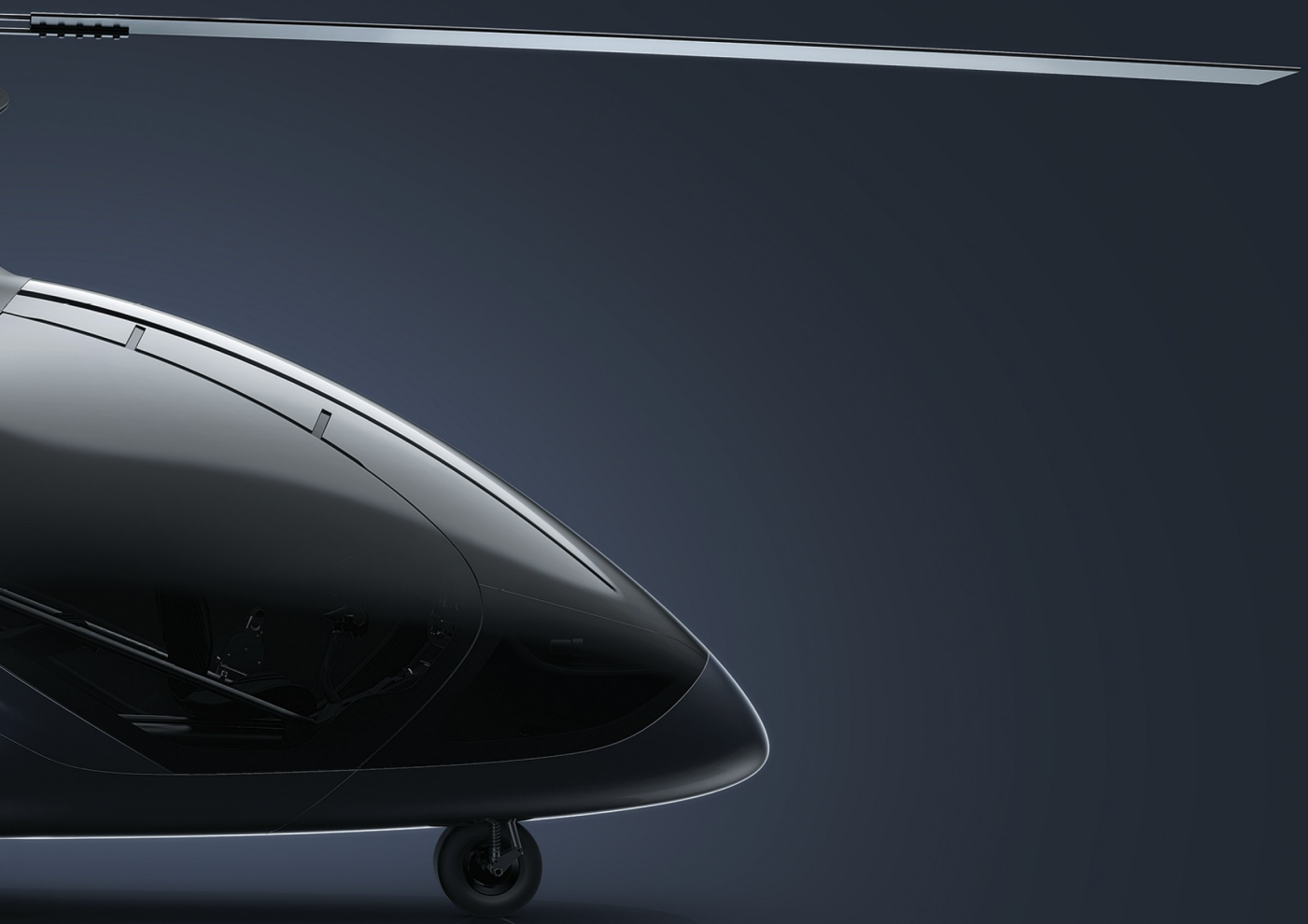
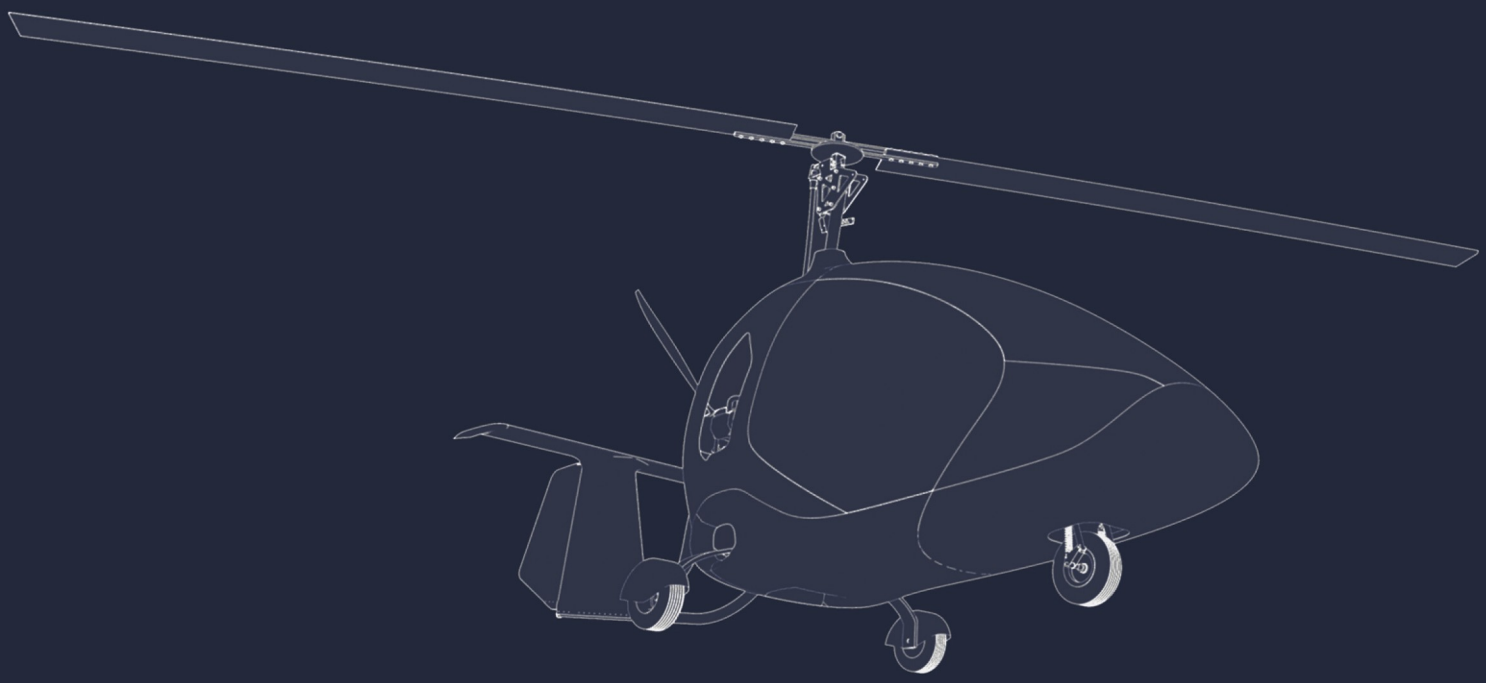
AVIATION Artur Trendak

AGRO GYRO



WHY
gyroplanes



Gyroplanes do not stall

When flying airplane and descending airspeed at a specific moment stall occurs which results in rapid loss of lift force. It is possible to regain airspeed and lift by moving the joystick forward and initiate dive of an airplane but only if enough altitude is provided. Otherwise, in low altitude flight, it ends up with catastrophe.

Gyroplane, unlike the airplane, cannot stall in a classic manner. Its "wings"- the rotor blades rotate with 350-400 rpm and when speed is reduced below minimal the rotor will remain spinning which results in slow and calm altitude descend. With a proper pilotage it's possible to safely land or return to a steady flight.

Gyroplanes do not spin

Aircrafts starts to spin when one wing stalls and second one not.
As gyrocopter do not stall, it's impossible to spin with its' rotor in motion.

Gyroplanes can fly safely with very low speed

Minimum flight speed required to maintain altitude is around 60 km/h
but with strong wind it can appear to hover, which is useful for observation.

Gyroplanes have low sensitivity to strong wind and turbulance

Thanks to fast spinning blade (speed on the blade tip is about 200 m/s) rotor is insensitive to wind gust.
Moreover strong wind can be used to play with the gyro obtaining extremely short take-off distance or hovering impression.

Gyroplanes can be used in very difficult atmospheric conditions when powered hang gliders and other fixed wing ultralights are grounded in the hangar.

Agro Spraying

Easy and quick assembly/disassembly of the AGRO equipment on the gyroplane. Possible fine spray from small to big droplet size. The effectiveness of spraying up to 250 acres/hour flight (for example efficiency spray about 3 l/ha)

Compared with ground equipment, spraying is much more efficient:

100 hectars/hour

0% damages

caused by the wheels

TECHNICAL DATA

GYRO + ARGO SYSTEM

Minimum speed:	40 km/h
Cruising speed while spraying:	90 - 100 km/h
Cruise speed:	150 km/h
Takeoff distance:	150 m
Landing distance:	10 m
The minimum altitude of the flight:	5 - 7 m
Fuel consumption:	20 - 25 L/h
Fuel capacity:	80 - 120 L
Theoretical range:	700 km
Maximum theoretical flight time:	5,5 h
Width of spray (swath):	20 m
Capacity of chemistry tank:	140 L
Weight kit spraying:	28 kg
System expenditure:	1 - 5 L/Ha
Spray droplet size – variable between:	60 - 750 VDM2

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Rise Above Everything

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