HP Jet Fusion 3D Printing Solutions

Reinvent making

The HP Jet Fusion 3D Printing Solutions reinvent how you prototype and produce functional parts, delivering quality output, up to 10 times faster[1] at half the cost or more[2]

Superior, consistent part quality[3,4]

- Get extreme dimensional accuracy and fine detail,[3] thanks to HP's unique Multi-Agent printing process
- Produce truly functional parts with optimal mechanical properties,[4] faster[1]
- 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

Breakthrough productivity

- Produce more parts per day with continuous printing and fast cooling[1,6]
- Streamline your workflow with HP's automated materials mixing and Processing Station
- Cleaner experience with an enclosed Processing Station and materials not classified as hazardous[7]
- Rely on HP's world-class HP Jet Fusion 3D Solution Services to maximize uptime and productivity
- Choose your ideal end-to-end solution from a range of printing and processing options

Lowest cost per part[2]

- Achieve lowest cost per part[2] 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[8]
- Plan production times more accurately and predictably to help increase your overall operational efficiency

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

HP Jet Fusion 3D 4210/4200/3200 Printing Solutions

HP Jet Fusion 3D Printer

HP Jet Fusion 3D Processing Station with Fast Cooling[6]

Image shows the HP Jet Fusion 4200 Printing Solution

HP Jet Fusion 3D 4210 Printing Solution

Ideal for manufacturing environments producing 700-1000 parts per week

HP Jet Fusion 3D 4200 Printing Solution

Ideal for industrial prototyping and final part production environments producing 300-699 parts per week

HP Jet Fusion 3D 3200 Printing Solution

Ideal for industrial prototyping and final part production environments producing 130-299 parts per week

SOLUTION

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

PRINTER

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

1 **HP fusing and detailing agents** work with HP Multi Jet Fusion technology and materials to deliver fine details and dimensional accuracy[3]

2 **Accurate thermal control** of every layer enables predictive corrections voxel by voxel for optimal mechanical properties[4]

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

4 **Stay connected:**[9] 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

SOFTWARE

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

MATERIALS

5 **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

6 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**

PROCESSING STATION

7 **Automated material mixing and loading systems** help streamline your workflow and reduce labor time

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

9 The **HP Jet Fusion 3D Build Unit**—included within the printer—is moved on for cooling right after job completion, allowing a **continuous printing**[6] process and maximizing productivity[1]

10 **The HP Jet Fusion 3D fast cooling module**[6] reduces cooling time resulting in faster[1] time-to-part and more parts ready within the same day

SERVICES & SUPPORT

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 availability[9]

Ordering information

	HP Jet Fusion 3D 4210 Printing Solution		HP Jet Fusion 3D 4200 Printing Solution		HP Jet Fusion 3D 3200 Printing Solution	
Printer	2YG73A	HP Jet Fusion 3D 4210 Printer	M0P44B	HP Jet Fusion 3D 4200 Printer	M0P41A	HP Jet Fusion 3D 3200 Printer
Accessories	2YG74A	HP Jet Fusion 3D 4210 Processing Station with Fast Cooling[6]	M0P49C	HP Jet Fusion 3D 4200 Processing Station with Fast Cooling[6]	M0P50A	HP Jet Fusion 3D 3200 Processing Station with Fast Cooling[6]
	M0P45C	HP Jet Fusion 4210 3D Build Unit	M0P45B	HP Jet Fusion 3D Build Unit	M0P45B	HP Jet Fusion 3D Build Unit
	M0P54B	HP Jet Fusion 3D External Tank 5 units Bundle	M0P54B	HP Jet Fusion 3D External Tank 5 units Bundle	M0P54B	HP Jet Fusion 3D External Tank 5 units Bundle
	M0P54D	HP Jet Fusion 3D External Tank Starter Kit	M0P54C	HP Jet Fusion 3D External Tank Starter Kit	M0P54C	HP Jet Fusion 3D External Tank Starter Kit
	3CY33A	HP Jet Fusion 3D 4210 Material Loading Kit				
	3WL35A	HP Jet Fusion 3D Material Unloading Kit				
	3FW24A	HP Jet Fusion 3D Material Loading 3 units Bundle				
Original HP Printheads	F9K08A	HP 3D600 Printhead	F9K08A	HP 3D600 Printhead	F9K08A	HP 3D600 Printhead
	V1Q77A	HP 3D710 Printhead				
Original HP Agents	V1Q60A	HP 3D600 3L Fusing Agent	V1Q60A	HP 3D600 3L Fusing Agent	V1Q60A	HP 3D600 3L Fusing Agent
	V1Q61A	HP 3D600 3L Detailing Agent	V1Q61A	HP 3D600 3L Detailing Agent	V1Q61A	HP 3D600 3L Detailing Agent
	V1Q63A	HP 3D700 5L Fusing Agent	V1Q63A	HP 3D700 5L Fusing Agent		
	V1Q64A	HP 3D700 5L Detailing Agent	V1Q64A	HP 3D700 5L Detailing Agent		
	V1Q78A	HP 3D710 5L Fusing Agent				
	V1Q79A	HP 3D710 5L Detailing Agent				
Other supplies	V1Q66A	HP 3D600 Cleaning Roll	V1Q66A	HP 3D600 Cleaning Roll	V1Q66A	HP 3D600 Cleaning Roll
Original HP 3D materials	V1R10A	HP 3D High Reusability PA 12 30L (13 kg)[10]	V1R10A	HP 3D High Reusability PA 12 30L (13 kg)[10]	V1R10A	HP 3D High Reusability PA 12 30L (13 kg)[10]
	V1R16A	HP 3D High Reusability PA 12 300L (130 kg)[10]	V1R16A	HP 3D High Reusability PA 12 300L (130 kg)[10]		
	V1R20A	HP 3D High Reusability PA 12 1400L (600 kg)[10]				
	V1R12A	HP 3D High Reusability PA 11 30L (14 kg)[10]	V1R12A	HP 3D High Reusability PA 11 30L (14 kg)[10]	V1R12A	HP 3D High Reusability PA 11 30L (14 kg)[10]
	V1R18A	HP 3D High Reusability PA 11 300L (140 kg)[10]	V1R18A	HP 3D High Reusability PA 11 300L (140 kg)[10]		
	V1R11A	HP 3D High Reusability PA 12 Glass Beads 30L (15 kg)[10]	V1R11A	HP 3D High Reusability PA 12 Glass Beads 30L (15 kg)[10]	V1R11A	HP 3D High Reusability PA 12 Glass Beads 30L (15 kg)[10]
	V1R22A	HP 3D High Reusability PA 12 Glass Beads 300L (150 kg)[10]	V1R22A	HP 3D High Reusability PA 12 Glass Beads 300L (150 kg)[10]		
	V1R23A	HP 3D High Reusability PA 12 Glass Beads 1400L (700 kg)[10]				
Certified HP 3D materials	EVNV1R14A	VESTOSINT® 3D Z2773 PA 12 30L (14 kg)[10]	EVNV1R14A	VESTOSINT® 3D Z2773 PA 12 30L (14 kg)[10]	EVNV1R14A	VESTOSINT® 3D Z2773 PA 12 30L (14 kg)[10]
	EVNV1R17A	VESTOSINT® 3D Z2773 PA 12 300L (140 kg)[10]	EVNV1R17A	VESTOSINT® 3D Z2773 PA 12 300L (140 kg)[10]		
HP Jet Fusion 3D Solution Services	U9EJ8E	HP Installation w/Introduction to Basic Operation Service for HP Jet Fusion 3D Printer	U9EJ8E	HP Installation w/Introduction to Basic Operation Service for HP Jet Fusion 3D Printer	U9EJ8E	HP Installation w/Introduction to Basic Operation Service for HP Jet Fusion 3D Printer
	U9EL9E	HP Installation w/Introduction to Basic Operation SVC for HP Jet Fusion 3D Processing Station with FC	U9EL9E	HP Installation w/Introduction to Basic Operation SVC for HP Jet Fusion 3D Processing Station with FC	U9EL9E	HP Installation w/Introduction to Basic Operation SVC for HP Jet Fusion 3D Processing Station with FC
	U9HQ4E	Ramp up Care Pack for HP Jet Fusion 3D Solution	U9HQ4E	Ramp up Care Pack for HP Jet Fusion 3D Solution	U9HQ4E	Ramp up Care Pack for HP Jet Fusion 3D Solution
	1MZ23B	HP 3D Printer Initial Maintenance Kit	1MZ23B	HP 3D Printer Initial Maintenance Kit	1MZ23B	HP 3D Printer Initial Maintenance Kit
	1MZ24A	HP 3D Printer Yearly Maintenance Kit	1MZ24A	HP 3D Printer Yearly Maintenance Kit	1MZ24A	HP 3D Printer Yearly Maintenance Kit
	1MZ25B	HP 3D Post Processing Maintenance Kit	1MZ25B	HP 3D Post Processing Maintenance Kit	1MZ25B	HP 3D Post Processing Maintenance Kit
	U9EK7E	HP Advanced Operation Training Service for Jet Fusion 3D Printer (HP Training Center)	U9EK7E	HP Advanced Operation Training Service for Jet Fusion 3D Printer (HP Training Center)	U9EK7E	HP Advanced Operation Training Service for Jet Fusion 3D Printer (HP Training Center)
	U9VP8E	HP 3 year NBD* Onsite Hardware Support with DMR** HP 3 year NBD* Onsite Hardware Support with DMR**	U9EK4E	HP 3 year NBD* Onsite Hardware Support with DMR** HP 3 year NBD* Onsite Hardware Support with DMR**	U9QQ9E	HP 3 year NBD* Onsite Hardware Support with DMR** HP 3 year NBD* Onsite Hardware Support with DMR**
	U9EQ8E	HP 3 year NBD* Onsite Build Unit Support	U9EQ8E	HP 3 year NBD* Onsite Build Unit Support	U9EQ8E	HP 3 year NBD* Onsite Build Unit Support
	U9EM5E	HP 3 year NBD* Onsite Support for Processing Station with Fast Cooling	U9EM5E	HP 3 year NBD* Onsite Support for Processing Station with Fast Cooling	U9EM5E	HP 3 year NBD* Onsite Support for Processing Station with Fast Cooling
	U9VQ3E	HP 3 year Shared HW Support, Parts NBD* with DMR** and 2 onsite visits for Printer	U9TZ7E	HP 3 year Shared HW Support, Parts NBD* with DMR** and 2 onsite visits for Printer		
	U9UA2E	HP 3 year Shared Hardware Support, Parts NBD* and 2 onsite visits for Build Unit	U9UA2E	HP 3 year Shared Hardware Support, Parts NBD* and 2 onsite visits for Build Unit		
	U9UA7E	HP 3 year Shared Hardware Support, Parts NBD* and 2 onsite visits for Processing Station with FC	U9UA7E	HP 3 year Shared Hardware Support, Parts NBD* and 2 onsite visits for Processing Station with FC		
	U9UB1E	HP Train to Maintain Service for Jet Fusion 3D Printer	U9UB1E	HP Train to Maintain Service for Jet Fusion 3D Printer		
	2UL67A	HP Uptime Kit for Jet Fusion 3D Printer	2UL67A	HP Uptime Kit for Jet Fusion 3D Printer		
	2UL69A	HP Uptime Kit for Jet Fusion 3D Processing Station	2UL69A	HP Uptime Kit for Jet Fusion 3D Processing Station		
	2UL68A	HP Uptime Kit for Jet Fusion 3D Build Unit	2UL68A	HP Uptime Kit for Jet Fusion 3D Build Unit		

* Next Business Day
** Defective Media Retention

Technical specifications[11]

HP Jet Fusion 3D 4210/4200/3200 Printer

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	**3200 printer:** 2800 cm^3/hr (170 in^3/hr)[12] **4210/4200 printers:** 4115 cm^3/hr (251 in^3/hr)[13]
	Layer thickness	0.08 mm (0.003 in)
	Print resolution (x, y)	1200 dpi
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)
Network[14]	Gigabit Ethernet (10/100/1000Base-T), supporting the following standards: TCP/IP, DHCP (IPv4 only), TLS/SSL	
Hard disk	**4200/3200 printers:** 2TB (AES-256 encrypted, FIPS 140, disk wipe DoD 5220M) **4210 printer:** HDD 1TB (AES-256 encrypted, disk wipe DoD 5520M) & SSD 500GB (AES-256 encrypted)	
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	**4200/3200 printers:** One-year limited hardware warranty **4210 printer:** Three-months limited hardware warranty	

HP Jet Fusion 4210/4200/3200 Processing Station with Fast Cooling[6]

Features	Automated mixing, sieving, and loading; semi-manual unpacking; fast cooling;[6] external storage tank In addition for 4210 printer: 2 material loading tanks; compatible with high-capacity material cartridges	
Dimensions (w x d x h)	Processing Station with Fast Cooling[6]	3121 x 1571 x 2400 mm (122.9 x 61.9 x 94.5 in)
	Shipping	3499 x 1176 x 2180 mm (137.8 x 46.3 x 85.8 in)
	Operating area	3321 x 3071 x 2500 mm (130.7 x 120.9 x 99 in)
Weight	Processing Station with Fast Cooling[6]	480 kg (1058 lb)
	Loaded	810 kg (1786 lb)
	Shipping	620 kg (1367 lb)
Power	Consumption	2.6 kW (typical)
	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
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	**4200/3200 printers:** One-year limited hardware warranty **4210 printer:** Three-months limited hardware warranty	

Eco Highlights

- Powders or agents are not classified as hazardous[7]
- Cleaner, more comfortable workplace—enclosed printing system, and automatic powder management[7]
- Minimizes waste due to industry-leading reusability of powder[15]
- Take-back program for printheads[16]

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

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

Cofinanced Project by Minetur -SETSI TSI-100802-2014-1

1. 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 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. Testing variables for the HP Jet Fusion 4210/4200/3200 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 grams; Layer thickness: 0.08 mm/0.003 inches.
2. 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. Common cost criteria: using HP 3D High Reusability PA 12 material, and the powder reusability ratio recommended by manufacturer. HP Jet Fusion 3D 4200/3200 Printing Solutions 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 to $300,000 USD. Cost criteria: printing 1 build chamber per day/5 days per week over 1 year of 30-gram parts at 10% packing density. HP Jet Fusion 3D 4210 Printing Solution average printing cost per part is 65% lower versus the average cost of comparable FDM and SLS printer solutions from $100,000 to $300,000 USD and is 50% lower versus the average cost of comparable SLS printer solutions for $300,000 to $450,000 USD. Cost criteria: printing 1.4 full build chambers of parts per day/5 days per week over 1 year of 30-gram parts at 10% packing density on fast print mode.
3. Based on HP's unique Multi-Agent printing process. Extreme dimensional accuracy and fine detail within allowable margin of error. Based on dimensional accuracy of ±0.2 mm/0.008 inches for parts under 100 mm/3.94 inches and 0.2% for 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.
4. 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.
5. Within allowable margin of error. Based on dimensional accuracy of ±0.2 mm/0.008 inches for parts under 100 mm/3.94 inches and 0.2% for 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.
6. 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).
7. 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.
8. 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 and MFI test using HDT at different loads with a 3D scanner for dimensional stability. Testing monitored using statistical process controls. Liters refers to the materials container size and not the actual materials volume. Materials are measured in kilograms.
9. 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.
10. Liters refers to the materials container size and not the actual materials volume. Materials are measured in kilograms.
11. For latest technical specifications, please visit hp.com/go/3DPrint.
12. Based on 0.08-mm (0.003-in) layer thickness and 10.9 sec/layer.
13. Based on 0.08-mm (0.003-in) layer thickness and 7.55 sec/layer.
14. 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.
15. 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.
16. 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.

4AA6-4892EEP, February 2018

This is an HP Indigo digital print.