

EDITION 11 PLASTICS & RUBBER



ENVIRONMENTAL CONCERNS Drive Circular Economy

TriStar Strengthens Market Position and Grows Business using SYSPRO

TECHNOLOGY INSIGHT

Environmental Concerns Drive Circular Economy



ncreased awareness of environmental concerns including the accumulation of plastic in our oceans has sparked a significant drive to encourage organizations to move away from the current linear economy in favor of a circular economy.

A circular economy is an alternative to a traditional linear economy – make, use, dispose – in which we keep resources in use for as long as possible, extract the maximum value from them while in use, then recover and regenerate products and materials at the end of each service life.

In contrast to the linear approach, a circular economy strives to have a continuous flow through the value circle. This means material is reduced in the initial design phase and then recycled back into the value chain, either for economic use or to be removed naturally out of the economic system.

With this model, economic activity builds and rebuilds overall system health. The concept recognizes the importance of the economy needing to work effectively for large and small businesses, for organizations and individuals, globally and locally. It entails gradually decoupling economic activity from the consumption of finite resources and designing waste out of the system. Underpinned by a transition to renewable energy sources, the circular model builds economic, natural and social capital.

With single use plastics coming under fire, some countries are introducing various initiatives and taxes to minimize these products and determine a minimum percentage of recycled content.

These developments are, of course, impacting the world of ERP. Organizations across industry, but particularly in the plastics and rubber market sectors, need to address all the changes needed to meet new regulation and compliance requirements which will inevitably come into effect. And this needs to be done end-to-end throughout the supply chain – which is where ERP comes in.

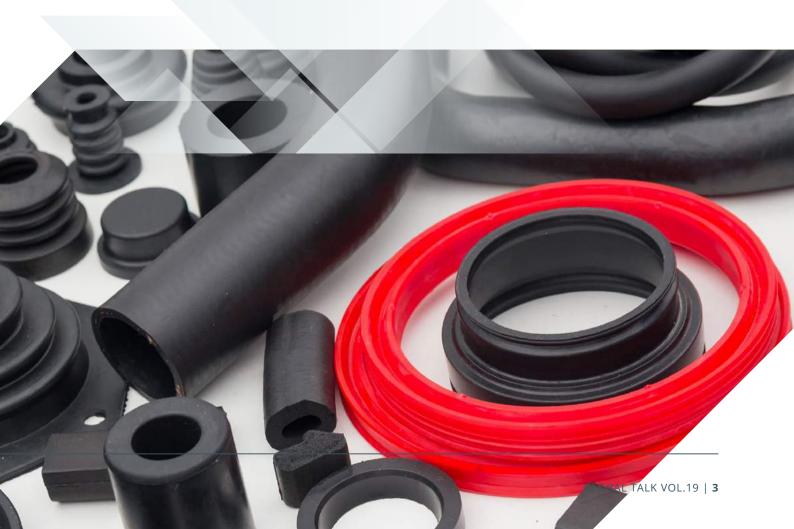
SYSPRO caters for every aspect of the supply chain. For example, plastics manufacturers will face the challenge of identifying and reporting on how much recycled content is used in each packaging unit they sell. SYSPRO allows for multiple inputs into the production process (both recycled and new resins) and keeps track of all raw material that makes up a finished item which is shipped to the customer. As a result, packaging manufacturers can easily trace and report on the percentage of recycled raw material that makes up the final item that is sold.

Manufacturers will also be looking to innovate and develop new products that will allow them to incorporate recycled material into their production processes without compromising on quality, tensile strength, the aesthetic look of the final product (recycled colored plastic ends up grey which marketers are reluctant to use), cost and so on. It's clear that managing new product development while continuing production will be important. Again, SYSPRO supports this need with its strong Bill of Materials functionality.

The bottom line is that plastic pollution has become a global crisis, and it will only improve when recycling is beneficial to everyone in the supply chain. There's no doubt that plastic is a highly useful, versatile material, but we need to keep the value in the economy rather than disposing of it so that it ultimately ends up in landfills or the ocean.

Please read on for further insight into how some of our customers in the plastics and rubber market sectors are using SYSPRO to address these challenges.

Phil Duff CEO SYSPRO



PLASTICS AND RUBBER INSIGHT By Rishal Balkissoon - SYSPRO Corporate

Plastics and Rubber Industry at Epicenter

of New Age Manufacturing Processes

Technological revolutions such as Industry 4.0 and the digital economy, combined with ever-increasing regulation and environmental protectionism laws, have put the plastics and rubber industry at the epicenter of new-age manufacturing processes. In these times, innovation and renovation are key attributes adopted by organizations navigating through change.

In this climate, it is essential that manufacturers in the plastics and rubber sector embrace both innovation and continuous improvement over time. Evolving their manufacturing technologies, tools, processes, and practices will forever affect the design, development, and production continuum in this industry.

The accompanying table offers a high-level view of the main business challenges affecting the plastics and rubber industry, and outlines how SYSPRO's solutions help manufacturers to address those challenges. These solutions are designed to complement and improve production efficiency, promote lean manufacturing, optimize cost management and enhance revenues and profitability.

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BUSINESS CHALLENGES	SYSPRO SOLUTIONS
√ ¶,≁ Cost efficiencies	SYSPRO's extensive toolset provides the agility for cost management exercises, allowing you to better manage cost pressures across the value chain
Technology integration	SYSPRO's diverse modules allow for optimal and effective integration into any third-party system. SYSPRO allows for the connection of machines and other devices to digitize the factory (Industry 4.0) and gain competitive advantage.
Traceability	SYSPRO's manufacturing traceability allows for ECC, inventory management, quick response to product recalls, search capabilities, vendor management, quality and lot tracking.
By-product and co-product management	Manufacturing Operations Management allows for increased productivity, loss minimization and cost control. Optimize operational efficiencies through better workflow of core manufacturing activities: schedule, publish, collect, track, analyze and improve. Being able to manage by-products and co-products results in less waste and fewer missed opportunities. Costs can be associated with certain co-products which gives a more transparent look into the profit and costs of each item.

TriStar Strengthens Market Position and Grows Business using SYSPRO

riStarPlastics, headquarteredinWorcester, Massachusetts, is a manufacturer of high-performance plastics, materials and bearings. From humble beginnings in the early 1980s to present-day industry leader, TriStar Plastics has earned a solid reputation for plastics engineering innovation and remains a proud partner to the top manufacturing companies in the military, marine, medical, construction, agriculture and railroad industries.

The company recently made headlines by announcing the signing of an exclusive partnership agreement with Saint-Gobain Performance Plastics Corporation, a division of France-based industrial giant Saint-Gobain and one of the world's largest manufacturers of plastic bearings. Under the terms of the new pact, TriStar will be the exclusive master distributor for the Saint-Gobain Rulon® and Rulon® bearing lines in North America.

In late 1999, it was apparent to TriStar that its homegrown software system had become inefficient and inadequate. It could no longer handle a growing and increasingly complex operation that involved a state-of-the-art fabrication facility, composite bearing manufacturing, inventory tracking, yield calculations and the return of remnants to stock.

TriStar made yield calculations manually, and scraps were often not returned to inventory. "Performing yield calculations on numerous line items is a very time-consuming process. It is extremely complex to handle ever-changing shapes, costs and sizes of stock shapes while properly managing inventory across multiple locations at the same time," explains TriStar CEO Richard Cedrone.

Since the company had already been 'burned' by one Enterprise Resource Planning (ERP) software vendor that failed to abide by contractual agreements, TriStar hired a consultant to investigate and recommend a more suitable ERP solution. SYSPRO, one of the enterprise software solutions on the list, was ultimately TriStar's choice. The company initially opted for a 16-user software license, but has since expanded the system to nearly 50 users. SYSPRO also developed a customized solution for TriStar called the Material Yield System (MYS) to support its cut-shape operation.

Since implementing SYSPRO, TriStar's sales have more than doubled. While Cedrone attributes a great deal of this growth to a recovering economy and greater marketing efforts, he also recognizes that the increase is due to more efficient management software.

"Thanks to SYSPRO, we've been able to control our expenses and employee count because of greater productivity per employee," he says.

In addition, the custom Material Yield System developed for TriStar enables the company to maximize productivity, manage multiple inventories, minimize waste and return remnants to stock.

SYSPRO has also supported TriStar's growth into new business ventures. TriStar's recent deal with Saint-Gobain was based not only on past performance, but on the establishment of a new TriStar sales and distribution office in Hoffman Estates, Illinois - a central US location from which to serve existing customers and build future business.

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It was a challenge for TriStar to secure such a location, establish the office, arrange for staffing and install the computer software necessary to conduct business and co-ordinate operations with company headquarters in Shrewsbury, Massachusetts as well as its Yorba Linda, California and Denver, North Carolina locations.

"We not only committed to a fast track timeframe, but also countered by saying that TriStar would have the office up and running and the computer network in place within a day of occupying the space," Cedrone says.

Cedrone had reason to be confident in this challenge, as he has a long track record of getting the job done. He says: "I knew our SYSPRO software was highly scalable and that it would enable us to easily add new users in less than one day. Also, I felt the user friendliness of the software would enable new hires to become proficient very quickly.

"Our return on investment on SYSPRO software is phenomenal. We're handling over 150% more business with fewer employees than 10 years ago. And, there's every reason to believe that we can handle new business with the same high levels of efficiency, thanks to the integrated and scalable nature of our SYSPRO solution."

Cedrone sees TriStar's revenues climbing substantially and the profit picture becoming even brighter thanks to SYSPRO.



Argus Scores with Lean Manufacturing and Kaizen

eadquartered in Winnipeg, Manitoba, Argus Industries is a custom manufacturer of rubber-molded products with a branch plant in Pickering, Ontario and more than 80 employees.

The company's product range includes rubber-molded products and custom die-cut gasket seals, with clients from agriculture to aerospace, including organizations in heavy electric construction, mass transit and mining. Argus makes products as diverse as tiny clips for heart monitors, bulkhead seals for airplanes and silicone shaker balls for the potash and grain industries.

In 2009, Argus began a journey to adopt lean manufacturing across the entire organization. As part of this exercise, it was necessary to take a deeper look at its existing Enterprise Resource Planning (ERP) software. A long-term SYSPRO customer since 1998, Argus investigated whether staying with its SYSPRO solution was the right course to follow.

Leslie Galbraith, VP Finance of Argus, says: "I knew that we were not using SYSPRO to anywhere near its full potential. I attended a SYSPRO conference in Dallas and enhanced my understanding of the real strengths of ERP and what it could do for us.

"My experience at the conference also validated that staying with SYSPRO was the right thing to do. I came back from the conference a SYSPRO super user and cheerleader all in one. We had already invested a good deal of time and energy in moving the production floor to lean, and I was certain there was a lot we could do for the front office people as well."

Swayed by Galbraith's vision and enthusiasm, Argus's executive team decided to start investing in ERP and the company upgraded to SYSPRO 6.1.

"When we flipped the switch, we saw some of our pains disappear. The following weekend SYSPRO guru Ajay Saxena arrived from Ontario to spend a week with us, living and breathing our processes. Ajay came up with some potential opportunities for improvement, and identified MRP as a critical missing link in what we were doing. From that our kaizen event was born," Galbraith says.

A kaizen event is an extremely focused short-term project, often orchestrated by a consultant, which aims to improve one or more business processes. Argus's five-day event was facilitated by Ajay Saxena, Senior Systems Consultant for SYSPRO Business Solutions.

"Argus is a unique client," Saxena says. "Going into their kaizen event, they already knew that they wanted to improve their practices, and they had a team in place to start the project. They knew what kaizen meant – the philosophy and the process. That made their kaizen event an easy and enjoyable project."

According to Galbraith, the kaizen event was the best way to move forward in an organized, structured way.

"The event comprised a full evaluation of our supply chain process from order entry to fulfillment," he says. "We had support and participation from all corners and levels of the organization, and the fact that the voices for change started at the senior level made it that much easier."

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SYSPRO is a huge program and we were only using a portion of it. With Ajay's help we were able to automate processes that used to eat up a great deal of our time. One of the kaizen team, Process Unit Leader and Data Entry Team Leader Mario Vechina, is a certified Computer Electronic Technician with Level One Lean Certification.

"Ajay taught us a ton of different things during our kaizen event," he says. "SYSPRO is a huge program and we were only using a portion of it. With Ajay's help we were able to automate processes that used to eat up a great deal of our time. One of the biggest gains for my department was to auto-generate the Job Card and have it linked to Sales Orders. That lets us automatically attach production drawings to the back side of the Job Cart. That's much faster than the old way, which involved physically finding and attaching the drawings, and would take two to 10 minutes per line. A 45-line PO that might have taken 3,5 hours to prepare the old way now only takes 30 to 45 minutes. That's a huge saving."

Vechina also benefitted from learning how to do advanced trial kitting. "We now enter a single finished part number or a list of finished part numbers, run the advanced trial kit, and it lets us know if we have any material shortages. Before I get back to a customer on delivery dates I know exactly what inventory is in stock. The old way was horrible – we had to type in the raw material part numbers individually to make sure we had enough. Advanced trial kitting has created a huge advantage on the customer service side."

Kaizen does more than improve productivity. It also eliminates unnecessary hard work, teaches people how to spot and eliminate wasteful processes, and humanizes the workplace.

"Because of our tribal culture, we're encouraged to think for ourselves and work towards continuous improvement. The people invited to the kaizen event were very involved, and everybody was open to change. We were tired of the pain that comes from inefficient processes, and we wanted to make it better," Vechina says.

"The benefits we reaped were amazing," says Galbraith. "We were doing many things in an archaic fashion, and we weren't using the full potential of SYSPRO. A lot of changes came out of our kaizen event that resulted in enormous payback in terms of customer satisfaction, employee satisfaction and employee engagement. We now have a Team SYSPRO e-mail, and on average I get three suggestions a week suggesting modifications to SYSPRO to better improve our processes. The whole team has access to that e-mail and there are improvements happening every day."



Layfield and SYSPRO Unite to Automate Processes

The Layfield Group provides tailored polymer-based solutions. The company is based in Richmond, British Columbia, with manufacturing and distribution facilities in Vancouver, Edmonton, Calgary, Toronto, San Diego and Seattle. It is structured into three complementary business units: Environmental Containment; Construction Products; and Flexible Packaging.

Layfield's diversified product line includes polyethylene film products, printed and laminated packaging film and pouches, geotechnical fabrics, industrial fabrics, and plastic-lined environmental containment systems and covers. It pursues expansion through acquisition, in-house development and diversification, has doubled in size over the past five years and employs 300 people.

Over recent years, Layfield has experienced accelerated growth and its shipping requirements have grown in complexity. It became apparent that parts of the business, shipping in particular, were running on obsolete technology and last-millennium business processes.

Ivano Nichele, Layfield's Information Services Director, explains that the shipper's desk was covered in expensive triplicate forms designed for outdated dot matrix printers. "Orders were sometimes misplaced, and the fact that there was no order status visibility among divisions compounded the problem," he says.

One of the worst consequences of a paper-based order process was a serious disconnect between shipping and customer service. If a customer needed to modify an order, or simply to check on its status, it was a very involved and time-consuming process.

"When you're smaller you can deal with paper. As we grew, it became apparent that we needed to automate," Nichele says.

Layfield recognized that it needed to automate its business processes with an integrated Enterprise Resource Planning system and chose SYSPRO for its flexible, open architecture and ability to connect Layfield's Shipping Department with the rest of the company.

"Once we understood SYSPRO's capabilities, it was a fairly simple matter to create a tool that would connect our shipping department to the rest of the company", Nichele says.

To create the bridge between the shipping yard and the rest of the company, Nichele created a simple and intuitive interface. The shipping application keeps track of each order from the moment it's opened to the time it's staged and finally shipped. As the order is processed, the information from the shipping yard is simultaneously updated in SYSPRO. That makes the order's status visible to anyone with authorized access to Layfield's ERP system. "A customer service representative dealing with a customer query can see exactly what's happening with an order – there's no need to phone the shipper or track down a piece of paper," he points out.

Layfield's SYSPRO solution incorporates e.net Solutions, an open architecture framework which provides users with a standardized method to directly access SYSPRO's business functionality.

Because the shipping application was designed specifically with shippers in mind, training was extremely straightforward. "The shippers were initially concerned, but the transition went smoothly. With e.net we were able to build a cost-effective tool that followed their logic and met all their needs," Nichele says.

Extending SYSPRO's functionality to the shipping yard has delivered clear business benefits, including the ability for everyone in the company to see the status of orders. The improved order visibility means that customer queries are answered immediately, enhancing Layfield's business relationships.

Layfield has also noted a significant cost saving associated with eliminating the expensive three-part forms. In addition, since the application uses SYSPRO to generate automated reports, customers now receive clean and professional-looking documentation. And, because the shipping interface also displays future orders, shippers have the ability to create further efficiencies through strategic planning.

The successful deployment of the shipping application has given Layfield the confidence to continue extending SYSPRO ERP across its entire operation. "Currently, our Environmental Systems Division is still using too many manual processes, but we're making plans to ensure that soon changes. Increasing our competitive edge is an ongoing concern, and one of the most effective ways we can do that is by continuing to leverage SYSPRO," Nichele says.



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Dantec Takes a Major Step Forward

World-class supplier of advanced composite hoses and related sealing technology Dantec has taken a major step forward by implementing a fully-integrated SYSPRO solution.

With its manufacturing base in Moreton, Merseyside, Dantec sells its hoses and specialist gaskets to a wide range of industries in more than 55 countries.

Four years ago, Dantec's management realized that internal control processes and systems were increasingly at odds with the effective management of the business. Dantec's IT and QA Manager Derek Connolly explains: "Our technological and manufacturing success had taken us to a size and market position that was well beyond what the company's basic control processes and systems were designed to cope with."

Recognizing the need for change, the company mapped its entire business, looking at key activities from sales processing and general management to manufacturing control. "Mapping confirmed our fears about existing systems – that decisions were not being made, or the wrong actions were being taken, because people either did not have the information they needed or the data they were using was inaccurate," Connolly says. "It also highlighted the key areas where we needed totally new control practices and effectively proved that if we were to maintain financial growth as well as our position as a world leader in the market, a major change was needed."

Dantec's requirements called for a fully-integrated solution to deliver a rapid flow of information around the business and provide a structured framework for imposing greater management discipline, better decision coordination and the creation of structured and effective control practices in key departments.

After reviewing three ERP products, Dantec selected the SYSPRO Enterprise Resource Planning (ERP) solution from K3 Syspro.

A year after the initial implementation of SYSPRO, the company has an integrated finance, distribution, sales and manufacturing system that provides business stability and acts as a catalyst for driving change in certain aspects of the business through improved information flow, better practices, greater discipline and more effective control.

"The introduction of SYSPRO has been a major step forward for the business," Connolly says. "We now have a comprehensive, integrated system for managing and controlling Purchasing, Inventory, WIP and Warehousing – none of which we had before. The far more sophisticated sales order processing system also means we have rapid and easy access to the sales data and almost instant visibility of orders for assembly."

One of the biggest benefits has been the impact on the overall management of the business. Previously, it was almost impossible to easily and quickly extract general management information on anything from cash flow and sales to stock levels.

With SYSPRO, the necessary information is readily available, and Dantec's managers are using a third-party report writing package to easily create essential reports. Now that this information is available within days rather than weeks, senior management has the chance to react much more effectively. For example, sales reporting shows overall sales for the set accounting periods as well as breakdowns and rankings for every product, together with the breakdown of individual orders and value levels.

With this new degree of detail, the management team has more informed control over Dantec's operational activities and can concentrate on closely managing those products and orders that are most beneficial for the business.

SYSPRO has already delivered significant improvements in stock control. Previously, the system provided no visibility of what was in stock, and this was left to irregular manual checks. With SYSPRO's multiple warehousing capability, different items are assigned to the relevant warehouses, enabling management to identify exactly what is in stock.

"This new capability has enabled us to significantly reduce inventory levels," Connolly says.

The new system has also had a major impact on manufacturing and assembly. Improved inventory and WIP enables hose manufacture to be planned more effectively and the assembly operation has a much clearer idea of what is available to meet orders. Together with almost instant access to the data on new orders, the result is that Dantec has seen major improvements in production.

"We will also see additional gains from the implementation of MRP," Connolly says. "However, we have yet to make this step, as we are still in the process of educating people on the system, the new practices required and in particular the discipline of accurate and on-time data recording."



Radius Systems Clears Information Pipeline

with SYSPRO

Leading plastic pipe systems manufacturer and services supplier Radius Systems is replacing disparate legacy systems with a 100-user fully-integrated, user-friendly SYSPRO solution from K3 Business Technology Group (K3) to gain a clearer view of its operations and boost customer service.

Radius Systems has been supplying leading utilities companies with its plastic pipes, fittings and services since 1969. It has facilities in Derbyshire, County Durham, Northern Ireland and Dubai, and services customers in more than 100 countries.

SYSPRO will create a more comprehensive information infrastructure across Radius Systems' business, bringing greater visibility and control to its operations. The company has taken a phased approach to the implementation.

Radius Systems' Northern Ireland site has been successfully implemented first, and the remaining UK sites will follow. In Northern Ireland, the system replaces a bespoke inventory and accounting system, whereas it will replace legacy ERP systems at the other sites.

Radius Systems drafted in help from K3 Managed Services to get Northern Ireland up and running on the system.

K3's specialist support compensated for the lack of IT capability at the facility and has smoothed the transition to SYSPRO for the 20 onsite users and 15 users based in Derbyshire.

"K3 Managed Services' support was excellent. Having a specialist onsite meant that we made good progress from the training program to going live," says Anne Burton, Business Controller of Radius Systems. "The system is hosted at our Derbyshire site, with Northern Ireland using terminal services to access it."

In Northern Ireland, the company has implemented the essential end-to-end core functionality of manufacturing, logistics and accounting. The addition of Advanced Planning and Scheduling (APS) and Advanced Quality Management (AQM) modules will follow. One of the key reasons that Radius Systems chose SYSPRO was for the flexibility to add more modules and functionality.



"Our current set-up is 'vanilla' SYSPRO – and this standard core functionality will make a big difference to the way we work. The ability to add APS and AQM modules is essential to our operation," Burton says.

The system takes over from the point of Sales Order entry and triggers Materials Requirements Planning (MRP) to drive Works Orders through manufacturing. It monitors production through Work in Progress (WIP) inspection and the finished products to stock and out through shipping. The information feeds through seamlessly to the General Ledger, making accounting easier and faster.

"The new system in Northern Ireland is already benefitting the business. Because it is integrated, it replaces the need to journal sales and stock movements into the ledger."

"We now have a comprehensive Bill of Materials and clear visibility of stock and WIP," Burton says. "Bearing in mind that we are only using standard reporting, we now have detailed, timely information. We can report margins and we don't need to duplicate data entry. The system is set up to report on gross margins too, making it easier and quicker to close down month-end accounts. We can see the cost of each sale."

Radius Systems has opted to implement DataRapt sub-ledger reconciliation software, which enables SYSPRO users to monitor, maintain and prove the integrity of their accounts. It helps to identify mistakes and quickly rectify them without the need for time-consuming cross-referencing and checking.

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