Fortus 450mc

stratasys

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. Fourteen Stratasys Preferred Materials, multiple Stratasys Validated Materials and soluble 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 500 ci 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 2× faster build speeds for FDM Nylon 12CF parts using a 0.020-inch (0.508 mm) slice thickness versus standard slice thicknesses. 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	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 ± .127 mm (± .005 in.) or ± .0015 mm/mm (± .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 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, White, Black, Red, Blue, 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 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

Stratasys Validated 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.)	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	○	○	●	○	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