

HP Jet Fusion 5600 Series 3D Printing Solutions

impac
SYSTEMS
ENGINEERING



HP Jet Fusion 5600 Series 3D Printing Solutions

Enhance your manufacturing capabilities and optimize applications for flexible production at scale¹

Ideal for high volume production environments



| Gain process flexibility to enhance applications ² | Save time and money with predictable manufacturing ³ | Grow your business by scaling AM production |
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| <ul style="list-style-type: none"> 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 | <ul style="list-style-type: none"> 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 | <ul style="list-style-type: none"> 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.






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.



| HP 3D Build Manager | HP 3D Command Center | HP 3D Center |
|---|---|--|
|  |  |  |
| <p>Quickly and easily prepare your jobs for printing with all the elements you need</p> | <p>Client/server application for system setup, registration, device monitoring, and connectivity management</p> | <p>Cloud-based dashboard delivers timely and historical data for greater productivity and efficiency</p> |

| Integration with industry-leading software partners | | | |
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The HP Jet Fusion 5600 Series 3D Printing Solution is currently available with the following materials:

HP 3D High Reusability PA 12, enabled by Evonik. Strong, low-cost⁴ parts and a reduced carbon footprint⁵

Reduce total cost of ownership⁶ 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 reusability⁷.

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.



Data courtesy of Fractal

HP 3D High Reusability PA 12 S, enabled by Arkema

Ideal for customers that need to produce premium surface parts with lower variable costs⁹, while minimizing waste through high reusability¹⁰, leading to reduced environmental impact.



Data courtesy of Decathlon



Data courtesy of Bega

HP 3D High Reusability PA 12 W – Engineering-grade parts for vibrant color applications

Produce complex parts with fine detail, dimensional accuracy, optimal mechanical properties, and with industry-leading surplus powder reusability¹¹.

Designed to enhance color versatility, manufacturing equipment flexibility and reduce post-processing costs with UV resistance. Ideal for part providers and OEMs in industrial, orthotics and prosthetics and consumer goods sectors who want to dye parts in bright colors.



Data courtesy of Invent Medical

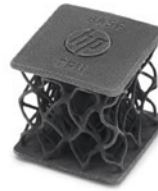


Forward AM Ultrasint® TPU01: flexible, functional parts

Produce flexible TPU parts, with a high throughput, excellent quality and level of detail, and suitable for a wide range of applications. Ideal for parts requiring shock absorption, energy return, and flexibility.



Data courtesy of HP - BASF



Tested and approved solely for compatibility with HP Jet Fusion 3D printers

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 | HP 3D Printing Care Services | HP 3D Printing Grow 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 AM Solutions, we'll help get you started on the right track with HP 3D Printing Prepare 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. | 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 | Develop | Manufacture |
|--|---|--|
| <p>Data courtesy of Invent Medical</p> | <p>Data courtesy of Addit-ion</p> | |
| Identify new opportunities and advanced design techniques enabled with HP Multi Jet Fusion technology. | Look to improve your product positioning and market differentiation through innovation and new application development. | 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 Additive Manufacturing Solutions 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.

Learn more: hp.com/go/3PIntegratedFinancialSolutions



HP 3D as a Service (HP 3DaaS)¹² : 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 build¹³ 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 monthly¹⁴

HP 3DaaS includes:

- HP 3D Printing Care Services: HP 3D Production Care or HP 3D Shared Care
- HP Supplies and Automatic Replenishment¹²
- 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 | | | |
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| PRINTER PERFORMANCE | Technology | HP Multi Jet Fusion technology | |
| | Effective build volume | 380 x 284 x 380mm (15 x 11.2 x 15in) | |
| | Humidity | 40-80% | |
| | Building speed ¹⁵ | Standard Mode | Up to 5.058 cm ³ /hr (309in ³ /h) |
| | | Balanced Mode | Up to 3.466 cm ³ /hr (211 in ³ /hr) |
| | Layer thickness ¹⁵ | Standard Mode | 0.08 mm (0.003 in) |
| | | Balanced Mode | 0.09 mm (0.0035 in) |
| Job processing resolution (x,y) | 1,200dpi | | |
| Print resolution (x,y) | 1,200dpi | | |
| DIMENSIONS (WxDxH) | Printer | 2,210 x 1,268 x 1,804mm (87 x 50 x 71in) | |
| | Shipping | 2,300 x 1,325 x 2,027mm (91 x 52 x 80in) | |
| | Operating area | 3,700 x 3,700 x 2,500mm (146 x 146 x 99in) | |
| WEIGHT | Printer | 880kg (1,940lb) | |
| | Build unit | 140.5kg (309.7lb) | |
| | Shipping | 1,037.5kg (2,287lb) | |
| NETWORK ¹⁶ | Gigabit Ethernet (10/100/1000Base-T), supporting the following standards: TCP/IP, DHCP (IPv4 only), TLS/SSL | | |
| PROCESSOR AND MEMORY | Processor | Intel® Core™ i7 7770 (3.6GHz, up to 4.2GHz) | |
| | Memory | 64GB DDR4 | |
| HARD DISK | 1TB HDD SED (AES-256 encrypted) | | |
| | 1TB SDD SED (AES-256 encrypted), 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 | |
| | Supported file formats | 3MF, ST L, OBJ, and VRML (v2.0) | |
| | Certified third-party software | Autodesk® Netfabb with HP Workspace, Materialize Build Processor for HP Multi Jet Fusion technology, Siemens NX AM for HP Multi Jet Fusion technology | |
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| POWER | Consumption | 12 kW ¹⁷ | |
| | Requirements | 380-415V (line-to-line), 50A max, 50/60Hz 200-240V (line-to-line), BOA max, 50/60Hz | |
| CERTIFICATIONS AND STATEMENT | Safety | IEC 62368-1+A1+A2 compliant; United States and Canada (UL listed); EU (LVD and MD compliant, EN 60950-1, 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 & SERVICE COVERAGE INCLUDED | One-year limited hardware warranty | | |
| ENVIRONMENTAL 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 3D Printing materials have their own restrictions published in material data sheets | | | |

| HP Jet Fusion 5200 Series 3D processing stations | | |
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| 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 WxDxH | Processing station | 2,990 x 934 x 2,400mm (117.7 X 36.8 X 94.5in) |
| | Shipping | 2,389 x 1,176 x 2,182mm (94 X 46.3 X 85.9 in) |
| | Operating area | 3,190 x 2,434 x 2,500mm (125.6 X 95.8 X 99in) |
| WEIGHT | Processing station | 485kg (1,069lb) |
| | Loaded | 724kg (1,596lb) |
| | Shipping | 620kg (1,366lb) |
| POWER | Consumption | 2.6kW (typical) |
| | Requirements | Input voltage single phase 200-240V (line-to-line) 19A max, 50/60Hz (line-to-neutral) 14A max, 50Hz |
| CERTIFICATIONS AND STATEMENT | Safety | IEC 62368-1 |
| | 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 & SERVICE COVERAGE INCLUDED | One-year limited hardware warranty | |
| ENVIRONMENTAL 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) |
| | Operating humidity | 40-80% without condensation |
| | Storage humidity | < 90% without condensation |
| HP 3D Printing materials have their own restrictions published in material data sheets | | |

HP Jet Fusion 5600 Series 3D Build Unit

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| DIMENSIONS WxDxH | Build Unit | 652 x 760 x 1050 mm |
| | Shipping | 1170 x 860 x 1260mm |
| | Operating Area | 9m ² (360 inc ²) |
| POWER | Consumption | 3kW |
| | Requirements | 220 -240 Vac, 50/60 Hz, 16A |
| CERTIFICATIONS AND STATEMENT | Safety | IEC 62368-1+A1+A2 compliant; United States and Canada (UL listed); EU (LVD and MD compliant, EN 60950-1, EN 12100-1, EN 60204-1, and EN 1010) |
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| WARRANTY & SERVICE COVERAGE INCLUDED | One-year limited hardware warranty | |
| ENVIRONMENTAL 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 5600 Series 3D Natural Cooling Unit

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| DIMENSIONS WxDxH | 450 x 550 x 651 mm |
| WEIGHT | Empty: 11 kg (24.3 lb) |
| | Full: 34.5 kg (76.1 lb) |

The RFID reader identifies individual natural cooling units and the jobs contained in them, by radio frequency, enabling job tracking for easier monitoring and analysis.



Ordering information

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| PRINTER | 7L1F1B | HP Jet Fusion 5600 3D Printer |
| ACCESSORIES | 709U6A | HP Jet Fusion 5600 3D Build Unit |
| | 3FW27A | HP Jet Fusion 5200 3D Processing Station |
| | 815Z7A | HP Jet Fusion 3D Automation Accessory |
| | 2W883A | HP Jet Fusion 5200 Series 3D Automatic Unpacking Station |
| | 2M7W6A | HP Jet Fusion 5200 Series 3D Automatic External Tonk |
| | 4OG11A | HP Jet Fusion 5200 3D Automatic External Tonk Starter Kit |
| | 4QG10A | HP Jet Fusion 5200 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 Station Installation Kit |
| | HP JET FUSION 3D POWDER HANDLING AUTOMATION SOLUTION | |
| HP PROCESS DEVELOPMENT PACKAGE | | Please contact your local HP 3D Printing specialist |
| HP OFFICEJET PRO 9730 WIDE FORMAT ALL-IN-ONE PRINTER | | For more information on availability in your region, please check with your local HP 3D Printing specialist |
| | 7L4S2A | HP Jet Fusion 3D Alignment Plate Accessory |
| | 7L4S1A | HP Jet Fusion 3D Thermocamera Colibrotion Tool |
| | 3FW24A | HP Jet Fusion 3D Material Loading 3 units Bundle |
| | 3WL35A | HP Jet Fusion 3D Material Unloading Kit |
| RECOMMENDED THIRD-PARTY ACCESSORIES | Hovmond Forklift 5200 | Please consult with your local HP Amplify 3D printing specialist |
| ORIGINAL HP PRINTHEADS | F9K08A | HP 3D600 Printhead |
| HP3D LONG-TERM CONSUMABLES | 8VJ68A | HP Jet Fusion 5200/4200 Series 3D Vacuum Pump Filter |
| | 2X0E1A | HP Jet Fusion 5200 Series 3D Automatic Unpacking Station E-cabinet Fan Filter |
| | 2X0E2A | HP Jet Fusion 5200 Series 3D Automatic Unpacking Station Pneumatic Filter |
| | 2X0E3A | HP Jet Fusion 5200 Series 3D Automatic Unpacking Station Top Lid Filter |
| ORIGINAL HP AGENTS | V1O63A | HP 3D700 5L Fusing Agent |
| | V1O64A | HP 3D700 5L Detailing Agent |
| OTHER SUPPLIES | V1O66A | HP 3D600 Cleaning Roll |

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| ORIGINAL HP 3D HIGH REUSABILITY MATERIALS ¹⁸ | 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 by Evonik. Production Material 300L (130kg) ¹⁹ |
| | V1R20A | HP 3D High Reusability PA 12, enabled by Evonik, 1,400L (600kg) ^{20,21} |
| | 910J7A** | HP 3D HR PA 12 S enabled by Arkema 300L/170kg Material |
| | 9V508A** | HP 3D HR PA 12 S enabled by Arkema 1,220L/500kg Material |
| | 300071 | BASF Ultrasint® TPU01, 300L (150kg) |
| | 300072 | BASF Ultrasint® TPU01, 1,000L (500kg) ²³ |
| | 6M032A | HP 3D HR PA 12 W 300L/130kg Production Material |
| | HP JET FUSION 3D SOLUTION SERVICES ²² | UB4P2E |
| U67MOE | | HP Ready-to-Print Service for HP Jet Fusion 5600 Series 3D Printing Solutions |
| U67MSE | | HP Ready-to-Grow Service for HP Jet Fusion 5600 Series 3D Printing Solutions |
| UB9V8E | | HP 3-year Next Business Day* Onsite HW Support w/DMR .. Production Core for HP JF 5600/5200/4200 3D printer |
| UB7M7E | | HP 3-year Next Business Day* Onsite HW Support w/DMR .. Foundation Core for HP JF 5600/5200/4200 3D printer |
| H0JO4AC | HP Shored Core Jet Fusion 5600 3D printer | |

*Next Business Day

**Defective Media Retention

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: hp.com/go/3Dcontactus

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 / HP 3D HR PA 12 S, enabled by Arkema / BASF Ultrasint® TPU01.
2. 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.
3. 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. Cost analysis based on standard solution configuration price, supplies price, and maintenance costs recommended by HP, comparing HP 3D HR PA12, enabled by Evonik and HP 3D HR PA 12 S, enabled by Arkema (both using Balanced print mode) and power reusability recommended by HP. Cost criteria: printing 5 full builds per week, 220 working days per year. 36cc part volume, 7% packing density, and 80 parts per build.
10. HP Jet Fusion 3D Printing Solutions using HP 3D High Reusability PA 12 S, enabled by Arkema, provide up to 85% powder reusability ratio, producing functional parts batch after batch. For testing, material is aged in real printing conditions and powder is tracked by generations (worst case for reusability). Parts are then made from each generation and tested for mechanical properties and accuracy.
11. 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.
12. 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.
13. A successful build is a printed job that ends with the exit code "job_completed_successfully."
14. HP 3DaaS defined usage-based price applies for a one-year term.
15. Based on using HP 3D High Reusability PA 12, enabled by Evonik, Balanced Print mode, at 0.09 mm (0.0035 in) layer thickness (Standard Print mode at 0.08 mm (0.003 in)). Faster times are achievable with HP 3D Process Development.
16. 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.
17. PA 12 in Balanced print mode.
18. Liters refers to the materials container size and not the actual materials volume. Materials are measured in kilograms.
19. Compatible with the HP Jet Fusion 5620 pro/5620 3D Printing Solutions.
20. Compatible with the HP Jet Fusion 5620 Pro 3D Printing Solution.
21. Additional material management equipment is required.
22. 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.
23. Only compatible with the HP Jet Fusion 5210 Pro 3D Printing Solution.

