Stratasys F900

Meet demands with the Stratasys F900 3D printer.

Increase throughput, reach production goals and create large or small parts in the broadest array of FDM® materials on the market — all with the factory-ready F900 3D printer.

Built for large-scale manufacturing.

Trusted by global industry leaders in manufacturing, the high-performance F900 3D printer sets the standard for reliable, accurate 3D printing. And whether you're printing a full tray of complex parts or one large part, the F900 delivers accurate results, every time.

Large build volume.

With the largest build chamber available among Stratasys FDM printers, the F900 enables additive manufacturing at scale while delivering consistent, repeatable results.

Application versatility.

With 16 materials to choose from, ranging from engineering-grade thermoplastics to high-performance polymers, the F900 is suited for a variety of manufacturing applications including early prototyping, functional prototyping, end-use parts and production tooling. The soluble support materials also allow you to produce complex geometries in one print without assembly.

Industry-leading performance.

High-Strength Material Capability

Stratasys FDM technology is the standard in carbon fiber printing for tools and end-use parts that demand high strength and stiffness. FDM Nylon 12CF (carbon fiber) printed on the F900 offers superior mechanical properties, with an ultimate tensile strength exceeding 10,000 psi. And with a measured production variance of less than 5%, the F900 delivers these properties print after print.

Production Throughput

The ability to achieve consistent build results across the entire F900 build plate lets you use the entire build area, to maximize productivity and throughput. Combined with the F900's 92% print success rate, you gain the reliable performance needed to attain your production goals on schedule.

Near-Isotropic Parts

Parts printed on the F900 exhibit more than 80% strength in the vertical (ZX) plane compared with in-plane (XZ) performance for certain materials.1 2 This gives you greater flexibility to orient the part in the build chamber for optimal print results while achieving more consistent mechanical properties throughout the part.

Unmatched Consistency

The F900 provides unequaled consistency when it comes to part properties. Tests on the ultimate tensile strength of ASA material across multiple F900s in all areas of the build platform demonstrate a variance of less than 6%.1 You get consistent, repeatable results, from the first part to the last.

Unwavering Precision

Along with repeatable print results, the F900 produces parts with the highest dimensional accuracy and precision in the industry. This has been demonstrated by tests performed on multiple printers and numerous builds over months of print operations.1 When you need reliable print performance that meets your tolerance specifications, the F900 delivers.

Smart-factory integration.

Companies embracing Industry 4.0 concepts of automation, on-demand manufacturing and data safeguards need connected 3D printing solutions that securely integrate with their smart factory infrastructure. The Fortus 900mc uses Stratasys ProtectAM technology to provide a variety of secure connectivity solutions, including STIG compliance that satisfies U.S. government DOD requirements.

1. Stratasys 2020 Repeatability and Reliability study for F370, Fortus 450mc and F900 printer
2. Results are based on tests using ASA material. Test coupons were printed on multiple printers across the build platen. High-performance thermoplastics like FDM Nylon 12CF and ULTEM™ resins provide a lower (approximately 50%) Z-strength in comparison to XZ due to factors such as carbon fiber alignment and thermal bonding.

Simplify your factory workflow.

To help you manage your printing projects more efficiently, the F900 comes with integrated GrabCAD Print™ and Insight™ software. GrabCAD Print enables you to print directly from CAD formats using smart default settings and tooltips as well as access detailed views of models, trays and slice previews. And with Insight™, you can fine-tune part performance and material use for greater cost efficiency. The F900 is also compatible with GrabCAD Shop™ and other Software Partner solutions to help manage the full 3D printing workflow.


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Get global service and support.

To help eliminate production downtime, our support team offers priority service, quick response times, fast delivery of replacement parts and scheduled preventative maintenance. We also provide expert technical training, predictable maintenance expenditures for easy budgeting, and scheduled software and hardware updates — giving you access to the most recent developments.

See the specs.

Product Specifications

Materials

Model Material	Layer Thickness					Support Structure	Available Colours
	0.508 mm (0.020 in.)	0.330 mm (0.013 in.)	0.254 mm (0.010 in.)	0.178 mm (0.007 in)	0.127 mm (0.005 in)		
ASA	●	●	●	●	●	Soluble	■ Black ■ Dark Blue ■ Dark Grey ■ Green ■ Light Grey ■ Yellow □ White ■ Orange ■ Ivory ■ Red
ABS-M30		●	●	●		Soluble	■ Black ■ Dark Blue □ White ■ Red ■ Ivory ■ Dark Grey
ABS-M30i		●	●	●		Soluble	■ Ivory
ABS-ESD7			●	●		Soluble	■ Black
Antero 800NA			●			Breakaway (support structure)	■ Natural
Antero 840CN03			●			Breakaway (support structure)	■ Natural
PC-ABS		●	●	●		Soluble	■ Black
PC-ISO		●	●	●		Breakaway	■ Translucent Natural □ White
PC		●	●	●		Breakaway, Soluable	□ White
ULTEM 9085 resin		●	●			Breakaway	■ Black ■ Tan
ULTEM 1010 resin	●	●	●			Breakaway	■ Natural
PPSF			●			Breakaway	■ Tan
FDM Nylon 12		●	●	●		Soluble	■ Black
FDM Nylon 6		●	●			Soluble	■ Black
FDM® Nylon 12CF			●			Soluble	■ Black
ST-130™		●				Breakaway	■ Natural

Product Specifications

System Size and Weight	2,772 x 1,683 x 2,027 mm (109.1 x 66.3 x 78.1 in); 2,869 kg (6,325 lbs.) With Manufacturing Light Tower: 2,772 x 1,683 x 2,281 mm (109.1 x 66.3 x 89.8 in.)
Build Tray Dimensions	914.4 x 609.6 x 914.4 mm (36 x 24 x 36 in.) Platen supports two build zones for either a small or large build sheet
Material Delivery	Two model material canisters 1,508 cc (92 in.3) Two support material canisters 1,508 cc (92 in.3) Auto changeover between canisters
Achievable Accuracy	Parts are produced within an accuracy of +/- .089 mm or +/- .0015 mm per mm whichever is greater (+/- .0035 in. or +/-.0015 in. per in. whichever is greater).+ Z part accuracy includes an additional tolerance of -0.000/+ slice height.
Network Connectivity	10/100 base T connection. Ethernet protocol.
Operator Attendance	Limited attendance for job start and stop required
Software	GrabCAD Print software, Insight Software, Control Center
Operating Enviroment	Maximum room temperature of 29 °C (85 °F). Maximum room humidity of 80%.
Power Requirements	230 VAC (three phase) 50/60Hz, Voltage fluctuation +/- Current 40A
Additional Requirements	Compressed Air Required 90-120 psi with a minimum flow of 20 CFM
Regulatory Compliance	CE, cTUVus, RCM, EAC, FCC Part B
Operating System	Microsoft Windows 8.1 and Windows 8 (Pro, Enterprise), Microsoft Windows 7 (Pro, Enterprise, Ultimate), Microsoft Windows Vista (Business, Enterprise, Ultimate), Microsoft Windows Server 2008, Microsoft Windows Server 2003

Ready to ramp up production?

Learn more about the F900 3D printer at Stratasys.com.

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SYS Systems Limited, Chadwick House, Woodyard Lane, Foston, Derby DE65 5BU
T: 01283 585955 | E: info@sys-uk.com | www.sys-uk.com

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