

FATHOM

DIGITAL MANUFACTURING. REIMAGINED.™

STEP™ Technology

Selective Thermoplastic Electrophotographic Process //

STEP technology enables the production of thermoplastic parts within hours or days without compromising on quality, throughput, scalability or cost, a significant time advantage over the typical multi-month lead time for traditional injection molding tools and parts.



Quality

Repeatability without compromising throughput or flexibility



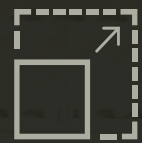
Agility

Eliminates tooling, mold storage, mold modifications and reduces logistics



Speed

Throughput that is faster than any other industrial additive technology



Scalability

Seamless solution architecture to get your production parts quickly

How It Works //

The Evolve™ SVP™ (Scalable Volume Production) platform features a closed-loop process with sensor technology; **each layer of the build is precisely aligned on top of the next incoming layer and the correct amount of material is deposited.** If an error is detected, a correction is made. This means a higher part quality with both repeatability and scalability.



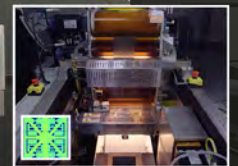
Transfusing

Heat, pressure, and cooling mimicking injection molding process



Electrophotographic Imaging

Five print engines. ABS part in 1st engine and support in 2nd engine



Alignment

Closed Loop Control System with belt position, temperature, pressure, and layer-to-layer alignment



Prototype to Production //

Design Freedom

- Multiple iterations in one build
- Assemblies printed fully assembled
- Fine features to complex parts

Cosmetic Features

- High resolution surface finish
- Fine features; seven extreme, unmoldable textures
- Rich black color without post-processing (no need to paint/dye)
- Good surface quality (especially upward/downward-facing surfaces) without post-processing
- Customizable and plateable

True ABS Thermoplastic

- High mechanical strength/durability, impact resistant
- Good chemical resistance to acids, bases and alcohols
- Water and air-tight (for fluid/irrigation applications)
- Dimensional stability for hot, humid environments
- UL rating at 1.5mm (HB rating)

FEATURE	STEP	DLS (CLIP)	MJF	IM*
Wall Thickness Range	0.25 - >> 10	1.0 - 2.5	0.5 - 3	1.0-3.5
Min Hole Diameter	0.4	0.5	0.5	1.0
Min Pin Diameter	< 0.5	0.4	0.5	1.0
Clearance Between Mating Parts	0.25	0.5	0.7	N/A
Engraving Depth / Embossing Height	0.2 (top/bottom) 0.5 (sides)	0.3	1	0.13
Text Size (engraved/embossed) (pt.)	4 (top/bottom) 6 (sides)	8.5	6	1.5
Build Envelope Size (X/Y/Z)	290 x 590 x 75	189 x 118 x 326	380 x 284 x 380	480 x 750 x 200
Dimensional Accuracy	0.20 mm or 0.003 mm/mm	0.125 mm + 0.002 mm/mm	0.3 mm or 0.003 mm/mm	0.003 mm/mm

Units measured in mm. Capabilities typically material-dependent; values cited are for ABS or most similar option.

* Injection molding capabilities vary dramatically; typical small-mid size part capabilities shown

Talk to an Expert

Working with Fathom means easy access to Additive and Advanced manufacturing experts.

Contact us today, and let's transform the future of manufacturing together!

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07012023

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