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Insyte consulting

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Going "Green?" — Insyte can help 716.636.3626

# 15-20% Increased Capacity Result of Ripley Plant Expansion

Steady business growth, a need for additional machinery and insufficient floor space can pose a problem when you are a small manufacturer. This was the situation facing Quentin Bensink, President of Ripley Machine & Tool Company. "We need additional space and we need it quickly if we want to meet current and future volume demands," said Bensink.

Ripley Machine & Tool Company is a machine shop that serves numerous industrial accounts in the northeast and Texas. The primary activity is the machining of aluminum and iron castings used in the production of valves for air compressors. These components are sold to a single, major OEM account in Erie, PA. Secondary product lines include the production of turnings from bar stock and center-less grinding for a number of industrial customers within the region.

Founded in 1956, Quentin Bensink has owned Ripley Machine & Tool since 1996. During this period the business has grown steadily by providing value-added services and consistent quality to an entrenched group of customers. The company currently employs 24 people including 16 non-union



Ripley Machine president, Quentin Bensink, observes improved material handling capability as Dave Nichols moves completed castings into shipping area.

production workers. Manufacturing operations are conducted on a single shift within the one-story facility located in Ripley, NY.

## Situation-How can steady business growth be a problem?

Because the company has realized steady business growth, Bensink projects compounded sales increases of 10% annually for the next five years. It became increasing apparent that the 8,000 square foot facility

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# Drive Continuous Improvement Using the A3 Process by Philip Celotto

As companies embark on, or continue, their lean journeys, it is important to understand that the focus of lean should not be on the implementation of lean tools but on continuous improvement. The ultimate goal is not to create a kanban signal or

develop a production cell but to remove waste in the system. A method to help teams identify the best solution for solving problems and eliminating waste is the A3 process. A3 problem solving is a standard

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## President's Message



## Plant your CROP to harvest a good year

by Benjamin Rand

The first days and weeks of a New Year are always exciting, characterized by a sense of opportunity, and of renewal. That can be particularly true for business people on a calendar fiscal year who typically

have new budgets, new plans and perhaps even new positions to fill. And who among us is not happy to trade a very trying 2009 for the potential of a better 2010?

The challenge for business leaders at this time of year is how to appropriately focus and channel that initial optimism and energy to get your organization off on the right foot. Consider this four step plan: Close, Revisit, Optimism and Prioritization (CROP).

Closing out the last year is an important step to ensure that everyone is focused on the new year and not looking in the rear view mirror. This is the time to honestly assess how well you did as a group in meeting your goals and objectives. Ideally, you should have your final financial results and other quantifiable numbers to share. The key is to be honest, fair and focused on lessons learned rather than excuses or blame.

You can use a "town hall" meeting, a newsletter or even a mass e-mail as your vehicle for communicating this information.

Next, revisit your organization's mission and objectives. This may be obvious if your mission and/or objectives have changed, but even if they have not, you will do well to remind yourself and your people of what your common purpose is to set the tone for the year ahead. A mentor of mine used to claim that people only internalize about 20% of what they hear. He maintained that good leadership was all about communication and that you should repeat everything at least five times to ensure that the organization really got the message. This renewal step is designed to get everyone on the same page to start the new year.

Express your optimism about the coming year. As a leader, it is always your responsibility to be optimistic and it is especially important (and easy) to do so at the start of a year. The key here is to have realistic goals and objectives for the current year. If your organization *believes* that it can reach its goals and objectives, the battle is more than half won.

Finally, prioritize your plans so the organization knows what to focus on first. When energy and optimism abound, people can become impetuous. There should be a logical sequence to your plans for the new year and now is the time to remind your organization of that. Everyone may be excited to achieve Objective C, but usually that requires that you achieve Objectives A and B first. Lou Holtz, former head football coach at Notre Dame, refers to this as W.I.N. (What's Important Now). "Of course we wanted to win the championship," he said, "but first, we better win this game and to win the game, we need to score and to score we need to gain yards and to gain yards we need to block somebody."

You can plant this CROP any number of ways: conduct a "town hall" meeting; write a column for your company newsletter; or send an e-mail to your team. Here's to a Happy New Year and a good harvest in 2010.

Bym Rand

Insyte Consulting is a not-for-profit economic development organization that receives significant financial support from the New York State Foundation for Science, Technology and Innovation (NYSTAR), New York's high-technology economic development agency, and the National Institute of Standards and Technology (NIST) Manufacturing Extension Partnership (MEP). Insyte Consulting serves as NYSTAR®'s designated Regional Technology Development Center for the Western New York Region and one of nearly 350 MEP locations across the country and works directly with regional companies to increase their competitiveness and profitability.

## Business Doctor, National Grid





Question: With all the quality standards available, which one should my company pursue? Steve C. – Amherst

Answer: When developing a quality system there are choices as to which standard to pursue for certification. ISO 9000, AS 9100, ISO 13485, and

#### Ask the Business Doctor

TS 16949 are the most common. A primary factor influencing this decision is the requirements of the market you serve. However, if your customer base falls into different markets the decision is not as obvious.

Fortunately these standards are all based on the ISO 9000 standard and there is a great deal of commonality and benefit. Developing an ISO 9000 compliant quality system will ensure that processes are well-defined and create the discipline to follow and improve on the system. Activities such as management review, internal auditing, document

control and corrective action will be established that will continually improve your business practices.

When deciding if a different standard is worth pursuing, review the requirements to understand both the burden and benefits to your business. Depending on the type of product or service, some of the additional requirements can be easily addressed. Others might require a great deal of time with minimal return. Keep in mind that an ISO 9000 compliant system will provide the basic building blocks and different certifications could be built upon this base. ❖

# Safety Through Simplification We're Only Human After All

by Sharon Hilts

I'm good at multi-tasking. How many times have you heard this one? But sometimes we forget the limited capabilities we have as mere mortals. Consider claims from The Human Factors and Ergonomics Society that cell phone distraction causes over 2,500 deaths and 330,000 injuries in the United States every year. No wonder lawmakers are working to make texting while driving illegal.

What does this mean to us in the workplace? It means we must simplify, simplify, simplify. The non-meaningful signals or 'noise' that clutters our work environment needs to be minimized. Employees will then be more able to quickly and easily detect and react to any unexpected safe-

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## National Grid Funding Opportunity

A funding opportunity continues to be available for manufacturing companies (NAICS codes 31-33) that are located within the National Grid service area. Operational improvements (e.g. lean manufacturing and Six Sigma) can be reimbursed at a rate of 40% up to \$15,000. Marketing projects (e.g. Eureka Winning Ways and other top line growth initiatives) can also be reimbursed up to \$15,000 but at a 50% rate. For companies electing to do both types of projects, the maximum reimbursement increases to \$40,000 at a 60% reimbursement rate.

Numerous local companies have already been approved for funding. To date nine companies have been approved for nearly \$224,000 in funding assistance; these companies include:

- Advanced Monolythic Ceramic Inc. \$39,978
- Cobey Inc. \$29,985
- Flexo-Transparent \$19,692
- Innovative Chemical \$20.820
- Jamestown Advanced Products \$25,596
- Lancaster Tank & Steel Products \$4,685
- Olin Chlor Alkali \$4.072
- Precision Specialty Fabrications \$23,730
- PlasticWeld Systems \$5,000
- Ring Precision \$39,975
- Whiting Door Manufacturing Corp. \$9,825

Additionally six other companies have grant applications pending for over \$125,000 in funding support. If you have interest in pursuing this opportunity for your company, please contact John Murray 716.864.8675 or Bill Shepard 716.984.7949 at your earliest convenience, since funding is limited. •



## Time Management Tips, Safety

### The Second Most Popular Resolution by Bill Shepard

After "losing weight", the second most popular New Year's resolution is to get organized and better manage our time. Here are a few practical tips to help you gain more control over your time and your life and get 2010 off to a great start:

- Plan your next day before you leave the office. Starting your day with your plan in place allows you to control your time before it controls you. This can be as simple as a written to-do list. A good plan is a decision making tool - when something new comes up you can make better choices.
- Defy human nature and vow to tackle the highest priority items as early in

the day as possible, but be realistic. If you anticipate it will take one hour to accomplish something, give yourself an extra 15 minutes to account for interruptions.

- Set artificial deadlines for yourself. If a report is due on Friday, plan to work on it on Tuesday or Wednesday. Waiting until Thursday afternoon is setting yourself up for failure...what if an emergency comes up?
- Clean out your e-mail in-box regularly and set up sub-folders for sorting the ones you need to keep.
- Speaking of e-mail, there is no reason to react to every one immediately. Check your e-mail at regularly scheduled times, and if you get lots

- of them, disable that annoying popup and sound that tells you when a new one has arrived.
- Work from a clean desk. Clear your work area of visual reminders of things you could be doing that distract you. Use an organizer, either paper or electronic, with a prioritized daily to-do list to allow you to put paper out of sight but not out of mind.

Of course, you can still resolve to lose weight too!

Bill Shepard, an Insyte Regional Sales Manager, has over 30 years of experience in sales, marketing and managerial develoment. Time management is one of his specialties. \*

#### Safety continued from page 3

ty hazards that may arise. A 5-S Workplace Organization Program that reduces tangible noise is a good start to this endeavor.

#### Sort

Sort is the first 'S' and the first step in a 5-S Program. I like Mrs. Fix-it's take on sorting out the junk from our homes and have found it useful in the workplace. With another acronym Mrs. Fix-it summed it up by saying, 'things' must be 'S'aved (if used regularly), 'O'ffered out (recycled, given away, sold), 'R'elocated (to where they are used), or 'T'rashed (get rid of it!).

#### Shine

Shine means to clean...yes, this means you. Most of us do not like to clean, but it is a necessary evil in the quest to declutter and keep work life simple. Besides prolonging the life of the items worthy of being in our workspace, the exercise also informs us of their condition. You'll also find that if you have to clean something regularly, you'll begin to scrutinize whether or not you really need that item.

#### Set-in-Order

Put things where they belong. If you use something all the time, keep it close so you don't have to assume repeated awkward postures to retrieve it. Less frequently used items

can be kept a little further away. Rarely used items should be kept in a more remote location. Remember to label where things belong so everyone can help keep the space orderly.

#### Standardize

If your company has a method for organizing items that is working well in another area, adopt this method. Share your systems with co-workers. Similarities from workstation to workstation allow the focus to be on the meaningful differences in the work.

#### Sustain

Take a picture. You've worked hard and your workspace looks great so take a picture and display it. Set aside some time every day to make your workspace look like this photo. Every month take a little additional time to improve on your standard.

Simplifying the workplace helps us to not only become more productive, but to identify conditions that can be hazardous. So put 'organize' in your organization and achieve a safer work environment through simplification.

Sharon Hilts is an Insyte consultant. Her leadership focus on safety improvement has resulted in significantly fewer recordable incidents and corporate awards in OSHA's Safety and Health Achievement Recognition Program (SHARP). \*

## A3 Problem Solving



A3 continued from page I

method used by Toyota to define and address problems at all levels of the organization.

#### What is A3?

The A3 process is so named because it is written on A3-sized paper, the metric equivalent of 11x17. All steps in the process are captured on one sheet. A team is restricted to define the problem and develop solutions that will fit on this size paper. Toyota believed that any problem the company faces can be captured on a single sheet of paper. The A3 method is effective because it forces teams to keep things simple and provides a means of communicating both the problem and proposed solutions.

The basic format of an A3 is as follows: Title; Owner/Date; Background; Current Conditions; Goals; Analysis; Proposed Counter Measures; Plan; Follow-up. This is a generic format and organizations can adapt this to best fit their needs. The report flows from top to bottom on the left side of the paper and then top to bottom on the right side of the paper. Presented this way, A3 flows like a story describing the resolution of a problem. In fact, A3 sheets are often referred to as A3 storyboards.

**Title:** Describes the problem or issue being addressed.

Owner/Date: Identifies who owns the problem and the date of the latest A3 revision. Similar to a value stream map, the A3 sheet should be filled out in pencil. As analysis continues, there will be frequent iterations that should be dated each time.

**Background:** Establishes the history behind the issues and its context in the current business environment. This portion describes WHY the issue is being addressed.

**Current Conditions:** Describes what the problem is and what is currently known about the problem or issue. This can be

displayed using charts, maps or drawings.

**Goals:** Identifies the desired situation or the specific outcomes required. This can

be in the form of maps or charts, as well as descriptive text.

#### Analysis:

Contains the method used to define the root cause(s) of the problem. The appropriate prob-

lem analysis tool should be used and documented. Examples are 5 Why's or Cause and Effect diagrams.

Proposed Countermeasures: Defines the method(s) proposed to reach the desired situation. This should define how the countermeasures will affect the identified root causes. The word countermeasure is used as opposed to solution to imply the action taken is to counter a specific problem and that this measure will be used until a better countermeasure is found.

**Plan:** Defines the activities that will be needed for implementation of the countermeasures. Like any good plan this should contain completion dates and responsibilities.

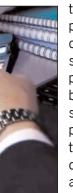
**Follow-up:** Defines how the organization will know that the new system is actually improving the situation. The follow-up plan indicates how and when the improvement of the system will be measured.

It is worth restating that, like value stream mapping, A3 is intended to be an iterative process. Changes to current conditions, analysis, and proposed countermeasures are likely to occur multiple times. The accuracy of the root cause analysis is critical to the success of the problem resolution. The gains in knowledge and understanding achieved when the A3 is reviewed, updated, debated and

refined are worth the additional effort and time as opposed to a rush to solution.

#### Benefits

There are instant gains for any organiza-



tion that incorporates the use of A3 problem solving into its practices. As a basic problem solving tool, it provides structure and a standardized approach. The A3 is an effec-

tive communication tool and improvement efforts are made visible. The process of creating the A3 sheet creates documented records of improvement efforts.

#### Conclusion

A3 can be a powerful tool for solving problems and continuous improvement. However, the process is not a simple or an easy one. Anyone using A3 must guard against simply filling in the box and moving onto the next issue. It is important that adequate time is spent to fully understand the current situation, define the problem, analyze the root cause and develop effective countermeasures. A3 is not intended to be used in isolation, but shared with members of a team. The greatest benefits will be realized when information is challenged, debated and more thoroughly understood. As is often the case, people will initially struggle with using the tool effectively. With continued practice, however, the method can evolve into a highly effective practice for any lean organization.

Philip Celotto is an Insyte consultant with over 24 years of manufacturing and engineering experience. Phil works with regional companies to implement lean manufacturing, improve productivity, and develop quality systems. •



## Leadership



# Cage the Monkey Conquer Worry and Fear by Russ Kamis

At Case Western during my undergraduate engineering program, one of my Zeta Beta Tau Fraternity brothers ran for house president. His name was Dean Fear. Great name, I know. Dean ran successfully under the platform that "There is nothing to fear but Fear himself." Of course, with a campaign like that he won. He was a good leader who continued the legacy that propelled our house to top academic standing.

The number one problem facing people today isn't money, jobs, the economy or relationships. It is fear and worry. Nothing has the potential to generate more value in your life than getting this monkey off your back and under your control.

So, what are you afraid of?

For thousands of years, fear provided an essential self-preservation mechanism. Driving the fight or flight response, fear saved lives. Today, the need for fear is minimal and worry has taken its place. The difference between the two is that fear is a temporary, real time emotion that drives a physical response whereas worry is a systemic anticipation about something that might happen in the future.

A big part of people's mental capacity is taken up by worry. We plan, look for and expect the worst. Yet, most of what we worry about never happens. Worse yet, worry consumes significant personal energy. Are you feeling drained? Although a rivulet of water may not have a noticeable impact on rock in the moment, over time it can cut right through it.

Worry is a behavior that with enough repetition can become habit. The way to fix any counter-productive habit is to become aware of it and then take steps to change it. So how do you wrestle control over the monkey on your back? Helpful steps include:

#### 1. Focus on the desired outcome.

Dwelling on any problem gives it energy and presence of mind often far beyond its worth. Starve your worry by feeding it less. Set aside 15 minutes per day and worry about anything and everything. Write it down and then put off all worries until the next designated time. Next spend an equal amount of time focusing on your desired outcome. Visualize the events, situations, and conditions you desire. Image them and reflect on how you will feel when you finally achieve your goal. It will take some time to paint this picture, spend the time needed; the payoff is worth it. Finally, if you worry outside allotted 15 minutes, be sure to compliment each worry with a visualization of what you want. Over time you will get increasingly comfortable with the risks and will naturally start to focus more on what you want to have happen-this is where the positive energy and real opportunity resides.

2. Make a decision. Worry breeds procrastination and avoidance that overtime increases worry's power and control. Worry is emotionally based and often irrational. It clouds good decision making and logical, cognitive analysis. Weigh the pros and cons. Consider the worst that can happen. Understand it isn't likely and assign it a probability. For example, one has only a 0.005% chance of dying in a plane crash and yet it is reportedly one of people's greatest fears. Compare your head decision with the one from your heart. Then, make a choice.

- 3. Do it. Worry is crippling. Take steps to achieve your goal. Do what you are most afraid of. As Ralph Waldo Emerson said "do the thing and you will have the power." Do that "thing" so you can shift from doubting and worrying to trying and learning. The power comes from the courage of doing, by experiencing, and realizing that it wasn't that bad after all. Be sure that you do "the thing" in a way that will generate the most value. Don't take so much risk that you might explode, risking ruin, but don't take so little risk that you don't grow. Instead find that uncomfortable balance where it is both hard and scary but justifiable. Give yourself the goal of taking one justifiable risk a quarter and you will grow tremendously over a lifetime.
- **4. Be Strong.** The Bible says "fear not" numerous times. It is a command, and it implies that fear is a choice and that you can overcome any fear. Resist fear and it will flee from you. Take a stand. Recognize that things work out and all is well. Franklin D. Roosevelt was right "There is nothing to fear but fear itself."

Go ahead, take the monkey off your back and get him under control. Use your fear to your advantage, like Dean

Cage the Monkey continued pn page 8

## Ripley Machine Case Study

"The work performed by

Insyte Consulting was not

only thorough and com-

prehensive, but it also

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tions to normal production

activities."

Quentin Bensink, President



Ripley Machine continued from page I

was inadequate to absorb this rate of business expansion. This situation was further exacerbated by the need to add 2-3 pieces of production equipment. Effective production flow and material handling were already difficult because of the cramped conditions within the facility. Bensink realized that a

facility expansion was an immediate necessity if Ripley Machine & Tool was to meet the current and future volume demands of the business.

#### Solution-Expand the facility quickly without disrupting current business

Insyte Consulting was engaged to assist in the facility expansion and to

ensure that the planned addition could be completed within six months.

The first step was to evaluate the product flow through specific work centers to identify opportunities to smooth the overall work flow throughout the shop. This analysis was based on both current and projected volumes for both machined castings and metal turnings. Relationship diagrams were developed between the work centers for the purpose of ultimately reducing move distances. Additionally, management wanted to segregate several small product offerings that took excessive floor space in the production area. This analysis helped in the evaluation and confirmation of the square footage expansion required to meet current and future production volumes. Results showed an additional 8,000 square feet was needed, which effectively doubled the production area.

Once the size of the expansion was established, the next step was to develop several high-level layout options. The options were reviewed with the joint team of company and Insyte Consulting participants. Upon

selection of the optimal layout alternative, a detailed layout was developed that included both the old and expanded areas of the building. This entire process was completed in several weeks allowing an immediate start to construction activities. Insyte Consulting subsequently supported project

management activities during construction by interfacing with architects, construction personnel, riggers, utility companies and other external resources involved in the project.

## Results - A solution in less than 6 months

Upon completion of the expansion, smoother

production flow was immediately realized because of the revised layout. This improved material handling activities, particularly when moving work-in-process and finished goods within the facility. Material travel distance was reduced by 34%. The expanded layout also greatly improved inventory control. By eliminating the aforementioned cramped conditions, Ripley Machine & Tool was able to acquire two vertical machining centers and two CNC horizontal lathes. It is estimated that production capacity has been increased by 15-20% as a result of the expansion. This will enable the company to aggressively pursue new business while maintaining or improving service and support to current accounts.

According to Quentin Bensink, "The work performed by Insyte Consulting was not only thorough and comprehensive, but it also enabled us to complete the project quickly and with virtually no disruptions to normal production activities." .\*

#### Firm Benefits

- Plant expansion completed in less than six months
- 15-20% estimated increased capacity
- 34% reduction in work & material travel distance
- Four pieces of new machinery acquired
- Improved inventory control
- Reduction in overtime costs



Scott Aldrigh drills castings on new vertical machining center at Ripley Machine.



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#### Cage the Monkey continued from page 6

Fear did, to drive needed change in your life. Take the next 30 days and focus on one new behavior until it becomes habit. You will grow more confident and less fearful. You'll become stronger, more successful and ultimately, you'll be happier.

Go ahead, grow to live.

Russ Kamis is the Founder and Principal of the Kamis Group, LLC. Russ specializes in helping Presidents, CEO's and their leadership teams create a winning atmosphere ideal for success. To learn more about Russ visit www.thekamisgroup.com or contact him at russ@thekamisgroup.com.

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Editor's Note: This is the second in a series of articles written by Russ Kamis that we are offering to our readers. Future articles will deal with achieving success both professionally and personally. This is a shift from our usual newsletter content and we are interested in your feedback. \*

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