CHAMPION AEROSPACE
CASE STUDY

Utilizing SOLIDWORKS PDM

TPM
what will you create today?
Champion Aerospace, LLC manufactures aerospace ignition and power systems. They specialize in piston aircraft, turbine engine powered aircraft, and airframe power. This Liberty, SC based company got its start in 1900 under the name Champion Spark Plug Co., and since then, they've become a world leader in the aviation manufacturing industry.

While aviation has come a long way since Wilbur and Orville Wright's first successful flight, there's always space for improvement at any business – from products to processes. Champion Aerospace was no different, and Josh Christopher, a Product Engineering Team Leader at Champion, recognized this reality. “We wanted to more effectively manage and improve visibility of our CAD data and associated processes,” said Christopher.

Even as a well-established, industry-leading company, Champion Aerospace was using outdated processes for dealing with CAD (computer-aided design) data. Their manual, often paper-based approach for reviewing and revising new designs and routing them through the approvals process was less than efficient.

PDM worked especially well for Champion Aerospace because the company already worked closely with TPM using SOLIDWORKS as its design package. This made the integration of PDM practically seamless.

Oftentimes, companies dread plans to learn a new system, but that was not the case at Champion. “Once the team recognized the improvements in efficiency, obtaining buy-in was easy,” said Christopher.

The versatility of PDM made it a good fit for Champion. Other advantages, like automating repetitive processes, significantly reduced designers' workloads. With the implementation of PDM software, designers now had space in their days to focus on value-added design work instead of monotonous clerical work such as creating PDFs of drawings.

In addition to the product's built-in capabilities, PDM was successful at Champion for another reason – the support of TPM. “TPM has been Champion's CAD provider since before I joined the company,” Christopher said. “TPM has always provided exceptional service, so we have never had a reason to look elsewhere.”

➤ The Old Way of Doing Things

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➤ A New Way of Doing Things

When Champion Aerospace began researching opportunities for improvement, they landed on SOLIDWORKS PDM (Product Data Management), a software system created specifically to help manufacturing design teams refine processes, develop organization and collaborate.
SOLIDWORKS PDM allowed the designers at Champion Aerospace to do more high-level work in less time. Through streamlined processes, production increased and resulted in higher profits for the company. The implementation of PDM has given Champion Aerospace yet another reason to remain a leader in the aviation manufacturing industry.

► Results That Speak for Themselves

TPM provided Champion Aerospace with demos that detailed the software’s powerful functionalities and showcased the relative simplicity of the programming aspect.

But TPM didn’t just offer support from a distance. They came onsite to assist Champion’s IT department as they installed the new software on individual workstations. Additionally, they created custom workflows to replicate and replace existing processes and then performed in-house training for the team at Champion Aerospace.