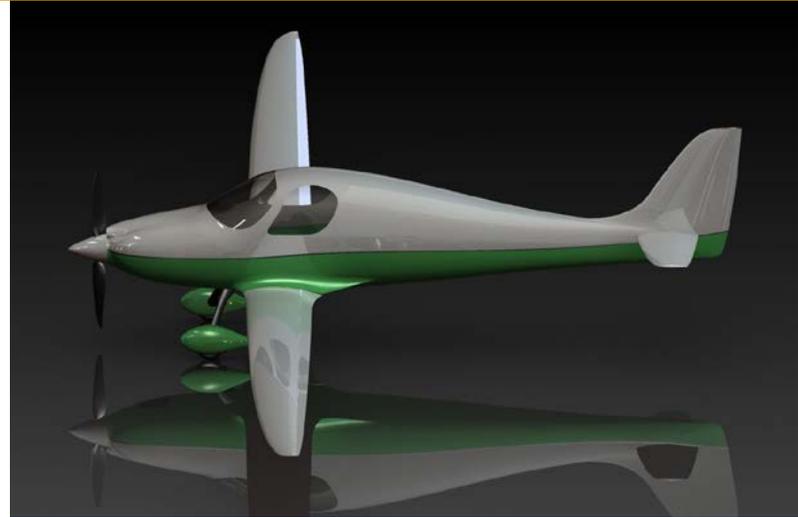


GosHawk



The motor glider that unlocks a pilot's freedom.

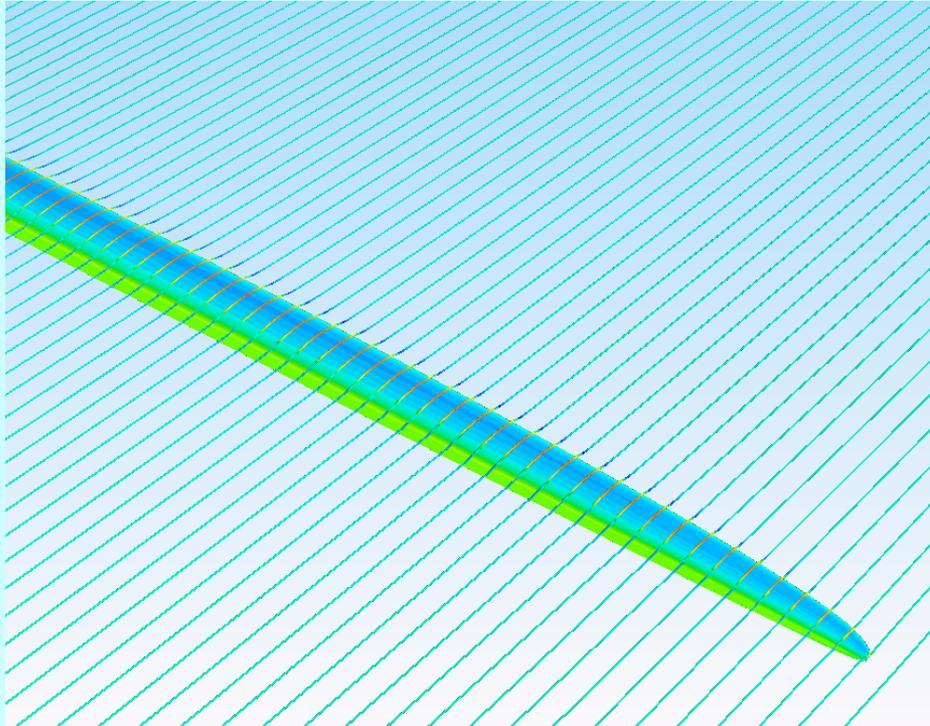
WINDWARD
Aircraft

Bend Oregon

All information and data subject to change



Design



The GosHawk's exceptional design, which includes exceedingly low drag from the wings and airframe, allows for very low power consumption. Flight power is provided by either an electric or conventional gasoline internal combustion engine.

The aircraft uses advanced composites and construction methods for a reliable structure. Load and speed limits are remarkably high for such a slim layout

Vne = 180 KEAS
Va = 125 KTS
+5.4 / - 3.3 g's
Vs = 54 KEAS at 1150 LBS

The GosHawk achieves low power flight with low drag. Long wings with careful aerodynamics over the entire aircraft achieve this.

L/D max = 40 at 67 KTS at 900 LBS

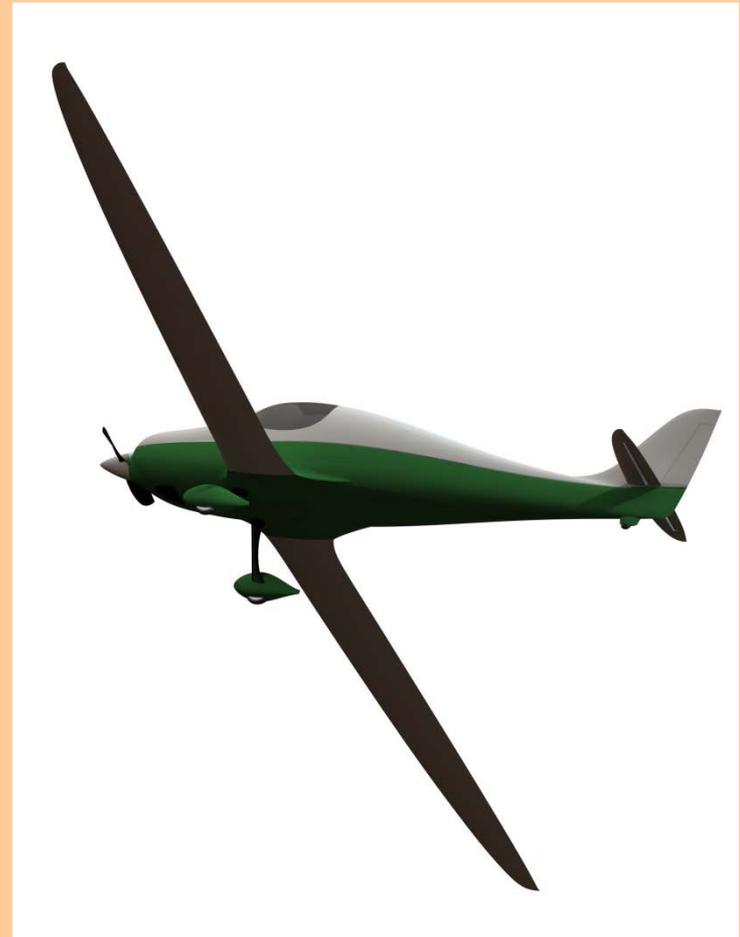
The GosHawk aerodynamics also favor high achieved climb rates with low power input.

1000 FPM electric
1400 FPM HKS 700
(both with variable pitch propellers)

Inside

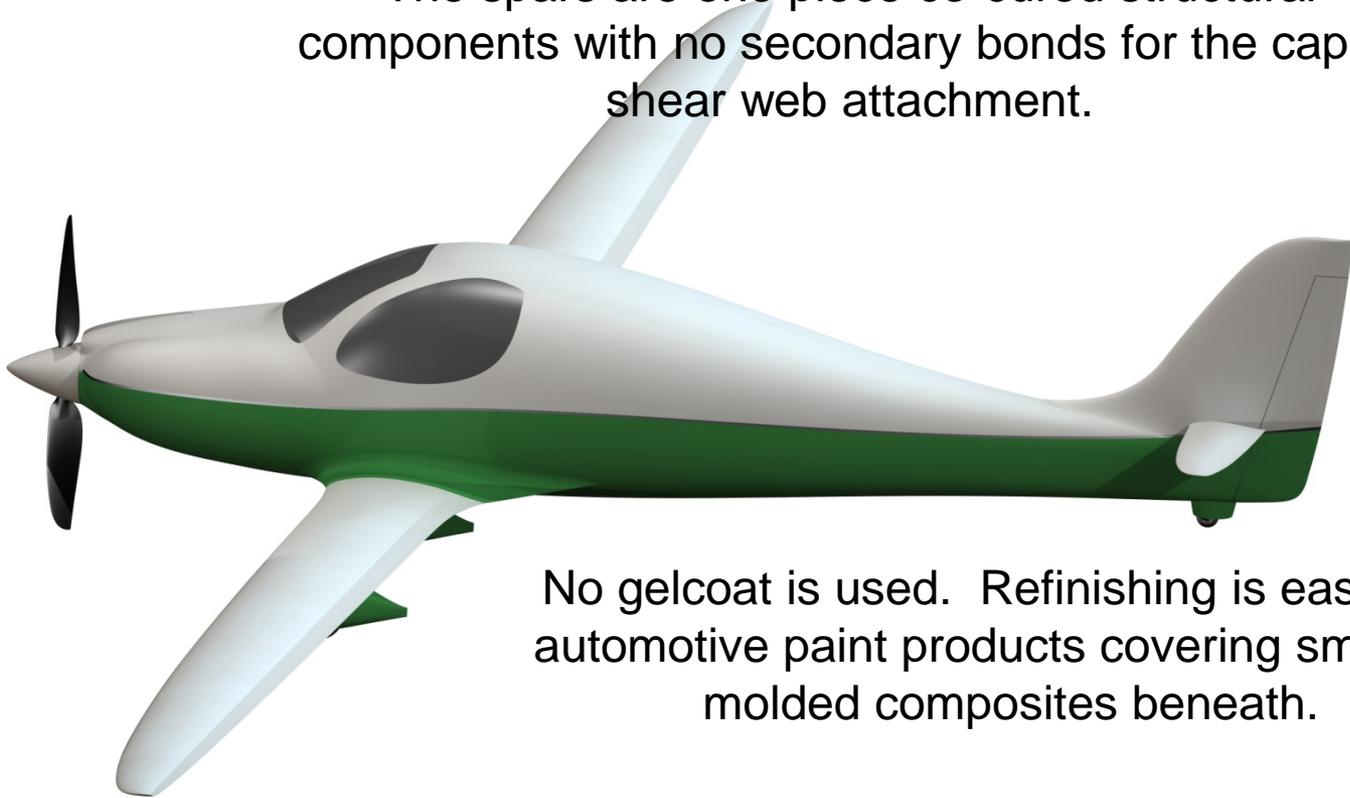
Constructed with Toray T700 carbon fiber prepreg and Diab Divinycell HP foam core, the best products available.

These allow for the exceptional strength requirements of the design. They also contribute to the quality and reliability of the structure. These materials are not only strong but have exceptional thermal stability and fatigue resistance so the structure will be both strong and accurate for the future.



Structure

The spars are one piece co-cured structural components with no secondary bonds for the cap to shear web attachment.



No gelcoat is used. Refinishing is easy with automotive paint products covering smoothly molded composites beneath.

The material thickness in the outer skins of all components is thick and robust.

Cockpit



Pilot comfort is a very important part of the equation in an aircraft designed for long soaring flights. The cabin features side by side seating (practically no CG change with loading) with excellent field of view. A large instrument panel designed for modern screens is placed within easy reach. Powerful cabin ventilation is designed in as well as ergonomic seating and built in provisions for oxygen and baggage storage are additional niceties.

Kit



This is a composite aircraft kit. It includes the molded oven cured composite parts that can not be reproduced without the molds. Composite flat panels are provided for fabrication of certain internals. Drawings are provided for these shapes as well as for the metallic parts. Fabrication of these parts requires basic skills such as cutting, drilling, riveting, bending, and welding.

Propeller shown is optional at extra cost



Kit



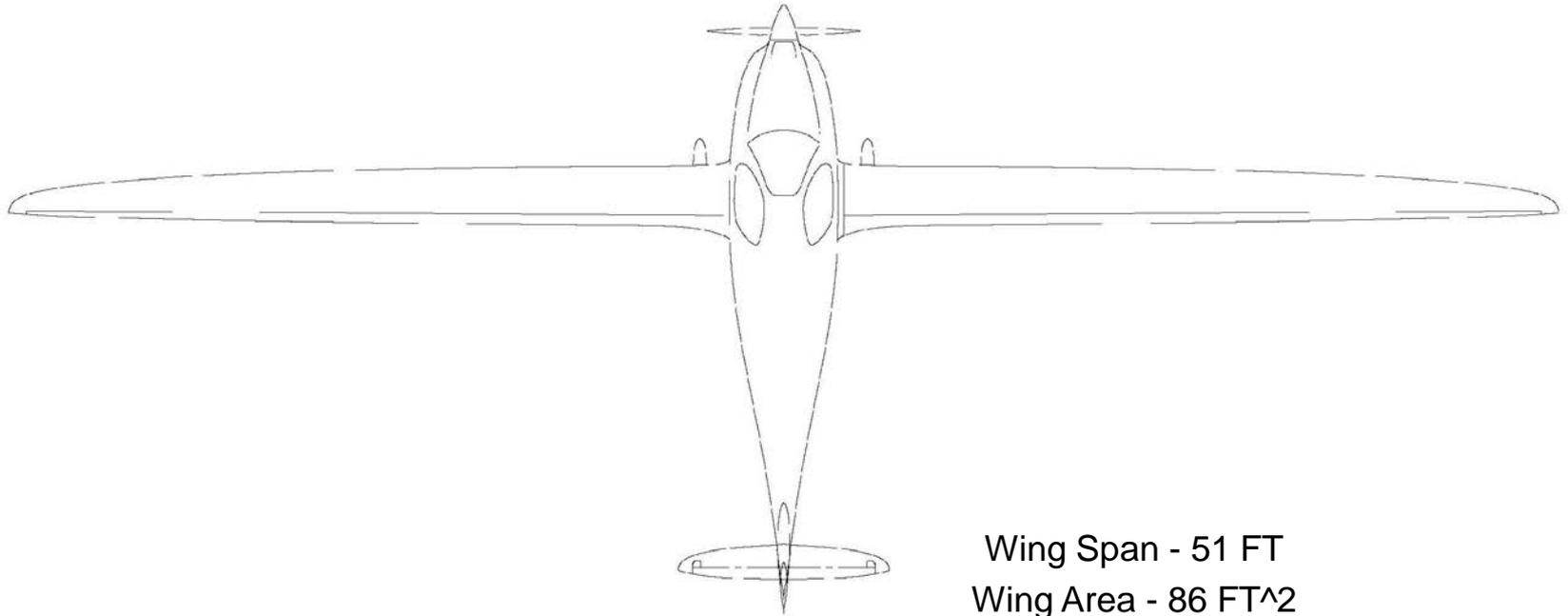
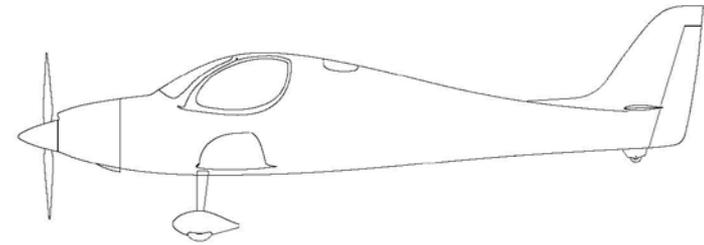
Factory assistance (optional) is available for closing the wings, horizontal, and fuselage in the factory jigs. Drawings are provided for those that wish to construct their own jigs and fixtures for the assembly of these components.

Kit



Options exist for purchasing many of the fabricated parts like the control system.

GosHawk

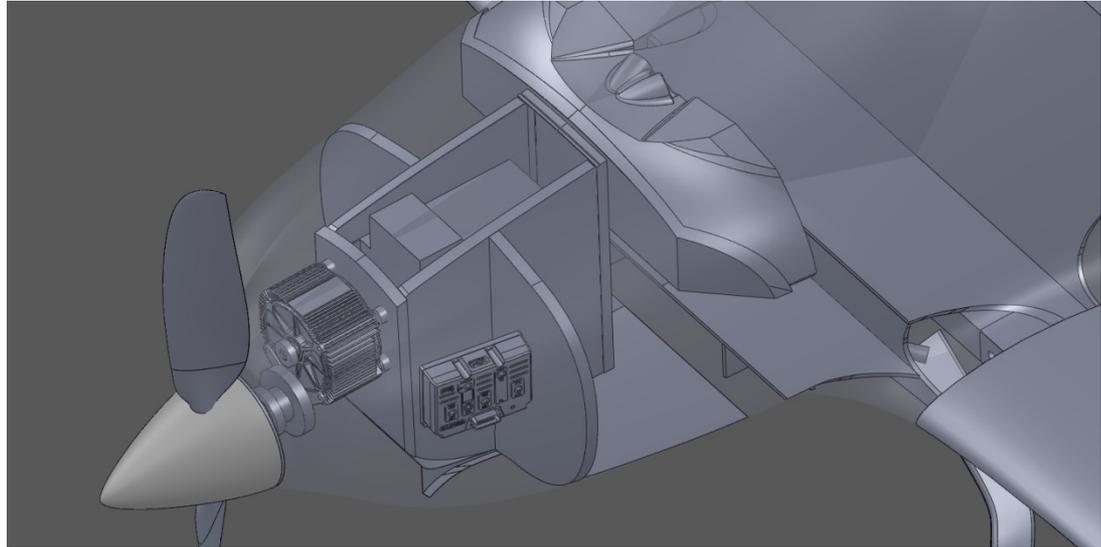


Specifications

Wing Span - 51 FT
Wing Area - 86 FT²
Length - 20.3 FT
Vertical Height - 4.7 FT
Gross Weight - 1200 LBS

All information and data subject to change

Kit



Propulsion system options for electric and HKS 700 power are also available. These include items such as the motor mount. Several propeller options are also available for these motors.

GosHawk Electric at 900 LBS flight weight and 11.4 kW HR battery

Flight Condition	Power Setting (kW)	Energy Used (kW HR)	duration	Details
TO / Climb	34.1 out of battery 31.4 into prop	2.3	4 minutes	1000 FPM climb rate at 73 KIAS This is 40 SHP
Cruise	4.7 out of battery 4.3 into prop	7.1	1.5 HRS	73 KIAS (84 mph) 110 nm or 126 statute mile range
Reserve		2.0		63 KIAS is max range speed

Alternate Performance Points

Flight Condition	Power Setting (kW)	Details
Fast Cruise	6.92 out of battery 6.37 into prop	90 KIAS 101 KTAS at 8,000 FT ALT ISA
Economy Cruise	4.7 out of battery 4.3 into prop	63 KIAS, max range speed 71.2 KTAS at 8,000 FT ISA
Max Speed	39 out of battery 35.9 into prop	174 KIAS or 200 mph, SL ISA
Max Speed	40.1 out of battery 36.9 into prop	174 KIAS 197 KTAS at 8,000 FT ISA

GosHawk HKS700 at 900 LBS flight weight and 24 GAL Fuel Capacity

Flight Condition	Power (BHP)	Fuel Burn (GPH)	duration	Details
TO / Climb	56 at 2248 PRPM 60 at 2403 PRPM	4.2 6.3	3 minutes	1400 FPM climb rate at 80 KIAS 1500 FPM climb rate at 80 KIAS
Cruise	46 at 4750 ERPM 1841 PRPM	2.3	8.7 HRS	174 KIAS (200 mph) 1500 nm or 1740 statute mile range burning 20 GAL
ECONO Cruise	8.2 BHP at 1100 PRPM	0.65	30 HRS	90 KIAS is approx max range speed 2700 nm range burning 20 GAL Approx 100 mph at 160 mpg

Options

The GosHawk is available with a range of options.

Custom instrument panel layouts and installation available.

Custom and model specific tiedown and ground handling gear available.

As a custom built aircraft many bespoke details are available.

Please contact us for specific details and pricing.

Trailer

The trailer is an important part of the sailplane system.

The GosHawk has removable wings and horizontal surfaces so as to make trailer transport a viable option.