

Fortus 450mc



Industrial FDM technology with an open material ecosystem for advanced prototyping, tool production and end-use parts.

Bring the speed, agility and design freedom of advanced additive manufacturing to your business while gaining the latest advances in FDM® technology. The Fortus 450mc™ 3D printer builds high-requirement functional prototypes, rugged manufacturing tooling and custom production parts in its large 406 x 355 x 406 mm (16 x 14 x 16 in.) build envelope. Fourteen Stratasys Preferred Materials¹, multiple Stratasys Validated Materials² and soluble support address a wide variety of applications.

OpenAM™ software lets users alter print parameters to optimize material capabilities and print results. GrabCAD Print™, GrabCAD Print Pro™, and Insight™ software provide an easy CAD-to-print workflow and in-depth print processing control. MTConnect and Stratasys Software Development Kits let you integrate the Fortus 450mc into your connected factory floor. Data security, including U.S. Department of Defense STIG compliance, is provided by Stratasys ProtectAM™ technology.

System Specifications

Build Envelope (XYZ)	406 x 355 x 406 mm (16 x 14 x 16 in.)
Material Delivery	Two bays each for model and support canisters. Auto changeover between canisters

Product Specifications

Stratasys Preferred Materials

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

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Material Options

Stratasys Validated Materials

Material	Layer Thickness				Support Structure	Available Colors
	0.127 mm (0.005 in.)	0.178 mm (0.007 in.)	0.254 mm (0.010 in.)	0.330 mm (0.013 in.)		
FDM HIPS	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Breakaway	■ Light Gray
Kimya PC-FR	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Soluble	■ Light Gray
ULTEM® 9085 Resin (colored)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Breakaway	<input checked="" type="checkbox"/> Red <input type="checkbox"/> JanaWhite <input type="checkbox"/> Dream Gray <input type="checkbox"/> White 7362 <input checked="" type="checkbox"/> Gunship Gray <input checked="" type="checkbox"/> Aircraft Gray
PC	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Soluble	<input checked="" type="checkbox"/> Red <input checked="" type="checkbox"/> Black
PC-ABS	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Soluble	<input checked="" type="checkbox"/> Red
VICTREX AM™ 200	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Breakaway, Soluble	<input checked="" type="checkbox"/> Natural

Other Specifications

System Size and Weight	129.5 cm x 90.2 cm x 198.4 cm (51 x 35.5 x 78.1 in.) 601 kg (1325 lbs.)
Achievable Accuracy	Parts are produced within an accuracy of $\pm .127$ mm ($\pm .005$ in.) or $\pm .0015$ mm/mm ($\pm .0015$ in/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	208VAC 3 phase, 50/60 Hz, consumes 18 Amps
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. OpenAM software is available through the purchase of an OpenAM License
Operating System	Microsoft Windows 11 (Pro, Enterprise, Education), Microsoft Windows 10 (Pro, Enterprise, Education), Microsoft Windows Server 2012 R2. Insight software requires a 64-bit operating system.



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

ISO 9001:2015 Certified

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