

# F123CR Composite Series

The F123CR printer series comprises the F190™CR and F370®CR composite printers, equipped with hardened components to operate with composite materials. Both systems are available with ABS-CF10 and FDM® Nylon-CF10 carbon fiber-reinforced composite materials. These materials operate with dedicated print heads for extended life. In addition, up to six engineering-grade thermoplastics are available for broader application versatility. Hands-free soluble support material enables printing highly complex parts and hands-free post-processing.

F123CR composite series printers have multiple features designed for ease of use and high uptime.

- GrabCAD Print™ and Insight™ software provide a simple workflow and in-depth print process control
- Fully heated build chamber enables consistent print results with multiple infills from sparse to fully dense
- Material bays located in pullout drawers allow for easy accessibility and fast changes
- Auto changeover capability on the F370CR extends print times
- Built-in camera provides visual remote print monitoring
- Power is supplied by standard wall outlets
- Printers are mounted on casters for easy mobility

## 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	<b>F190CR:</b> 305 mm x 254 mm x 305 mm (12 x 10 x 12 in.) <b>F370CR:</b> 355 mm x 254 mm x 355 mm (14 x 10 x 14 in.)
Material Delivery	<b>F190CR:</b> 2 material spool bays, 1 for model, 1 for support located in a drawer on the front of the unit <b>F370CR:</b> 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	<b>F190CR:</b> GrabCAD Print software, MTConnect enabled <b>F370CR:</b> GrabCAD Print and Insight software, MTConnect enabled
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)

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Materials	
Printer	Model Material
F190CR	ABS-M30, ASA, FDM® TPU 92A, ABS-CF10, FDM Nylon-CF10
F370CR	ABS-M30, ASA, FDM TPU 92A, ABS-ESD7™, PC-ABST™, Diran™ 410MF07, ABS-CF10, FDM Nylon-CF10

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 <sup>1</sup>	●	●	●	
FDM Nylon-CF10 <sup>2</sup>	●	●	●	

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

<sup>2</sup> Dedicated FDM Nylon-CF10 hardened print head required.



**alphacam GmbH**  
Erlenwiesen 16  
D-73614 Schorndorf  
Tel.: +49 7181 9222-0  
info@alphacam.de

**alphacam austria GmbH**  
Handelskai 92, Gate1 / 2. OG / Top A  
A-1200 Wien  
Tel.: +43 1 3619 600-0  
info@alphacam.at

**alphacam swiss GmbH**  
Zürcherstrasse 14  
CH-8400 Winterthur  
Tel.: +41 52 26207-50  
info@alphacam.ch



alphacam.de

.at

.ch

[stratasys.com](http://stratasys.com)

ISO 9001:2015 Certified<sup>1</sup>