Polaris Capital Power

"ONE STOP" energy consortium and investment

PC Fuel Optimizer

Product Introduction

The innovative PC Fuel Optimizer has now been installed in hundreds of commercial and industrial sites around the world delivering the following very significant results;

Industry	Fuel Consumption	Hydrocarbons	Carbon Monoxide	Nitrogen Oxide
Smelting	**Reduced 14%**	**Reduced 68%**	**Reduced 52%**	**Reduced 11%**
Manufacturing	**Reduced 18%**	**Reduced 72%**	**Reduced 58%**	**Reduced 16%**
Hotel	**Reduced 21%**	**Reduced 78%**	**Reduced 63%**	**Reduced 14%**
Condo	**Reduced 19%**	**Reduced 74%**	**Reduced 67%**	**Reduced 18%**
Warehouse	**Reduced 20%**	**Reduced 76%**	**Reduced 65%**	**Reduced 17%**

The PC Fuel Optimizer has been successfully installed on natural gas, propane, diesel oil and gasoline burning equipment. Additional tests have been done in relation to significant increases in combustion temperatures achieved.

Product Description

A unique and innovative approach has been taken to increase energy efficiency and reduce emissions from carbon based fuels. Conditioning the fuels before they are consumed is the solution. This proves to not only significantly reduce the emissions from these fuels but also creates much more economical use of fuel resources.

Hydrocarbon molecules have a tendency to cluster and attach to each other. The PC Fuel Optimizer forces these molecules to separate from each other just prior to combustion. The separation of the clustered fuel molecules allows for a greater number of oxygen molecules introduced just prior to combustion to more readily and completely attach themselves to the hydrocarbon molecules. This in turn allows for a more complete and efficient combustion of the fuel and causes less pollution, as pollution mainly consists of unburned or inadequately burned carbon-based fuels.

Before and After Installation

Before

Before installing the PC Fuel Optimizer, the flame in the boiler combustion chamber view port is not as bright meaning fuel combustion is not optimal.

After

After installing the PC Fuel Optimizer, the flame in the boiler combustion chamber view port is much brighter which means fuel combustion is significantly more efficient.

Case Study – Holiday Inn

Efficiency Improvement 23.3%

The following is an analysis of the gas usage since installation of the PC Fuel Optimizer in a Holiday Inn Hotel, Ontario, Canada.

	No Product Attached Year 2006/2007			Product Attached Year 2007/2008		
Month	Days	Consumption	Degree Days	Days	Consumption	Degree Days
Dec/Jan	29	20,295 (A)	426	29	20,827 (A)	539.4
Jan/Feb	30	32,937 (A)	748.7	33	33,567 (E)	698.9
Feb/Mar	31	30,105 (A)	709.1	28	15,613 (A)	672.3
Sub-Total	**90**	**83,337**	**1,883.80**	**90**	**70,007**	**1,910.60**

Calculation Notes:
We have deducted 7,40 cm^3 of gas each month which represents the approximate amount of gas that is used for domestic hot water and has nothing to do with degree days.
A = actual, E = Estimate

Savings Calculation Equals Last Year Minus This Year, divided by Last Year

31.913 - 24.489 = 7.424 Divided by 31.913 = 0.233

Savings 23.3%

Deductions estimated, assuming 50% of the cm^3 of gas used in the summer was attributed to the domestic hot water and 50% of the cm^3 of the gas used in the kitchen and swimming pool.

Contact

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