stratasys

# TechStyle™

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

Urban Tattoos
By Travis Fitch
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 industries such as fashion and automotive interiors, TechStyle enables designers to truly unleash their imagination with limitless creations and unparalleled flexibility and industry-certified materials. With multiple advantages over traditional forms of design, designers can create fantastic optical illusionary effects, direct to textile and garments, in clear print and in full color.

**DIGI BAG**
By Karim Rashid 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. These semi-flexible, soft-to-the-touch materials are the perfect choice for direct-to-textile 3D printing, boasting vivid colors and robust adhesion to multiple types of fabrics, so garments stay intact through most standard machine-wash cycles. Not only do they provide excellent flexibility and durability, but they are also at the forefront of sustainability, compliant with industry Standard RSL (Restricted Substances List for Finished Products).

**RSL**  TSCA compliant  REACH COMPLIANCE

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

# DESIGN
## FREEDOM

You're looking at a paradigm shift in the intersection of technology and fashion. Elevate your designs, captivate your audience, and embrace the future of bespoke, sustainable fashion with TechStyle. Empower your creativity, customize fashion and automotive interiors, reduce waste and streamline production. Experience a new level of design freedom, with TechStyle's virtually limitless color palette, with over 600K available colors in both matte and glossy finishes, TechStyle can print up to 7 different materials directly onto fabric at the same time, with varying transparency, textures and colors that will support any design. 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
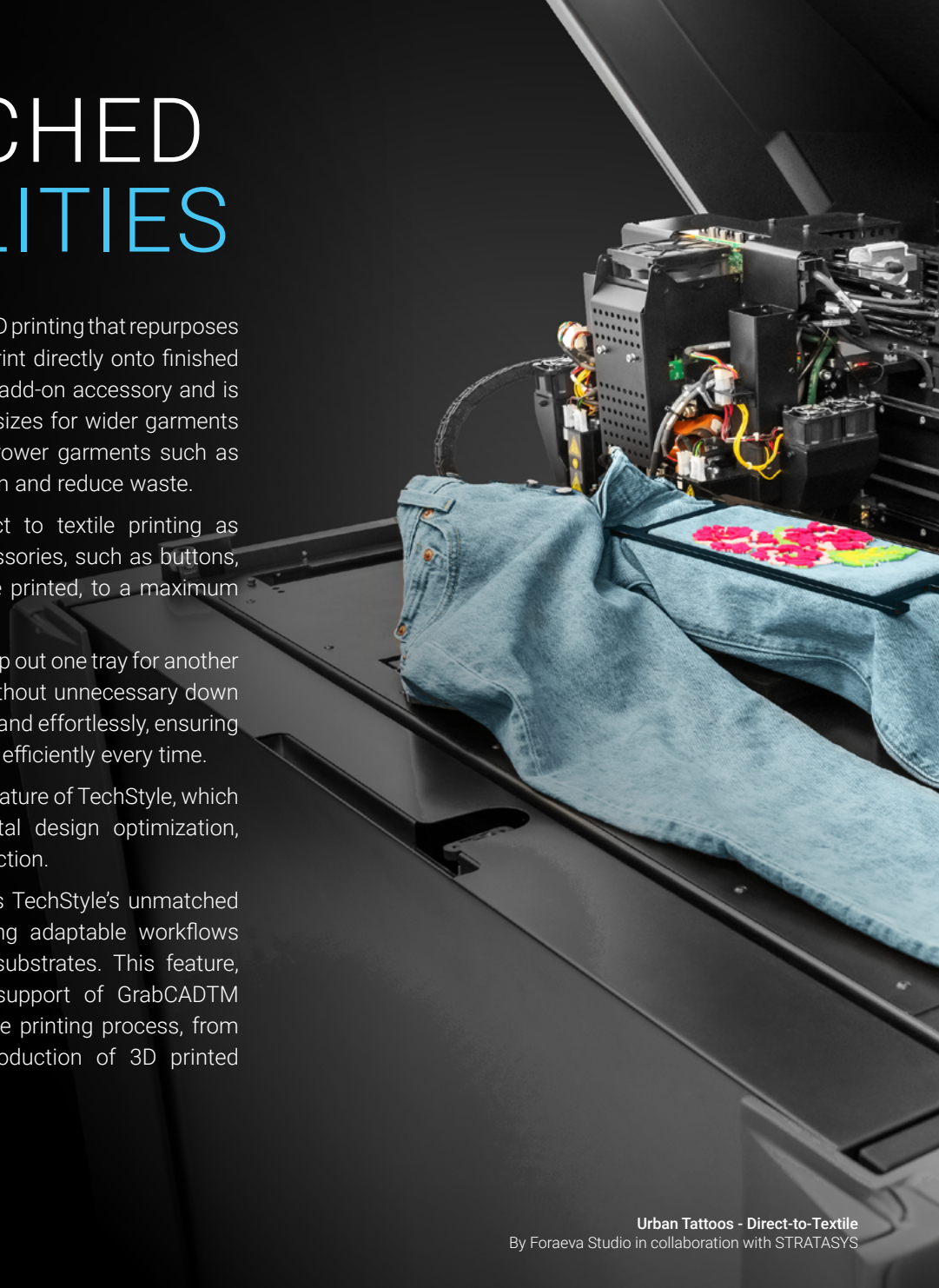In collaboration with STRATASYS

# UNPARALLELED
## PRODUCTIVITY

The TechStyle 3D printer is designed for optimal productivity, featuring a high-efficiency, long-lasting LED unit. Experience exceptional productivity right from the moment you switch it on and begin printing. Its user-friendly workflow makes refining your creations a breeze, and an interchangeable tray enables lightning-fast printing with minimal downtime.

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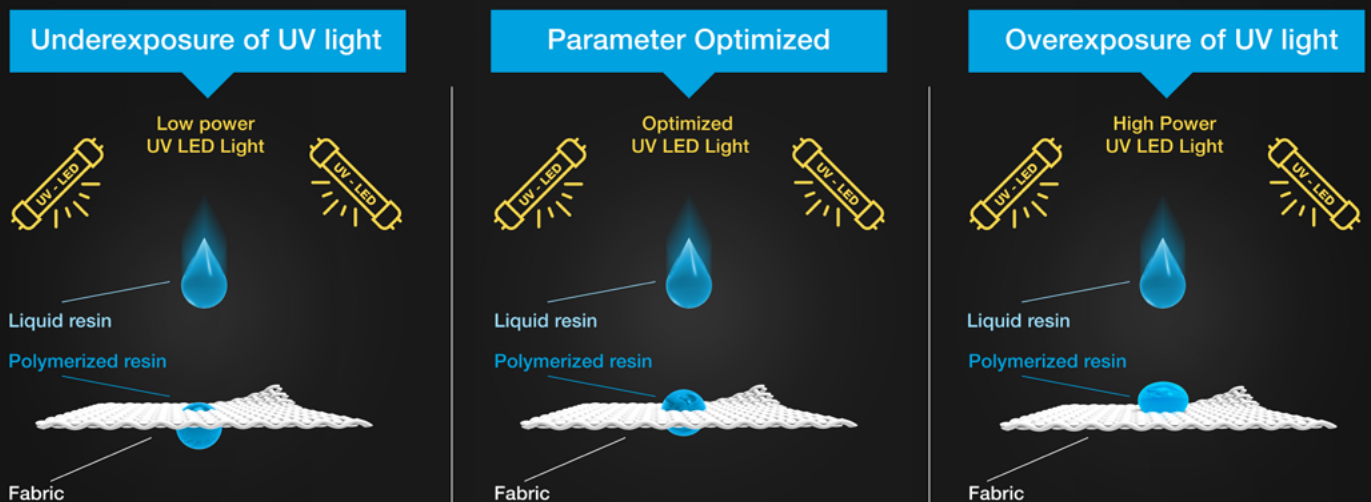Designed for the STRATASYS Reflection Collection

# UNMATCHED
# CAPABILITIES

- **D2G Trays Kit:** Direct-to-Garment 3D printing that repurposes fashion design by allowing you to print directly onto finished garments. The kit is available as an add-on accessory and is provided with two trays in different sizes for wider garments such as jackets and shirts and narrower garments such as pants and jeans to customize fashion and reduce waste.

- **2-mode capacity:** Enabling direct to textile printing as well as 3D models for fashion accessories, such as buttons, cufflinks, and bag clips, can also be printed, to a maximum height of 50mm.

- **Interchangeable Tray:** Quickly swap out one tray for another for lightning-fast production runs without unnecessary down time. It's easy to switch trays quickly and effortlessly, ensuring your projects are printed quickly and efficiently every time.

- **Fabric Analyzer:** Another unique feature of TechStyle, which analyzes a fabric sample for digital design optimization, reducing time and costs in preproduction.

- **Adhesion Optimization:** Enhances TechStyle's unmatched flexible printing capabilities, enabling adaptable workflows for a broad range of fabrics and substrates. This feature, coupled with the comprehensive support of GrabCADTM Print software, streamlines the entire printing process, from conceptual design to the final production of 3D printed designs.

**Urban Tattoos - Direct-to-Textile**
By Foraeva Studio in collaboration with STRATASYS

## 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 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.

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

# MINDFUL
# MANUFACTURING

Stratasys J850 TechStyle 3D printer promotes Mindful Manufacturing™, emphasizing low-volume production to minimize oversupply and reduce waste. Our commitment extends beyond mere compliance - we are leading the additive manufacturing industry forward towards improving environmental impact. We believe that meaningful long-term growth and success rests upon three pillars: Environmental Action, Social Impact, and Ethical Governance.

Responsible consumption, industry innovation and revised supply chains go hand-in hand with 3D printing technologies. We are committed to streamlining sustainable fashion by enabling on-demand production to minimize overproduction and waste, rejuvenating old garments with new designs to support a circular economy, and using industry-certified materials to reduce the environmental footprint. 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:<br>• Over 600K available colors in both matte and glossy finishes<br>• Translucent color tints<br>• Flexible tactile materials in a variety of textures and colors | | | | |
| **Industry Compliant Materials** | 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. | | | | |
| | 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<br>• 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<br>Fabric Thickness: 0.1-3.0mm<br>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 2m$^2$ | | | | |
| **Layer Thickness** | Horizontal build layers down to 27-micron (0.001 in.) | | | | |
| **Workstation Compatibility** | Windows 10 | | | | |
| **Network Connectivity** | LAN - TCP/IP<br>Industry 4.0 Compliance | | | | |
| **System Size and Weight** | J850 TechStyle System:<br>1400 x 1260 x 1100 mm (55.1 x 49.6 x 43.4 in.); 430 kg (948 lbs.)<br>J850 TechStyle Material Cabinet:<br>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<br>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.<br><br>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.<br><br>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. | | | | |
| **Add-On Accessories** | | | | | |
| **D2G Trays Kit** | Includes 2 trays in 2 sizes, 250/100 mm / 350/150 mm | | | | |

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

Urban Tattoos - Direct-to-Textile, by Fitchwork Studio in collaboration with STRATASYS