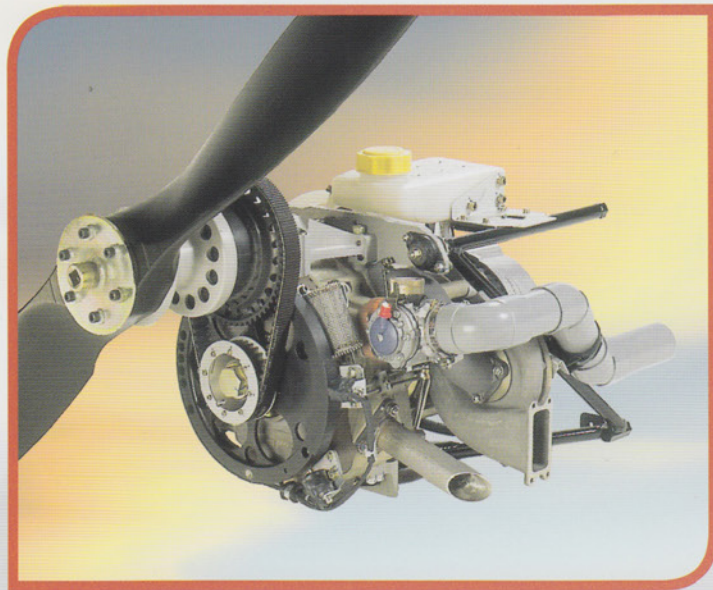




UAV
ENGINES

AR801R - 51 BHP ROTARY ENGINE FOR UAVs



The AR801R is a tested and proven, light-weight, single rotor, liquid cooled engine with integrated reduction drive. It has been designed and developed specifically for existing and future UAVs requiring 35 to 55 bhp.

DESIGN FEATURES

- Exceptionally high power to weight ratio.
- Reduction drive giving high propeller efficiency.
- Low levels of vibration.
- Economical fuel consumption.

TECHNICAL SPECIFICATION

Engine type:	Single Rotor Wankel-type rotary engine.
Capacity:	Single rotor 294cc.
Power:	40 bhp at 6,000 rpm. Alternatively 51 bhp at 8,000 rpm.
Weight:	56lb (25.4kg) as illustrated, including 2kw generator. Installed weight with cooling system is around 65lb (29.5kg).
Direction of Rotation:	Anti-clockwise (looking at face of prop flange).
Ignition System:	Electronic CD type with magnetic triggering. 12 or 28 volt option. Fully duplicated system firing spark plugs
Fuel Type:	Regular grade (min 92 RON) Mogas (lead or unleaded) or Avgas 100LL.
Specific Fuel Consumption:	0.52lb/bhp hr at 70% cruise = typically 2.0 Imp gallon/hr (2.4 US gall or 9.1 litres).
Vibration:	Nominally zero (\pm 20cm gm) radial imbalance. Peak-to-mean instantaneous torque fluctuation is 4 approx.
Reduction Drive:	Integrated lightweight belt reduction drive. Standard ratio = 1.93 with alternative ratios in range 1.6 to 2.2.

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NOTE

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

AR801R

APPROX. EXTERNAL DIMENSIONS (mm)

