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Continuous improvement is a simple philosophy but a difficult task, as Colin Browning found out when he talked to the top team at the Alinabal Group.

Manufacturing as a business is under pressure across all the countries of the industrialized world. High domestic labor costs and stiff competition, both locally and from the emerging economies, have combined to make the operating environment 'interesting' to say the least. This is not to say that there is not money to be made and success to be had, it just requires a little more hard work than it used to. One of those that enjoy this challenge is the Alinabal Group, based in Milford, Connecticut.

Alinabal, a diversified manufacturer of precision stampings and assemblies, spherical rod end bearings and linkages as well as specialty printers, can draw its lineage back to 1913 when it supplied laminated materials for the Henry Ford Model T. The automotive industry remains a major destination for Alinabal products but over the years the company has expanded its horizons to become a player in the aerospace, defense, industrial, recreational and medical sectors. Alinabal's CEO, Sam Bergami described the business as being: "A broadly diversified manufacturing group of companies. We may only have 325 staff but we are more like a mini conglomerate with three autonomous business units." 'Mini' may be the term chosen by Sam, but between them these units still generate revenues in excess of \$40 million a year.

In many respects, Alinabal occupies a unique position in the market in that it is capable of handling a huge variation in production run requirements. As Kevin Conlisk, the chief financial officer explained: "For example our precision stamping business parts catalog runs to tens of thousands of separate items, which are produced in any number of lot sizes. Our short run department is capable of making single items while our long run section has orders that can be of a magnitude of tens of millions. We have been in the low volume business since the very beginning and have been doing it for so long that we have become very good at it. The high volume side of the business evolved over time."

"When we are looking at such big numbers," added Conlisk, "we are getting into the parts management business. As well as investing in the necessary high speed tools to enable us to complete the actual tasks, we have put in place the sophisticated systems needed to service to the customer."

However simply being good, or indeed in the case of Alinabal, excellent at what you do today is no guarantee that the customer will be back tomorrow. Considering that Alinabal's customers include names

such as IBM, United Technologies, Harley Davidson, John Deere and Polaris Industries, as a company it needs to offer something beyond mere price competitiveness and it has chosen to focus on continuous improvement. The company logo even includes the phrase "Achieving Excellence – Worldwide" and the common aim of the entire workforce is to find ways of doing things better.

Alinabal has changed from a labor force to a brain force. Since Alinabal embarked on its unique TQM Process known as "ATIP" (Alinabal Total Improvement Process), the company has documented a dramatic increase in productivity and product quality as well as a decrease in employee turnover, absenteeism and workman's compensation claims.

The push for continuous improvement began in January of 1991 when a new team of managers took the helm at Alinabal. The question put forth by Management was "How do we make our employees care about quality and service?" They knew that the company's success would ultimately depend on the development of a comprehensive quality system – one that would be ongoing.

What is ATIP really all about? At the cornerstone of Alinabal's quality infrastructure is their quality policy: "To continuously improve our products, processes, and services in order to meet or exceed our customers' needs and expectations". ATIP is the vehicle by which all employees can apply their individual and collective efforts and resources to support the process of continuous improvement in every aspect of their business.

ATIP has many components. Heading it all is the ATIP Steering Committee, a diversified employee group that meets weekly and is chaired by the company president. This group basically forms quality improvement policy and maintains and active directional guidance for the overall process.

But does ATIP really work? The results of these efforts have been astonishing. Employees have not only become actively involved, but they have put heart and soul into a mission that they have come to own. There has been an increased involvement in customer satisfaction efforts. A few of the accomplishments brought forth through ATIP:

- The creation of FASTs – Future Assurance Strategy Teams and QITs – Quality Improvement Teams. Team members are trained in problem solving and presentation. Teams are cross functional and solve problems within a business unit or between business units.
- Alinabal has become a member of the Connecticut Quality Council
- Through a production procedural and tool modification, a die changeover that took two hours to accomplish now takes a mere minute.
- Current on time shipping performance is 98%.
- Employees are being recognized for their roles through the "Gold Leaf" & "Tree of Involvement" awards, and the company's internal newsletter "Alinagram".
- A major company-wide meeting, formerly called "Challenge 2000" and recently renamed "Challenge CI – Continuous Improvement" has been established once per year in addition to regularly monthly scheduled round table meetings. At Challenge – CI, production is shut down so all can attend.
- Seminars and educational opportunities for professional development are being provided to all employees.
- The Alinabal Activity Club for Employees (AACE) was formed.
- Use of SPC and Process Capability studies were introduced.
- "5 S" was initiated – a program adapted from the model created by United Technologies. The program helps insure a clean, organized and safe workplace.
- Supplier conferences have been hosted and supplier-rating systems have been implemented.

And this is only the beginning.

The most important thing is that ATIP is ongoing. Recommendations are continually brought forth and acted upon. The ideas from production workers and from supervisors are all taken with equal weight. Employees feel appreciated and involved, and in return are offering more loyalty.

"Our entire focus is on excellence," said Sam as he backed up the company's public proclamation. "In 1991 we started on this continuous improvement 'journey', fully aware that it was one that would never end. The biggest challenge has not been in examining our processes, but at a fundamental level changing the culture of the business. It is not something that you can leave to take care of itself, it needs to be driven from the top.

Part of the process of building a culture is in establishing firm and mutually beneficial relationships. While the need to do this with one's customers and suppliers is obvious the internal element is often overlooked. This is not so at Alinabal which has taken very specific steps to bring the workforce along with the vision. "We have a rolling investment program," continued Sam. "While much of this is taken up by the continual updating of our information technologies capabilities, automating our process is also always on the agenda. We are constantly searching for new automation and process improvements to reduce costs. And here is the rub, how can you bring the employees with you when you aim to mechanize as far as possible?

"What we have done," Corporate Vice President Bruce Bickley pointed out, "is to open channels of communication with our employees. They have seen that while we have very few contract staff, we have not had any permanent layoffs for at least 10 years. People understand that with change and growth comes not only security for the company, but also job security. We share our plans with the staff and they share in our strength."

The true adoption of continuous improvement, rather than just paying lip service to the concept, has had a concrete impact at Alinabal. The longer it works with a particular customer, the closer the relationship becomes until it becomes one of a partnership. Alinabal is able to negotiate long-term, exclusive supplier contracts based on the strength that costs will be lower over the life of the relationship. This is all being accomplished while investing in their information technology systems such as; EDI, electronic invoicing, bar coding, web enabled forecast/order processing. This enables Alinabal to have access to real time customer data to permit accurate production planning, all of which is now of the reduced inventory just in time variety.

While the North American market might be softening at the current time, Alinabal expects its revenues to be up by around five per cent over the next 12 months. Some of its established customers are certainly holding back on placing orders but this has been compensated for by the capture of a larger slice of the total market. "Constantly examining the way you do things," concluded Sam, "can at times be tedious and is always hard work, but ultimately rewarding. Reaching the necessary standards to receive the quality certifications of ISO9001 & ISO9002, QS9000 and AS9000 shows just what can be achieved. All we have to do is start each day with the question, 'how can we be better today at what we do?'"