Born to be diverse.

SDO 50 V2 VTOL

About us

SwissDrones Operating AG is a young high-tech company based in Buchs, Switzerland, which specializes in the development and production of unmanned helicopters (UAVs) for civil purpose.

It is our aim to produce and operate high-precision UAVs offering a high degree of safety and reliability. We believe in Swiss quality and precision in engineering.

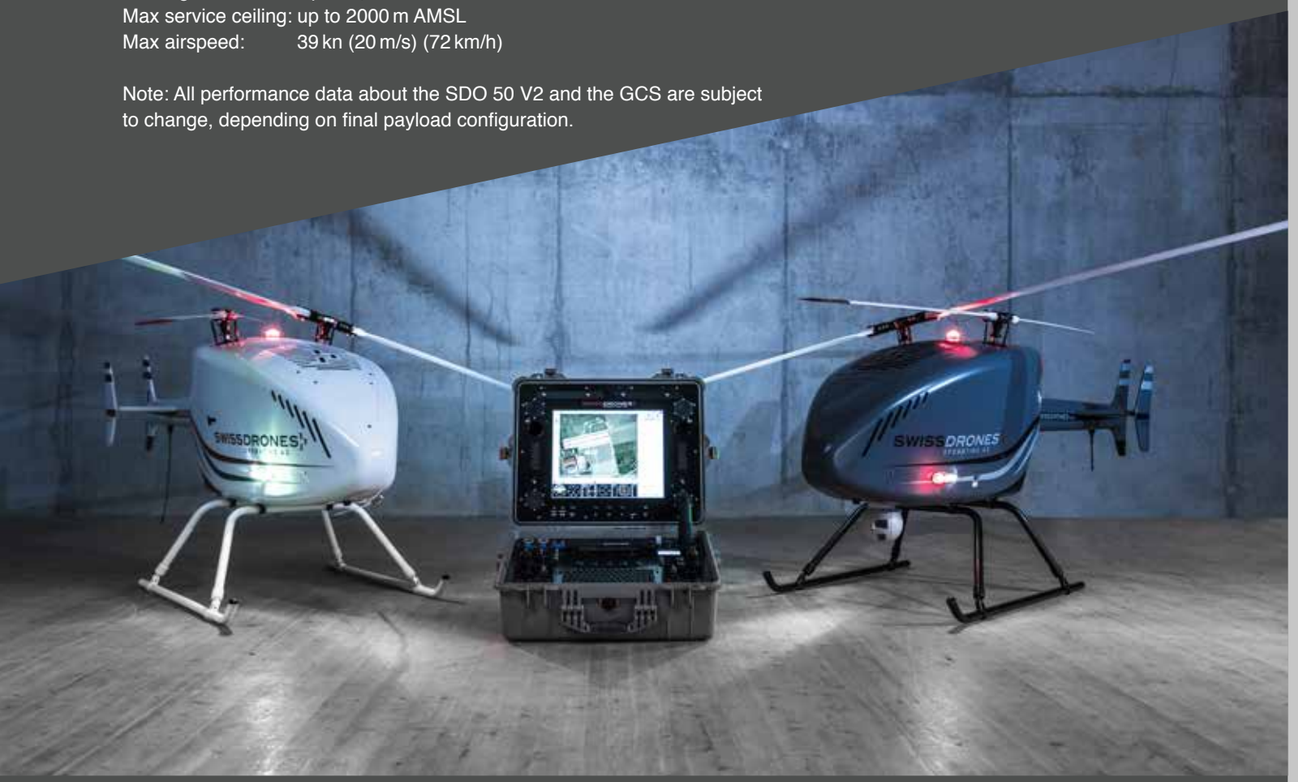
SWISSDRONES OPERATING AG

SwissDrones Operating AG, Lagerstrasse 30, 9470 Buchs, Switzerland
Phone: +41 81 785 20 10, **info@swissdrones.com, www.swissdrones.com**

Fact box SDO 50 V2:

Rotary system:	Flettner double rotor system (4 blades)
Rotor diameter:	2 × 2,82 m
Engine:	high performance turbine
Fuel:	JET A1 (optional Diesel)
Fuel consumption:	approx. 15 l / hour
Dimension l/w/h:	2,32 m × 0,7 m × 0,92 m
Empty weight:	42 kg
Payload:	45 kg (at optimal conditions)
MTOW:	87 kg
Max fuel capacity:	main tank 13 l; additional tanks available for longer flying time (2 × 4 l; 2 × 7 l; 2 × 13 l)
Max flight time:	Up to 2,5 hours
Max service ceiling:	up to 2000 m AMSL
Max airspeed:	39 kn (20 m/s) (72 km/h)

Note: All performance data about the SDO 50 V2 and the GCS are subject to change, depending on final payload configuration.



Key differentials

- Superior payload capacity (+ 45 kg)
- Long endurance (> 2 hours)
- Stable flight patterns
- Safety features
- Swiss quality and service
- High benefit-cost ratio

Easy to operate

- Ready to fly in 15 minutes
- A two-person crew only is needed
- To be transported in the back of an SUV

Product Description

Our **VTOL (Vertical Take Off and Landing) SDO 50 V2** is a multi purpose, unmanned helicopter system, that can be operated within or beyond visual line of sight. The unique design features of the SDO 50 V2 provide a **superior payload capacity, long endurance, stable flight patterns and a high degree of safety features.**

An integrated autopilot system allows autonomous take-off and landing procedures as well as autonomous flight patterns.

The SDO 50 V2 uses the powerful construction principle of **intermeshing rotors** (going back to Anton Flettner).

It functions through a set of two rotors turning in opposite directions with each rotor mast mounted with a slight angle to the other so that the blades intermesh without colliding. The arrangement also allows the helicopter to function without a tail rotor, which **saves additional power.**

As a result, the SDO 50 V2 currently is the only flying UAV in the market which is being capable to lift more payload than its own empty weight.

Applications

Surveillance and security
Aerial Surveillance refers to using drones equipped with various types of equipment including live feed video cameras, infrared cameras, heat sensors, radiation sensors or radar to provide airborne information to decision makers on the ground, typically in real-time. UAVs can be used to perform highway, coastal and border surveillance and thereby watch for cases of illegal border crossing, deforestation activities, smuggling or wild animal traffic.

Search & Rescue
Search & Rescue refers to using drones equipped with specific equipment to locate and help missing people or animals in inaccessible or hazardous areas (land or water), including in difficult weather conditions. Once target persons/animals are located, emergency gear can be airlifted and dropped to support their recovery and rescue (e.g. survival kits, medical devices, food, rafts).
Missions are possible under difficult or dangerous circumstances (e.g. bad weather, darkness, flying over hostile or otherwise unsafe areas) when manned operations are no feasible alternative. Emergency gear can be airlifted to inaccessible/hazardous places.