



A-22 Falco

The powerful petrol-driven electricity generator works seamlessly with the drone to promise longer airtime. It has rich application scenarios and work efficiency for its efficient operation, rich functions, and simple structure, bringing you a more efficient and relaxed operation experience.

22L

Liquid Tank

3.5L

Fuel Tank

6.5kW

Power Output

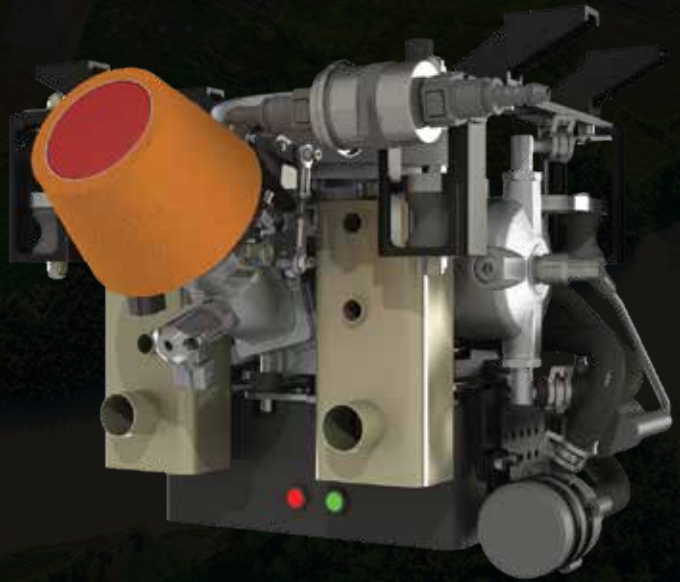
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Deploy time



Mightier than Expected

A-22 Falco uses a powerful 6.5 kW petrol-driven generator to charge the batteries, allowing a maximum flight time of more than 30 minutes with a full payload 22 kg



Unstoppable Operation

The Xuanfu (by Geely) efficient gasoline engine allows for more than 3 flights with 22 liters payload using only 3.5 liters of petrol.



Covers Everywhere

A 22 L liquid tank is installed in the A-22 Falco petrol engine drone to maximize the efficiency of the operation. With the default setup of 2 centrifugal nozzles, the spray width can reach up to 6 meters.



Advanced Obstacle Detection

The A-22 Falco features an advanced obstacle detection system that utilizes real-time sensors to identify potential hazards and maintain safe distance. This system enhances mission safety, particularly in dense or uneven terrain, ensuring seamless operations without manual intervention.

Cross-folding structure

The A-22 Falco frame is integrally formed, with a robust structure, streamlined design, and excellent durability. The arm uses a cross-folding mechanism to reduce folded size and make transportation easier.





Use case #1

Oil Palm Plantation - Spot Spraying

The integration of Alphaswift's A-22 Falco with RTK (Real-Time Kinematic) technology in oil palm plantations represents a significant advancement in agricultural efficiency and productivity.

The A-22 Falco ensures extended flight times, enabling comprehensive coverage of large plantation areas without frequent recharging. This robust power system is complemented by RTK technology, which provides centimeter-level accuracy in positioning and navigation. This precision is crucial for the task of spraying fertilizers or pesticides above the canopy of oil palm trees.

The A-22 Falco's ability to operate seamlessly and deliver high-resolution data in real-time allows plantation managers to make informed decisions, ultimately enhancing crop yield, reducing labor costs, and ensuring sustainable agricultural practices. By leveraging this innovative technology, oil palm plantations can achieve higher operational efficiency and improved overall productivity.





Use case #2

Paddy Field - Blanket Spraying

The A-22 Falco, equipped with a powerful petrol hybrid engine, is revolutionizing paddy field management through its advanced blanket spraying capabilities.

With its robust design and efficient operation, the A-22 Falco can cover large areas swiftly and uniformly, ensuring optimal distribution of pesticides, fertilizers, or herbicides. The petrol-driven engine provides the necessary power for extended flight times, enabling the drone to operate continuously over vast paddy fields without frequent recharging interruptions. This not only enhances productivity but also significantly reduces labor costs and time.

The A-22 Falco's precision spraying system ensures that each plant receives the necessary treatment, promoting healthier crop growth and higher yields. The A-22 Falco's ability to navigate various terrains and its ease of deployment make it an indispensable tool for modern agricultural practices, particularly in the meticulous care required for paddy fields.





Specifications

Aircraft

Takeoff Weight	64 kg
Wheelbase	1965 mm
Size (L*W*H)	760 * 720 * 850 mm (Folded), 1520 * 1530 * 710 mm (Unfolded)
Fuel consumption	5.9 L / hour
Spray Width	6 m
Spray Rate	6.5L / min
Operating Liquid Tank Capacity	20 L
Maximum Liquid Tank Capacity	22 L
Fuel Tank Capacity	3.5 L
Flying Speed	9 m/s
Loiter Accuracy (RTK Enabled)	Horizontal & Vertical ± 0.1 m

Obstacle Avoidance Radar

Horizontal Beam Width (-6dB)	$\pm 15^{\circ}$	Resolution	0.12m
Vertical Beam Width (-6dB)	$-7^{\circ} - +1^{\circ}$	Transmission Frequency	79Ghz
Maximum EIRP	30dBm	Refresh Rate	20Hz
Measurement Range	1.5 - 27m	Bandwidth	1.4GHz
Measurement Sensitivity	± 0.1 m		

Specifications

Engine

Continuous Power	6.5 kW
Rated Voltage	58 V
Maximum Current	120 A
Weight	8.5 kg
Form	Two-cylinder, Two-stroke, EFI
Startup Mode	Integrated machine for starting and generating
Fuel Consumption	570 g/kWh
Noise	110 dB (1m distance)
Displacement	124.5 cc

Remote Control

Display Size	5.5 inch
Channels	12
Working Voltage	4.2 V
RF Power	20 dBm@CE
Frequency	2.400 - 2.483 GHz
Frequency hopping	FHSS
Transmission Range	2-5 km (Ground), 5-10 km (Air)
Size	190*152*94 mm
Battery	10000 mAh
Endurance	6-20 hours
Charging port	Type-C
Weight	530 g





G-C, Block 2330, Century Square,
Jalan Usahawan, Persiaran Multimedia,
63000 Cyberjaya, Selangor,
Malaysia



www.alphaswift.com



hello@alphaswift.com



+60 3 8311 9385



+60 14 946 4896