



McCALL FARMS

Improving Fuel Consumption by Updating Boiler Controls & Increasing Reliability

ABOUT US

Icon Boiler is the premier boiler equipment and service solutions provider in the Southeast. At Icon Boiler we sell, service, repair, and maintain boiler equipment for mission-critical customers throughout the Southeastern United States. Our customers know us to stand for responsive, reliable, efficient, and safety focused service and expertise. Icon Boiler operates in various areas throughout the Southeastern United States.

ABOUT OUR CUSTOMER

McCall Farms cans vegetables under several different brands, distributing in the Southeastern US and throughout the country. The vegetables come from McCall's own farms and from a number of carefully selected farming partners throughout the region. Every vegetable at McCall's Farms goes from harvest to can within 12 hours, and often less. Their industrial boilers are an integral part of production and ensuring those vegetables get canned while they are fresh.

CHALLENGES

McCall Farms powers part of their canning operations with boiler-generated steam. Their boiler system includes two Johnston 1,600 horsepower, two-pass boilers, one Johnston 1,500, four-pass horsepower boiler, and a Johnston 1,000 horsepower boiler. The boilers had reached a point, mostly because of age and out dated control systems, where they were down several times a week, severely impacting production. The expert team at Icon Boiler also pointed out to McCall Farms that upgrading the boiler controls would decrease fuel consumption and reduce emissions.



ACTION

Icon Boiler has a sales-and-service partnership with Autoflame, the British manufacturer of the MK8, a micro-modulating system. The MK8 controls water levels in the boiler and maximizes efficiency and safe operation. The Autoflame MK8 works with steam and water boilers, kilns, and steam generators. It features a 12.1-inch multi-touch screen interface. Icon Boiler technicians installed four of these systems on boilers at McCall Farms, complete with a data transfer interface (DTI) so that boiler personnel at McCall receive emails when there is a change in boiler activity.

Icon Boiler technicians shut down one boiler at a time and mounted the MK8, including installing sensors, mounting servo motors on the fuel and air, and rewired the boilers for the new control system.



The installation of the MK8 allows the boiler technicians at McCall Farms to:

- Manage each boiler from individual 12.1-inch screens.
- Monitor the boilers from a remote location in the office complex.
- Minimize downtime for the boilers, thereby maintaining production at peak capacity.
- Create error and lockout logs, a feature which aids in troubleshooting future problems.

RESULTS

Brandon Berry, McCall Farms' Utility Manager, reports that since the installation of the MK8, McCall Farms has gone from multiple boiler failures each week to only a few minimal errors. Even better, the Autoflame MK8 provides them with information so that they can better determine the cause of the errors and correct them. Additional benefits of the MK8 installation include:



FUEL SAVINGS

5% - 8%



STACK EMISSIONS REDUCTION

15% - 20%



INCREASED ENERGY EFFICIENCY

Precise monitoring and measurement of all combustion processes

“The MK8 substantially increases the lifespan of the boilers,” added Jason Davis of Icon Boiler. “The operator has a lot more data to look at, better control of the water level, and a greater ability to troubleshoot. This upgraded system at McCall Farms means they will get a lot more life from their boilers.”

Berry explains that McCall Farms employs a dual-fuel system utilizing natural gas as the primary fuel source and oil as a back-up. The Autoflame unit is an ideal answer to their boiler needs because the MK8 is designed to work with these dual systems. Berry added that McCall Farms is looking forward to upgrading the remaining boilers with Autoflame controls in the near future.

