Understanding Fuel Additives



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In the last 8-10 year's time most industrial sectors like Automobile, Steel, Die casting, etc. have shifted their oil fired furnaces from LDO to C-Grade fuels to cut down their costs, but getting the desired performance using the C-Grade fuels itself is a big challenge because of its properties. Especially C-Grade fuels like Furnace Oil are difficult to run operations in tempering furnaces or in low temperature operations. The few industries which are dealing with stainless steel are facing issues like pitting and dark spots on the surface of the job, simply because of the sulphur content in furnace oil. In these circumstances fuel additives are playing a vital role.

Additives Available in the Market

There are two types of fuel additives which are available in the market.

1) Chemical based fuel additives: These are made with certain types of chemical mixtures. These additives are expensive but the recommended dosages are very low. Most industries try additives which initially (up to 8 to 10 days) show good results but afterwards performance goes on diminishing. Regarding this issue intense research is going on.

2) Bio-based fuel additives: This is a unique concept recently introduced in the Indian market. These additives are manufactured using different vegetable oils as a raw material, along with the enzymes. These additives react on hydrocarbon bonds in the fuels. So it doesn't matter if the crude oil chemistry changes. Major benefits of these kinds of additives are that they can utilize the existing sludge. Because of their enzymatic reaction it clears the soot in the pipelines and prevents the soot formation. A few more benefits experienced by industries are reduced maintenance issues, like burner chocking, flame failures and filter chocking. It also helps to improve flame quality and reduce smoke levels. Pollutant gases like SOx-NOx will get reduced to the extent of 30 to 40%. The most important highlight of these additives is that they will reduce the fuel consumption up to 16% which is helping the industries to save their cost.

Today most of the industries are using such additives to achieve cost saving and to protect our environment.

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