

HP Jet Fusion 3D 4200 Printing Solution



Reinvent how you prototype and produce functional parts

*Deliver quality output, up to 10 times faster¹
at half the cost.²*



- Gain control with advanced/custom print modes for mechanical/functional/aesthetic properties, accuracy, speed.
- Get truly functional parts with optimal mechanical properties⁴ and monitor part quality during printing.
- Obtain predictable, reliable final printed parts that match your design.⁵
- Access new future materials and uncover new applications thanks to the HP Multi Jet Fusion Open Platform.
- Produce more parts per day with continuous printing, fast cooling¹—add parts while printing for urgent jobs.
- Experience enhanced performance thanks to a higher disk capacity and additional memory.
- Streamlined, cleaner experience with enclosed processing station and materials not classified as hazardous.⁶
- Rely on HP's world-class HP Jet Fusion 3D Solution Services to maximize uptime and productivity.
- Achieve lowest cost per part² and reduce operational costs, opening your doors to short-run manufacturing.
- Benefit from a competitively priced 3D printing solution.²
- Optimize cost and part quality, with cost-efficient materials that offer industry-leading reusability.⁷
- Plan production times more accurately and predictably, to help increase your overall operational efficiency.
- Choose your ideal end-to-end solution from a range of printing and processing options.



Print the Future

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HP Jet Fusion 3D 4200 Printing Solution

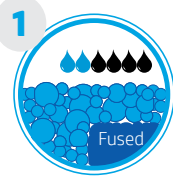
Easy-to-use solution that scales with your business; integrated **end-to-end process** that delivers both functional prototypes and final parts



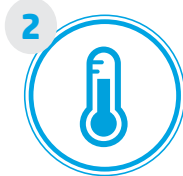
Breakthrough speed up to **10 times faster**¹ thanks to **HP's proprietary printing technologies** with 30 million drops per second across each inch (25,4 mm) of the working area



HP fusing and detailing agents work with HP Multi Jet Fusion technology and materials to deliver fine details and dimensional accuracy³



Accurate thermal control of every layer enables predictive corrections voxel by voxel for optimal mechanical properties⁴



In-printer quality checks reported via a touchscreen help minimize errors and enable easy and accurate job progress tracking



Stay connected:⁸ The HP Jet Fusion 3D printing solution collects data to provide a better customer and support experience; connectivity also drives both higher uptime and remote monitoring of your HP system from anywhere



HP SmartStream 3D Build Manager and Command Center: complete, easy-to-use in-box software solutions that streamline your workflow from design to final part



HP 3D printing materials provide optimal output quality and high reusability at a low cost per part and include HP 3D High Reusability PA 12, HP 3D High Reusability PA 12 Glass Beads, and HP 3D High Reusability PA 11



Change to **different materials:** the HP Jet Fusion 3D external tank allows the extraction of recycled material from the processing station so it can be replaced with a different material



Accelerated **materials innovation** to drive new, high-performance materials thanks to **HP's Open Platform**



HP Jet Fusion 3D 4200 Printer



PRINTER

SOLUTION

SOFTWARE

MATERIALS

HP Jet Fusion 3D 4200 Processing Station with Fast Cooling¹



Automated materials mixing and loading systems help streamline your workflow and reduce labor time



No additional room for parts removal needed with **enclosed unpacking and material collection system**, including a laminar hood



The **HP Jet Fusion 3D Build Unit**—included within the printer—is moved on for cooling right after job completion, allowing a **continuous printing¹** process and maximizing productivity¹



The **HP Jet Fusion 3D fast cooling module¹** reduces cooling time resulting in faster¹ time-to-part and more parts ready within the same day



HP Jet Fusion 3D Solution Services stand behind your business to maximize your uptime and productivity, with next-business-day onsite support and spare parts availability⁹

HP Jet Fusion 3D 4200 Printing Solution

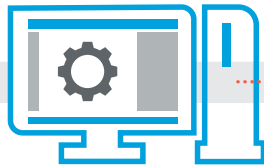
Ideal for industrial prototyping and final part production environments producing 130–599 parts per week*

*Assuming 220 working days of 30 cm³ parts at 10% packing density on Balanced print mode using HP 3D High Reusability PA 12 material, and 20% the powder reusability ratio.

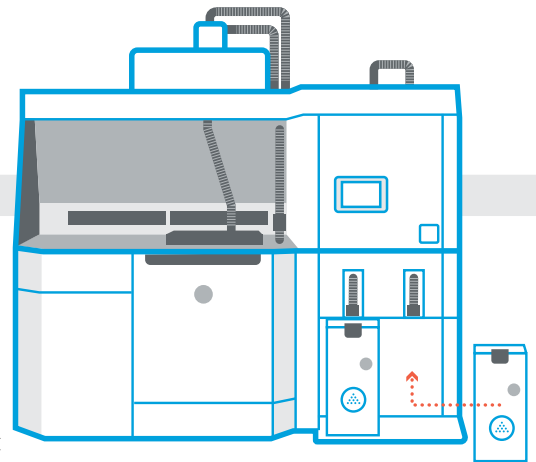
Reinventing 3D printing



1 Prepare your design for printing:
Open your 3D model and check for errors with easy-to-use HP software.



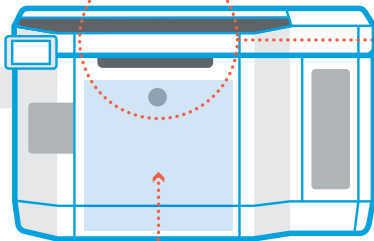
2 Pack models and send to printer:
Place multiple models in build platform and submit job to printer.



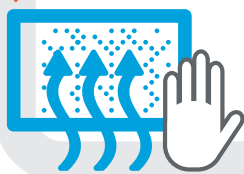
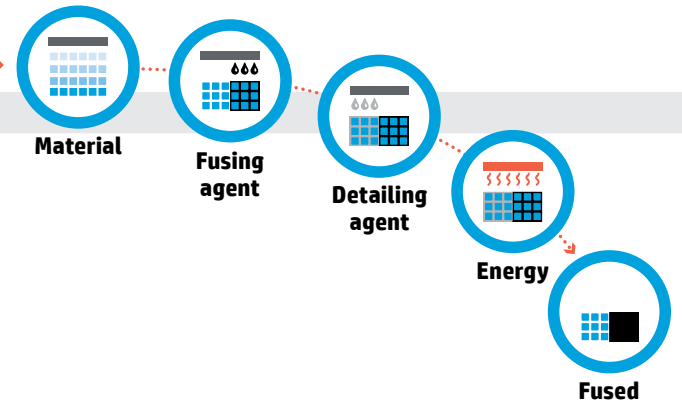
3 Add materials:
Insert the pre-packed HP 3D materials cartridges into the HP Jet Fusion 3D 4210/4200 Processing Station with Fast Cooling.¹



6 ...Slot the build unit into the printer



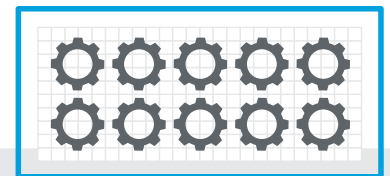
7 Printing with voxel-level control:
Just press Start to get excellent dimensional accuracy and fine detail,³ thanks to HP's unique multi-agent printing process.



10 Cleaner extraction:⁶
Eliminate the need for an additional room for parts removal with enclosed unpacking and material collection system.

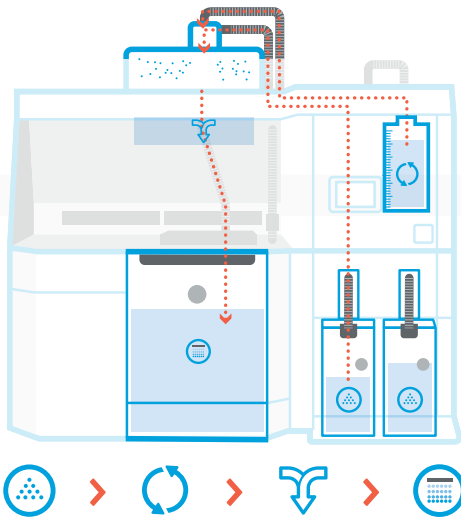


11 Industry-leading materials reusability:⁷
Get consistent performance while achieving 80% surplus powder reusability.¹⁰

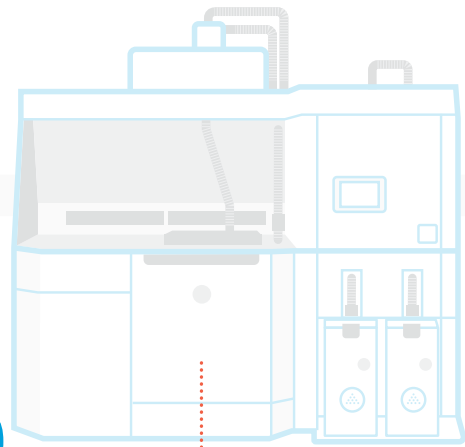


12 Breakthrough productivity:
Produce parts up to 10 times faster¹ at half the cost.²

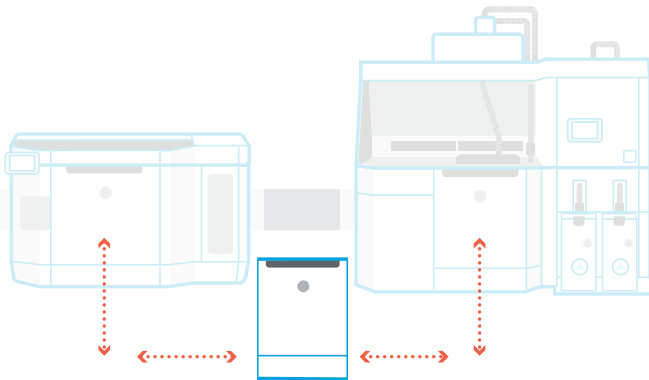
Enabled by HP Jet Fusion 3D 4210/4200 Processing Station with Fast Cooling¹



4 Automated mixing:
A cleaner loading and mixing experience because the processing station is enclosed and automated. Materials are loaded into the HP Jet Fusion 3D Build Unit.

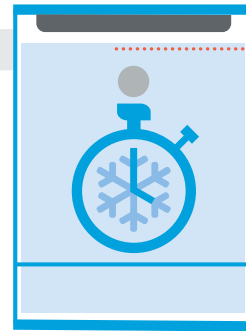


5 Remove the HP Jet Fusion 3D Build Unit from the processing station...



8 Streamlined workflow:
The build unit is removed from the printer—which is now ready for the next build—and slotted back into the processing station.

9 Produce more parts per day¹ with the HP Jet Fusion 3D 4210/4200 Processing Station with Fast Cooling¹:
With continuous printing and fast cooling.¹ Once cooled, parts are ready for post processing.



13 Job done:
As soon as the parts are ready, you receive an alert.



14 HP services:
Rely on HP Jet Fusion 3D Solution Services—including Next Business Day Support and Parts⁹—to help maximize uptime and productivity.



keep reinventing

Technical specifications¹³

HP Jet Fusion 3D 4200 Printer

HP Jet Fusion 4200 Processing Station with Fast Cooling¹

Printer performance	Technology	HP Multi Jet Fusion technology
	Effective building volume	380 x 284 x 380 mm (15 x 11.2 x 15 in)
	Building speed	4115 cm ³ /hr (251 in ³ /hr) ¹⁴
	Layer thickness	0.08 mm (0.003 in)
Dimensions (w x d x h)	Printer	2210 x 1200 x 1448 mm (87 x 47 x 57 in)
	Shipping	2300 x 1325 x 2068 mm (91 x 52 x 81 in)
	Operating area	3700 x 3700 x 2500 mm (146 x 146 x 99 in)
	Weight	Printer: 750 kg (1653 lb) Shipping: 945 kg (2083 lb)
Network¹⁵	Gigabit Ethernet (10/100/1000Base-T), supporting the following standards: TCP/IP, DHCP (IPv4 only), TLS/SSL	
	Hard disk	4200 printer: 2TB (AES-256 encrypted, FIPS 140, disk wipe DoD 5220M)
Software	Included software	HP SmartStream 3D Build Manager, HP SmartStream 3D Command Center
	Supported file formats	3MF, STL
	Certified third-party software	Autodesk® Netfabb® Engine for HP, Materialise Magics with Materialise Build Processor for HP Multi Jet Fusion, Siemens NX AM for HP Multi Jet Fusion
Power	Consumption	9 to 11 kW (typical)
	Requirements	Input voltage three phase 380-415 V (line-to-line), 30 A max, 50/60 Hz / 200-240 V (line-to-line), 48 A max, 50/60Hz
Certification	Safety	IEC 60950-1+A1+A2 compliant; United States and Canada (UL listed); EU (LVD and MD compliant, EN60950-1, EN12100-1, EN60204-1, and EN1010)
	Electromagnetic	Compliant with Class A requirements, including: USA (FCC rules), Canada (ICES), EU (EMC Directive), Australia (ACMA), New Zealand (RSM)
	Environmental	REACH
Warranty & Service coverage included	One-year limited hardware warranty	

Features	Automated mixing, sieving, and loading; semi-manual unpacking; fast cooling; ¹ external storage tank		
	Dimensions (w x d x h)	Processing station with fast cooling ¹	3121 x 1571 x 2400 mm (122.9 x 61.9 x 94.5 in)
Weight	Shipping	3499 x 1176 x 2180 mm (137.8 x 46.3 x 85.8 in)	480 kg (1058 lb)
	Operating area	3321 x 3071 x 2500 mm (130.7 x 120.9 x 99 in)	610 kg (1367 lb)
Power	Consumption	2.6 kW (typical)	810 kg (1786 lb)
	Requirements	Input voltage single phase 200-240 V (line-to-line), 19 A max, 50/60Hz or 220-240 V (line-to-neutral), 14 A max, 50Hz	620 kg (1367 lb)
Certification	Safety	UL 2011, UL508A, NFPA, C22.2 NO. 13-14 compliant; United States and Canada (UL listed); EU (MD compliant, EN 60204-1, EN 12100-1 and EN 1010)	
	Electromagnetic	Compliant with Class A requirements, including: USA (FCC rules), Canada (ICES), EU (EMC Directive), Australia (ACMA), New Zealand (RSM)	
	Environmental	REACH	
Warranty & Service coverage included	One-year limited hardware warranty		

Eco Highlights



- Powders or agents are not classified as hazardous⁶
- Cleaner, more comfortable workplace—enclosed printing system, and automatic powder management⁶
- Minimizes waste due to industry-leading reusability of powder¹⁰
- Take-back program for printheads¹⁶

Find out more about HP sustainable solutions at hp.com/ecosolutions

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.

For more information, please visit hp.com/go/3DPrint



- Fast cooling is enabled by HP Jet Fusion 3D Processing Station with Fast Cooling. HP Jet Fusion 3D Processing Station with Fast Cooling accelerates parts cooling time versus recommended manufacturer time of selective laser sintering (SLS) printer solutions from \$100,000 USD to \$450,000 USD, as tested in April, 2016. Fused deposition modeling (FDM) not applicable. Continuous printing requires an additional HP Jet Fusion 3D Build Unit (standard printer configuration includes one HP Jet Fusion 3D Build Unit). Based on internal testing and simulation, HP Jet Fusion 3D average printing time is up to 10 times faster than average printing time of comparable FDM and SLS printer solutions from \$100,000 USD to \$300,000 USD on market as of April, 2016. Testing variables for the HP Jet Fusion 4210/4200 Printing Solutions: Part quantity: 1 full build chamber of parts from HP Jet Fusion 3D at 20% of packing density versus same number of parts on above-mentioned competitive devices; Part size: 30 cm³; Layer thickness: 0.08 mm/0.003 inches.
- Based on internal testing and public data, HP Jet Fusion 3D 4200 Printing Solution average printing cost per part is half the average cost of comparable fused deposition modeling (FDM) and selective laser sintering (SLS) printer solutions from \$100,000 USD to \$300,000 USD 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 build chamber per day/5 days per week over 1 year of 30 cm³ parts at 10% packing density using HP 3D High Reusability PA 12 material, and the powder reusability ratio recommended by manufacturer.
- Based on HP's unique multi-agent printing process. Excellent dimensional accuracy and fine detail within allowable margin of error. Based on dimensional accuracy of ±0.2 mm/0.008 inches on XY for hollow parts below 100 mm/3.94 inches and ±0.2% for hollow parts over 100 mm/3.94 inches, using HP 3D High Reusability PA 12 material, measured after sandblasting. See hp.com/go/3Dmaterials for more information on materials specifications.
- Based on the following mechanical properties: Tensile strength at 48 MPa (XYZ), Modulus at 1700-1800 MPa (XYZ). ASTM standard tests with HP 3D High Reusability PA 12 material. See hp.com/go/3Dmaterials for more information on materials specifications.
- Within allowable margin of error. Based on dimensional accuracy of ±0.2 mm/0.008 inches on XY for hollow parts below 100 mm/3.94 inches and ±0.2% for hollow parts over 100 mm/3.94 inches, using HP 3D High Reusability PA 12 material, measured after sandblasting. See hp.com/go/3Dmaterials for more information on materials specifications.
- Compared to manual print retrieval process used by other powder-based technologies. The term "cleaner" does not refer to any indoor air quality requirements and/or consider related air quality regulations or testing that may be applicable. The HP powder and agents do not meet the criteria for classification as hazardous according to Regulation (EC) 1272/2008 as amended.
- Industry-leading surplus powder reusability based on using HP 3D High Reusability PA 12 at 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 for dimensional accuracy. Testing monitored using statistical process controls.
- For advanced data features charges may apply in the future.
- Available in most countries, subject to Terms & Conditions of HP Limited Warranty and/or Service Agreement. Please consult your local sales representatives for further details.
- HP Jet Fusion 3D printing solutions using HP 3D High Reusability PA 12 and HP 3D High Reusability PA 11 provide 80% post-production surplus powder reusability, producing functional parts batch after batch. For testing, material is aged in real printing conditions and powder is tracked by generations (worst case for recyclability). Parts are then made from each generation and tested for mechanical properties and accuracy.
- Liters refers to the materials container size and not the actual materials volume. Materials are measured in kilograms.
- Available in the second half of 2018.
- For latest technical specifications, please visit hp.com/go/3DPrint.
- Based on 0.08-mm (0.003-in) layer thickness and 7.55 sec/layer.
- 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.
- Printing supplies eligible for recycling vary by printer. Visit hp.com/recycle to see how to participate and for HP Planet Partners program availability; program may not be available in your area. Where this program is not available, and for other consumables not included in the program, consult your local waste authorities on appropriate disposal.



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