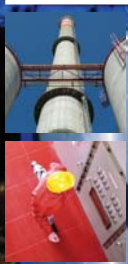


## Power Specialties



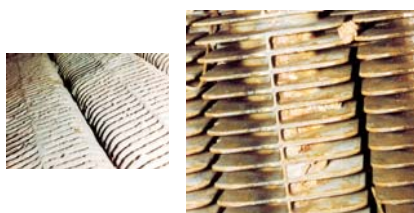
Our Fuel Specialties business specialises in manufacturing and supplying additives to improve fuel efficiency, boost engine performance and reduce harmful emissions. Our company has evolved out of the tetra ethyl lead (TEL) business to become the champion of innovative new fuel treatment technologies in a rapidly changing market.

## Providing effective solutions

**The increased refinery conversion of crude oil, including thermal cracking and visbreaking, has resulted in residual fuels with increased levels of asphaltenes, carbon residue, sulphur and ash.**



*Superheater before and after Innospec's heavy fuel oil treatment*



*Deposits on economiser before and after Innospec's heavy fuel oil treatment*

This leads to:

- Formation of sludge and sediment in fuel storage tanks and pipelines
- Coking of burners and oil-preheaters
- Increased slag formation in super-heaters and air pre-heaters
- Increased soot formation, NOx, SOx
- Frequent equipment maintenance and boiler shut-downs
- Higher fuel usage and increased costs

Innospec's Power Specialties team supplies a wide range of heavy fuel oil treatments specifically designed to solve problems like these - from fuel storage through to combustion and exhaust stack issues.

For example, our fuel stabilizers improve the storage stability of heavy fuels, particularly when fuels are blended in terminal locations. More stable fuel means less coking of the oil pre-heater and better combustion. It also keeps storage tanks and pipes clean from asphaltene precipitation.

Using our asphaltene and wax dispersants reduces deposits on metal surfaces by dissolving sludge or sediment in the fuel oil tanks.



Our combustion catalysts ensure a rapid and dramatic drop in stack solid emissions. Reduced soot deposits and lower stack gas temperatures improve heat transfer within a power generation plant and boost overall plant efficiency. Maintenance intervals for power station plants can also be extended, again reducing costs.

Innospec's corrosion and slag inhibitors are used to reduce deposits and to fight against high and low temperature corrosion. We also offer a number of special treatments for specific applications. These include treatment for residual fuel burnt in gas turbines, demulsifiers for crude and heavy fuel oil and post-combustion emission reduction catalysts.

# Delivering experience

**Innospec is a dynamic global specialty chemicals company with the people, the knowledge and the technical resources to develop new chemicals and highly complex formulations. We have the skills to apply engineering systems to solve difficult and wide-ranging problems.**

*Innospec's Power Specialties team has many years experience in the power industry, irrespective of the type of plant, its age or the fuel quality being used.*

*Our Octapower™ product range includes:*

*Stabilizers and Dispersants*

*Combustion Catalysts*

*Corrosion Inhibitors*

*Gas Turbine Additives*

*Diesel Power Additives*

*Boiler Water Treatment Additives*

*Special Additives*

At the heart of our approach to problem solving is consultation with our customers. This starts with technical and commercial teams who will normally carry out a thorough audit of plant equipment, the type of fuel being used and the target power or emission output required. This helps our understanding of a customer's individual situation. Our team of application chemists and product managers then identifies the right treatment option.

If required, we will design and carry out on-site trials to generate data and make recommendations for cost-effective fuel treatment. Boiler systems are usually studied for efficiency by reference to stack solid emissions, opacity, combustion excess air (% oxygen), carbon dioxide, carbon monoxide, sulphur dioxide, sulphur trioxide, gas temperature, nitrogen oxide and acid dew point. Problem fuels are also studied for instability, corrosion tendency and emulsification both on-site and in our own laboratories.

## **Innovation and support**

Our dedicated Power Specialties team is committed to providing exceptional customer service and going that extra mile.

A personal on-site service is available during critical periods of fuel and plant equipment changes. Our sales team and engineers work closely with plant managers and operators to provide on-site performance monitoring of the chosen treatment to ensure targets are still met.

Extensive laboratories at Ellesmere Port, UK and our new testing facility at Millbrook, UK as well as application laboratories in Herne, Germany and Saint Marcel, France support our on-site technical service team. Together, these facilities provide a full range of fuel oil testing capabilities and complement the activities of our expert engineers and chemists on-site. Our laboratories offer more detailed analysis away from the power plant as well as performing vital research into new product development.

By being able to draw on the global reach and financial resources that few of our competitors can match, we can provide innovation and support on both a local and international scale. This means Innospec's Power Specialties team can always offer a fast response to customer needs, wherever it is needed.

**Innospec's Fuel Specialties business comprises of a number of dedicated teams. The Power Specialties team focuses on the heavy fuel oil treatments for the power generation industry. We also have teams serving the needs of the refinery, performance specialties, heating, marine and fuel borne catalysts markets.**

# Servicing the global power industry

**Our Power Specialties team leads the world in providing solutions to heavy fuel oil handling and combustion problems in the power industry. With our global market presence and detailed industry knowledge, we can build strong business partnerships and offer unrivalled customer service.**

We supply the complete range of the Octapower™ products, supporting them with impressive manufacturing and research and development resources. Our experienced and respected fuel oil team works hand-in-hand with the power industry to solve the different challenges it faces on a daily basis.

Not surprisingly, we also work closely with the refiners and marketers of fuel. This puts us in a unique position to understand and resolve fuel related issues in refining, petrochemical operations, large industrial power plants or premium grade fuel oil marketing.

This understanding of fuel and expertise in technical applications, coupled with our extensive market knowledge and territorial coverage, means we can develop bespoke fuel treatment solutions to meet our customers' needs. These can be delivered anywhere in the world through our fully integrated supply chain.



Our Power Specialties team has a proven track record in helping customers improve boiler and furnace combustion and heat transfer efficiency. This has delivered the advantages of fuel savings, improved maintenance programmes, lower plant operating costs and more environmentally friendly power generation.

By continually pushing the boundaries of technology we expect to develop the next generation of heavy fuel oil treatments. We can think of no better way of servicing the global power industry in the years ahead.

With our innovative product range and ability to understand and respond quickly to customer problems, our Fuel Specialties business has grown rapidly in recent years. It will continue to evolve and expand as part of our ongoing commitment to the power industry.

---

For more information on how Innospec's Power Specialties team can work with you, please contact one of our sales offices.

This international office network offers unrivalled product support and has the resources to deliver fuel treatments to a customers' specification anywhere in the world.

[power.emea@innospecinc.com](mailto:power.emea@innospecinc.com)