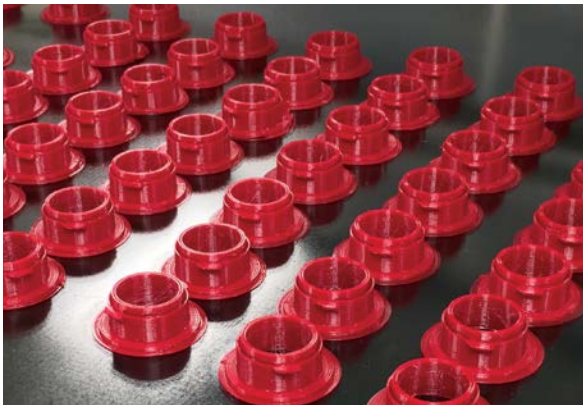
WORKSERIES 300

Additive Manufacturing System

THINK
PRINT
SAVE | BIG

The **most trusted** open-market 3D printer

- Largest, Fastest, Most Durable, High Print Quality, Industrial 3D Printer.
- Build Area: 1000 mm x 1000 mm x 700 mm
- Print Speeds Up to 16x Faster than Industry Norm
- Trusted by **Fortune 100** Brands



3D PLATFORM

3dplatform.com

THINK
PRINT
SAVE | BIG

The **most trusted** open-market 3D printer

WORKSERIES300

Fast Large Format Printing

We design products that push the limits of innovation. Our focus on size, speed, flexibility, and durability is meant to help expand your business capabilities to new levels.

Why choose 3D Platform?

Because your **BIGGEST** ideas should become a reality.

BIG

- Fused Filament Fabrication (FFF) type 3D printer with up to **1000 mm x 1000 mm x 700 mm (39.3 in x 39.3 in x 27.5 in)** build area. Eliminates the need to scale down or print multiple parts that require assembly. Cuts market entry time with rapid design iteration.
- **211x** larger build area than a typical desktop 3D printer.
- Built-in storage drawers and cabinets for useful additive manufacturing tools and materials.

ECONOMICAL

- Capitalize on the cost-effective open-market advantage, low purchase and operating costs.
- Up to **90% savings** using open-market materials and software.

ACCURATE

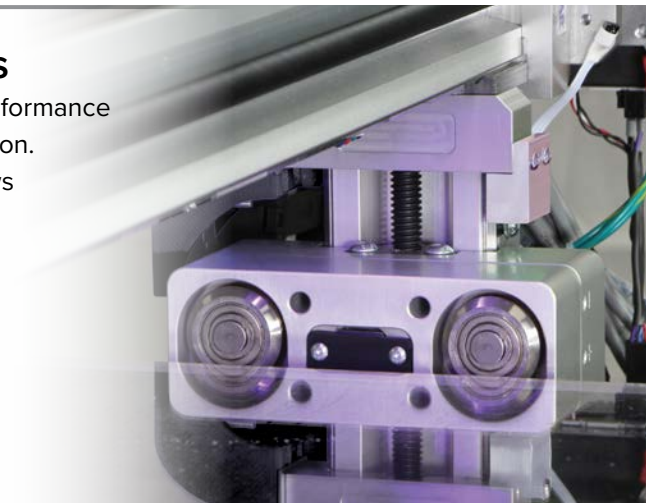
- SurePrint™ Servo Technology delivers **superior print quality** and may cut print times in half for certain types of prints.
- Closed-loop control provides positional feedback every 1.25 microns, enabling fast and reliable printing.
- Print layer resolutions down to **50 microns**.

ROBUST

- **Industrial strength mechatronics** deliver **superior performance** and reliability.
- SIMO® Series actuators and Constant Force™ anti-backlash lead screws and nuts provide rugged, industrial framework that won't let you down.

Industrial Strength Enhanced Mechatronics

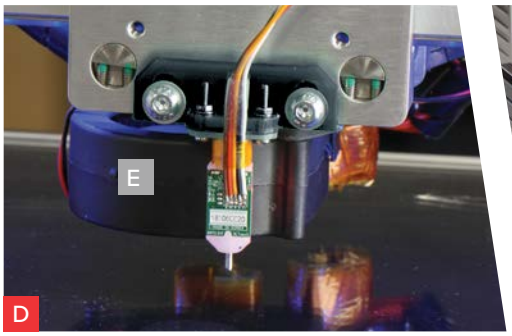
deliver superior speed and higher print quality. Four times greater performance and accuracy at top speeds. Twice as fast acceleration and deceleration. SIMO® Series actuators and Constant Force™ anti-backlash lead screws and nuts provide a rugged, industrial framework.




A


B


C


D


E


F

Features & Benefits

A **TOUCH SCREEN BRAINBOX** (HMI – Human Machine Interface) comes equipped with a 32-bit chip and optimized firmware to produce the highest quality, accuracy, and resolution detail for your 3D prints. The BrainBox is 1,000% faster and 1,000% smarter than our last generation BrainBox. This quick-swappable box provides for future upgrades without the need for a technician.*

B Not in the office? **REMOTE ACCESS** via Wi-Fi or ethernet allows you to login through your mobile device to control your WorkSeries printer. Remotely stop and restart prints anywhere you have internet access. Also, get detailed print information and statistics.*

C **SUREPRINT™ SERVO TECHNOLOGY** delivers superior print quality and cuts print time in half. Closed-loop control provides positional feedback every 1.25 microns allowing you to print layer resolutions down to 50 microns.

D **TOUCH PROBE** provides state-of-the-art auto mesh bed leveling up to 441 points. Shortens set-up times and increases productivity.*

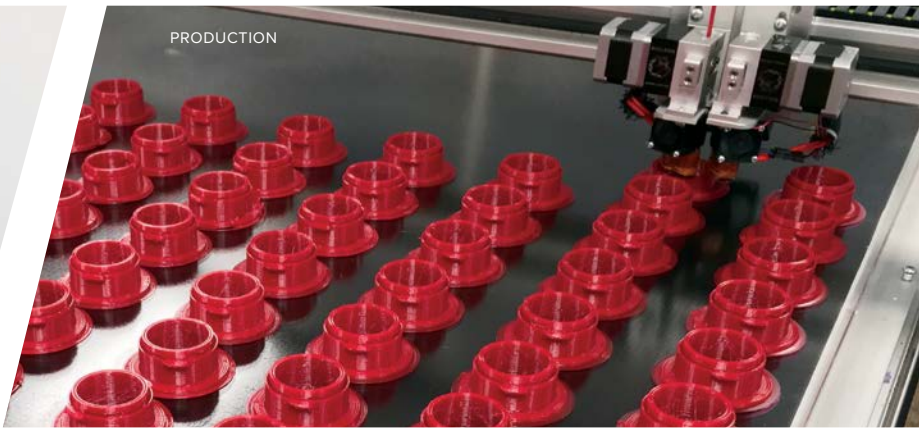
E **INDUSTRIAL WORKBENCH** provides a convenient wood work area. Built-in storage drawers and cabinets allow for easy access to tools and materials. Electronics drawer provides easy access to power distribution. Non-slip lockable casters provide safety and mobility.*

F **FOLDING GANTRY** fits through a standard door and allows you to conveniently locate your WorkSeries printer where you want.

* Dependent on user security settings.

"We're Saving a $1,000USD per Week. What Took a Week Now Takes A Day."

— ***New Business Development Manager***
Global Consumer Goods Company



Big Affordable Solutions,
for a Wide Range of **Applications.**

We help you design without limitations. Our solutions provide customized, full-scale printing capabilities for companies looking to lead – not follow – accelerating the time from ideation to application at an affordable price.

RAPID PROTOTYPING – ITERATE AGAIN AND AGAIN

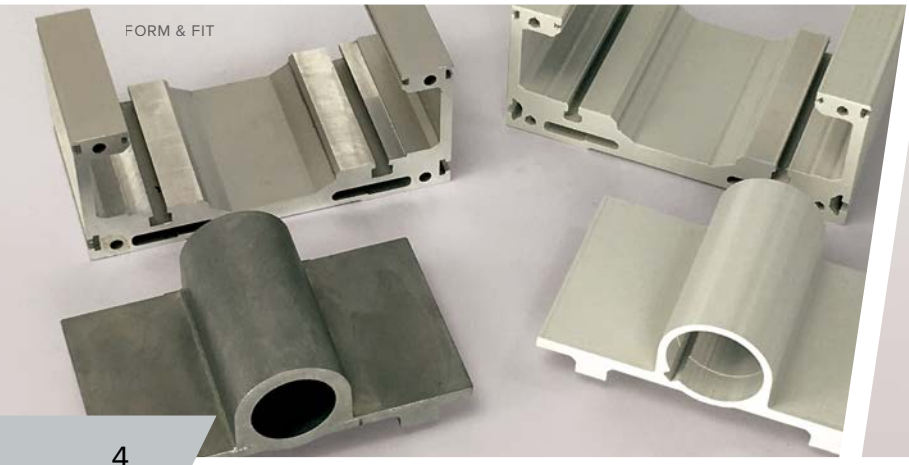
The perfect product rarely comes out of the initial design. The WorkSeries allows you to develop custom prototypes quickly and at a low cost, giving you the opportunity to refine and test to perfection, again and again and again.

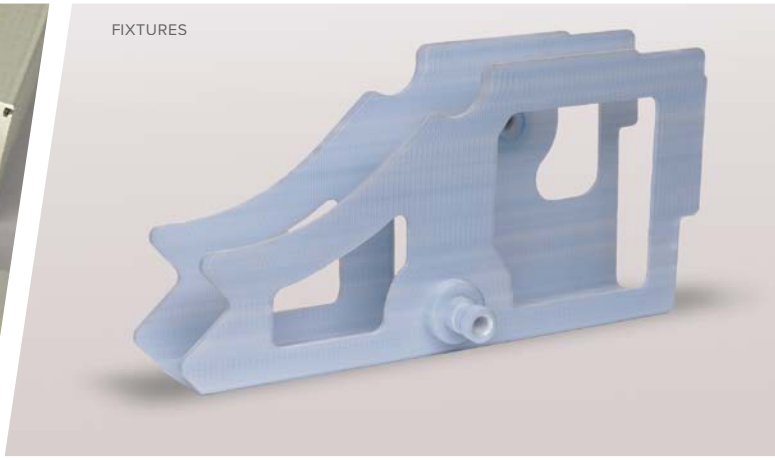
LEAN MANUFACTURING BEGINS WITH 3D PLATFORM

3D printing allows you to optimize fixtures, jigs, and manufacturing aids. The WorkSeries opens the door to custom tool production and refined processes, helping to reduce incremental tooling costs and risks. Lean manufacturing initiatives just got BIGGER support with 3D Platform.

PRODUCTION ON A FASTER SCALE

Breakaway from manufacturing constraints and produce precision parts faster without expensive tooling. The WorkSeries' large build area enables users to mass-produce end-use parts with multiple nozzle diameter options quickly and cost effectively.






LEAN MANUFACTURING


DESIGN & ARCHITECTURE


PRODUCTION SUPPORT

HELPING TO ADVANCE ORTHOTICS & PROSTHETICS

Help revolutionize the medical industry with fast, custom orthotics and prosthetics (O&P). Our open-market 3D printers will accelerate the development and manufacturing times associated with custom O&P. Plus, the large print area expands your opportunity in O&P manufacturing allowing for the printing of torso orthotics, entire limb prosthesis, or multiple smaller parts, further advancing your medical innovation.

EXPANDING THE WALLS OF DESIGN & ARCHITECTURE

We're helping to push the visual limits of design by giving architects and designers the opportunity to produce large objects in their own studio, bringing the structural detail to life. Our cost effective 3D printers are pushing the boundaries of what designers can create, helping them believe that truly anything is possible.

CREATE ON A BIGGER LEVEL

Creative professionals can expand and accelerate ideation with 3D printing technology. 3D Platform enables 3D artists to unleash their creativity and bring BIG ideas to life. Large build area allows for full-scale printing, without scaling down or multiple parts that require post-print assembly.

BRINGING RESEARCH & DEVELOPMENT TO MARKET FASTER

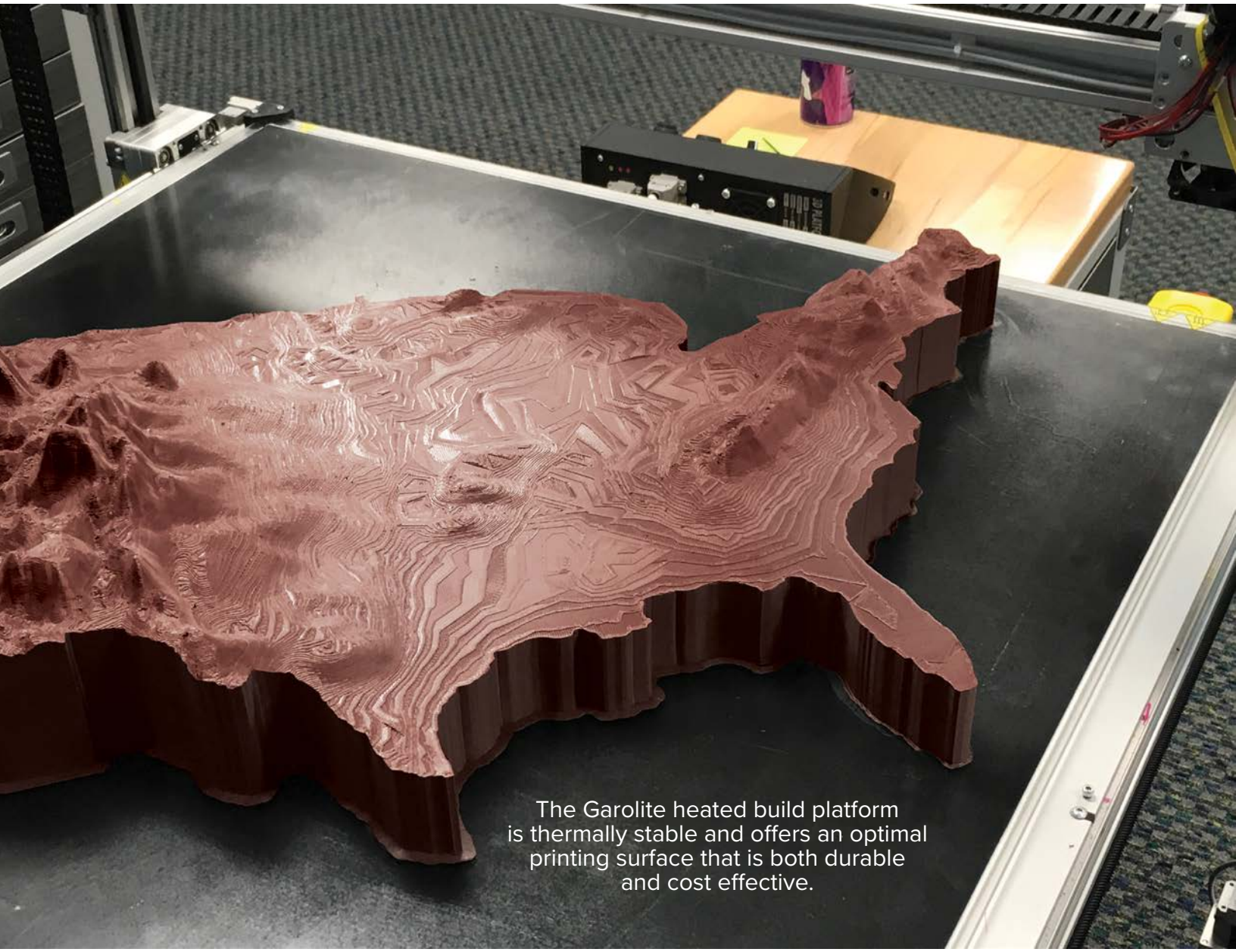
Test, learn, and explore additive manufacturing processes. With 3D printing technology, our products are helping research and development teams, educational institutions, and scientists to experiment, refine processes, and develop new product ideas quickly and cost-effectively.

CUSTOM PRINTING FOR ALL YOUR BIG IDEAS

The WorkSeries are designed to deliver innovative solutions for the most challenging applications and the most in-demand industries – but that's just the beginning. With superior speed, precision, large build envelope, and access to open-market materials, our 3D printers create a blank canvas for your custom ideas, making anything possible.


CREATIVE


ORTHOTICS



The Garolite heated build platform is thermally stable and offers an optimal printing surface that is both durable and cost effective.

"Since We Purchased Our Workbench,
We Keep Finding New Ways to Use It to be More Efficient.
Things We Never had Thought About Before."

— ***Packaging Engineer***, *Global Leader in Agricultural, Lawn and Garden Solutions*

Your Ideas are Just the Beginning...

EXPANDED 3D PRINTING CAPABILITIES

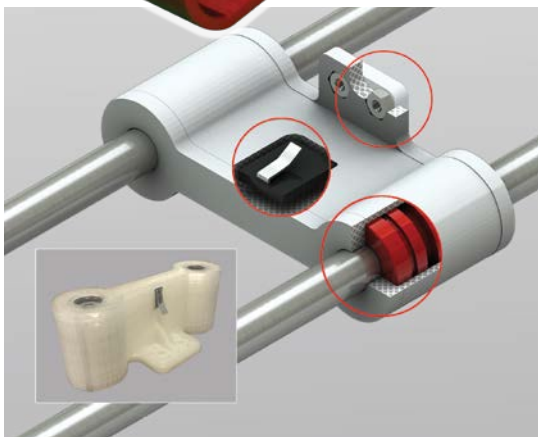
The WorkSeries was designed to expand the possibilities of 3D printing, because your BIG ideas shouldn't have limitations. With advanced processes in 3D printing – such as **inserts, core modeling,** and **multiple materials** – we are expanding the capabilities of our 3D printers to new levels.

Steel inserts, added during printing, provide structural reinforcement.

You can incorporate non-printed elements such as **fasteners, electronics, screen filters, switches, sensors,** or even **metal substructures** directly into a printed part. This enables you to produce fully functional models, prototypes, and finished products that will help you differentiate in the market. That's not possible with those fully enclosed 3D printers that operate in a closed eco-system.

Nut & Bolt Combination

Electronics



Linear Bearings, Nuts & Sensor

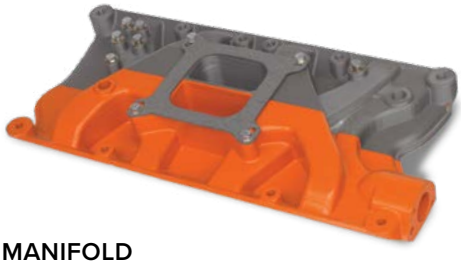
3D Print Statistics

Here are a variety of large 3D printed parts for a variety of applications. See for yourself how **affordable** it is to add 3D printing to your operation – giving you the **competitive edge** you need to stay ahead.

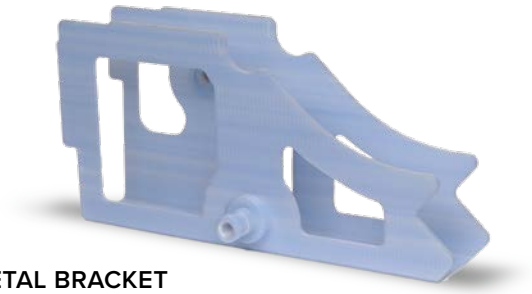
ENGINE BLOCK
Material: PLA
Size: X: 654 Y: 535 Z: 383 mm (X: 25 Y: 21 Z: 15 in)
Material Cost: $962 USD
Print Times:
Volcano Extruder: 392 hours
HFA Extruder: 215 hours
HF300 Extruder: 121 hours

RIM
Material: PLA
Size: X: 479 Y: 479 Z: 230 mm (X: 19 Y: 19 Z: 9 in)
Material Cost: $99 USD
Print Times:
Volcano Extruder: 76 hours
HFA Extruder: 40 hours
HF300 Extruder: 21 hours

BUMPER
Material: PLA
Size: X: 355 Y: 855 Z: 381 mm (x2) (X: 14 Y: 33.5 Z: 15 in (x2)
Material Cost: $832 USD
Print Times:
Volcano Extruder: 221 hours
HFA Extruder: 117 hours
HF300 Extruder: 62 hours



ENGINE INTAKE MANIFOLD
Material: PLA
Size: X: 523 Y: 249 Z: 71 mm (X: 20.5 Y: 10 Z: 3 in)
Material Cost: $81 USD
Print Times:
Volcano Extruder: 30 hours
HFA Extruder: 16 hours
HF300 Extruder: 9 hours

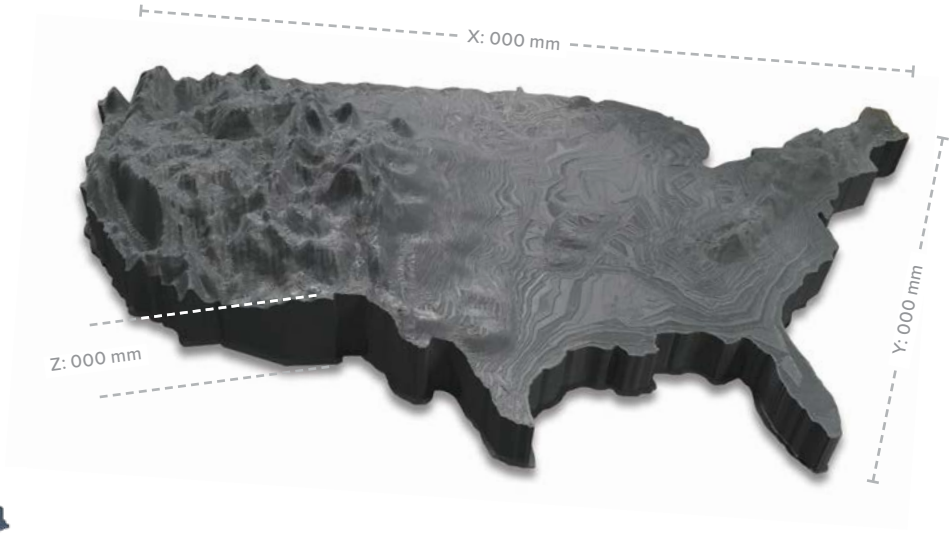


SHEET METAL BRACKET
Material: PLA
Size: X: 778 Y: 318 Z: 378 mm (X:30.5 Y: 12.5 Z: 15 in)
Material Cost: $102 USD
Print Times:
Volcano Extruder: 62 hours
HFA Extruder: 34 hours
HF300 Extruder: 19 hours

Topographical Map Print

Material: PLA
Amount: 3.7 kg
Size: X: xx mm Y: xx mm Z: xx mm
Printer Type: WorkSeries 300 Volcano

Print Details
Nozzle: 0.6 mm
Layer Height: 0.3 mm
Print Speed: 80 mm/s
Volcano Extruder: 54 hours



Top

Bottom

Left Side

FULL BODY PRINT
Material: PLA
Size: X: 254 Y: 432 Z: 1588 mm
(X: 10 Y: 17 Z: 62.5 in)
Material Cost: $500 USD
Print Times:
Volcano Extruder: 209 hours
HFA Extruder: 94 hours
HFE 300 Extruder: 76 hours

More Choices. More Savings. Our Open-Market Advantage.

When it comes to maximizing innovation and value for you, our Open-Market Advantage gives you the ability to choose from a wide variety of open-market **filament** and **software** that can deliver up to a **90% savings** on your investment.

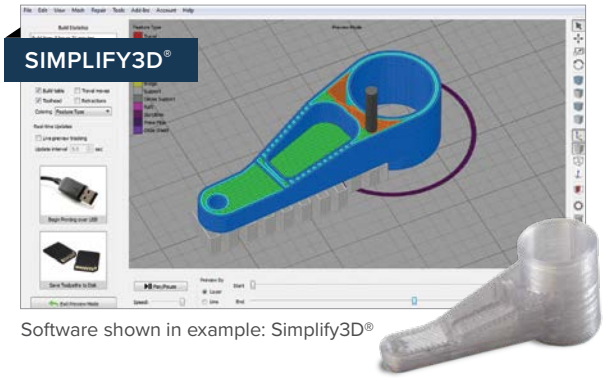
FILAMENT

Ongoing material science advancements provide a pipeline to rapid innovations in 3D printing, bringing your ideas from concept to reality faster, and more accurate than ever before. With diverse open-market material selections, we enable printing capabilities when unique physical properties are desired:

- Bronze, wood, carbon fiber, and other fills
- Flexible, pliable, and rubber-like properties
- Rigid and conductive properties
- Soluble
- PolyCast
- FDA compliant properties
- ...and more

SOFTWARE

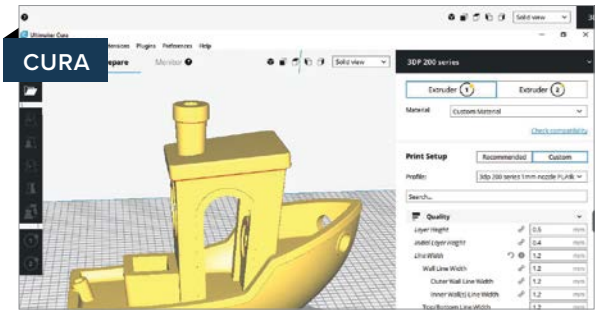
You deserve options. Our Open-Market Advantage allows you to use the software you are already familiar with, or to “right size” the software package that best meets your business needs and your budget.



Software shown in example: Simplify3D®

- Detailed print previews
- Advanced print algorithms
- Core modeling
- High speed, high quality prints

Simplify3D is available for purchase at simplify3d.com



Software shown in example: CURA

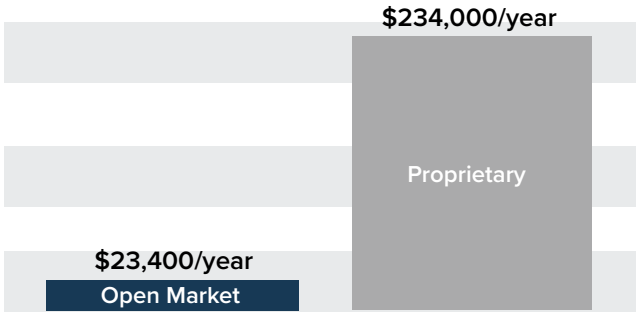
- Free open market software
- Can be used with Ultimaker Desktop printers
- Over 200 adjustable settings

CURA can be downloaded at ultimaker.com/en/products/ultimaker-cura-software

Rapid **ROI**

MOTORCYCLE GAS TANK

MATERIAL COST COMPARISON:
Open Market vs. Proprietary System



90% SAVINGS

Study based upon the printing of one gas tank demo per week for fifty weeks = **50 tanks per year**.
Open-Market Advantage: $468 material per tank = **$23,400 material per year**.
Proprietary System: $4,680 material per tank = **$234,000 material per year**.
All prices shown in US dollars.

Local Support Globally

At 3D Platform, we bring our highly personalized customer service and support to your doorstep no matter where you are worldwide. **We are committed to our customers' success**, and will be there for support as you grow your businesses.

From initial installation and training, to field support, troubleshooting, and more, 3D Platform serves as an extension of your team to ensure your operations are always up and running—

Because your success is our success.

INSTALLATION & SETUP

We go to great lengths – and to your place of business – to get you up and running:

- Machine functionality verified on site to ensure confidence in printer performance.
- 3D printer fully calibrated, saving you time. A trained technician performs the fine-tuning resulting in a printer that is functional at the beginning of your first print.
- Basic machine and software functionality covered to help ensure you are knowledgeable, comfortable, and confident in basic machine functionality and software.

TRAINING

We will ensure your team is up to speed – quickly – setting you up for success from your first print. Our courses cover the fundamentals on how 3D printing works and how you can take your BIG design ideas to the next level.

- Learn advanced printer functionality to help further your knowledge of your 3D Platform printer.
- Review advanced slicing functions which emphasize important techniques that can differentiate your product.
- Discover basic machine and software functionality to help you troubleshoot potential issues.

Training packages available for all experience levels, including packages for companies that are new to 3D printing or large-format printing.

GLOBAL DISTRIBUTION NETWORK

We deliver 3D printing solutions to you no matter where you are. Through our Global Distribution Network, we are able to deliver products and parts to your facility without delay or additional costs.

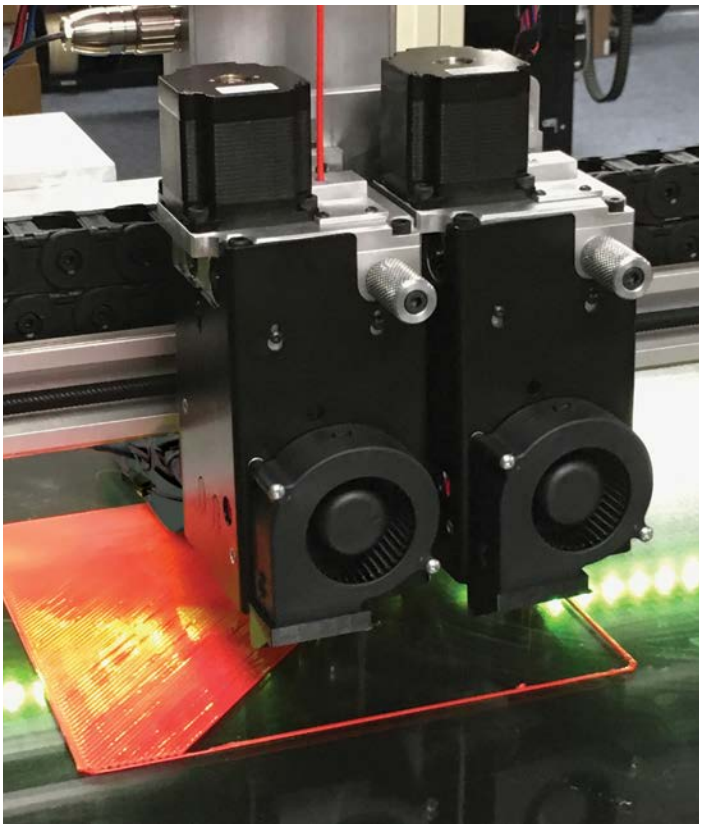
GLOBAL CERTIFIED SERVICE PROVIDERS

We understand that any delay in production can have a negative impact on your revenue and business. Through our network of Global Certified Service Providers, you can be confident that your machine is repaired correctly the first time and recalibrated back to factory settings. Use our online support at 3dplatform.com, call or email, and our 3D Platform support team is there to diagnose basic issues or concerns to make sure you are always up an running, without delay.

"3D Platform Delivered Our Printer, Set It Up, and We Printed Right Away..."

— ***Chief Engineer***, *Engineering, Design and Development Company for the Automotive, Aerospace, Architectural, Boating, Medical, and Commercial Industries*

Extruder Ingenuity



Volcano
Industry Standard
Baseline

HFA

HFE 300

3D Platform's **HFA** and **HFE** extruders are the **fastest filament extruders on the market**.

Quick-Swap dual extruder heads deliver high quality 3D prints and are independently controlled for speed and extruded material amounts.

The modular design can accommodate filament sizes from 1.75 mm to 6 mm and nozzles sizes from 0.2 mm to 5 mm.

Use a small diameter nozzle for fine layer resolutions. Use a large extruder and a large diameter nozzle for fast printing and ultra-strong parts.

Extruder	Nozzle Size Standard (mm)	Filament (mm)	Hot End Power (watts)	MAX Material Consumption (kg/hr)[2]	Additonal Power Consumption (A @ 208V)[3]	Compatible Nozzle Sizes (mm)[4]
 **HFA**	0.6	2.85	50	0.16	0.0	0.4, 0.8, 1.0, 1.2, 1.4, 1.6, 1.8, 2.0, 2.4
 **HFE 300**	1.0	2.85	300	0.32	1.5	1.2, 1.4, 1.6, 1.8, 2.0, 2.4

1. Actual material consumption will vary based on settings.
2. Additional power is per extruder. Double amount for two extruders.
3. Not all nozzle sizes are stocked. Consult factory for details.

Ordering Details

WORKSERIES300

TECHNICAL SPECIFICATIONS

Extruders

HFA

24V High Temp

HFE 300

Ordering Product Number

3DP300-2E7X2-AXX00-X 00

Controls

- B — BrainBox Touch Screen + Duet **WiFi**
- C — BrainBox Touch Screen + Duet **Ethernet**

Extruder 0 - Left

- 1 — HFA
- 2 — HFE 300

Extruder 1 - Right

- 1 — HFA (only if HFA chosen for Left)
- 2 — HFE 300

Liquid Cooling System

- 0 — No liquid cooling
- 1 — Liquid cooling*

*Liquid cooling is required for HFE extruders.

Size & Mechanical Features

Print Width	1000 mm (39.3 in)
Print Length	1000 mm (39.3 in)
Print Height	700 mm (27.5 in)
Build Volume[5]	0.7 m^3
Build Platform	Heated Garolite Surface
Bed Leveling: Automatic Mesh Leveling	

Print Process Attributes

Printer Type	Fused Filament Fabrication (FFF)
Slicing Software	Open Market Software
Build Materials	Open Market Materials
Extruder Type	Single or Dual Head, High Volume (HFE)
HFA	Standard
HFE 300	Optional
Max Bed Temp	145°C (293°F)
Max Nozzle Temp (Volcano/HFA)	295°C (563°F)
Max Nozzle Temp (HFE)	295°C (563°F)
Layer Resolution	Down to 50 Microns (0.0019 in)

Control & Features

Controls: LCD Display with 8-bit, 16 MHz ATmega2560 processor, 8 KB RAM

Controls: 178 mm (7 in) Touch Screen with 32-bit, 120MHz ARM Cortex M4 processor, 128 KB RAM

Data Transfer Method	SD Card, USB, Wi-Fi/Ethernet[8]
Wi-Fi/Ethernet[8]	Built-In
Certifications	CE
Power Input[7]	208–240V, 30A, 50/60 Hz, 1 Phase
Ambient Operating Temp	15–32°C (60–90°F)
Motors: SurePrint Servo®	Standard

Accessories

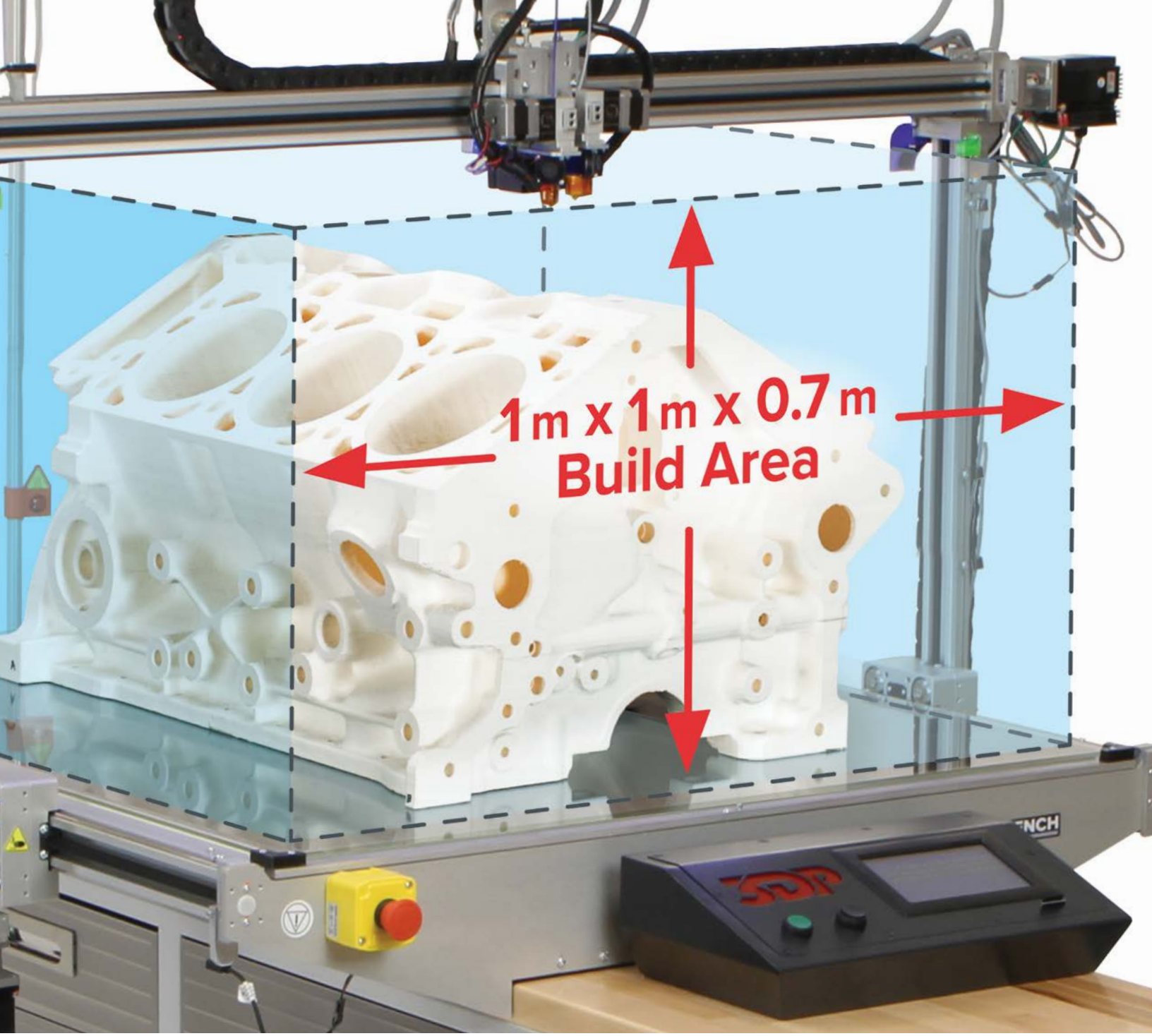
Filament Sensor	Standard
Feet - Casters	Standard

Physical Dimensions & Weight

Overall Width	1475 mm (58 in)
Overall Length	2286 mm (90 in)
Overall Height (max)	2616 mm (103 in)
Approx Weight	246 kg (540 lb)
Shipping Weight* (max)	450 kg (990 lb)

1. When multiple HFE extruders are used, the build size is slightly reduced. Consult factory for details.
2. HFE extruders consume more power than the HFA. Consult factory for details.
3. Ethernet controller is standard. Wi-Fi replaces Ethernet if Wi-Fi option is chosen.

Visit **3dplatform.com** and use our configurator to customize your printer.



3DPLATFORM.COM

3D PLATFORM

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