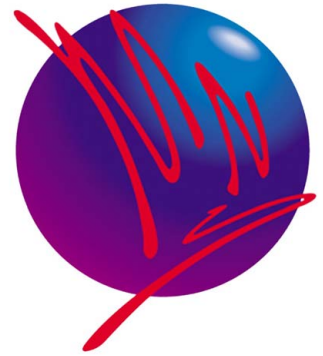


Malcolm Nicholls Limited utilise the following machines and sizes:

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SLA – Stereolithography

Standard Resolution machines – 2 off as follows

Build envelope 508 x 508 x 580mm

Layer thickness 0.1mm as standard. 0.15mm for turbo mode

Laser beam size 0.4mm (features smaller than this will not form properly or at all)

Standard Tolerances $\pm(0.1+0.075\%)$ suited to most components that intend to be injection moulded.

Non-standard components with differing wall thicknesses or thick sections need to be assessed before an idea of tolerances can be given.

Hi Resolution Machines – 2 off as follows

Build envelope 250 x 250 x 250mm

Layer thickness 0.1mm

Laser beam size 0.25mm (features smaller than this will not form properly or at all)

Standard Tolerances $\pm(0.05+0.075\%)$ suited to most components that intend to be injection moulded.

Non-standard components with differing wall thicknesses or thick sections need to be assessed before an idea of tolerances can be given.

Ultra-High Resolution Machine

Build envelope 125 x 125 x 250mm

Layer thickness 0.05mm

Laser beam size 0.075mm (features smaller than this will not form properly or at all)

Standard Tolerances $\pm(0.05+0.05\%)$ suited to most components that intend to be injection moulded.

Non-standard components with differing wall thicknesses or thick sections need to be assessed before an idea of tolerances can be given.

SLS – Selective Laser Sintering

Standard Resolution Machine

Build envelope 380 x 330 x 457mm this gets seriously reduced when thermal borders and shrinkage are accounted for.

Practical envelope for Nylon:- 320 x 270 x 400mm

Practical envelope for GBAL:- 330 x 280 x 400mm

Practical envelope for CastForm PS:- 340 x 290 x 420mm

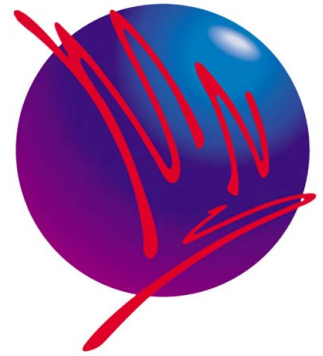
Layer thickness 0.1mm (0.15mm for CastForm PS)

Laser beam size 0.35mm (features smaller than this will not form properly or at all)

Standard Tolerances $\pm(0.15+0.15\%)$ suited to most components that intend to be injection moulded.

Non-standard components with differing wall thicknesses or thick sections need to be assessed before an idea of tolerances can be given.

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FDM – Fused Deposition Modelling

Fortus 450mc

Build Envelope 406 x 355 x 406mm

Layer thicknesses include:

0.127mm

0.178mm

0.254mm

0.330mm

Standard Tolerances Parts are produced within an accuracy of $\pm .127$ mm or $\pm .0015$ mm/mm whichever is greater).

Note: Accuracy is geometry dependent. Achievable accuracy specification derived from statistical data at 95% dimensional yield.

Fortus 900mc

Build Envelope 914.4 x 609.6 x 914.4 mm

Layer thicknesses include:

0.178mm

0.254mm

0.330mm

0.508mm

Standard Tolerances Parts are produced within an accuracy of $\pm .089$ mm or $\pm .0015$ mm/mm whichever is greater).

Note: Accuracy is geometry dependent. Achievable accuracy specification derived from statistical data at 95% dimensional yield.