

## Energy Saving Tip

In view of escalating energy costs and the long-term prospects for a dwindling supply, we all share the responsibility of conserving energy wherever possible.

A stack temperature gauge should be installed in the flue outlet of every boiler and monitored regularly to ensure that the temperature is consistent with the firing rate, operating temperature for hot water boilers or pressure for steam boilers and boiler design. Your boiler supplier or manufacturer should be able to provide data to give you an indication of optimum performance.

For example, a Cleaver Brooks firetube boiler should operate with a stack temperature no higher than approximately 75 to 100 °F above the water temperature in a hot water boiler or saturated steam temperature in a steam boiler at high fire.



Accumulations of soot or scale on the heat exchange surfaces of the boiler, however, act to impede heat transfer, thereby resulting in higher exit flue gas temperatures than normal.



A thickness of 1/32" and 1/16" of soot on the fireside heat transfer surfaces, for example, will increase fuel costs 3% and 8%, respectively. Scale will increase fuel costs by 4% and 9% for the same deposit thicknesses on the boiler waterside. In addition to added fuel costs, these conditions left unchecked will lead to premature pressure vessel failure.

If we can be of service to you in determining optimal performance for your boiler or you need a stack temperature gauge to monitor your boiler's performance, please give us a call @ 248-589-8220.