PAC | solid partners proven solutions

Intelligent Heater Tube

Revolutionary Solution for Traceable and Accurate Jet Fuel Testing

- Detailed Traceability to JFTOT® Test Results
- Increased Analysis Integrity by Minimizing Risk on Data Transcription Errors
- Improved Quality Audit Efficiency through Easy Data Access
- Compatible with JFTOT® and OptiReader Instruments
- In Full Compliance with ASTM D3241 and IP323

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Intelligent Heater Tube

GREATER ACCURACY. GREATER QUALITY CONTROL.

Jet fuel thermal oxidation tests (JFTOT®) are critical for determining the quality of jet fuels. With a critical test like JFTOT® it is crucial to have testing materials meeting strict dimensions and composition controls. Alcor by PAC has delivered this high level of quality and reliability for over forty years. The Alcor heater tubes provide superior performance, produce reliable results, and have the highest quality available. Quality audits require matching data with heater tubes. Audits can turn up mismatched data due to poor record keeping or simple transcription errors. PAC's Intelligent Heater Tube (IHT) reduces record keeping issues and improves traceability.

KEY ADVANTAGES

ELECTRONIC DATA STORAGE

- Data is stored in Radio Frequency IDentification (RFID) device at the end of tube
- Secure storage guarantees accuracy
- Tube and test results remain together increasing traceability
- Analysis integrity by minimizing risk on data transcription errors

WELL KNOW QUALITY AND UNSURPASSED RELIABILITY

- Alcor is the market leader in jet fuel thermal oxidation testing
- Over four million Alcor Heater Tubes have been commercially produced and used successfully in the field
- PAC's Alcor has over 40 years of experience
- Compatible with JFTOT® and OtiReader analyzers

SAVES TIME AND MONEY

- Fewer errors mean less time lost finding and correcting them
- No heater tube preparation required
- Helps prevent heater tubes from being re-used accidently

BEST IN CLASS

- Consistent quality
- Made of the highest quality materials
- Thoroughly inspected
- Improved quality audit efficiency through easy data access
- Fully meets specifications outlined in ASTM D3241 and IP323

SAFE & WORRY-FREE ECOSYSTEM

This easy 2-step process provides accurate and fast results allowing you to improve lab productivity by reducing the need of trained technicians.

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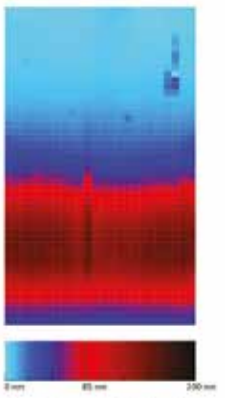


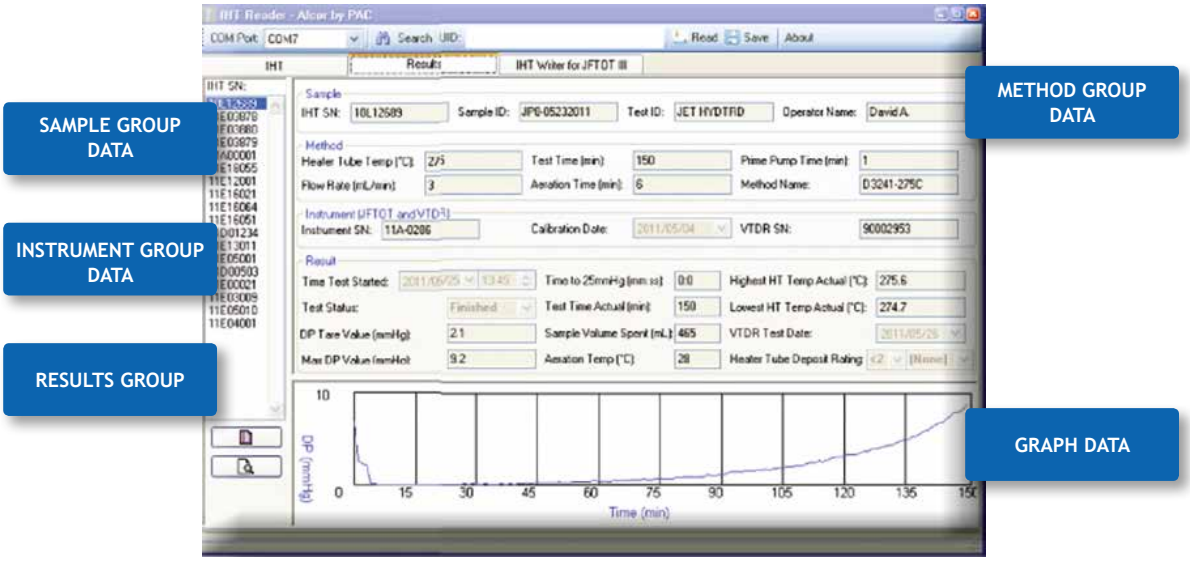
1 **Insert Inteligent Heater Tube into JFTOT**

2 **Put IHT with JFTOT results into OptiReader**

Obtain precise and accurate results in unified report

IHT DATA STORAGE

Data can be transferred from JFTOT® instruments directly or through your computer's interface, or it can also be entered directly through a Windows® based application. All data items in the file will be automatically loaded and filled into the tab fields, including the DP chart data. JFTOT® IV IV & III data will automatically populate the fields including the DP Chart. JFTOT® II data will load in real time through a PC connected to the serial port.



SPECIFICATIONS

Tube Length	161.925 +/- 0.254 mm
Center section length	60.325 +/- 0.051mm
Outside diameters	Shoulders: 4.725 +/- 0.025mm Center section: 3.175 +/- 0.051mm
Inside diameter	1.651 +/- 0.051 mm
Total indicator runout	0.013 mm max.
Mechanical surface finish	50 +/- 20 nm
Standards	ISO 15693 RF protocol at 13.56 MHz
Transmitting Power	90 mW +/- 2 dB
Interface	USB (with type B connector)
Operating Temperature	0˚C to +40˚C
Relative Humidity	20% to 90% non-condensing
Compliance	Radio license: Europe EN 300 330; USA FCC 47 CFR Part 15 EMC EN 301 489; Safety EN 60950
Reading Distance	Less than 1 cm
Storage Temperature	-40˚C to +85˚C
Dimensions (L x D)	6.6 x 0.18 in (16.7 x 0.45 cm)
Weight	0.15 Kg (0.33 lbs)
Power supply	From standard USB interface, 5 V DC +/-5%

Continuing research and development may result in specifications or appearance changes at any time

ABOUT PAC

PAC develops advanced instrumentation for lab and process applications based on strong **Analytical Expertise** that ensures **Optimal Performance** for our clients. Our analyzers help our clients meet complex industry challenges by providing a low cost of ownership, safe operation, high performance with fast, accurate, and actionable results, high uptime through reliable instrumentation, and compliance with standard methods.

Our solutions are from industry-leading brands: AC Analytical Controls, Advanced Sensors, Alcor, Antek, Herzog, ISL, Cambridge Viscosity, PSPI, and PetroSpec. We are committed to delivering superior and local customer service worldwide with 16 office locations and a network of over 50 distributors. PAC operates as a unit of Roper Technologies, Inc., a diversified technology company and a constituent of S&P 500, Fortune 1000, and Russell 1000 indices.

HEADQUARTERS

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