

Proven Heavy Fuel Engine Technology



FLEXDI Spark Ignited Heavy Fuels

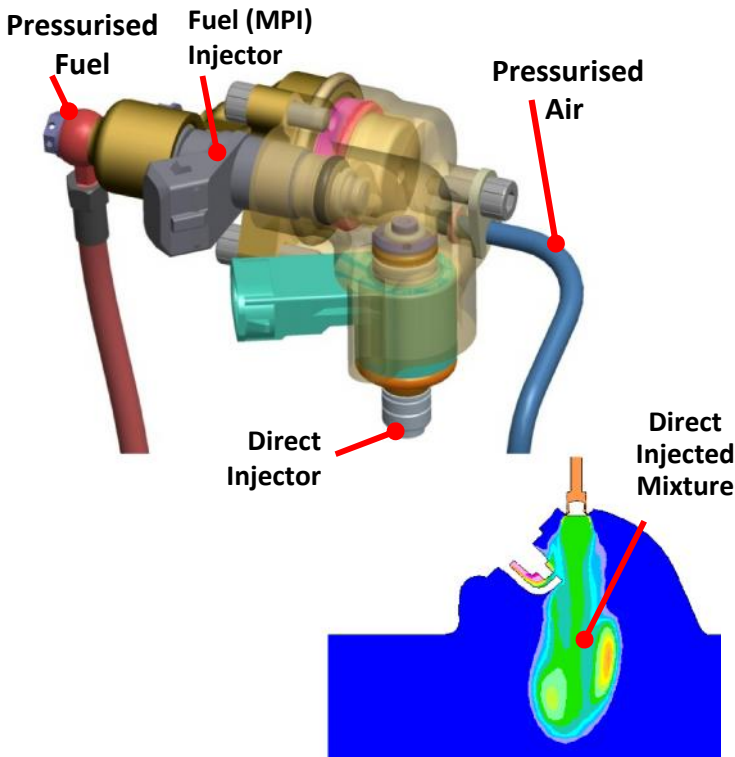
FlexDI™ is direct fuel injection technology able to offer an advanced Spark Ignition solution for heavy fuel engines including JP5, JP8 and JetA1. FlexDI™ is also able to be used for spark ignited Diesel applications.

FLEXDI Offers:

- Unique solution applicable to both 2 & 4 stroke engines.
- High specific power; greater than 70kW/L.
- Low fuel consumption; 30%+ reduction during cruise conditions.
- Cold start capability; demonstrated to -35°C.
- Low engine noise; misfire free operation.
- Automatic altitude compensation.
- Electronic oil metering.



How does it work?



Benefits of FlexDI™ over Competing Engine Technologies

Competing Technologies	
Technology	Application Issue
Gas Turbine	<ul style="list-style-type: none"> • Expensive • High Fuel Consumption • Practical minimum, power/displacement limit
Diesel – Compression Ignition	<ul style="list-style-type: none"> • Heavy - poor power/weight and power/package size • High vibration signature
Adding Heaters to pre-condition fuel	<ul style="list-style-type: none"> • Needs external power source • Needs time to heat fuel and engine before starting • No fuel consumption benefit • Added logistics consideration
High Pressure Direct Injection	<ul style="list-style-type: none"> • Complex and heavy system including EMS and high pressure fuel pump • Higher voltage/power injector drivers
Others	<ul style="list-style-type: none"> • Systems developed for SUAS engines that compromise between power and fuel consumption, Limited potential for MALE and other higher powered applications

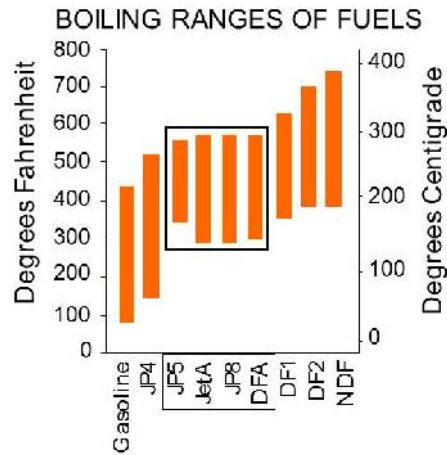
Heavy Fuel Engine DEFENSE SOLUTIONS



AIR



LAND



SEA



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