

**New York State  
Environmental Investment Program  
Capital Project Summary**

**Thomas and Betts Corporation**

**Project Background**

Thomas and Betts Corporation (TNB) is located in Horseheads, New York. The facility began as the Commercial Screw-Machine Company in 1948. Screw machine products have been manufactured at the facility under various owners continually since then. TNB, a worldwide manufacturer headquartered in Memphis, TN, acquired the facility in 1996. In 1998, TNB added 176,000 sq. ft. to it, bringing the total square footage to 276,000. The Horseheads facility employs over 180 automatic screw and computer numeric control (CNC) machines to produce cable television, electrical and other connectors from brass, steel, and aluminum. Once machined, the components are cleaned, then electroplated in one of five open surface plating lines. Plated components are assembled on automatic assembly machines, packaged and shipped to customers. The largest volume of components manufactured at this facility was plated on the cadmium electroplating line. Cadmium is a hazardous material. To be used in electroplating, cadmium must first be dissolved in sodium cyanide, also a hazardous material. The company used sodium hypochlorite (a hazardous material) to destroy any sodium cyanide that made it into the company's waste water. Finally, once parts were plated in the cadmium system, they were submerged in a chromate solution (hazardous) to add a protective coating.

**Project Description**

Through this project, TNB completely removed the cadmium plating system and replaced it with a nickel

tin alloy plating system. The company made this investment primarily to eliminate cadmium from their products. Cadmium is banned in the European Union and California, with others soon to follow. In order to maintain market share for their products worldwide, TNB had to eliminate this material from them. The company was also motivated to reduce the amount of hazardous materials used in and hazardous waste produced from their operations.

**Project Results**

The project was very successful. The new system was installed on time with few complications. The nickel tin electroplating process is more efficient than the cadmium electroplating process and has freed up production inputs that the company now uses for additional production. In addition, the nickel tin plating process generates a superior product to the cadmium process. Substitution of the nickel tin system for the cadmium system has made the entire facility less toxic. As a result of the project, TNB eliminated the purchase of 178 tons per year of hazardous materials, eliminated disposal of 78 tons per year of hazardous wastewater and sludge, saved over \$357,149 in efficiency improvements, avoided purchase and avoided disposal costs and retained \$1.5 million in annual sales to the European Union. Because of TNB's success with eliminating cadmium via this project, in 2007, TNB was inducted into EPA's National Partnership for Environmental Priorities.

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<b>Contractor:</b>	Chemung County Economic Development, Inc.	<b>NYS EIP Investment:</b>	\$163,892
<b>County:</b>	Chemung	<b>Contractor Match:</b>	\$309,574
<b>ESD Region:</b>	Southern Tier	<b>Total:</b>	\$473,466
<b>ESD Contact:</b>	518/292-5340	<b>Completion Date:</b>	December, 2005