



**Overview** - As a full-service, high-capacity rapid prototyping and manufacturing (RP&M) provider Harvest Technologies utilizes a wide variety of processes and materials to quickly create 3D objects. Common applications of RP&M are functional prototypes, fit-check assemblies, show models, casting patterns, production parts, manufacturing fixtures and rapid tooling. More details are below...

**Rapid Prototyping & Manufacturing**

**SLST<sup>TM</sup> (Selective Laser Sintering)** - Sintering powdered material layer-upon-layer with a CO<sub>2</sub> laser. Twelve machines including large platform Pro as well as High speed and High-Q systems building:

- Rigid and Flexible Thermoplastics
- Investment Casting Patterns
- Rubber-like Elastomers
- Metal

**SLA<sup>TM</sup> (Stereolithography)** - Photo-curing polymer resin layer-upon-layer with a UV laser. Seven machines including four high-res Viper si2 systems and large format 5000 and 7000 systems building:

- Rigid and Flexible Epoxies and Acrylates
- Soft and Flexible Urethanes
- Rigid High-Temp Composites

**Urethane Casting** - Casting reproductions of SLA patterns in RTV silicone molds out of urethane resins that range from soft and rubber-like to hard and rigid when fully cured.

**Metal Casting** - Casting reproductions of SLS and SLA patterns in a variety of ferrous and non-ferrous metals. Processes include:

- Investment Casting
- Solid Mold Casting
- Plaster Casting
- Spin Casting
- Sand Casting

**CNC Machining** - Milling away (machining) billet stock to form parts and injection mold tooling in a variety of plastics and metals.

**Injection Molding** - Molding plastic parts in tooling and mold inserts created by 3D layer-additive processes and/or CNC machining.

**3D Printing** - Depositing molten material layer-upon-layer via inkjet or extrusion nozzle. Common processes include:

- FDM
- MJM
- PolyJet
- Thermojet
- SolidScape



**Ancillary Services**

**Post-Processing and Finishing** - Enhancing the functionality and/or aesthetic qualities of 3D objects.

- Sanding
- Machining
- Priming
- Plating
- Painting
- Inserts
- Polishing
- Helicoils
- Texturing
- Tapping

**CAD Modeling, Product Design and Engineering** - Employing the latest in product development resources to design and engineer products and generate 3D CAD data.