



ready for take off





## Calidus – and the world is yours

Just get on board, fly away, fly to the horizon and enjoy the never-ending vastness – that's how your dreams come true. Feel the sky and be part of it: The Calidus guarantees great experiences with the highest comfort and maximum safety.









# Developed with belief – produced with success

Only those who believe in their own ideas, can also convince others. Keeping this concept in mind, the Calidus was developed and presented to the market for the first time in 2009. Since then it has been certified in numerous countries around the world and it is clear that the Calidus sets standards: As the ideal addition to our MTOsport, the Calidus is tailored perfectly to our customers' requirements. For the first

time, AutoGyro's newly developed and patented Silent Block System is integrated in the aircraft to minimize vibration. Ideal for all kinds of weather conditions, the Calidus always offers maximum comfort: heated cabin, adjustable pilot seat, easily interchangeable canopy with or without sun roof and open sides – you can be sure that every wish will be fulfilled. Thanks to the unique monocoque-construction, fuel con-

sumption and wind noise is massively decreased. Each Calidus is handmade and completely customized in AutoGyro's serial production factory, respecting the strictest quality requirements. Combined with the most modern avionics technology each gyroplane offers a 100% safe, fun and fascinating flight experience, 365 days a year.



Ready for take off



Each cockpit will be equipped individually



The Calidus – that's quality, comfort and fun





## A safe arrival catches on everybody

There are no limits to the Calidus! The gyroplane can easily be fitted with floats and is perfectly equipped to also declare water its home. With ease the aircraft connects the elements and makes sure that every flight is an extraordinary experience.



## As far as the eye can see

The horizon seems close at hand, yet so far away, the view amazes and the great vastness excites the senses – with Calidus you can experience all of it. Thanks to the interchangeable open and closed canopies, any panorama can be enjoyed to the max. Even in bad weather the Calidus is perfectly equipped with glass cockpits, a combination of EFIS and moving map systems.



A look inside shows: The Calidus is powered by a Rotax engine, which is integrated perfectly in the AutoGyro structure. There are two variants of this 4 cylinder motor: either the 912 ULS with 98 PS or the 914 UL Turbo with 115 PS. Fuel is Mogas (unleaded car fuel) or AvGas. The powerful thrust of the engine is transmitted by the AutoGyro propeller HTC 3B CW

172,5. Alternatively, the in-flight adjustable prop IVO DL3-68" completes the portfolio and guarantees a simultaneous adjustment of all three blades from 18 to 28 degrees.

## Technical details motor

- Rotax 912 ULS mit 98 PS
- Rotax 914 UL Turbo with 115 PS
- 4 cylinders
- · Liquid-cooled cylinder heads
- · Air-cooled cylinders
- Dry sump forced lubrication
- Electronic dual ignition
- 2. electronic fuel pump, option for 912 ULS



Sennheiser-Headset HME 110



Sennheiser-Headset HMEC 460



Charger for Calidus battery

# *INTERIOR*

## Safe and secure with individual comfort

The inside of the Calidus guarantees first class comfort combined with the upmost safety. The individually adjustable pilot seat offers a ideal seating position with enough room for pilot and passenger. The cleverly arranged cockpit can be equipped with the different instruments depending on certification requirements and customer's needs. This way it is possible to integrate, for example, two side by side

displays (GPS, EFIS) and many other features. The standard instruments include a compass, altimeter, air-speed indicator and operating hours as well as displays for the engine and rotor speed, oil and cylinder temperature and oil pressure. Our in-house installation is completed with high-class ANR (active noise reduction) headsets.



Picture left: stick
Picture right: pilot and passenger seat









AutoGyro is based at Hildesheim airport, and has grown steadily since starting to make gyroplanes in 2004. As the world market leader in development, production and sales of gyroplanes, the specialist from Lower Saxony employs a team of over 80 high class workers and engineers. Thanks to many years of experience, as well as the in-house development and production with strict quality audits, the manufacture







of safe and reliable gyroplanes meeting highest standards has become second nature. Within the serial production facility one to two gyroplanes per day are produced and supplied to its recipient all around the globe. AutoGyro serves and supports a superb global network consisting of more than 35 sales partners around the world. In England, the country with the strictest construction regulation (BCAR Section T),

AutoGyro in cooperation with RotorSport UK Ltd. succeeded to supply the first ever UK Type Approved factory built gyroplane in the market. Furthermore, AutoGyro holds more than 20 patents.

# PRODUCTION

## Handcrafted precision



CNC production controlled by the expert

More than 90% of all components of the aircraft are developed and produced in house at AutoGyro. Only the best materials, manufactured to the highest precision, are used. Creating the aircraft starts with the manufacturing of the stainless steel airframe: it is precisely welded by certified workers, and then electro polished. This way it is protected from corrosion, looks great, and is easy to inspect. In the adjacent

hall, modern, automated, CNC machines produce all components of the Calidus, which are built up into sub assemblies in the in the pre-assembly area. Even the composite parts such as the propeller, suspension bow etc are handmade at AutoGyro. In a complex process glass and carbon fibres are laminated into the in-house created moulds, and then oven cured to an exact time/temperature profile. Afterwards, the



finished monocoque of the Calidus is prepared and painted in our in-house paint shop. No matter what choice of finish the customer wishes—single color, two-coloured, flip flop or even gold foil — we will do everything possible to create it.

Tailoring the glass and carbon fibre





Laminating the reinforced plastic parts

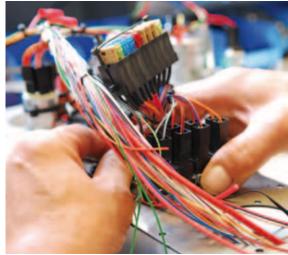


High-precision manufacture with modern CNC machines



Ready laminated and cured monocoque





Assembly of the individual cockpit

Handcrafted wiring harness

# Creating a hand crafted aircraft to the customers specific wishes



Even the avionics are crafted for the customer.

Depending on the order, and market restrictions, the cockpits can be equipped with the most diverse flight instruments, features and displays. And again, AutoGyro focuses on craftwork, and produces this component of the gyroplane themselves. Each wiring harness is handcrafted, with guaranteed quality. The only purchased parts on an Autogyro are the flight instruments and the motor.

In the final assembly hall your Calidus is assembled and inspected. Then every gyroplane is test flown to a standard test schedule, examining every aspect of the aircraft function. Finally, it is cleaned and polished, and made ready for hand over to the customer.



### Technical data Calidus



 L x w x h
 4,8 x 1,7 x 2,7 m

 mtow
 450 (560) kg

 Vcruise
 160 km/h

 Vne
 185 km/h

 cruise rotor
 8,4 m

 range
 up to 5 h

 engine
 Rotax 914/912

- Closed, two seat autogyro in tandem configuration
- Monocoque cell with closed canopy (fitted with emergency vision vent and 2 side vents)
- · Mast and tail boom electropolished
- Aluminum rotor system Naca 8H12 8,4m
- Rotax 912ULS with 100 HP or Rotax 914 UL turbo with 115 HP and air box, fitted complete with a slipper clutch and high exhaust system.
- Propeller HTC 3B CW172,5

- Instrument panel with the following standard instruments:
  - Airspeed indicator
  - Engine and rotor RPM
  - Oil temperature
  - Oil pressure
  - Engine CHT
  - Compass
  - Hour (Hobbs) meter
  - Electric fuel gauge
- · Pneumatic pitch trim and rotor brake
- · Pneumatic pre rotator
- Hydraulic mainwheel brakes with parking lock
- 39ltr fuel tank
- · Rotor tie down bag
- Fully painted body and all composite panels
- Pilot seat with position adjustable seatback
  - Seating position and angle adjustable for body size from 165 to 200 cm
  - Seats include a four point harness
- · Choice of standard colours, or unlimited colours
- · Ready for you, full inspected and test flown

## Additional equipment

#### Engine equipment

- Second electrical fuel pump for Rotax 912 ULS
- Auxiliary tank 36ltr
- Electrical in-flight variable-pitch propeller IVO DL3-68 "3 sheet, 172 cm, switching position from 18 to 28 degrees
- · Rotor system vibration damper
- · 8.4m standard rotor with tip weights

#### Colour

- All aircraft panels made from GRP/CFK. Panels (body, tail unit, rudder, engine and mast panels, suspension bow, wheel housings and spinner) are painted in the customers colour:
- Standard colours are yellow, red, and white (cost included in the basic price)
- Special colours (solid colour or metallic), two-colour lacquer finishes or special lacquer finishes are available subject to special order

#### Avionics

- ELT automatic radio beacon Kannad 406 compact
- Filser radio ATR 500 or ATR 833 fully fitted

- Transponder TRT 800 H fully fitted and tested
- Card compass in place of standard compass

#### School equipment

 Flight instructor set consisting of throttle, brake, switches, rear seat stick.

#### Lighting

- Landing lights LED (2 x 2.5 W)
- · LED strobes and navigation lights

#### Cockpit

- · GPS cockpit variants for the following GPS devices
  - AvMap EKP IV, min, Fly map L, Think Navi T7, EFIS
  - Rate of climb indicator (VSI) 80 and/or 57 mm

#### **Energy supply**

• 12v 5A cigar type socket in instrument panel



Closed canopy with sunroof



Open canopy without sunroof

#### Special equipment

- Headsets
- Summer canopy (cut outs in the side)
- · Painted on sunroof to match the body
- Cockpit heater (variable min flight)
- Spinner
- Wheel housings
- · Heavy duty or sport tire instead of standard tyres
- Roll trim
- Floats as a kit (at present only certified in Sweden)





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