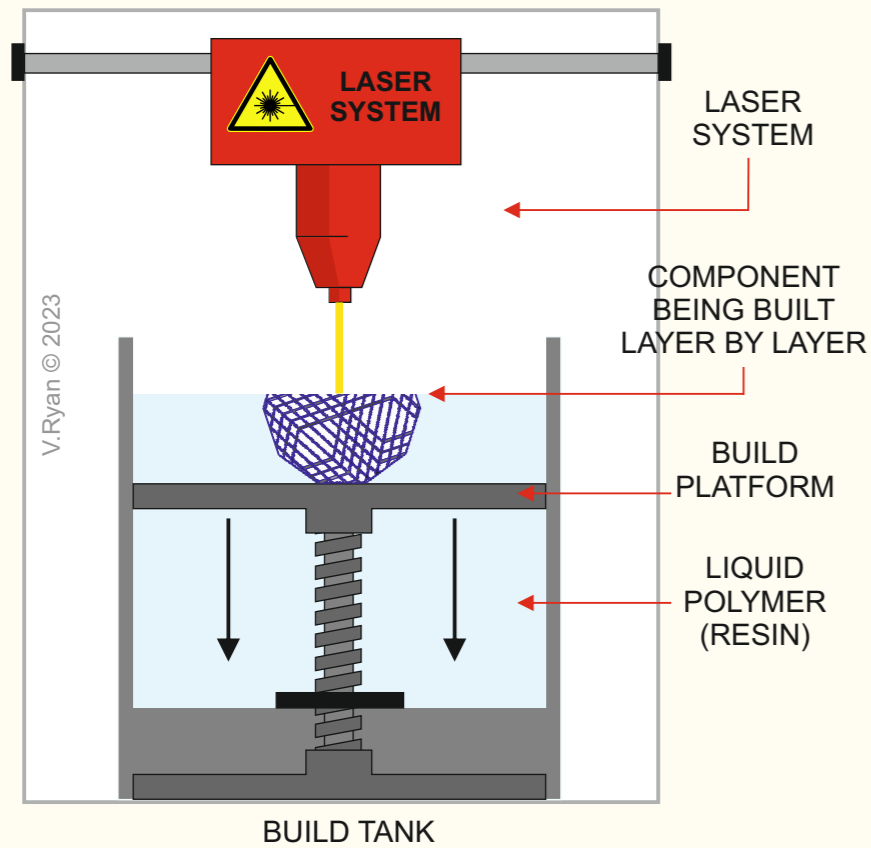


STEREOLITHOGRAPHY



Stereolithography starts with a design produced through the use of CAD software. The 3D design is exported as a STL file (Standard Tessellation Language). The STL file is used to drive the SLA (StereoLithographic Apparatus) machine, which manufactures the product / component.

This is an industrial process, involving liquid resin (a polymer) stored in a tank, which is solidified layer by layer, through the use of a laser. The product / component is 'built' on a platform, which moves down microns (a micron = one thousandth of a millimetre) at a time. The laser solidifies a layer, before the platform moves down, allowing the laser to solidify the next layer. This process continues until the product / component is complete. The laser process, fuses the layers of resin together, resulting in a solid object. In summary, the stereolithographic process, converts liquid polymer to a solid component / product.

DESKTOP UPSIDE DOWN / INVERTED STEREOLITHOGRAPHY

