



Optimizing the Optima



One of the moments every designer dreads is when they have to show a new customer their first design concepts. In the case of the Optima Mug, modeled in Cobalt™ CAD and 3D modeling software, this was simply not an issue.

The Optima Mug was recently introduced by Village Mill, a family-run UK-based manufacturer of business gifts and accessories. Village Mill presented product developer Kevin Quigley of Quigley Design with a very tight technical brief for a new designer mug.

The Optima was designed from the start to be the flagship product for Village Mill. "Part of our brief was to create a well designed product that was also optimized for molding, so this meant working very closely with the customer to ensure that both the aesthetics and the technical issues were satisfactory."

After presenting some initial shapes, Quigley Design invited Village Mill to participate in the design process by using the CAD station to work through subtle aesthetics.

"I like to work interactively with my customers. One of the ways we can do this is by using the powerful associativity in Cobalt."

"Throughout the development of the Optima Mug we used this approach, tweaking the 3D CAD model, switching to the linked drawings to check wall thicknesses, and then switching to a pre-saved perspective view and rendering the mugs. In this way, the customer could see not only the shape and technical considerations, but the way the light refracted through the plastic and what effect different colors had."

In the end, the Cobalt 3D model was used to generate an STL file for a rapid prototype before exporting the surfaces directly to the toolmaker's CAM system.

"After the first molds were made, I had a call from the customer to tell me that the light refraction on the renderings was identical to the actual product."



The Optima Mug, designed in Cobalt CAD and 3D modeling software, is now in full production and available from Village Mill in a range of colors and options.



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