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COBALT CO50





THE COBALT Co50 A LEGEND IS BORN

The Co50 is the first aircraft of the Cobalt range, and inaugurates a new era in private, upper class aviation. A clean sheet design, it was created in order to set the new world reference in safety, comfort, and performance among Single Engine Piston aircraft.

Our design team strived to create the most elegant and purebred machine possible. A plane that blends high-tech knowhow with traditional luxury references.

Without denying its clear inspiration from the most admired airplane and automotive designs in the world, the Cobalt Co50 embodies the next stage in aircraft evolution.





THE ULTRA-HIGH PERFORMANCE SINGLE ENGINE PISTON AIRCRAFT

With its 350hp turbocharged engine, super-light empty weight and efficient canard configuration, the Cobalt Co50 aims at providing an unequalled means of personal transportation.

Mile-Passenger Cost, Useful Load, Cruise Speed and Safety requirements for this design have led our teams to create a machine that provides real travelling capabilities. Such as, keeping an autonomy of more than 4 hours with all passengers on board.

The Co50 aims at being the first high-performance canard Single Engine Piston aircraft to be certified in the world. Because, canards have proven they're worth the effort, when considering speed and safety.

This vehicle is the latest major innovation in general aviation airplanes. And as such, it widely uses sandwich composite technology for its aerostructures, and latest innovations in equipment and propulsion.



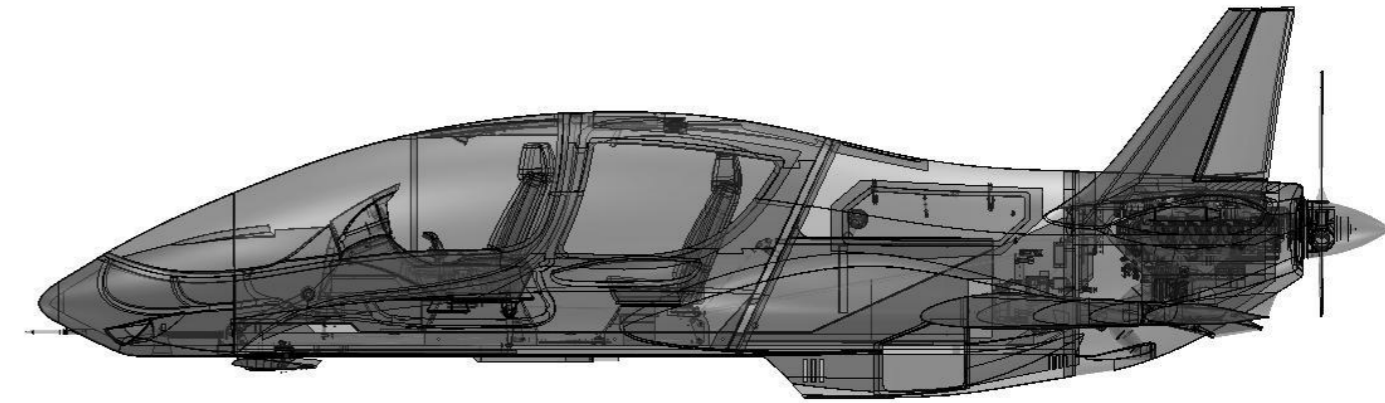


THE RECONCILIATION OF SAFETY AND ELEGANCE

The Co50 is the result of seven years of development from passionate designers and aerospace engineers. It benefits from the most recent advances in fields such as material science, advanced mechanics, and vibro-acoustics.

As a certified aircraft, the Co50 is to meet or exceed all the performance and safety criteria of the most rigorous Civil Aviation Regulations, in the United States and Europe.

This jewel has been thought over and improved in every detail, visible or hidden, through a 6-year development program. And with constant grit and determination to make the most seductive, comfortable and smart single engine piston aircraft, both inside and out.





EXTRA-WIDE CABIN, LUXURY IN EVERY DETAIL

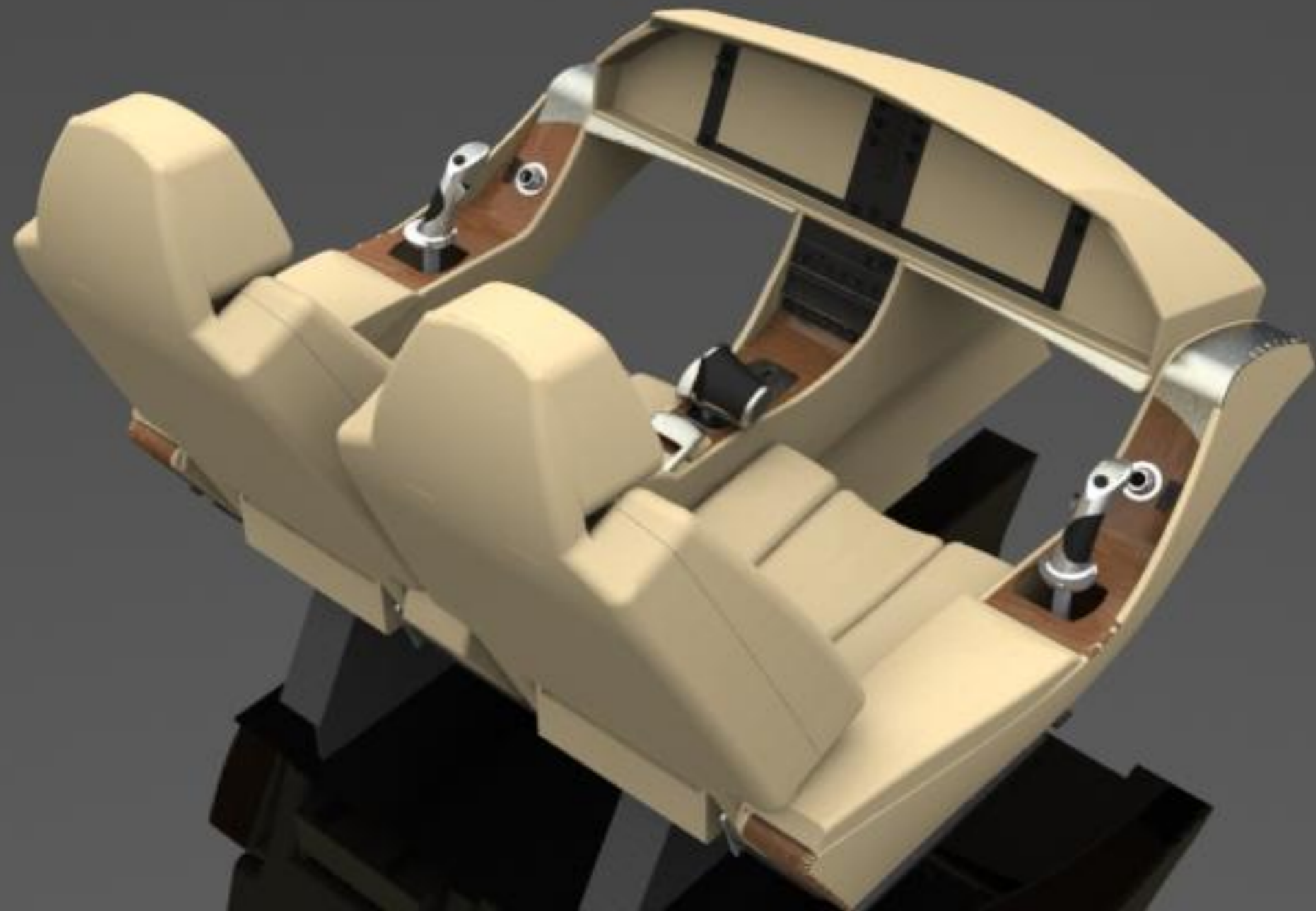
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AN UNEQUALLED FLIGHT EXPERIENCE

For both pilots and passengers. That's what drove our designers throughout the development process, and that Cobalt brings to the market today.

Thorough ergonomics testing have been conducted from each angle. Multidisciplinary optimization of performance requirements, cabin space, acoustics, and thermics has been conducted with inspiration coming from outside aerospace typical references.

We combined aerospace's constant obsession, safety, with our customers': possessing unique masterpieces.







THE ART OF EQUILIBRIUM

Ergonomy is not a vain word, especially in a machine that takes its passengers to high cruise altitudes, at temperatures dropping as low as minus 60 degrees Celsius, at load factors that can go down and up to 6g's, in head-down attitudes, or in zero visibility. All this, by all weather, at night, and at speeds higher than 200 knots. One will agree that pilot fatigue or stress is not an option on this type of travelling, and that's why so much effort has been spent on details: there is no detail on the Co50, every system is considered as life-critical.



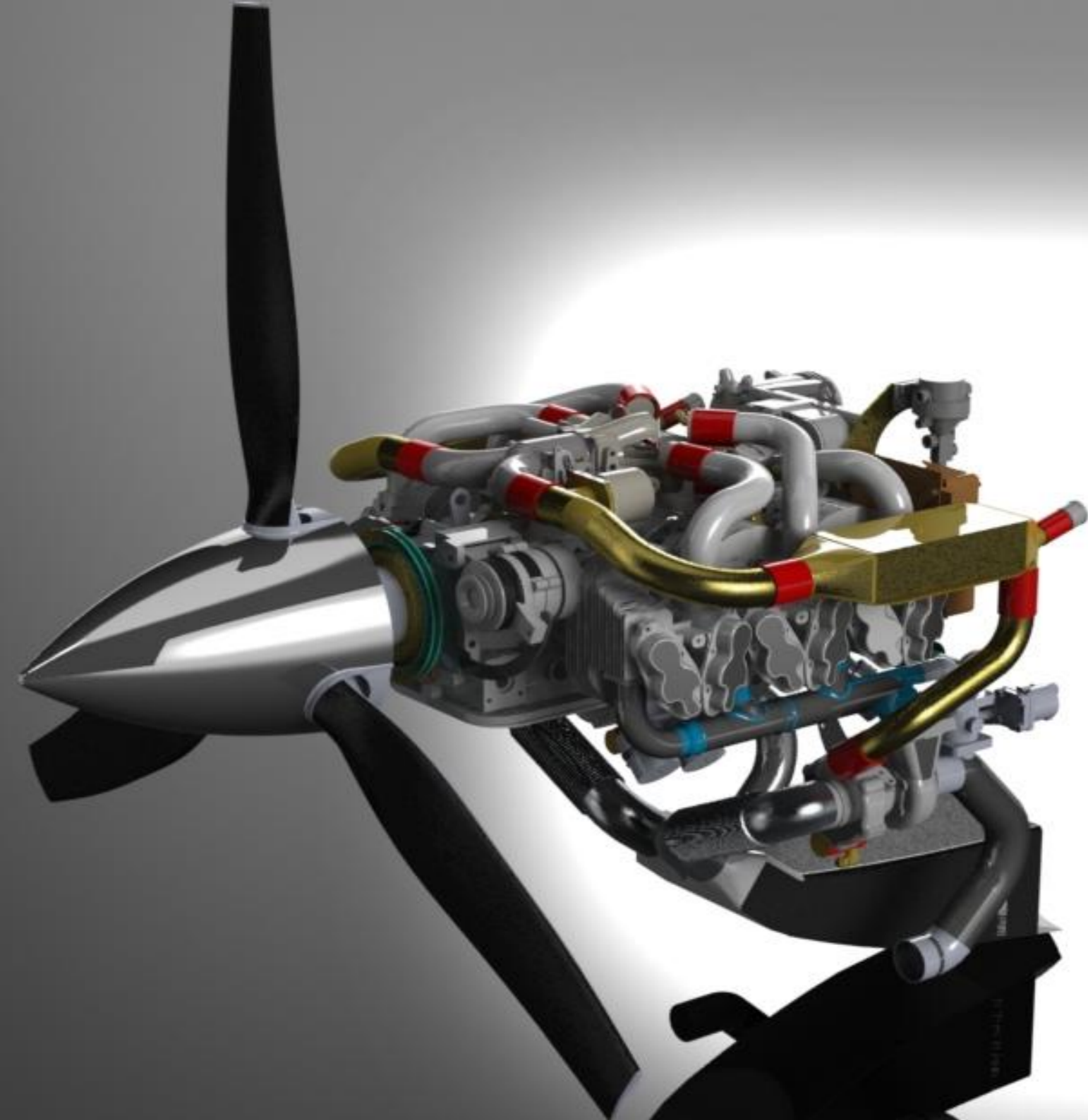
POWER & RELIABILITY

350HP, BI-TURBOCHARGED, FADEC-CONTROLLED

The most advanced piston engine available today powers your Co50. Unleashed power, allows your aircraft to climb to 25,000 feet in less than ten minutes, where the sun almost never stops shining.

FADEC control allows you to ride this next generation engine with a simple lever. The engine monitors itself and keeps a record of its parameters throughout the life of the aircraft, for 30 years or more.

And all this, with a quality of maintenance service from its manufacturer that is recognized as being the best in the world.



Performance

Travel Performance

Max Cruise Speed	245 KTAS
Cruise Speed @75% 8kft	220 KTAS
Max Range	1150 nmi
Operating Ceiling	25,000ft

Economic Performance

Fuel Burn @75% 8kft	25 USG/h
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TakeOff Performance

TakeOff Distance	1300 ft
Rate of Climb SLS @MTOW	1200' /min
Canard Stall Speed	60 KIAS

Specifications

Weights

Useful Load	1367 lb (620kg)
Standard Empty Weight	1720 lb (780kg)
Fuel Capacity	109 USG (413L)

Propulsion

Engine	TSIOF550-D
Power	350 hp @2600 RPM

Dimensions

Cabin Width	58.3 inches
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THE ULTIMATE TRAVELLING TOOL FOR BUSINESS AND LEISURE

With more than 2000km autonomy, the Co50 flies without stopping for fuel over distances that are too long for a car, although being difficult to cover by an airline. Flight is direct from any airfield to another, without the burden of scheduled flight availability, security procedures, or driving to remote, often small, airfields. And in any weather, anytime in the day or night.



PERSONALIZATION YOUR TAILORED Co50

Your Co50 is unique. Thanks to hundreds of combinations allowed by the materials, finishes, layout and equipment options. A “baseline” or “standard” Co50 therefore wouldn’t mean anything, besides the fact that standardization is instilled in the design for maintainability and intercommonality considerations. Additionally, our engineering team can examine your special requests, and build and certify them if financially and technically viable.

FEATURES AND OPTIONS

State-of-the-art technology is instilled in every Cobalt aircraft. Every system has been designed and selected for its dependability and maintainability.

All the features listed in pages 24-25 come with each of our aircraft, so that every Cobalt Owner and/or Pilot feels the unmatched possibilities of this machine.

Airframe

- ✓ Carbon-Airex sandwich aerostructures, with 10g fail-safe wing spars and chassis, embedded resistive anti-ice leading edges
- ✓ Electric Pitch Trim, joystick-controlled , aerodynamically balanced
- ✓ Full Vision Canopy ® made in 5mm-thick Degussa Acrylics, Swiss made, mechanically ejectable
- ✓ Remote-controlled electric canopy opening
- ✓ Automatic deployment & retraction of side-stepping bars for ingress/egress
- ✓ Non-protruding Cargo door latches and fuel cap
- ✓ Electric Retractable Landing Gear with freefall & automatic lock, German custom-built KW competition dampers, Trailing Link configuration on all 3 legs, machined from solid high-strength aluminum alloy
- ✓ Steerable Nosewheel
- ✓ Solid Aluminum Machined Pedals & steering system
- ✓ Electric Flaps, with discrete positions (TBC after flight tests)
- ✓ Hydraulic Airbrakes (TBC after flight tests)

Propulsion

- ✓ Teledyne Continental TSIOF550-D Twin Turbo Engine, Dual aftercoolers, FADEC-controlled, certified for single-lever operations
- ✓ Automatic ECO and POWER mode switching
- ✓ 2 alternators, Gear- and Belt-driven
- ✓ WiFi-accessible engine condition & parameters history, on all Life Cycle of aircraft
- ✓ Hartzell Constant-Speed 3-blade Aluminum propeller
- ✓ High-modulus Steel 6-point Engine bed

Fuel System

- ✓ Parker Aerospace Fuel shutoff Normally Open remote electrovalve
- ✓ 18g crash-safe, 400L Integral Fuel Tank with 3-point fuel exit, anti-tossing inner wall, capacitive level sensor and embedded LO/HI alarms

Electrical Architecture

- ✓ Fully redundant 24V electrical architecture, parallelized with Kelly Aerospace twin-capable voltage regulators
- ✓ Electrical health monitoring on Primary & Secondary circuits (ALT condition, voltage, amperage, circuit protections)
- ✓ 2 Heavy duty, maintenance-free sealed Gill Batteries
- ✓ GPU plug compatible with major brands, accessible in Nose Gear well
- ✓ Solid Aluminum military Amphenol connectors on all subsystems, with halogen-free Tefzel wiring
- ✓ Pair of high-power Xenon discharge lights with chromium-plated custom housings
- ✓ LED-powered next generation strobe/nav/beacon self-contained combos

Flight Controls

- ✓ Integrally Pushrod-controlled surfaces with ball-bearing mounted triangles & linkages
- ✓ Dual Side Sticks with puch-to-talk & trim hatswitch
- ✓ Linear high-precision ergonomic Gas handle
- ✓ Single Central Brake Handle with mechanical rugged Park lock

Insulation & Cabin climate

- ✓ E.A.R. high performance foam thermal & acoustic insulation (to be optimized after flight tests)
- ✓ Electrically-actuated Heat distribution & recirculation valve
- ✓ Canopy defogging & triple fan-powered ventilation system

Seats & Armrests

- ✓ 18g crash-safe leather Bucket Seats & Embroidered Head Cushions with customizable lumbar foam density, reclinable & translatable on front seats
- ✓ 5-point harnesses (front), 4-point harnesses (back), customizable turnbuckles & straps
- ✓ Side & Central Leather Armrests for pilots & passengers
- ✓ Extra-wide rear cabin with armrest convertible to child seat (4+1 pax total)

Instrumentation, antennas & Sensors

- ✓ Heated Pitot-static
- ✓ Alternate static source
- ✓ Structure-embedded, non-protruding VHF & XPDR antennas

Cockpit & Cabin Consoles

- ✓ Pilot Roof Console, including lighting, deice & climate lighted switches, lighted labels, dimmable reading lights & breaker panels
- ✓ Leather Side & Central Consoles with lighted switches, labels & air vents, avionics on central console, customizable tops
- ✓ Leather Panel Box with customizable panel
- ✓ Passenger Roof Console, including dimmable reading lights, air vents and optional IFE; jack plugs on front end of armrests

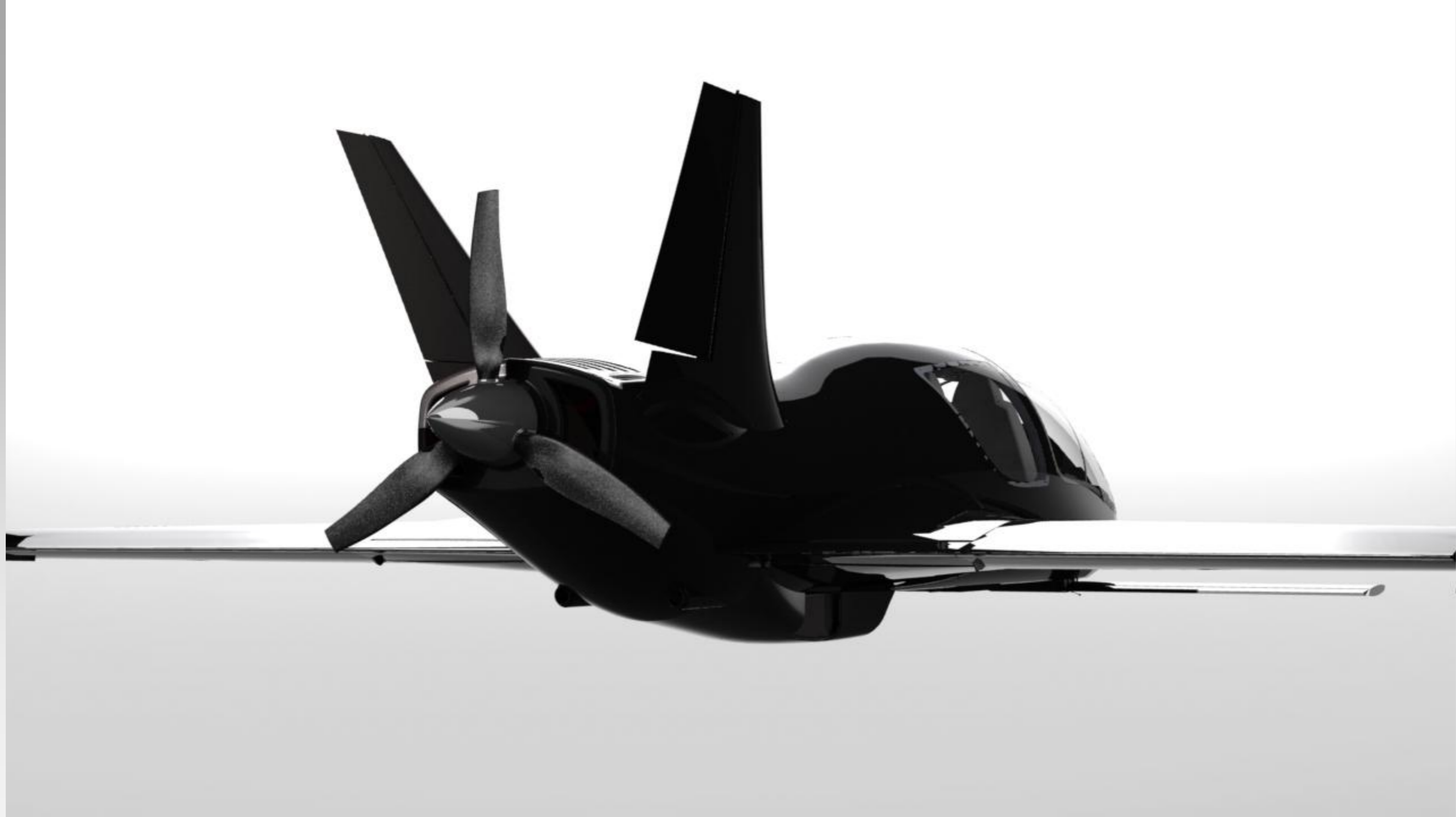
Avionics

- ✓ Customized Avionics Package

Care Program

- ✓ 2-year Warranty, Parts & Labor





Cobalt's headquarters at Toussus-le-Noble Airport (LFPN), near Paris, France



TOTAL OEM STRUCTURE THE ASSURANCE OF A WORLD-CLASS SERVICE

Our Paris-based headquarters enters in a durable relationship with every customer.

Although demonstration flights, sales and airplane care are conducted at your local distributor's facilities, the satisfaction of every Cobalt owner and pilot is duly monitored by a centralized interlocutor at Cobalt.

Proper action regarding retrofit requests, or maintenance issues for example, is then ordered along to our subcontractors and industrial partners worldwide. A full array of service is therefore available, from Aircraft On Ground (AOG) immediate assistance, to long-term study, construction & certification of customization requests.

As a young company, we insist on keeping an image and a quality of service that impresses anyone entering in the Cobalt family.