

3D Prototype Printers



Z CORPORATION

Z Corp. 3D Printers are the world's fastest 3D Printers, capable of creating appearance prototypes from computer-aided design "CAD" and other digital data. The prototypes can be used for design review, mock-ups for form and fit testing and patterns for casting applications.

The biggest factor affecting time to market is communication of design. By creating concept models at an early design stage, commitment for the design can be reached earlier allowing for a smooth transition to product engineering.

Production costs can be reduced by communication with customers, gaining design input from tooling and providing physical parts for subcontractor pricing. Many customers have found that when physical models are provided, in particular with offshore tooling, the communication process is greatly improved.

The Drafting Clinic is Canada's authorized reseller for Z Corporation 3D printers. The following 4 models address various price points and requirements.



How does the 3D Printing technology work?

Z Corp. 3D Printers use a powder-binder technology invented at and patented by the Massachusetts Institute of Technology to create parts directly from digital data. First, the 3D Printer spreads a thin layer of powder. Second, an ink-jet print head prints a binder in the cross-section of the part being created. Next, the build piston drops down, making room for the next layer, and the process is repeated. Once the part is finished, it is surrounded and supported by loose powder, which is then shaken loose from the finished part.

What are Z Corp.'s customers using the 3D Printers for?

Z Corporation has over 1500 customers in a range of industries including automotive, footwear, consumer products, consumer electronics, packaging and education. Customers include Sony, Fisher-Price, NASA, Lockheed Martin, Northrop Grumman, Adidas, Ford, and Disney.

Z Corp. parts are used as appearance prototypes for design review and a variety of secondary applications including patterns for casting applications, mock-ups for form and fit testing and prototypes to collect market feedback. In addition, Z Corp. parts can be drilled, tapped, sanded and painted, and electroplated to replicate the look and feel of the final product.



How much training is required to use a Z Corp. 3D Printer?

Z Corp. Printers are safe and easy to operate. Installation and training typically takes one day and is conducted by an authorized Z Corp. service technician. In addition, the System comes with a complete user manual and software guide.



What are the key advantages of the Z Corp. System?

Speed- The speed of the Z Corp. System reduces the time it takes to create a part from one day to a few hours.

Cost- The low cost of materials allows customers to make their own parts

Color- Z Corporation's 3D Printers can create parts from a full 24-bit palette of colors, resulting in multiple color prototypes.



3D Prototype Printers

ZPrinter® 650



The ZPrinter 650 is an exciting new platform that combines all the superior size and part quality features of the Spectrum Z510 with the usability and convenience of the ZPrinter 450. Designed for throughput, the ZPrinter 650 offers the largest build volume available in a 3D printer enabling both large models and high quantities to be quickly produced. In addition, we have further enhanced print quality, the deepness and vividness of color (full black) while adding even more user convenience features.



Features:

- Build Speed: 2 – 4 layers per minute
- Build Volume: 10" x 15" x 8" (254 x 381 x 204 mm)
- Layer Thickness: 0.0035"–0.004" (.089–.102 mm)
- Material Options: High Performance Composite
- Resolution: 600 x 540 dpi
- Number of Print Heads: Five (clear, black, cyan, magenta, yellow)
- Printer Dimensions: 74" x 29" x 57" (188 x 74 x 145 cm)
- Printer Weight: 750 lbs. (340 kg)
- System Software: Z Corporation's proprietary software accepts solid models in STL, VRML, PLY, and 3DS file formats as input. ZPrint™ software features 3D viewing, text labeling, and scaling functionality. The software runs on Microsoft Windows® XP Professional and Windows Vista® Business/Ultimate

ZPrinter® 510



The Spectrum Z510 Full Color System produces high-definition, full-color prototypes quickly and affordably. Superior inkjet printing technology creates parts with crisply defined features, enhanced accuracy, and precise color, so you can print and evaluate physical models of design concepts in their nearly finished state. This unique, 24-bit colour, 3D printing capability produces colour models that accurately reflect your original design data. Colour models communicate more information than any other type of rapid prototype, providing you with a strategic advantage in product development.

Features:

- Build Speed: 2 layers per minute
- Build Size: 10" x 14" x 8" (254 x 356 x 203 mm)
- Layer Thickness: User selectable at time of printing; 0.0035"–0.008" (.089–.203 mm)
- Material Options: High performance composite, direct casting
- Resolution: 600 x 540 dpi
- Number of Print Heads: 4
- Equipment Dimensions: 42" x 31" x 50" (107 x 79 x 127 cm)
- Equipment Weight: 450 lbs. (204 kg)
- System Software: Z Corporation's proprietary software accepts solid models in STL, VRML and PLY file formats as input. ZPrint software features 3D viewing, text labeling, and scaling functionality.

ZPrinter® 450



Now you can print 3D colour models so quickly and affordably, you'll do it every day.

The ZPrinter 450 makes color 3D printing accessible to everyone. The lowest priced color 3D printer available, the ZPrinter 450 outputs brilliant colour models with timesaving automation and an even easier printing process. It is the ideal introduction to color 3D printing for a wide variety of applications from product design, production prototypes, and architectural concepts to education, healthcare, and the arts.

Features:

- Build Speed: 2-4 layers per minute
- Build Size: 8 x 10 x 8 inches (203 x 254 x 203 mm)
- Layer Thickness: User selectable at time of printing; .089 – .102 mm (.0035 – .004 inches)
- Material Options: High performance composite
- Resolution: 300 x 450 dpi
- Number of Print Heads: Two (one tricolor, one clear)
- Equipment Dimensions: 48 x 31 x 55 inches (122 x 79 x 140 cm)
- Equipment Weight: 425 lbs (193 kg)
- System Software: Z Corporation's proprietary software accepts solid models in STL, VRML and PLY file formats as input. ZPrint software features 3D viewing, text labeling, and scaling functionality.



Z CORPORATION

ZPrinter® 310 Plus



The ZPrinter 310 System creates physical models directly from digital data in hours instead of days. The system is fast, versatile and simple, allowing engineers to produce a range of concept models and functional test parts quickly and inexpensively. The system is ideal for an office environment or educational institution, providing product developers easy access to a 3D Printer.

In addition, the versatility of the machine allows users to make parts quickly for early concept evaluation and testing, painted parts for a finished look, or patterns for casting applications.

Features:

- Build Speed: 2 layers per minute
- Build Volume: 8 x 10 x 8 inches (203 x 254 x 203 mm)
- Layer Thickness: User-selectable at time of printing; 0.003"–0.010" (.076–.254 mm)
- Equipment Dimensions: 29 x 36 x 42 inches (74 x 91 x 107 cm)
- Equipment Weight: 300 lbs (136 kg)
- File Formats for Printing: STL
- Number of Printheads: 1 (HP)
- Number of Jets: 300
- Starch Series: zp14 powder, zp15e powder
- Plaster Series: zp102 powder

