



STRATASYS®

3D Printers and
Production Systems

REAL PARTS. REAL POSSIBILITIES

From 3D printers to 3D production systems, Stratasys machines let you quickly build working models or end-use thermoplastic parts from your desktop or factory floor. Save money and get products to market faster with accurate, do-it-yourself 3D printing.

The New Era of Additive Manufacturing



FDM Thermoplastic Materials

ABS-M30 and ABSplus-P430

Environmentally stable - 40% stronger than standard ABS.
Applications: General Prototyping Applications.



PC-ABS

High impact strength. Flexibility of ABS and heat resistance of PC.



PC-ISO

Biocompatible material, sterilizable.
Applications: Food and drug applications requiring high strength.



ABS-ESD7

Static dissipative
Applications: Assembly tools for electronic and static sensitive products. Functional prototypes of enclosures and packaging.

ABS-M30I

Biocompatible material, sterilizable
Applications: Medical, pharmaceutical and food packaging.



PPSF / PPSU (polyphenylsulfone)

Highest heat, strength and chemical resistance. Sterilizable.
Applications: Aerospace, automotive, medical



ULTEM 9085 (polyetherimide)

FST (flame, smoke, toxicity) certified thermoplastic. High heat and chemical resistance; highest tensile and flexural strength.
Applications: commercial transportation applications in airplanes, buses, trains, boats. Hydroforming, composite layup tooling.



ABSi

Translucent material - natural, red and amber colors.
Applications: Monitoring material flow, medical, automotive.

PC (polycarbonate)

High tensile strength and can handle high temperatures.
Applications: Prototyping, functional parts, tooling and fixturing.



Authorized Sales, Service and Training:

CIMtech

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Lamborghini Aventador
FDM model made by the
University of Washington - Seattle



STRATASYS®

3D Printers and Production Systems

UNIVERSITY of WASHINGTON

University of Washington – Seattle WA

Established in September 2007 on the University of Washington (UW) Campus in Seattle, The Automobili Lamborghini Advanced Composite Structures Laboratory (ACSL) is credited with the development of the carbon fiber technology used in the latest generation of Lamborghini supercars. The ACSL has provided Lamborghini detailed design, quality control, process improvement and mechanical testing for its carbon reinforced fiber composite (CRFC) components that make up over half of their limited edition hyper cars, the Aventador and Sesto Elemento.

Having the ability to quickly make strong physical prototypes to optimize the load paths, verify the fit of the assembly, and correct issues that were invisible on the computer screen was critical. The ACSL was able to build a complete 1/6 scale prototypes of the vehicle's and rugged thermoplastic mold dies for carbon fiber directly from CAD on their Fortus 400MC machine. "The prototypes produced during the design process were instrumental in providing better fit during assembly and improved load paths," said Paolo Feraboli, assistant professor of aircraft materials and structures at the University of Washington and director of the Lamborghini Lab.



SmartPlug Systems® - Seattle WA

SmartPlug Systems (SPS) is a cutting-edge manufacturer of electrical connection systems for the automotive and marine industry. At a fraction of the cost of outsourcing their rapid prototypes, SPS invested in a uPrint 3D FDM Desktop Printing System. This allowed SPS engineers the freedom to quickly build multiple iterations of prototypes in house without the cost and long lead times associated with outsourcing.

"FDM systems improved our product development projects by allowing us to build and evaluate three times as many concepts and functional prototypes to test and optimize our products early in the design cycle." – Ken Smith, CEO of SmartPlug Systems



HALOSOURCE

HaloSource® - Bothell WA

HaloSource is a leading clean water and antimicrobial technology manufacturer. At the center of the HaloPure® product line is a series of cartridges which contain contact-biocide technology that kills harmful microbes as water passes through the filtration system. Because their Fortus FDM production system uses real ABS modeling material, a production grade thermoplastic, designers at HaloSource were able to print full size working models of cartridges and water dispensers that were filled with solid-state bromine and fully tested.



DAIMLER

Daimler Trucks North America® - Portland OR

With increased regulations from the EPA, Daimler has been focusing on improving the aerodynamics of their vehicles. Using FDM, Daimler is now able to test wind tunnel models, revise the designs and retest in the same day. This allows Daimler to quickly optimize their designs and get their trucks from concept to production faster.

"The FORTUS 900mc Production System is easy-to-use and offers significant savings in terms of lead time normally required when outsourcing prototypes for a quarter of the cost." – John Paullus, Senior Engineer II at Daimler Trucks North America



Xerox® - Wilsonville OR

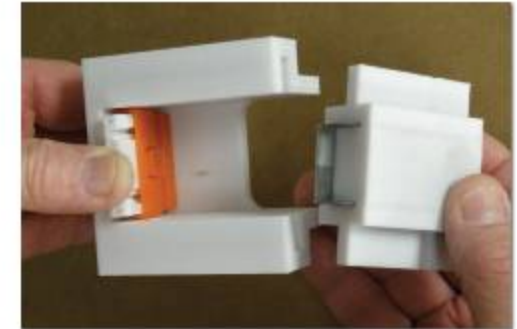
During a low-volume product development project at Xerox, a standard connector's design did not allow it to mate properly with the printer's cable. The existing connector needed modification, but the relatively small quantity of parts did not justify the cost of a new mold. Using their Stratasys FDM system, Xerox built a polycarbonate punch tool from their CAD model in 4 ½ hours, and modified 300 standard connectors in house at a fraction of the cost of a new mold. Xerox is also using their FDM system to build sheet metal form tools, thermoform tools, test beds, assembly fixtures, and end of arm robot tools.

"We chose FDM technology based on the extreme cost savings vs. outsourcing and the high degree of functionality associated with real production grade thermoplastics that do not change shape or degrade over time" – Duane Byerley, Sr. Model Shop Engineer



RedDOT Corporation® – Seattle WA

RedDOT Corporation, a national mobile HVAC supplier, experimented with a variety of rapid prototyping systems including stereolithography, but the prototypes were costly and would not hold up to the extreme temperatures demanded in their thermal cycle testing. Because the Fortus 400mc produces thermoplastic parts that are extremely durable and thermally stable at less than half the cost of the competition, the Fortus FDM system was the clear winner.



Additional customers in the Pacific NW using FDM Technology:

