

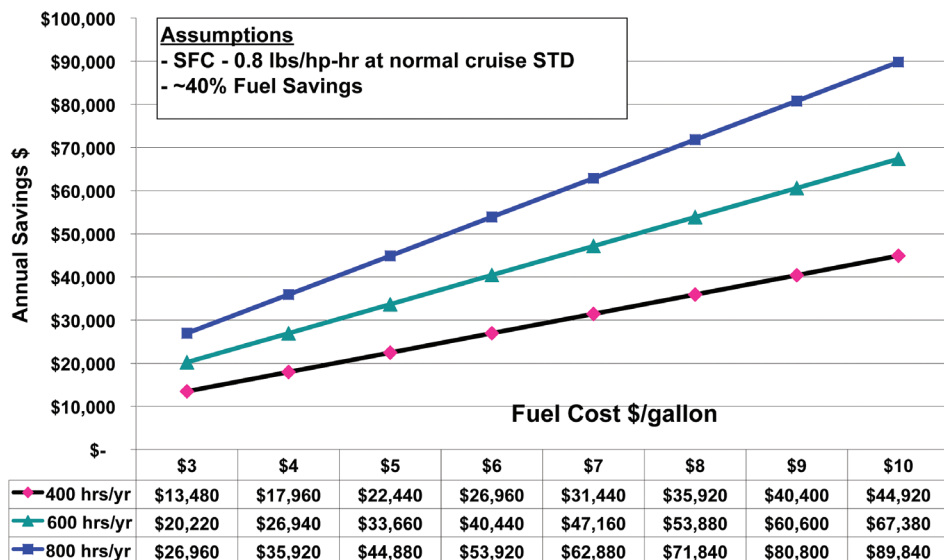
ADVANCE INFORMATION

MICROFIRE™ Gas Turbine Recuperator

MICROFIRE™ REVOLUTIONIZES FUEL-EFFICIENCY AND PERFORMANCE

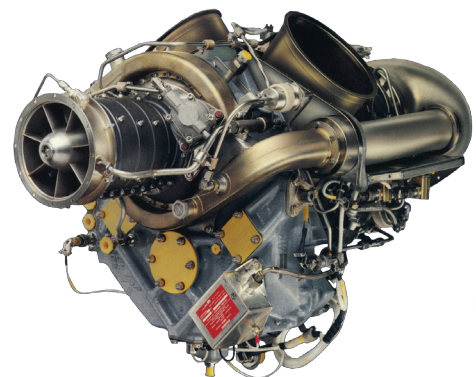
Rotorcraft using MicroFire™ burns fuel more efficiently and cleanly than standard engines while increasing range and endurance for commercial and military missions. The MicroFire™ gas turbine recuperator increases engine thermal efficiency to improve Specific Fuel Consumption by as much as 40%. Helicopter owners can break-even in 2-4 years.

TYPICAL SAVINGS GENERATED WITH MICROFIRE™



INVEST IN THE FUTURE

MicroFire™ can be retrofitted to over 13,700 Rolls-Royce Model 250 engines installed worldwide, and potentially incorporated into new production of Rolls-Royce Model 250 engines. Frontline Aerospace's unique, lightweight patent pending heat exchanger technology can be embedded into future gas turbine aircraft engine designs from various manufacturers.



FIRST "GREEN" HELICOPTER

Frontline Aerospace, Inc. offers the patent-pending MicroFire™ gas turbine recuperator initially on the Rolls-Royce Model 250 gas turbine helicopter engine. With breakthroughs in size, weight and efficiency, MicroFire™ saves fuel, reduces emissions and produces a truly "green" helicopter.



One MicroFire™ recuperator
reduces greenhouse gas emissions
by 960,000 lbs of CO₂ each year.

*Based on 800 flight hours/year for Rolls-Royce Model 250 C20 engine.

PERFORMANCE ESTIMATES

- Cost Effective – MicroFire™ will pay for itself in direct fuel savings in 2-4 years depending on fuel costs (expected to rise) and flight hours.
- Low Maintenance – with all stainless steel construction and a mean-time-between-overhaul of 3,000 hours, MicroFire™ adds less than \$1 per hour to maintenance costs.

SPECIFICATIONS FOR MODEL 250 C20B

Weight: 45 pounds, 20.5 Kg

Specific Fuel Consumption (SFC) improvement: approximately 40% (your results may vary)

Materials: stainless steel

Power loss on take-off: less than 1%

Power loss with recuperator engaged at cruise altitude: less than 3%

Maintenance Required: estimated 3,000 hours before solvent bath

Operating Range: -40C to 700C

Regulatory Approvals: Engine and airframe FAA Supplemental Type Certificate in process

ORDER INFORMATION

Orders are being taken for experimental helicopter installations. When full FAA Supplemental Type Certificate is issued, MicroFire™ will be available for commercial operations. Contact Frontline Aerospace, Inc. for specific quote on your engine and helicopter. Typical delivery is 16 weeks after receipt of order (ARO).

INTERNATIONAL TRAFFIC IN ARMS REGULATIONS (ITAR)

This document does not contain technical data within the definition contained within ITAR and the Export Administration Regulations (EAR), and as such is releasable by any means to any person whether in the U.S. or abroad.



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Notice: This document contains information on products that are in prototype and initial production phases of development. The specifications are subject to change without notice. Verify with Frontline Aerospace Inc. directly that you have the latest product information before installing in an experimental aircraft.