

Success story: Maximizing ROI at Grupo México's SX-EW plant

Outotec's leading-edge SX-EW technology is helping to maximize return on investment at the world's largest SX facility, Grupo México's ESDE III copper SX-EW (solvent extraction-electrowinning) plant in Buenavista, Mexico.

Grupo México's Buenavista plant is located close to the town of Cananea in northern Mexico. Prior to the ESDE III project, the Buenavista plant had two SX-EW plants, ESDE I and ESDE II, with a total annual copper cathode production capacity of 55,000 tons. In early 2012 the company decided to expand the plant's capacity to produce copper cathodes via a leaching-SX-EW process. In April 2012 Grupo México signed a contract with Outotec for delivery of a copper SX-EW technology package for the ESDE III plant, with an annual copper cathode production capacity of 120,000 tons.

Having previously manufactured similar SX-EW equipment for other Grupo Mexico projects in the region, Outotec was the natural choice to supply the technology. Furthermore, Outotec's solutions had proven to be capable of coping with the challenging process conditions at Buenavista during the testing phase.

"Due to the metal content of the PLS, it was important to select technology that would allow us to minimize the mechanical and chemical entrainment of the PLS in the organic phase, in order to keep control of the electrolyte quality," says Ramon Bustamante, ESDE III project manager, Grupo México. "With Outotec's VSF SX technology, Buenavista has achieved good control over entrainment at the ESDE III plant, leading to good copper cathode chemical characteristics and appearance."

Seamless cooperation between the project partners ensured fast implementation and start-up, with the plant coming online in June 2014, just over two years after the contract was signed.

Achieved benefits

- Maximized ROI resulting from low CAPEX and OPEX, and high plant availability
- Optimized plant ergonomics for safe, comfortable working conditions
- Short project lead time with equipment readily available
- Sustainable environmental performance