



## **Arwood Machine Corp. Newburyport, MA**



### **The Challenge**

B2Q Associates, Inc. was retained by National Grid to identify retro-commissioning opportunities at this high-tech tool manufacturing and machining plant. Built in 1998 this 81,000 square foot facility contained over 80 precision tool manufacturing machines requiring precise temperature control demanded by production of components used in semi-conductors, medical tools, and flight controls. The goal was to identify both low cost/no cost opportunities and capital energy efficiency measures with a 10 year or less payback while maintaining precise round the clock facility conditions vital to the company's precision manufacturing operations.

### **The Opportunity**

B2Q conducted an engineering and cost benefit analysis identifying a range of efficiency measures that included employee education, desk-top computer power management, vending machine controls, night set back in office areas, and turning off machine tool lubrication and oil cooling when not in use. Capital measures included programmable thermostats for office areas, demand control ventilation to reduce unnecessary conditioning of outside air, automated air compressor heat recovery to avoid simultaneous heating and cooling, and installation of "quick-speed" loading dock doors to minimize loss of conditioned air, among others.

### **The Result**

B2Q identified annual energy efficiency savings of over 14 percent and when combined with utility incentives resulted in a net investment of \$75,000 yielding a simple payback of 2.5 years.