Teamwork Lifts MECO as Recovery Continues

MECO's new facility before production.

Randy Gonzalez and the production crew at the new MECO facility.

Click HERE to view the first Installment

Second installment of MECO's rise following Hurricane Katrina

(NEW ORLEANS, LOUISIANA) -- Mechanical Equipment Company (MECO) had been manufacturing high-technology water-purification systems in New Orleans for over 60 years. Desalination units for the military and energy companies, along with super-clean water purifiers for pharmaceutical manufacturing, among other products, were built in MECO's sprawling factory by one of the city's canals. The 20- to 30-foot-high storm surge that accompanied Hurricane Katrina in August 2005 blew out the factory walls, submerged machinery, and all work-in-progress. Millions in inventory and all of MECO's manufacturing capacity was a total loss.

Thankfully, MECO was able to quickly lease an engineering, service, test, and assembly facility in Sugarland, Texas, while the headquarters remained on high ground in downtown New Orleans. With no internal manufacturing, the company attempted to contract out its machining and fabrication needs. But Randy Gonzales, foreman of the ruined fabricating and machining plant, quickly found that contracting shops along the coast were already filled with work from the booming energy, medical equipment, aerospace, and other industries. Long deliveries, high costs, and shoddy quality also marked the results.

Through a bit of good fortune, George Gsell, MECO's president, learned of a foreclosed complex of four factories for lease north of Lake Ponchartrian in Goodbee, Louisiana. Though the buildings were long empty and in need of repairs, he swiftly decided that MECO's manufacturing would rebuild here with the help of dedicated employees and vendors, including Mazak Corporation. Gonzales and his associates fought shortages of materials, power, transportation, and more to turn this disarray into a manufacturing complex. Today, MECO is proud of their progress and is moving toward their next step in business growth.

Our first coverage of MECO occurred early in 2006. Today, MECO Machining & Fabrication Co., as the manufacturing unit has come to be called, shows a startling level of activity compared with the skeleton crew we saw in late February. More people, more energy, and more production fill the four-building complex.

One of the buildings bordering the front of the property is now a high-quality weld shop plus a warehouse for the myriad of purchased components and fittings for the various water-purification systems MECO manufactures. On-site inventory has greatly reduced MECO's scheduling and logistics problems. The fab shop, directly behind the administration building, is populated with new plasma cutting CNC machines that cut shapes from exotic materials

A compressor is checked prior to final assembly.

Two Mazak Nexus machines help support MECO's production requirements.

to feed the weld shop.

A third building looks brand new, but on closer inspection was a shed earlier deemed unusable. While the structure proved sound, building panels were either banged-up or missing. MECO had the supporting frame expanded and a new skin installed to create a large area for assembly, testing and cycling of finished products.

The fourth large factory is located toward the rear of the property where all of the critical, high-precision machining takes place. Compressors, turbine wheels, tube sheets, custom fittings, caps, and structural parts are all machined here to exacting tolerances. Lot sizes range from a few pieces to approximately 100. Materials cut include stainless steels, Inconel, copper alloys, aluminum, and even machinable PVC.

Critical goals

During this short seven-month period, MECO's main goals were to restore in-house machining capacity to pre-Katrina levels and regain control over quality and deliveries. They are well on the way, with the help of dedicated employees and support of Mazak Corporation and its local distributor, Dixie Mill Machine Tools in New Orleans. A total of six Mazak machines were installed under the terms of an agreement that offered priority delivery, installation, startup, and special financing terms. Four of the machines are new Mazak Nexus models, two CNC turning centers and two vertical machining centers, one with an automatic two-pallet changer. Two more are Mazak M5 large-capacity turning centers with the current-generation Mazatrol CNC.

Using the same control on all of their key production Mazak machines allows manager Randy Gonzales to efficiently cross-train his operators and expand their skill levels. The Mazatrol CNC was the first to use conversational programming, which allows CNC programming on a question-and-answer basis on the machine while making parts. Randy has also taken advantage of Mazak's Regional Technology Center in Houston for hands-on advanced programming training of key personnel.

To ramp up production as quickly as possible, MECO's machinists work six days a week in two 10-hour shifts. And yes, Sunday work is also needed at times to program new parts and catch up with critical items not produced during the workweek. Randy and members of his crew are grateful for the heavy workload to help keep their minds from the personal and family issues that still weigh on many of them as they continue to rebuild their lives following Katrina.

In July, a MECO team consisting of George Gsell, President, Reano Siragusa, Executive V.P., Randy Gonzales, Mike Heck, Facilities Manager, and Eathan Necase, CNC programmer visited Mazak's headquarters and manufacturing facility in Florence, Kentucky for a strategy meeting. New multi-tasking technologies for the future were discussed, but once the team toured Mazak's production floor, where their machines were made, the conversation quickly turned to how Mazak's lean manufacturing philosophy, Production-On-Demand, could benefit MECO. They explored Mazak's flexible automation, Done-in-One multi-tasking production equipment, production scheduling, information systems, pull-through manufacturing and more, leaving with enthusiasm and ideas to share with the rest of the team back home.

In the rush to clear their huge backlog, there hasn't been time to re-process parts as MECO would like. But even with few process improvements, today's Mazak machines have lowered cycle times about 50%. And based on the visit to Mazak, Randy made a clear connection how technologies such as gang fixturing, auto-loading, and pallet-changing further contribute to cost reduction. These will decrease cycles another 50% and afford the opportunity for unattended machining during evenings and weekends for the first time.

MECO's comeback is an example of hard work by employees and partnerships with key suppliers who care. But

Mazatrol programming speeds production on the Quick Turn 300.

An index table on the Vertical Center Nexus 510-C allows part setup while the machine is running.

Assembling a water-purification unit.

none of this would have been possible without a third partner, MECO's customers. In the pharmaceutical industry, projects were voluntarily delayed until MECO could deliver their equipment. No other would do. Word is circulating that MECO is back, bringing new projects to light. The Army recently re-certified MECO's Lightweight Water Purification system for desalination of water for U.S. troops, saying they will take all the units MECO can produce. And, there will be opportunities for future contracts.

Randy Gonzales and MECO management understand the necessity of keeping abreast of new machining technologies and selected automation. Not only do they help control costs, they will enrich the careers of faithful employees through providing new challenges and new opportunities to succeed.

Like many manufacturing companies, MECO is having difficulty recruiting skilled machinists, partly because they are new to the area. Some people wonder if they will be around for a long time. All they have to do is ask Randy Gonzales. He is looking for a home in the area and finally shedding his FEMA trailer in New Orleans. He knows MECO is in the area to stay.

This is the second installment of a series dedicated to MECO's comeback. Please refer to our case history archives for installment #1. We will continue to follow the company and its people as they implement high-technology operations and work to fulfill their destiny after Hurricane Katrina.

To learn more about MECO, visit their website, www.meco.com.