

## Introducing: The WEBSTER High Efficiency Package!

When selecting a new burner, efficiency must come first. Compared to traditional burners, the Webster High Efficiency burner package has the fastest payback in the industry. Webster's unique high swirl firing head technology provides superior mixing of the fuel and air which allows the JBS and HDS burners to operate with low excess air across a large operating range. With the industry's highest turndown and the innovation award winning <u>TEMP A TRIM</u>® system, the Webster package provides real savings in fuel, electricity, and cycling costs, while increasing boiler efficiency.



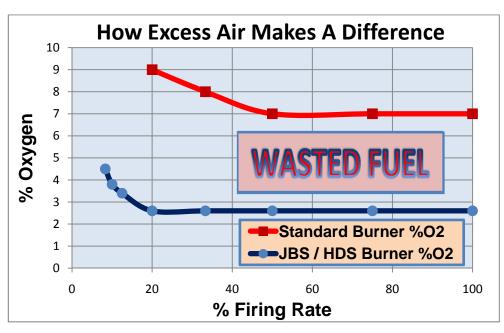


Webster Model JBS Burner

All burners operate with a certain amount of excess air in order to insure safe operating conditions. However, because all of the air that

goes into the boiler must be heated, the less excess air that can be used the more efficient your boiler will operate. Traditional burners operate with  $O_2$  levels in the range of 5% to 7%, which equates to approximately 25% to 45% excess air volume. If that sounds like a lot of excess air, it is! Heating all this excess air requires more fuel, and more fuel means a higher operating cost. In comparison, the Webster high efficiency package typically operates at  $O_2$  levels of well under 3.0%, or approximately 12% excess air. For a typical firetube boiler, as illustrated in the graph below, this equates to a savings of approximately 3% in fuel every year. So if you're using a conventional burner, you're wasting a lot of fuel!

In addition, Webster High Efficiency burners operate with turndown rates as high as 12:1 for gas firing, and 10:1 for oil firing. Higher turndown rates can reduce purge or cycling losses and equate directly to

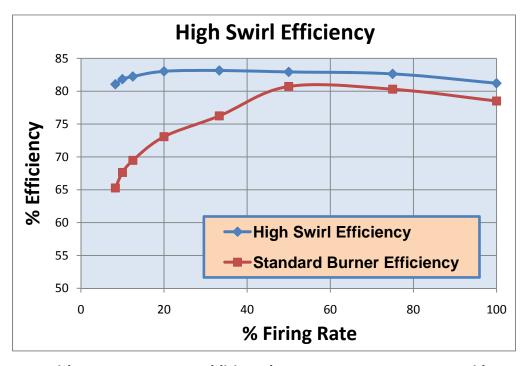


savings. Every time your boiler cycles (shuts off), it costs you money. When turndown increases, savings increase. So, a higher turndown means a larger operating range and more dollars in your pocket. High turndown combined with low excess air provides real fuel savings, improved response to boiler load changes, reduced maintenance costs, and reduced thermal shock to refractory and boiler systems.



## Make an <u>EFFICIENT</u> Choice Choose <u>WEBSTER!</u>

The high excess air rates on a conventional burner result in lower boiler efficiency, as shown on the graph. This lower efficiency means that you have to use more fuel (high fuel costs) to generate the same steam or hot water flow. The integral <u>TEMP A</u> <u>TRIM</u> control system on the High Efficiency package uses a temperature sensor and a Variable Frequency Drive (VFD) to maintain consistently low excess air levels as the air



coming into your boiler room changes with temperature. In addition, the <u>TEMP A TRIM</u> system provides up to <u>32% electrical savings</u> and a possible rebate from your utility company.

The table below shows typical savings in fuel, electricity, and cycling costs for operating boilers with the Webster High Efficiency package, as opposed to using a traditional burner. The Webster High Efficiency package provides the <u>industry's fastest payback</u>. Contact your Webster Representative for more details on how the Webster High Efficiency package can be applied in your application.

Boiler	Yearly	Existing Burner			Webster High Efficiency Burner			Fuel	Cycling	Electricity	Total
HP	Operating Cost	$O_2$	Efficiency	Cycles/HR	$O_2$	Efficiency	Cycles/HR	\$\$ Saved	\$\$ Saved	\$\$ Saved	\$\$ Saved
125	\$197,323	8%	74%	10	3.0%	82%	2.6	\$6,117	\$5,383	\$428	\$11,928
250	\$394,646	8%	74%	10	3.0%	82%	2.6	\$12,235	\$10,767	\$855	\$23,857
500	\$789,293	8%	74%	10	3.0%	82%	2.6	\$24,471	\$21,535	\$1,282	\$47,288

