

MINIMUMS AND MAXIMUMS

- HP MJF 4200/5200 maximum build size: 380mm x 280mm x 380mm
- Large, solid pieces are difficult to print. Consider hollowing them out or creating internal lattice structures to add strength
- Minimum layer thickness: 0.08mm



ORIENTATION

- Features printed in the XY plane and angled to face the bottom of the build unit are subject to rounding and smoothing. This is ideal for text, embossing and debossing, holes and pins.
- Incorporate sharp features into upper surfaces.

Photo: Courtesy HP



Designing for HP Multi Jet Fusion: 8 Hot Tips



PRESERVING FEATURES

- Holes retain concentricity if placed on the XY axis
- Allow for a $\pm 0.2\text{mm}$ tolerance for parts to be fitted together, for example when designing screw tops. Explain to your technician that you require a tolerance of $\pm 0.4\text{mm}$ when parts are printed together to prevent fusion



FILE PRINT PREP

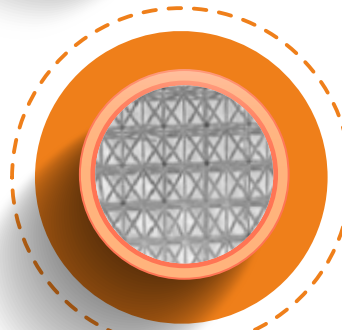
- A smaller file is easier to handle, but beware you don't compromise facets such as lettering and ridges.
- Post-process your files to remove unnecessary triangles
- Make sure your meshes are watertight and printable

Photo: Courtesy HP

GO LIGHT WEIGHT WITH A LATTICE

- Using lattice structures rather than solid features to reduce mass will save on material costs. It will also help reduce warping
- Optimising topologies will help to lighten loads and reduce material waste

Photo: Courtesy HP



PART CONSOLIDATION

- Consolidating parts reduces assembly time and often lightweights a part. With MJF you can actually print moving parts in situ

Photo: Courtesy HP

MIND THE GAPS

- Nothing comes off the printer in perfect shape - your parts need cleaning up. Remember, smaller gaps take longer to clean and you might want to consider the extra finishing time when exploring lead times
- Add in extra cutouts and channels to ensure faster finishing times

