



PRINTINGPORTAL

THINKSCAN

[printingportalhub.co.uk](http://printingportalhub.co.uk)



# More than just 3D printing

- MJF Batch Production
- Large Format FDM
- Polyurethane Casting
- Assembly & Finishing

- 3D Scanning
- CAD Reverse Engineering
- DfAM (Design for Additive Manufacturing)
- Deviation Analysis

Printing Portal offers more than just 3D printing. We have the equipment & expertise to assist at any stage of your project. Based in Dartford, we currently have the largest fleet of HP MJF machines in the UK alongside a range of FDM machines.

Unlike most service bureaus we offer a complete solution under one roof:

Scanning/Design → 3D Printing → Finishing / Assembly → 3D Inspection

# Multi Jet Fusion

Perfect for **prototypes** or **batch production**.

HP's MJF technology produces parts quickly & precisely. It requires no support material, drastically increasing design freedom & available throughput.



Multi Jet Fusion  
Production Professional



## Max Dimensions

380 x 284 x 380 mm

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## Layer Height

0.08mm

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## Turnaround Time

2-3 Days (Express)

4-10 Days (Economy)

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## Materials

Nylon PA12

Nylon PA11

Ultrasint TPU (Flexible)



# MJF Materials

	Nylon PA12	Nylon PA11	Ultrasint TPU
Tensile Strength	48MPa	52MPa	8MPa
Tensile Modulus (Stiffness)	1,750MPa	1800MPa	83MPa
Shore Hardness	80D (Hard)	80D (Hard)	89A (Flexible)
Elongation at Break (Ductility)	20%	43%	215%
Key Features	<ul style="list-style-type: none"><li>- Economical</li><li>- High operating temp</li><li>- High rigidity</li></ul>	<ul style="list-style-type: none"><li>- Renewable biopolymer</li><li>- Tough &amp; ductile</li><li>- High strength</li></ul>	<ul style="list-style-type: none"><li>- Flexible</li><li>- Tough &amp; ductile</li></ul>

Average values, for reference only, full data-sheets are available on our website; [printingportalhub.co.uk](https://printingportalhub.co.uk)



# Automated Finishing Processes

**Surface finish** improvements to unlock new applications for MJF.

As standard MJF parts are grey with a surface roughness of Ra:  $\sim 5 \mu\text{m}$ . Our **production ready** finishing equipment is available to improve the surface finish of your parts.

## Vapour Smoothing

AMT PostPro vapour smoothing creates a glossy smooth finish comparable to injection moulding.





## Vibro Polishing / Tumbling

A cost effective way of reducing surface roughness while maintaining most of the details.



## DM60 DeepDye Colouring

Get consistent & repeatable colours with the DyeMansion DM60 DeepDye technology. Unlike paint no extra thickness is added.

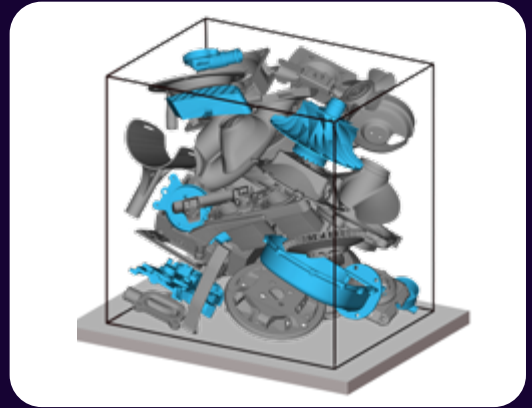


# Bulk discount on all MJF orders

We offer price breaks for multiple quantity single items.

Being a powder-based process parts are self supporting, allowing them to nest around each other saving both print time and cost.

Upon request large orders can also be priced based on the number of builds required.

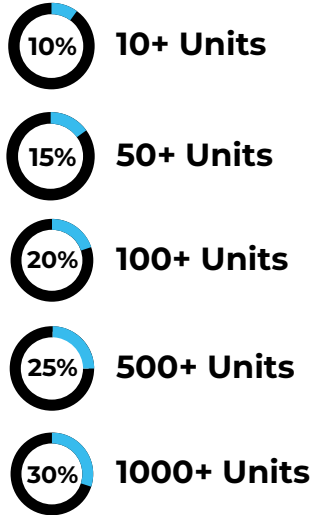


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## Quantity Price Breaks



## Automated Surface Finishing Prices

■ Standard Polish Only	<b>FREE</b>
■ Black Dye & Standard Polish	<b>+10%</b>
■ Vibro Polishing (Tumbling)	<b>+10%</b>
■ Black Dye & Vibro Polishing	<b>+20%</b>
■ Vapour Smoothing	<b>+20%</b>
■ Black Dye & Vapour Smoothing	<b>+30%</b>
■ Additional Dye Colours	<b>+£80 per Cycle</b>

# Large Format FDM Printing

Ideal for **large** parts in a competitive lead time.

Builder Extreme FDM machines can perform in various layer heights, nozzle diameters, and materials to create the part as per your requirements. Our standard materials are PLA or BASF Pro 1 but others are available upon request.



## Max Dimensions

700x700x1700 mm

1100x500x820 mm

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## Resolution (Nozzle Ø)

0.4mm (High)

0.8mm (Standard)

1.2mm (Experimental)

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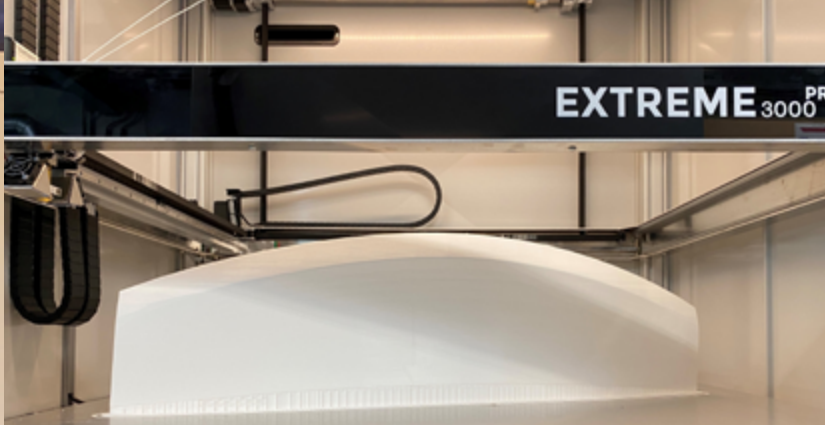


## Materials

Standard PLA

BASF Ultrafuse PRO 1

Special materials upon request



# Looking to buy **large** FDM machines?

We are the **premier reseller** for Builder 3D Printers in the UK.

Starting from ~£18,500 these are industrial grade workhorses with an incredibly tough construction & huge build volume. We regularly run back-to-back builds with only simple maintenance. Please see our website for the full range of options & sizes within the Builder 3D Extreme range.

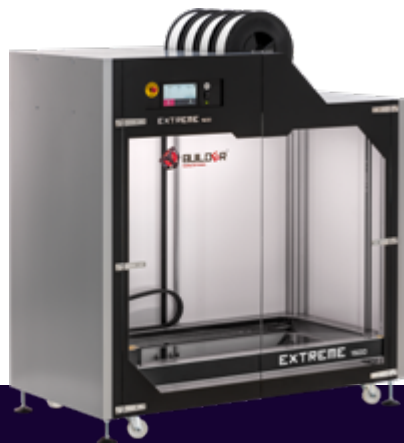
We offer **UK wide** coverage for on-site installation, training, & maintenance to make your 3D journey easy.

 [team@pportalhub.com](mailto:team@pportalhub.com)

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 **BUILDER**



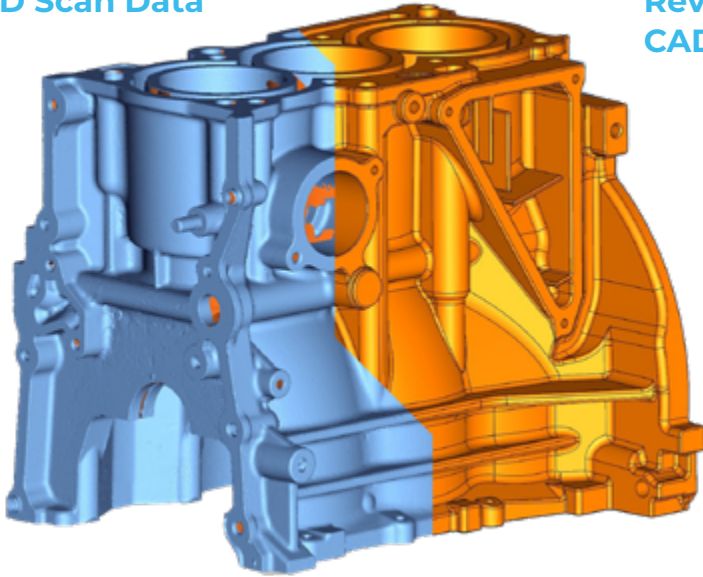
# 3D Scanning Reverse Engineering Deviation Analysis

**Save time & reduce errors** instead of manually recreating parts.

We have the latest non-contact 3D Scanning & Photogrammetry equipment ready to bring your parts into CAD. Why waste hours recreating an existing design when we can scan & reverse engineer it for you? We can also bring our equipment to you if you are unable to bring the item to us.



**3D Scan Data**



**Reverse Engineered  
CAD Data**

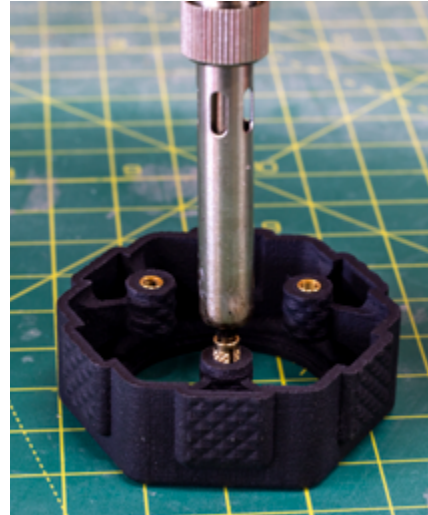
**The 3D scan is effectively used as a guide to create an accurate & detailed solid-body CAD model of the object.  
This CAD can be used for amendments or manufacturing.**

# Dedicated Hand Finishing

We have a huge range of equipment & expertise to **assemble** & **finish** your project.

The range of work that comes through our workshop is diverse and often unique to each project, including but not limited to:

- Adding threaded inserts
- Custom spray painting
- Assembling small & large models
- Polyurethane casting





# Design Prototype Production

We designed our factory to handle both one-off **prototypes** & **batch production**. Once a project goes into production we can lock-down variables, such as build orientation & position, to reduce variability. As part of our **ISO 9001** accreditation, we also log & quarantine all non-conforming parts before finding & fixing the root cause of the problem.





# Design for Additive Manufacturing

Fully utilise the benefits of 3D Printing.

We observed that only ~10% of the items we manufacture have been designed to fully utilise the benefits of 3D Printing. We believe that designers are not aware of the potential of additive manufacturing whether that is for prototyping or full production.

This is why we have created a **DfAM** team comprising of mechanical engineers, product designers & manufacturing experts to help you fully utilise the capabilities of AM. Our team is equipped with industry-leading software including nTopology, SolidWorks, Fusion 360, Geomagic Design X, & Rhinoceros 3D.



# marketing\_sc1

Add description...

+ Add Block... (Ctrl+L)

Primary body: **Implicit Body\_20** ✕

Subtraction bodies: **Implicit...** **Implicit Body L...** + ✕

0: **Implicit Body\_22** ✕

**Lattice\_5** Rectangular Volume Lattice

Volume: **Implicit Body\_23** ✕

Unit cell: **1 Parameter Uni...** ✕ mm

Unit cell size: 5 5 5 mm

Frame: Optional

Trim:

Approx. thickness: 1 mm

**Boolean Union** **Implicit Body\_24** ✕

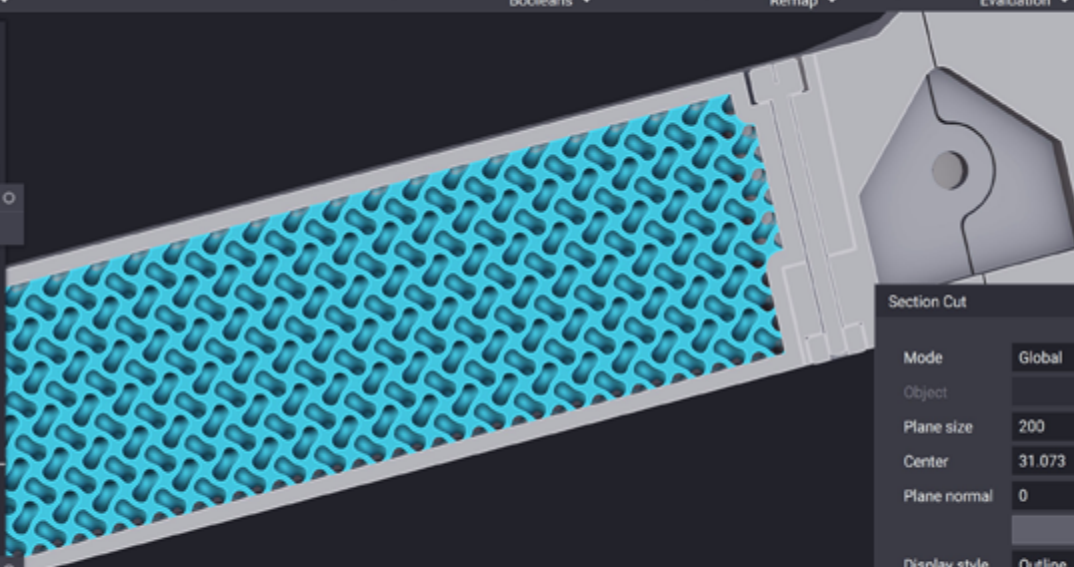
Blend type: Rounded

Blend radius: 0 mm

Bodies: **Implicit Body List (2)** **Implicit Body L...** + ✕

0: **Implicit Body\_22** ✕

1: **Lattice\_5** ✕



Section Cut	
Mode	Global
Object	
Plane size	200
Center	31.073
Plane normal	0
Display style	Outline
	<input type="checkbox"/> Show vo

New Section

Output:



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