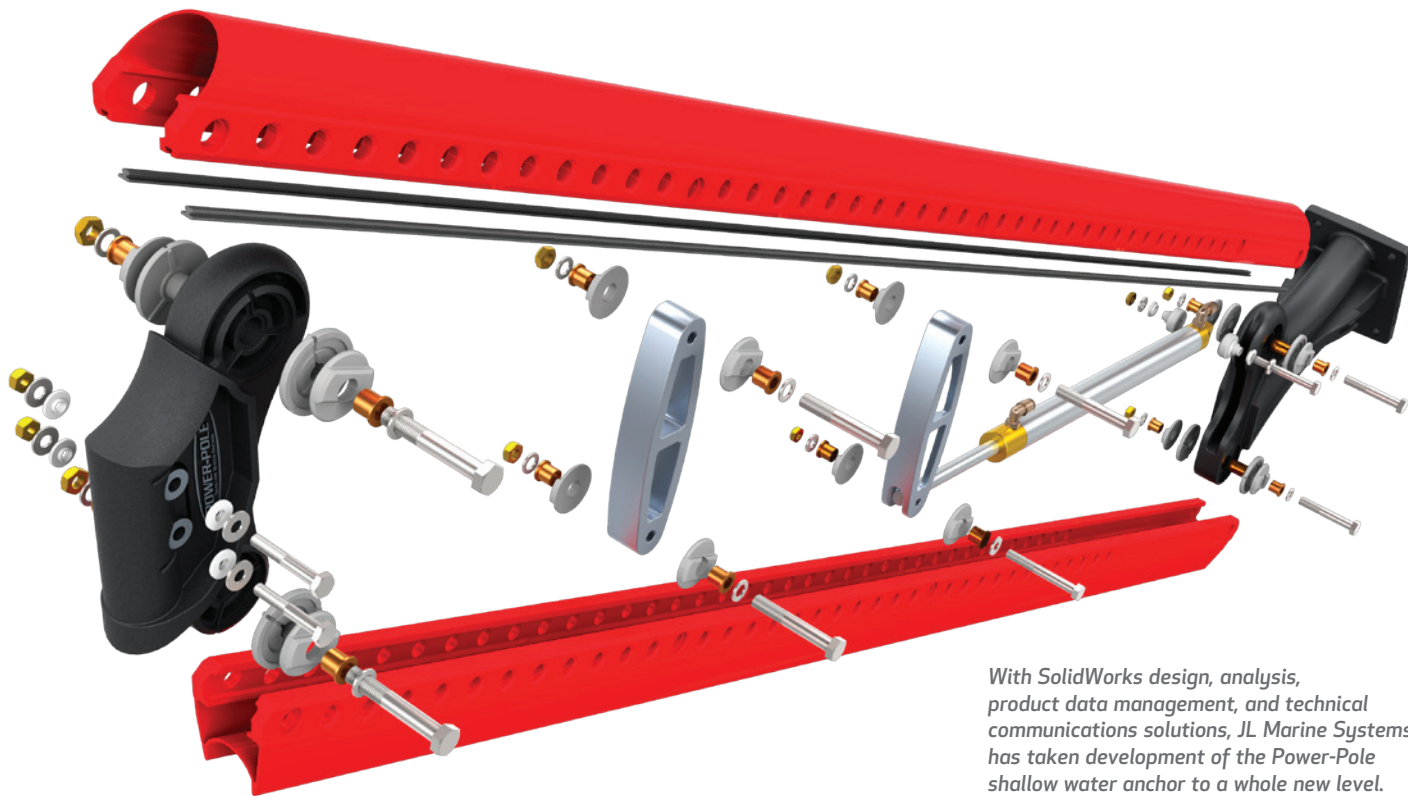


JL MARINE SYSTEMS, INC.

Making a perfect cast with the Power-Pole using SolidWorks



With SolidWorks design, analysis, product data management, and technical communications solutions, JL Marine Systems has taken development of the Power-Pole shallow water anchor to a whole new level.

John Oliverio's passion for fishing combined with his engineering talent have transformed an idea for improving boat maneuverability into a world-class manufacturing company. Founder of JL Marine Systems, Inc., Oliverio conceived of the Power-Pole® shallow water anchor after recognizing how much valuable fishing time he spent trying to maneuver his boat into position before making a cast. Often, by the time he had the boat where he wanted it, the fish had moved. He thought there had to be a better way. At that moment, the Power-Pole was born.

Today, Oliverio's boat control technology has taken the bass fishing world by storm. Over 90 percent of the world's best tournament anglers use the Power-Pole, because they understand how effective it is for controlling the boat and approaching cover, so they can make the perfect cast. The system's popularity has enabled JL Marine Systems to grow and expand its reach, with over 1,000 distributors around the globe.

Sustaining the company's growth and advancing its product, however, required the manufacturer to replace the paper drawings it had used with a 3D development platform, according to Engineering Manager Amit Patel. "John understood that to take JL Marine Systems to the next level, we would need to leverage 3D design, simulation, and visualization technologies to accelerate time-to-market, improve product aesthetics, and control development costs.

"With his background in engineering and as an inventor, John took it upon himself in 2007 to evaluate 3D CAD packages and determine the best solution," Patel recalls. "He knew that we needed 3D models to support design analysis, rapid prototyping, and automated manufacturing. John simply fell in love with SolidWorks® software because of what it could do for our company."

Challenge:

Ramp up development and production of the Power-Pole shallow water anchor, a breakthrough boat control technology for sportfishing enthusiasts.

Solution:

Implement integrated SolidWorks solutions, including CAD design, SolidWorks Simulation analysis, SolidWorks Enterprise PDM product data management, and SolidWorks Composer technical communications software.

Results:

- Shortened design cycles by 40 to 50 percent
- Cut prototyping costs by 50 to 60 percent
- Reduced design change time from three days to five hours
- Sustained annual, ongoing growth

JL Marine Systems chose SolidWorks Premium software because it is easy to use, includes integrated simulation tools, and provides enhanced visualization capabilities. The company added the SolidWorks Enterprise PDM product data management and SolidWorks Composer technical communications solutions in 2010.

Improved aesthetics, faster time-to-market, fewer prototypes

Using SolidWorks design and analysis solutions, JL Marine Systems has improved the appearance and performance of the Power-Pole, shortened design cycles and time-to-market, and reduced prototyping and development costs. "SolidWorks helps us design a cooler-looking product and add features a lot faster," Patel stresses. "We're at least 40 to 50 percent faster during the design cycle. Using SolidWorks Simulation tools and 3D printing of rapid prototypes, we've also reduced prototyping costs by 50 to 60 percent.

"Before SolidWorks, we needed eight or nine prototypes to reach a decision on releasing a design for manufacturing," Patel adds. "With SolidWorks Simulation tools, we can conduct motion simulations and structural analyses to see how a design will react to the forces of regular usage, understand where our stress points will occur, and work out the factor of safety for all parts. Now, we need only one or two prototypes to finalize a design."

Increased productivity with SolidWorks Enterprise PDM

JL Marine Systems added the SolidWorks Enterprise PDM system to increase the efficiency and improve the effectiveness of its internal processes. With PDM, Patel says the company can better manage revisions, automate workflows, execute design changes, and leverage design data for other functions.

"We've cut the time it takes to complete a design change from three days to five hours," Patel points out. "PDM also enables us to get Purchasing, Production, and Sales more involved in our product lifecycle. Whenever we release to Manufacturing, a notification email goes out to everyone that's affected. PDM automates this process and all of the approval stages in between."

Showing how it works with SolidWorks Composer

The company added SolidWorks Composer software to improve the visual representation of its products for documentation and marketing purposes. For example, engineers can quickly create animations that show how to mount the Power-Pole to a boat or how to operate specific features. They also use the software to create high-quality renderings to support online and email marketing efforts. The PDM system efficiently manages all of the files and content related to a product, including visuals authored with SolidWorks Composer software.

"We used to book a studio and conduct photo shoots, which can be extremely expensive," Patel notes. "With SolidWorks Composer, we can meet many of our needs more cost-effectively using computer visuals, including renderings for owner's manuals, online instructional animations, images for marketing—and use photography more strategically, where it makes sense."

"SOLIDWORKS HELPS US DESIGN A COOLER-LOOKING PRODUCT AND ADD FEATURES A LOT FASTER. WE'RE AT LEAST 40 TO 50 PERCENT FASTER DURING THE DESIGN CYCLE."

Amit Patel
Engineering Manager



SolidWorks simulation tools allow JL Marine Systems to conduct motion and structural studies on the Power-Pole, reducing the number of prototypes required.



JL Marine Systems, Inc.
9010 Palm River Road,
Tampa, FL 33619 USA
Phone: +1 813 689 9932
www.power-pole.com
VAR: ModernTech Mechanical,
Tampa, FL, USA



Dassault Systèmes
SolidWorks Corporation
175 Wyman Street
Waltham, MA 02451 USA
Phone: 1 800 693 9000
Outside the US: +1 781 810 5011
Email: generalinfo@solidworks.com
www.solidworks.com

