Bryce State Hospital Enhances Energy Efficiencies with Miura Boilers

Localized Steam Generation With Energy-Efficient, Compact Miura Boilers Reduces Gas Consumption by Nearly Half Compared to Previous Centralized Boiler System

Bryce State Hospital, Alabama's oldest and largest psychiatric facility, is located in Tuscaloosa on a campus of more than 200 acres. A leader in mental-health care, the hospital is also a leader in energy conservation, having recently upgraded its steam boilers as part of a state-wide mandate for energy efficiency at public facilities. Bryce State Hospital achieved major energy savings when it shut down the fire-tube boiler in its central steam plant and installed a pair of energy-efficient Miura steam boilers in each of its three major buildings.

"We chose to install three Miura LX 100 and three Miura LX 50 high-efficiency steam boilers because of their energy savings, compact size, and ability to go from a cold start to full steam in five minutes," said Bob White, Director of Engineering at Bryce Hospital. "We have three different patient-care buildings, so we paired a Miura LX 100 boiler with a Miura LX 50 boiler and installed them as a set into each building. Once the new Miura boilers were commissioned and the large fire tube boiler was retired, the natural gas savings were staggering: almost 50% less gas consumption from day one of the Miura start-up."

"The pre-existing patient-care buildings did not have boiler rooms since they originally operated from the central fire tube boiler," explained White. "Miura boilers are very compact in size, however, so it was easy to install two Miura boilers efficiently in each building and design the new system based on that."

Bryce Hospital uses its Miura steam boilers primarily for heating its large, multi-winged buildings, as well as for generating hot water and for reheating (where hot water is used for heating purposes). In the event that a load becomes too heavy for the Miura LX 50 boiler, the Miura LX 100 automatically provides back-up and supplies additional heat.

All Miura boilers produce steam in five minutes using their exclusive floating header design, a revolutionary advance that results in gas and oil savings of up to 20%. Furthermore, this Miura-exclusive technology produces BHP outputs comparable to much larger units, but with far less water and a more compact footprint, which can reduce new construction costs and better utilize current boiler-room space.

"Besides the quick start-up, Miura's BL Micro Controller Boiler Control System is another very attractive feature," continued White. "This BL Controller measures the performance of the boiler in an easy-to-read, user-friendly format. Basically, I can walk right up to the boiler, look at the digital readout, and I can read pressures, times, and temperatures. Also, Miura boilers have a self-diagnostic feature. For example, if the boiler doesn't start-up for some reason, the BL Controller readout will identify the reason. I find this feature very impressive."

The BL Micro Controller Boiler Control System facilitates greater control over steam pressure settings for steadier steam pressure, allows for compensated adjustment of high and low fire scale thermocouple settings and for compensated adjustment of automatic blow-down based upon Total Dissolved Solids (TDS) and/or blow-down rates, and it easily interfaces with the Miura "Colormetry" unit to minimize scale formation due to water-softener failure.

"Miura's LX series boilers have proved to be outstanding," said White. "I believe in Miura's honesty and integrity 100 percent. Everything Miura said these boilers would do, they have done."

MIURA AMERICA CO., LTD.
2200 STEVEN B SMITH BLVD.
ROCKMART, GA 30153
(888) 309-5574
www.miuraboiler.com