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Five big improvements in just five months

Structured implementation at industrial good maker Hunter Manufacturing reduces timeframe, promotes business success

By Jim Fulcher

Enterprise system implementations can be invasive, disruptive, and even counter-productive, causing considerable expense, possibilities of wrenching business-process change, and gnawing uncertainty in the minds of employees.

Yet surveys show midsize manufacturers are increasing investment in enterprise resource planning (ERP) to stay competitive. Manufacturers want the benefits of integrated data, streamlined processes, and managed inventory that ERP, as a system of record, brings to bear.

Happily, while no magic pill guarantees an implementation will be quick, painless, and successful, there are steps manufacturers can take to secure ERP value without risk of catastrophic failure.

Solon, Ohio-based **Hunter Manufacturing**—one of the world's largest producers of heating and protective filtration systems—is a good example of

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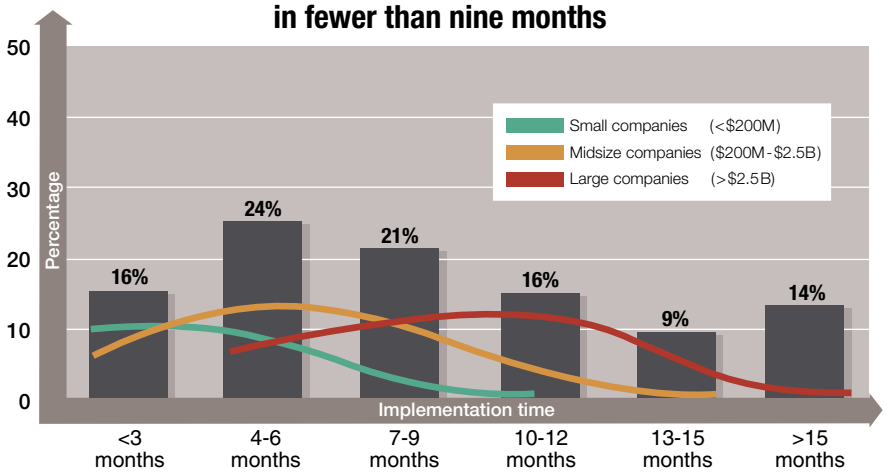
61 percent of all ERP implementations are accomplished in fewer than nine months



Based on an internal SAP study conducted 2003-2004

Source: SAP

No matter what the company's size, many manufacturers can successfully implement an ERP system in under nine months, according to a recent SAP survey.

Enhanced services give Schumacher Elevator a leg up

Manufacturers today want to differentiate themselves from low-cost global providers through provision of product-related services. Besides being convenient and effective for customers, such services deliver better profit margins for the manufacturer than OEM products do.

However, putting the right business processes and practices in place to deliver superior service can be a vexing challenge—particularly for small to midsize enterprises.

Schumacher Elevator did it, with the result that the Denver, Iowa-based company—which has $30 million in annual revenues and 170 employees—is as well known today for superior services as it is for innovative elevator systems. While its OEM business grew consistently over the past decade and a half, services doubled in recent years, says Jeff Schumacher, VP and CFO.

That's important for his company for a number of reasons, Schumacher says, because services provide a balance against the cyclical nature of the product business. And while the product order-to-cash cycle is long, for services it is considerably shorter, which enables self-funding manufacturing initiatives.

Interestingly enough, the emphasis on services was part and parcel

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what a midsize company can accomplish with a disciplined approach to gaining ERP value, in concert with a vendor that has the functionality, technology, domain expertise, and services to support the effort.

Hunter—which has 230 employees, two plants in Ohio, and an R&D lab in Edgewood, Md.—chose to work with **SAP**, the world's most successful ERP provider, and **itelligence**, a leading SAP implementation partner, that also offers consulting services, training classes, customer support centers, and outsourcing services.

A business case

In the post-September 11th world, demand for Hunter's military and security products increased dramatically. But its legacy computing systems couldn't support rapid growth.

"Our legacy ERP system hadn't been updated since 1989," says Denny Weyhe, controller at Hunter. "It was green screen, had limited reporting capabilities, and had no drill-down functionality of any kind. There was no room to grow with that system."

Before Hunter began its search for a new ERP solution, it identified five capabilities it had to deliver, Weyhe says, including:

- Integration, so Hunter wouldn't need to cobble systems together;
- Accounting best practices;

Select SAP industrial manufacturing accounts that have achieved rapid implementations

Company	Revenue	Employees	ERP Implementation
Probity Electronics	$37.5M	150	8 Weeks
Pacific Cycle	$295M	350	11 Weeks
TomoTherapy*	$76M	180	12 Weeks
Microcast	$23.5M	100	13 Weeks
Aida America*	Private	150	16 Weeks
Gunnebo Johnson Corporation	Private	138	16 Weeks
Hunter Manufacturing*	$140M	350	16 Weeks
NexPress	Joint Venture	800	16 Weeks
Pall Corporation	$1.9B	1,200	16 Weeks
Southern Pump & Tank	$60M	145	16 Weeks
American Meter	Private	1,400	5 Months
Ryobi	$321M	3,800	5 Months
Anthro Corporation	Private	50	6 Months
Avanex	$140M	700	6 Months
Fusion UV Systems	$33.2M	200	6 Months
Yaskawa Electric America	$410M	1,000	6 Months
Schumacher Elevator*	$15.5M	145	7 Months
Maxitrol	Private	330	8 Months
The Holland Group, Inc.*	$400M	1,800	8 Months
Veeco Instruments*	$450M	1,300	8 Months
Electro Scientific Industries, Inc.	$207M	563	8.5 Months
Goss International*	$500M	1,400	9 Months
Greenheck Fan Corporation*	$350M	2,300	9 Months
Joy Global	$1B	4,500	9 Months

*itelligence customers

Source: SAP

Both midsize and enterprise manufacturers have rapidly implemented ERP systems, some in as little as 8 weeks.

Enhanced services give Schumacher Elevator a leg up against commodity producers

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of a new attitude from the company's management when it came to information technology.

"In the past, IT was considered a necessary evil. We invested only when we had to. Consequently, the systems we had in place didn't address our requirements," Schumacher says. "For instance, we had to pull information from three or four systems to compile month-end reports. Without real-time access to information, those reports were always late and not as useful as they could have been."

In contrast, Schumacher says, the company today looks at IT vendors as strategic partners. Given constant, accelerating change, IT investment is increasingly center stage, and it's important to partner with IT providers whose strategic vision matches that of Schumacher, he adds.

Schumacher says enterprise resource planning (ERP) provider **SAP** has taken pains to incorporate best practices in its solutions for those companies. This leads directly to an ERP implementation that relies on configuration, rather than customization, to meet its users' needs.

Configuration, not customization

"We took a hard-line approach that we would mold our processes to best practices whenever we could. We wanted to leverage SAP's industry experience and didn't want an IT infrastructure that wasn't manageable," says Schumacher.

"In other words, too much customization would have slowed the implementation, but also would have made it difficult for us to take advantage of new functionality when it became available."

Jay Krueger, solution manager, SAP Industry Business Unit, says SAP best practices include 30 years of industry experience that manufacturers can benefit from. These practices are derived not just from industry managers within SAP, as well as its

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• Flexibility, to configure interfaces and custom reports as needed;

• Internal controls, including sign-off levels for purchase requirements and purchase orders; and

• Rigorous audit capabilities needed by a defense contractor.

"On the production side, we wanted better visibility to inventory," Weyhe says, "and to analyze individual production orders so as to make business process improvements."

Industrial manufacturing

To be successful, an ERP system used in the industrial manufacturing space must combine broad business functionality with deep, embedded domain expertise in best manufacturing practices.

Industrial manufacturing itself is a broad category of product markets that include:

• Construction and mining machinery;

• Electrical equipment, appliances, and components;

• Engine, turbine, pump, and compressor machinery;

• Heating, ventilation, air conditioning, and plumbing equipment;

• Industrial tools and metal working machinery; and

• Lifting, material handling, and railroad equipment.

As diverse as these industries may seem, they share common characteristics, says Mark Lehew, VP, discrete manufacturing industries, SAP.

For instance, all face complexities of quote and order management for equipment that runs the gamut from highly configured to custom designed. Moreover, equipment, services, and parts may be mixed in a single order, Lehew says, as manufacturers use customer service as a competitive differentiator.

Industrial manufacturers require an ERP system that enables them to:

• Execute make-to-order, engineer-to-order, and customer-specific models;
• Integrate supply chains;
• Aggregate purchasing;
• Expand after-market sales and service; and
• Design collaboratively.

The economics of the industry are changing, too. Rapid consolidation caused by a quickening pace of mergers & acquisitions means even midsize companies operate today in global networks.

"Manufacturers want to extend lean initiatives across multiple facilities," says Lehew. "These companies are growing quickly and globally. They have pressing needs for a single system that allows visibility across divisions and locations. At the same time, the system must handle multiple languages and currencies, and meet local compliance requirements that differ from country to country."

It's pre-configured

Lehew says it doesn't take long for manufacturers to get comfortable with the applications, capabilities, and functionality SAP provides. More often, of greater concern to them is whether they have the IT resources for a good implementation.

"SAP looks at implementations from a business-process point of view, and preconfigures systems to match the business processes most often seen in deployments, mean-

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The request-for-purchase (RFP) process is central to ERP project success

The success of an IT project begins with a request for purchase (RFP) that speaks to the common goals of a wide range of interested parties.

Take, for example, **Dielectric Communications**, a Raymond, Maine.-based unit of SPX Corp. that produces broadcast equipment and components. There, preparing the RFP for a new enterprise resource planning (ERP) system was seen as central to the project's success.

Experts agree it's vital to achieve consensus before an RFP is released, based on a clear understanding of requirements, evaluation criteria, and proposal expectations. To do otherwise is to risk implementing a solution that makes no one happy.

"RFP preparation really helped us formulate our requirements, and helped us understand what was important," says Susan Simmonds, Dielectric Communications VP for information technology.

An RFP should be straightforward and concise, and include specific parameters focused on business issues, says Martin Mrugal, VP, medium enterprise solution portfolio, SMB organization, SAP America. "We also recommend reaching consensus within the team on what would be nice-to-have and what is must-have functionality," Mrugal says. "That can be challenging, but it creates very specific requirements for the solution vendor."

This distinction between must-haves and otherwise played a substantial role at Dielectric. "We defined requirements coming from the different departments, and then prioritized them," Simmonds says. "Part of that was separating the nice-to-haves and need-to-haves. That helped too in the next step: to score the product demonstrations based on how the team thought the functionality would meet requirements. That scoring was central to the selection process, and we were able to score nice-to-have and must-have functionality differently." ■

Midsize manufacturers beginning the RFP process should:

• Complete thorough preparation,
• Make the RFP straightforward and concise,
• Include specific parameters focused on business issues,
• Tie the business requirements to underlying technology,
• Establish milestones and dates for the implementation, and
• Create a detailed scorecard.

SAP also has online resources that manufacturers can leverage to streamline the RFP process and ensure nothing gets left out. For example, an SAP RFP workbook can be used to help walk teams through the RFP process located at: http://www.sapmanufacturing.com

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ing they can be done rapidly and require fewer support people," Lehew says. "The core ERP system can be in place in four months or less."

One crucial criterion contributing to Hunter's selection of SAP was that the solution supported its business model.

"Since it was preconfigured, we didn't have to worry about every little nuance, which went a long way toward easing our fears related to implementation," Weyhe says.

When the time came, Hunter took a disciplined approach. The "core" team making key policy decisions included a member from each major functional area: accounting, production control, materials, sales, engineering, and IT.

"Besides deciding to use SAP standard functionality without customizing," Weyhe says, "we didn't bring over old historical data that we wouldn't access frequently."

That resulted in, says Weyhe, "a five-month implementation from start to go-live. We had a strict timetable and couldn't afford to haggle over minor points—we resolved issues and moved on quickly."

Hunter also gained the benefits it initially sought, and is in position to enjoy enhanced product configuration, services provision, supply chain capabilities, and easy access to enterprise information.

"With the old system, it took a long time to get data, and its reliability was always questionable," concludes Weyhe. "The biggest benefit of SAP ERP is that we now have a central repository of data, and it's easy to get it out and bring into something like Microsoft Excel for further analysis." ■

Enhanced services give Schumacher Elevator a leg up

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Key area	Industry-standard practice	Industry-leading practice
Material cost control	Independent procurement conducted by each department or division using standard requests for quotations (RFQs)	Aggregated sourcing of commodity items using online RFQs; collaborative design for specialty products
Aftermarket sales and service	Aftermarket service performed on as-needed basis	Proactive relationship building to identify opportunities for value-added products and services
Inventory reduction	Demand planning based on past experience and seasonal trends	Out-of-the-box integration of supply chain management and customer relationship management for more accurate forecasting and demand-driven supply network capabilities for responding to real-time demand fluctuations
Enterprise visibility and control	Division-by-division analysis based on overall performance metrics	Enterprisewide analysis based on real-time data and key performance indicators
Lean Manufacturing	Extensive long-term planning based on manual processes in an attempt to predict and align all variables	Greater manufacturing flexibility and the ability to respond to demand and production changes without the need to carry excess safety stock

Source: SAP

By following best practices (or industry-leading practices) manufacturers can improve key areas in their manufacturing enterprise.

own implementation experiences, but also from customers and industry-expert consultants.

While there are numerous best practices recommendations, examples in SAP ERP include:

- Aggregate sourcing of commodity items through each department or division using online RFQs;
- Proactively build relationships to identify opportunities for value-added products and services;
- Integrate supply chain and customer relationship management to gain accurate signaling of current demand and planning for future demand; and
- Conduct enterprisewide analyses based on real-time overall performance metrics data and key performance indicators.

"We take what we learn and review it annually to further improve those best practices," Krueger says. "There also are SAP partners that are integrators—like **itelligence** who did the Schumacher implementation—who have taken these best practices and packaged them with the preconfigured solution."

While Schumacher Elevator is not a huge company, it still faces the same challenges larger counterparts must address, says Schumacher. Consequently, the issue becomes a question of scale.

"One thing that's been consistent in our business is change. Having an IT infrastructure that enables flexibility and scalability is crucial to long-term success," says Schumacher. ■