



“Lights Out” Manufacturing:

Cutting Edge Automation Enables
Round-the-Clock Production

Did You Know?



In the last two years, Atlas Copco was recognized by Forbes, Thomson-Reuters and Newsweek, among others, for our commitment to innovation and sustainability.

By its second generation, a family-owned business accumulates a fair amount of history. For East Granby, Connecticut-based CBS Manufacturing Company, the family tradition of precision manufacturing extends back over a century, long before the company was founded.

Vice President Steve Lawton explains. “My great grandfather owned A.P. Feightner, a tool and die shop in St. Louis, Missouri, that employed 300 people. That was back around the year 1900.” Among the capabilities promoted in the company’s literature were *Experimental Work* and *Special Machinery*.

The family tradition of precision manufacturing carries on at CBS Manufacturing, supported by some of today’s most advanced technologies. Bob Lawton, Vice President and another of the three brothers leading CBS Manufacturing, is a machinist and toolmaker by trade. He started running a machine when he was 13, working for his father (and company founder) Jim Lawton. More recently, Bob Lawton worked on the company’s relocation to a larger facility.

“In 2008, we moved from a 15,000 square foot facility to one with 40,000 square feet,” he says. “Our plans were to rapidly grow our business by adding new customers, new machinery and new people. Then the economy softened and we hit the brakes for a couple years. By the fall of 2010 we started seeing a decided uptick in orders and now our people are working 60 hours a week. We plan to add machines and staff, although it’s proving a challenge to find skilled machinists. Regardless, we’re definitely in a growth cycle right now.”

Cliff Lawton, eldest of the Lawton brothers and President of CBS Manufacturing, has a theory about why business has taken off. “It’s demand for new aircraft,” he believes. “People are flying again.” Planes in the sky create demand for products of the type CBS manufactures. As a contract machining specialist serving mostly aerospace customers, CBS produces precision components to OEM specifications.

“Our production runs vary from 10 pieces to 10,000, but generally in the range of 50 to 400 pieces,” says Bob Lawton. “We’re making a lot of parts for fuel control assemblies and environmental control assemblies, so recently we bought three new machines. One is a CNC horizontal mill with a 10-pallet pool that lets us do off-line programming of one job while the machine is working on another job. With everything properly set up, we can run machining operations 24 hours a day, including unmanned ‘lights out’ machining overnight.”

CBS Manufacturing is in the process of acquiring more machines with this kind of capability. “We have a six-axis lathe with live



tooling, seven CNC lathes and plans to acquire more,” Bob Lawton says. “We prefer to purchase high end machines because we rely so much on our equipment. It just has to work.”

That preference for quality and reliability led CBS Manufacturing to Atlas Copco. For its new facility, CBS Manufacturing selected an Atlas Copco GA30VSDFF, a 40 horsepower variable speed drive rotary screw compressor. This unit comes from the WorkPlace range of compressors and includes the compressor, air filter and air dryer, all integrated into one compact cabinet.

“This compressor is so quiet we didn’t have to build a special room for it in our new facility,” says Bob Lawton. “It sits out on the shop floor. It takes a lot less maintenance than the old compressor and it uses less energy.”

Steve Lawton explains that the investment in new compressed air technology offers CBS Manufacturing a number of key benefits. “New technology was available that would improve productivity and cut operating expenses, so it was not a hard decision to make. An energy efficiency rebate from Connecticut Light and Power saved us about 40% on the VSD compressor. We also installed new, more energy efficient machinery and lighting.”

Additional projects to save energy are in the works. One is a simple vent system to reclaim heat generated by the compressor, a natural byproduct that occurs whenever any gas is compressed. The planned system will distribute the reclaimed heat inside the building in cold weather to reduce heating costs, and vent it out of the building during warm weather to reduce cooling costs. “About 80% of the electricity consumed by an air compressor is converted to heat,” explains Will Deluca, Regional Sales Manager with Atlas Copco Compressors LLC in the East Region.



“Capturing and reusing that heat is worthwhile.”

Since the building’s interior was gutted and rebuilt to suit, a new AIRnet modular air distribution system was installed. “This is one of the biggest AIRnet jobs we’ve sold in the Northeast,” Deluca explains. “We fitted the entire building. The aesthetics of the AIRnet piping was a big draw for CBS Manufacturing. It looks clean and high tech, really eye catching, and it makes a great impression when they take customers on a tour of the facility. The blue piping even coordinates with the interior design of the production areas.”

Bob Lawton agrees that AIRnet has found a great application at CBS Manufacturing. “We like the way it looks and adding a new air drop takes about one third of the time as before, sometimes less. Now when we put in a new machine, we can run air to it very easily. We no longer need the pipe vise or the threader. Those will be eBay items.”

CBS Manufacturing has a longstanding relationship with Atlas Copco. “This is the kind of manufacturing environment that cannot run without compressed air, and they trust Atlas Copco to get it done,” says Deluca. “They have entrusted us in sizing equipment to accurately meet their needs. We installed the compressor and the original AIRnet system. We provide service at scheduled intervals.”

Jim Lawton founded CBS Manufacturing in 1972. His sons Cliff, Bob and Steve (hence “CBS”) were boys at the time. Bob started working on a machine at age 13, and his brothers were also involved in many aspects of the business. Jim has retired from day-to-day operations, but he maintains an office at the facility. It’s his way to ensure that his sons – three brothers who are successful businessmen as well as competitive siblings – keep the business he started on track and growing.

Steve Lawton points out that a variable speed drive compressor helps the company’s bottom line because the production of air varies automatically according to the kinds of products they are making. “All of our products are precision machined components manufactured to OEM specifications. Sometimes we make a few, sometimes a few thousand, so we need flexibility with our machinery.”

Deluca says that Atlas Copco provides just that kind of flexibility. “When CBS Manufacturing runs jobs unmanned overnight, air demand varies considerably. Variable speed drive technology is a perfect complement to lights out manufacturing. The compressor creates air as needed, speeding up and slowing down according to demand and setting itself on standby when demand drops off. No one has to be there to monitor the compressor, it adjusts to demand automatically.”

Since 1972, CBS Manufacturing Company has provided the highest quality precision machining and assembly services to customers in the aircraft and aerospace industries, as well as many others. The company has expertise working with all metals, plastics, exotic materials, castings and composites, in short and long production runs.

CBS Manufacturing is a family-owned business whose owners and employees are always mindful that a reputation is earned over time through consistency in superior service and attention to detail. Learn more:

www.cbsmfg.com