3D Printing for Consumer Technology

Accelerate Innovation, Increase Product Performance

3D SYSTEMS

For over three decades, 3D Systems has worked with consumer technology products manufacturers on their applications to bring groundbreaking products to market faster.

3D Systems' consultative approach and 3D printing solutions can give you a competitive advantage, advancing your path from design to production.

Our dedicated team of experts will collaborate with you on application development and leverage the largest suite of additive manufacturing solutions in the industry to meet your specific needs.

Addressing and Anticipating Customer Expectations for Consumer Technology with 3D Printing

Consumer technology has become prolific in our everyday lives, spurring a revolution from smart homes to connected wearables.

To differentiate your consumer technology offering in this extremely competitive industry, you need to constantly bring groundbreaking products to market faster and create unique customer experiences that deliver value.

This level of innovation and consumer demand drives the need for design flexibility, prototype performance and rapid iteration, supply chain continuity, sustainable solutions, and operational productivity from prototyping to bridge production and mass customization.

Innovate Faster and Further to Deliver Advanced Product Performance

Cutting-edge additive manufacturing solutions and services accelerate time-to-market while facilitating innovation and improving supply chain efficiency.

Responsiveness

With 3D Systems' solutions capable of 3D printing prototypes in-house in less than 24 hours, you can optimize your workflow to reduce the time between design iterations, enabling rapid order fulfillment and faster time-to-market.

Design Flexibility

Optimally design, rapidly iterate, and manufacture highly complex parts. Components that were previously unthinkable to produce can easily be made a reality by leveraging 3D printing while eliminating the time and cost of tooling.

End-Use Performance

Achieve production performance with advanced 3D printing solutions and materials that deliver parts with final product look, feel, mechanical characteristics, quality, and performance.

Operational Productivity

Our end-to-end additive manufacturing solutions are designed to deliver industry-leading quality, reliability, and productivity to keep your operation running efficiently with maximized uptime, reduced labor and minimized waste.

Mass-Customization

Customized components is part of creating next-generation consumer technology products. We facilitate mass-customization by giving engineers precise control over each component, with the capability to scale.

Sustainability

We focus on developing solutions to enable our customers to address evolving sustainability challenges, considering strategies such as advanced materials, production on demand, and improved efficiencies through additive manufacturing capabilities.

Examples of Consumer Technology Applications

Incorporating 3D printing solutions into your product development and manufacturing workflows enables you to increase design flexibility and prototyping performance, and access economically viable bridge manufacturing and mass customization opportunities. This applies to a vast array of new and emerging consumer technologies, ranging from virtual and augmented reality to enter the immersive online environment of the metaverse, to smart homes, IoT, AI, 5G, connected wearables, computers, and other consumer electronics.

Seals and Gaskets

Accelerate design iteration and end-use validation of prototypes with 100% silicone or biocompatible elastomers

100% silicone prototypes within 24 hours

10x faster with direct 3D printing capability

Up to 97 Shore A 3D printed elastomers

- Ensure perfect fit with biocompatible and chemical resistant prototypes with end-use production part performance
- Pristine surface quality, texturing capability, and exceptional accuracy and mechanical properties
- True silicone parts in as fast as 24 hours with digital eggshell molding
- Elastomeric components in minutes with direct 3D printing for the fastest turnaround

Wearable Components

Deliver high-performance wearable products faster with advanced prototypes and end-use parts

10x faster product development

Biocompatible-capable materials

UV- and chemical-resistant materials

- Rapid iteration with high performance prototypes enables faster time-to-market of optimized products
- Advanced materials allow for safe long-term user try-ons and end-use components
- Access to the production of wearables tailored to specific users
- Ensure an accurate representation of the final product for reliable aesthetic and functional evaluation and end-use with exceptional part quality and mechanical properties

Housings and Covers

Reduce time-to-market with production-grade materials for prototyping and bridge manufacturing

10x faster product development

100% reduction in tooling

8+ years environmental stability

- Develop more durable and innovative housings and covers with faster and more efficient workflows
- Produce end-use parts with the desired quality, accuracy, and mechanical properties
- Truly functional 3D printed prototypes with realistic aesthetics enable faster real-world product development and validation
- Access mass-customization for unique, personalized components

Your Path to Consumer Technology Innovation

Our hardware, software, materials, post-processing, manufacturing operating system (MOS) and application consultancy comprise a complete solution that offers customers unprecedented speed, quality, design flexibility, economics, and product reliability.

Cutting-Edge Additive Manufacturing Solutions

With more than 1,000 patents over the past decade, 3D Systems offers the largest suite of additive manufacturing solutions for plastic and metal 3D printing. Our 7 technologies - stereolithography (SLA), Projector-based Stereolithography 3D Printers (PSLA), Figure 4, MultiJet Printing (MJP), selective laser sintering (SLS), pellet and filament extrusion (EXT), and direct metal printing (DMP) can cover all your application needs.

Production-Grade Materials for All Your Application Needs

Our 3D printing materials address the widest variety of applications and performance characteristics in additive manufacturing to offer a range of features that are critical to prototyping and production for consumer technology products. Our portfolio of over 130 varieties includes photopolymers with long-term stability and mechanical properties similar to production thermoplastics, heat-resistant materials, biocompatible materials for extended contact with skin and chemical resistance, and elastomers for wearables.

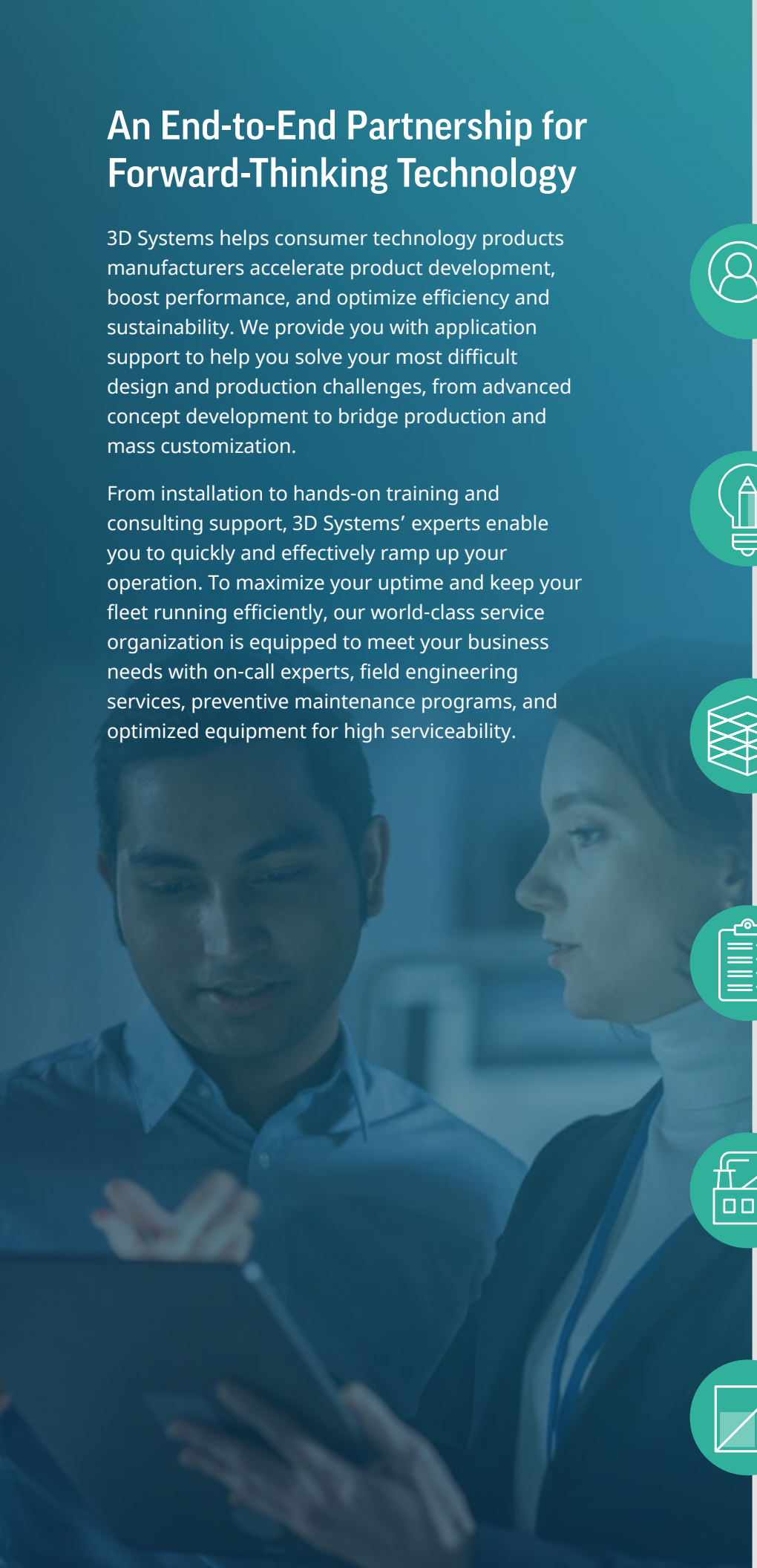
Software that Deliver Results

For your digital end-to-end design to manufacturing workflows, software is the key to efficiently and cost-effectively transforming data into concept models, functional prototypes and end-use parts. Shorten your product delivery time and boost productivity with our 3D printing software that can be used across several technologies.

An End-to-End Partnership for Forward-Thinking Technology

3D Systems helps consumer technology products manufacturers accelerate product development, boost performance, and optimize efficiency and sustainability. We provide you with application support to help you solve your most difficult design and production challenges, from advanced concept development to bridge production and mass customization.

From installation to hands-on training and consulting support, 3D Systems' experts enable you to quickly and effectively ramp up your operation. To maximize your uptime and keep your fleet running efficiently, our world-class service organization is equipped to meet your business needs with on-call experts, field engineering services, preventive maintenance programs, and optimized equipment for high serviceability.



Consultative Approach

Explore

Strategic consulting to identify customer needs

Innovate

Joint applications development and design for additive manufacturing (DfAM) for specific needs

Develop

QA and process characterization from pre-prototype through prototype

Validate

Training, validation, and certification

Produce

Production and manufacturing services

Scale

Scale up and technology transfer

Innovate Faster and Further with 3D Systems' 3D Printing Solutions

Additive manufacturing empowers manufacturers of consumer technology products to access greater design flexibility and performance, faster iteration, optimized supply chain efficiency, and increased sustainability. Our 3D printing solutions and expertise can help you bring the consumer technology products of the future to market now.

Learn how 3D Systems can help you today.

For questions/sales:
www.3dsystems.com/consumer-technology