



Appliance Manufacturer

Appliance Manufacturer Uses Quality Risk Management to Improve Washing Machine Designs

A \$4.5B consumer appliance manufacturer with 23,000 employees worldwide had numerous challenges. In order to face increasing global competition, they developed a strategy that centered on research and development and a culture of innovation. This strategy is not about innovating for the sake of innovation; it is about producing useful technology that will fulfill the needs of their clients and the final consumers.

In order to preserve quality from product conception through to manufacturing, post-market upgrades and productivity changes, they were performing Failure Mode and Effects Analysis (FMEA) that helped them reduce errors throughout the product lifecycle. FMEAs are designed to show manufacturers where product quality and reliability could suffer, allowing them to fix these errors early in the development process. The Lean Six Sigma Leader managed this endeavor, beginning with their popular line of washing machines. FMEAs allowed them to design out defects earlier in the production process, but required many man-hours of calculation and formatting in order to produce a report using standard spreadsheet software. The Sphera software solution, FMEA-Pro®, provided a way for them to continue to conduct FMEAs on their products while providing employees with an easy user interface to complete their assessments.

FMEA-Pro is helping them maintain and enhance the company's diligent quality standards. With FMEA-Pro, they are able to optimize quality, productivity and safety, while providing an effective way to review the complete product design process and ensure that it exceeds industry standards. Through this approach, they are taking a proactive stance on quality improvement, which will ultimately limit the potential for failure.

CHALLENGE

- Support R&D and innovation strategy to fulfill the needs of their customers
- Increase the efficiency of creating FMEAs for their products and eliminate manual spreadsheets
- Uphold high quality standards and reduce the risks of product recalls
- Ensure adherence to industry, company and customer quality standards
- Extensive calculating and formatting in order to produce a report using standard spreadsheet software

SOLUTION

Quality Risk Management

- Failure Mode and Effects Analysis (FMEA)

RESULTS

- Supported their R&D process by more accurately analyzing product designs and manufacturing processes
- Provided a way to continue to conduct FMEAs on appliances while providing employees with an easy user interface to complete their assessments in a fraction of the time
- Optimized quality, productivity and safety, while providing an effective way to review the complete product design process and ensure that it exceeds industry standards

Appliance Manufacturer Improves Product Quality with FMEA-Pro

“Maintaining quality is the core of our business as we are only as reliable as the products we produce,” said the Lean Six Sigma Leader. “Prior to using FMEA-Pro we were operating from manual spreadsheets, which proved to be a tremendous time waster. We reviewed other vendors’ solutions, but the FMEA-Pro software proved to have the most configurable libraries, drove actions more efficiently and allowed us to save a great amount of time.

The best way for us to tell that the solution is working, is when a problem doesn’t occur. FMEA-Pro provides product reliability and organizes the implementation of our corporate-wide quality, risk and reliability programs based on our standards, which are driven by both our customers and industry alike.”

The software gives them the ability to more accurately analyze product designs and manufacturing processes. It also increases the amount of studies the company can conduct in a fraction of the time it used to take, ultimately preventing unnecessary product failures.

Reducing Failures and Increasing Satisfaction

Quality goals cannot be considered achieved if the developed products do not comply with the technical specifications and regulations that each market imposes.

The company concerns itself with the compliance of all the requirements for each country it markets its products. FMEA-Pro is able to be configured to any template needed according to the company, industry or individual country’s requirements. Companies can incorporate their unique quality programs, which is part of their competitive advantage. Users of the software can then share information across the value chain so that defects are designed out, products are produced according to specifications and scraps and returns are reduced. The software provides a Windows® interface that improves adoption, while including powerful reporting capabilities that allow the manufacturer to see its highest potential risks in real-time.

Supports Innovation and Growth

The FMEA-Pro software is designed to keep pace with the company’s rapid business growth. The rapid change that comes with a project implementation required a well optimized solution that could easily enable access to historical information and provide real-time analysis and evaluation. After evaluating other products, FMEA-Pro proved to be the only product that was flexible and broad enough to link all of their design data with their manufacturing data.

With the company’s focus on innovation, the software will assist the company in developing a comprehensive reporting grid that will help generate new ideas and allow users to quickly enter information and edits into the grid. Through enhanced quality, the manufacturer will maintain its stellar reputation in the white goods manufacturing market.

The company has been operating for more than 60 years, and its quality programs are something that it takes immense pride in. It has now taken the steps to further ensure quality for generations to come. The company is now poised to more rapidly expand its global market share and produce more reliable products faster, and at less cost than its competition.

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Lean Six Sigma Leader