



Bendon Gear & Machine, Inc.: **ROI on Lean Training Measured at 133 to 1!** *A GBMP Client Case Study*

Bendon Gear and Machine produces precision machined components, custom precision gears, mechanical assemblies, gear assemblies, pulleys and sprockets. Since the current owners took over in 1966, the company has grown considerably, to about 35 employees today, and has moved three times to arrive at its current location in Rockland, MA.

Bendon prides itself on providing excellent quality and service to customers and has attained both ISO9000 and AS9100 certifications. Customers such as the U.S. government and large aerospace and industrial companies have surveyed and approved Bendon's processes and they are a certified supplier in several customer J.I.T. and Kanban programs. The Rockland plant is home to 15 CNC lathes, 14 CNC machining centers, a CNC hobber, and 14 precision gear-cutting machines. The majority of the machining centers are palletized for flexibility and quick turn production work.

In 2009 Bendon received a training grant from the Massachusetts Workforce Training Fund program and engaged GBMP as their partner for lean training. GBMP Continuous Improvement Manager Ron Pujalte (a Lean Silver Certified Master Black Belt) provided Bendon's lean training and coaching for the duration of the grant. Training activities ranged from introduction to lean manufacturing to practice in set-up reduction and related methods.

Companies applying for a grant from the workforce training fund are asked to project a return on investment (ROI) from the planned training. At the time they submitted their application, Bendon projected a 106 to 1 return on requested funds. At the end of the grant Bendon calculated an **actual ROI of 133 to 1** from the training! They pointed to the following improvement in their business as contributing to the outstanding training ROI:

- Reduced Inventory
- Reduced Set-up Times
- Increased Revenue
- Improved Productivity
- Increased Competitiveness
- Added 6 Positions to support growth

“The opportunities to make these types of gains exist in most machining businesses if only you are willing to learn to see them and commit to acting on them,” said GBMP’s Ron Pujalte. “For example, one of our first videos of a changeover on a lathe showed the employee walked ½ mile in the course of the 2.5 hour changeover. A set-up improvement team made up of operators and support personnel created a set up cart and re-thought the entire changeover process, among other things. The result was that a 150-minute changeover dropped to 60-minutes; 2601 feet of walking was reduced to 495 feet; and the activities that had to be done while the machine was stopped went from 27 to 13. Together these changes mean more capacity, greater flexibility to meet customer needs and a lot less stress and strain on the workers.”

“This kind of an ROI seems incredible when you first look at it,” says Bendon’s President, Peter Belezos. “However, when you start picking up hours of capacity across the plant, and make significant reductions in inventory dollars and win new orders as a result of engaging the work force in improvement efforts, the returns add up pretty fast. We have been able to promote people and add positions as a result of our training efforts and that is a pretty good feeling as well. Our lean training activities have been a real win-win for Bendon: good for our customers and our employees!”

For more information about Bendon Gear & Machine, please visit <http://www.bendongear.com>

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