

Company Profile

Fuel Technology International Pty Ltd (FTI) is an Australian company incorporated in 1982 who specialise in developing, manufacturing and marketing industrial products designed to assist large fuel users improve fuel efficiency, reduce greenhouse gas emissions and thus reduce operational costs.

FTI is a subsidiary of FPC International based in Ohio USA (www.fpc1.com) and between the two companies hold worldwide patents for a unique product called FPC (Fuel Performance Catalyst). FPC International and FTPL supply FPC to small and large fuel users around the world, treating billions of litres of fuel.

FTI also specialise in conducting direct exhaust emission testing to regulatory standards using state of the art testing equipment and conducting fuel efficiency testing to International Engineering Standards. FTI also supply fuel treatment systems, along with a unique diesel cleaning filtration system designed to preserve diesel in storage and remove all moisture, including emulsified water which is renowned for its detrimental effect on fuel tanks and internal engine components.

What is FPC?

FPC is a chemical specifically designed to promote a more efficient burn of hydrocarbon fuels. Most other fuel additives on the market today are designed to treat symptoms of incomplete combustion. For example, many additives are detergents which peptise and remove engine carbon deposits.

By contrast FPC acts upon the combustion process itself, reducing many of the problems associated with incomplete combustion thus eliminating the need for additives that treat symptoms only.

As scientifically accepted, some elements are known to assist combustion with Fe being one of the best. FPC is an Fe⁺⁺ based organo-metallic catalyst which blends readily with any liquid hydrocarbon fuel. Molecules of ferrous picrate act as flame initiators within the fuel at the instant of ignition. The result is faster flame propagation in the combustion chamber and a reduction in the time required to burn the fuel. Combustion is more uniform with more of the fuel being converted to motive energy. This improves power, fuel economy and reduces problems associated with incomplete combustion. Significant reductions in smoke and greenhouse gas emissions are also realised. Fuel efficiencies of 2–8% are generally realised following fuel treatment with FPC.

Improved Fuel Economy

Fuel economy is the initial benefit realised from FPC use. Since the action of the FPC catalyst causes fuel to burn more efficiently, more power is released per unit volume of fuel. Therefore, less fuel is required at a particular load setting.

EPA (Environmental Protection Agency), SAE (Society of Automotive Engineers), AAR (American Association of Railroads) and other recognised testing procedures have documented a 2% to 8% reduction in fuel consumption with FPC. These findings continue to be substantiated in field testing using engineering standard tests, Specific Fuel Consumption and AS2077-1982 Carbon Mass Balance.

Examples:

A corporation spending \$100m annually on fuel will save \$2-5m net using FPC.

A corporation spending \$20m annually on fuel will save \$500k annually on fuel.

Reduced Harmful Emissions

Pollutant reduction is a major benefit of FPC use. Further to other independent tests, the University of Western Australia "Centre for Energy" tests recently conducted by world renowned expert in the field of combustion, Winthrop Professor Dongke Zhang, have verified significant reductions in carbon monoxide (CO), carbon dioxide (CO₂) and the health hazard diesel particulate matter (DPM) following FPC treatment of fuel.

Reduced Maintenance Costs

Improved fuel efficiency means a reduction in the products of incomplete combustion, ie soot, varnish, carbon monoxide and unburnt hydrocarbons. Hard carbon deposits are the cause of many major maintenance problems. Their reduction or removal provides a significant maintenance saving and reduction of wear on engine parts such as pistons, valve stems, cylinder liners and injector tips. Any small carbon deposits that may occur in engines using FPC are soft and can be wiped off with a cloth.

- ✓ Oil contamination is lessened.
- ✓ Downtime for maintenance is reduced by FPC.
- ✓ Engines burning treated fuel have an extended life between overhauls.

FPC catalyst causes fuel to burn more efficiently resulting in more power per unit volume of fuel being released along with cleaner combustion spaces. Photo depicts head and valves following 8,000 hrs running on FPC treated fuel. (note cleanliness and lack of carbon deposits) FPC catalyst causes fuel to burn more efficiently resulting in more power per unit volume of fuel being released along with cleaner combustion spaces. Photo depicts head and valves following 8,000 hrs running on FPC treated fuel. (note cleanliness and lack of carbon deposits)