



BOSTON SAND AND GRAVEL CO. CASE STUDY

WATER & ENERGY SOLUTIONS

redefining efficiency since 1969

Since 1914, Boston Sand & Gravel Company has been a recognized leader in the New England Ready Mixed Concrete and Aggregate industry. The company provides quality products and services to customers in demanding construction projects such as wastewater treatment plants, nuclear power plants, high-rise buildings and slurry wall construction. Boston Sand & Gravel Company has utilized Kemco equipment and services for more than 25 years and the companies have established a beneficial relationship of trust and service.

Project Overview

Kemco Systems first installed a direct contact water heater in Boston Sand & Gravel Company's Charleston, Massachusetts facility in 1998. Since the installation, the facility has continued to use the more than 25-year-old heater for the purpose of producing hot water aiding in cold weather concrete production. Kemco has and continues to provide Boston Sand & Gravel's multiple locations custom-designed systems built to the highest standards of excellence offering outstanding quality, exceptional reliability and energy efficiency offering top value for their energy dollar.



Kemco's Direct Contact Water Heater

Kemco's direct contact water heater, specifically designed and engineered for the Ready-Mix and Pre-Cast industries, are non-pressurized vessels designed to generate hot water with a 99.7% fuel efficiency rate while also reducing CO2 emissions. Operating at atmospheric pressure, the unit does not have to meet the regulations of pressurized vessels and it is available with programmable logic controls (PLC). To ensure that the heater will generate hot water needed for batching operations, Kemco heaters are sized, based on total yards per hour in peak production time.

Why Boston Sand & Gravel Continues to Choose Kemco's Direct Contact Water Heater

The Boston Sand & Gravel facility in Charleston, Massachusetts has been able to continuously use Kemco's heater for more than 25 years due to its stainless-steel construction. In 1998, Boston Sand & Gravel contacted Kemco needing a higher MMBTU/hr rated heater and greater water storage volume to meet the facility's production demands. Kemco's direct contact water heater has required little maintenance and withstood the hard water conditions.

Results

Kemco was chosen for this installation compared to competitors due to the TE-100 water heaters achieving a fuel efficiency rate of 99.7%. Operating five days a week, 10 hours each day during the winter season, Kemco's heater is designed to heat 50,000 gallons daily on average producing over 150 yards of concrete per hour. Its stainless-steel construction has allowed it to last 25+ years. The heater's high throughput and storage capacity are great for production surges at its near 100% efficiency in use of gas helps to keep energy costs down.

