

Scout B1-100 UAV

Autonomous Industrial Unmanned Helicopter



GENERAL The autonomous industrial unmanned helicopter Scout B1-100 has been developed for professional airborne applications such as **aerial mapping, airborne broadcasting, search & rescue, surveillance and inspection** as well as **law enforcement**.

PAYLOAD The helicopter provides a payload capacity of up to 30kg, incl. 10l of fuel (standard), incl. 4.5kg flight control system with redundant batteries and data link. The empty weight is approx. 45 kg and the MTOW is 75kg (altitude 500m AMSL).

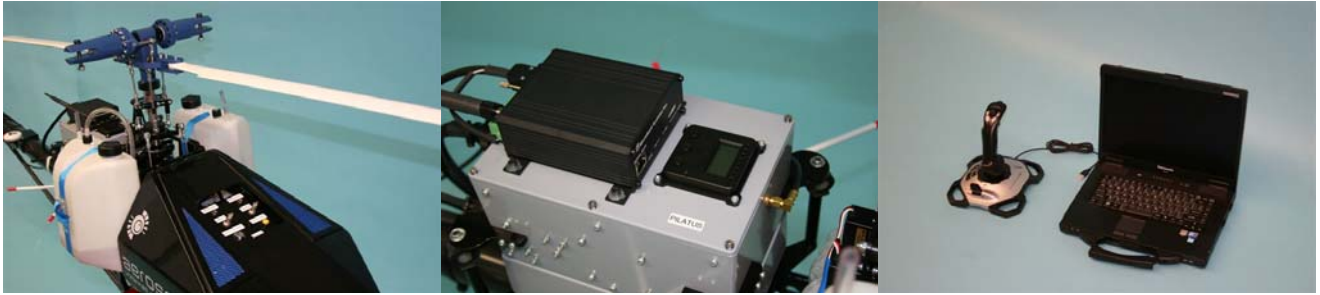
SAFETY The helicopter has been developed under severe safety policies such as testing under full payload capacity, complete autonomous mission flights, as well as autonomous homing and landing. The helicopter also provides robustness against spray water.

FEATURES The Scout B1-100 provides easy transportability and maintainability through system modularity, flexible payload options, and a smooth and easy-to-start gasoline engine.

OPERATION The helicopter can either be flown in conventional manual mode with high maneuverability or can be operated with its integrated INS/GPS automated flight control system. This flight control system allows joystick (velocity) mode as well as GPS waypoint (position) mode.

DEMONSTRATION System demonstrations are available on request in Lucerne, Switzerland.

INFORMATION For further information please contact Aeroscout GmbH, Switzerland.



Scout B1-100 UAV Helicopter

TECHNICAL DATA

Main rotor diameter	3.2 m
Tail rotor diameter	0.65 m
Main rotor speed	860 rpm
Empty weight (no fuel, no payload)	45 kg
Gasoline engine	100 ccm
Engine power (approx.)	18 PS
Electric starter (onboard included)	12V
Fuel tank volume (standard)	2 x 5.0 l
Material of rotor blades	carbon
Material of main body	aluminum
Engine cooling system	air-cooled
Length	3.3 m
Width	1.0 m
Height (approx.)	1.0 m
Landing gear	skids (wheels optional)

PAYLOAD DATA

- Optional autonomous INS/GPS flight control system 4.5 kg (incl. redundant batteries)
- Standard fuel tank (approx.) 10l (approx. 90min endurance)
- Free payload capacity (at 500m AMSL approx.) 18.0 kg

BENEFITS

- Air-cooled gasoline aircraft engine with electric starter onboard
- Easy transportability and maintainability through modularity
- Sealed gear boxes and electronics
- Highly reliable mechanical design
- Optional integrated, autonomous flight control system FCS
- Optional Autonomous take-off and landing
- Optional differential GPS/INS integrated navigation system with centimeter accuracy
- Flexible payload options
- High maneuverability
- Smoothly running engine and optimal vibration isolation of the payload
- Long-term flight endurance up to 90min non-stop (demonstration altitude 500m AMSL)