## Reinventing 3D Printing

See how the **HP Jet Fusion 3D printing solution** unlocks the full potential of 3D printing.



Processing Station with Fast Cooling<sup>1</sup>

- 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 internal testing and simulation, HP Jet Fusion 3D average printing time is up to 10 times faster than average printing time is 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 3D 4/2400 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 cm<sup>3</sup>; Layer thickness: 0.08 mm/0.003 inches.
- 3. 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 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.

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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 D639, and ASTM D648 and using a 3D scanner for dimensional accuracy. Testing monitored using statistical process controls.
 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.

- 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 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 to \$300,000 USD. Cost criteria: printing 1 build chamber per day/S days per week over 1 year of 30 cm<sup>3</sup> 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. Cost criteria: printing 1 build chambers of parts per day/S days per week over 1 year of 30 cm<sup>3</sup> parts at 10% packing density. HD 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 \$450,000 USD. Cost criteria: printing 1.4 full build chambers of parts per day/S days per week over 1 year of 30 cm<sup>3</sup> parts at 10% packing density on fast print mode. Available in most countries, subject to Terms & Conditors of HL Limited Warranty and/or Service Agreement. Please consult your local slate representatives for further detals.