Value to Your Operation

- Increased mission-capable rates
- Lower operating costs
- Fewer mission aborts
- Reduced maintenance costs
- Greater aircraft availability
- Safer flying operations
- Typically a 10-to-1 return on investment

How it works

As jet fuel is routed around turbine engines it is exposed to extremely high temperatures. Resulting chemical reactions cause color change, gum formation and carbon or coke deposits on metal surfaces that can disrupt the flow and efficient combustion of the jet fuel.

Our unique, proprietary additive, SPEC-Aid 8Q462, interrupts the various chemical mechanisms that take place in the fuel. In dirty systems, SPEC-Aid 8Q462 first shuts down reactions that cause carbon and coke buildup as the fuel is thermally stressed. Next, the detergent in the additive begins binding to existing carbon-on-metal surfaces. In the highly turbulent environments of a turbine engine, a cleaning action is created as the additive flows through the system.

By keeping the carbon from forming in the first place, and by reducing the amount of carbon deposition on metal surfaces, engines can operate more efficiently, leading to better operational performance—and a positive return on investment.

Chosen After Extensive Testing

In the late 1980s, as part of the U.S. Air Force Fuel Thermal Stability Improvement Project, an exhaustive search of more than 325 candidates was made to find an additive that could increase the thermal stability of jet fuel by as much as 100°F (38°C). SPEC-Aid 8Q462 is the only additive to meet the project's goals; it has now been in use in the U.S. Air Force and other foreign air forces for more than 20 years.

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GE Power & Water
Water & Process Technologies

SPEC-Aid 8Q462

turbine fuel stabilizer and detergent additive

imagination at work

GE's SPEC-Aid 8Q462 (+100) fuel additive from our Water & Process Technologies solution significantly improves fuel performance in aviation turbine engines. Unmatched in the industry for more than 20 years, this high-temperature fuel stabilizer and detergent additive—known in the U.S. Air Force as the +100 program—helps U.S. Air Force aircraft engines perform at peak levels. It is the only additive of its type approved for use in aviation turbine engines.

This proven, unique product not only retards the chemical reactions that cause fuel to break down and create carbon deposits and coking, it also helps remove any residue that does form.

Key Features and Benefits

- Greatly reduced carbon and coke buildup at the fuel nozzle/injector and in the hot sections of a turbine engine
- Significantly improved high-quality, bare-metal, visual inspections
- Unscheduled engine removals reduced by an average of 25 percent (and that number is significantly higher in some engines)
- Reduced afterburner/augmentor anomalies such as no-lights, blowout, flameout, and augmentor nozzle deterioration by up to 25 percent
- Decreased particulate emissions that can negatively impact air quality and health
- Consumption of fuel wetted turbine engine parts reduced by as much as 73 percent in some engines
- Fewer engine no starts, hard starts, high exhaust gas temperature, and compressor stalls
- Significantly reduced or eliminated main fuel nozzle and fuel control R and R, sticky fuel controls, streaking damage and burn through damage
- Easily blended into turbine engine fuels through a number of different options

*Performance claims are documented by more than 20 years of use in U.S. Air Force aircraft