



3D Printed in full-color on the J850.

# Quadpack Continues Journey to Enhance Packaging Design and Production with the Stratasys J850 Prime



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Mr. Jeremy Garrard

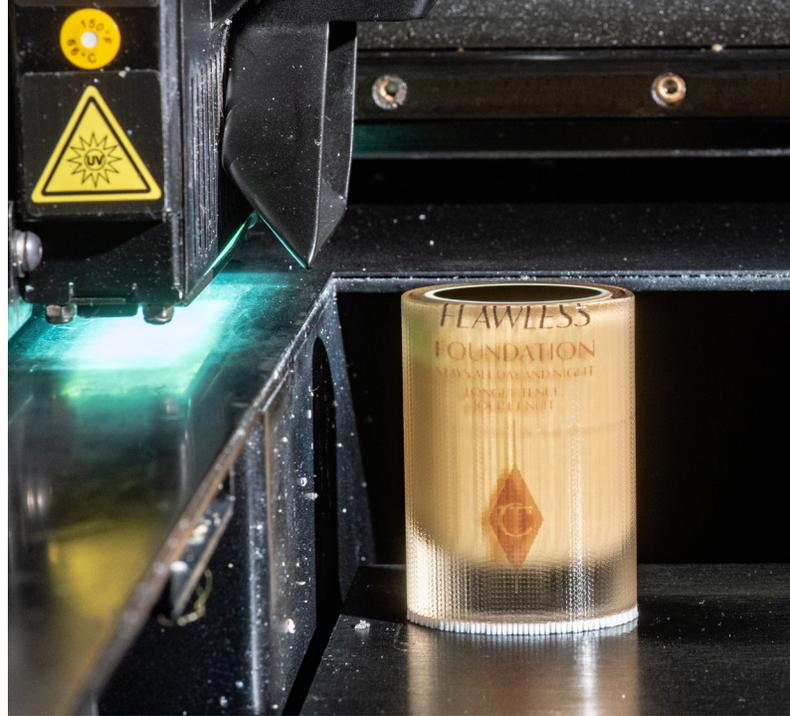
**Director of Market Development,  
Design and R&D, Quadpack Industries**

Founded in 2003, [Quadpack Industries](#) is a global manufacturer and designer of bespoke packaging solutions to the cosmetic industry including make-up, fragrance, and skin-care products. The company expanded its design team to create the Design and Advanced Technologies department following the integration of Stratasys' J-Series 3D printing technology a few years ago. The team has evolved to become the Market Development, Design and R&D department and continues to thrive in new product development and design.

“Our aim at Quadpack is to enable our clients to visualize and create striking and luxurious packaging designs to maximize interest in the product,” says Jeremy Garrard, Director of Market Development, Design and R&D, Quadpack Industries. “The demands of our clients are ever-increasing, so we have to evolve our product development process to ensure we deliver on expectations. We were ahead of the curve by investing in Stratasys' PolyJet 3D printing technology a few years ago and we are always looking for new and better ways of designing and developing products that push the envelope – this includes blending multiple materials and colors to achieve life-like realism.”

Following its success with J-Series technology, Quadpack continued its collaboration with Stratasys' local partner, Tri Tech 3D, purchasing a [Stratasys J850 Prime 3D printer](#). Part of the Stratasys J-8 Series, the J850 Prime is the world's only full-color, multi-material 3D printer. Since the investment, the company has grown the capabilities of the department to accelerate and improve the overall quality of product design.

“We were so impressed with our initial J-Series 3D printer and how it enabled greater speed and flexibility to produce high-quality models, so the decision to acquire the next-generation J850™ Prime system was a no-brainer,” explains Garrard. “To be at the top of our game, we need the freedom to innovate and test new ideas in a simple and effective way. The J850 Prime provides us unique options in color, material and overall efficiency that accelerate the early stages of design and development for us at an even more rapid rate.



“This means we can convert ideas into marketable products far more quickly, which gives us greater flexibility, added value and a crucial edge over competitors. To our knowledge we are currently the only beauty packaging provider with this advanced capability,” he adds.

### Design flexibility throughout product development

The J850 Prime has had an immediate positive effect on expanding Quadpack's QLine portfolio with new references. What's more, the large number of bespoke projects the design team undertakes for clients require adaptability and often have short lead times. Early-stage visualization is crucial in this aspect as the high-quality 3D models limit the need for further models, saving significant costs and time.

"Ultra-realistic models make the idea real for our clients, enabling an accelerated decision-making process. We are a long way from the bland all-white models we produced prior to 3D printing – today the possibilities are endless," continues Garrard. "Along with the work we do for our QLine range and our customers, the models we produce help towards influencing and inspiring the industry. As an example, we printed over 500 pieces for #QPPackfuture, our annual trend report, in which the team presents its vision for the future of cosmetics packaging, complete with samples."

### Advanced material and color visualization for customers

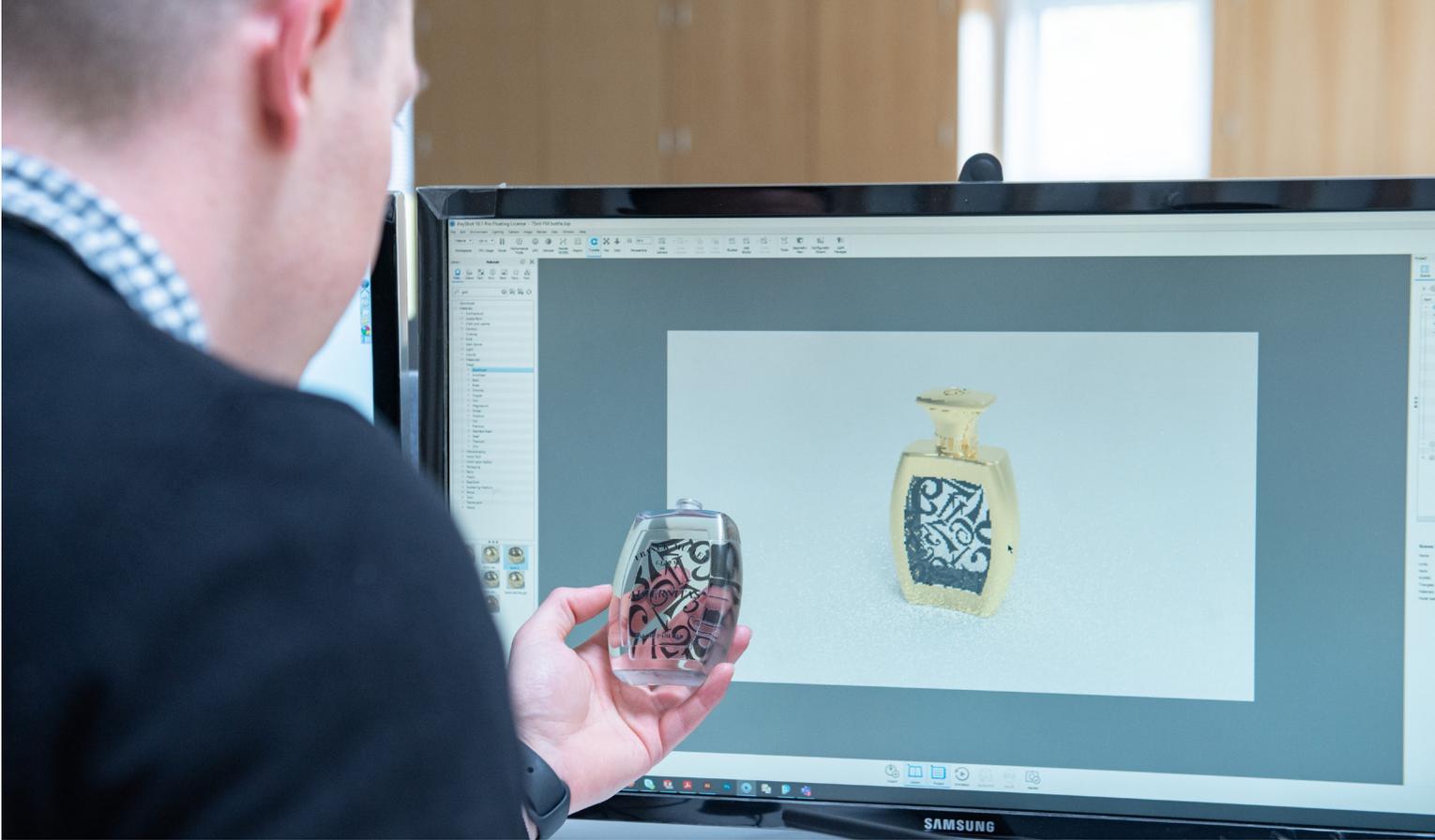
Key to further investment in Stratasys PolyJet technology was the J850 Prime's new and improved versatility with materials and colors, which can be produced in one single print, saving significant time and costs. 3D printing high-quality models has allowed Quadpack to save 80-90% on sampling costs, as previously 3D samples were outsourced. It has also reduced the lead time of showing a customer a full color decorated 3D printed sample from months to a week, including shipping time. PolyJet materials, including VeroUltraClear™ and the new opaque VeroUltra™ White and Black, as well as DraftGrey™, are fully-utilized by Quadpack for different aspects of the design and prototyping process.

The VeroUltraClear material delivers high clarity and finely detailed models that are similar in appearance to glass or transparent packaging. The material simulates acrylic, achieving 95% light transmission and is effective at helping the design team at Quadpack to visualize internal features and create concept models that verify the design of clear parts.

"The beauty packaging industry uses a lot of glass and very transparent materials. Having the ability to replicate 'glass-like' components at the prototyping stage really helps to visualize a product and improve the quality of our final designs," states Quadpack Designer Oliver Drew. "For example, we can now produce nail varnish bottle prototypes in the VeroUltraClear material that are barely distinguishable from the final product with the naked eye. The ability to present these models to both potential clients and existing ones is a serious game-changer for our business as it opens up significant opportunities in a large portion of the market."

To help Quadpack meet challenging time constraints that are common in the cosmetics industry, the team uses Stratasys' concept modelling material, Super High Speed Draft Grey, to print first-off concept prototypes quickly and cost-effectively. The team uses this material at very high speeds, reducing printing time by hours and freeing up more time to make any changes required, before printing the final part in full color. This has led to significant reductions in overall project development time.





## Streamlining the **design workflow**

In order to further streamline its design workflow, Quadpack is also utilizing KeyShot® 10 3D rendering software, which is now standard on J8 Series printers. Having used KeyShot® 10 for over a year now, the software has become an integral part of the design team's workflow, underpinned by its ability to support the new 3MF file format, a significant improvement over legacy STL, OBJ, and VRML files.

"KeyShot® 10 allows our designs to come to life," states Drew. "With the latest update, several processes are combined into one, with the ability to export the 3D data seamlessly into GrabCAD Print. What you see in KeyShot® 10 is exactly what you get once the sample is physically printed. What's great is that this new easy and intuitive workflow of applying texture and decoration to a 3D model has cut hours off what used to be a time-consuming process."

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