HP Jet Fusion 580 Color 3D Printer

Produce functional parts in full color—with voxel control—in a fraction of the time[1]

Data courtesy of Nacar

Full spectrum color parts with voxel control

- Produce brilliant, full-color functional parts while maintaining optimal mechanical properties.

- Stay ahead with a future-ready technology.

- Prototype and produce functional parts, averaging up to 100 parts per week.[2]

Accurate, functional parts with intricate detail

- Produce engineering-grade thermoplastic parts with optimal mechanical properties.

- Achieve fine detail and high dimensional accuracy for small features.

- Get accurate and repeatable results.

Accelerate design—create, test, iterate in hours

- Produce multiple prototype iterations in the same time it takes to print a single part.[1]

- Access convenient in-house automated 3D printing with the most compact HP Jet Fusion 3D device.

- Get the parts you want when you need them, easily, reliably, and predictably with immediate access to support.

- Prototype, then do final part production on the HP Jet Fusion 4200 3D Printing Solution, using the same technology.

For more information, please visit
hp.com/go/3DPrinter580

A fully integrated, compact design

An easy-to-use solution that integrates material mixing and loading, printing, and reclaiming material in one device.
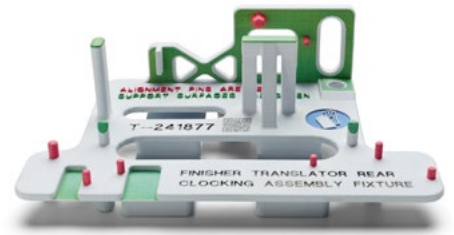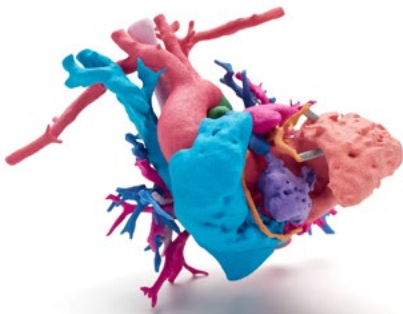
Intuitive user interface

Full spectrum color with voxel-level control

Enclosed, automated material mixing, loading, and reclamation systems

Designed for small/medium-sized product development teams, design firms, and universities averaging up to 100 parts per week[2]

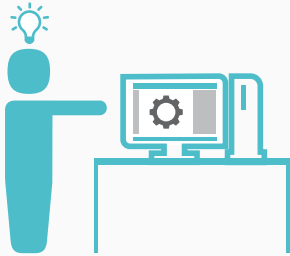Image shows the HP Jet Fusion 580 Color 3D Printer

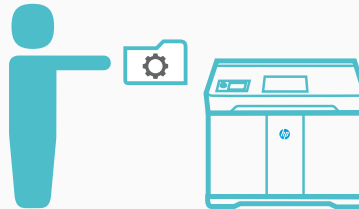Data courtesy of Phoenix Children's Hospital: Heart of Jemma

Reinventing 3D printing
HP Jet Fusion 580 Color 3D Printer

1 Prepare designs:
Open your 3D models and check for errors with the easy-to-use HP SmartStream 3D Build Manager.
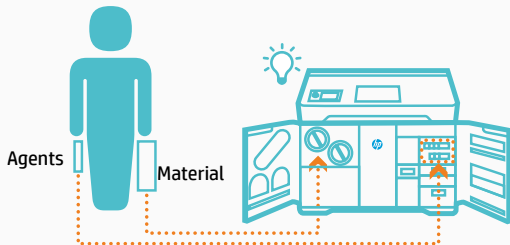
2 Send to print:
Pack your models in the 3D build manager and press "Send to print" to submit your job to the printer.
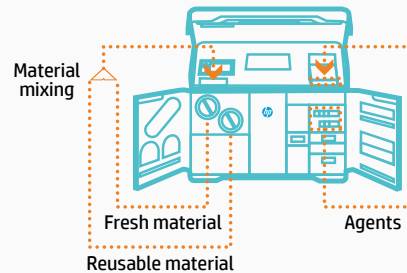
3 Select job:
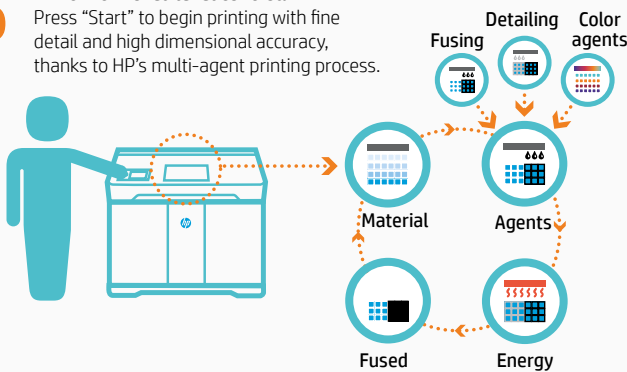Choose your print job at the printer.

4 Add supplies:
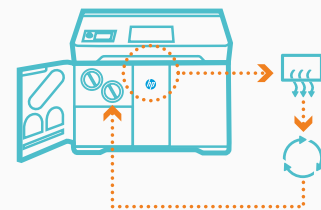Insert 3D materials and agent cartridges into the printer as needed.

Agents   Material

5 Automated material mixing and loading:
The printer automatically mixes fresh and reusable material and loads it into the print area. Agents are automatically loaded into the print area as well.

Material mixing

Fresh material   Agents
Reusable material

6 Print with voxel-level control:
Press "Start" to begin printing with fine detail and high dimensional accuracy, thanks to HP's multi-agent printing process.
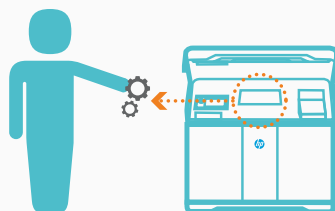
Fusing   Detailing   Color agents

Material   Agents

Fused   Energy

7 Automated material extraction and reclamation:
After printing is finished, the printer automatically extracts and reclaims unfused material for future builds. You can use up to 80% reusable material in builds while maintaining consistent performance.[*]

8 Job done:
You receive an alert when your parts are ready and the reclamation process is complete.

9 Retrieve parts:
Simply open the printer and retrieve your parts for final cleaning and post processing.

10 HP Jet Fusion 3D Solution Services – with you at every step:
Accelerate your design cycle with immediate access to support, affordable solution services, and comprehensive training.

[*]HP Jet Fusion 3D Printing Solutions using HP 3D High Reusability CB PA 12 provide up to 80% 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.

Technical information

HP Jet Fusion 580 Color 3D Printer

Printer performance	Technology	HP Multi Jet Fusion technology
	Effective building volume	Up to 332 x 190 x 248 mm (13.1 x 7.5 x 9.8 inches)
	Building speed[3]	1,817 cm³/hr (111 in³/hr)
	Full build job time for 248-mm (9.8-in) buildable height[4]	As fast as 20 hours
	Layer thickness	0.08 mm (0.003 inches)
	Printhead resolution	1200 dpi
Dimensions (w x d x h)	Printer	1565 x 955 x 1505 mm (61.6 x 37.6 x 59.3 inches)
	Shipping	1770 x 1143 x 2013 mm (69.7 x 45 x 79.3 inches)
	Operating area	2785 x 2530 x 2440 mm (109.6 x 99.3 x 96 inches)
Weight	Printing	650 kg (1433 lb)
	Shipping	850 kg (1874 lb)
Environmental ranges	Operating temperature	20-30° C (68-86° F)
	Operating humidity	20-70% RH without condensation
Acoustics[5]	Front operating position	72 dB (without muffler) / 70 dB (with muffler)
	Rear bystander position	80 dB (without muffler) / 75 dB (with muffler)
Network[6]		Gigabit Ethernet (10/100/1000Base-T), supporting the following standards: TCP/IP, DHCP (iPv4 only), TLS/SSL
Hard disk		HDD 1TB (AES-256 encrypted, disk wipe DoD 5520M) & SSD 1TB (AES-256 encrypted)
Software	Included software	HP SmartStream 3D Build Manager
		HP SmartStream 3D Command Center
	Supported file formats	3MF, STL, OBJ, VRML v.2
Power	Consumption	4.5-6.3 kW (typical)
	Requirements	One dedicated circuit configuration: input voltage 200 - 240 V (line-to-line), 36 A max, 50/60 Hz
Certification	Safety	NA (US & Canada): IEC 61010-1 compliant, NRTL certified; EU: Machinery Directive, EN 61010-1, EN 60204-1, EN ISO 12100 and EN ISO 13849-1 compliant
	Electromagnetic compatibility	EN 55032:2012 Class A; CISPR 32:2012 Class A; FCC CFR 47 Part 15 Class A; ICES-003, Issue 6 Class A; EN 61000-3-12:2011; IEC 61000-3-12:2011; EN 61000-3-11:2000; IEC 61000-3-11:2000; EN 55024:2010; CISPR 24:2010
	Environmental	REACH compliant
Warranty & service coverage included		One-year limited hardware warranty

Ordering information

Printer	M2K85A	HP Jet Fusion 580 Color 3D Printer
Original HP printheads	V1Q67A	HP 3D400 Printhead Kit
	V1Q76A	HP 3D450 Color Printhead Kit
Printer accessories	5RD52A	HP Jet Fusion Muffler
Recommended cleaning accessories *Please consult with your local HP Partner First 3D Printing Specialist	Guyson MultiBlast3D	HP Recommended Bead & Air Blast Solution* (Recommended for EMEA and AMS regions)
	Delfin 300 BL	HP Recommended Explosion-Proof Vacuum. Promotional code*: ESD.EX22-0299 (Recommended for EMEA region)
	Tiger-Vac C-10 EX (4W)	HP Recommended Explosion-Proof Vacuum. Promotional code*: TVC-111805A-HP2 (Recommended for AMS region)
Original HP agents	V1Q80A	HP 3D400 500-ml Detailing Agent
	V1Q70A	HP 3D450 250-ml Black Agent
	V1Q71A	HP 3D400 500-ml Fusing Agent
	V1Q81A	HP 3D400 250-ml Bright Fusing Agent
	V1Q73A	HP 3D450 250-ml Yellow Agent
	V1Q74A	HP 3D450 250-ml Magenta Agent
	V1Q75A	HP 3D450 250-ml Cyan Agent
Original HP 3D high reusability materials	V1R30A	HP 3D HR CB PA 12 10L (4 kg)[7]
HP Jet Fusion 3D Solution Services	U9ZR4E	HP Ready-to-print Service
	U9ZN9E	HP Advanced Operation Training (HP Training Center)
	U9ZP2E	HP 3 year 2nd Business Day onsite Hardware Support w/DMR
HP 3D long-term consumables	U9ZR1E	HP 3D400 Air Inlet Filter
	U9ZR2E	HP 3D400 Print Area Filter
	U9ZR3E	HP 3D400 Air Exhaust Filter
	U9ZR5E	HP 3D400 Printhead Cleaning Roll
	U9ZR6E	HP 3D400 Lamp Module

reddot award 2018 winner

HP Jet Fusion 500 Series 3D Printers were awarded the "Seal of Design Quality" at the 2018 Red Dot Awards, an honor that is only awarded to products that display outstanding design quality and innovation.

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

Eco Highlights

- HP 3D powders and agents are not classified as health hazards[8]
- Cleaner, more comfortable experience—enclosed printing system, and automatic powder management[9]
- Minimizes waste due to industry-leading reusability of powder[10]
- Take-back program for agent cartridges[11]

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

Connect with an HP 3D Printing expert or sign up for the latest news about HP Jet Fusion 500 Series 3D Printers at hp.com/go/3DPrinter580
Learn more about HP Multi Jet Fusion technology at hp.com/go/3DPrint

1. Based on internal and third-party testing for HP Jet Fusion 580 Color and 540 3D Printers, printing and cooling time is a fraction of the time of the printing times of comparable plastic fused deposition modeling (FDM), stereolithography (SLA), and material jetting solutions from $20,000 USD to $120,000 USD on market as of June, 2017. Testing variables for the HP Jet Fusion 580 Color 3D Printer: Part quantity: 1 full build chamber of parts from HP Jet Fusion 3D at 10% 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. Competitor testing variables are comparable.
2. Assuming 220 working days of 30 cm³ parts at a 10% packing density using HP 3D High Reusability CB PA 12 material, and up to 80% powder reusability ratio.
3. Based on 0.08-mm (0.003-in) layer thickness and 10 sec/layer.
4. Assumes default "Auto Cool and Reclaim" print mode. Job duration begins at the moment the job is selected to print at the control panel and ends at the time the parts are ready to be removed from the build chamber. Does not include part cleaning.
5. Measurement positions conform to ISO 11201-2010 for machinery, 1.0 meters horizontally and 1.55 meters above the floor.

6. 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.
7. Liters refers to the materials container size and not the actual materials volume. Materials are measured in kilograms.
8. The HP powder and agents do not meet the criteria for classification as hazardous according to GHS and Regulation (EC) 1272/2008 as amended.
9. 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.
10. Compared to PA 12 materials available as of June, 2017. HP Jet Fusion 3D Printing Solutions using HP 3D High Reusability CB PA 12 provide up to 80% powder reusability ratio, producing functional parts batch after batch.
11. 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.