SHELL FUEL OIL PLUS IS DESIGNED TO:

■ HELP IMPROVE FUEL EFFICIENCY BY UP TO 3%*  
■ LOWER PARTICULATE EMISSIONS AND BLACK SMOKE BY UP TO 70%*  
■ REDUCE MAINTENANCE  
■ HELP INCREASE EQUIPMENT RELIABILITY  

* Compared to regular fuel oil. Savings may vary with type and operating condition of the equipment/boiler and are based on customer experience, including Shell-supported tests. In some cases, customers have achieved higher fuel efficiency or lower emissions.

We have been consistently experiencing a reduction of up to 6% in fuel consumption. We are very cautious about what is emitted in line with our efforts to be more environmentally friendly.

We did experience a reduction in Bacharach Smoke Scale upon switching to Shell Fuel Oil Plus.

Source: Polyfilms S/B, Malaysia

---

### A WORLD OF EXPERIENCE

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>INDUSTRY AND TYPE OF EQUIPMENT</th>
<th>BENEFITS ACHIEVED WITH SHELL FUEL OIL PLUS</th>
</tr>
</thead>
</table>
| CHINA   | Petrochemical company – Large water tube boiler | ■ Reduction of sludge in fuel tank by 32%  
■ Reduced emissions  
| MALAYSIA | Plastic film producer – 2 Babcock boilers, with pressure jet burners | ■ Less black smoke  
■ 2.9% increase in fuel efficiency  
■ Fewer deposits in fuel and burner systems  
■ Reduced time cleaning and overall maintenance  
■ Higher reliability (less boiler-upsetting)  
| MALAYSIA | Co-polyester plant – 1.5 Mwp projection for fibres running on blend of fuel oil and diesel | ■ Overall cost savings  
■ Reduction of black smoke and particulates  
■ No loss in furnace efficiency  
■ Cleaner main steam flow and overall less maintenance  
■ Higher reliability  
| MALAYSIA | Food company – 2 NM boilers  
Faulk burners | ■ 2.9% increase in fuel efficiency  
■ Immediate and visible reduction of black smoke  
■ Fewer failures in boilers, supporting better combustion  
■ Positive effect on relationships with neighbouring communities  
| PHILIPPINES | Combined company – 6 Boiler  
Weishaupt pressure jet burners | ■ Immediate and visible reduction of black smoke  
■ Cleaner boiler components and reducing boiler sticking incidences  
■ Excess oxygen reduced by 3% translating to 5.5% increase in fuel efficiency without adverse impact on particulates  
| MYANMAR | Corrugated paper manufacturer – 2 boilers | ■ Improved fuel efficiency  
■ Less sludge in the fuel system, which previously tended to build up with regular fuel oil, causing disruptions of boiler operations  
■ Reduction in particulate collection in chimney by around 30%  

Shell Fuel Oil Plus
Designed to IMPROVE EFFICIENCY
**A HOLISTIC SOLUTION FOR YOUR ENTIRE SYSTEM**

Shell Fuel Oil Plus can help improve the reliability and the performance of the entire system, from the storage tank right through to the chimney.

Shell Fuel Oil Plus’ unique formulation includes a ‘keep clean’ component to help minimize sludge formation. It also has a combustion improver which promotes a better spray pattern and better fuel-air ratio (mixing of the fuel and air). This enables the individual elements of the whole system to run more efficiently, thus helping to improve the overall steam or heat generation process.

**FUEL SYSTEM**
- Less sludge in the storage tank
- Reduced deposits in the pump and the preheater

**BOILER AND BURNER SYSTEM**
- More thorough combustion leading to fewer deposits
- Lower fuel consumption
- Better burner operation

**FLUE GAS SYSTEM**
- Lower particulate emissions and smoke

Shell Fuel Oil Plus is designed to reduce fuel consumption by enabling more effective combustion. This in turn helps reduce deposits, keep the boiler, burner and fuel system clean and improve boiler efficiency. You can further improve fuel efficiency with Shell Fuel Oil Plus by reducing excess air requirements without increasing particulate emissions.

Cleaning the fuel system, boiler and chimney can be easier and less frequent with Shell Fuel Oil Plus as it helps minimize sludge formation, filter blockage and fuel-related boiler tripping. Well kept equipment means less production downtime and lower maintenance costs for your operations.

Increasingly strict environmental regulations mean your fuel choice has a direct impact on your company’s image and bottom line. Thanks to its advanced formulation, Shell Fuel Oil Plus can produce visibly less black smoke and lower particulate emissions by up to 70% in some cases. This is an immediate result and does not require additional boiler tuning which may affect boiler efficiency.

### FUEL EFFICIENCY

- **Regular Fuel Oil:** 14.85
- **Shell Fuel Oil Plus:** 15.9

Average Steam : Fuel ratio increase in fuel efficiency expressed in steam : fuel ratio, international fish processor, Mauritius

### PARTICULATE MATTER (mg/Nm³)

- **Regular Fuel Oil:** 421
- **Shell Fuel Oil Plus:** 208

Reduction in black smoke by 60%, customer operations, Thailand. Equipment: Thermax 16 ton/hour steam boiler with Saacke rotary cup burner running at 80% load.

Reduction in particulates by 49.4%, customer operations, Thailand. Equipment: 8.4 ton/hour steam boiler with Weishaupt pressure jet burner running at high load.

### BACHARACH NUMBER

- **Regular Fuel Oil:** 6
- **Shell Fuel Oil Plus:** 2

Reduction in black smoke by 40%, customer operations, Thailand. Equipment: Thermax 15 ton/hour steam boiler with Saacke rotary cup burner running at 80% load.

### INNOVATION FROM A GLOBAL TECHNOLOGY LEADER

Shell scientists have developed Shell Fuel Oil Plus through years of research and worldwide testing. The result is an advanced fuel oil that burns better and cleaner, giving you the reliable fuel you need for your operations.