

Old World Design Meets Cutting-Edge Technology

Industry : Machinery
Previous CAD : AutoCAD
Website : www.crenshawlighting.com

Crenshaw Lighting

Floyd, Virginia

The Challenge

For nearly 50 years, Virginia-based Crenshaw Lighting has transformed light fixtures into functional works of art that grace national landmarks, statehouses, federal buildings, churches, and private residences. Each fixture is handcrafted with a variety of materials, including silver, bronze, brass, iron, chrome, and a broad range of glass types all designed by scratch – everytime. Once the part was designed, a prototype was then created to share with their client, engineers, and architects until the final product was approved. The process time and costs increased for every new product design, revision, and lost time to market.

The Solution

The company has standardized on SolidWorks Office Professional to design all new products, including more than 550 highly decorative fixtures for The Schermerhorn Symphony Concert Hall in Nashville, Tenn. and 80 new fixtures that will light up the U.S. Supreme Court building. "This industry is comprised of a group of craftsmen that build each fixture by hand. That's the way it's been done for centuries," said Crenshaw Lighting Senior Designer Paul Sullivan. "By marrying age-old practices with cutting-edge 3D CAD software, we're able to try new options we wouldn't have attempted in AutoCAD. When evaluating 3D CAD solutions, we found SolidWorks has a friendlier interface and better rendering tools than competing products."

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Paul Sullivan
Senior Designer



SolidWorks' associativity also saved Sullivan and his team time by automating changes to 3D models without forcing engineers to recreate the design from scratch. As the product designs neared completion, Crenshaw shared them with the designer, the architect, and symphony officials using SolidWorks eDrawings® e-mail-enabled design communication tool. Recipients could simply click open the design and view and rotate it as if they were holding it in their hands.

Crenshaw uses the finalized SolidWorks models as the digital prototypes it shares with custom part manufacturers, reducing expensive prototyping costs and time by 50 percent. "Before SolidWorks, we wouldn't have had the confidence to just order parts from the designs," said Sullivan. "We'd have to order several parts and try them out as physical prototypes. If they didn't work, we'd have to try again. SolidWorks gives us the confidence that the components will work the first time."

Summary and Metrics:

- New product development time and costs cut in half
- Improved communication and overall satisfaction with clients