



CRDM Tolerance Standards

CRDM produces parts to the tolerance standards set out below. In the case of RP parts, these exceed BS7010 for injection moulded parts.

All Rapid Prototype parts produced by CRDM are checked along three axes (x, y, and z) at the extent of the parts. Due to the need to supply RP parts quickly, it is not normal to undertake any additional dimensional checks, unless specifically requested by the customer. If required these may be charged for.

As with all manufacturing processes, there is an inherent difficulty in the production of prototype parts in so far as tolerance build-up can often have adverse effects on fit and function of assemblies. As a rule we do not check your part CAD or assembly for suitability for the design intent as we are usually not aware of the function or end use. Parts will be built to the nominal size of CAD supplied, to tolerance of the process, this means any clearance allowance for fits and alignments should be included in the CAD supplied.

In order to minimise any issues we strongly encourage you to provide us with as much information about tolerances, fit and function as possible at the start of any project.

Unless specifically agreed before production, these tolerances supersede all customer drawing tolerances.

Prototyping

Process	Tolerance (0 – 100mm)	Tolerance (100mm and above)	Example (200mm)	Typical minimum wall thickness
SLA	±0.15 mm	±0.15 %	199.70-200.30	0.5 mm
SLS	±0.20 mm	±0.20 %	199.60-200.40	0.6 mm
PU Vac Casting	±0.20 mm	±0.20 %	199.60-200.40	1.0 mm
DMLS Direct Parts	±(0.07%+0.05) mm		199.81-200.19	0.3mm
CNC Machining	By arrangement			

Please note: All figures are for guidance only, final tolerances and wall thicknesses that can be achieved are dependent on part geometry and build orientation, please call us to discuss your requirements.

Injection Mould Tooling/Moulding

All injection mouldings are made to tolerances as defined in BS7010 Tolerance Level A, unless otherwise agreed in advance.

PLEASE NOTE

**It may be possible to achieve closer tolerances using special part handling and additional processes, but additional charges may be incurred.
For more details, please contact our Sales staff.**