

J&J DESIGN D.O.O.

SAILING INTO DIRECT INTEGRATION WITH BOAT-BUILDING CUSTOMERS USING SOLIDWORKS SOLUTIONS



J&J Design relies on SOLIDWORKS mechanical design, analysis, electrical schematics, and product data management solutions to accelerate design and manufacturing cycles and reduce errors during the development of its award-winning boats and yachts.



We Create Winners.

Challenge:

Grow a yacht and boat design company—and a related specialty components and tooling business—by integrating and working more closely with leading boat manufacturers.

Solution:

Implement SOLIDWORKS Standard design, SOLIDWORKS Premium design and analysis, SOLIDWORKS Electrical Schematics Professional electrical design, and SOLIDWORKS Product Data Management (PDM) Professional software solutions.

Results:

- Cut design-to-manufacturing cycles
- Eliminated design errors and mistakes
- Improved revision controls, electrical schematics
- Integrated directly with largest customer's PDM vault

Brothers Japec and Jernej Jakopin have a passion for boating, design, technology, and innovation. Since they founded J&J Design in Slovenia in 1983, the company has produced nearly 300 designs for 55 production boat builders from 22 countries, yielding more than 60,000 boats and yachts. Over the years, the company's designs have won more than 100 boat of the year, design, and environmental awards, as J&J Design has built a reputation for quality, efficiency, and innovation.

The firm's most recent creation—the R40 flybridge motoryacht—was designed for a large boat manufacturer. This latest yacht utilizes new production technology and features unique lower and main deck accommodations that are coupled with a sporty, seaworthy hull of superior handling.

As J&J Design's relationships with major boat builders have developed, so has the need to directly integrate its design operations with its customers, according to R&D Manager Martin Staric. "We've used a couple of CAD systems to design our boats in the past, but in 2014, a customer really pushed us to use SOLIDWORKS® software, which is its standard design and manufacturing platform," Staric recalls. "Although we had worked successfully with them in the past using drawings and STEP files, they wanted to automate the design-to-manufacturing process by linking us directly with their SOLIDWORKS PDM Professional vault. The number of projects that we have with this customer was growing, so we had to use SOLIDWORKS."

J&J Design implemented SOLIDWORKS Standard design, SOLIDWORKS Premium design and analysis, SOLIDWORKS Electrical Schematics Professional electrical design, and SOLIDWORKS Product Data Management (PDM) Professional software initially to honor a customer's request. However, once the firm installed SOLIDWORKS, something interesting happened: Management discovered that most young engineers already know SOLIDWORKS as their main 3D design tool, which made integrating with this customer much easier.

"Our young engineers learn SOLIDWORKS at university, so they can come on board and contribute almost immediately," Staric notes. "We were also impressed with the value of SOLIDWORKS in terms of the level of performance for the price."

FASTER DESIGN-TO-MANUFACTURING, FEWER ERRORS

Since implementing SOLIDWORKS solutions, J&J Design has seen the transition from final designs to its customer's manufacturing operations move faster, with fewer design errors and less rework on the production floor. "Because we're both on the same SOLIDWORKS platform, things move more quickly and there are fewer mistakes," Staric stresses. "Roughly 80 percent of our SOLIDWORKS usage involves one customer, and in many ways we've become part of their design department."

"Design data is like a language," Staric explains. "When you speak the same language, there's not only less confusion and fewer misunderstandings, but also the ability to focus on resolving the design and engineering challenges that we encounter instead of data conversion and file translation problems."

"SOLIDWORKS is in some ways analogous to sailing. When you're on the sea, you can sense the wind coming up as a fresh breeze. SOLIDWORKS is like that. SOLIDWORKS is fresh and there are well-thought-out ideas behind it. We're certainly enjoying riding the SOLIDWORKS wave at J&J Design."

— Martin Staric, R&D Manager

YOUR VAULT IS OUR VAULT

With the SOLIDWORKS PDM Professional system, J&J Design can connect directly with its customer's SOLIDWORKS PDM Professional product data management vault. "Our SOLIDWORKS PDM vault mirrors that of our customer, enabling us to plug into their workflows and adopt the system's tight revision control capabilities," Staric says. "When this customer pushed us to use SOLIDWORKS, we realized that we had to become a part of them in order to maintain the relationship."

"Using SOLIDWORKS to design boats for this customer was just the first step," Staric adds. "With SOLIDWORKS PDM Professional, we are integrated directly into the core of their operations, many of which are automated. For example, when we release a design file for manufacturing, it goes directly to our customer's milling machines. We benefited from SOLIDWORKS PDM almost immediately because our work takes less time and our customer enjoys substantial efficiencies on the back end."

BUILDING THE DESIGN AND ENGINEERING TEAM

The move to SOLIDWORKS also helps J&J Design manage growth and build its design and engineering team. "When we acquired SOLIDWORKS in 2014, we had four engineers," Staric recounts. "By 2015, we had 12 engineers, and by 2016, we grew to 20. Today, we have 30 people on the design and engineering team, and our electrical engineer has really taken to and embraced SOLIDWORKS Electrical software. The SOLIDWORKS implementation has helped us manage this type of growth because new team members typically don't need training.

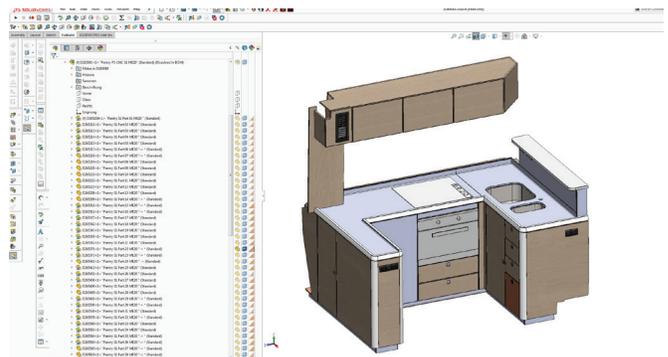
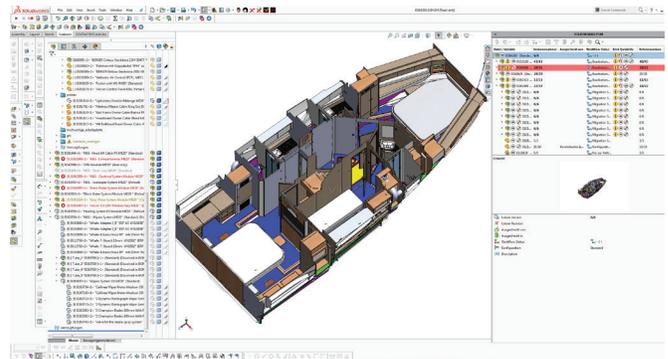
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The firm implemented SOLIDWORKS Standard design, SOLIDWORKS Premium design and analysis, SOLIDWORKS Electrical Schematics Professional electrical design, and SOLIDWORKS PDM Professional software. By implementing SOLIDWORKS, J&J Design cut its design-to-manufacturing cycles, eliminated design errors and mistakes, improved revision controls and electrical schematics, and integrated directly with its largest customer's PDM vault.

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Using the SOLIDWORKS PDM Professional product data management system, J&J Design can integrate its development processes directly with the PDM vault of its largest customer, resulting in faster design-to-manufacturing with fewer errors.

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