# HP Jet Fusion 5600 Series

# 3D printing solutions





### HP Jet Fusion 5600 Series 3D printing solutions

Enhance your manufacturing capabilities and optimize applications for flexible production at scale<sup>1</sup>

Ideal for high volume production environments



## Gain process flexibility to enhance applications<sup>2</sup>

- Optimize applications for scalable production with access to process development capabilities
- Leverage data and KPI analytics that streamline application development
- Become your own process expert through the transfer of knowledge and support from HP's technical experts

# Save time and money with predictable manufacturing<sup>3</sup>

- Improve yield rates and help reduce costs with optimized print modes and calibrations for consistent part quality—part to part, build to build, system to system
- Build confidence in your production processes with access to data reports
- Reduce unplanned downtime through improved hardware reliability

# Grow your business by scaling AM production

- Produce robust final parts with best-in-class isotropy using our latest generation HP Jet Fusion platform
- Maximize overall equipment effectiveness (OEE) through enhanced part repeatability and system reliability
- Unlock MJF's highest process capabilities to optimize and scale applications

HP 3D hardware, software, and services designed to help you scale into volume production



# HP Digital Production Suite—delivering the science and power of HP Multi Jet Fusion technology

HP Digital Production Suite provides the control and analytics required to scale additive manufacturing for a complete supply chain solution.

Design

Development

**Production** 



Development

**Production** 

HP 3D Process Development



Expand HP Multi Jet Fusion applications with access to a full suite of process parameter settings. Experiment and create processes designed to scale.

Maintain a library with your testing procedures.

### Design

### Development

#### **Production**

# HP 3D Build Manager

Quickly and easily prepare your jobs for printing with all the elements you need

### HP3D Command Center



Client/server application for system setup, registration, device monitoring, and connectivity management

#### HP 3D Center



Cloud-based dashboard delivers timely and historical data for greater productivity and efficiency

#### Integration with industry-leading software partners







**SIEMENS** 

# The HP Jet Fusion 5600 Series 3D printing solution is currently available with HP 3D High Reusability PA 12, enabled by Evonik



Strong, low-cost<sup>4</sup> parts and a reduced carbon footprint<sup>5</sup>

Reduce total cost of ownership<sup>6</sup> and produce strong, functional, detailed complex parts with HP 3D High Reusability PA 12, enabled by Evonik. This robust thermoplastic provides industry-leading surplus powder reusability.<sup>7</sup>

Statements: Biocompatibility, REACH, RoHS (for EU, Bosnia-Herzegovina, China, India, Japan, Jordan, Korea, Serbia, Singapore, Turkey, Ukraine, Vietnam), PAHs, Statement of Composition for Toy Applications, UL 94, and UL 746A. Meets strict automotive safety standards, including the Federal Motor Vehicle Safety Standard (FMVSS).8









# Working together through your digital manufacturing journey: HP 3D Solution Services

Whether you're just starting out or you're in full production, we're here to help you successfully navigate your 3D printing adoption journey with a world-class service experience, dedicated to making digital manufacturing and new growth a reality for your business.

### HP 3D Printing Prepare Services

From preparing your site to installing and calibrating your equipment; and printing your first parts to helping you explore the full potential of HP 3D Printing, we'll help get you started on the right track with HP 3D Printing Prepare Services.

## HP 3D Printing Care Services

Your uptime is our top priority. From preventive maintenance to proactive, big data-driven analytics, we're looking for every opportunity to help you improve the return on your investment through HP 3D Printing Care Services.

## HP 3D Printing Grow Services

Accelerate your transformation with HP 3D Printing Grow Services, designed to help you grow, move into new materials, applications, and use cases, and further optimize your manufacturing processes.

Learn more: hp.com/go/3DSupport

# HP 3D Professional Services: Accelerate your transformation to additive manufacturing (AM)

HP 3D Professional Services help organizations identify viable strategic opportunities, optimize design for breakthrough applications, and streamline manufacturing processes to enable mass customization and scale production.







#### Adopt

Identify new opportunities and advanced design techniques enabled with HP Multi Jet Fusion technology.

#### Develop

Look to improve your product positioning and market differentiation through innovation and new application development.

#### Manufacture

Set up customized, repeatable, and scalable manufacturing processes with HP 3D Factory Services.

Learn more: hp.com/go/3DProfessionalServices
Learn more: hp.com/go/FactoryServices



# Accelerate your move to HP 3D Printing with HP Integrated Financial Solutions

Leverage the latest technology to help accelerate your growth, profitability, and competitiveness. Partner with HP Integrated Financial Solutions to help accelerate your time to value. Enjoy the flexibility to meet both your technology and financial plans while allocating your cash to other priorities.

Financing options include a low per-month payment for HP Jet Fusion 5600 Series 3D printing solutions, enabling the flexibility to:

- Avoid a large upfront payment
- Align payments with revenue by using deferred or step payment options
- Simplify your administration—bundle hardware and services into a single agreement
- Change as your requirements evolve; refresh every 3-5 years

Financing and service offerings are available through Hewlett-Packard Financial Services Company and its subsidiaries and affiliates (collectively HPFSC), in certain countries, and are subject to credit approval and execution of standard HPFSC documentation. Rates and terms are based on customer's credit rating, offering types, services, and/or equipment type and options. Not all customers may qualify. Not all services or offers are available in all countries. Other restrictions may apply. HPFSC reserves the right to change or cancel this program at any time without notice.

 $\textbf{Learn\,more:}\,\underline{hp.com/go/3DIntegratedFinancialSolutions}$ 

# HP 3D as a Service (HP 3DaaS)9: Gain new levels of cost predictability with the flexibility to scale your business as you grow

In this business climate, there are many advantages to a pay-as-you-go business model when the focus is on outcomes. Paying on a usage basis puts the focus on your business results rather than equipment or transactions.

HP Jet Fusion 3D printing solutions are reinventing design and manufacturing—from accelerating design cycles to running efficient volume production with repeatable part quality.

Speed up your digital manufacturing transformation with HP 3DaaS:

- Predictable: Usage-based price per successful build<sup>10</sup> gives you certainty around your variable costs
- Convenient: Gain new operational efficiencies by simplifying supplies ordering and inventory management
- Affordable: Avoid up-front investment and help align your costs directly with your revenue by paying monthly<sup>11</sup>

HP 3DaaS includes:

- HP 3D Printing Care Services: HP 3D Production Care or HP 3D Shared Care
- HP Supplies and Automatic Replenishment<sup>9</sup>
- HP 3D Preventive Maintenance Kits
- Online dashboard for convenient billing and usage tracking

Contact your local HP sales representative for more information or learn more at hp.com/go/3DaaS

## Technical specifications

#### HP Jet Fusion 5600 Series 3D printers

| PRINTER<br>PERFORMANCE                     | Technology  | HP Multi Jet Fusion technology  |
|--|---|---|
|  | Effective build volume  | 380 x 284 x 380 mm (15 x 11.2 x 15 in)  |
|  | Humidity  | 40-80%  |
|  | Building speed <sup>12</sup>  | Up to 3,466 cm³/hr (211 in³/hr)   |
|  | Layer thickness <sup>12</sup>   | 0.09 mm (.0035 in)  |
|  | Job processing resolution (x,y)   | 1200 dpi  |
|  | Print resolution (x,y)  | 1200 dpi  |
| DIMENSIONS                                 | Printer   | 2210 x 1268 x 1804 mm (87 x 50 x 71 in)   |
| (W x D x H)                                | Shipping  | 2300 x 1325 x 2027 mm (91 x 52 x 80 in)   |
|  | Operating area  | 3700 x 3700 x 2500 mm (146 x 146 x 99 in  |
| WEIGHT                                     | Printer   | 880 kg (1940 lb)  |
|  | Build unit  | 140.5 kg (309.7 lb)   |
|  | Shipping  | 1037.5 kg (2287 lb)   |
| NETWORK <sup>13</sup>                      | Gigabit Ethernet (10/100/1000Base-T), supporting the following standards: TCP/IP, DHCP (IPv4 only), TLS/SSL |   |
| PROCESSOR AND                              | Processor   | Intel® Core™ i7 7770 (3.6 GHz, up to 4.2 GHz)   |
| MEMORY                                     | Memory  | 64 GB DDR4  |
| HARD DISK                                  | 1TB HDD SED (AES-256 e  | encrypted)  |
|  | 1TB SDD SED (AES-256 e  | ncrypted), TGC-OPAL 2.01 compliant  |
| SOFTWARE                                   | Compatible software   | HP 3D Build Manager HP 3D Command Center HP 3D Center HP 3D API HP 3D Process Development   |
|  | Cumpouted file formers  | ·   |
|  | Supported file formats  | 3MF, STL, OBJ, and VRML (v2.0)  |
|  | Certified<br>third-party software   | Autodesk® Netfabb with HP<br>Workspace, Materialize Build<br>Processor for HP Multi Jet Fusion<br>technology, Siemens NX AM for<br>HP Multi Jet Fusion technology |
| POWER                                      | Consumption   | 12 kW <sup>14</sup>   |
|  | Requirements  | 380-415 V (line-to-line), 50 A max,<br>50/60 Hz<br>200-240 V (line-to-line), 80 A max,<br>50/60 Hz  |
| CERTIFICATIONS<br>AND STATEMENT            | Safety  | IEC 60950-1+A1+A2 compliant; United<br>States and Canada (UL listed); EU<br>(LVD and MD compliant, EN 60950-1,<br>EN 12100-1, EN 60204-1, and EN 1010)            |
|  | Electromagnetic   | Compliant with Class A requirements, including: USA (FCC rules), Canada (ICES), EU (EMC Directive), Australia (ACMA), New Zealand (RSM), Korea (KCC               |
|  | Environmental statement   | REACH compliant   |
| WARRANTY &<br>SERVICE COVERAGE<br>INCLUDED | One-year limited hardwa   | re warranty   |
| ENVIRONMENTAL<br>SPECIFICATIONS            | Temperature during installation   | 20-30°C (68-86°F)   |
|  | Operating temperature   | 20-30°C (68-86°F)   |
|  | Recommended temperature for best performance  | 20-30°C (68-86°F)   |
|  | Storage temperature   | -25 to 55°C (-13 to 131°F)  |
|  | Operating humidity  | 40-80% without condensation   |
|  | Storage humidity  | < 90% without condensation  |
|  | ,   |   |

#### HP Jet Fusion 5200 Series 3D processing stations

| FEATURES                                   | Automated mixing and loading with ultrasonic sieving and accessible sieve mesh; semi-manual unpacking; high-temperature unpacking; automated external storage tank; optional trained self-service deep-cleaning; optional cooling unit |   |  |
|--|--|---|--|
| DIMENSIONS<br>(W x D x H)                  | Processing station   | 2990 x 934 x 2400 mm<br>(117.7 x 36.8 x 94.5 in)  |  |
| (WADATI)                                   | Shipping   | 2389 x 1176 x 2182 mm<br>(94 x 46.3 x 85.9 in)  |  |
|  | Operating area   | 3190 x 2434 x 2500 mm<br>(125.6 x 95.8 x 99 in)   |  |
| WEIGHT                                     | Processing station   | 485 kg (1069 lb)  |  |
|  | Loaded   | 724 kg (1596 lb)  |  |
|  | Shipping   | 620 kg (1366 lb)  |  |
| POWER                                      | Consumption  | 2.6 kW (typical)  |  |
|  | Requirements   | Input voltage single phase<br>200-240 V (line-to-line) 19 A max,<br>50/60 Hz (line-to-neutral) 14 A<br>max, 50 Hz   |  |
| CERTIFICATIONS<br>AND STATEMENT            | Safety   | UL 2011, UL508A, NFPA 70/ NFPA 79, C22.2 NO. 14-13 compliant;<br>United States and Canada (UL listed); EU (MD compliant, EN 60204-1, EN 12100-1, EN 1127-1, EN-ISO 11201 and EN 1010) |  |
|  | Electromagnetic  | Compliant with Class A requirements, including USA (FCC rules), Canada (ICES), EU (EMC Directive), Australia (ACMA), New Zealand (RSM), Korea (KCC)                                   |  |
|  | Environmental statement  | REACH compliant   |  |
| WARRANTY &<br>SERVICE COVERAGE<br>INCLUDED | One-year limited hard  | dware warranty  |  |
| ENVIRONMENTAL<br>SPECIFICATIONS            | Temperature<br>during installation   | 20-30°C (68-86°F)   |  |
|  | Operating temperature  | 20-30°C (68-86°F)   |  |
|  | Recommended<br>temperature for<br>best performance   | 20-30°C (68-86°F)   |  |
|  | Storage temperature  | -25 to 55°C (-13 to 131°F)  |  |
|  | Operating humidity   | 40-80% without condensation   |  |
|  | Storage humidity   | < 90% without condensation  |  |

# Ordering information

| PRINTER  | 7L1F1B                   | HP Jet Fusion 5600 3D Printer   |
|--|--------------------------|---|
| ACCESSORIES  | 7Q9U6A                   | HP Jet Fusion 5600 3D Build Unit  |
|  | 3FW27A                   | HP Jet Fusion 5200 3D Processing Station  |
|  | 815Z7A                   | HP Jet Fusion 3D Automation<br>Accessory  |
|  | 2W883A                   | HP Jet Fusion 5200 Series 3D Automatic Unpacking Station  |
|  | 2M7W6A                   | HP Jet Fusion 5200 Series 3D Automatic External Tank  |
|  | 4QG11A                   | HP Jet Fusion 5200 3D Automatic External Tank Starter Kit   |
|  | 4QG10A                   | HP Jet Fusion 5200<br>3D Natural Cooling Unit   |
|  | 5ZR22A                   | HP Jet Fusion 5200 3D Natural Cooling Unit Starter Kit  |
|  | 870A3A                   | HP Jet Fusion 5600 to 5620 Printer Upgrade Kit  |
|  | 8Z084A                   | HP Jet Fusion 5620 to 5620 Pro Printer Upgrade Kit  |
|  | 5ZR20A                   | HP Jet Fusion 5210 3D Processing Station Installation Kit   |
|  | 5ZR24A                   | HP Jet Fusion 5210 Pro 3D Processing<br>Station Installation Kit  |
| HP JET FUSION<br>3D POWDER HANDLING<br>AUTOMATION SOLUTION |                          | Please contact your local<br>HP 3D Printing specialist  |
| HP PROCESS DEVELOPMENT PACKAGE                             |                          | Please contact your local<br>HP 3D Printing specialist  |
| HP OFFICEJET PRO 7740 WIDE FORMAT ALL-IN-ONE PRINTER       |                          | For more information on availability in<br>your region, please check with your<br>local HP 3D Printing specialist |
|  | 7L4S2A                   | HP Jet Fusion 3D Alignment<br>Plate Accessory   |
|  | 7L4S1A                   | HP Jet Fusion 3D Thermocamera<br>Calibration Tool   |
|  | 3FW24A                   | HP Jet Fusion 3D Material Loading<br>3 units Bundle   |
|  | 3WL35A                   | HP Jet Fusion 3D Material<br>Unloading Kit  |
| RECOMMENDED<br>THIRD-PARTY<br>ACCESSORIES                  | Hovmand<br>Forklift 5200 | Please consult with your local<br>HP Amplify 3D printing specialist   |
| ORIGINAL<br>HP PRINTHEADS                                  | F9K08A                   | HP 3D600 Printhead  |

| HP 3D<br>LONG-TERM<br>CONSUMABLES                             | 8VJ68A          | HP Jet Fusion 5200/4200 Series 3D<br>Vacuum Pump Filter  |
|---|-----------------|--|
|   | 2X0E1A          | HP Jet Fusion 5200 Series 3D<br>Automatic Unpacking Station<br>E-cabinet Fan Filter  |
|   | 2X0E2A          | HP Jet Fusion 5200 Series 3D<br>Automatic Unpacking Station<br>Pneumatic Filter  |
|   | 2X0E3A          | HP Jet Fusion 5200 Series 3D<br>Automatic Unpacking Station Top<br>Lid Filter  |
| ORIGINAL  | V1Q63A          | HP 3D700 5L Fusing Agent   |
| HP AGENTS   | V1Q64A          | HP 3D700 5L Detailing Agent  |
| OTHER SUPPLIES  | V1Q66A          | HP 3D600 Cleaning Roll   |
| ORIGINAL HP 3D<br>HIGH REUSABILITY<br>MATERIALS <sup>15</sup> | V1R10A          | HP 3D High Reusability PA 12, enabled by Evonik, 30L (13kg)  |
|   | V1R16A          | HP 3D High Reusability PA 12, enabled by Evonik, 300L (130kg)  |
|   | V1R34A          | HP 3D High Reusability PA 12, enabled<br>by Evonik, Production Material 300L<br>(130 kg) <sup>16</sup>                                   |
|   | V1R20A          | HP 3D High Reusability PA 12, enabled by Evonik, 1400L (600 kg) <sup>17,18</sup>   |
| HP JET FUSION<br>3D SOLUTION<br>SERVICES <sup>19</sup>        | UB4P2E          | HP Digital Manufacturing Site<br>Readiness Assessment Tier 1 Service<br>for HP Jet Fusion 5600/5200/4200<br>Series 3D printing solutions |
|   | U67MQE          | HP Ready-to-Print Service for HP Jet<br>Fusion 5600 Series 3D printing<br>solutions  |
|   | U67MSE          | HP Ready-to-Grow Service for HP Jet<br>Fusion 5600 Series 3D printing<br>solutions   |
|   | UB9V8E          | HP 3-year Next Business Day* Onsite<br>HW Support w/DMR** Production Care<br>for HP JF 5600/5200/4200 3D printer                         |
|   | UB7M7E          | HP 3-year Next Business Day* Onsite<br>HW Support w/DMR** Foundation Care<br>for HP JF 5600/5200/4200 3D printer                         |
|   | H0JQ4AC         | HP Shared Care Jet Fusion 5600<br>3D printer   |
| * Next Business Day   | **Defective Med | ia Retention   |

<sup>\*</sup> Next Business Day \*\*Defective Media Retention

### **Note**

Learn more about HP Multi Jet Fusion technology at: hp.com/go/3DPrint

Connect with an HP 3D Printing expert or sign up for the latest news about HP Jet Fusion 3D Printing: <a href="https://hp.com/go/3Dcontactus">hp.com/go/3Dcontactus</a>

For more information, please visit: hp.com/JetFusion5600

Dynamic security-enabled printer. Only intended to be used with cartridges using an HP original chip. Cartridges using a non-HP chip may not work, and those that work today may not work in the future. More at: hp.com/go/learnaboutsupplies.

- 1. The HP Jet Fusion 5600 Series 3D printing solution is currently available with HP 3D High Reusability PA 12, enabled by Evonik.
- Customize the HP Multi Jet Fusion process to meet TCO or quality targets with
  the optional Process Development Package, which includes access to process
  parameter settings, analytics capabilities, and knowledge transfer. The
  Process Development Package is not included, sold separately.
- Based on internal HP testing as of July 2023, comparing the HP Jet Fusion 5600 Series 3D printing solution with other printers in the HP Jet Fusion portfolio.
- 4. Based on internal testing and public data for solutions on market as of April, 2016. Cost analysis based on: standard solution configuration price, supplies price, and maintenance costs recommended by manufacturer. Cost criteria: printing 1.4 full build chambers of parts per day/5 days per week over 1 year of 30 cm3 parts at 10% packing density on Fast print mode using HP 3D High Reusability PA 12, enabled by Evonik material, and the powder reusability ratio recommended by manufacturer, and printing under certain build conditions and part geometries.
- 5. Carbon footprint reduction calculated by Evonik.
- 6. Compared to selective laser sintering (SLS) and fused deposition modeling (FDM) technologies, HP Multi Jet Fusion technology can reduce the overall energy requirements needed to attain full fusing and reduce the system requirements for large, vacuum-sealed ovens. In addition, HP Multi Jet Fusion technology uses less heating power than SLS systems for better material properties and material reuse rates, minimizing waste.
- 7. Based on using recommended packing densities and compared to selective laser sintering (SLS) technology, offers excellent reusability without sacrificing mechanical performance. Tested according to ASTM D638, ASTM D256, ASTM D790, and ASTM D648 and using a 3D scanner. Testing monitored using statistical process controls.
- 8. This product is certified for Federal Motor Vehicle Safety Standard (FMVSS) 302 for Flammability of Interior Materials-Passenger Cars, Multipurpose Passenger Vehicles, Trucks, and Buses.

- 9. HP Supplies and Automatic Replenishment is currently available in the US, Canada, Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Ireland, Italy, Netherlands, Poland, Portugal, Spain, Sweden, UK, and South Korea. HP 3DaaS service only (HP Supplies not included) is available in Mexico, Brazil, Israel, Hungary, Romania, Slovenia, Turkey, United Arab Emirates, Greece, South Africa, China, Singapore, and Taiwan.
- 10. A successful build is a printed job that ends with the exit code "job\_completed\_successfully."
- 11. HP 3DaaS defined usage-based price applies for a one-year term.
- Based on using HP 3D High Reusability PA 12, enabled by Evonik, Balanced Print mode, at 0.09 mm (0.0035 in) layer thickness. Faster times are achievable with HP 3D Process Development.
- The HP Jet Fusion 3D printing solution should be connected to the HP Cloud in order to enable the correct functioning of the printer and to offer better support.
- 14. PA 12 in Balanced print mode.
- 15. Liters refers to the materials container size and not the actual materials volume. Materials are measured in kilograms.
- 16. Compatible with the HP Jet Fusion 5620 pro/5620 3D printing solutions.
- 17. Compatible with the HP Jet Fusion 5620 Pro 3D printing solution.
- 18. Additional material management equipment is required.
- 19. Should the HP Jet Fusion 3D printer or printing solution alert you that preventive maintenance is required, you must purchase the kit separately if you do not have one or if the kit provided was already used. If preventive maintenance is not completed in a timely manner, HP may request that you take corrective actions. HP may charge any extra costs due to the lack of maintenance. Required only if under HP 3D Foundation Care.

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