



SwissDrones is a Swiss aviation company specializing in development, manufacturing, and operation of long-range unmanned helicopter systems for commercial and public safety applications.

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[swissdrones.com](https://www.swissdrones.com)



Enabling Unmanned Aerial Intelligence

MODEL SD0 50 VTOL

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Model: SDO 50

DIMENSIONS	2.32 x 0.7 x 0.92 m, (blades: 2x 2.82 m)
FUEL CONSUMPTION	15 l/hour (JET A1)
MTOW	87kg
MAX PAYLOAD	Up to 42kg
MAX ENDURANCE	3.1h
DATA LINK RANGE	100+ km (subject to local regulations)
MAX SERVICE CEILING	Up to 3000 m density altitude
MAX CRUISE SPEED	39 kn (72 km/h)
TEMPERATURE RANGE	Min -10°C - Max +50°C

Key Features



Payload capacity up to 42kg



Autonomy up to 3 hours (long-range BVLOS)



Small operational footprint – 2 person crew



95% CO₂ reduction vs. use of manned aircraft



70% operational cost savings vs. use of manned aircraft



Flexible integration of sensors & camera systems



Product Description

Unique twin-rotor aircraft designed to replace manned helicopters at reduced costs, significantly lower carbon emissions and without putting crews at risk when operating in challenging weather conditions. Missions are possible under difficult or dangerous circumstances (e.g. bad weather, darkness, flying over hostile or otherwise unsafe areas) when manned operations are not feasible.

The VTOL (vertical take-off and landing) system is highly cost-effective compared to manned aerial solutions, and requires less training to operate confidently. The rapidly deployable aircraft is transportable by van and can be prepared for flight by a team of two in just 15 minutes.

The SDO 50 allows CO2 emission reductions of up to 95% compared to manned helicopters. A variety of high-end sensors have been integrated with the SDO 50. With a useful payload of more than 20 kg, several payloads can be integrated at the same time.

The SDO 50 system can be operated as a permanent installation, as part of a ship operation, be made ground transportable to the venue of mission by means of a van or be deployed in combination with helicopters. We offer profound know-how and experience in obtaining regulatory approval to fly BVLOS (beyond visual line of sight) operations in different countries.

Applications

Inspection & Monitoring

Ongoing inspections of critical infrastructure such as high-voltage power lines, gas & oil pipelines and other far-stretched assets are critical for their uninterrupted operation and security. We offer cost-effective unmanned solutions using market-leading cameras, sensors and software to address customer-specific needs for aerial data gathering and processing.



Search & Rescue

Agile support of SAR missions using specific camera systems and sensors to locate missing people in inaccessible or hazardous areas (land or water), also in adverse weather conditions and at night. Once target persons are located, emergency gear such as survival kits, medical devices, food, rafts can be airlifted and dropped to support their recovery and rescue.

Aerial Surveillance

Unparalleled flexibility and efficiency, allowing for individual payload configurations including stabilized EO/IR cameras and missions under difficult or dangerous circumstances (e.g., bad weather, darkness, flying over hostile or otherwise unsafe areas) when manned operations are not feasible.

