

CST VULCAN COMPLETES POTABLE WATER STORAGE TANKS IN RECORD TIME

TANKS USED IN DESALINATION PLANT UPGRADE WILL HELP CATALONIA ENSURE AGAINST DROUGHT FOR YEARS TO COME

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A sparkling jewel on the Mediterranean Sea, the Barcelona metropolitan area is home to more than 4 million people and the capital of the Catalonia region in northeast Spain. The city is famous for its spectacular architecture and unique style and culture, but importantly it also is a vital port city on the Mediterranean coast and the sixth largest city in the European Union.

In 2008 the Catalan Regional Government's Water Agency (Agencia Catalana de l'Aigua) announced a significant commitment to increase its water supply through the upgrade of SWRO desalination water treatment facilities near Barcelona. Because of its coastal location, desalination of seawater is the region's insurance against drought. As part of the water plant upgrades, the Agency committed to demonstrating leading edge desalination techniques and processes as well as reducing energy costs.

The upgrade of the Tordera seawater reverse osmosis desalination plant near Barcelona in Blanes (Girona) was awarded to UTE Ampliacion ITAM delta de la Tordera, a consortium comprising Acciona Agua, Aqualia Infraestructuras and FCC Construcción.

The challenge presented at the plant's commissioning in late 2008 was a tight project timeframe, with completion scheduled within an 18 month period. The plant expansion would increase output to 20 Hm³/year, which would enable it to supply drinking water to more than 500,000 people. The existing well-water intake system was replaced with an open intake system directly from the sea.



The challenge of upgrading and nearly doubling the facility's potable water storage capacity within a rigorous timeframe was awarded to CST Vulcan, a division of CST Industries, Inc. Two 10,000m³ CST Tecstore™ tanks were selected to meet the increased storage need. The sectional bolted field-erected Tecstore tanks were 36.6m dia x 10m tall. Both tanks were coated with a high-integrity factory-applied Kuo-Lon® modified powder based epoxy coating and equipped with Aquadome® clear span aluminum geodesic domed roofs.

The CST Vulcan team worked diligently within the demanding project schedule, receiving design approval in May 2009 for the two potable water storage tanks. Manufacturing at the company's Kansas, U.S.A. facility was completed less than six weeks later, and the bolted tank components arrived on site in Spain within a further three weeks.

Construction of the tanks and domes was carried out immediately using a specialised jacking system,

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allowing the tanks to be built from the ground up, ensuring a good quality of build and fast erection at the same time as ensuring a safe building site. Construction was completed in August 2009, in under 16 weeks total, allowing the overall project to continue on time and as planned. When finished, the facility will supply drinking water to numerous municipalities in Maresme Norte and Costa Brava, leading the world in desalination technology and lessening the threat of water restrictions in the important Mediterranean port city for years to come.

CST Industries specialises in the design, supply and erection of pre-engineered storage tanks and roofs. More than 250,000 tanks have been installed in a wide variety of applications in 125 countries around the world. CST Industries consists of five operating divisions – Columbian TecTank, Aquastore, CST Vulcan, Conservatek Industries and Temcor, Inc.

For further information or to discuss your upcoming storage project requirements, please visit www.tanks.com or contact CST Vulcan at info@cstvulcan.com



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