TECHSTYLE

J850™

Discover the magic of **3DF**ashion Technology

The Flower of Life
By **Ada Hefetz**
in collaboration with STRATASYS

LIMITLESS CREATIVITY

Stratasys J850™ TechStyle™ 3D printer is making waves with its revolutionary 3DFashion™ printing technology. For the first time ever, 3D algorithms can be printed direct-to-textile, creating fascinating illusions with color and light. Digital 3D design and aesthetics can now be created by a computer-generated design flow, that cannot be completed manually. In an industry where it was once not possible, TechStyle enables fashion designers to truly unleash their imagination with limitless creations and unparalleled flexibility and eco-friendly materials. With multiple advantages over traditional forms of design, you can create fantastic optical illusionary effects, direct to textile and garments, in clear print and in full color.

DIGIBAG
By **Karim Rashid** in collaboration with STRATASYS
Urban Tattoos - Direct-to-Textile
By **Travis Fitch** in collaboration with STRATASYS

CERTIFIED MATERIALS

Printing with the TechStyle 3D printer can be done safely and responsibly, thanks to the patent pending VeroEco™ Flex family of materials. This family of semi-flexible materials are soft to the touch and boast vivid colors and robust adhesion to multiple types of fabrics, so garments stay intact through most standard machine wash cycles. What's more, VerEco Flex semi-flexible materials are compliant with industry Standard RSL (Restricted Substances List for Finished Products).
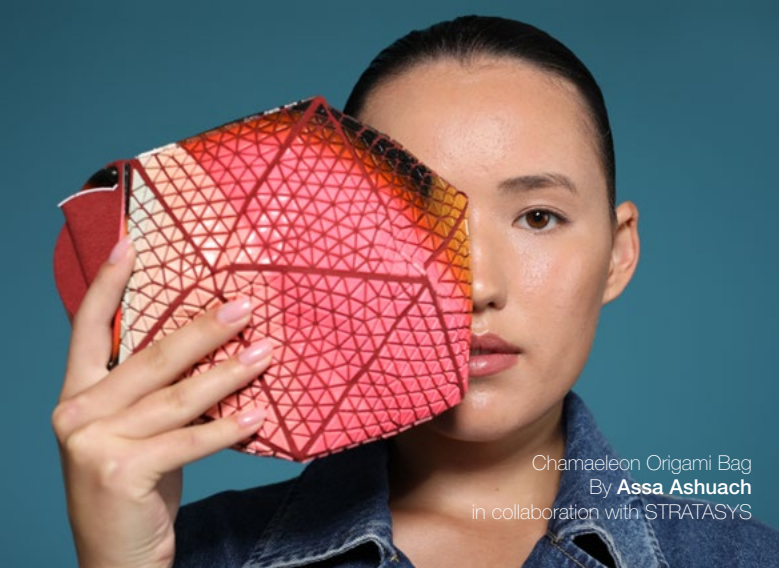
3D Kimono
By **Ganit Goldstein**
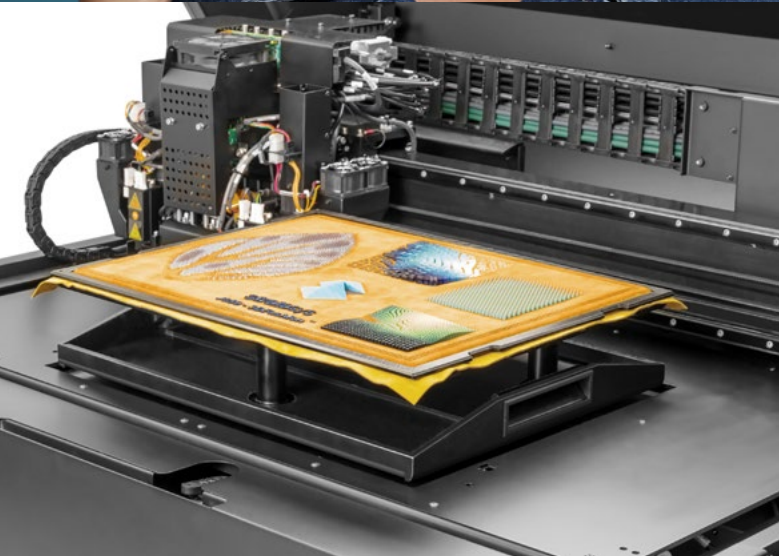in collaboration with STRATASYS

DESIGN FREEDOM

TechStyle allows designers and high-end fashion brands a new level of design freedom, for personalization and customization, in low-volume production, with seamless integration and minimum downtime. TechStyle has a virtually limitless color palette to choose from, with over 600K available colors in both matte and glossy finishes, as well as selected Pantone Validated pallets. Your required print area can be designated on a stretch of fabric up to 2m². The printer's cabinet holds 7 cartridges for materials, from vivid colors to full transparency that will support any design, including textures with both rigid and flexible materials. Easily print with your favorite design software from the multitude of compatible options and output your file direct to GrabCAD™ Print for printing.

Greta Oto Dress
By **threeASFOUR** and **Travis Fitch**
In collaboration with STRATASYS

Chamaeleon Origami Bag
By **Assa Ashuach**
in collaboration with STRATASYS

UNPARALLELED PRODUCTIVITY

The TechStyle 3D printer is integrated with a high efficiency LED unit that has a long lifespan and allows for fantastic productivity. Switch it on and you are ready to print, no downtime! Refine each design to perfection with an easy workflow. TechStyle also features an interchangeable tray, for faster production runs and minimum down time.
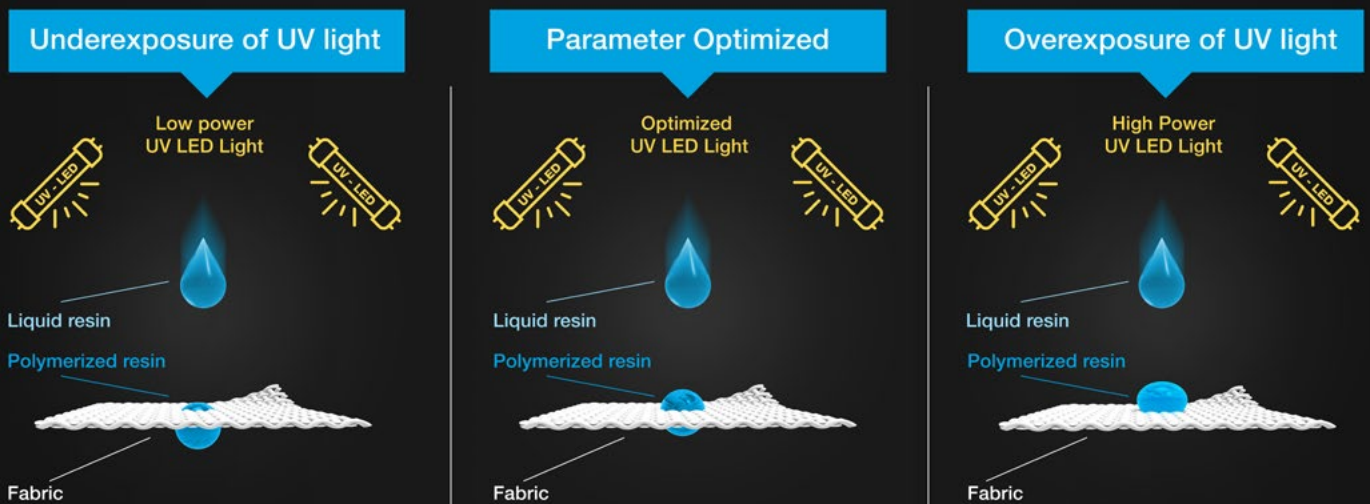
UNMATCHED CAPABILITIES

- TechStyle has a **2-mode capacity** that enables it to print directly onto textiles as well as used garments for repurposing. 3D models for fashion accessories, such as buttons, cufflinks, and bag clips, can also be printed, to a maximum height of 50mm.

- Experience a new level of efficiency with the patent pending **interchangeable tray**. With this feature, you can quickly swap out one tray for another while a print is running, allowing you to make lightning-fast production runs without any unnecessary down time. It's easy to switch trays quickly and effortlessly, ensuring your projects are printed quickly and efficiently every time.

- The unique patent pending **fabric analyzer** feature will analyze a fabric sample for digital design optimization, resulting in more accurate digital designs and considerable time and cost savings previously associated with iterative pre-production processes.

- TechStyle flexible printing capabilities are unmatched **with an adhesion optimization feature** that allows for a flexible workflow. GrabCAD™ Print software supports the entire printing process from concept to production of your 3D printed design on a large range of fabrics and flexible substrates.

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J850™ TechStyle™ LED - Adhesion Optimization

Underexposure of UV light
Low power UV LED Light
UV - LED
UV - LED
Liquid resin
Polymerized resin
Fabric

Parameter Optimized
Optimized UV LED Light
UV - LED
UV - LED
Liquid resin
Polymerized resin
Fabric

Overexposure of UV light
High Power UV LED Light
UV - LED
UV - LED
Liquid resin
Polymerized resin
Fabric

EFFICIENT WORKFLOW

Streamline your workflow with GrabCAD Print software by printing directly from your favorite professional CAD formats, with or without the addition of advanced rendering software. Eliminate time-consuming painting or trial-and-error Pantone color matching with a single-click step in GrabCAD Print. Use smart default settings, tooltips, and notifications to guide you through a seamless printing process. Work with detailed views of your model, tray, and slice preview so you can make any necessary adjustments before going to print. The large, seven-material capacity of the Stratasys J850 TechStyle printer means you can load your most used resins and avoid downtime associated with material changeovers. GrabCAD Print software is an Industry 4.0 compatible system that will fully integrate with manufacturing execution systems (MES) and your digitized production floor.

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MINDFUL
MANUFACTURING

Stratasys J850 TechStyle 3D printer promotes Mindful Manufacturing™ and low volume production, while eradicating oversupply and reducing unnecessary waste. Stratasys is leading the AM industry forward towards improving environmental impact. Meaningful long-term growth and success rests upon three pillars; Environmental Action, Social Impact and Ethical Governance and Stratasys is committed to a standard of conduct that goes beyond compliance. TechStyle eliminates the need for excessive inventories, while used clothing and accessories can be re-purposed with the addition of 3D printed elements. Responsible consumption, industry innovation and revised supply chains go hand-in hand with 3D printing technologies. This is fashion forward; 3D Printing a Better Tomorrow™ today.

DIGI Dress
By **Karim Rashid**
Designed for the STRATASYS Reflection Collection

ALL THE SPECS YOU NEED

Product Specifications

Materials

Digital Model Materials	**Unlimited number of digital materials including:** • Over 600K available colors in both matte and glossy finishes • Translucent color tints • Flexible tactile materials in a variety of textures and colors

VeroEco™Flex family of semi-flexible materials: Clear, Black, White, Cyan, Magenta, Yellow and VeroEco™ ContactFlex. VeroEco Flex family of materials are in compliance with RSL (Restricted Substances List for Finished Products) industry standards.

Industry Compliant Materials

Printed Textile Testing*	100% Cotton	100% Polyester	50/50% Cotton Polyester	Linen
Color fastness for washing at 40°C (1-5) ISO 105-C06:2010	5	5	5	5
Color fastness for washing at 60°C (1-5) ISO 105-C06:2010	5	5	5	5
Adhesion to washing at 40°C & 60°C ISO 105-C06:2010	Pass	Pass	Pass	Pass
Color fastness to rubbing (wet 50 rubs) ISO 11640:2018	Pass	Pass	Pass	Pass
Color fastness to rubbing (dry 150 rubs) ISO 11640:2018	Pass	Pass	Pass	Pass
Abrasion resistance (Martindale) ISO 12947-2:2016	Pass	Pass	Pass	Pass

Standard Materials	• VeroUltra™ & VeroVivid™ family of opaque and transparent materials + neutral shades and vibrant colors • Agilus30™ family of flexible materials: Clear, Black, White, Cyan, Magenta and Yellow
Support Materials	SUP705™ (water jet removable) & 705B

Hardware

Build Size	**Fabric Size Handling:** min 560 x 460mm; max 2 x 2m **Fabric Thickness:** 0.1-3.0mm Interchangeable Tray for smooth production runs
Effective Printing Area	460 x 360 x 50 mm (18.1 x 14.2 x 1.9 in) on a stretch of fabric up to 2m²
Layer Thickness	Horizontal build layers down to 27-micron (0.001 in.)
Workstation Compatibility	Windows 10
Network Connectivity	LAN - TCP/IP Industry 4.0 Compliance
System Size and Weight	**J850 TechStyle System:** 1400 x 1260 x 1100 mm (55.1 x 49.6 x 43.4 in.); 430 kg (948 lbs.) **J850 TechStyle Material Cabinet:** 1119 x 656 x 637 mm (44 x 25.8 x 25.1 in.); 153 kg (337 lbs.)
Operating Conditions	Temperature 18 – 25 °C (64 – 77 °F); relative humidity 30-70% (non-condensing)
Power Requirements	100–120 VAC, 50–60 Hz, 13.5 A, 1 phase; 220–240 VAC, 50–60 Hz, 7 A, 1 phase
Regulatory Compliance	CE, FCC, EAC, RCM, R-NZ1
Software	GrabCAD Print - GrabCAD Printer Connectivity SDK
Build Modes	**High Mix:** up to 7 base resins, 27-micron (0.001 in.) resolution **High Speed:** up to 3 base resins, 27-micron (0.001 in.) resolution
Accuracy	**J850 TechStyle System:** Typical deviation from STL dimensions, for models printed with rigid materials, based on size: under 100 mm – ±100μ; above 100 mm – ±200μ or ± 0.06% of part length, whichever is greater. **Software:** Deviation from STL dimensions, for 1 Sigma (67%) of models printed with rigid materials, based on size: under 100 mm – ±150μ; above 100 mm – ±0.15% of part length. Deviation from STL dimensions, for 2 Sigma (95%) of models printed with rigid materials, based on size: under 100 mm – ±180μ; above 100 mm – ±0.2% of part length.

*Test results based on multiple textile samples comprising 3D printed elements of various colors.

3DFASHION

TECHNOLOGY

GnoMon by **Ganit Goldstein** in collaboration with STRATASYS