

# The Gemstone

Newsletter

December 2005



Dave Harry – President  
The Gem City Engineering Co.

“Of course I take it personally. We continue to hone our lean model of the Lean Enterprise. We aggressively pursue those opportunities where our skills and experience will allow us to be successful and simultaneously enable our customers' success. We approach every job, with every customer, as if our future depends on it . . . because it does.” *David Harry, President, The Gem City Engineering Company*

## The Customer In The Lean Enterprise

### Customer Focus

An ideal Lean Enterprise begins the “day” with all needed assets in place on the manufacturing floor when the buzzer sounds; inventory arrives at each station exactly when it is needed. As the day progresses, all inventory is used; all assets, including employees, are focused 100% on their tasks. At the end of the day there is no work in process and all finished goods have been shipped.

In a practical Lean Enterprise there is a virtual “day” where the proposals, orders, design, production and shipping are continuous. Stages of process and production from quoting through design and purchasing, managing inventory and assets, minimizing work in process, and meeting commitments are handled simultaneously.

In this practical Lean Enterprise, the customer plays important roles in all phases. It is the customers' specifications that dictate proposal content and design parameters. It is the customers' schedules that drive inventory acquisition and production. It is the customers' production needs that mandate shipments. It is the successful mix of all these elements that defines the lean model . . . that defines The Gem City Engineering Co.

### Lean From The Start

Our estimating and applications groups strive to provide our customers with the right response to their request for quote – pricing and delivery that allow us to design, purchase, manufacture, assemble, test, and ship the machines or components requested, while meeting their scheduling needs. Our guiding principals are to be smart, creative, and flexible with the work we quote. Customers frequently state that the proposals they receive are clear, concise, and accurate; a reflection of our queries and clarifications to get it right the first time.

### Lean By Design

When proposals turn into orders, they enter manufacturing as either build-to-print projects, contract manufacturing long-run programs, or dedicated design-and-build special machines.

The voice of the customer again is the driving force as design teams are assigned that best fit the technologies involved. Our internal design specification is derived to organize the customer's requirements. Form, fit, and function analysis is married to manufacturability, and engineering works with purchasing to ensure components will be available

when they are needed by manufacturing. In addition to our own lean initiatives, our machines must often satisfy the customer's lean initiatives. Our experience in meeting these requirements helps to make GCE uniquely qualified to satisfy the need for full-featured systems while minimizing design costs. For example, on an assembly station, we will incorporate as many error-proofing features as possible to insure proper part orientation and location while maintaining proper ergonomic practices and ease of assembly.

### Lean For Flexibility

A benchmark of the lean enterprise is tight pricing capabilities based on a skilled workforce that can be re-assigned from job-to-job or even day-to-day. Physical assets, such as machinery and manufacturing space, must be equally flexible and be modified with no, or little, disruption to material flow. We can take interruptions to plans in stride: holidays, vacations, illness, shortages, or machinery malfunctions; we plan for adversity and the benefits accrue to the customer.

In the build-to-print or contract manufacturing programs, GCE excels in the aspects of our lean model that are clearly important: customer shifts in delivery dates and forecasts can be handled. By assigning assets based on need, the customer sees a true cost.

Cross training enables GCE employees to fill-in as needed / where needed. These skills allow them to

move to new projects without extensive orientation or specialized training. In like manner, our mindset is one of total flexibility for space utility; configurations

in the shop, or offices, reflect current best use. Machinery cells are grouped to minimize handling and new machines must meet high expectations for flexibility, too. Lean has developed into a habit at Gem City.

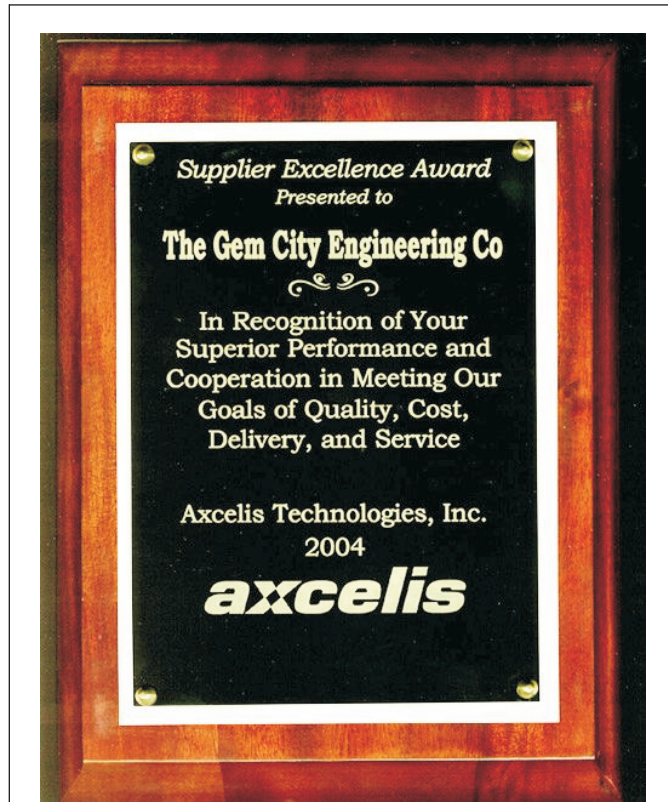
### Lean For The Customer

We work to a forecast. While this is not the only performance metric we use to measure ourselves, it is the measure that our customers see. Internally, this metric tells us on a continuous basis whether we have assigned the right assets to our lean model to be successful and competitive. And it shows, at-a-glance, how well we are taking care of our commitments to our customers.

A measure of our skills at being a Lean Enterprise is how well we put our capabilities into play for the customer. No matter how much we tout our internal lean practices, the customer is generally most interested in the statement of our Quality Policy, "**GCE will delight our customers by providing great products at a fair price on time.**"

That pretty much defines our commitment to our

customers and our passion for the business we're in.



### Supplier Excellence Award

The Gem City Engineering Co. (Gem City) earned the 2004 Axcelis Supplier Excellence Award. This award, based on Quality, Cost, Delivery, and Service was achieved by only seven companies, representing 1% of Axcelis Technology suppliers.

Gem City was the only contract manufacturer to receive the award. It is a great compliment on the diligence of the Gem City Purchasing, Project Management, and Production teams for the outstanding work they did in 2004. Based on this award, plus the dedicated performance of our Estimating group, GCE earned an extension to our existing supplier contract and garnered a new contract for special builds.

The plaque, which was presented along with the award, hangs in the main lobby at Gem City.