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The new MTOsport











The new MTOsport

Feel the difference

The benefit of an Autogyro over fixed-wing aircraft:

- Impossible to stall, Impossible to spin
- Very short take-off distances (10 to 70m)
- Practically no landing distance necessary
- Extremely slow-speed flight possible
- Minimum pre flight preparation

- Easy ground handling
- Road transportable
- Tiny hangar footprint
- Relatively unaffected by turbulence and windy conditions' one line

- Easy ground handlingin strong winds
- Comfortable, ergonomic, seats
- Large operational speed range
- Purchase and operational cost about 10% of that of a helicopter.



The superb autogyro operational envelope easily copes with the challenging environment of Botswana, Namibia, Australia, etc. – and are probably the best type of aircraft to suit the terrain, due to low cost, low fuel burn, easy main-

tenance, use of Mogas or Avgas, and ability to take off and land nearly anywhere. Amazing aircraft whether flying for fun or for aerial photography – or anything else in between. Autogyros discover daily alternative applications, eg traffic surveys, pipeline and aerial cable surveys, following road rallies, livestock monitoring, even game control on Safari parks.



Autogyros give access to areas that never normally see humans; Beautiful, but incredibly inhospitable, yet man is still able to create places to land and stay. Low fuel burn means refuelling is easy, from jerry cans or the back of pickup trucks! These aircraft are not limited by airfields and borders.





With almost boundless freedom of the air, there is remarkable access to the animal realm, giving astonishing experiences just not possible by other means of transport.



In these hot and arid places the thermals are a joy to play in. Turbulence is cut through by the rotors, in a way no other aircraft can match, this flying is the flying of your dreams ...

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AutoGyro is the only worldwide manufacture to offer a float kit, giving the MTOsport the fantastic ability to take off and

land on water. The operational envelope of the aircraft is almost boundless.





Even under hardest conditions – like here in Sweden with -25°C – the MTOsport flies extremely reliably.

Centre picture: MT Autogyro flight over Swiss alps in 16.500 ft (5.500m).



Using their professional experience and production capability, AutoGyro GmbH has become the world market leader in development, production and selling of Gyroplanes. The business commenced in 1999, and since then has grown to a current staff of 46 highly skilled engineers and manufacturing personnel. The experience of many years in aviation, matched with highly-qualified and motivated staff, superb development, production and quality control facilities has led to the creation of first-class, high value, autogyros.



Production has run at full capacity since 2007. An autogyro is finish manufactured virtually every working day for worldwide export. At present AutoGyro GmbH supply certified autogyros to Germany, Australia, New Zealand, South Africa, Costa Rica, Italy, Sweden, France, Hungary as well as in Austria. In the UK, where the strictest Regulatory aircraft standard is to be required (BCAR Section T), AutoGyro GmbH co-operates with RotorSport UK Ltd, and is the only manufac-turer in the market.



Composite GRP components (glass or carbon fibre) are created in our in-house developed and manufactured moulds, and painted in our own high class paint shop. Even the individual propeller blades and the propeller hub are manufactured completely by AutoGyro.



The Airframe – the heart of the MTOsport – is manufactured by skilled specialists from high-grade stainless steel, and then electropolished, to withstand the harshest operational environment. Our CNC machines manufacture the components, from small spacers to rotor hubs, all of which are then assembled by our pre-assembly production team using a modular concept

Technical data MTOsport:

L x B x H: 5,1 m x 1,9 m (1,6 m) x 2,7 m

- Rotor diameter: 8,0 or 8.4 m
- Cruising speed: 160 km/h (86 kts, 100 mph)
- Permissable maximum speed: 185 km/h (100 kts, 115 mph)
- Climb rate: 4 m/s (780 fpm)
- Range: approx 500 km (310 miles)
- Max. take-off mass: 450 kg
- Engine:
- Rotax 912 ULS (100 HP) or
- 914 UL2 (turbo with 115 HP)
- Reduction transmission 1:2.43.
- Supplied with integral slipper clutch as standard

Basic equipment autogyro MTOsport with Rotax 912 ULS

- Two seat autogyro
- Frontseat with windshield for passenger
- Airframework in high-grade stainless steel, electropolished
- Aluminum rotor system Naca 8H12 8,4m
- Rotax 912 ULS with 100 HP
- Gearbox with integrated slipper clutch
- Exhaust system high-grade steel
- Carburetor anti icing preheat
- Propeller HTC 3B CW172,5
- Instrument panel
- Trip and altimeter
- Engine and rotor speed
- Oil and cylinder head temperature
- Oil pressure
- Compass
- Hour (Hobbs) meter
- Pneumatic pitch trim and rotor brake
- Pneumatic PreRotator with safety interlock
- Hydraulic man wheel brake with lock
- Polypropylene tank, capacity 34 litre
- Rotor tie down bag
- All GRP components painted
- Color choice in accordance with palette either standard or special colours
- Fully finished, flight tested, and ready to fly

Basic equipment Autogyro MTOsport with Rotax 914 UL2

- Two seat autogyro
- Frontseat with windshield for passenger.
- Airframework in high-grade stainless steel, electropolished
- Aluminum rotor system Naca 8H12 8,4m
- Rotax 914UL turbo with 115 HP
- Gearbox with integrated slipper clutch
- Exhaust system high-grade steel
- Carburetor anti icing preheat
- Propeller HTC 3B CW172,5
- Instrument panel
- Trip and altimeter
- Engine and rotor speed
- Oil and cylinder head temperature
- Oil pressure
- Compass
- Hour (Hobbs) meter
- Pneumatic pitch trim and rotor brake
- Pneumatic PreRotator with safety interlock
- Hydraulic man wheel brake with lock
- Polypropylene tank, capacity 34 litre
- Rotor tie down bag
- All GRP components painted
- Color choice in accordance with palette either standard or special colours
- Fully finished, flight tested, and ready to fly



Engine options

- Air box for Rotax 912 ULS
- Air scoops inclusive second radiator (for Rotax 912/914)
- Second electric fuel pump for Rotax 912 ULS
- Auxiliary tank 34l right
- Variable-pitch propeller IVO DL3-68 "3 sheet, 172 cm, switching position (in accordance with noise measurement) from 18 to 28 degrees, with electrical adjustment

Rotor system

Choice of 3 rotor systems made of aviation aluminum Naca 8H12

- Standard rotor with 8,4m diameter (basic equipment)
- Sport rotor with 8,0m diameter (more agile handling)
- Cruise rotor with 8,4m diameter (for long-distance cruise, medium speed)

Color

All composite parts (enclosure, tail unit, rudder, seat, suspension bow, wheel spats, air scoops) are painted to customer colour specification:

- Standard colors are: yellow/red/white
- Metallics standards (with surcharge) aqua blue and silver
- Special colours from industry colour cards (pearlescent or metallic), two colour lacquer finishes or special lacquer finishes are also available with a surchage

Avionics

- ELT automatic radio beacon.
- Filser radio ATR500 with wiring harness to both seats.
- Integral antenna in the tail unit or alternatively (with carbon composites) whip antenna on the nose or under enclosure
- Transponder TRT800 complete with antenna
- LT-automatic radio beacon ACK
- Card compass in place of standard compass (surcharge)

School equipment / instructor options

- Flight instructor set 1 rear seat throttle
- Flight instructor set 2 rear seat airspeed indicator km/h or mph
- Flight instructor set 3 rear seat wheel brake.
- Flight instructor set 4 rear seat Engine kill switches and trim

Lighting

- Landing lights (2x50W) inclusive wiring harness
- Landing lights LED (2x2,5 W) inclusive wiring harness
- Strobe and navigation lights with 2 flash strobe sequence inclusive controller
- Strobe and navigation light LED inclusive controller

Cockpit

- GPS cockpit variants (contained in basic equipment) ready for the installation of a AvMap EKP IV or GPSmap 296/496 or Flymap L (GPS equipment, bay, antenna and cables are not contained and must ordered separately)
- Tank fuel level inclusive tank sender.
- Rate of climb indicator (VSI or variometer) 80 and/or 57 mm, m/s or fpm

Electricity supply

- Genesis battery 13Ah inclusive of mounting plate
- Plug socket 12V in front/in the back
- Gerbing heating automatic controller 12V single or dual for Gerbing clothes

Extra equipment

- Upholstered sport seat cushions in place of standard cushions
- Carbon fibre based composites instead of glass fibre -Enclosure (approx. 3 kg less)
- Carbon fibre based composites instead of glass fibre (weight reduction around approx. 3.5 kg).
- Map bag
- Luggage bag
- Gyro cover sheet
- Heavy duty/off road tyres
- Floats with certification inclusive all attachments
- Floats as kit (at present only in Sweden certified)



Beside the standard paint colours of yellow, red and white, we also offer optional metallic colours of Aquablue and silver.

We will also paint any other colour, and combination of colours, desired, even gilded with gold foil.





The luggage bags (3) are fastened in the footwell in front of the rear seat and fuel tanks, and still give plenty of room for the passengers legs. If necessary these can be also very easily removed and carried to your hotel or place of work.

Maps, on-board documents and other documents can be stowed in the document wallet (4). This is easily detacheable, being retained by turnbuttons to the inside of the pilot enclosure. It is also easily accessible in flight. The AutoGyro helmet (5) does not only provide good head protection, it is also equipped with an excellent quality microphone and headset. When connected with the Filser ATR500 radio, occupants can converse comfortably with each other, without pushing buttons during the entire flight. Both seats have a PTT button, enabling both occupants to send and receive radio calls.

For cold weather flying, we offer a selection of heated clothing. The heat is supplied from the on board electrical system, via either single or dual regulator controls on each seat. Heated gloves (6), trousers, socks and jackets are available.







Pilots with landing lights are better seen in air and in the approach – the halogen bulbs (2) are $2 \times 50W$, the LED lamps (1) $2 \times 2.5W$.

Navigation lights in combination with strobes increase the recognition both in air and at the ground, and, where allowed, permit flight beyond sunset – halogen (7) and LED (6) lamps are available.

For flight schools, the rear seat has various equipment options; Throttle, mainwheel brakes (5), airspeed indicator (4) as well as engine ignition kill switches and flight trim (3).



Clearly arranged and visually correct, the GPS cockpit panel permits the integration of the following GPS devices: FlyMap L (10), GPS MAP 196/296/396/495/496 (8) as well as AvMap EKP IV color (9). The standard instrument panel includes (from left) hour meter, altimeters, engine and rotor speed, oil pressure, oil temperature, cylinder head temperature, airspeed indicator, ball compass. Not seen in the picture are; rotor head temperature and pneumatics pressure. As an alternative to the standard magnetic compass, a highly precise Card compass (11) is offered. The optional fuel gauge (picture 10, center) shows the level of fuel in the tank. The Filser radio ATR500 offers the normal EASA standard radio functions, as well as built in intercom. With the appropriate Helmets (page 17, fig. 5), free voice communication between the aircraft occupants is clear and easy. The TRT 800 Funk Werke (Filser) Transponders is also available. Confirmation of Modes S and transponder signals can be done at the factory in Hildesheim.



The MTOsport is propelled by a Rotax engine. This extremely reliable 4 cylinder is offered in two variants: 914 UL turbo with 115 HP or 912 ULS with 100 HP. As an option the 912ULS can be fitted with an airbox. The optional air scoops (4), whilst adding well visually to the aircraft, also contain a second radiator for particularly hot conditions. As a safety feature the 912 ULS has an optional second electric fuel pump. For forward thrust AutoGyro developed and manufacture a 3 blade clockwise rotating propeller (HTC 3B CW172,5) (3). The optional variable-pitch propeller IVO DL3-68 "(2) permits a stepless electrical pitch adjustment of all 3 blades from 18 to 28 degrees. This provides both for increased static thrust as well as economic cruising.





The extruded aluminium rotor blades (5) are also an in-house development by AutoGyro GmbH. Great care is taken in manufacturing the individual parts, with detail weight, balance and measuring to create well balanced rotor systems. The strictest quality controls are required to create the quality product that you can be rely on. Apart from the standard rotor system with a diameter of 8,4 m, two other sizes are available; the sport rotor (6) has a diameter of 8,0 m, giving a higher Cruising speed (Vcruise 160/VNE 185 km/h) and very agile flight characteristics: The heavier Cruise rotor with diameter of 8,4 m gives a very comfortable flight for long distance medium speed. Special aircraft covers are available to protect your asset (7). Aircraft maintenance is either provided by local trained engineers or our well trained and Rotax certified service team – either mobile (8), or at the factory itself.

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Autogyro in film:

- James Bond You only live twice "Little Nelly"
- Mad Max II
- It happened at one night (1934)
- The 39 steps (1935)

History of the autogyro

- 1923: Juan De La Cierva built and flew the first autogyro
- Autogyros flew across the world in the boom years of the 1920's and early 30's, even within the US post office delivering mail.
- World war: Submarines used unmotorised gyrogliders towed behind them (Focke Achgelis Fa330 ÑBachstelze "), operating both as along range lookout and target spotting.
- During world war II Great Britain calibrated and monitored it's radar defence system with autogyros
- Autogyros were used by Japan and the Soviet Union in the 2nd world war for clear-up operations.

International partners

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