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Technology, where does it end?

The answer is – it doesn't. Not long ago, I was in a board meeting and one of our directors made the comment that it would be nice if we could have just one meeting and not discuss technology and websites. I respectfully let him know that just wasn't going to happen. Technology is a good thing. Yes, it can be extremely frustrating, but it is here to stay and we're better for it.

Your IDC Independent Distributors recently revised the www.IDC-USA.com website. This revision tells you, our customer, a little bit more about the benefits of working with an IDC Independent Distributor. It also lets you find out where the IDC Independent Distributors near you are located. As excited as we were at launch, we also faced challenges. You know the drill; the beta site works great the day before, then the wheels fall off when you "flip the switch."

As the old saying goes, "Technology is great... when it works!" But our industry won't give up, even when the user expectation bar is raised by technology giants like Amazon, eBay, etc. The fact is, the distribution industry is a little behind other industries when it comes to technology, and we need to continually try to catch up, capital resources notwithstanding.

In an effort to better serve you, the distribution industry has had to place much more focus on logistics, and logistics is driven by technology. Your IDC Independent Distributors are committed to a continuous effort to improve our technologies to better serve you. These efforts aren't just limited to our website, but also with measures to reduce transaction costs,

and improve our ability to tell you when product can be expected. It's a big elephant, but we'll get the job done, one bite at a time. The goal of the IDC Independent Distributor is to provide our customers local expertise on time, any time, every time.



JACK L. BAILEY

IDC's goal is to provide local expertise on time, any time, every time.

And let's not forget product technology. This issue of *IDC Industrial Review* contains

some informative articles on product technologies from manufacturers such as Energizer, Maxi-Lift and ITW Professional Brands. As your industrial

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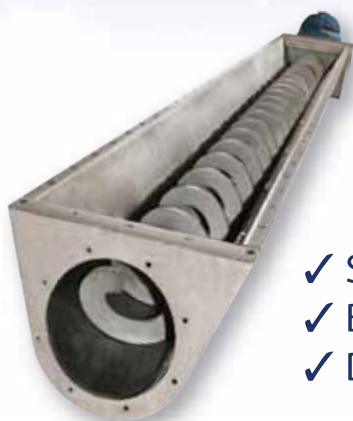
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The new Jellyfish universal vacuum tool from Vacuforce offers the robot integrator unparalleled end-of-arm vacuum tooling solutions. Composed from 100% acrylic and made under a proprietary manufacturing technique, the Jellyfish weighs 75% less than typical end-of-arm vacuum tools, to enable smaller robot selection, saving the user many thousands of dollars in capital cost. The universal feature of this new tool enables the user to handle varying size loads such as multiple cardboard boxes, different product footprints and more. Available in various modular sizes, the Jellyfish sets the new standard for lightweight, flexible, universal vacuum tooling.



Traditional bin storage vs. vending

When you hear Vendor Managed Inventory (VMI), you typically think of traditional binning solutions. They are available in the widest array of storage equipment types including slide racks and drawers, large bins, wall cabinets, chemical cabinets, wire racks, threaded rod racks, hose racks and more. In many MRO applications involving small inexpensive consumable maintenance parts, traditional binning solutions may provide the most cost-effective solutions.

When you're dealing with high-usage personal protection consumables like gloves and safety glasses, you can eliminate lost productivity by utilizing Kimball Midwest's Vending Solutions. By keeping personal protective equipment and mission critical parts on the production floor, you will eliminate multiple trips and travel time to the tool crib and costly out-of-stock situations. With Kimball Midwest, you can control and manage assets by securing and dispensing tools, identify who is currently using checked-out equipment, and control access to items at the user level.



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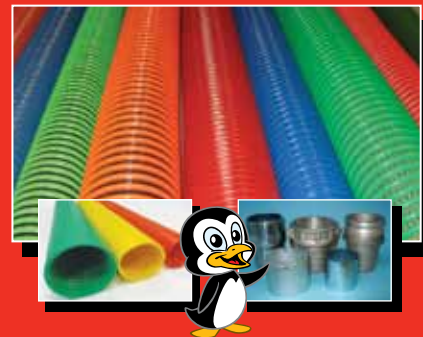
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KWS Manufacturing launches new website

KWS Manufacturing announced the launch of a new website (www.kwsmfg.com) with a focus on usability and search engine friendliness. The new site design offers an improved user experience, expanded content and online resources for both existing and prospective customers and sales representatives.

“In today’s technological environment, it is extremely important for companies to have a cutting edge website to not only attract new clients, but to provide a real-time venue for existing customers to have accessible, critical information at their fingertips,” said Bill Mecke, president of KWS. “The expanded content includes videos, product animations, ‘Ask the Experts’ and problem solving success stories. The enhancement of our online offerings will allow us to provide instantaneous interaction

and more rapid solutions to resolve our customers’ needs. Remember, KWS stands for Knowledge, Workmanship and Solutions.”

KWS selected Visual App for a website redesign, search marketing and site management.

“With an updated website, KWS now has a solid foundation for their online marketing initiatives,” said Jeff Old, principal at Visual App. “Redesigning their website is a key element in building their online marketing strategy. It will assist KWS in reaching new customers and continue to be an online resource for their industry.”

Headquartered in Dallas, KWS Manufacturing Company Ltd. is the leader in the design and manufacture of conveying equipment for the bulk material handling industry.



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IDC-USA redesigns website

The URL is still the same but the focus has changed. IDC-USA, the only U.S.-based independent distributor-owned organization in the power transmission industry, has made it even easier for you to find the products and expertise you will only get from an IDC Independent Distributor. New features of the website emphasize training and products in addition to callouts that lead you to the right solution with the simple click of a button.

IDC-USA.com enables you to easily find the nearest IDC Independent Distributor by

entering your zip code or city and state into the “Find an IDC Distributor Near You” search. For questions about projects or machine parts, you can “Ask an Expert.” This online form is routed to the closest IDC Independent Distributor and answers are provided within 24 hours. The redesigned website also includes a listing of products, allowing you to browse the lines available through IDC Independent Distributors.

“It is IDC-USA’s responsibility to continually provide the means for our independent distributors to



thrive in this economy. Making it easy for customers to find the solutions they need will give them another great reason to continue to do business with an independent distributor,” said Jack Bailey, IDC president and CEO.

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Where have all The decline in U.S. manufacturing plants is much bigger than “runaway plants.” fac

BY DANIEL J. MECKSTROTH, CHIEF ECONOMIST, MAPI

A plant closing announcement stirs up a great deal of anger and frustration: the media focuses on job losses and what they mean to individuals and the community, and politicians denounce the company's decision, promising government assistance to the affected. In the case of a runaway plant, the cause and effect is usually very clear—foreigners got our work.

Single-minded attention on runaway plants, and for that matter their return to the United States, is misplaced. Relatively few plants are shut down in the United States by an owner who opens up an identical facility abroad and supplies the U.S. market with imports from the foreign affiliate. A widespread, more fundamental reason for plant closings and openings is the sourcing decision (where firms purchase intermediate goods and services—from domestic or foreign suppliers). The procurement decision is based on cold, hard calculations of the total cost of ownership.

Domestic plant decline

What may be surprising to some observers is that the rate

of plant closings shows a declining trend over the last 13 years. Unfortunately, the rate of plant openings has consistently fallen even more. On average over the last 13 years, of all plants, 3.5 percent closed each quarter and 2.9 percent opened. The most recent data for the first quarter of 2012 show that approximately 10,000 plants closed (3.3 percent of plants) and 8,000 plants opened (2.6 percent of plants). U.S. manufacturing plants fell from 375,000 in 1998 to 304,000 in the first quarter of 2012.

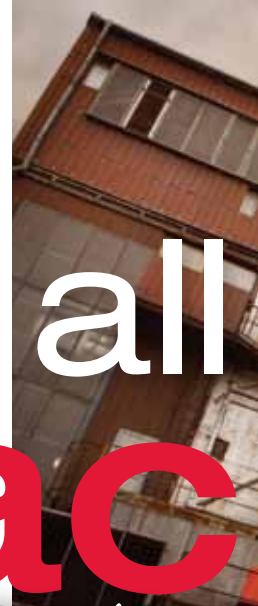
The number of manufacturing jobs has also been damaged by the flow of factories opening and closing. Total manufacturing jobs started growing again in the first quarter of 2010; all of this growth, however, came from existing plants. Between job gains from opening plants and losses from closing plants, there was a cumulative loss of 108,000 jobs from first quarter of 2010 to first quarter of 2012.

Foreign investment not the same as runaway plants

There are many reasons to invest in foreign manufacturing operations. One reason U.S.

multinational manufacturing corporations (USMMCs) invest overseas is that they view themselves as global companies. In many cases, they must have a manufacturing presence in a country or region in order to participate in the market because of trade barriers, the cost of shipping goods over long distances, and the need to customize the product for the geographic market. Another reason is that the fastest growth is occurring outside the U.S., particularly in less developed countries.

A common complaint is that domestic corporations invest in manufacturing facilities in other countries and then export products from their affiliates to the United States. Equating foreign direct investment with runaway plants, however, is incorrect. There is a major





the stories gone?

distinction between investment in runaway plants and investment in foreign affiliates to participate in the global marketplace. The difference hinges on where foreign manufacturing affiliates of U.S. corporations make their sales. If the affiliates' sales are to the U.S. parents, then it is possible—although still not likely—that the sales come from runaway plants. If the affiliates' sales are to non-U.S. customers, however, the investment abroad was clearly to participate in the global market, not for shipping back to the U.S.

The U.S. Bureau of Economic Analysis collects statistics on the operations of U.S. multinationals and tracks the sales of U.S. foreign affiliates. Foreign manufacturing affiliates' sales outside the United States, valued in dollars, grew 109 percent from 1999 to 2010. USMMCs saw superior sales growth from foreign affiliates compared

to their U.S. manufacturing operations, which grew only 47 percent during this time.

In 2010, 89 percent of foreign manufacturing affiliates' sales went to non-U.S. customers. Only 11 percent (\$242 billion) went to the United States—9 percentage points to the U.S. parent and 2 percentage points to non-affiliated U.S. customers.

To summarize: U.S. manufacturers invest abroad primarily to participate in the global market; only a small portion of foreign affiliates' sales come back to U.S. parents.

Sourcing determines domestic production

Manufacturing is complex. Firms analyze their bill of goods and make decisions on what components to produce internally and what to buy from suppliers. The make-versus-buy decision is influenced by many factors, including the strategic importance of the component, the intellectual property involved, the cost

of manufacturing, and the availability of supply. Not surprisingly, the more complex the products and the more competitive the marketplace, the more likely firms are to outsource components and services and concentrate on what they do best.

Suppliers have suppliers, and this creates a supply chain of relationships. The intricate web of multiple intermediate purchases before products are sold to the end-use customer results in a double-counting of sales. Consequently, manufacturers purchase more direct material, indirect goods and services from suppliers than the value they add themselves.

The volume of intermediate purchasing is huge. Gross output—the sum of all revenue from manufacturing shipments in the United States—was \$5.4 trillion in 2011. Only \$1.7 trillion of this amount was manufacturing's value-added; \$3.7 trillion was intermediate purchases of goods and services. The sourcing decisions for these intermediate purchases have the largest impact on whether there will be a manufacturing revival.

Imports accounted for a rising share of intermediate purchases through 2006, making up 21 percent in that year. The import share went up and down during the 2008-2009 global recession, but rose to 23 percent by 2011.

The important points are that (1) the nearly \$4 trillion in sourcing decisions made by domestic manufacturers dwarf

the runaway plant and export platform issues in determining the location of manufacturing production, and (2) the statistical data show that the import share of intermediate purchases is not declining within manufacturing.

U.S. manufacturing conditions improve

The narrative for a manufacturing revival comes from the strong production and job growth in the economic recovery since 2009. There are a number of economic reasons for expecting a revival:

- The value of the U.S. dollar has fallen 23 percent versus a broad basket of currencies since 2002. The dollar depreciation makes U.S. goods relatively cheaper to foreign buyers and makes imports denominated in foreign currencies more expensive. A falling dollar promotes exports and discourages imports.

- Unit labor costs in U.S. manufacturing have been relatively flat over the last 10 years and well below the overall rate of consumer inflation. Unit labor costs averaged only 1.4 percent a year in non-high-tech manufacturing (which excludes the computer and electronics products industry). Including the impact of high productivity growth in high-tech, manufacturing unit labor costs have increased only 0.3 percent a year.

- The country benefits from abundant natural gas and increased oil production. Natural gas prices in the United States

are at least two to three times lower than in Europe and Japan.

- The increasing cost of shipping goods over long distances incents a domestic supply network.

- Natural disaster supply disruption from tsunamis, earthquakes, volcanos, floods, etc., has increased the cost of extended supply chains. Additional inventory, expediting and supply continuity measures are costly. To lessen the risk of supply disruption, firms should be more willing to source locally.

- Customers are demanding just-in-time delivery, six sigma quality and more collaboration to spur innovation from within the supply chain. Strategic supplier relationships are difficult with long supply chains.

- Compensation is increasing very rapidly in developing regions of the world, narrowing the gap with U.S. labor costs.

- The high cost of travel and time involved in managing supplier relationships from afar are problematic.

- Intellectual property protection poses difficulties in developing economies.

Little solid evidence of a manufacturing revival (yet)

Despite the fact that economic forces and business requirements seem to be shifting in favor of domestic sourcing, there is little evidence of this in the statistical data available. For example, the number of

manufacturing plants continued to decline through early 2012. Manufacturing's share of GDP fell from 15.1 percent in 1998 to a low of 11 percent in 2009 before rebounding to 11.5 percent in 2011. The reason for the improvement has more to do with the severity of the recession than a structural improvement in the sector. Manufacturing value-added (in current dollars) fell 9.3 percent from 2007 to 2009 compared with a 0.4 percent decline in GDP. In the recovery from 2009 to 2011, manufacturing value-added rose 12.4 percent while GDP expanded 7.9 percent, thus adding back about 0.5 percent of the sector's share of GDP (11 percent to 11.5 percent). Nevertheless, the manufacturing sector is the net loser over the cycle. GDP increased 7.5 percent from 2007 to 2011, while manufacturing value added increased only 2 percent. The sector's share of GDP fell from 12.1 percent in 2007 to 11.5 percent in 2011.

The import share of U.S. manufacturing consumption was 38.4 percent in 2006 and remained relatively flat through 2010 before rising to 39.6 percent in 2011. In other words, nearly 40 percent of the producers' value of manufactured goods consumed in the U.S. economy is from imports. All of U.S. manufacturing's advances in competitiveness have only been able to somewhat stabilize the import share, not reduce it. Fortunately, some progress was made on the export side of the trade equation. The export share of U.S. manufacturing was 22.8 percent of production in 2006

and rose to 27.3 percent in 2011.

A barometer of the impact of trade is the dollar value of exports less imports, revealing net exports. The manufacturing trade deficit bottomed out in 2006 at about an \$800 billion deficit. The deficit improved (became less negative) during the 2008-2009 global recession, but worsened during the economic recovery in 2010 and 2011. It stood at \$712 billion in 2011—an improvement over 2006—but it has been moving in the wrong direction since then.

Government policies

A lag of a year or more is common for the economic statistics that measure progress of a potential manufacturing revival. That's why it is not possible to definitely say that a manufacturing revival is under way. It's doubtful that a turning point in the number of manufacturing plants, foreign outsourcing and trade deficits has occurred. The reason is that the positive economic and strategic forces for creating a manufacturing revival are not reinforced by public policy.

Numerous studies have recommended changes to federal policies that would improve the competitiveness of the manufacturing sector. And there is virtually unanimous agreement on the policies that could support a revival. Robert Atkinson of the Information Technology & Innovation Foundation classified the policies into four major areas called the four Ts—tax, trade, technology and talent. Tax policy should

address the uncompetitive U.S. corporate tax, change the territorial tax system that traps U.S. foreign profits abroad, implement a permanent and expanded R&D tax credit, and recognize that many small manufacturers are organized as subchapter S corporations. Conducive trade policy would promote more export financing, re-evaluate the export control lists, actively use diplomacy to stop trading partners from export-promoting currency manipulation and actively promote new trade agreements.

Competitiveness-enhancing technology policies involve improvements to the technology transfers from federally sponsored research to private companies, and getting more federal support to take basic and applied research further into product development. A good example of an industry-government technology partnership is President Obama's proposed National Network for Manufacturing Innovation. Another idea is to promote clustering and centers of excellence in technologies and products to take advantage of economies of scale.

The issue of skill shortages in manufacturing shows the need for a talent initiative. The United States needs a better-performing K-12 system. Other countries spend much less and have better results. Manufacturers are calling for more training in science, technology, engineering and math. NAM's Manufacturing Institute is a leader in promoting community college and

apprenticeship programs that have nationally recognized skill certifications.

One additional major policy area that MAPI considers important is to slow the pace of regulation. A recent study done for MAPI found that while federal regulations analyzed in isolation may have a small economic and financial impact, when they are analyzed collectively—or “layered” on top of another in practice—this interaction creates additional distortions that lead to high costs, both for manufacturers and the overall economy. Regulation should be more closely scrutinized for the actual cost and benefits and adopted only if there is a substantial net benefit.

Conclusion

Runaway plants are only the tip of the iceberg when it comes to job and plant destruction within U.S. manufacturing. A widespread, more fundamental reason for the decline in the number of manufacturing plants is the sourcing decision to purchase intermediate goods from foreign rather than domestic suppliers. Although economic forces and business requirements seem to be shifting in favor of domestic sourcing, there is little evidence that a manufacturing revival has occurred—the necessary positive economic and strategic forces are not reinforced by supportive public policy. 🌀

Excerpted from a report by the Manufacturers Alliance for Productivity and Innovation (MAPI). Visit www.mapi.net for more.



One-stop cleaning shop

ITW Professional Brands manufactures multiple lines of products that meet a wide variety of industrial, janitorial and institutional requirements.

BY CLAIR DAVID URBAIN

The mantra in every manufacturing and institutional facility: Cut down; simplify; streamline. Repeat.

It's a well-documented fact that using fewer product suppliers and stocking fewer products can positively affect the soft costs of MRO acquisition. But consolidation only works when the streamlined product line can consistently perform across all applications.

That's a fine line to walk, and Rich Bucher, director of sales and marketing at ITW Professional

Brands, believes the company has accomplished that with its line of five brands that can be used in industrial, MRO production and institutional settings.

"We have combined five leading brands – Scrubs, Dykem, Spray Nine, Dymon and Atlantic Mills – and created the umbrella company of ITW Professional Brands. Under one house of brands, customers will be able to consolidate purchase requisitions to reduce acquisition costs. Instead of going to several manufacturers for janitorial and industrial supplies, they

can go to one supplier – ITW Professional Brands," he says.

Separately, the products are leaders in their product fields, each offering superior performance in demanding applications. Many offer task-specific features that aren't found in any other product and are capable of tackling challenging cleaning or marking applications.

Here's a look at each segment of products at ITW Professional Brands and their distinct advantages:

DYKEM MARKING PRODUCTS

Dykem Marking Products include a wide variety of products from paint markers to layout fluids, as well as tamper-indicating pastes that harden and crack to show if vibration or tampering has affected a seal.



“The paint markers are valve-actuated – they pump out paint or ink material as the tip is pushed. They look more like a fountain pen than a felt tip marker. They can be reprimed and used if the cap is left off and the tip dries out, unlike a felt tip marker. You simply shake it up, depress the tip and use it again. The Dalo and Texpen markers have stainless-steel ball tips and can write on rough metals, over oil and can even write underwater,” Bucher says.

“The Dykem Steel Blue layout fluid has been around since 1923. It’s the industry standard for highlighting scribe marks in metal-cutting operations. It really makes the scribe line pop out,” Bucher says.



The Dykem line includes:

- ▶ Valve-actuated paint markers
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- ▶ Layout fluid
- ▶ Steel-tipped paint markers
- ▶ Temporary/removable markers
- ▶ Ink markers
- ▶ Staining colors
- ▶ Cross-Check tamper-proof torque pastes
- ▶ Specialty markers – high purity and high-temperature formulations
- ▶ Cling products for lubrication
- ▶ Hi-Spot bearing high-spot markers
- ▶ Fountain brush and bottle

DYMON SPECIALTY CLEANERS

The Dymon product line started out as a private-labeled line of aerosol products, but has grown into its own brand, says Bucher. “It is a professional-grade group of cleaners, disinfectants, deodorants and floor products. It’s a high-quality line known by professionals and complements the Spray-Nine and Dykem lines.”



The Dymon line includes:

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- ▶ Metal and stainless steel cleaners and polishes
- ▶ Upholstery cleaner and protectants
- ▶ Floor care products
- ▶ Furniture polishes and dusting aids
- ▶ Washroom cleaners
- ▶ Oven cleaners

ATLANTIC MILLS DISPOSABLE WIPING PRODUCTS

The most recent addition to the ITW Professional Brands line has been the Atlantic Mills line of disposable wiping products. Although the majority of dry wipes are used for foodservice/institutional uses, some are dry wipes embedded with cleaning agents and disinfectants formulated for specific applications. When the wipe is immersed into a bucket of water or dampened, it creates a high-performing solution that can clean or disinfect as required by the application,” says Bucher.

Atlantic Mills wipes are available to meet the cleaning needs of food service, janitorial and industrial customers. The Atlantic mills line also offers a complete line of lightweight and breathable aprons for workers.

CONTINUED ON PAGE 20

SCRUBS

These handy pre-moistened wipes are dispensed from a variety of packages designed for the job at hand. The pre-moistened wipes have a variety of uses that match specific types of jobs required by various industrial, institutional or other uses.

“We offer Scrubs wipes in 21 different pre-moistened formulas that are specifically designed for the contaminants they are used to clean up. SCRUBS-In-A-Bucket is now a 20-year-old product that fills the need of industrial and institutional workers who need to clean oil, grease or adhesives from their skin. They can perform those messy chores without leaving their workplace and going to a cleanup area, so it saves time and is more convenient. They are very effective, and have a pleasant citrus fragrance. The dual-texture towel allows for easy cleanup,” Bucher says. “We originated the concept and are the No. 1 brand of professional-grade hand wipes.”



SCRUBS wipes are available in:

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"Spray Nine is used for cleaning in industrial plants, by professional housekeeping staffs and in institutional settings. It is available in packages ranging from spray bottles to 275-gallon totes," Bucher adds. ☉



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- ▶ Odor-eliminating specialty products
- ▶ Grez-Off degreaser
- ▶ AV-8 aircraft soap
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Beware the DANGERS of repetition

A behavior-based safety program can help prevent injury in your workplace

BY THOMAS ALLGOOD

Most of us spend our days at work doing the same task over and over. All too often, it becomes such a routine that we adopt a “nothing to it” frame of mind. Before we know it, we are daydreaming of our times spent with our families. We may even witness someone being injured on the job or know someone who has been injured, and still continue with the routine.

I have witnessed the aftereffects of a disabling workplace injury and have seen the tremendous impact and burden it brings on an entire family. I have also experienced the personal benefits of a

Behavioral Based Safety process at my workplace that continues to have a lasting impact on my safety as an individual. However, not all companies teach and practice the behavioral observation approach with their workers.

In our everyday lives in the work force, we can usually find several opportunities to observe potentially dangerous situations that require a specific type of safe behavior to avoid injury. However, without proper training and a systematic approach to hazard recognition, our eyes become callused, making it difficult to consistently practice making safe behavioral observations. At my job site, I

have been trained to practice this proactive approach to safety, but many sites around the country do not have this process in place, and end up depending far too much on luck.

Here’s a real life example: It was early one morning at the start of the workday. My brother-in-law, Robert, was going about his usual duties at a concrete plant that made septic tanks. Robert’s job was to feed the rolls of reinforcement wire between two rollers that would unroll the wire and flatten it out. Then, the sheet of wire would be bent into the forms of the septic tank.

That October morning at 6:30 a.m., Robert had no idea that in 15 minutes his life would change forever. Like any other day, he began feeding the wire into the four-inch rollers, which had strings of beads welded along the rolls to grab the wire to make sure the rollers would

bite the wire and keep feeding it into the machine. Fourteen minutes into the process, the machine's appetite was relentless as it pulled the heavy gage wire in between the rollers. Then, in the blink of an eye, it happened. Robert's little finger on his left hand momentarily hung up in the wire mesh and the feeding action of the rollers began pulling his hand into the rollers. The cold realization that his left hand was not coming back out hit the pit of his stomach. Instinctively, he moved his right hand into position to try to free his left hand. For a moment, he thought that he could save his left hand, but then it went from bad to worse. His right hand had now become entrapped in the rollers and Robert was immediately facing the gruesome prospect of being completely pulled into the machine head first. At this point, Robert was trying desperately to somehow pull himself free from the grip of the machine. As the rollers snatched the fingers off his left hand, he continued with his right hand to free the left. All this time, the kill switch was located on the other side of the machine and all he could do was scream for help. By the time help arrived and the machine was shut down, Robert had lost most of both hands and continued to be pinned in the machine until the ambulance arrived.

After many painful surgeries, Robert has only two thumbs, one of which was formed using bone from a toe. His life remains changed forever. Even the simple task of buttoning his shirt requires help.

Reflecting back, Robert believes that he had performed this task over 20,000 times in the course of his employment. So what happened? Why could he not see the danger? With repetition, he eventually lost sight of the potential hazard.

That's why it's so important to have others observe you doing your task and then get feedback. With a behavior safety process in place, Robert would have not only had more eyes on him doing the task, but his own visual perspective would have become more focused to see for himself the hazards around this task.

After looking at the location where Robert was hurt, it was obvious to see how easily this disabling experience could have been avoided. An inexpensive modification to the equipment combined with a basic safety observation process would have prevented this injury.

Behavior-based safety prevents incidents because it provides a systematic approach to working safe. Would it have saved Robert? Absolutely! One observation by a trained observer could have spotted several at-risks spots to eliminate the exposure. That's exactly what I meant earlier by stating why a proactive approach to safety is preferred over a reactive one. The at-risk situation would have been eliminated and the equipment improvements would have been made instead of waiting to fix the problem after Robert was injured.


The key to a truly effective safety process is total

involvement. I have worked with groups to start a behavioral safety process at several different sites, and the first thing I express is the need for engagement from all the employees.

The first step is to do an assessment of the site to evaluate if employees are ready to embrace such a process. After employee interviews we do an inspection of injury reports over the past year to access what behaviors should be addressed. Once we have established that a process will not only work, but will definitely reduce the amount of injuries, we meet with management to plan our second step, which is the steering team training. This training will take three to four days.



The training is a very cost-effective way to not only reduce injuries but to engage employees in taking a role in eliminating the barriers that keep them from working safely. The bottom line in the process is that management's workload is reduced and hourly employees are engaged in safety.

I am convinced that a mature behavioral safety approach is key to long-term safety success. 

Thomas Allgood is a behavioral based safety consultant. He can be reached at awgud@yahoo.com.



Are older workers TREATED FAIRLY in your workplace?

Guidelines to help avoid claims of age discrimination

BY J.J. KELLER & ASSOCIATES INC.

Most people have heard that Baby Boomers are now reaching retirement age, and the fact is that they're doing so en masse. Since January 2011, more than 10,000 Baby Boomers in the U.S. have turned 65 every single day, a trend that will continue for almost two decades. But that doesn't mean that older workers are exiting the workforce. According to a recent survey of Baby Boomers conducted by the American Association of Retired Persons (AARP), 40 percent of Boomers

currently in the workforce plan to work "until they drop."

Correlating with this trend of aging employees working longer is the fact that one of the top five charges filed with the Equal Employment Opportunity Commission (EEOC) in 2010 was age discrimination. With older workers staying in the workplace longer, employers must remain vigilant about preventing this type of discrimination. However, while it's one thing for your human resources department to be well versed in avoiding age

discrimination, your supervisors are on the front lines, typically making them the first point of contact with employees. How many age discrimination charges may have resulted from the actions of untrained supervisors?

What your supervisors need to know

For both HR professionals and managers, older workers can present unique issues. What follows are some guidelines you can follow and share with supervisors to help avoid claims of age discrimination:

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EMPLOYEE EMPOWERMENT

Don't act on assumptions or stereotypes:

Assuming that an older individual would not be as creative, physically able or efficient as a younger worker are all good ways to invite a lawsuit based on age discrimination.

Play to the strengths of older workers:

Having older workers remain in your workforce can be extremely beneficial. They are probably very knowledgeable about their positions and have valuable insights that can be shared. Making certain that you value their contributions can help keep morale high, which may keep them from looking for

a reason to sue.

Clearly communicate consistent expectations to all employees:

Never assume that an individual wouldn't be interested in a certain type of training or initiative because of his or her age. All employees should be given the same opportunities, and all employees can be required to learn new skills.

Be aware of possible clashes between generations:

The lingering presence of older workers also may be frustrating for younger workers who may not be able to move up the ranks while older workers are

Be wary of age-related jokes or comments that might suggest a bias toward older workers.

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still holding their posts. Keep an eye out for tension that may translate into harassment between workers. Also, be wary of age-related jokes or comments that might suggest a bias toward older workers.

Carefully document discipline:

It may happen that performance problems arise with older workers. While managers should be sensitive with such issues, a worker's age does not exempt him or her from discipline (or even termination). To protect the organization from claims of discrimination, be sure to clearly document reasons for discipline. Make sure your actions are consistent with

company policies and treatment of other employees in similar situations. Older workers still can be required to meet the same standards to which other employees are held.

Ask about retirement, but don't pressure employees:

Pressuring or forcing an older individual into retirement can be considered age discrimination. Ask about an individual's retirement plans only if you have a legitimate reason for doing so, such as planning for the person's replacement, and preface your inquiry to the employee by explaining your reason for asking. Employees shouldn't feel badgered about their retirement

plans, so don't pressure an employee to explain his or her decision, and don't make a practice of asking an employee for regular updates about his or her plans. ☉

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BATTERIES BASICS

Answers to common questions about battery technology



Batteries have been around so long (since at least the late 1700s), that most users take them for granted. But when you think about it, advancements in battery technology have dramatically changed the workplace. They're used on jobsites to power flashlights, calculators, laser levels, stud finders, handheld digital devices and much more.

This article from Energizer, an IDC Preferred Supplier, provides a brief overview of the most common batteries used by

working professionals today. It also addresses common myths about batteries and provides advice on the proper handling and disposal of batteries.

In simple terms, batteries come in two basic types: single-use and rechargeable.

Single-use batteries, also known as primary batteries, have one life cycle and must be replaced when drained. Examples include alkaline, carbon-zinc, lithium, silver-zinc and zinc air.

PHOTO: LES CUNLIFFE / ENERGIZER



Rechargeable batteries, also known as secondary batteries, can be recharged and used repeatedly. Examples of rechargeable batteries include nickel metal hydride (NiMH), nickel cadmium (NiCd), lithium ion (LiIon) and sealed lead acid (SLA) batteries.

Here's a look at some of the most common battery types that Energizer offers.

Energizer MAX

Energizer MAX with Power Seal Technology holds power for up to 10 years while in storage, providing long life for devices used every day.

- Best for household electronics
- Most popular long-lasting power source
- Very good shelf-life — up to 10 years

Energizer Advanced Lithium

Energizer Advanced Lithium battery technology maximizes your gear's performance and keeps you going non-stop.

- Best for high drain/high-tech devices
- High performance battery for the devices you rely on
- Great storage life — 10 years
- 33% lighter than alkaline systems

Energizer Ultimate Lithium

Energizer Ultimate Lithium batteries deliver long-lasting power to keep up with today's high-tech, power hungry devices like digital cameras, photo flash units and handheld GPS devices.

- Best for heavy drain/high-tech devices
- Excellent extreme temperature performance
- Great storage life — 15 years
- 33% lighter than alkaline systems

Energizer Rechargeable

High-tech devices demand high-powered batteries. Energizer Recharge Power Plus batteries deliver more power in every charge, making them ideal for the power-hungry devices such as digital cameras, handheld GPS, MP3 players and electronic games.

- Energizer Recharge Power Plus batteries last 4X longer in digital cameras and hold their charge for up to 1 year.
- Best for frequent use/heavy drain devices
- Recharges hundreds of times
- Limited shelf-life — loses 1% of deliverable energy per day



Common battery questions

Users often hold onto common misconceptions about how to extend a battery's life or improve its performance. For example, some people think they can extend the life of a battery by storing it in a refrigerator or freezer. In fact, cold temperature storage can harm batteries if condensation results in corroded contacts or label or seal damage due to extreme temperature storage. To maximize performance and shelf life, store batteries at normal room temperatures (68 F to 78 F or 20 C to 25 C) with moderated humidity levels (35 to 65% RH).

When stored at room temperature (i.e. 70 F/ 21 C), cylindrical alkaline batteries have a shelf life of five to 10 years and cylindrical carbon zinc three to five years. Lithium Cylindrical types can be stored from 10 to 15 years. Prolonged storage at elevated temperatures will shorten storage life.

Another common error involves mixing batteries of different chemistries or brands in a single device. Mixing battery types (different chemistries,

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NiMH batteries are more environmentally friendly than NiCd batteries

or the loss of battery capacity due to partially discharging and recharging repetitively without the benefit of a full discharge. This was evident with early nickel cadmium (NiCd) rechargeable batteries but is not found in nickel metal hydride batteries (NiMH) currently manufactured. Both types of batteries are rechargeable but NiMH batteries have a higher energy density (ratio of energy to volume). NiMH batteries are also considered more environmentally friendly than NiCd batteries.

When not in use, nickel metal hydride batteries will lose 20% to 50% of their charge within six months due to self-discharge. Several factors such as cell size, construction and storage temperature can impact the self discharge rate. NiMH batteries that have not been used for an extended period of time should be recharged before being put into use to obtain maximum performance.

Another common question concerns overcharging batteries. NiMH batteries are sensitive to continuous over charge. A smart charger monitors the cell condition during charge and prevents overcharging and subsequent negative impact on battery cycle life. Smart chargers

brands and/or fresh vs. used) in a device is not recommended and can significantly increase the potential for leakage and reduced device run time. The primary concern is an imbalance in capacities or available energy between the installed batteries. As the weakest battery becomes exhausted, it will be forced discharged by the stronger batteries to very low or negative voltage levels which drastically increases the potential for leakage.

Typically, alkaline batteries will not leak under normal storage or usage. The potential for leakage significantly increases if the

batteries are subjected to charging, mixing of battery chemistries, mixing of fresh and used batteries, physical damage, extended exposure to high temperature or deep discharged. Alkaline battery leakage is extremely caustic and contact with bare skin should be avoided. In the event that battery leakage comes in contact with your skin, flush the area for 15 minutes with copious amounts of water and seek medical attention.

There are also many common misconceptions surrounding the use of rechargeable batteries. One of the most misunderstood areas concerns memory effect,

use microprocessor circuitry to monitor battery parameters such as temperature, voltage and state of charge. This information is used by the charger to determine when to terminate the charge.

In normal use, NiMH batteries can be recharged hundreds of times. Many factors effect cycle life. Some of these factors include depth of discharge, charge and discharge current, method of charge control, storage and operating conditions and shelf life. Typically batteries with a higher mAh capacity will have a lower cycle life than lower mAh capacity batteries.

Battery disposal

Regulations may vary by municipality or state so please check your local regulations.

Most everyday use batteries are alkaline and lithium, which in most states can be disposed of via your normal waste management process. This is possible because today's batteries no longer contain heavy metals, such as mercury. Therefore, these products don't contain any hazardous materials, as classified under federal EPA guidelines.

Most rechargeable batteries used today are considered non-hazardous based on their "metal" content, which is nickel metal hydride and lithium ion. Therefore, they can be disposed of according to U.S. federal guidelines. However, users should recycle their rechargeable batteries to capture those that do contain hazardous waste such as lead acid and nickel cadmium. ♻️

CARE AND HANDLING DOS & DON'TS

DO:

Following are recommendations that should be followed to obtain maximum battery performance.

- Do read the instructions on your device before installing batteries. Make sure to insert the batteries properly, following the symbols showing you the correct way to position the positive (+) and negative (-) ends of the batteries.
- Do replace batteries with the size and type specified by the device's manufacturer. Remove all used batteries from the device at the same time, and then replace them with new batteries of the same size and type.
- Do store batteries in a cool, dry place at normal room temperature. Remove batteries from devices that will be stored for extended periods.
- Do inspect a device's battery compartment every few months to be sure batteries are not leaking.
- Do keep battery contact surfaces clean by gently rubbing with a clean pencil eraser or cloth.

DON'T:

Following are recommendations that users should follow to prevent problems or situations that could lead to personal injuries.

- Don't carry loose batteries in a pocket or purse with metal objects

like coins, paper clips, etc. This could potentially short-circuit the battery, generating high heat. When unpacked batteries are mixed together, they can easily short-circuit each other, particularly button-type batteries.

- Don't recharge a battery unless it is specifically marked "rechargeable." Attempting to recharge a primary (non-rechargeable) battery could result in rupture or leakage.

- Don't use rechargeable batteries in chargers that are not designed for the specific battery type.

- Don't put batteries or battery-powered devices in hot places – elevated temperatures increase the self-discharge of batteries.

- Do not dispose of batteries in fire.

- Don't mix old and new batteries, or mix different types or makes of batteries. This can cause rupture or leakage, resulting in personal injury or property damage.

- Don't crush, puncture, take apart batteries or otherwise damage batteries. This can cause rupture or leakage, resulting in personal injury or property damage.

- Don't allow children to play with batteries.



**MADE IN
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Manufacturing growth

What does the next generation of manufacturers need to do to grow?

BY MICHAEL COLLINS

American manufacturing is going through some gut-wrenching changes and continues to shrink as a percentage of GDP. When you read articles in trade journals and newspapers, everyone agrees that we need to find ways to grow manufacturing. Most solutions to this problem offered by manufacturers, associations, trade journals and political pundits are focused on government solutions. They want the government to reduce taxes, halt the rise in healthcare premiums, eliminate cap and trade legislation and stop the manipulation of foreign currencies.

This author also hopes that manufacturing gets a break on many of these issues, but I would like to suggest that we can't depend on government to solve our manufacturing problems. But there are many changes that can be adopted by manufacturers that can halt the decline of manufacturing simply by adopting new strategies. In fact, I will go out on a limb and say that many of these strategies are being used today by progressive manufacturers and they will become commonplace in the next generation. Here are nine of the strategies that I believe survivors in this economy will eventually adopt.

PROBLEM: *Your customers (even large customers) also have many pressures and problems trying to compete. They also have to layoff people, "farm-out" systems that were integral to their manufacturing, reduce inventories and get more done with fewer people. Their problems can be opportunities if you can find out about them.*

1) Monitoring customers and markets. The key is to focus on how to improve customers' performance and solve their problems. It requires visiting the customers and finding out what you can do to help them solve their internal problems. Harry Brown of EBC Industries

believes there will always be opportunities for manufacturers that can change with their customers and continuously offer innovative services. The idea is simple. Show the customer how your product and services will solve their problems and improve their performance.

PROBLEM: *The old sales approaches aren't working. The old selling techniques that are still taught in national sales training programs are not working very well for today's markets and buyers. The old idea of selling product features and using magical closing methods does not work, especially for buyers of industrial equipment.*

2) Consultative selling. Buyers don't want to hear a sales pitch but they do like salespeople who can understand their problems and have empathy for the buyer. It is called consultative selling and it is more about interviewing than selling.

PROBLEM: *We need innovation and new products but we also have to establish a competitive advantage. The biggest single reason new products and new ideas don't sell is that the company does not find out until the point of sale that the product or idea is not unique.*

3) Improve the success rate of new products. Progressive manufacturers spend time finding out what kinds of competitor products or services are in the market prior to spending a lot of money on design or prototypes. They invest this time because they want to make sure their new product idea is unique. You know you

have done a good job on this step of product development when you have identified every competitor and compared their features and prices in a matrix.

PROBLEM: *Manufacturers do not use modern marketing strategies to find new opportunities. The old days of attending a few trade shows, printing literature, running an occasional ad in a trade journal and waiting for prospects to find your website just don't get it. In the glory days of manufacturing it was possible to get on a lot of bid lists and customers would come to you, but now manufacturers must be more proactive. This means identifying the best customer profiles, identifying the market niches and finding low cost ways to reach them.*

4) Using sales prospecting and niche marketing techniques. Progressive manufacturers have figured out that they can use modern methods to identify, contact and pursue prospects. One industrial marketing strategy is to use inquiries to identify new prospects and customers. By generating inquiries and identifying market niches by NAICS codes, a manufacturer of robot systems was able to identify a specific application in the dairy industry, and the 150 plants that could use these robots. Once this specific application was known, it was possible to focus the marketing techniques and make sales calls on the plants. The sales forecast was achieved in just one year, and within three years, they were growing at 15% per year, while the company achieved its sales and profit goals.

PROBLEM: *In some industries, like the EDM machine marketplace, sales are down 50% from previous years and may never come back. Depending only on products to make the sales forecast may not be enough for OEMs to stay in the business. They need other kinds of sales.*

5) Creating new services. Harry C. Moser, president of Agie Charmilles Corp., Lincolnshire, Ill., decided that the company could increase sales volume by selling more services to his customers. Agie Charmilles hired 20 additional service engineers at a cost of about \$1 million annually, Moser says. "But by having them we were able to cut our travel expenses by \$500,000. Instead of having people flying to see customers, we expanded field operations to 31 locations and made it easy to make business calls by car. In addition, local service reduces the need for engineers to incur hotel costs."

Localized service also reduced turnover since service engineers were not continually away from home, Moser adds. "That cut attrition costs by approximately \$500,000. Those two cost savings wiped out the cost of hiring for the service expansion," he says. "And because those people increased our capacity, we increased our sales of service and preventive maintenance to our existing customer base by \$2 million annually. That validated our decision to hire 50% more service engineers."

PROBLEM: *The old sales channels just aren't working for today's customers. Many manufacturers*

CONTINUED ON PAGE 34

that used only inside sales people (as in job shops), independent reps and distributors, and traditional sales organizations are finding they are not working very well in this new era of globalization. The problem is that customers are more sophisticated, have many options, and there are many new requirements and tasks required in the selling process.

6) New sales channels.

Manufacturers need to profile their various customers and their requirements and consider evaluating new types of sales channels. For instance, job shops may have to hire their first outside sales manager. Manufacturers of packaging machines may have to consider training specialized independent reps who sell a few complimentary lines and know as much about the products as factory sales people. And some companies that sell to a wide variety of markets and customers may have to create a system of multiple sales channels.



PROBLEM: *Almost every European country is good at exporting (including their small manufacturers). They are good because they recognized along time ago that they had to sell internationally to survive. Americans have been spoiled by*

being located in the biggest market in the world, and have avoided marketing internationally.

7) International marketing.


There are many market niches overseas that are just developing and can use existing U.S. products. So why not commit to simply taking the first baby steps at learning how to market to foreign countries. You don't have to be a large manufacturer to sell to foreign customers. Hal Hickman of Powerhammer Inc. in Tigard, Ore., is a small manufacturer of power hammers used in foundries. The foundry industry has been leaving the U.S. for many years and many of the foundry products used in the U.S. are imported from foreign foundries. By using good industrial marketing methods and attending the critical trade shows in this worldwide industry, Powerhammer has survived and now sells 90% of its products to foreign countries.

What is unique about all of these ideas is that they are all external strategies. Hammering away at the bottom line with continuous improvement is absolutely necessary, but if you want to create a new future for your company, you need to develop a growth plan focused on external strategies to find growth opportunities.

The bottom line is that to survive, manufacturers are going to have to become industrial marketers. The alternative is keep doing what you do best and hope that conditions in the economy will improve. Perhaps the dollar will continue to

decline and the price of imports will increase, forcing many customers to buy from American suppliers. Or perhaps some of the customers that now buy from foreign suppliers will tire of the hidden costs, late deliveries and quality problems and come back to you. This defensive "wait and see approach" is possible, but dangerous. Suffice it to say that waiting for outside events to change or the government to step in and save manufacturing may never happen. Hope is not a plan.

This article is an attempt to convince readers that there are many things we can do to grow, despite the problems. Remember, American manufacturers have some clear advantages. We are located in the market, we are close enough to monitor customer needs, we can offer short lead times and unique products, we can offer unique overnight services, and we are still the most innovative manufacturing sector in the world.

A better strategy for growth would be to go on the offense and take matters into your own hands. I believe that the next generation of manufacturers that survive this shakeout and prolonged recession will use many of the strategies described in this article. Their cultures will change from a focus on internal processes to a focus on external customer and market issues. 

Michael Collins is the author of *Saving American Manufacturing* and his website is mpcmgt.com.





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Plan for Savings

BY TRACY STRAWN

I recently received an e-mail from a client asking how they could demonstrate the business impact that maintenance planning and scheduling would have on their business. The client asked if there was a figure they could use to demonstrate the value of planned and scheduled work and where did this figure come from.

I replied that the rule of thumb that I use is that planned and scheduled maintenance work is three to four times more cost efficient than breakdown maintenance. I have used this number for years. I am not quite sure where this figure comes from but I do know it's fairly well accepted in industry and is consistent with my experience.

In this particular case, the client was persistent and wanted to know a little more about how to use this rule of thumb. Perhaps the best discussion of how this rule of thumb can be used comes from John

Maintenance planning and scheduling can make a bottom-line difference

Campbell's book, "Maintenance Excellence, Optimizing Equipment Life Cycle Decisions." In the introduction, he describes a simple process for quantifying the cost saving potential of improving the planning and scheduling process.

What are the savings if an organization moves from breakdown maintenance to more planned and scheduled maintenance? This is really what everyone wants to understand, especially those in charge of the budget.

Why is it important that we quantify the savings or, as some call it, "the size of the prize"? Unfortunately, management typically understands one language and that is the language of money. When a program or improvement effort can be quantified in terms of dollars and cents, it makes it easier for management to justify the resources required to staff and implement the project.

Doing the math

The rule of thumb for determining the cost saving



potential goes like this. Maintenance work can be broken down into the following cost units:

- Work performed in a planned fashion such as preventive, predictive or planned corrective maintenance will cost \$1.00 per cost unit.
- Work performed in an unplanned, unscheduled fashion will cost \$1.50 per cost unit.
- Breakdown or emergency work costs \$3.00 per cost unit.
- What the “work unit” represents will become clearer as we explain the calculation.

Let’s use an example. Our annual maintenance budget is \$10 million and the work distribution is 60% planned, 20%

unplanned and unscheduled, and 20% breakdown or emergency. What would a shift from 60% to 70% in planned and scheduled maintenance yield us in terms of cost savings?

Next, let’s break this down into cost units (CU).

60% x 1.0 = 60 cost units

20% x 1.5 = 30 cost units

20% x 3.0 = 60 cost units

Total CU = 150 cost units

Now we divide \$10m by 150 work units and we get \$66,666 per work unit or \$.067m per work unit. We will use this number in our calculation to determine how the costs are split between the three different types of work.

Planned work costs
60/150 x \$10m = \$4m

Unplanned work costs
30/150 x \$10m = \$2m

Breakdown/emergency work costs
60/150 x \$10m = \$4m

Let’s determine what the savings would be if we increased the amount of planned work from 60% to 70%. The shift in work units would look like this:

70% Planned work
(70% x 1 x \$.067m = \$4.7m)

15% Unplanned work
(15% x 1.5 x \$.067m = \$1.5m)

15% Emergency work
(15% x 3 x \$.067m = \$3.0m)

New total annual maintenance costs = 9.2m or \$9,200,000

An improvement from 60% to 70% in the amount of planned work yields us \$800,000 annually. If you factor in the downtime,

it could be much more. In some industries the cost of breakdown maintenance can be as high as 20 times the cost of planned maintenance when you factor in things like production losses.

The truth is, the benefits of planned maintenance are much more than the cost savings. Some of the benefits of a well executed maintenance planning and scheduling process are listed below:

- Increased uptime
- Reduced inventories
- Improved safety and health performance
- Improved environmental performance
- Improved maintenance and repair quality
- Increased asset integrity
- Reduced fixed costs

In today’s uncertain economic business environment, you cannot afford to have an ineffective maintenance planning and scheduling process. The investment in the way you manage your work will more than pay for itself. 🌐

Tracy Strawn is a maintenance and reliability consultant with over 30 years experience in the process and manufacturing industries. He is vice president of international programs at the Marshall Institute, a Raleigh, N.C.-based asset management consulting and training company dedicated to helping companies improve the maintenance contribution to their organizational performance. Learn more at www.marshallinstitute.com.

Leading by example

Leaders train and develop through their actions

BY PAT HEYDLAUFF

There are many ways for a leader to train and develop a workforce: teaching, coaching, encouraging and nurturing. However, the one form that speaks loudest and is rarely considered a strategy is a leader's actions.

If a picture is worth a thousand words, then the actions of a leader are worth significantly more. Leaders are under constant scrutiny from their workforce. They are watched to see how they perform, how they act on a normal busy day and how they react during a crisis.

The workforce no longer performs in isolated cubicles, endless production lines or on impersonal electronic equipment – employees are at minimum connected to each other. They may be focused on the work at hand but they also watch their leader as much as their leader watches them – and employees will tell each other what they see.

When Disneyland first opened in the mid-1950s, Walt Disney

wrote to his leadership team, "Your every action (and mine as well) is a direct reflection of our entire organization." Disney was well aware of the fact that his actions spoke louder than any words he might utter – if he did not perform well and constantly raise the bar of excellence neither would his leadership team.

Leaders develop their workforce

This isn't just about training manuals and new employee welcome sessions. It is about hands-on leading and performing by example 24/7 whether at work, at play or at home. People are always observing you. Is your performance up to their expectations – is it up to your expectations? If they follow your example will their performance improve or will it stay the same?

Going to work every day should be approached much like an entertainer who performs on Broadway or a conductor who presides over an orchestra. Every day is a new performance and you need to physically, emotionally and mentally give your best, even if under the stress of a workplace emergency,



PHOTO: DNY59

an electronic communications disaster or a questionable economy. You are the leading lady (or man) and your support cast or team is watching your lead. They will follow in your footsteps, which will either result in a great performance or perhaps one that is not so good, depending on what they see.

A training strategy that exceeds expectations

First, leaders must realize that training their team, their support staff and their managers is not up to someone else. Just as babies do not come with an owner's manual, neither do employees. They may have the basic skill set needed to fill a particular job, but they need more than a written manual about the company and what is expected of them. And that responsibility rests right on the shoulders of the leader.

TEC is a strategy that is simple, easy and nearly foolproof, if the steps are followed correctly.

◆ **Teach** – Educate your workforce about your company, your core values and what is expected of them. This is where most businesses miss the greatest opportunity to create employee buy-in and engagement. Provide them a higher sense of purpose such as performing the best concert ever so each concert attendee will remember it for the rest of their lives. Explain how they each have a unique purpose. Explain how the job they perform fits into the overall picture. Explain how the concert might fail without their best performance. Otherwise,

their job is just another job and performance will remain stagnant at best and disengaged, or even destructive, at worst.

◆ **Encourage** – Leaders need to model excellence to inspire, and continually raise the bar of their excellence to raise the bar of workforce performance. When educating and developing the workforce, constructive feedback is critical for improvement and to retain your credibility. They need to know you care – about their quality of work and about their needs and expectations. While in their presence, stay actively focused on their behavior, performance and attitude. Be generous with accolades and acknowledgement of accomplishment no matter how small. Encourage and nurture good and improving performance. But don't stop there. Being actively focused means offering constructive feedback when behaviors occur that need correction or change. Do not wait until a performance review or put off the talk until days later. Passivity means you tacitly approve of the incorrect behavior and the employee's actions will only get worse, not improve.

◆ **Communicate** – Communicate consistently, communicate constantly and communicate circularly. You cannot communicate too often nor can you communicate through too many vehicles or venues. However, it is the circular communication that is often the missing link in so many organizations that are on the verge of excellence.

Circular communication not only means leading by example and modeling excellence, it means obtaining constant feedback from the workforce to make sure what you are communicating is what they are receiving. Have them playback to you regularly what they think you are communicating. Much like a posting on a social media page can be totally distorted and sound very different by the time it is re-tweeted several times, internal business communications can be totally misinterpreted or misunderstood and repeated that way tenfold. Two-way communications can provide many opportunities to solve problems, answer questions and inspire. When set up and used properly, it can be the most effective tool in your training strategy.

The TEC strategy only works when a leader models excellent behavior. It is then that companies can create a more engaged and inspired workforce that will eagerly aspire to better performance when following a leader that does the same. ☺

Pat Heydlauff, a "flow of focus" expert, speaker and consultant, designs workplace environments that unleash the flow of focus, maximize productivity and transform org charts for future sustainability. She is author of the forthcoming book, Engage, Unleash the Power of Focus and published books, Feng Shui, So Easy a Child Can Do It and Selling Your Home with a Competitive Edge. Contact her at (561) 799-3443 or www.engagetolead.com.



HEYDLAUFF



MAXI-LIFT

makes the move

Material-handling elevators are the rapid transit systems in manufacturing operations and their buckets are like high-speed boxcars.

BY CLAIR DAVID URBAIN

Transforming raw materials into finished goods means handling bulk commodities and shuttling them quickly and reliably from delivery to storage or to the production line.

Often, vertical elevators are the conveyors of these materials, and their uptime and efficiency is key to productivity. If the elevator stops or slows the production process, it means greater costs and more headaches for facilities aiming for optimum production and lowest finished per-unit cost. Unfortunately, they can also be a high-wear item, requiring expensive replacement and downtime.



PHOTOS: MAXI-LIFT INC.

Customer needs

“We surveyed end-users of elevator buckets and found that 60 percent of them were unhappy with elevator bucket life. It’s expensive to replace elevator buckets, and can be dangerous, so outside maintenance professionals are often called to do the job quickly and safely. That’s why we strive to develop buckets that last as much as six times longer than other buckets,” says Paul Phillips, Maxi-Lift president.

Maxi-Lift, based in Addison, Texas, has a 300,000 sq.-ft. manufacturing plant that makes a wide variety of elevator buckets in various materials. It is the leading international manufacturer and marketer of plastic elevator buckets and related accessories for agricultural and industrial facilities. Since 1973, Maxi-Lift has helped customers succeed by engineering elevator buckets with longer life, less breakage and more capacity. For customers, that ultimately means improved uptime, lower total cost of ownership and greater reliability.

“Our elevator buckets are used to move bulk material in many agricultural and industrial applications around the world. In industrial applications, our buckets are used to move cement, sand, aggregate and even glass,” says Phillips, “We have a bucket for every application; they are made with ductile iron, steel or plastic. We design in toughness, which means longer life. The innovations we put into our

Right: Maxi-Lift’s manufacturing facilities in Addison, Texas. Below: Maxi-Lift management team includes CEO Beau Sahm, chairman and founder Victor Sahm Jr., and president Paul Phillips.



material and our bucket design puts that material in the right place and at the right thickness, which increases the life and the capacity of our buckets.”

Maxi-Lift has a sister company, Southwest Agri-Plastics Inc., which produces a wide variety of plastic slats, grates, feeders and other equipment geared for agricultural operations. Maxi-Lift and Southwest Agri-Plastics continually work with customers to identify needs and develop new and innovative products for facilities around the world.

Presently, their products are used in more than 70 countries. “Our products are used on rice farms in Guyana, elevator upgrades in Romania, new feed plants in China, large river and port projects in North America, cement facilities in Mexico, and the largest soybean processing plants in Argentina. The Maxi-Lift name is known internationally for outstanding products and services. We are proud to call ourselves the global leader in the industry,” says Phillips.

“We offer free technical service that can help you, no matter what type of problem you may be facing. We can help you design,



analyze, evaluate or validate the technical details of your bucket elevators. We specialize in troubleshooting existing elevators, assessing upgrade capacity for new demands and verifying your existing elevator setup. No problem is too big or too small for our team,” Phillips says.

Buckets worthy of the Maxi-Lift name

“Our customers demand the toughest, longest-lasting buckets and we manufacture the strongest brand-named buckets in the world: Tiger-Tuff, Tiger-CC, Maxi-Tuff, CC-Max, and HD-Max. It’s no surprise that the largest agricultural and industrial Fortune 500 companies ask for Maxi-Lift buckets by name,” Phillips says.

Each line of Maxi-Lift elevator buckets is built with the durability and capacity in mind for specific materials and material-handling environments.

CONTINUED ON PAGE 42

PRODUCT PROFILE

AGRICULTURAL APPLICATIONS

■ Tiger Tuff and Tiger Tuff-CC.

These maximum-duty buckets for agricultural applications are available in 30 sizes in polyethylene, nylon and urethane materials.

They have thicker corners and walls for greater wear resistance and heavier front lips for increased digging capability. The buckets can be configured to increase elevator capacity and are excellent high-volume buckets for grain, fertilizer, pellets and other agricultural or light industrial materials.

The buckets are made with high-impact/abrasion-resistant materials that last long and are non-corrosive and non-sparking. The Tiger-CC buckets are designed for high-volume operations and can move up to 30,000 bu./hour in a single row configuration. Bucket vents can be added to improve material pick-up and discharge.

■ **HD-Max.** Second only to the Tiger-Tuff buckets in durability, these buckets have a reinforced front lip to increase bucket life and reduce bucket breakage. Primarily used in agricultural applications, they are available in polyethylene, nylon and urethane materials in 32 sizes. A low-profile style allows closer spacing on the elevator belt for increased capacity. Bucket vents can be added to facilitate material pick-up and discharge.

■ **CC-Max.** These heavy-duty agricultural buckets are designed as a direct replacement for CC and other older-style buckets. They have the same shape and performance characteristics, but are designed to last much longer than conventional CC buckets. They are also available

TIGER TUFF



TIGER TUFF-CC



HD-MAX



CC-MAX



MAXI-TUFF AA



DI-MAX AA



DI-MAX AC



WELDED STEEL



in a low-profile style that can help increase elevator capacity. They are available in 28 sizes in polyethylene, nylon and urethane materials.

■ **Dura-Bucket SS.** Built primarily for agricultural applications, this plastic bucket has more than 50 years of performance history. Its versatile design performs well at a wide variety of speeds and applications. It's also available in a low-profile style that can increase elevator capacity and comes in polyethylene.

INDUSTRIAL APPLICATIONS

■ **Maxi-Tuff AA.** This industrial-duty bucket is designed for slow-speed (125-450 fpm) centrifugal discharge elevators. It's optimal for cement, stone, sand, gravel, coal, fertilizer, clay, salt, limestone and concrete conveyance. It has the traditional shape of a cast-iron bucket but has thicker walls and lips for greater durability. The polyethylene, nylon or urethane buckets weigh as much as 80 percent less than cast iron buckets, which reduces energy requirements to operate the elevator. They are easier to install and save money when compared with carbon-steel buckets, Phillips says. They are also available in medium front (MF) styles, which work well with fluffy, free-flowing materials or materials that need gentle handling.

■ **Tiger Tuff.** Tiger Tuff industrial-duty buckets have the same performance characteristics of Tiger Tuff agricultural duty buckets, but are designed to operate in slow-speed (125-250 fpm) elevators. They can reduce elevator weight by as much as 80 percent, netting energy savings, and their polyethylene, nylon or urethane materials and

unique bucket design results in longer life. They are heat-, impact- and abrasion-resistant and are non-corrosive and non-sparking.

■ **DI-Max.** These ductile-iron AA-, AA Digger- and AC-style buckets have thicker walls and a reinforced front lip for long life. The ductile iron wears better and withstands abrasive materials better than malleable iron of the same gauge, resulting in longer life. They can work in temperatures up to 600 F.

■ **Welded steel.** Maxi-Lift has welded steel buckets in AA, AC, SC ACS styles with medium front (MF), low front (LF) or high front (HF) lips. They can be fabricated

from 14-, 12-, 10-, or 7-gauge or 1/4", 5/16", 3/8" or 1/2" carbon steel, aluminum or stainless steel. They can be fabricated with optional AR plates, wear lips, hardened surfaces and hard bead welds.

■ **Custom styles.** Maxi-Lift engineers and sales professionals are no strangers to special-application situations. They will work with you to custom-build any bucket style to meet the demands of your specific material handling needs. They can even offer suggestions in design and material changes to help you



achieve longest bucket life and best performance.

■ **Parts and accessories.** Maxi-Lift offers a wide range of elevator bolts, drag conveyor flights, screw conveyor hanger bearings as well as a full line of belt splices needed to complete final installation of your replacement material handling equipment. ☉

Four easy steps to replacement bucket selection

Facilities can greatly improve productivity, reduce operating costs and extend elevator life by matching the elevator bucket to the material being handled.

Maxi-Lift engineers recommend the following steps to select the proper replacement bucket for your elevator. Consult with Maxi-Lift professionals for ideas on bucket selection to improve capacity, increase productivity and improve bucket life.

■ Step 1 Measure the bucket

Measure the bucket length at the back mounting surface, from end cap to end cap. For other dimensions, lay the bucket on its back and measure the projection, which is the vertical

measurement from the back to the lip as it would project from the belt or chain. Finally, measure the bucket depth, which is the overall side profile dimension.

■ Step 2 Select bucket style

Agricultural-style buckets typically have a high-speed centrifugal discharge rate of 210-900 fpm; industrial style buckets typically have a low-speed centrifugal discharge rate of 125-450 fpm. Identify your elevator's fpm speed, then identify its style: Tiger-Tuff, HD-Max, CC-Max, AA, HF, MF, LF, SC, AC, ACS or custom.

■ Step 3 Choose bucket material

Buckets are made with several types of materials that can be best matched

to the material handling application:

Polyethylene: FDA-approved for grain and food products; can be used in -120 F to 180 F with 210 F intermittent exposure;

Nylon: Non-FDA approved for hot, dense, high-impact abrasive materials from -60 F to 300 F with 350 F intermittent exposure;

Urethane: FDA-approved; for heavy, abrasive, sticky materials from -60 F to 180 F with 210 F intermittent exposure;

FDA nylon: FDA-approved for hot, high-impact abrasive food-grade material with -60 F to 300 F operating range;

Plastic: For general grain and sugar applications;

Ductile iron or welded steel:

For highly abrasive and high-impact materials.

■ Step 4 Identify bucket vent pattern

Vents can aid in bucket fill or discharge of light, fluffy materials or materials that are extremely dense or do not flow easily. A #1 vent has vent holes that match the bolt mounting holes; #2 vent has one row of holes on 1 1/8" centers; #3 vent has two rows of holes on 1 1/8" centers; and #4 vent has a hole configuration the same as a #3 vent with three additional holes in each end cap. Custom vents are also available and Maxi-Lift sales and engineering experts can offer advice on their configuration based on the material being handled.

4 Four things you have to GET RIGHT in business

Use these tips to help maximize your company's growth potential

BY MICHAEL MENARD

Most organizations know that in order to grow and be an industry leader, they have to continually innovate and undertake key projects that lead to growth. Unfortunately, many companies do so in a haphazard or non-strategic way.

Here's what typically happens: Leaders keep saying yes as various projects and ideas are presented to them for investment. They say yes until they run out of resources. The projects and ideas first on the list get funded in contrast to the best of all ideas across the organization. The sad truth is the early bird does get the worm. As a result, they waste money and resources, lose momentum, and then wonder why they never achieve their strategic goals.

But it doesn't have to be that way. There's a proven

approach that enables leaders and decision makers to make a greater contribution to the business, activate the strategic plan, achieve the desired balance and optimize allocation of limited resources. Here are the four things you need to get right in order to make better decisions so you can maximize your company's Capital Efficient Profitable Growth (CEPG).

Define your strategy:

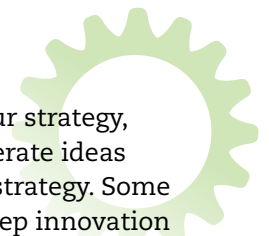
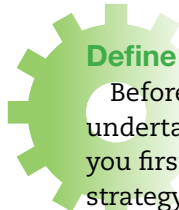
Before your company can undertake any new initiative, you first have to identify your strategy. In other words, who are you and what do you want to do? Unless you know this information, it's difficult if not impossible to move forward in a productive way.

While most companies have a general idea of their strategy based on their vision or mission statement, often it's not focused

enough to translate into specific strategic goals. For example, suppose you're a beverage company that offers a variety of soft drinks. How do you grow? You could introduce one new beverage after another and expand into new markets at random, but that will quickly drain your resources. A better approach is to define a specific strategy for growth. For instance, you may decide that you want to be the North American leader in bottled water. Now you have a focused strategy to guide your efforts.

Generate ideas


Armed with your strategy, you can now generate ideas that support the strategy. Some people call this step innovation or creative brainstorming. Whatever you call it, the goal is to come up with possible options for advancing the strategy.



allows you to say yes to both questions, you've completed the prioritization and selection process.

Execute on the ideas

Finally, it's time to take action and actually execute the portfolio of ideas. This is where project management comes into play. As you execute each step to support the strategy, outline the detailed activities needed to complete the project on time and on budget. Assign key people to be responsible for each role, and establish checkpoints so you know if the project goes off track. The more thoroughly you manage the execution of the portfolio, the more success you'll have.

Get it Right...Now! No matter what industry you're in, long-term business growth depends on these four things: Strategy, Idea Generation, Project Selection and Execution. When you take the time to implement this process in your company, not only will you make better strategy decisions, but you'll also achieve the breakthrough results that achieve the ultimate goal: Increased CEPG. 

Michael Menard is the author of "A Fish in Your Ear: The New Discipline of Project Portfolio Management," and co-founder and president of The GenSight Group, which provides enterprise portfolio management solutions for strategic planning, project portfolio management and business performance optimization. To learn more, visit www.afishinyourear.com.



MENARD



Going back to our beverage company example, if the strategy is to be the North American leader in bottled water, your team needs to generate ideas that fit the strategy. Some ideas could include adding nutrients to the water, adding protein to the water, adding exotic flavors to the water, offering different bottle shapes or sizes, etc.

Prioritize and select the best ideas

Next is to select the portfolio of ideas that are the best for the company to pursue and that will advance the strategy. As you do the prioritization and portfolio selection process, you need to ask two key questions. The first is, "Will this portfolio of ideas and projects deliver our strategic goal?" If the answer is no, then you have to do something different. Either you alter your strategic expectation or you increase the number of

ideas. Keep going through these iterations until you can say, "Yes, our portfolio has the potential to deliver our strategy." And remember, at this point you're simply assessing whether the portfolio will meet your strategic goals. You're not assessing whether it's something you actually could do.

Once you agree that the portfolio of ideas and projects will help you meet your strategic goals, the second question to ask is, "Do we have the resources (time, money, people, equipment, etc.) to fund the portfolio?" If the answer is yes, then celebrate and move on to step four. But if the answer is no, then you need to circle back and solve the equation. Can you lower your strategic goals? Can you generate bigger, better ideas? Can you add resources? Change the timing? Scale back the idea? Once you have a portfolio that



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Jason Industrial Thermoplastic Hose Product Line

The new 44-page Thermoplastic Hose Solutions catalog (Catalog PVC-1) is now available from Jason Industrial. Find the correct thermoplastic hose solution for food, material handling, petroleum and water applications. It highlights available product from stock - NBR/PVC and Polyurethane Drop Hose, PVC Material Handling Hose, PVC Suction & Transfer Hose, EPDM & Sub Zero Cold Weather Suction Hose. Also listed are FDA & USDA Hose, suitable for food grade material handling and liquid transfer. Accessories include Banding Coils, Sleeves and Cam & Groove Couplings, Pin Lugs, as well as Clamps and Nipples. Contact your local IDC Distributor for more information.



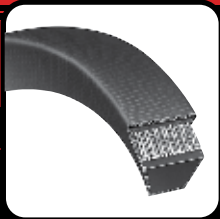
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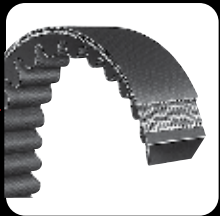
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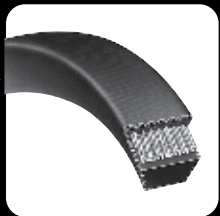
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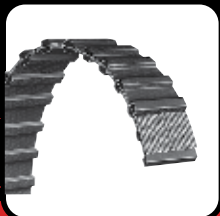
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Rubber



Synchro-Link®
Polyurethane



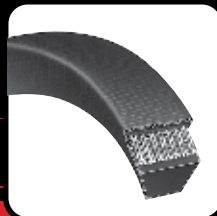
Synchro-Link®
High Torque



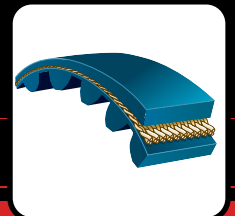
Synchro-Link®
Double Sided
Rubber



Synchro-Link®
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Polyurethane



Metric V-Belts



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