The Design to Manufacturing Co.

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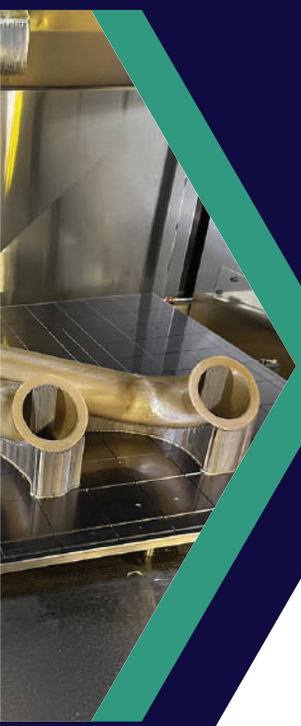

STRATASYS FDM

F900

For more information or advice: theD2Mco.com/contact-us info@theD2Mco.com

The Design to Manufacturing Co

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BROCHURE
FDM

F900

Meet production 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.

F900 is the benchmark in large-scale industrial FDM printing for demanding additive manufacturing applications.

Built for Large-Scale Manufacturing

Trusted by global industry leaders in manufacturing, the high-performance F900 3D printer is an industry 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.

The F900 offers over 25 Stratasys Preferred and Validated Materials making it well suited for a broad variety of manufacturing applications including functional prototyping, end-use parts and production tooling. Soluble support with some of these materials also makes it possible to produce complex geometries and consolidate multi-part designs in a single print operation.

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.[1]

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.[1]

To provide extended print operations, the F900 can be paired with the optional Fortus FDC™ material delivery and drying cabinet that pairs with the F900 to extend printing times. This add-on feature can deliver up to 500 ci of model material. The cabinet also dries the spools of filament and maintains the environment so that moisture is never a concern - even when printing with moisture sensitive materials. The larger volume of material on the spools coupled with the drying capability improve reliability, print performance, uptime, and can reduce labor required to reload material. For customers manufacturing end components or production support tooling where uptime and reliability of the printer is integral to their business and workflow, the Fortus FDC™ adds flexibility in production schedules and expands the application space.

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 F900 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 printers.
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™ (there is also an option to upgrade to GrabCAD Print Pro™) and Insight™ software. GrabCAD Print supports changes that can be made directly to inserts and self-supporting holes. Geometry-targeted tools and advanced 3D slicer software reduces weight and material without compromising part strength.

The upgraded version of the standard software, GrabCAD Print Pro, is a comprehensive solution which includes labeling for traceability, automation, templates, part cost estimation, a sustainability calculator, and automatic model correct. This is optimal for process-controlled environments which require high-performance end-use parts or prototypes.

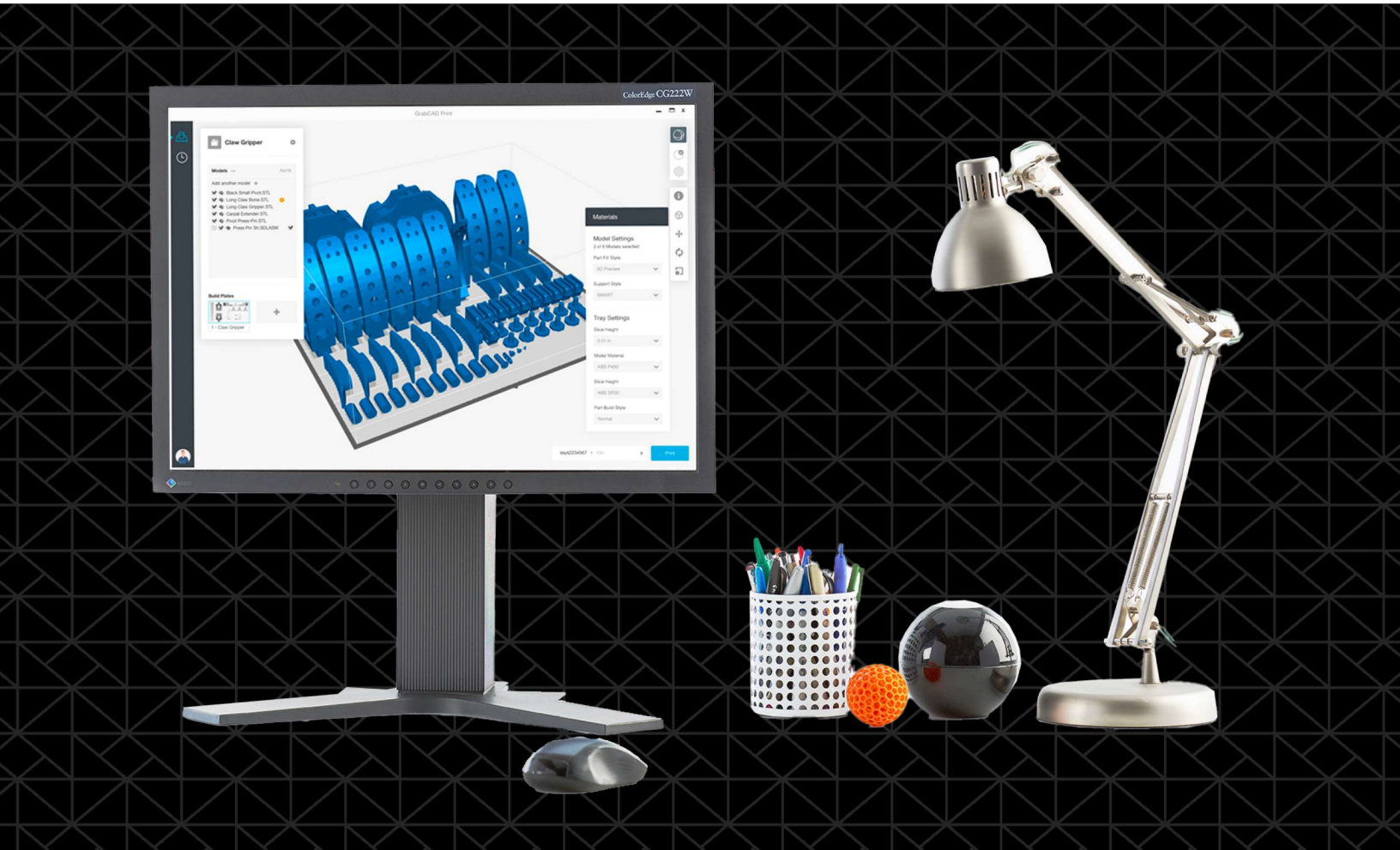
With Insight, you can fine-tune part performance and material use for greater cost efficiency. The F900 is also compatible with GrabCAD® Streamline Pro™ and other Software Partner solutions to help manage the full 3D printing workflow.

OpenAM

OpenAM™ software lets users alter print parameters to optimize material capabilities and print results. This allows you to tailor a material's performance to meet specific application needs or part properties.

OpenAM works with all three Stratasys material tiers. You can develop your own unique materials or optimize a Stratasys Preferred or Stratasys Validated Material to meet your specific design requirements.

OpenAM software is accessible through a separately purchased OpenAM License.




stratasys
F900

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.

Product Specifications

Stratasys Preferred Materials

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

Product Specifications

Stratasys Validated Materials

Material	Layer Thickness 0.178 mm (0.007 in.)	0.254 mm (0.010 in.)	0.330 mm (0.013 in.)	Support Structure	Available Colors
FDM HIPS	○	●	○	Breakaway	Light Gray
Kimya PC-FR	○	●	○	Soluble	Light Gray
ULTEM® 9085 Resin (colors)	○	●	●	Breakaway	Red
	○	●	○	Breakaway	Jana White
	○	●	○	Breakaway	Dream Gray
	○	●	○	Breakaway	White 7362
	○	●	○	Breakaway	Gunship Gray
	○	●	●	Breakaway	Aircraft Gray
PC (colors)	○	●	○	Soluble	Red
PC-ABS (colors)	○	●	○	Soluble	Red
VICTREX AM™ 200 (PEEK)	○	●	○	Breakaway, Soluble	Natural
PC-ESD	○	●	○	Soluble	Black

Product Specifications

System Size and Weight	2,772 x 1,683 x 2,027 mm (109.1 x 66.3 x 79.8 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 Envelope (XYZ)	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.
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. Note: Accuracy is geometry-dependent. Achievable accuracy specification derived from statistical data at 95% dimensional yield.
Network Communication	10/100 base T connection. Ethernet protocol. Wired: TCP/IPv6 protocols.
Operator Attendance	Limited attendance for job start and stop required
Power Requirements	230 VAC (three phase) 50/60Hz, 40 Amp circuit
Additional Requirements	Compressed air required: 90-120 psi with a minimum flow of 20 CFM.
Regulatory Compliance	CE, cTUVus, RCM, EAC, FCC Part B
Software	All Fortus® systems include Insight and Control Center™ job processing and management software. Compatible with GrabCAD Print and GrabCAD Print Pro for use with part processing, job reports, scheduling and remote monitoring. U.S. government agency STIG compliance via Stratasys ProtectAM technology is powered by Red Hat® Enterprise Linux® software. OpenAM software is available through the purchase of an OpenAM License.
Operating System	Insight: Microsoft Windows 11, Microsoft Windows 10, or Microsoft Windows Server 2012 R2 GrabCAD Print, GrabCAD Print Pro, and OpenAM: Windows 10 and newer, Windows Server 2016 and newer. Only 64-bit versions of Windows are supported.

Ready to Ramp Up Production?

Learn more about the F900 3D printer at theD2Mco.com/shop

Get Expert Guidance on Your Additive Manufacturing Journey

From prototyping to production, our consultants help you choose the right printers, materials, and strategies to scale smarter.

TALK TO AN EXPERT

Visit https://theD2Mco.com/contact-us

The Design to Manufacturing Co.

100% Tailored Advice