



Aumentar el mecanizado con la **impresión 3D de materiales compuestos**

**F190™CR and
F370®CR FDM®
Composite Printers**

Complementa la fabricación de accesorios y piezas con la impresión 3D de materiales compuestos FDM para ganar en velocidad, rendimiento y ventajas de costes.





Cumpla los plazos y no se salga del presupuesto con la impresión de **materiales compuestos de alta resistencia.**

Haga accesorios de sujeción, mordazas blandas y piezas de componentes con la impresión 3D de materiales compuestos en una fracción del tiempo y el coste que lleva mecanizar un equivalente metálico. Las impresoras F123CR complementan las tecnologías de fabricación tradicionales, permitiendo a los fabricantes industriales sustituir los componentes metálicos por piezas de composite impresas en 3D de alta resistencia. Esto acelera el rendimiento y evita el coste de oportunidad de utilizar recursos de producción o el tiempo de espera de la subcontratación.

Las impresoras F123CR utilizan materiales compuestos ABS-CF10 y FDM® Nylon-CF10, ambos reforzados con fibra de carbono tallada, en un 10% en peso, para obtener resistencia y rigidez. El material de soporte soluble de F123CR permite realizar diseños complejos que no se pueden hacer con el mecanizado convencional u otras impresoras 3D que no tienen esta capacidad. Las cuatro resoluciones de capa te dan flexibilidad en la calidad de la pieza y en la velocidad de impresión. La densidad variable de la pieza te da la libertad de hacer piezas totalmente densas y sólidas o ajustar el relleno para ahorrar peso y uso de material.

Proteja su programa de producción con un tiempo de actividad inigualable.

Las impresoras de materiales compuestos F123CR están construidas sobre la misma plataforma que la probada serie F123, con un tiempo de funcionamiento verificado del 99% y un rendimiento de repetibilidad dimensional del 99%.* El ajuste del material, que optimiza los parámetros de impresión mediante más de 220 mediciones, garantiza un rendimiento constante del material en todas las resoluciones y resultados de impresión satisfactorios.

Built-in durability starts with hardened components and print heads to ensure longevity using abrasive composite materials. Sealed filament bays reduce material moisture exposure to maintain stable material mechanical properties, so printed parts meet strength specifications. A fully heated build chamber enables higher strength between layers than other printers in this class that use only a heated build platen.

Together, these features offer unmatched reliability in an additive manufacturing system, with repeatable performance, print after print.

* Strataysys 2020 Repeatability and Reliability study for F370, Fortus 450mc and F900 printers.

Simple setup and unattended operation.

You don't need special training or highly skilled technicians to operate F123CR printers. Job setup simply involves importing the part's CAD file using GrabCAD Print™ software and initiating the print. The printer requires no further oversight until the job is done.

GrabCAD Print software provides a simple and intuitive CAD-to-print workflow and includes advanced features to ensure successful prints. For users who want deeper control of print options, Insight™ software is also included on the F370CR. MTConnect capabilities make it easy to integrate the printers into a connected factory floor. This industry-standard communication API lets you collect, analyze and display machine data in a useful way.



Features that add to efficient and easy operation include printing in multiple resolutions from a single print head, avoiding print head changes. In addition, the F370CR includes an auto-changeover feature, so you won't have to interrupt a build to refill material. When a refill is needed, it's as easy as dropping the canister in place and inserting the filament into the feed slot. The printer takes it from there. Print head changes, if needed, involve only a quick snap-out/snap-in step.

Other convenience features include reusable build trays, a built-in camera for remote monitoring, and a 7-inch control touchscreen. F123CR printers are also easy to move since they roll on casters and power is supplied from standard wall outlets.

Application versatility enhanced by open materials.

F123CR printers offer application versatility by operating with a range of thermoplastic materials. In addition to high-strength composites, F123CR printers give you the flexibility to print with other engineering thermoplastics to cover more use cases. This multi-material capability offers the convenience of printing different jobs in different materials. There's no need for separate printers dedicated to composite and non-composite materials.

An open material platform enhances versatility even further by allowing you to expand your application space with new materials you develop or ones developed in partnership between Stratasys and a third party. The Stratasys open material ecosystem includes validated materials that have received basic reliability testing, and materials created outside the Stratasys material development process.

Keep your options open. With F123CR printers, you buy one printer but get the versatility of multiple materials, including soluble support, which offers the freedom to print any geometry without restriction.

Unparalleled support, **when you need it.**

Stratasys invented FDM Technology, and we've been perfecting it for over 30 years. Our technicians and application engineers know how to maximize your printer investment and address problems when they occur.

When you need help, our worldwide support staff is here to assist, from professional installations to application guidance to on-site troubleshooting. Whether optimizing your print results, solving a problem, or providing training, Stratasys service and support have the experience and global reach to keep you operational.

To learn more about the Stratasys F190CR / F370CR printers, or to speak with a Stratasys representative, contact us at [Stratasys.com/contact](https://www.stratasys.com/contact) or call 1-800-801-6491.



System Specifications

F190CR and F370CR Printer and Material Specifications

System Size/Weight	1626 x 864 x 711 mm (64 x 34 x 28 in.) 500 lbs (227 Kg)
Build Tray Dimensions	F190CR: 305 mm x 254 mm x 305 mm (12 x 10 x 12 in.) F370CR: 355 mm x 254 mm x 355 mm (14 x 10 x 14 in.)
Material Delivery	F190CR: 2 material spool bays, 1 for model, 1 for support located in a drawer on the front of the unit F370CR: 4 material spool bays, 2 for model, 2 for support located in a drawer on the front of the unit
Achievable Accuracy	Parts are produced within an accuracy of +/- .200 mm (.008 in.), or +/- .002 mm/mm (.002 in./in.), whichever is greater.
Network Connectivity	Wired: TCP/IP protocols at 100 Mbps minimum 100 base T, Ethernet protocol, RJ45 connector Wireless-ready: IEEE 802.11n, g, or b; Authentication: WPA2-PSK, 802.1x EAP Encryption: CCMP, TKIP
Operator Attendance	Limited attendance for job start and stop required
Software	F190CR: GrabCAD Print software F370CR: GrabCAD Print and Insight software
Operating Environment	Operating: Temperature: 15 – 30 °C (59 – 86 °F), Humidity: 30 – 70% RH Storage: Temperature: 0 – 35 °C (32 – 95 °F), Humidity: 20 – 90% RH
Power Requirements	100-132V/15A or 200-240V/7A. 50/60 Hz
Regulatory Compliance	CE (low-voltage and EMC directive), FCC, EAC, cTUVus, FCC, KC, RoHs, WEEE, Reach, RCM
Operating System	Windows 10 (64-bit only) and Window 11 with a minimum of 4GB RAM (8GB or more recommended)

Materials

Printer	Model Material
F190CR	ABS-M30, ASA, FDM® TPU 92A, ABS-CF10, FDM® Nylon-CF10, QSR Soluble Support
F370CR	ABS-M30, ASA, FDM TPU 92A, ABS-ESD7™, PC-ABS™, Diran™ 410MF07, ABS-CF10, FDM Nylon-CF10, QSR Soluble Support, SUP400B Breakaway Support

Layer Thickness

Material	0.013 in. (0.330 mm)	0.010 in. (0.254 mm)	0.007 in. (0.178 mm)	0.005 in. (0.127 mm)
ABS-M30	●	●	●	●
ASA	●	●	●	●
PC-ABS	●	●	●	●
ABS-ESD7		●		
Diran 410MF07	●	●	●	
FDM TPU 92A		●	●	
ABS-CF10 ¹	●	●	●	
FDM Nylon-CF10 ²	●	●	●	

¹ Hardened print head is recommended for extended head life but will also operate using standard F123 and ABS-CF10 print heads.

² Dedicated FDM Nylon-CF10 hardened print head required.

Ready to transform your manufacturing?

