

Harveys Brewery

When your product, reputation and future prosperity depend on the quality of steam, then you make absolutely sure that you find the very best solution. And that's exactly what Harveys of Lewes did when they called on SAACKE to improve the operation of their boiler plant.

Harveys Brewery in Lewes is the oldest brewery in Sussex, dating back to 1790. Its rich heritage is passionately carried through to the present day. It brews using only local hops and barley, while it draws water from an artesian well 60ft below its site, known locally as Lewes Cathedral.

As with all breweries the use of steam is a vitally important process and the quality of the steam is imperative, the temperature of the hops being the key to the taste of the beer.

So when Harveys invested in a reconditioned boiler fitted with a pressure jet burner suitable for firing natural gas and diesel and encountered issues with the quality of steam and the frequency of burner firing, Richard Spiller, Chief Engineer, immediately turned to SAACKE for help.

The brewing process requires a large variation in steam demand, a case of all or nothing. The small turndown of the burner on the new boiler meant that to maintain the boiler at its required level the burner would start and stop every few minutes which significantly reduced plant efficiency. After spending some time studying the boiler, SAACKE recommended fitting a burner with a superior turndown, thus allowing the boiler to match the site's steam demand.

The new burner uses a low pressure gas register for the main fuel, and Rotary Cup atomisation for the standby diesel fuel. Alongside this SAACKE fitted a new control system; a combined burner management and air/fuel ratio controller, the SAACKE SCanView.

Once commissioned, it was very clear right from the start that the change in burner was giving the Brewery greater boiler control, providing easier and more accurate boiler operation and yielding substantial fuel and energy savings.

With the burner operation now vastly improved, the hunt was on for ways to further improve the efficiency of the boiler plant. SAACKE quickly identified the original Feed Water System as an area for improvement.



The original system was based on an on/off system with the feed water pump, much like the original burner, constantly stopping and starting. This constant cycling of the Feed Water Pump introduced cooler water into the boiler and caused unnecessary wear on the pump motor.

SAACKE's challenge was to find a way to control the flow of water from the pump, delivering only the required water quantity into the boiler. If they could achieve this, as well as matching the water added to the boiler steam demand, the wear and tear on the pump motor would be reduced and the energy use of the pump minimised.

The SAACKE solution was to fit the SCanView Boiler Water Control (BWC) module. This expansion to the SCanView system allows control of the boiler feed water system through the 10.4" Touchscreen of the SCanView.

By installing the SCanView burner management control and Boiler Water Control in one control system, SAACKE helped Harveys save energy, improve control and increase efficiency.

Most critical of all, SAACKE helped Harveys to improve the safety of their boiler operating system by virtue of the unique SCanView Controller Safety Test System which is designed to assist the operator through the statutory boiler and burner tests. Alarm logs, fault and event histories are available on the 10.4" touchscreen.

So lovers of Harveys' Sussex Best Bitter, the Champion Best Bitter at the Great British Beer Festival for consecutive years, can rest assured that the winner of the many awards, including regular World Beer Award titles, will continue to produce wonderful ales, with just a little help from SAACKE. ✨

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