



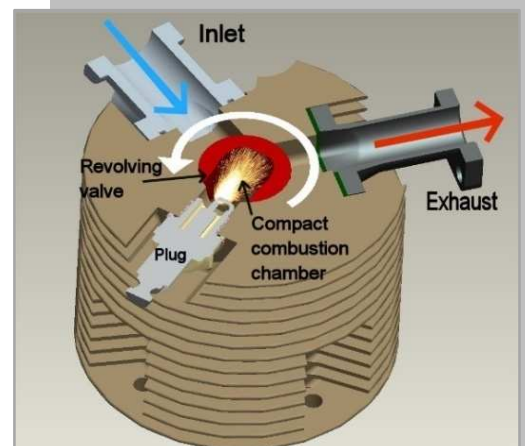
Heavy Fuel UAV Engines -AC



RCV Engines Ltd has a range of multi-fuel UAV engines that can operate equally well on gasoline or heavy fuel. The RCV combustion system is based on a unique patented revolving valve, that generates a high level of turbulence for good mixture preparation and creates an ideal compact combustion chamber for heavy fuel operation.

- Four-stroke cycle for low emissions and fuel consumption
- Large valve area gives high power with a wide power band
- Reliable combustion and power on heavy fuel from 8:1 to 15:1 AFR
- Excellent starting over a wide temperature range -20°C to +55°C
- Resistant to detonation – heavy fuel operation without de-rating
- No combustion chamber hot spots – minimising carbon build up
- High reliability, low maintenance with long MTBO:
 - No injectors in the combustion chamber to carbon up
 - No valve clearances to adjust
 - Shielded spark plug for minimum plug fouling and long life
- Designed as a UAV engine not modified from a hobby engine
 - Electronic fuel injection system with altitude compensation
 - Dedicated mounting system for 100 W to 3 kW alternators
- For further details see www.rcvengines.com/technology

- 2 kW to 4 kW
- JP8 / JP5 / Jet A1
- Gasoline
- Single and Twin
- Fuel Injection
- 4 Stroke
- Air Cooled



Specification

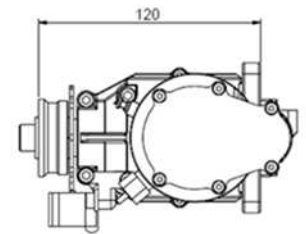
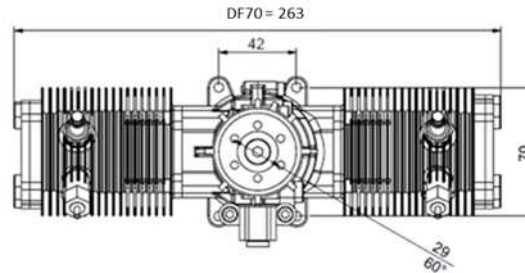
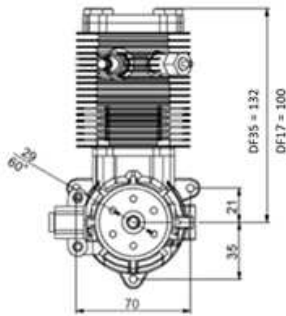
| Standard Build | DF35 | DF70 |
|------------------------|--|-----------------------------|
| Type | 35 cc Single cylinder | 70 cc Twin cylinder |
| Power (JP8) | 2.2 kW (3.0 hp) at 8500 rpm | 4.2 kW (5.7 hp) at 8500 rpm |
| Weight Complete* | 2.0 Kg (4.4 lb) | 3.0 Kg (6.6 lb) |
| Combustion System | Revolving valve, 4-stroke | |
| Cooling / Lubrication | Air cooling / Oil in fuel 1:25 | |
| Fuelling | Low pressure manifold injection with altitude compensation | |
| Heavy Fuel Starting | Cold start assisted with installed cartridge heaters | |
| Fuel Consumption (JP8) | 330 g/kW.hr (0.54 lb/hp.hr) | |
| TBO | 250 hrs (VTOL), 500 hrs (Fixed Wing) | |

| Options | | |
|----------|--|--|
| Rotation | Clockwise or Anti-Clockwise viewing the prop drive | |
| Starting | Starter Generator | |
| Cooling | Mechanical fan / Cowling / Electrical fan | |

*Weight includes engine assembly ready to run with fuel system, ECU, wiring and exhaust. Weight does not include prop, generator or cowling.

For further details see www.rcvengines.com/unmanned-vehicle-engines

Typical Dimensions (mm)



Applications

- Fixed wing
- Helicopter - Rotary wing
- Hybrid
- Marine
- Portable power



DF70 - Fixed Wing UAV



DF35 - Air cooled with Generator

Enquiries

RCV Engines has complete design control and as such can either supply an existing unit or configure an engine for a specific platform or application. Subject to establishing confidentiality arrangements 3D CAD data can be made available for installation studies. RCV can also evaluate which engine is the most suitable for a specific application.

Production engines are available from RCV Engines. Arrangement for licensed manufacture and/or production supply from an RCV Engines partner company.

For all enquiries contact: info@rcvengines.com