



# NISSEN CHEMITEC AMERICA LEADING AUTOMOTIVE SUPPLIER ACCELERATES LEAN OPERATIONS

Case Study



## AUTOMOTIVE SUPPLIERS' ADVANTAGE

Competing in an industry where a large number of suppliers vie for comparatively fewer customers, Nissen Chemitec America understands the necessity of lean manufacturing. As a leading manufacturer serving automakers like Honda Motor Company of America, Inc™, Toyota Motor Company, and Ford Motors, Nissen Chemitec America relies on technology to drive lean initiatives. From its inception in 1988, the company was managing enterprise operations with an AS/400-based system, which was eventually replaced with an enterprise resource planning (ERP) software that promoted its design for automotive manufacturers. However, while the latter system conformed to automotive customers' stringent requirements, it hindered Nissen Chemitec America's ability to advance lean manufacturing principles. Thus, the company began looking for a more tailored ERP solution—one built specifically for contract manufacturers serving the automotive industry.

"We were working for the system rather than the system working for us," explained Mike Hopkins, production material control and MIS manager at Nissen Chemitec America. "Our old system was designed for suppliers of the Big Three automakers, so it didn't meet many of our needs. It was cumbersome, required heavy data entry, and though we were striving to be lean, it blocked our efforts because of all the things we had to do to maintain it."

Nissen Chemitec America needed a fully automated system that not only adhered to the automotive compliance requirements like electronic data interchange (EDI), Labeling, and quality functions, but was also robust as well as scalable.

"We wanted an ERP package that understood our particular business. If a system didn't understand family molds or multiple cavitations running at the same time, it would have cost us more in terms of efficiency and maintenance," said Hopkins. "But as a supplier to major automakers, we also had to comply with our automotive customers' quality standards and business transaction requirements."

Ultimately, Nissen Chemitec America found the best solution to be EnterpriseIQ from DELMIAworks (formerly IQMS). With specific functionality designed to meet the challenges auto suppliers face day to day, EnterpriseIQ helps manufacturers like Nissen Chemitec America stay flexible and lean within the distinctive confines of industry compliance and ever changing customer demands.

"We selected EnterpriseIQ because it uniquely supports our business from every angle," confirmed Hopkins. "In the past when we had two parts running on two machines with two operators, our old system might calculate cost or capacity accurately, but not both. With EnterpriseIQ both are correct, even for machines that make multiple parts. EnterpriseIQ delivers the perfect combination of manufacturing-specific functionality and automotive industry compliance standards. As a Tier One automotive supplier, we see that as a definite advantage."

## SPEEDING EDI TRANSACTIONS

EnterpriseIQ from DELMIAworks fully supports Nissen Chemitec America's lean initiatives, unlike the company's previous ERP system, which impeded lean progress in a number of ways. For example, their previous system was built upon multiple databases that required repetitive data

## Return on Investment

- Optimized operations to secure additional business from largest customer
- Reduced shipping errors from as many as 40 per month to zero
- Improved internal and customer communications
- Reduced maintenance costs more than 70%
- Eliminated excess data entry

## Hardware

Oracle database with Windows-based PCs.  
IQMS eCommerce Partner  
Lexicom by Cleo

## Software

EnterpriseIQ™ ERP software system  
Electronic Data Interchange (EDI)  
RealTime Production Monitoring  
Wireless Warehouse Management System (WMS)  
Quality Management  
Shop Data  
Human Resources  
Payroll  
Fixed Assets  
Time and Attendance, and more.

entry across various modules and functions. Additionally, the previous package was not automated and had limited bar code scanning capabilities. Scheduling was done manually using spreadsheets and production data had to be keyed in separately for reporting. Perhaps one of the most significant areas of concern for Nissen Chemitec America was the fact that, though the system supported EDI, the actual transactions were sent via modem, which was slow and delayed the company's ability to find and correct problems before and after they occurred.

"Our customers want quality parts, in the correct quantity, on time, and at a competitive price," explained Hopkins. "In the automotive industry EDI is a major component in a supplier's ability to deliver that automakers want. With our old system, 80 percent of the time we couldn't respond fast enough to EDI errors because the data transfer was slow. This problem was magnified with our biggest account because that customer's plant is only 40 minutes away, so shipping errors were arriving at the plant before we could catch them."

With modem-based EDI, Nissen Chemitec America was paying between \$3,200 and \$3,600 monthly to transmit data and support customer requirements. Furthermore, the company was experiencing between 30 and 40 EDI-related shipping errors per month. With EnterpriseIQ in place, Nissen Chemitec America reduced its monthly EDI cost by roughly 90 percent to only \$300 and eliminated most shipping errors altogether.

"We literally turned the IQMS system on and started shipping error-free immediately," said Hopkins. "And EnterpriseIQ EDI is so much faster and easier to use it's helped us speed communication and better fulfill our customers' requirements for data transfer and labeling. Now our customers are happier, and we're saving time and money."

The DELMIAworks EDI module is seamlessly embedded within the EnterpriseIQ system, which operates entirely within a single database, so Nissen Chemitec America has no cumbersome third party hardware interfaces to manage. Incoming EDI files are automatically translated into the ERP system, instantly updating all pertinent records. Outgoing files are automatically transferred back to customers and suppliers. And there's never a need for manual data entry, so Nissen Chemitec America benefits from accurate, automatic and timely communication across its entire supply chain.

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**—Mike HOPKINS, Production Material Control and MIS Manager**

## **REAL-TIME POWER**

Nissen Chemitec America relies on EDI data to set daily schedules, forecast demand, and communicate with customers and suppliers alike. Within the EnterpriseIQ system, Nissen Chemitec America's EDI pushed data is elevated to new levels of accuracy because the company also uses RealTime Production Monitoring by DELMIAworks. Part of the EnterpriseIQ system, RealTime provides an easy, cost-effective means for Nissen Chemitec America to capture and use shop floor data, truly in real time, as production occurs.

RealTime Production Monitoring connects each work center to the EnterpriseIQ database and allows Nissen Chemitec America to follow jobs as they move from the schedule through production. Because production data feeds directly into the ERP database, job status is automatically updated down to the minute. The system also supports powerful, graphical, scheduling screens and reports that can be used by anyone, from anywhere—within the company or remotely—to assess job status, track downtime, view quality data and more.

"We added RealTime Production Monitoring so we could see what was happening on the shop floor without having to walk around," said Hopkins. "RealTime Production Monitoring allows us to step up our processes where we might be having a problem. With RealTime Production Monitoring and Shop Data our operators can see what a machine is doing and be proactive in catching issues before they get out of hand."

Prior to implementing EnterpriseIQ, Nissen Chemitec America used an infinite schedule based only on demand. Now, RealTime uses a graphical, finite schedule to assess not only machine capacity but labor capacity as well. Taking it one step further, Nissen Chemitec America also utilizes the comprehensive Quality Management suite of products to control pre-production items and Statistical Process Control (SPC). By monitoring all aspects within one system, data is communicated more quickly, without error, and available for review at any time.



“Before we were operating with only half the picture,” said Hopkins. “But now we have control over every part of the equation, from purchasing and scheduling to on-time delivery for every part we make. EnterpriseIQ gives us real power over our processes because it’s user-friendly, comprehensive, and allows everyone in the company access to the same timely data.”

## **LEAN SUPPLY CHAIN, DYNAMIC FUTURE**

As a single-source system, EnterpriseIQ is written, developed and supported by DELMIAworks with all modules built on one database. This means the functionalities Nissen Chemitec America relies on, such as the EDI Translator, Finite Scheduling, Purchasing, RealTime Production Monitoring, and Quality Management, work in unison within the system to ensure tighter control and better visibility over the company’s procedures and processes, both internally and externally.

“We are now managing a leaner supply chain,” said Hopkins. “That simply isn’t as possible with an ERP solution made from component parts, or one that did not understand the inner workings and external pressures automotive suppliers must manage to remain competitive. Any other system would have presented higher maintenance costs and diminished efficiency. With EnterpriseIQ we’ve reduced maintenance costs alone over 70 percent, and achieved lean objectives like reduced cycle time, automated workflow, and the elimination of redundant processes.”

Nissen Chemitec America’s customers have seen the difference, too. With less delivery errors, better quality, and streamlined communications in place, the company secured additional business from its largest customer.

“From undergoing an extensive certification process with our largest and most stringent customer to supporting our specific lean manufacturing initiatives, DELMIAworks has proven a true partner in our business,” said Hopkins. “In an industry as dynamic as the automotive industry, DELMIAworks is the one constant we will continue to rely upon as we move into the future.”

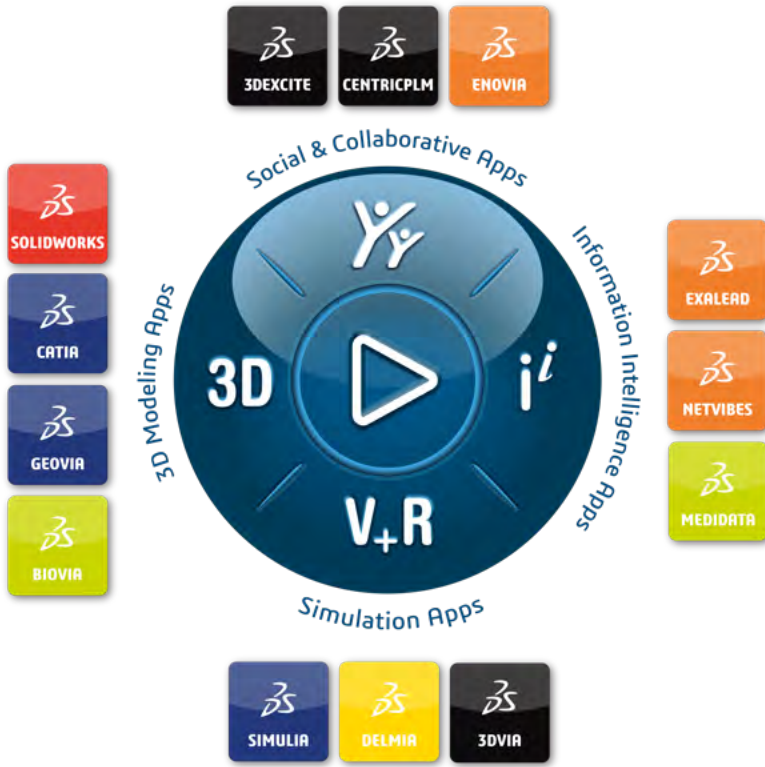
## **In Brief**

As a leading plastic injection molder serving automakers like Honda Motor Company of America, Inc.™, Nissen Chemitec America has traditionally relied on technology to drive lean initiatives. Since its inception in 1988, the company has utilized several different systems to manage enterprise operations; however, these systems were not designed to meet the specific needs of automotive injection molding suppliers, so they often blocked the company’s lean efforts. When Nissen Chemitec America set out to find an ERP system, it was looking for a system that could better support plastics manufacturers serving the automotive industry. Ultimately, Nissen Chemitec America selected EnterpriseIQ from IQMS because it delivers manufacturing-specific functionality and automotive industry requirements in a single-database system. Since installing EnterpriseIQ, Nissen Chemitec America has optimized operations to secure additional business from its largest customer; eliminated shipping errors; improved internal and customer communications; reduced maintenance costs more than 70%; and eliminated excess data entry.

Nissen Chemitec America, a leading plastic injection molding company, supplies quality plastic parts to leading automobile manufacturers such as Honda Motor Company of America Inc.™, as well as to a diverse range of other leading manufacturers around the world.

Founded in 1988 by Nissen Chemitec Corporation of Niihama, Japan and Ohio based steel company Worthington Industries, Nissen Chemitec America is now owned and operated solely by Nissen Chemitec Corporation.

With over 250 employees at its London, Ohio plant, Nissen Chemitec America is ISO certified and provides a full range of quality solutions, including: research and development; design services; mold building; injection and insert molding; finishing; assembly; and just-in-time (JIT) delivery.



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