

## NW-88 HEAVY-FUEL ENGINE

Purpose-Built to  
Accommodate Aircraft  
in the 75 to 150 lb.  
Vehicle Class



**APPROVED FOR EXPORT**

- Heavy-Fuel, Two-Stroke with Fuel Injection
- RPM Hold Capable
- MADE IN THE USA



## Where Precision and Reliability Soar!

From single components to entire propulsion systems – Our main focus is in propulsion solutions, modular components and support solutions for any UAV or unmanned system.

**NWUAV purpose-built NW-88 multi-fuel engine is designed, developed and built for unmanned aircraft systems with larger payload requirements, and long endurance aircraft.**



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**The NW-88 is the most efficient and configurable UAV engine on the commercial market.**

**Purpose-built to handle aircraft from 34 to 68 kg (75 to 150 lbs)<sup>1</sup>.**

- Built for Reliability
- Based on the Combat-proven NW-44
- Built Specifically for Unmanned Applications
- Scalable for Use in a Broad Range of Aircraft
- Logistic Fuels Compatible
- Best Power-To-Weight Ratio
  - Larger Payloads
  - Higher Climb Rates
  - Faster Cruise Speeds
- Easy Maintenance
- Approved for Export EAR99
- Technical Support Included
- Telemetry Trend Monitoring
- Designed for STANAG 4703/AEP-83

## SPECIFICATIONS

NW-88 EFI	
<b>Total Weight*</b> (see below)	7800 ± 200 grams
<b>Displacement</b>	88 cc
<b>Maximum Continuous Speed</b>	7500 rpm
<b>Power Rating at 7250 RPM</b>	7.3 hp
<b>BSFC at Cruise</b>	395-456 g/kWh
<b>5000 RPM at Sea Level</b>	0.65-0.75 lb/hp-hr
<b>Ignition</b>	Twin 25kv Capacitor Discharge Ignition (CDI) per cylinder
<b>Cooling</b>	Air with Active Cylinder Head Temperature (AHT) Control
<b>Generator Regulator</b>	6/12/21 or 28 VDC, 280-Watts
<b>Generator</b>	On-Shaft Permanent Magnet Alternator
<b>Fuel System</b>	Full Authority Digital Engine Controller with Electronic Fuel Injection
<b>Fuel Type</b>	Non-ethanol 93-100 octane gasoline (R+M)/2, Jet-A, JP-5, JP-8, TS-1
<b>ECU Data Storage</b>	1,000 hours at 1Hz Recording Rate
<b>TBO (Estimate)</b>	400-500 hours

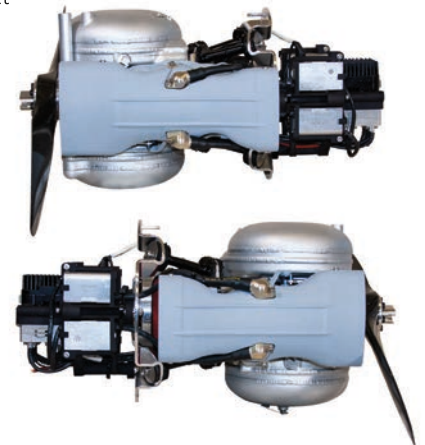
NOTES: Actual performance will vary depending on PMU configuration, application, propeller, fuel, oil, environmental conditions and type of operation.

\* Total weight with propeller and interface harness.

<sup>1</sup>depending on mission requirements and aircraft configuration

## ADDITIONAL FEATURES

- Twin-cylinder engine
- RPM hold capable
- Dual ignition (per cylinder)
- Dual piston rings
- Automatic altitude compensation
- Custom 280-Watt direct drive generator with a 6/12/21 or 28 volt Generator Control Unit (GCU); ~280-Watts available, 30-Watts for engine, 250-Watt for payload and aircraft.
- Telemetry:
  - Speed
  - Fuel consumption
  - Throttle position
  - Cylinder temperature
  - Intake air temperature
- Easy cold start
- CAN communication
- Lightweight quiet acoustic muffler
- Interfaces with popular autopilots
- Fuel injection
- **Conformal design mitigates unwanted parasitic drag, which increases net efficiency**
- MANUFACTURED IN THE USA



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