

COMMERCIAL AVIATION

Jet fuel microbial contamination can be extremely costly to aviation businesses. Identify and deal with the issue at earliest possible stage

TRIED. TESTED. TRUSTED.

FUELSTAT[®] provides simple rapid detection of microbial contamination in jet fuel with free digital app to verify results and capture data



FUELSTAT®

ConidiaBioscience



Avoiding unscheduled Aircraft on Ground (AOG) can be very good business

Traditionally, jet fuel testing methods have depended on fuel samples being sent to a specialist laboratory for analysis. The next step is a waiting period of up to 4-7 days, or longer to get the results. If aircraft then have to be recalled after a laboratory test indicates microbial contamination, that risks the aircraft not being available for operations. A day's operations missed can be in excess of \$200K in revenue if a replacement aircraft is not available.

Sending the fuel samples to the lab isn't simple. ASTM D6469 highlights that if a sample is to be tested for microbial contamination and cannot be tested on-site, it should be transported on ice and tested within 24hrs or the sample may no longer be a true representation of the environment from which it came. Delays cause varying results which may cause an increased risk to your asset and require unscheduled AOG to remove the contamination.

- Why take the risk?...
- Why wait 4-7 days for a test report?

FUELSTAT® SOLUTION
TEST. RESULT. REPORT

within 15 minutes



COMMERCIAL AVIATION FUEL MANAGEMENT

FUELSTAT® Microbial Contamination Detection: A solution for Commercial Aviation in all aspects of managing fuel.

All fuel contamination can impact the quality of aviation jet fuel, microbial contamination is the most troublesome.

- Does your fuel contain dangerous levels of microbial contamination?
- FUELSTAT® can quickly help you find out!

FUELSTAT® is used across many aspects of the aviation business. Regular planned testing of fuel tanks by the owners of their maintenance suppliers, quality control of fuel suppliers, corrosion control programmes, in defueling operations are all common uses.



FUELSTAT® is listed as a recommended product by IATA, approved by JIG and most major manufacturers

FUELSTAT® is particularly suited to aircraft being tested not only when in for heavy maintenance but also at line maintenance when testing is required on a more frequent than C Check basis (less than 2 years on average).

- Test and re-test in less than 30 mins
- No delays in treating microbial contamination
- No need to recall aircraft at later date



MICROBIAL CONTAMINATION IN JET FUEL

What is aviation fuel microbial contamination, why is it so costly and vital to identify?

Fuel microbial contamination is caused by microbes: tiny organisms such as bacteria, yeasts and fungi, which thrive wherever there is food and water. Aviation fuel systems are ideal habitats for these organisms. Not only are these systems often warm and humid, but they also provide food for microbes in the form of hydrocarbons that are in the fuel.

If these microbes (also known as 'bugs') are allowed to proliferate unchecked, they can block fuel filters and cause fuel gauging problems. In fact, they can even induce corrosion to such extent that they can damage the aircraft's tank structure.

- Blocked filters
- Fuel Quantity Indication Probes
- Corrosion and tank leakage



Solo Working: FUELSTAT® makes the new normal easier

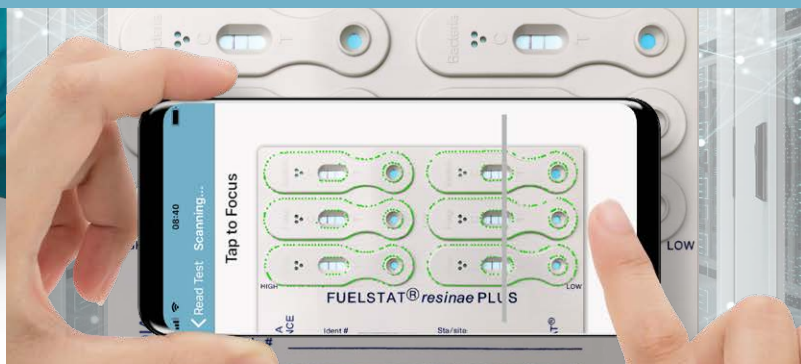
1. Test kit comes complete in sealed pouch

2. Watch training videos on smartphone



3. Do test, wait 10 minutes and get results

4. Transmit result to anywhere in globe



THE SOLUTION IS AS SIMPLE AS 1-2-3

FUELSTAT® PLUS

- The ultra-simple test that just requires **4 drops** of sample
- **15 minutes** to result as opposed to 4-7 days!
- **'Test at the tank'** technology - no laboratory required
- No requirement for additional **equipment** or **sterility measures**

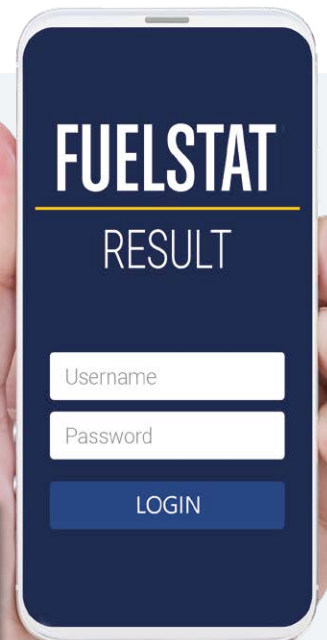


In critical times, you need a fast, convenient testing method - one that doesn't require multiple people to complete the process. Using FUELSTAT®, a single person can conduct tests at the tank after minimal training from our instructional videos. FUELSTAT® is based on immunoassay antibody tests. Just as a pregnancy test searches only for markers of human chorionic gonadotropin, FUELSTAT® only searches for the markers of bacteria and fungi that can grow in jet and diesel fuel and can potentially cause both operational downtime, corrosion and in worse case safety issues.

FUELSTAT® RESULT



- The easy to use app that gives **immediate visual verification** of result
- **Reduces risk** of misinterpretation
- No need for additional equipment other than a smartphone
- Fully **detailed report** can be instantly produced in PDF format



FUELSTAT® ANALYSIS REPORT		
Company name: Standard Address inputted From Portal	Registered User: Engineers Name	
Address: Input from Portal Registered Address	Test date: 24-JAN-2019	
Post code: From Portal	GPS location:	
Country: United Kingdom	Fuelstat result number: 3.361	
Customer reference: 124 - Portal Template	Printout date: 24-JAN-2019	
Identity: Example Test	Bacteria: Negligible	
Asset: jet 1	Fungi: Heavy	
Tank: Wing	Hormoconis resinae: Negligible	
Fuel lot: 4	Overall result: Heavy	
Fuelstat test lot: HR 2 411	Test method: ASTM D8070-16	
Comments		
Example test Report - Annual Maintenance Check		
FUELSTAT® Result data interpretation and guidance		
Alert level	Phase	Target antigen limits
Negligible	Fuel	Up to 150 µg/L
	Water	Up to 33 µg/ml
Moderate - Repeat the test to confirm the result and increase the frequency of water drainage.		
	Fuel	Between 150-750 µg/L
	Water	Between 33-166 µg/ml
Heavy	Fuel	Greater than 750 µg/L
	Water	Greater than 166 µg/ml
Heavy - Consider general treatment, such as increased water drainage, biocide treatment, fuel filter change, fuel tank cleaning.		
Phone make: Apple	Portal version: 1.2.2	
Phone model: iPhone 6s	Analysis approved by:	
App version:		
Disclaimer - FUELSTAT® Result is designed for use with tests which are fully compliant with ASTM D8070-16.		

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FUELSTAT®

Who we are:

FUELSTAT® fuel tests are developed, manufactured and marketed by Conidia Bioscience Ltd. Based in UK, Conidia Bioscience was founded in the early 2000's by experts in immunoassay techniques and holds the internationally patented intellectual property for FUELSTAT®.

Where to find us:

FUELSTAT® is distributed globally by a network of specialist distributors covering the major sectors. To arrange for a distributor to support you simply contact info@conidia.com.



FUELSTAT® meets the ASTM International D8070-16 Standard



FUELSTAT® is listed as an approved product by Joint Inspection Group



FUELSTAT® is listed as a recommended product by IATA. Conidia Bioscience is a Strategic Partner with IATA

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