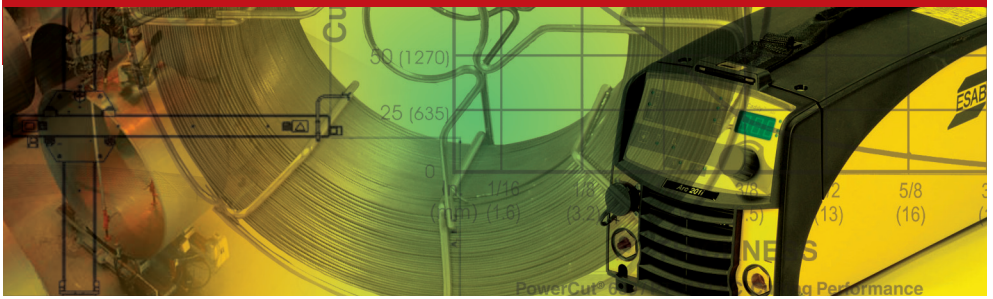

In the early 1900s this company revolutionized the welding process, leading to stronger ships, steel structures, and many years later, wind towers. Their innovations continue.

IN 1904 A SWEDISH ENGINEER by the name of Oscar Kjellberg produced a coated electrode that substantially improved the quality of weld metal. This game-changing development was the foundation of Elektriska Svetsnings-Aktiebolaget, now known as ESAB, one of the world's largest producers of welding consumables and equipment.

"This was just about as revolutionary as you can get," according to Richard Hadley, president of ESAB Group Canada, Inc., and general manager of ESAB Welding Automation North America. "Just think of the difference it made in building ships and other steel structures, which had relied heavily on riveting in the past."

Not only was Kjellberg an extraordinary inventor, he was quite an astute businessman as well, licensing this newly-developed technology to companies around the world—many of which it eventually acquired. Such was the case in the United States, where ESAB's purchase and consolidation of companies such as Alloy Rods and L-Tec to the establishment of its offices there in the late eighties. As a European-based company, however, its entry into the wind-energy market came much earlier.

"During the oil embargo of the mid-seventies, many European countries realized they simply had to decrease their reliance on oil, so that was really the genesis of wind generation there," Hadley says. "The first turbines were supported by metal-lattice structures, but as they grew heavier the industry moved to tubular towers, and that's our specialty. So as the wind industry grew, our tower-building technology grew along with it, and we've also been able to serve as a conduit in carrying that information from Europe to North America."

One longstanding relationship that provides an example of how ESAB collaborates successfully with its customers involves Denmark-based Vestas, the world's leading supplier of windpower solutions. "In the past we've worked closely with Vestas to develop special filler metals to withstand cold temperature service as well as special multiwire high-deposition welding machinery and delivery systems," he says. "More recently we've been heavily involved in the Vestas wind-tower manufacturing facility now being completed in Colorado, which will be the largest in the world. We've been working to meet their requirements nearly since the beginning of this project, and we currently have up to 30 ESAB employees working there to complete the installation and assist with startup."

Perhaps the most astounding piece of equipment developed for this facility is a column and boom that extends the welding head up to 12.5 meters, allowing the head to reach multiple weld seams, and thus increasing efficiency. On a conventional machine the one piece boom extends its full length out the back of the machine during retraction, consuming precious floor space. Working with Vestas, ESAB developed a telescopic boom that retracts into itself without reaching back into the space behind the machine base. "This is a product that didn't exist previously, but they trusted us enough to place the order, and we delivered," Hadley says. "It's probably the largest apparatus of its kind in the world, and I believe it will be a resounding success."

In addition to providing its expertise on cutting-edge projects such as this, ESAB also helps existing facilities to operate more efficiently, suggesting advanced welding processes, handling systems, and many other means of streamlining productivity in an increasingly competitive market. "Everybody wants to be faster and stronger, leaner and meaner, but how you achieve that is different for every company," Hadley says. "We're here to take that into consideration, and to tailor a solution to meet our customer's individual needs."–*R. W.*

To learn more call (800) ESAB-123 (372-2123) or go to www.esabna.com.