

The Fortus 450mc is a factory floor ready additive manufacturing tooling solution. 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. Fifteen Stratasys Preferred Materials, multiple Stratasys Validated Materials and soluble or breakaway support address a wide variety of applications.

Fortus 450mc can be paired with the optional Fortus FDC™ material delivery and drying cabinet to extend printing times. This add-on feature can deliver up to 8,194 cm³ (500 in³) of model material and dries the spools of filament so that moisture is never a concern.

If speed is required, the Fortus 450mc delivers with the T40C Tip enabling nearly 2x faster build speeds for FDM Nylon 12CF parts using a 0.508 mm (0.020 in.) layer height versus standard layer heights. Ideal for large, bulky parts, it maintains the same high mechanical performance while significantly reducing print time.

OpenAM™ software lets users alter print parameters to optimize material capabilities and print results. GrabCAD Print™, GrabCAD Print Pro™, Streamline 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.

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

System Size and Weight	1,295 x 902 x 1,984 mm (51 x 35.5 x 78.1 in.) 601 kg (1,325 lbs.)
Achievable Accuracy	Parts are produced within an accuracy of ± 0.127 mm (± 0.005 in.) or ± 0.0015 mm/mm (± 0.0015 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™, GrabCAD Print Pro™ and Streamline 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	Insight: Microsoft Windows 11, Microsoft Windows 10, or Microsoft Windows Server 2012 R2 GrabCAD Print, GrabCAD Print Pro, Streamline Pro, and OpenAM: Windows 10 and newer, Windows Server 2016 and newer. Only 64-bit versions of Windows are supported.

Material Options

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.)	0.508 mm (0.020 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	
FDM® PA6/66-GF30-FR	○	○	●	○	○	Breakaway	■ 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	

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	○	○	●	○	Breakaway	■ Light Gray
ULTEM™ 9085 Resin (colors)	○	○	●	●	Breakaway	■ Red
	○	○	●	○	Breakaway	■ Jana White
	○	○	●	○	Breakaway	■ Dream Gray
	○	○	●	○	Breakaway	□ White 7362
	○	○	●	○	Breakaway	■ Gunship Gray
	○	○	●	●	Breakaway	■ Aircraft Gray
PC	○	○	●	○	Soluble	■ Red ■ Black
PC-ABS	○	○	●	○	Soluble	■ Red
VICTREX AM™ 200	○	○	●	○	Breakaway, Soluble	■ Natural
PC-ESD	○	○	●	○	Soluble	■ Black



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PRODUCT SPEC SHEET
FDM



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