

IQMS[®]
Manufacturing Software

becomes

DS DELMIAWORKS



DOUBLE H PLASTICS, INC. IMPROVING MANUFACTURING AUTOMATION FOR FUTURE SUCCESS

Case Study



As of January 2019, IQMS is becoming DELMIAWORKS, joining the global manufacturing powerhouse Dassault Systèmes and its portfolio of innovative brands.



What do you get when you combine an innovative manufacturer with a progressive ERP software automation team willing to push the boundaries of shop floor control? Competitive advantage, increased efficiency and a match made for the future. Double H Plastics, Inc. is a manufacturer of high quality plastic cores for the paper, film and foil converting industry and a creator of insert-molded packaging for the dairy, dry goods and food packaging industry. Manufacturing ERP and MES software provider, IQMS, employs a unique Automation Group to design new and better ways to automate shop floor production and make automation accessible to every manufacturer, large or small. Together, Double H Plastics and IQMS are improving the landscape of automation in manufacturing for future success.

Double H Plastics' Journey to IQMS

Double H Plastics is a company rich in innovations that have molded the fabric of manufacturing history. During the same time that plastic was first gaining a foothold as a viable raw material, Double H Plastics founder Harry Harp (double H) established his company with the development of a high speed process for extruding round plastic drinking straws to compete with the paper straw industry. As his business began to evolve, Harp invented the first plastic bendy straw, then went on to develop and patent a system to automatically blend colorant with virgin plastic pellets (a previously high cost, manual process), contributing to the plastic industry revolution occurring at the time.

Always looking to expand, Harp's experience in extrusion led to an opportunity to manufacture plastic cores for the small paper rolls used in cash registers. The extrusion of round plastic cores for the paper converting industry, including the ability to produce very small diameter cores with capabilities up to six inches, remains a "core"

competency for Double H Plastics today. In fact, Double H Plastics currently produces approximately 80 percent of all plastic cores used in the United States.

When Harp acquired a patented lid molding process commonly used to make lids for ice cream, oatmeal and tissue containers, Double H Plastics experienced expansive growth. The company then expanded to include the manufacturing of solid plastic tubs and formed paper cups to supply a complete package to its customers.

But this growth into the food packaging industry put a strain on Double H Plastics' software system. Utilizing a Unix/DOS-based system called Tiny Term (complete with green screens), Double H Plastics lacked real-time data and system integration across its enterprise. Realizing it was time to modernize, Double H Plastics thoroughly evaluated multiple ERP vendors before selecting IQMS for its familiarity with Double H Plastics' industry and its comprehensive functionality that required no third-party applications.

Through features such as IQMS' robust scheduling tools and RealTime™ Production Monitoring system, Double H Plastics now has transparent visibility and real-time data management in every aspect of its business. With nearly 1200 wireless RealTime™ devices recording and gathering data from very short cycle times across multiple plants, Double H Plastics can make proactive decisions and recoup productivity based on immediate production information. Additionally, with increased visibility in scheduling, Double H Plastics can now see bottlenecks in advance and plan ahead to work them out, prior to missing a shipment and disappointing a customer.

Return on Investment

- Eliminated previous third-party interfacing and gained the ability to schedule and track production data in real time and within one comprehensive package.
- Increased warehouse efficiency in product movement by 20 percent.
- Saved significant employee labor time equaling about 30 percent of an eight hour shift per warehouse person, resulting in a savings of approximately \$100,000 per year.
- Eliminated all inventory movement paperwork.
- Reduced duplicate pulls to zero.
- Virtually eliminated all errors that occurred from shipping incorrect product to customers.

Software

EnterpriseIQ™ ERP software system
RealTime Production Monitoring
Quality Management
EDI/XML
Project Manager
Preventative Maintenance
Payroll
Time & Attendance, and more.

Hardware

Oracle database with Windows-based PC

“The data rich environment we now live in provides the opportunity for timely decisions and better ones,” said Frank Sica, supply chain manager at Double H Plastics. While implementing, Double H Plastics also took advantage of IQMS’ Automation Team. Put in place to develop innovative ways to advance shop floor and ERP communication through automation, mobility and state-of-the-art technology, IQMS’ award-winning Automation Team thrives on collaboration with clients to solve their business challenges. At the start of IQMS’ partnership with Double H Plastics, the Automation Team created two new unique programs:

RowHMI

Double H Plastics’ production environment is rather unique. Unlike most other manufacturing processes that devote one machine to a long, continuous run of a product utilizing a high-cost, multi-cavity tool, Double H Plastics commits multiple smaller machines running simultaneously in short runs to produce the same product utilizing uncomplicated, single cavity tools. The benefits of this process are many and include a low cost for new product start up and the ability to print high quality graphics onto the product. Double H Plastics uses this manufacturing process to produce lids and solid plastic tubs for a bulk of the brand name ice cream, oatmeal and tissue containers on the market today.

This unusual production method requires a unique data capture system in order to properly schedule jobs. Double H Plastics’ multiple machines running in a row, producing the same part, require accumulation of the production totals to be applied against a single work order. As Double H Plastics’ legacy system was customized to gather the correct data, before the company could proceed with its investment in IQMS, it was necessary to ensure that a new solution for scheduling could be created.

IQMS’ intrepid Automation Department gathered all of Double H Plastics’ requirements and offered the RowHMI solution: a touchscreen interface for shop floor users that monitors production line and work order progress in real time, as well as allows operators to scan serialized finished goods to serialized pallets, print corresponding labels at the work center and production report materials into inventory upon completion. With RowHMI, Double H Plastics can experience the ability to schedule and track production data in real time and within one comprehensive package, with no need for third party interfacing like before.

“The proactive approach IQMS’ Automation Team took surprised us, as well as their ability to take a concept and turn it into reality on budget and on time,” said Sica.

“The data rich environment we now live in provides the opportunity for timely decisions and better ones.”

– Frank SICA, Supply Chain Manager

RackTruck

RackTruck is a sophisticated inventory management application that prioritizes the pulling and storing of finished goods for efficient utilization of manpower and equipment. Through inventory scanning, forklift mounted monitors or tablets and stocking location mapping, RackTruck offers an optimal pick ticket schedule for the delivering and selection of goods. RackTruck presents a graphical representation to the forklift drivers showing row and holding bin openings for the movement of finished goods from the manufacturing area. It also analyzes shipping requirements, determines the pallets that should be pulled based on priority shipping and compares the requirements against the goods being made for an innovative and intuitive way to prepare and stage goods for shipment.

Before IQMS’ RackTruck application, Double H Plastics would print a report with information that told its forklift drivers where to pull goods from. The report had little logic and the data was only as good as the last time it was printed. Orders would change frequently, causing an outdated report and resulting in the incorrect product being pulled, causing delays in shipments and poor customer service.

Now, Double H Plastics’ forklift drivers have up-to-the-minute instructions about material movements, including priority on the closest shipping product, increasing warehouse efficiency in product movement by 20 percent. This new timeliness resulted in a significant employee labor savings of about 30 percent of an eight hour shift per warehouse person, equaling a savings of approximately \$100,000 per year. Additionally, all paperwork has been eliminated, duplicated pulls have been reduced to zero and all errors that occurred from shipping incorrect product to customers were virtually eliminated.

An Automated Manufacturing Future

Based on the innovative nature of the two projects above, the experience collaborating with IQMS and its return on investment (ROI), Double H Plastics was honored with a Progressive Manufacturing 100 award (PM100). Since the implementation of the two projects above, Double H Plastics has collaborated on and adopted various other automation projects with IQMS, including a PalletWrapper application that prints pallet labels for serial numbers scanned as a pallet wrapper machine spins, the TATender application, RTStatusViewer, and Signature Capture, an application that allows live transactions to be recorded and updated immediately from mobile tablets.

"I think the Automation Group has some of the most talented individuals I have worked with," said Sica. "The automation team manager thinks in zeros and ones and to date has not failed us with any request we have made for a new development or change."

Many manufacturers consider automation too fancy or expensive for their business. But as Double H Plastics' experiences can demonstrate, IQMS' Automation Team can deliver low cost, customizable options to manufacturers of any size and in any industry. Unlike other ERP vendors, IQMS' unique Automation Team strives to solve shop floor challenges and push the boundaries of shop floor and ERP communication every day. For companies such as Double H Plastics that are willing to bring to the table fresh ideas and automation challenges, it is a win-win for everyone involved.

For more than 35 years, Double H Plastics, Inc. has been providing high quality plastic cores for the paper, film and foil converting industry. With millions of plastic cores in stock in hundreds of standard sizes and colors, Double H is perfectly positioned to meet the immediate and long-term needs of its clients with just-in-time delivery to virtually eliminate inventory headaches.

In 1985, Double H Plastics, Inc. acquired VersaForm, a market innovator in insert-molded packaging. Since then, the VersaForm process has become the quality standard in packaging for dairy, dry goods and many other food products. With modern extrusion and molding facilities in Warminster, PA (a Philadelphia suburb) and affiliate manufacturing plants in Marion, IN, and Morristown, TN, Double H Plastics offers significant capacity for manufacturing and inventory.

For more information, please visit www.iqms.com or call 1.866.367.3772

Our **3DEXPERIENCE**® platform powers our brand applications, serving 12 industries, and provides a rich portfolio of industry solution experiences.

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