



aeroscout
unmanned aircraft technology

Scout B-330 UAV

Product Brochure Scout B-330 UAV Helicopter



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Product Description



The Scout B-330 UAV helicopter is designed to carry payloads up to 50kg (110lbs) for at least three hours in a typical mission scenario. This includes a fully autonomous take-off sequence, a mission flight at variable speed, and a landing sequence. The mission can be a preprogrammed on the ground control station (GCS) or it can be continuously adapted by the operator.

Various safety features such as autonomous homing and automatic landing in case of link-loss as well as redundant backup links are part of the standard UAV helicopter system.



The Scout B-330 UAV helicopter is fully boarded and sealed to operate under dusty, rainy and humid conditions like in the mountains or offshore. The extremely stable flight behaviour in strong wind is crucial for perfect data acquisition of many sensor applications.

The development and production of the Scout B-330 UAV helicopter, located in Switzerland, is based on modern CAD tools and laser production technology and fulfills highest certification standards

Mission Scenarios



The Scout B-330 UAV helicopter can carry almost every payload up to 50kg (110lbs). In the following, two typical payload configurations are described. Aeroscout as a system integrator has more than 10 years of experience with the integration of highest grade sensor equipment on the well-known Scout B1-100 UAV helicopter.

Laser Scanning with the Riegl VP-1

Area covered [km ²]:	1	6	10
Flight Velocity [m/s]:	5	10	15
Flight Altitude [m AGL]:	50	80	100
Scanning Angle [deg]:	75	110	110
Point to Point Distance [cm]:	6	10	15
Line to Line Distance [cm]:	6	10	15
Points density [pts/m ²]:	300	100	50
Mission Duration [min]:	60	60	60
Data Size [GB]:	8	12	12
Photo overlay:	yes	yes	yes



Power Line Inspection

Carrying a multi sensor payload composed of:

- Laser scanner VUX-1
- Gimbal mounted Corona camera
- Gimbal mounted high resolution photo camera
- Infrared camera for orthophoto (looking downwards)
- High definition video live stream

This results in a total payload weight of approx. 20kg (44lbs). The excess power allows power line inspection above 2000m AMSL under heavy wind conditions.

Datasheet



Feature	Value
Dimensions, length, width, height	420 x 104 x 120cm
Maximum take-off weight MTOW	140kg
Engine (gasoline, heavy fuel optional)	21kW (28HP)
Typical payload at 500m above mean sea level (AMSL)	30kg (66lbs)
Maximum payload at 500m above mean sea level (AMSL)	50kg (110lbs)
Service ceiling (AMSL) with reduced payload of 13kg	3050m (10000ft)
Endurance with typical payload	3h
Maximum horizontal velocity	100km/h (54kn)
Maximum rate of climb at MTOW and 500m AMSL	7m/s (1370 ft/min)
Internal fuel tank (95 Octane gasoline)	20L
Onboard power generator for payload	1500W
Lifespan (true flight time)	2000h
Small maintenance interval (true flight time)	100h
Big maintenance interval (true flight time)	300h
Operating temperature	-10°C to 40°C