



Austro Engine

ENGINEERING INNOVATION

Engineering Innovation

Austro Engine, part of the Diamond Aircraft Group and headquartered in Austria, is an innovative manufacturer of state-of-the-art aircraft engines with over 100 employees (Status May 2024). Founded in 2007, Austro Engine offers innovative solutions in jet fuel piston engines, AE300/AE330 (E4 Series) for Diamond Aircraft's DA62, DA42-VI and DA40 NG models as well as a proven line of rotary engines, AE50R and AE110R (R Series), for various UAV and APU applications. Since November 2008 Austro Engine holds a POA (Production Organisation Approval). In October 2009 Austro Engine has received the DOA (Design Organisation Approval) from EASA.

With the E4-Series of heavy fuel piston engines, Austro Engine is one of the leading jet fuel piston engine producer in General Aviation. The E4-Series stands for safe and reliable global operations with more than 4 million flight hours from more than 4,500 engines (Status May 2024).

Austro Engine products have proven their outstanding capabilities in versatile operation profiles all over the globe, generating countless stories of success for our partners. On a retrospective view, the company is certainly proud of having set new standards in engine reliability, quality and operational efficiency for our customers, whose appreciated involvement in continuous product and service improvements have been vital and the key to success. Being energized by achievements, Austro Engine is striving to further enhance operator's experiences.

Propulsion Innovation

Innovation and industry leadership mean saying „no“ to doing things the way it's been done before. With Diamond's proprietary Austro Engine jet fuel piston engines, that means no manual mixture control, no magneto ignition, no manual priming, no prop control lever, no hard starting – hot or cold, no manual runup tests, no shock cooling, no cowl flaps, no power calculations based on rpm and manifold pressure, in short, less work and zero guesswork – more efficiency in every regard.

The redundant full authority digital engine control of Austro engines takes the guesswork out of powerplant management and offers simplified operation, on the ground and in the air. There is only one power lever per engine and actual power is displayed in percent power on the fully integrated Garmin G1000 NXi. Annunciations are clear and accurate with resettable and recorded audio and visual cautions and warnings that let you focus outside.

Maintenance on Austro engines is performed much the same as with most modern engines today, by connecting a computer and downloading recorded data including any present fault codes. Pre-emptive diagnostics detect issues before they develop into problems and that enhances safety and gives more peace of mind.

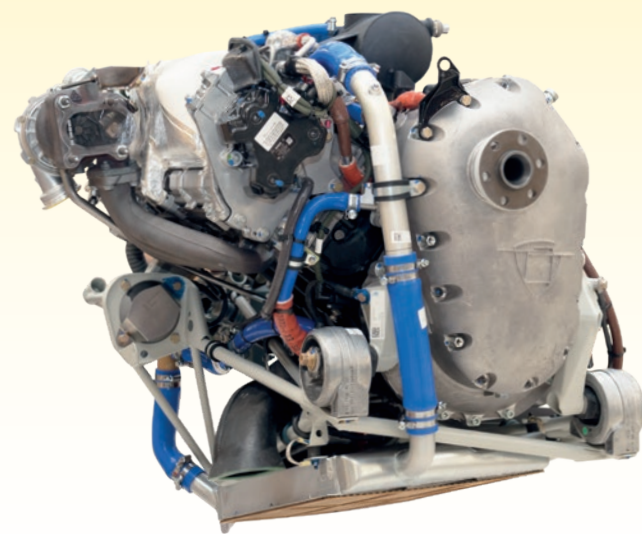
On top of all that, Austro's engines burn much less fuel, have extended maintenance intervals, use unleaded as well as cheaper and globally available jet fuel and run more smoothly and quietly.



E4 Series - Jet Fuel Piston Engines

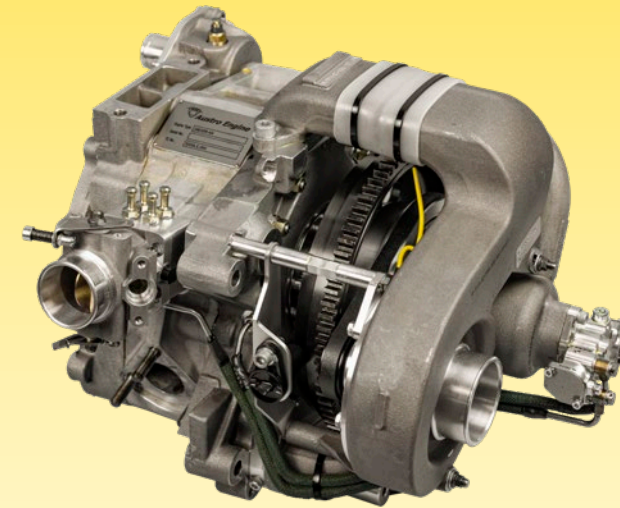


AE300
(168 HP)

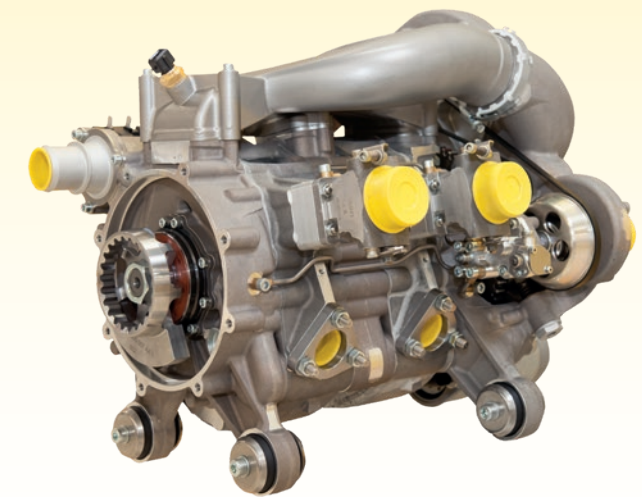


AE330
(180 HP)

R Series - Rotary Engines



AE50R
(50 HP)



AE110R
(110 HP)

E4 Series: AE300/AE330

SINGLE POWER LEVER CONTROL. LESS FUEL CONSUMPTION. BETTER PERFORMANCE.



GLOBAL SUPPORT



OPERATION
> 4,000,000 flight hours



PRODUCTION
> 4,500 engines in service



JET-FUEL PISTON ENGINE



TBR
1,800 h

(Status May 2024)

General

The AE300 is a four cylinder two liter piston engine, burning jet fuel (Jet A-1, Jet A, TS-1, RT, No. 3 Jet Fuel (China), JP-8) with 168 HP / 123.5 kW. The engine is controlled by an active electronic system with integrated single power lever design.

The AE330 is the most powerful heavy fuel engine in its class, based on the successful and reliable AE300. It provides more power than the AE300 at the same weight. Great fuel efficiency, reliability and easy operation make the AE330 the best aviation engine of today and the future.

Reliability

State of the art technology ensures the highest level of safety and lower fuel costs. Modern common rail technology provides the highest levels of reliability. With a redundant EECU system the engine is failsafe.

Jet fuel use

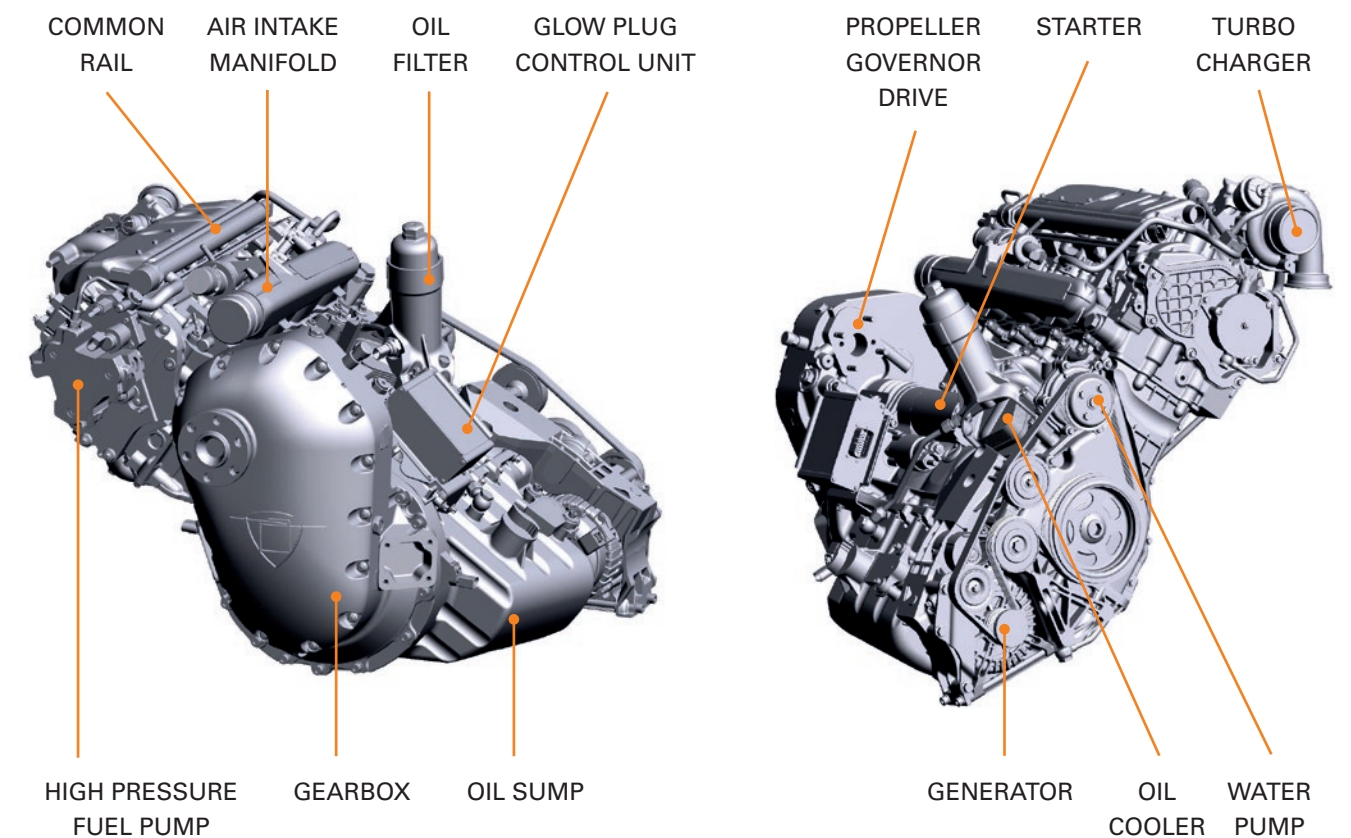
The AE300 / AE330's jet fuel certification makes it easier to operate worldwide than the more common Avgas engine, since Avgas is hard to come by in certain regions and often costs many times the price of jet fuel.

Performance

The AE300 produces 168 HP / 123.5 kW and the AE330 180 HP / 132 kW for take off and maximum cruise power. The low vibration level and the single power lever design improve the engine operation comfort and take a lot of workload from the pilot. This makes the engine the ideal powerplant for flight schools, private pilots and even special mission aircraft.

AE300/AE330 Facts & Specifications

Specifications	AE300	AE330
Max. take off power	123.5 kW (168 hp)	132 kW (180 hp)
Max. continuous power	123.5 kW (168 hp)	126 kW (171 hp)
Max. torque	512 Nm	550 Nm
Max. RPM	2,300 min ⁻¹	2,300 min ⁻¹
Displacement	1,991 cm ³ (121.5 cu.in)	1,991 cm ³ (121.5 cu.in)
Weight (dry)	186 kg (410 lb)	186 kg (410 lb)
Fuel	Kerosene	Kerosene
Fuel consumption	at 100% power 35 l/h	at 100% power 39 l/h
Fuel consumption	at 60% power 19 l/h	at 60% power 21 l/h



R Series: AE50R

COMPACT. HIGH POWER-WEIGHT RATIO. LOW VIBRATION.



GLOBAL SUPPORT



PRODUCTION
> 1,400 engines in service



POWER : WEIGHT RATIO
2 : 1



EASA CERTIFIED



POWER
50 HP

(Status March 2022)

General

The AE50R is a 294 cm³ single stage rotary engine with liquid cooling plus forced air cooling for the rotor core, lubrication via metered oil pump directly to main bearing and rotor tips with partial oil recovery system, twin spark plugs, electric starter, 14 Volt/18 Amp alternator, electronic fuel injection and electronic control system.

Rotary Engine

The AE50R is a single stage rotary engine that generates up to 41 kW and is the only rotary engine worldwide that is certified according to EASA Part 22 Subpart H on today's market. The remarkable power-weight ratio (2 hp : 1 kg) makes it the ideal engine for unmanned vehicles. With more than 1,400 engines produced, the AE50R has proven its reliability in both manned and unmanned applications.



Specifications

Displacement	294 cm ³ (17.94 cu.in)
Fuel	AVGas 100LL or RON 95 Unleaded
Engine Oil	approved synthetic
Coolant	50% glycol, water
Engine Control	ECU
Ignition Timing	variable
Spark Plug	surface discharge
Alternator	14 Volt / 18 Amp
Weight (dry)	24.5 kg / 54.0 lb
Performance at sea level	37.3 kW / 50 hp
Max. RPM	7,750 min ⁻¹
Max. Torque	52.5 Nm

R Series Development: AE110R

THE NEXT AUSTRO ROTARY ENGINE.



GLOBAL SUPPORT



FUEL INJECTED



ELECTRICAL POWER
200 W



WEIGHT
47 KG



POWER
110 HP

(Status March 2022)

General

The AE110R is a 588 cm³ dual rotor rotary engine with liquid cooling plus forced air cooling for the rotor cores, lubrication via metered oil pump directly to main bearing and rotor tips, twin spark plugs, electric starter, 14 Volt / 18 Amp alternator with high power output, electronic fuel injection and electronic control system.

Rotary Engine

The AE110R is a single stage rotary engine that generates 80 kW. The remarkable power-weight ratio (2 hp : 1 kg) makes it the ideal engine for unmanned vehicles and VLA. To address customer requirements best as possible, this engine is not certified yet. Please contact us to discuss your specific requirements.



Preliminary Specifications

Engine type	Rotary engine
Max. takeoff power	80 kW / 110 hp
Displacement	588 cm ³
RPM@ max. takeoff power	7,750 rpm
Max. continuous power	70 kW / 95 hp
RPM@ max. continuous power	7,100 rpm
Electrical power output	200 W
Base engine weight (no fuel pump, muffler, propeller, coolant, etc.)	47 kg / 103.5 lbs

All specifications, weights, representations, colors, equipment, use of materials and model references provided herein are for purely illustrative purposes and legally non-binding, subject to alterations and not warranted or guaranteed to be true or accurate.

More from Austro Engine

Engine Control Units

Engine control units for rotary and piston engines tailored to customer needs for special applications and light aircraft.

Engine Diagnosis Tool Wizard (in development)

This diagnosis tool can communicate and deliver data via cable or wifi through the CAN port. This allows to control and monitor the engine and to receive real-time status information.

EASA certified maintenance training

To make your engineers proficient with our state of the art engines, we offer EASA Part 147 maintenance trainings to all our customers.

We Keep You Flying - Customer Support

Wherever you are in the world, we are here to help you. Austro Engine's high-class global network of authorized service centers assures quick help and spare parts supply to keep you flying.

Customer Support

- Hotline (+43 2622 23000 2525)
- Trouble shooting support
- Online 3D IPC
- Online Manuals



Reference Customers



DA62



DA62 MPP



DA42-VI



DA42 MPP



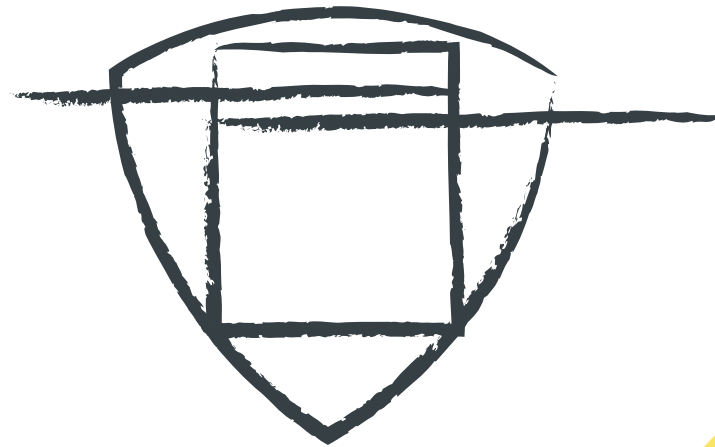
DA40 NG

SCHIEBEL



Austro Engine is your single point of contact for all engine related matters.

Take advantage of our state of the art technology and effectively reduce your operating costs.



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ENGINEERING INNOVATION

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