

# **Industrial 3D Printing Solutions**



# Additive manufacturing for rapid prototyping and end-use production parts

Optimas provides industrial-grade additive manufacturing solutions for low to high-volume production parts and custom prototyping—**in as fast as a day!** Our U.S.-based digital manufacturing capabilities lead to more responsive supply chains with on-demand, cost-efficient production of parts that shorten the development cycle and accelerate speed to market.

Optimas's integrated engineering, rapid prototyping and quality testing capability serve a broad range of industries with 3D solutions that deliver innovation, customization, and performance.

Send us your CAD, receive a quote and 3D printed parts in as little as one business day!

# **Value-Added Benefits**

- Accelerated speed to market
- Reduced tooling, material and labor cost
- Design freedom and optimization
- Increased competitiveness and customer value
- Superior quality
- Supply chain security
- Sustainability, less environmental impact
- Integrated engineering, cold form manufacturing and quality services available
- ISO 9001 and TS certified

# **3D Printing Capabilities**

Optimas offers a full suite of 3D printing applications and materials designed to support every stage of the product lifecycle—from low to high volume, complex and customized parts, affordably.

# **TECHNOLOGY PROCESSES**

# Fused Deposition Modeling (FDM)

Strong, durable, and geometrically stable with less added cost for designing, prototyping, and fabricating tools for production.

## **Direct Metal Laser Sintering (DMLS)**

Fully functional metal prototypes and end-use production parts with highly detailed, complex geometries, and all-in-one assemblies.

# HP Multi Jet Fusion (MJF)

Remarkably fast layer times produce highly accurate and durable parts for end-use, low-volume production, or rapid prototyping.

# Stereolithography (SLA)

Accuracy, smooth surface finish, ultimate part precision, and material versatility for the concept, rapid prototypes, assemblies, and form-fit testing.

# Selective Laser Sintering (SLS)

High productivity and throughput, design freedom, low-cost option for functional, durable prototypes, and end-use parts.

#### PolyJet

Sharp precision, smooth surfaces, and ultra-fine details offer powerful 3D technology for prototypes and tooling.



#### **INDUSTRIAL 3D PRINTING MATERIALS**

Select the best material for your application which include common metals, polymers with or without fiber reinforcement, pellet, resin, wire, filament, powdered materials, as well as non-standard, engineered plastics.

#### **METAL MATERIALS**

Stainless steel Tool Steel Copper Inconel Titanium

# THERMOPLASTICS

ABS PEKK Nylons TPU TPE

#### **REINFORCING FIBERS**

Carbon Fiber Fiberglass Kevlar

# **Common 3D Printing Applications**

Optimas offers a complete, fully integrated set of technology-enabled manufacturing solutions. Advanced application and manufacturing engineering, superior quality services, and years of cold-head manufacturing experience position Optimas to deliver greater innovation through additive manufacturing.



# **Rapid Prototyping**

Produce fully functional prototypes, complete with moving parts, as well as all-in-one assemblies.





## **Production Parts**

Build accurate and consistent, low-volume production parts to get your product into the hands of customers faster and more efficiently.



# Manufacturing Tooling

Maintain high-quality production and efficiency with custom manufacturing aids like jigs and fixtures that streamline processes and improve quality and consistency.



Hybrid Pellet + Filament Extruder System on the Atlas 3D printer from Titan Robotics.



Stereolithography (SLA) technology on FormLabs 3D printer (shown with Form Wash and Form Cure).

#### **SPECIFICATIONS**

PROCESS	MATERIAL	APPLICATION
Fused Deposition Modeling (FDM)	Thermoplastics, Fiber Reinforced Thermoplastics	Industrial Prototypes and Production Parts
Direct Metal Laser Sintering (DMLS)	Metals	Manufacturing Metal Parts, Complex Parts, Intensive Assembly Processes
HP Multi Jet Fusion (MJF)	Thermoplastics	Low-volume, End-Use Parts, Prototypes, Cost-effective Injection Molding Alternative, Form-Fit Models
Stereolithography (SLA)	Thermoplastics, Fiber Reinforced Thermoplastics	Castings, Prototypes, Master Patterns for Cold/Low-Temperature Molds
Selective Laser Sintering (SLS)	Thermoplastics	Rapid Prototyping, Low-Volume Production, Component Parts
PolyJet	Photopolymer Resins	Concept Molding, Show Models, Detailed Prototypes, Form-Fit Models

# Contact us for a <u>quote</u> or call 888.630.6300 for a conversation!

#### **ABOUT OPTIMAS**

Optimas is a leading, global, industrial manufacturer/distributor specializing in fasteners and supply chain solutions for organizations seeking to improve efficiency and profitability. We take care of the details so you can focus on producing cutting-edge products—giving you an unparalleled competitive edge.

#### **CONTACT US**

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