



DA Engines & HFE International



We are Next Gen UAV and we have been the leading engine supplier to some of the biggest defense companies in the middle east since 2020.

About Us

Next Gen UAV is one of the Middle East's leading suppliers of UAV products be it powers systems, airframe design and manufacturing, to high-end propulsion system solutions for UAV's, drones and unmanned systems.

As the Middle East service center and distributor for DA engines and HFE International with over 30 years of combined experience in the field of airframes and technical integration and being a leading engine supplier to some of the biggest defense companies in the middle east since 2020, we have the experience and knowhow to get your project in the air.

We understand the competitive nature of the field, which means our ideology is, to face a challenge head on and provide full support from pre-project concept, to implementation to after sales service and maintenance.

With experience and knowledge to tackle the difficulties of designing and prototyping the next best UAV, at Next Gen UAV, we are able to start with your thoughts and ideas

and roll with them all the way to the prototyping phase and even start a complete production line for you. With the aid of CAD design and simulation software we are able to understand exactly how your UAV will fly and the propulsion requirements that would best fit your needs.

Next Gen UAV uses the finest composite materials and the latest in vacuum technology for increased strength and durability, achieving reduced airframe structural weights for increased payloads and range.

We can tailor a full solution which will include avionics, power distribution and payload as per your requirements.

UAV made simple





DA Engines

Standard Carboured engines

Desert Aircraft is the industry leader in giant scale model airplane engines. We design, build, and service our engines at our Tucson Arizona factory. With our focus on performance, quality, and customer service, Desert Aircraft engines continue to be the dominate engine for sport and competition flying.



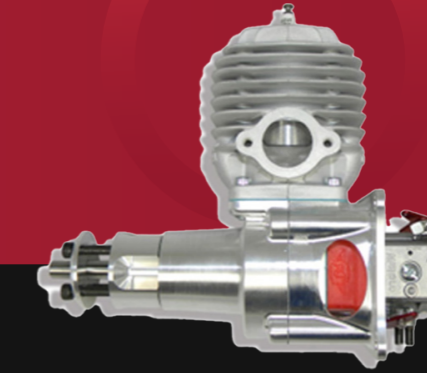
DA 35cc

Displacement: 2.14 ci (35 cc)
Weight: 2.06 lbs (935 kilos)
Length: 6.35" (161 mm)
w/stand off mounts
(included)
Typical RPM Range:
1,500 to 8,200
Bolt Circle: 29mm
Prop Bolt: (4) 4mm



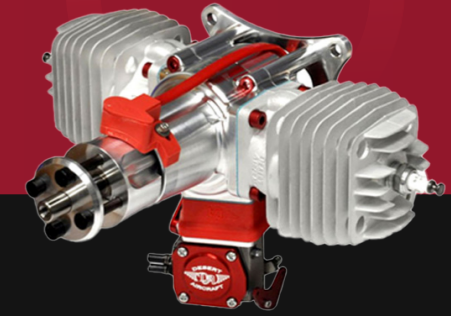
DA 50cc

Displacement: 3.05 ci (50 cc)
Weight: 2.94 lbs (1.33 kilos)
Weight w/Standoffs: 3.13 lbs
(1.42 kilos)
Bore: 1.6771 in (42.6 mm)
Stroke: 1.3779 in (35 mm)
Length: 6.7 in (170 mm)
Bolt Circle: 30mm
Prop Bolt: (4) 5mm



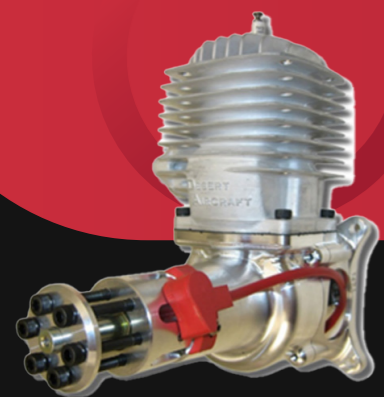
DA 60cc

Displacement: 3.7 ci (60.5 cc)
Weight: 3.1 lbs (1.41 kilos)
Typical RPM Range:
1200-7200
Bolt Circle : 30mm
Prop Bolt: (4) 5mm



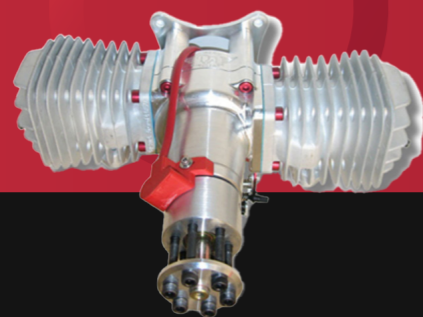
DA 70cc

Displacement: 4.28 ci (70 cc)
Weight: 3.55 lbs (1.61 kilos)
Bolt Circle: 30mm
Prop Bolt: (4) 5mm.



DA 85cc

Displacement: 5.24 ci (85.9 cc)
 Weight: 4.3 lbs (1.95 kilos)
 Bore: 2.047 in (52 mm)
 Stroke: 1.59 in (40.49 mm)
 Length: 5.9 in (150 mm)
 RPM Range: 1200 to 7500
 Fuel Consumption:
 2.2 oz/min @ 6,000 RPM
 Bolt Circle: 29mm
 Prop Bolt: (6) 5mm



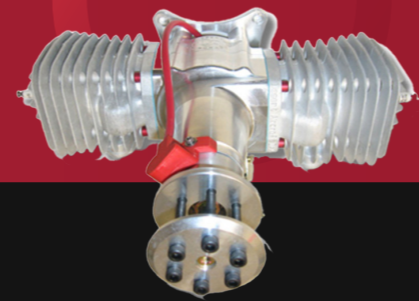
DA 100cc

Displacement: 6.10 ci (100 cc)
 Output: 9.8 hp
 Weight: 5.57 lbs (2.53 kilos)
 Bore: 1.6771 in (42.6 mm)
 Stroke: 1.3779 in (35 mm)
 Length: 6.5 in (162.5 mm)
 Fuel Consumption: 2.5 oz/min
 @ 6,000 RPM
 Bolt Circle: 29mm
 Prop Bolt: (6) 5mm



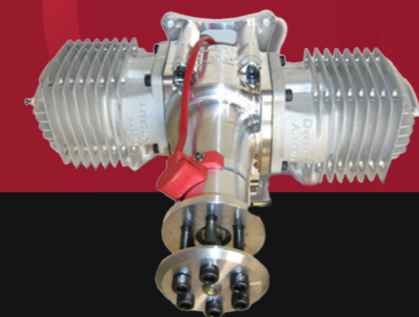
DA 120cc

Displacement: 7.4 ci (121 cc)
 Weight: 4.95 lbs (2.25 kilos)
 Length: 6.25 in (159 mm)
 RPM Range: 1,300 to 6,900
 Bolt Circle: 29mm
 Prop Bolt: (6) 5mm



DA 150cc

Displacement: 9.15 ci (150 cc)
 Weight: 7.26 lbs (3.3 kilos)
 Bore: 1.9291 in (49 mm)
 Stroke: 1.5748 in (40 mm)
 Length: 7.695 in (195.45 mm)
 RPM Range: 1,000 to 6,500
 Bolt Circle: 34mm
 Prop Bolt: (6) 5mm



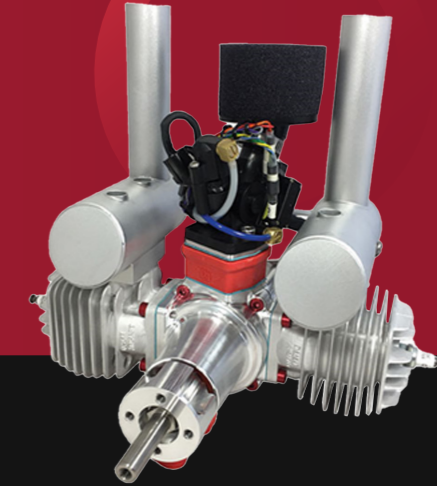
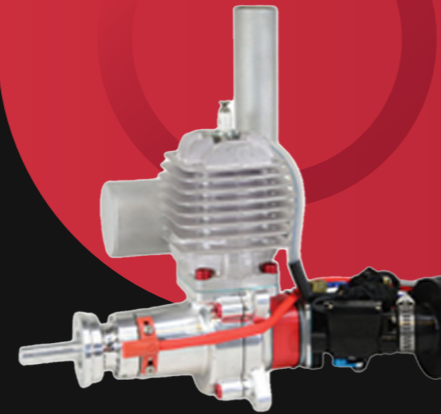
DA 170cc

Displacement: 10.48 ci (171.8 cc)
 Weight: 7.85 lbs (3.56 kilos)
 Bore: 2.0472 in (52 mm)
 Stroke: 1.594 in (40.49 mm)
 Length: 7.67 in (195 mm)
 RPM Range: 1,100 to 6,500
 RPM Max: 9,200
 Fuel Consumption: 4 oz/min @
 6,000 RPM
 Bolt Circle: 34mm
 Prop Bolt: (6) 6mm



DA 215cc

Displacement: 13.12ci (215cc)
 Weight: 10.9lbs
 Bore: 56 mm
 Stroke: 44 mm
 RPM Range: 1,200 to 6,000
 RPM Max: 6,700
 Fuel Consumption: 4.2 oz/min @
 5,700 RPM
 Bolt Circle: 42mm
 Prop Bolt: (6) 6mm



HFE International

Electronic Fuel injected engines

HFE International develops and manufactures high-end propulsion systems for UAVs, drones, unmanned systems, and ground support equipment. Propulsion systems include fuel-injection and rotary systems with gasoline and multi/heavy fuel operation.

DA 35 EFI UAV Engine :

Lead Time	4 -8 weeks
Displacement	35 cc, 2.14 ci
Power	2.1 kW, 2.8 hp
Weight (engine with intake)	1 kg, 2.2 lb
Weight (ECM)	98 g, 3.45 oz
Weight (Fuel Pump)	150 g, 5.29 oz
Standard Operating Speed	1,500 RPM to 8,200 RPM
Voltage	10 V to 15 V
Power Draw	1 Amp peak, 1 hour/1,000 mAh
Temperature Range	0° - 49° C, 32° - 120° F
Weight (500W Alternator System)	1.92 kg, 4.23 lb
Weight (muffler)	190 g, 6.7 oz

DA 50 EFI UAV Engine :

Lead Time	4 -8 weeks
Displacement	50 cc, 3.05 ci
Power	2.9 kW, 3.9 hp
Weight (engine with intake)	1.5 kg, 3.3 lb
Weight (ECM)	98 g, 3.45 oz
Weight (Fuel Pump)	150 g, 5.29 oz
Standard Operating Speed	1,600 RPM to 7,000 RPM
Voltage	10 V to 15 V
Power Draw	1 Amp peak, 1 hour/1,000 mAh
Temperature Range	0° - 49° C, 32° - 120° F
Weight (500W Alternator System)	2.41 kg, 5.30 lb
Weight (muffler)	238 g, 8.4 oz

DA 70 EFI UAV Engine :

Lead Time	4 -8 weeks
Displacement	70 cc, 4.28 ci
Power	5.7 kW, 5 hp
Weight (engine with intake)	1.6 kg, 3.5 lb
Weight (ECM)	98 g, 3.45 oz
Weight (Fuel Pump)	150 g, 5.29 oz
Standard Operating Speed	1,900 RPM to 8,200 RPM
Voltage	10 V to 15 V
Power Draw	1 Amp peak, 1 hour/1,000 mAh
Temperature Range	-12° - 49° C, 10° - 120° F
Weight (500W Alternator System)	2.41 kg, 5.30 lb
Weight (muffler)	238 g, 8.4 oz



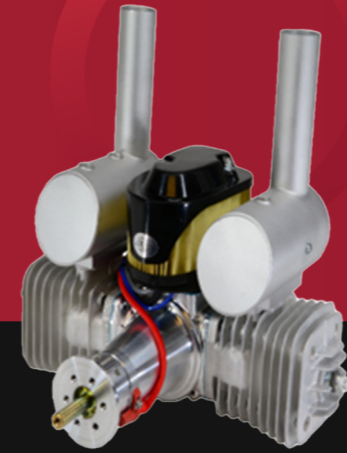
DA 100 EFI UAV Engine :

Lead Time	4 weeks
Displacement	100 cc, 6.1 ci
Power	5.5 kW, 7.4 hp
Weight (engine with intake)	2.5 kg, 5.57 lb
Weight (ECM)	98 g, 3.45 oz
Weight (Fuel Pump)	150 g, 5.29 o
Standard Operating Speed	1,200 RPM to 7,500 RPM
Voltage	10 V to 15 V
Power Draw	1 Amp peak, 1 hour/1,000 mAh
Temperature Range	-12° - 49° C, 10° - 120° F
Weight (500W Alternator System)	2.49 kg, 5.48 lb
Weight (muffler)	275 g, 9.7 oz



DA 120 EFI UAV Engine :

Lead Time	4 -8 weeks
Displacement	121 cc, 7.4 ci
Power	5.75 kW, 7.7 hp
Weight (engine with intake)	2.25 kg, 4.95 lb
Weight (ECM)	98 g, 3.45 oz
Weight (Fuel Pump)	150 g, 5.29 oz
Standard Operating Speed	1,200 RPM to 7,000 RPM
Voltage	10 V to 15 V
Power Draw	1 Amp peak, 1 hour/1,000 mAh battery
Temperature Range	-12° - 49° C, 32° - 120° F
Weight (500W Alternator System)	3.31 kg, 7.31 lb
Weight (muffler)	300 g, 10.5 oz



DA 150 EFI UAV Engine :

Lead Time	4 -8 weeks
Displacement	150 cc, 9.15 ci
Power	7 kW, 9.3 hp
Weight (engine with intake)	3.5 kg, 7.7 lb
Weight (ECM)	98 g, 3.45 oz
Weight (Fuel Pump)	150 g, 5.29 oz
Standard Operating Speed	1,800 RPM to 7,000 RPM
Voltage	10 V to 15 V
Power Draw	1 Amp peak, 1 hour/1,000 mAh
Temperature Range	- 12° - 49° C, 10° - 120° F
Weight (500W Alternator System)	3.32 kg, 7.32 lb
Weight (muffler)	375 g, 13.22 oz



DA 170 EFI UAV Engine :

Displacement	170 cc 10.4 ci
Power	9.6 kW 12.8 HP
Weight (engine with intake)	3.6 kg, 8 lb
Weight (ECM)	85 g 2.9 oz
Weight (Fuel Pump)	88 g 3.1 oz
Standard Operating Speed	1500 RPM to 7000 RPM
Voltage	10 V to 15 V
Power Draw	1 Amp peak, 1 hour/1,000 mAh battery
Temperature Range	0 to 49° C, 32 to 120° F



HFE International Gen Pod Systems

Electronic Fuel injected engines

HFE International develops and manufactures high-end propulsion systems for UAVs, drones, unmanned systems, and ground support equipment. Propulsion systems include fuel-injection and rotary systems with gasoline and multi/heavy fuel operation.



GenPod® 70cc LRU

(Line Replaceable Unit) by HFE International enables users to swap out the entire engine system within minutes.

Actual Displacement	70 cc, 4.27 in ³
Momentary Peak Power @ rated RPM	4.5 kW @ 9000 RPM, 6.0 hp @ 9000 RPM
Max Continuous Power	3.71 kW @ 7000 RPM, 5 hp @ 7000 RPM
Peak Torque @ RPM	5 NM @ 7500 RPM, 3.7 ft-lb @ 7500 RPM
Cruise BSFC @ RPM	437 g/kW-hr @ 6000 RPM, 0.72 lb/hp-hr @ 6000 RPM
Standard Operating RPM Range	3000 - 7500 RPM
Full System Weight with Mufflers	5.06 kg, 11.15 lb
Full System Power to Weight Ratio	0.9 kw/kg, .54 hp/lb
Nominal Current Draw (12V)	0.5 A
Maximum Current Draw (12V)	1 A
Rated Ambient Minimum	-18° C, 0° F
Rated Ambient Maximum	49° C, 120° F
Time between Overhauls	300 hrs
Sound Level	91 dBA at 1 meter, 91 dBA at 3 feet



GenPod® 100cc LRU

(Line Replaceable Unit) by HFE International enables users to swap out the entire engine system within minutes.



GenPod® 120cc LRU

(Line Replaceable Unit) by HFE International enables users to swap out the entire engine system within minutes.

Actual Displacement	100 cc, 6.1 in ³
Momentary Peak Power @ rated RPM	6.1 kW @ 9000 RPM, 8.2 hp @ 9000 RPM
Max Continuous Power	5.5 kW @ 7000 RPM, 7.3 hp @ 7000 RPM
Peak Torque @ RPM	7.7 NM @ 7500 RPM, 5.7 ft-lb @ 7500 RPM
Cruise BSFC @ RPM	564 g/kW-hr @ 6500 RPM, 0.93 lb/hp-hr @ 6500 RPM
Standard Operating RPM Range	2500 - 7000 RPM
Full System Weight with Mufflers	5.54 kg, 12.2 lb
Full System Power to Weight Ratio	1.1 kw/kg, .67 hp/lb
Nominal Current Draw (12V)	0.5 A
Maximum Current Draw (12V)	1 A
Rated Ambient Minimum	-18° C, 0° F
Rated Ambient Maximum	49° C, 120° F
Time between Overhauls	300 hrs
Sound Level	91 dBA at 1 meter, 91 dBA at 3 feet

Actual Displacement	121 cc, 7.4 in ³
Momentary Peak Power @ rated RPM	7 kW @ 8500 RPM, 9.38 hp @ 8500 RPM
Max Continuous Power	5.75 kW @ 6000 RPM, 7.7 hp @ 6000 RPM
Peak Torque @ RPM	9 NM @ 5500 RPM, 6.64 ft-lb @ 5500 RPM
Cruise BSFC @ RPM	550 g/kW-hr @ 6500 RPM, 0.904 lb/hp-hr @ 6500 RPM
Standard Operating RMP Range	3500 - 7000 RPM
Full System Weight with Mufflers	5.31 kg, 11.72 lb
Full System Power to Weight Ratio	1.31 kw/kg, 0.8 hp/lb
Nominal Current Draw (12V)	0.5 A
Maximum Current Draw (12V)	1 A
Rated Ambient Minimum	-18° C, 0° F
Rated Ambient Maximum	49° C, 120° F
Time between Overhauls	200 hrs



Actual Displacement	151 cc, 9.15 in ³
Momentary Peak Power @ rated RPM	7.7 kW @ 7000 RPM, 10.3 hp @ 7000 RPM
Max Continuous Power	7 kW @ 6000 RPM, 9.37 hp @ 6000 RPM
Peak Torque @ RPM	11.2 NM @ 5000 RPM, 8.26 ft-lb @ 5000 RPM
Cruise BSFC @ RPM	400 g/kW-hr @ 5500 RPM, 0.657 lb/hp-hr @ 5500 RPM
Standard Operating RPM Range	3500 - 6500 RPM
Full System Weight with Mufflers	8.33 kg, 18.37 lb
Full System Power to Weight Ratio	.92 kw/kg, 0.56 hp/lb
Nominal Current Draw (12V)	0.5 A
Maximum Current Draw (12V)	1 A
Rated Ambient Minimum	-18° C, 0° F
Rated Ambient Maximum	49° C, 120° F
Time between Overhauls	300 hrs

GenPod® 100cc LRU

(Line Replaceable Unit) by HFE International enables users to swap out the entire engine system within minutes.

UAV made simple



Contact Us

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info@NGUAV.com