



UAV
ENGINES

AR801 - 50 BHP

ROTARY ENGINE FOR DRONES & UAVs



The AR801 is a highly optimised, light-weight, single rotor, liquid cooled engine. It has the facility to mount alternators between 0.9 to 2.0 KW. It has been designed and developed specifically for existing and future drones and UAVs requiring 35 to 60 bhp, with direct drive to propeller or vehicle gearbox.

DESIGN FEATURES

- Exceptionally high power to weight ratio
- Economical fuel consumption
- Low levels of vibration
- Low cross sectional area
- Long life

TECHNICAL SPECIFICATION

Engine Type:	Wankel-type rotary, single rotor engine.
Capacity:	Single rotor – 294cc
Power Output:	40 bhp at 6,000 engine rpm. Alternatively 51 bhp at 8,000 rpm (carburettor); or 60 bhp at 8,000 rpm (EFI).
Weight:	43lb (19.5kg) as illustrated. Installed weight with cooling system and generator is 53.7lb (24.4kg)
Direction of Rotation:	Anti-clockwise (looking at face of prop flange)
Ignition System:	Electronic 28 volt duplicated CD system with magnetic triggering firing twin spark plugs.
Fuel Type:	Regular grade (min 92 RON) Mogas (with or without lead) or Avgas 100LL
Specific Fuel Consumption:	0.50lb/bhp hr at 70% cruise = typically 2.0 imp gallon/hr (2.5.0 US) 0.56lb/bhp hr at maximum power.
Vibration:	Nominally zero (\pm 20cm gm) radial imbalance. Peak-to-mean torque fluctuation is 4 approx.

NOTE

Certain design features of the engine are covered by British, U.S. and other foreign patents.

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APPROX. EXTERNAL DIMENSIONS (mm)

