



Steinwall Scientific, Inc. and IQMS: A Pursuit Spanning Decades Results in a Lasting Partnership for the Future

More than 45 years ago in St. Paul, Minn., a dedication to accuracy was started at the modest mold making manufacturing plant, Steinwall Scientific, Inc. Now an advanced, precision thermoplastic molder with a reputation for handling tight tolerance, high cosmetic custom molds using engineering grade resins, Steinwall Scientific continues striving for perfection in every aspect of its business.

This commitment to precision on the plant floor gave rise to uninterrupted growth for Steinwall Scientific over the years, growth that eventually led to some serious challenges in its daily operations. The culprit? A home-grown operating system that was far from modern. Steinwall Scientific's internal DOS operating system, while cutting edge at the time, had become outdated and was causing the company to become vulnerable and rigid. Operating with such a large fundamental flaw, Steinwall Scientific could not hold itself to the new modern standards it was striving to achieve. The resulting journey to find the right ERP system is a story that spans more than 25 years.

Persistence pays off in a decades-long courtship:

In 1983, Maureen Steinwall, present company president, programmed a DOS-based operating system to manage her inventory and Bills of Material (BOMs). Combined with an IBM accounting software package, Maureen's software, later named Putty, developed to manage most aspects of her business. But Putty and IBM's accounting software were stand-alone systems and as Steinwall Scientific expanded, the obvious flaw of the two system's inability to communicate became a large bottleneck.

"There was just too much opportunity for human error when all the vital information was being stored in two places," said Kaci Smolenski, project manager for Steinwall Scientific.

During those same early years, IQMS was developing its own enterprise resource planning (ERP) software more than 2,000 miles away in sunny Southern California. Endeavoring to woo the thermoplastic molding company from the outset, one of IQMS' first sales calls was to Steinwall Scientific. But despite IQMS' attempt at courtship, Steinwall Scientific was stable at the time with its internal software solution and turned IQMS away.

Fast forward to the near present, when in 2007, Maureen acknowledged that her internal system was not enough to keep her company's growth on track. It was time to upgrade away from a DOS-based system and take the plunge into the world of ERP systems. Over the past 20 years, IQMS had worked diligently to improve and expand the functionality of its cohesive, single-database ERP software system called EnterpriseIQ. Tenaciously, IQMS again pursued Steinwall Scientific, but Maureen didn't think that her company needed all of the "bells and whistles" IQMS' system offered and went with a system called MISys instead.



The Company

Minnesota-based Steinwall Scientific, Inc. was founded in 1965 by Carl Steinwall as a mold making company. By the mid-1970s, they started offering injection molding services and grew to \$1 million in sales, 24 employees and eight injection molding machines by 1983. Carl's daughter, Maureen, took over Steinwall Scientific in 1985 and focused on building corporate strength, creating an award-winning orientation program and offering the highest level of customer support. Today, with approximately 110 employees and 37 machines, Steinwall Scientific is a leading precision thermoplastic injection molder that specializes in engineering grade resins. Steinwall Scientific's customers include Fortune 500 companies as well as start up firms. A dedication to accuracy and constant strive for perfection keeps Steinwall Scientific at the top of its class in the manufacturing industry.

Unfortunately, after only two short years, Steinwall discovered that MISys wasn't robust enough, especially when it came to creating a BOM, and like most inferior systems, it was dumped. A novice no longer, Maureen had learned from experience and finally decided to go for the system she had watched grow for 20-plus years. In what may have been the longest sales cycle ever, IQMS' EnterpriseIQ software system was purchased in May 2009.

Single-database solution delivers hidden gems:

The initial transition was, by their design, slow. For the first three months, Steinwall Scientific moved over only the basics and transferred all of its data out of Putty. At around the six month mark, Steinwall Scientific finally kicked the old system and made the switch complete. With linked modules, protected data and assessable productivity, the benefits of a cohesive, integrated system were quickly noticed by everyone at Steinwall Scientific as they began to work off one main system.

"The traceability and connectivity of EnterpriseIQ has helped us find information much faster than we ever did before," said Becky Swonger, bookkeeper.

After the initial advantages sank in, Steinwall Scientific began to notice some of the many other benefits that an interconnected system could offer:

- Time savings and error prevention with simple connections in all steps of the process, from packing slips to invoicing
- Improved inventory control and tracking with engineering change order flexibility
- Timely work center scheduling, capacity planning and simplified budgeting with forecasting tools
- Accurate, visible and traceable quality inspections
- Automatic alerts that warn of work center problems, resulting in a more proactive plant floor
- Enhanced warehouse management, including streamlined shipping and inventory visibility, with advanced tracking capabilities

"We are finding these hidden gems that will make us a more profitable and organized corporation that we didn't know we needed before," said Smolenski. "EnterpriseIQ is so rich in all of its possibilities."

Growth will no longer outpace capacity now that the patchwork system is gone and the new EnterpriseIQ system, designed to grow with Steinwall Scientific, is in place. But besides the quantifiable benefits of the new system, Steinwall Scientific also experienced improvements that were systematic, procedural and cultural.

"The things we are struggling with right now are to move past where we were before and become better. To get ourselves in a place to take advantage of all the 'others' that IQMS offers," said Maureen. "I believe that we are 95 percent implemented on all the tasks that we used to do in our old system, but what's exciting is that we're only 10 percent implemented on the rest. That is what I am looking forward to the most."

Taking a dedication to accuracy to the next level:

To continue down a path of company growth and maintain competitiveness, Steinwall Scientific desired to optimize its manufacturing performance. To help achieve the highest level of accountability and precision,

Steinwall invested in IQMS' RealTime Machine Monitoring module. With EnterpriseIQ's wireless nodes at every work station relaying machine performance results in real time, Steinwall Scientific can monitor detailed production performance (including total parts created, production time, downtime, rejects and parts remaining) from anywhere.

The real time gathering of information quickly identifies on-time and poor work center machine performance, increasing overall plant efficiency and making Steinwall Scientific proactive toward emerging problems, rather than reactive. Improved efficiency, visibility and productivity are just some of the results that EnterpriseIQ's RealTime Machine Monitoring module delivers. Steinwall Scientific's supervisors also experienced time savings of about 9 percent because RealTime eliminated manual record keeping tasks, removing redundant data entry and the unavoidable recording mistakes inherent in patchwork systems.

"The complexity of the thermoplastic molding industry has just multiplied dramatically," said Maureen. "RealTime monitoring, being able to collect the data without human intervention and without those errors, is an absolute solution for us."

In combination with RealTime, Steinwall Scientific utilizes EnterpriseIQ's statistical process control (SPC) module to further analyze part production, forcing the company to become extremely precise and resulting in 99.5 percent of all lots to be completely accepted by its customers. The exactitude with which RealTime captures process data, compared to the data of the past, was a surprise benefit discovered after implementation that has started a cultural shift for the better.

"With the help of IQMS, we have elevated our accuracy to a whole new level of accountability, correctness and truth," said Maureen.

An award-winning future:

Driven to uphold a standard of excellence, Steinwall Scientific conducts a bi-annual audit with a customer to document and rate its quality control and processes. Right before implementation of EnterpriseIQ, Steinwall Scientific received the audit's top "preferred" status with a total score of 109 percent. But because of EnterpriseIQ's traceability, visibility and precision, Steinwall Scientific was able to increase that total score to 115 percent during a follow up audit and maintain a "preferred" status.

"Steinwall Scientific has made amazing progress with EnterpriseIQ," said a Steinwall Scientific customer after a recent visit. "Very impressive. I very seldom see such hands-on implementation on a new system and resulting success in improving the business."

Steinwall Scientific's hard work has paid off. Among other awards, Steinwall Scientific won *Plastics News'* Excellence Award for Employee Relations in 2011 for its commitment to employee training at the initial orientation level, as well as ongoing to further employee cultivation. Through iPads mounted at every work station, Steinwall Scientific has designed an education program to empower its employees while also controlling the variability of the human element. Employees watch procedural PowerPoint movies, with revisiting capability, that allow them to learn and repeat the training information in a private and safe way. This "video at the press" program allows for employees to embrace the training concepts and incorporate them into their daily work, improving their performance and taking employee production to the next level.

Steinwall Scientific has also won numerous other distinguished awards, including the John Deere 2009 Supplier of the Year award (the highest supplier rating Deere & Company bestows), the National Plastics Expo International Design Award in 2009 and was named the highest achiever in *Managing Automation's* Leadership Mastery category, defeating IBM and Kodak, at the 2011 Progressive Manufacturing Awards.

The ongoing recognition the manufacturing industry has presented Steinwall Scientific reinforces its leadership initiatives and predicts a bright future for the thermoplastic molding company. And like a proud parent, IQMS couldn't be more pleased to be the software support system behind Steinwall Scientific's success.

In Brief:

Steinwall Scientific, Inc. is a leading precision thermoplastic molder dedicated to accuracy. Unfortunately, the company recently started experiencing growth limitations and capacity constrictions with its outdated DOS-based operating system. Steinwall Scientific chose IQMS as its replacement ERP provider for its cohesive, integrated system and excellence in supporting business growth. Besides quantifiable benefits, Steinwall Scientific has also experienced procedural and cultural changes since implementation, driving their focus on accuracy to a whole new level. With IQMS as its backbone, Steinwall Scientific is prepared for a successful future.

Return on Investment:

- Saved time and prevented errors with simple connections in all steps of the process, from packing slips to invoicing
- Improved inventory control and tracking with engineering change order flexibility
- Simplified budgeting and capacity planning with forecasting tools
- Enhanced warehouse management, including streamlined shipping and inventory visibility, with advanced tracking capabilities
- Eliminated manual record keeping tasks, removing redundant data entry and the unavoidable recording mistakes inherent in patchwork systems

Software:

The EnterpriseIQ ERP software system, including:

- Accounting
- Customer Relationship Management
- Document Control
- Electronic Data Interface
- EnterpriseIQ for the BlackBerry
- Forecaster
- Preventative Maintenance
- ShopData
- Statistical Process Control
- Time & Attendance
- Tooling
- Warehouse Management System
- Wireless RealTime Machine Monitoring

Hardware:

- Oracle database with Windows-based PCs