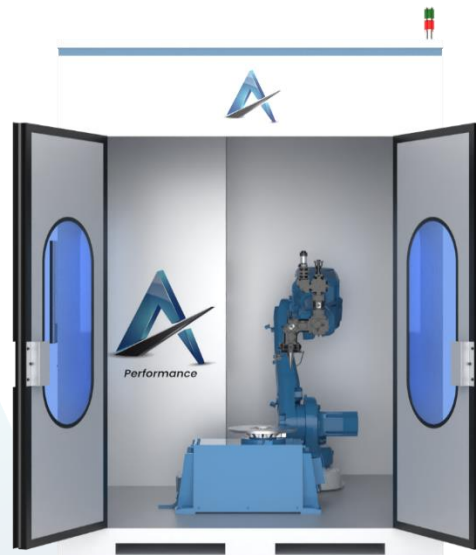


# Performance AMRC-P

## Performance Additive Manufacturing Robotic Cell - Portable

Performance AMRC-P is the first truly laser wire based portable additive manufacturing robot cell rated for reactive materials like titanium with deposition rate as high as 4 kg/hr. The performance 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’s Performance AMRC-P 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. 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     | 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, KAWASAKI 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'                  |
| Inert chamber system   | Vacuum and Argon                   |
| Oxygen sensor          | 0% minimum measurable oxygen level |
| Fume management system | HEPA air filter                    |
| Total weight           | 7000 lbs approx.                   |