THE WESTFALIA

Satellite

MATERIALS HANDLING TECHNOLOGY NEWS AND INFORMATION FROM WESTFALIA TECHNOLOGIES AUGUST 2003

Are You Ready for a Recall?

We have all heard stories of companies losing millions of dollars in product recalls because they were unable to track a defective product back to a specific batch, lot, or other traceable entity. This must be a tremendous concern to our customers, and I want to provide assurances that we consider this to be of the highest priority in Westfalia's Warehouse Management System capabilities. Several methods are available to achieve this level of tracking, from count up/count down schemes, to scanning individual cases before shipment. Whichever method(s) may apply to your business, we want to assure our existing and potential clientele that we take this functionality very seriously.

The bottom line is, if you can't take the information on a unit or case, and determine what unit load or range of unit loads it came from in your manufacturing operations, our staff can help you determine what options are available. Unit loads are commonly tracked with significant production data such as production line number, batch number, create date and time, etc., that allow us to determine when and where the product was manufactured. Detailed transaction logs can be retrieved from the database to determine all movements of that unit load through the warehousing/order selection process. With these functions in Westfalia's Warehouse Management System, your ability to handle circumstances like a product recall quickly and efficiently will increase dramatically.

The areas of Machine Control Systems and Warehouse Management Software have seen many technological advancements in the last few years. By networking all of our systems using wireless Ethernet, a programmer can access any PLC or PC program from any location with just a laptop (without having to plug into an enclosure). Westfalia's efficiency in troubleshooting code during start-up, and maintenance troubleshooting has therefore increased tremendously.

Switching to C#/.NET as our main WMS development environment has reduced development time and provides better speed and performance in database intensive applications. By employing the latest technologies in our systems, Westfalia is able to help you maintain an important edge over your competition.

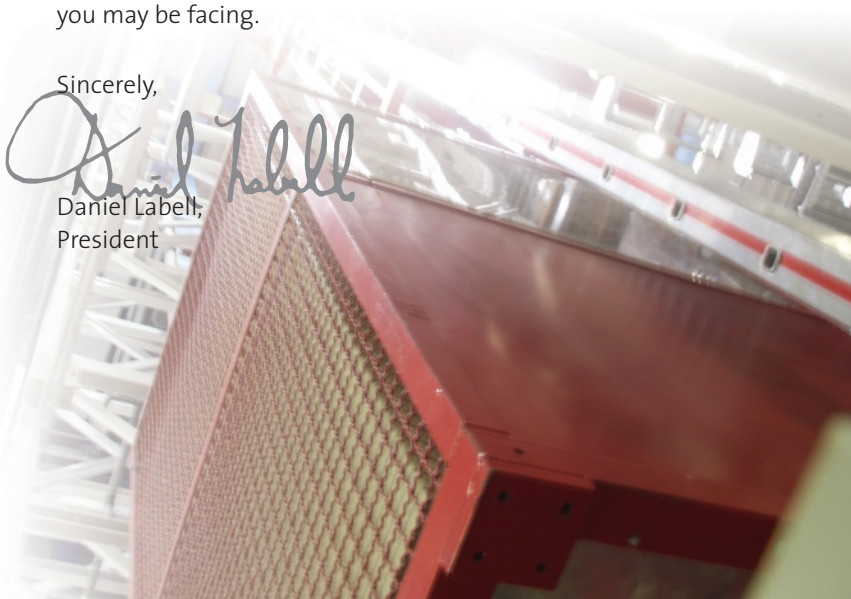
I hope you find this newsletter informative. We welcome comments, questions, and are always ready to discuss any palletizing and warehousing challenges you may be facing.

Sincerely,

Daniel Labell

Daniel Labell,
President

Inside



The Tax Man Helpeth (for once)

New tax incentives for capital equipment investments make automation a far more attractive option than in the past.

Managers everywhere wrestle with how to best increase their company's automated equipment base. Should we buy? Should we lease? What is the best timing to add equipment? Understanding new tax legislation aimed at supporting capital equipment investments can help you determine the best answers for your business.

Although tax issues always figure into the lease-vs.-buy decision, purchasing recently became a more attractive option. This new tax relief now gives a 50 percent expensing allowance for equipment purchased between 05/06/03 and 12/31/04, if you put the equipment into operation by 12/31/04. When combined with a typical seven-year asset depreciation plan, the law allows a company to write off up to $57,000 on a $100,000 capital equipment purchase in the first year. Yes, we said in the first year.

Example: Here's how it works for a $100,000 equipment purchase.

Under the previous law:

First-year deduction – only 14 percent or $14,000.
First-year tax saving – $4,600

Under the new law:

First-year deduction – 57 percent or $57,000
First-year tax saving – $19,950

You realize increased tax saving of $15,050

Remember that depreciation is a deduction, not a credit. So the benefit is a reduction of taxes at applicable effective tax rates, which will vary from company to company. Generally, however, the new law gives you an immediate improvement in cash flow of between 15 and 30 percent of the equipment's purchase price. This can take marginal projects and make them viable, because the pay back period is accelerated by the improved cash flow. It also positively impacts ROI.

Check with your accountant or tax professional before taking any new deductions on your company's Federal, state or local taxes.

Special Tax Rule for Small Business

Small businesses, defined as companies whose equipment purchases of all kinds do not exceed $400,000, can legally expense the first $100,000 until 12/31/05. The 50 percent expensing allowance can be taken on the remaining basis of the equipment. In other words, a qualifying small business that buys a $100,000 machine can expense it all in the first year.

Lease Option Benefits

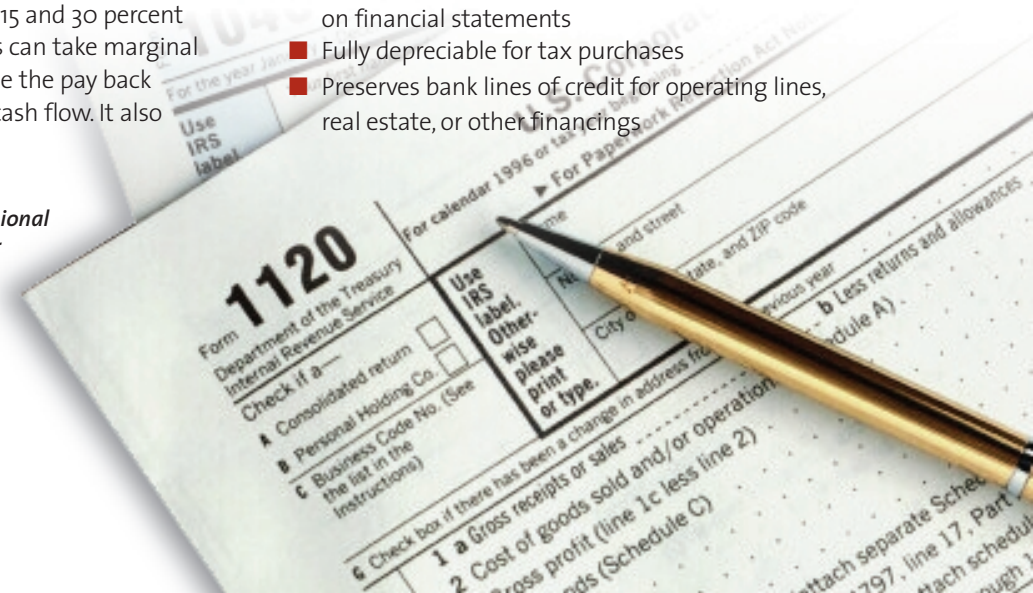
If you believe leasing is your best opportunity, here are a few additional factors to consider:

For Operating Leases:

- Lease payments can be charged to your operating budget, avoiding capital expenditure constraints.
- Lease payments are 100 percent deductible against taxable income
- Leasing can greatly reduce the equipment's cost recovery period
- Because operating leases are off balance sheet transactions, they improve most financial ratios, including ROA, ROI, and debt/net worth measurements

For Capital Leases:

- Gives you fixed purchase options
- Generally treated as a booked asset and liability on financial statements
- Fully depreciable for tax purchases
- Preserves bank lines of credit for operating lines, real estate, or other financings



Hershey Creamery Pacifies Growing Pains

A new, state-of-the-art Warehouse Management System from Westfalia will grow as their ice cream business continues to expand.

In 2002 Hershey Creamery Co. determined that its current distribution center was no longer meeting the growing requirements of its customers and its own service expectations. Hershey decided that is was time to add on to their existing highly automated warehouse. The partner that was chosen to expand the current facility was Westfalia. The same partner Hershey chose to automate their 5,000 pallet position distribution center in 1999. The new addition created an additional 3,000 pallet positions and 160 pick faces.

Despite operating error free for six years, Hershey desired more functionality than their currant WMS could offer. After viewing a version of Westfalia's WMS, during an open house, Hershey was able to visualize what a new system – taking advantage of the latest developmental tools - could do for the company's distribution center.

The object was to update all programming tools. The database was updated from the old Sybase to MS Sequel Server. Another goal was to increase the speed of processing the orders and further reduce the error rate in the distribution cycle.

Storage And Distribution Tailored to The Requirements of the Client

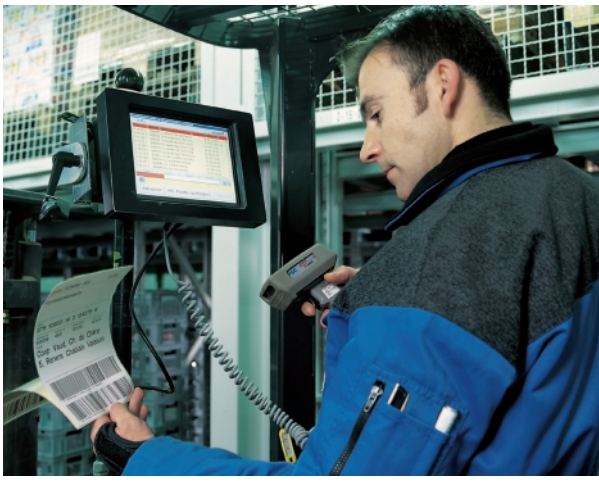
Hershey and Westfalia elected to replace the existing WMS with a completely new one. The newly developed WMS eliminated all preceding code and started from a fresh code base employing C# and using Microsoft.NET as the main development environment. This investment has paid off in quicker development time and use of the most updated development tools, thus reducing cost and complexity. Central to the new WMS is a completely overhauled User Interface (UI). The primary design focus was user friendliness, as most WMS operators are not consistent users. Through the modern programming techniques of Microsoft.NET, rapid customization and streamlined database communication is possible. This approach is unique, in that structured menus have been eliminated and objects, rather than actions, define the user screens. This allows the user to select an object such as "SKUs" and do anything they wish with this object.

Overall the NEW system provides better support and faster response time, as well as better and easier report writing capabilities. Warehouse operators no longer have to fumble around trying to figure out how to get information out of the system. Westfalia has streamlined this procedure by creating a powerful, easy to use filtering function. By simply choosing common operators (<,>,<>,>=,<=,contains, etc.) any data can be retrieved and printed as a report. Save the filter, and you have a permanent report.

Ryan Smith, Head of Software Development for Westfalia Technologies, explains, "All software functionality has the same data presentation and formatting, so by learning one, the other functions require no additional training". "It's easy", says Hershey's Warehouse Supervisor, Mike Dubesky, "It took less than five days to be efficient with the program".

Satisfied Customers

There is a great deal of satisfaction at Hershey Creamery Co. All-important objectives have been achieved with the Westfalia Warehouse Management System. Order selection productivity is up, due to instantaneous response time of the Pick-to-Lights. "Even small delays lasting only seconds lead to frustration when people are working hard," explains Mike Dubesky. More information is now more accessible than ever before, allowing management to create reports and data that are very specific to certain problems and events. The communications network is extremely reliable and ensures that product tracking is as close to 100 per cent as possible. Training new people has become a simpler task, due to the user interface. Most importantly is the ability for Hershey to request changes that can be implemented quickly, and often remotely. This software is designed to grow, helping Hershey to do the same thing.

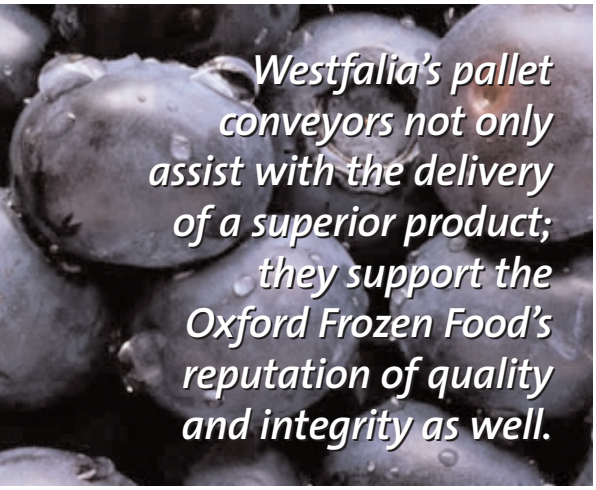


Paper less picking is possible when WMS components such as Radio Frequency, (shown above) Pick-to-Light and Pick-to-Voice are added; helping to create an error free operation.

Remodeling the Blueberry Business

State-of-the-art automated systems allow a Nova Scotia company to keep its frozen food as fresh as possible.

Oxford Frozen Foods began as a family-run business in Nova Scotia — the year was 1968 and the company had approximately 50 employees. The product: wild blueberries. Today, Oxford Frozen Foods employs as many as 2,000 people during the peak season in the areas of Nova Scotia, New Brunswick, and Maine. They are the industry leader when it comes to the blueberry business, as well as one of North America's largest producers of premium frozen carrots and onion rings.



As with all produce, fresh-ness is apparent in how much a blueberry has been handled. In order to prevent storage and minimize handling of its blueberries, Oxford Frozen Foods needed to find a way to transfer them directly from the trucks to the production lines. The company was also experiencing a physical and financial burden due to the expenses involved in the operation and maintenance of forktrucks, not to mention the product spillage caused when they ran into—and often broke—objects throughout the receiving and filling areas. Oxford was in a position to upgrade this area, but with the next harvest pending, they had only four months to do so.

In order to get their product processed and to their customers in such a short period of time, Oxford needed the guarantee of a material handling system with minimal downtime. And as the case with most companies, Oxford has many pallets that are aged and in poor condition. This was of concern when designing the system, for fear that these pallets might get hung up and ultimately create a system shut down. For this reason, Oxford was not going to settle for just any conveying system.

Westfalia stepped up to the plate and met the challenges that Oxford presented, and did it within the four month time-frame in which Oxford requested it to be done. First, Westfalia modified its existing pallet conveyor designs to to be as "pallet friendly" as possible. Second, a corrosion package consisting of stainless contact parts and a 7mil powder coated finish was selected, to ensure wash-down capability. The combination resulted in far fewer hang-ups than previously experienced and a reliability that is as close to 100% as possible.

The in-feed system received crates of fresh blueberries palletized in the growing fields on wooden GMA style pallets. These pallets are weighed, and then conveyed to two de-palletizing stations where they are introduced to the manufacturing process. After processing, the berries are filled in large, bulk gaylords, which are positioned on a standard wooden pallet. Westfalia's system feeds these "empties" to a filling station, where they are filled and weighed. They then proceed to an enclosed sealing station, where the product is also tagged and identified. From there, it's straight to the warehouse.

John Bushen, Plant Manager at Oxford Frozen Foods, estimates that since the implementation of Westfalia's pallet conveying system there has been a 50% labor savings in the packaging area and a 10 to 25% savings in the front end receiving area.

Success Through Collaboration – Westfalia Goes Robotic

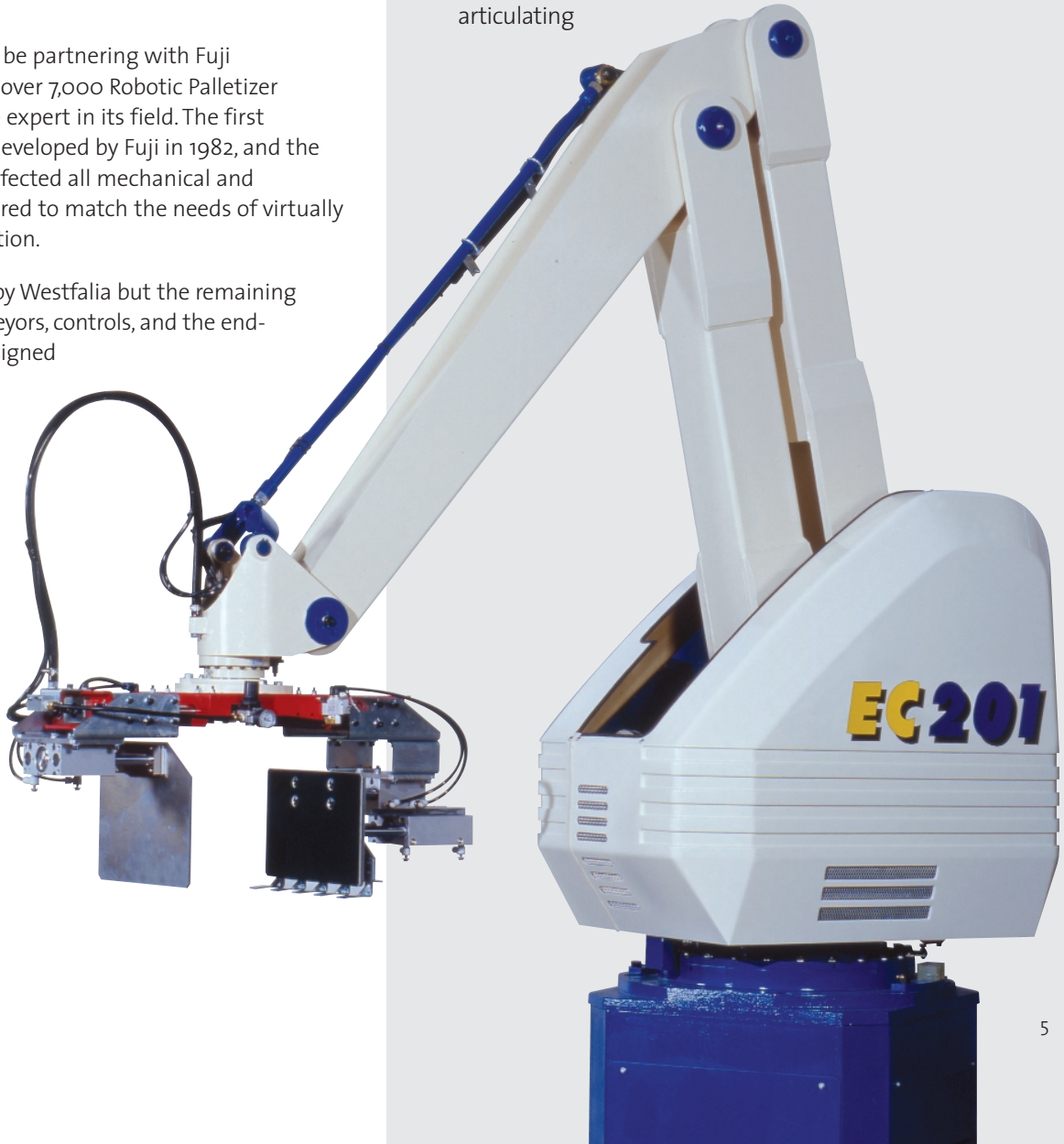
Westfalia would like to introduce its most recent product addition: the Robotic Palletizer. Westfalia entered the world of palletizing in 1997 with the introduction of the model 860 Palletizer. In 2001, we developed the model 870 – a faster, smoother and more flexible version of the 860. Although this enabled Westfalia to cater to many customers' needs, we recognized that many of our customers needed more flexibility than a layer-forming palletizer could offer. This brings us to 2003, and with Demo in hand, and the first few orders, we are well on our way to make this an exceptional product line for our business.

Westfalia is pleased to be partnering with Fuji on this endeavor. With over 7,000 Robotic Palletizer Applications, Fuji is the expert in its field. The first palletizing robot was developed by Fuji in 1982, and the company has since perfected all mechanical and electrical aspects required to match the needs of virtually any palletizing application.

The robot is imported by Westfalia but the remaining elements such as conveyors, controls, and the end-effector tooling are designed and manufactured by Westfalia. This capability allows us to offer automation from case packing, palletizing, ware-housing and truck loading. All from one source, all under one roof.

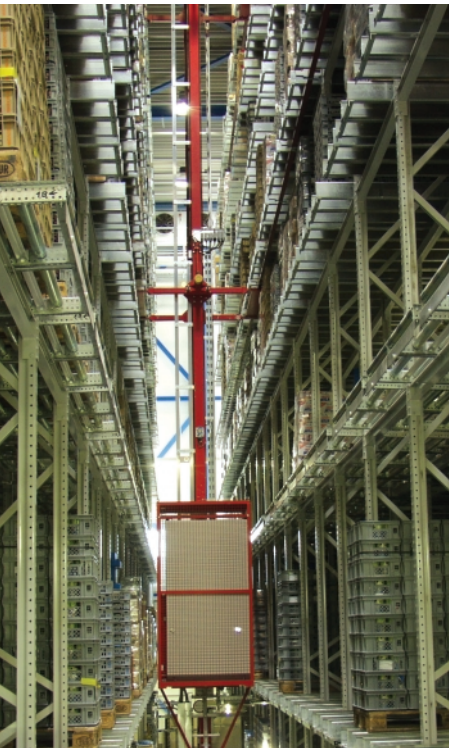
What comes with a Fuji Ace/Westfalia Robotic Palletizer

- User-friendly programming software (no laptops required)
- Unique linear track design specifically for palletizing (the only one of its kind in the world)
- Custom designed end effectors for a wide range of applications
- Specialization in bag, case, pail, drum, shrink wrapped bundle, and bottle applications
- The highest cycle rate
- Energy efficient articulating



Udderly Modernized – A Complete Reconstruction with AS/RS

A new Automated Storage and Retrieval System from Westfalia Technologies has helped this dairy company stay one step ahead of the competition.



Opening their doors in 1960 the EMMI group, headquartered in Luzern, Switzerland, has continually grown in the dairy field and now employs more than 1300 people. To help maintain the product quality, their customers have come to expect, the company divided themselves into three fields: Fresh Products, Dairy Products and Cheese. EMMI produces all of their products with one philosophy in mind – combine health with pleasure to allow for an active lifestyle.

The key to the company's successful results is due to two main factors; foreign activities, and mergers and acquisitions. With an increase in Europe's foreign activities and internationalization of the dairy market, EMMI has been able to capitalize on export markets that were not available to them prior to these changes. Purchasing and integrating smaller, more traditional dairies into their family also contributed to EMMI's success.

The rapid growth of the company and current government guidelines forced EMMI to re-evaluate their logistic needs. With an overall budget of $25 million, EMMI's fresh products sector wanted to construct a state-of-the-art cold storage center that would handle their current needs efficiently, as well as their future needs. EMMI contacted Industrial Engineering to help create one of the most up to date cold storage and distribution facilities in the dairy industry.

Industrial Engineering Inc. (IE), one of Europe's leading general contract firms, the experts of SimPlan, a leading service company in material flow logistics simulation and Westfalia designed EMMI's new logistic center. When Westfalia gave SimPlan the order to develop a material handling simulation to illustrate the optimum solution, EMMI found that an AS/RS from Westfalia would not only solve their immediate efficiency problems, but would be able to answer their future needs as well.

Manual and Automatic Operation of the High Density Satellite® System with Integrated Order Selection

Extensive reconstruction was necessary to modernize their manually operated warehouse. In particular, their picking operations, the core of the warehouse, needed to be restructured. The new capacity of the warehouse was designed for approximately 5,100 pallets; 4,770 of which are located in the Satellite® storage system. Integrated into the order picking zone were 175 lanes (pick faces), each two pallets deep. C-items (slower moving items) are handled in the existing manual storage system.

Conveying Systems

EMMI's existing conveyors were out of date and needed to be automated. By adding a new control system to the conveyors, Westfalia was able to bring their conveyors back to life. With the growth of EMMI's business, the existing conveying system was not large enough to support the

EMMI's Objectives

- Cost effectiveness – high density storage and reduction of manual procedures
- Higher performance due to automation
- Elimination of outside storage requirements
- Enormous time savings in shipping
- The highest cycle rate
- Centralized distribution servicing multiple production locations

daily input and output of the facility. Westfalia designed and installed an extensive new conveying system, consisting of lifts and approximately 820 ft. of accumulation conveyor. With the help of the new control system, the new and the old conveyor systems could be integrated.

The S/RM

Westfalia provided three Storage and Retrieval Machines (S/RMs), each performing at 656 ft./min horizontally and 295 ft./min vertically – exceeding the requirements of EMMI's throughput needs. Approximately 65 pallets, weighing 2200 lbs. each, can be distributed every hour by each S/RM. Westfalia's successful triple support method was installed so the heavy pallets would not deflect– preventing pallet hang-ups.

Westfalia also integrated their warehouse management system into the storage facility to create a completely paperless warehouse. Developed for ease of use, it took very little time for the warehouse operators to become efficient with their new software.

High Density Satellite® Storage System for Empty Packages

At the same site, a new High Density Satellite® Storage System, with dimensions of 185 ft. x 88 ft. x 30 ft. high, for empty packages (glass returnables, etc.), was put into operation. Three storage blocks with four levels each - totaling 570 storage lanes - were installed into the building. Based on the product turns, the storage lane depths were specified at 6 or 7 deep, which resulted in a storage capacity of 3,460 pallets. Two S/RM's operating in two shifts were installed to handle the high throughput rates. Since the pallets carry only empty packages and have a light weight of 522 lbs., Westfalia's triple support was not required, as pallet deflection would not affect the performance of the system.

EMMI had one requirement for this section of the warehouse – to be able to move 115 pallets an hour. Westfalia was able to meet this demand using only two cranes. In fact, the cranes have enough power to surpass this requirement: giving EMMI the flexibility to handle higher throughput levels.

For the empty-package warehouse to run smoothly, Westfalia provided an extensive conveyor system, including three lifts, transfer cars and 262 ft. of transport conveyors. To pick significant volumes of empty packages, an order selection area consisting of two rows, with eight lanes each, were installed on two levels – 32 lanes in all.

Finally, a warehouse for corrugated packaging material was integrated too. The packing material ware-house was designed using a heavy-duty gravity flow rack system providing a total capacity of 1,300 pallet positions.

Westfalia Meets the Customers' Demands

The objectives pursued by EMMI were expertly implemented due to the cooperation of the companies involved, Westfalia Technologies, IE and SimPlan.

The company's plan to increase the performance of the ware-house by automating all processes, particularly the interaction of the order selection and warehouse management system, worked out particularly well for them. Not only is EMMI pleased with the new state-of-the-art warehouse, but their customers are profiting from an error-free order processing system.

Snapshot: Brian Rajotte

Manager, Westfalia Controls and Automation

Westfalia would like to take this opportunity to introduce Brian Rajotte and the Controls Division to their readers – a growing department with a new manager.

In an age where companies are outsourcing more and more, Westfalia has taken the opposite approach by bringing their services under one roof. By doing so, their customers have been given a higher degree of quality in their products and more accurate delivery dates.

In the past, Westfalia's controls division had predominately been outsourced to companies and contractors involved specifically in electrical controls. This is how Westfalia became familiar with Brian. As a consultant for field automation and circuit design, Brian was contracted by Westfalia to work on their Smart-Pick Systems – order selection hardware used in conjunction with their Warehouse Management System (WMS).

Brian was given full developmental liberty of the Controls Division, and has surrounded himself with a variety of very talented, "hand-picked" employees. Brian brings with him a history of electronic design and automation. Some of his career highlights include: working with a fortune 500 refrigeration company; implementing a "Just-In-Time" environment; helping a company become ISO 9000 compliant; and starting his own field automation and circuit design consulting agency.

"I look forward to becoming yet another part of Westfalia's commitment to excellence," states Brian, and offers all comments and questions regarding electrical controls to be directed to him or his department.