Gain advantages in additive with a 3D printer subscription

Purchasing additive manufacturing equipment has historically involved a large capital investment and the knowledge that your machine will depreciate over time. However, times are changing. At Carbon, we create technology that provides our customers with greater advantages and improved capabilities, both in real time and over time.

The additive manufacturing field is advancing quickly; by offering our connected 3D printers on a subscription basis, we're able to provide you equipment that gets better with time, including:

- Regular software updates for improved printer functionalities (e.g., print speed, accuracy, texturing, etc.)

- Support for new high-performance 3D printing materials

- Remote printer updates to expand the capabilities of our platform long after initial installation

- Real-time customer service for seamless troubleshooting and more machine uptime

Our subscription pricing model is empowering our partners and customers to manufacture better parts faster. Learn why you should consider a subscription before purchasing additive manufacturing equipment.

Value of a connected 3D printer subscription

Benefits	Traditional Ownership	Subscription Model for Connected 3D Printers
Continual platform improvement	✗ Gradually becomes obsolete after date of purchase	✓ Improves over time with OTA updates every ~eight weeks
Immediate support for new materials	✗ Purchase separately or available on new version	✓ Included*
Integrated technical expertise	✗ Purchase service package separately	✓ Included
Minimal unplanned downtime	✗ Not connected resulting in slower response time	✓ Real-time customer support
Predictive maintenance to optimize machine uptime	✗ Lagged service response time halts production efforts	✓ Remote troubleshooting directly by Carbon keeps machines running

Exceptions include additional hardware costs for specific materials, e.g., RPU 130 and EPU 41 Black.

All Carbon 3D printers are connected to the cloud through an ethernet connection. Here are the five main areas where connectivity is essential to providing the utmost value to our customers:

1. Rapid customer support and predictive maintenance

2. Continuous improvement in operations and equipment

3. Access to the latest software tools and immediate print optimization for new materials

4. Monitored and optimized operations with cloud software

5. Access to manufacturing and organizational data

Carbon L1 Printer

Carbon M2 Printer

Carbon®

Downsides of purchasing a 3D printer

Purchasing additive manufacturing equipment seems attractive on the surface: once you break even and cover the cost of purchasing, your equipment is a no-cost asset. However, purchasing equipment requires significant upfront investment and also entails taking on the costs of maintenance and upgrades. A subscription model allows you to avoid three key downsides to owning a printer:

1. **Obsolescence around the corner.** When you purchase a printer in today's rapidly changing technological landscape, the best it will ever be is on the date of purchase. From that point forward, your brand-new manufacturing hardware will start becoming obsolete.

2. **Hidden fees and costs.** To upgrade your technology and access new capabilities, you will either be forced to purchase upgrades (if possible) or buy the latest version of the equipment.

3. **Unreliable customer support and maintenance.** Most industrial 3D printing platforms do not integrate customer support into the technology platform, which puts customers in the position of having to purchase service packages separately when facing critical maintenance issues. Service is sometimes provided through a third-party bureau that may lack the specific expertise to solve your problem, or that may take weeks to respond due to the struggles of remote troubleshooting. Regardless, your production efforts are halted and your customers are negatively impacted.

FAQ

What makes Carbon technical support so great?

Real-time customer support with predictive maintenance
Major advantages of our connected 3D printers include streamlined, remote troubleshooting, and dramatically accelerated customer support. Through ongoing monitoring of customer operational metadata, we can precisely predict and prevent issues before they impact production. This eliminates the need for customers to identify and communicate contextual information about an issue because device configuration and metadata from each print are readily available for Carbon technical partners. With this detailed information, we can then replicate and resolve issues with direct operational and configuration data from customer machines.

How does the Carbon platform continually improve over time?

Over-the-air (OTA) updates
Carbon sends OTA updates that improve the capabilities and performance of Carbon printers. Code changes that affect the printer's operation are sent via periodic updates that add new features and are delivered roughly every eight weeks. When updates are ready, customers are informed that they are available and are presented with options for when to install.

Cloud-based software tools
Additionally, cloud-based software tools offer added design capabilities that customers can leverage without the need for an update. They allow for automated part design, including advanced and automated support placement for certain parts.

What types of improvements can be expected?

Gain access to the latest software tools and support for new materials

Improvements to the Carbon platform add new features and capabilities around design and automation, fleet and factory management, and printing and post-processing. These updates can instantaneously deliver optimized print parameters, better workflow tools, new design capabilities, and seamless new resin support.

Why are Carbon 3D printers connected?

Connectivity is essential to providing the utmost value to our customers that we break down into five main areas:

- Rapid customer support and predictive maintenance
- Continuous improvement in operations and equipment
- Access to the latest software tools and immediate support for new materials
- Monitored and optimized operations with cloud software
- Access to manufacturing and organizational data

If the printers are connected, how can I ensure my data is secure?

Carbon printers reside at customer sites and are configured to operate inside a customer's firewall. Customers access the printer directly via a browser on their computers, so that preparing and printing a file occurs inside the firewall.

Carbon printers connect to secure Carbon servers and only to those Carbon servers. All data transmitted to and from those servers is encrypted, therefore protecting all data.

Interested in learning more about the Carbon platform and how it can improve your production efforts?

Reach out to us at sales@carbon3d.com to learn more.

Carbon®