



Jet Fuel Solutions

Aviation traffic and demand for jet fuel is projected to grow faster than other fuel type, and the need to ensure its quality and safety is more important than ever. New types of refining processes and renewable feedstock will lead to specific property tests, such as low temperature fluidity and thermal oxidative stability, while other renewable fuels (biodiesels) in the distribution system will also require FAME in jet fuel testing. PAC has been helping the global jet fuel industry for many decades through industry expertise and turn-key, reliable analytical instruments that help refineries and contract labs gain productivity and while being in compliance with ASTM D1655 and DEF STAN 91-91.












Method-Compliant Jet Fuel Analysis Solutions

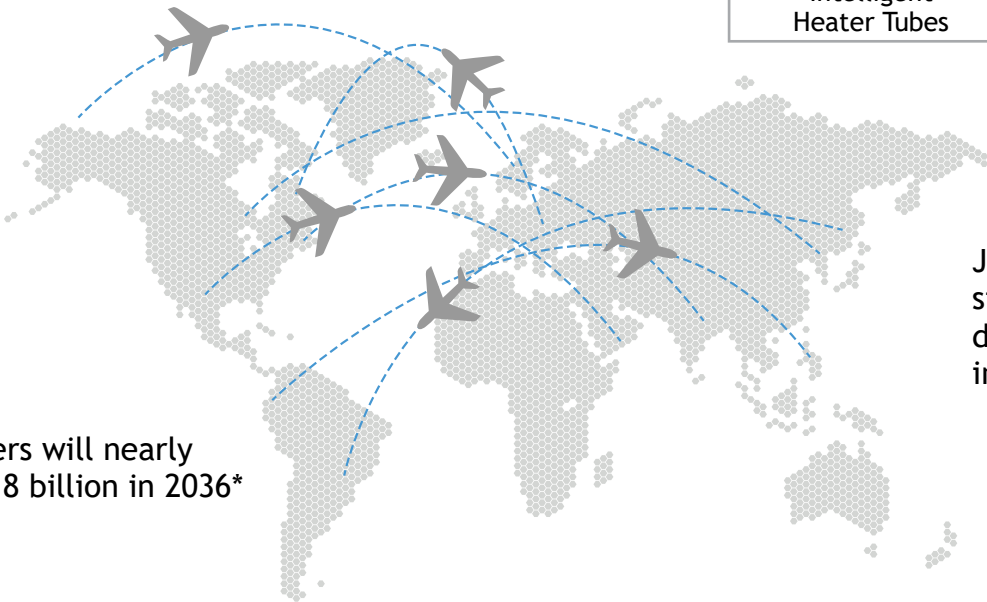
| | Sulfur | Distillation | | Flash Point | | Density |
|--------------------|---|---|---|--|---|---|
| ASTM D1655 | ASTM D5453 | ASTM D86 | ASTM D7345 | ASTM D56 | ASTM D3828 | ASTM D4052 |
| DEFSTAN 91-91 | | IP 123 | ASTM D7345 | ASTM D56 | IP 170 IP 523 | IP 365 |
| OTHER | | GOST 2177 | | | | |
| PAC INSTRUMENTS |  |  |  |  |  |  |
| | ElementS | OptiDist | PMD 110 | OptiFlash Tag | OptiFlash Abel | VIDA |
| | | | |  | | |
| | | | | OptiFlash Small Scale | | |

Global Aviation Fuel Consumption Keeps Growing

As per the International Civil Aviation Organization (ICAO), 3.97 billion passengers flew on scheduled flights around the world in 2017; which represents a growth of 8.8% YoY, according to IATA.

Due to the sharp increase in economic growth and disposable incomes in emerging countries demand for air travel is expected to double in the next two decades and grow almost by 4% each year. China, the United States, India, Indonesia, and Turkey are expected to be the fastest-growing markets in terms of annual additional passengers by 2036. Asia-Pacific has emerged as one of the largest aviation fuel markets in the recent years.

| Freezing Point | | Viscosity | | Thermal Oxidation Stability | Existent Gum |
|---|--|---|---|--|---|
| ASTM D7153 ASTM D2386 | ASTM D5972 ASTM D2386 | ASTM D7945 ASTM D445 | ASTM D445 | ASTM D3241 | ASTM D381 |
| IP 529 IP 16 | IP 435 IP 16 | IP 71 | IP 71 | IP 323 | IP 540 |
| ISO 3013 JIS K2276 | GOST 52332 GB 6537 | | | ISO 6249 | |
|  |  |  |  |  |  |
| OptiFZP | JFA-70Xi | JFA-70Xi | HVU 482 | JFTOT IV | HGT 915 & 917 |
| |  | | |  | |
| | PSA-70Xi FPA-70Xi FCA-70Xi | | | OptiReader (D3241 Annex 4) | |
| There's greater importance of safety monitoring due to more polar flights and ETOPS regulations | | | |  | |
| | | | | Intelligent Heater Tubes | |

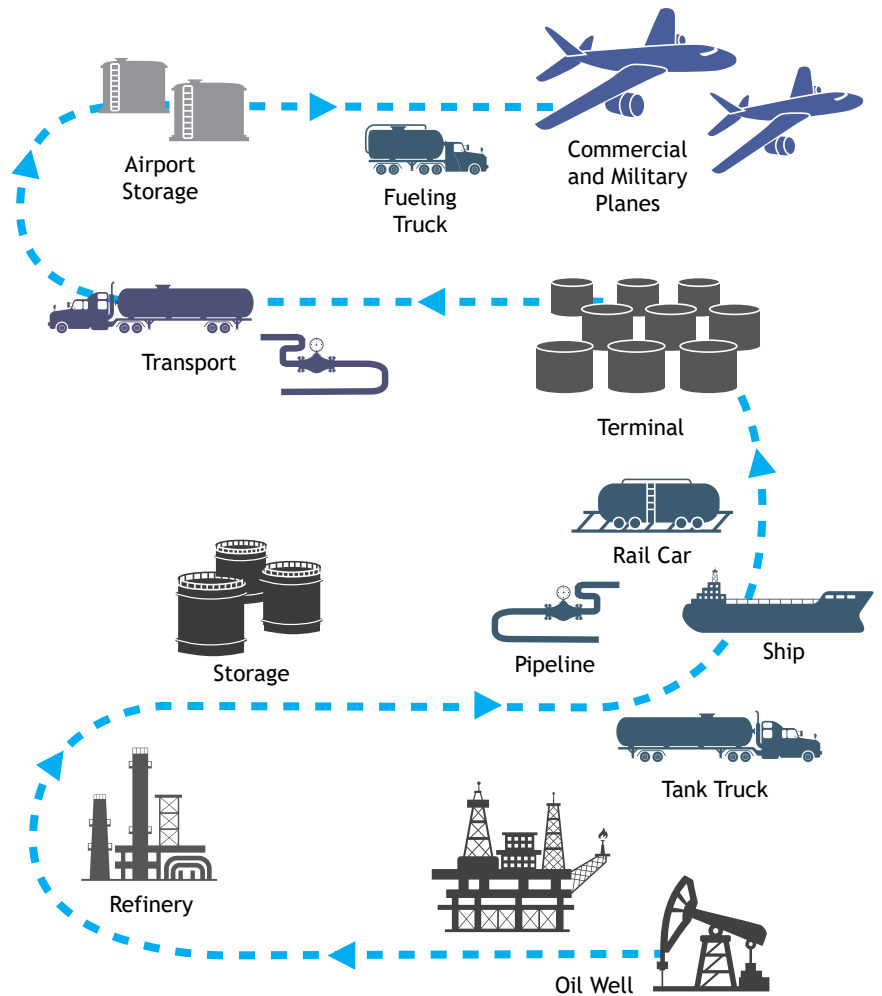


Air passengers will nearly double to 7.8 billion in 2036*
*IATA Forecast

Jet fuel demand will significantly increase due to longer inter-continental travel

Helping Stake Holders in Every Step

The quality of aviation fuels needs to be measured every time its custody is transferred during its production, storage and distribution. Airlines, airports, fuel suppliers, refineries, storage facilities and fuel transporters need to comply with standards and specifications to ensure the highest degree of jet fuel quality for flight safety. PAC jet fuel instruments help you ensure compliance every step of the way.



Meet Standard Specs for:

- AVGAS
- Jet A
- Jet A1
- Jet B
- JP 4 or NATO F-40
- JP 5 or NATO F-44
- JP 8 or NATO F-34
- TS-1

ABOUT PAC

PAC is a leading global manufacturer of advanced analytical instruments for laboratories in the Hydrocarbon Processing Industry. With a product portfolio of over 200 testing instruments, PAC serves its customers with innovative technologies that are easy to use, comply to regulations, have an unmatched quality with a worldwide support. PAC also complies with ISO 9001-2015 standards.

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 14 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.

AFTER SALES SUPPORT

PAC is dedicated to providing global service with local, personalized attention to customers wherever they are in the world. We offer field services for preventative maintenance, calibration, installation, as well as emergency site visits.

Our individualized instrument service programs help our customers ensure maximum quality and repeatability, while complying with standards and regulatory requirements.

PAC has Service Repair Centers located around the world. They are all ISO-9001 accredited. All our facilities have the technology and know-how necessary to inspect, repair and calibrate your equipment. All work is performed by our factory trained and certified technicians who use only approved spare parts to guarantee your instrument performance.