MatrixOne

Changing the Way the World Brings Products to Market™

The Company

Van Dorn Demag Corporation manufactures and supplies injection molding machinery including the Caliber, Spectra, HT, vertical Newbury, all-electric IntElect and Cadence Series machines ranging from 28 tons to 4,400 tons. Van Dorn Demag is a member of the Mannesmann Plastics Machinery Group, the world's largest supplier of injection molding machines. With more than 30,000 machines installed in the world marketplace, Van Dorn Demag maintains the largest installed base of machines of any injection molding machinery manufacturer in the U.S.

The Challenge

After selecting Pro/ENGINEER as a CAD data management tool, Van Dorn Demag recognized that it needed a product lifecycle management tool to meet the company's requirements for a collaboration infrastructure. Van Dorn Demag's older system of managing parts, part structures and BOMs in one relational database while drawing viewing was maintained in another with no connection between the two systems was no longer feasible.

Van Dorn Demag invested time in evaluating its requirements, developing a pyramid of business processes related to product information that included 12 distinct projects. The team then searched for common weaknesses across the multiple processes, ultimately identifying eight significant problems that could be overcome with a product lifecycle management system. The primary concern centered on product information scattered among many heterogeneous systems. To get product information, an engineer would navigate between multiple sites, never getting a full picture of the product information. Often opportunities would be missed and errors made due to incomplete information.

Machinery

The Success

- **ROI**
  Hundreds of thousands of dollars saved by eliminating paper-based document viewing and multiple silos of product information
- **OSHA Requirements Met**
  Safety measures improved through broad information availability in eMatrix
- **Value Chain Collaboration**
  Suppliers and customers to access eMatrix to collaborate on design and order parts

The Story

"Van Dorn Demag implemented eMatrix to provide an infrastructure for establishing collaboration of engineering drawings among employees in engineering, manufacturing, purchasing, materials management, and customer service. eMatrix has been the most widely accepted system that I've ever introduced. The program has been a tremendous success, and we look forward to extending the benefits of eMatrix to our partners and suppliers."

Dave Karpinski
Manager of IT

Krauss Mafai, Van Dorn Demag's Germany-based sister company under the Mannesmann umbrella, was evaluating similar systems. The two companies merged evaluation efforts, conducting an on-site pilot implementation to establish requirements, benchmarking and testing. Mannesmann selected MatrixOne's eMatrix™platform corporate-wide for its easy, intuitive user interface and capabilities for easily deploying changes online in real-time invisibly to the end user.

"All of the people involved in the evaluation process believed the eMatrix implementation would be an order of magnitude easier than the closest competition," says Dave Karpinski, Manager of IT for Van Dorn Demag.

The Solution

Karpinski and his team outlined a clear plan and vision to deliver results for its proposed product collaboration solution. By clearly communicating the goals of each of the 12 projects, Karpinski ensured each project could be completed successfully on schedule.

ROI through Information Collaboration

MatrixOne® partner ITS worked closely with Karpinski and his team to implement eMatrix. Van Dorn Demag's first project requirement was to view and print drawings from Pro/ENGINEER in addition to other existing print and scanned drawings with eMatrix. By replacing the legacy view/print system that required the maintenance of paper drawings and microfilm archives with eMatrix, everyone who needed access to that information was able to work more efficiently and effectively. The productivity savings and cost efficiencies from eliminating paper-based systems enabled Van Dorn Demag to save hundreds of thousands of dollars per year.

Document Management Success

Van Dorn Demag has also successfully completed its second project requirement for document management. In phase one, Van Dorn Demag assimilated its document management system of 180,000 objects and 500,000 files and engineering documentation into eMatrix, and in phase two replaced the legacy CAD management system. Phase three saw the successful integration of the company's legacy PDM system while phase four incorporated the management of engineering specifications documents for machine performance, mechanical functions, and software functions. By creating this single-source information in eMatrix and eliminating the multiple silos of product information, Van Dorn Demag saves an additional $150,000 per year in time spent searching for information alone. Van Dorn Demag has now begun its third project to manage change processes with eMatrix.

Meeting OSHA Requirements with eMatrix

Karpinski and his team have implemented additional systems in eMatrix to benefit staff outside of the typical engineering and manufacturing groups. Van Dorn Demag maintains libraries of Material System Data Sheets (MSDS) on potentially hazardous materials used at its facilities. To meet requirements set by the Occupational Safety & Health Administration (OSHA), this information must be easily accessible to any person in the company. Van Dorn Demag's safety manager traditionally filed new or updated MSDS in large binders and distributed multiple copies to the appropriate staff. By transferring this information into eMatrix, anyone in the company can access the latest MSDS at any time. The eMatrix method meets all OSHA requirements for document availability and distribution.

Looking Forward to Value Chain Collaboration

Van Dorn Demag is now planning on opening its eMatrix application to its suppliers and customers for easier collaboration that will enable the company to shorten cycle times and deliver the right product at the right time. Since Van Dorn Demag's suppliers manufacture to the company's specifications, online access to product data in eMatrix will eliminate the time delays and version control errors inherent in paper-based systems. Moreover, 20 percent of Van Dorn Demag's business is in aftermarket part sales. To simplify the part ordering process, Van Dorn Demag intends to bring customers into the eMatrix system for online parts ordering. "The product knowledge in eMatrix is at the core of our eBusiness strategy," explains Karpinski.

The Bottom Line

Van Dorn Demag continues to diligently pursue its carefully crafted project plan and realize its strategic vision for the effective and efficient use and reuse of knowledge throughout the company. "Van Dorn Demag implemented eMatrix to provide an infrastructure for establishing collaboration of engineering drawings among employees in engineering, manufacturing, purchasing, materials management and customer service. The program has been a tremendous success, and we look forward to extending the benefits of eMatrix to our partners and suppliers," says Karpinski.

About MatrixOne

MatrixOne, Inc. is changing the way the world brings products to market™ by helping customers to accelerate the right products to market profitably. Committed to the success of innovative companies, MatrixOne, together with its partners, offers product lifecycle management (PLM) solutions that enable enterprises to reduce costs, speed innovation, and maximize revenues across global value chains. MatrixOne's approximately 600 global customers represent the aerospace/defense, automotive, consumer products, general machinery, high technology, and life sciences industries, and include GE, Procter & Gamble, Philips, Siemens, Agilent Technologies, Johnson Controls, and Honda. A global corporation, MatrixOne is headquartered in Westford, Massachusetts.

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