AVILUS

RESCUE. PROTECT. PROVIDE.



9X✠03 Grille

Load & Fly

Because fast transport saves lives.



Key Features

Enabling reliable, fast, and cost-effective evacuation.

Medicine
The medical cabin carries first responder equipment, enables vital data monitoring and remote psychological care.

Autonomy
Missions are executed by full-automatic flight control based on jamming resilient navigation signals of an inertial reference unit (IRU).

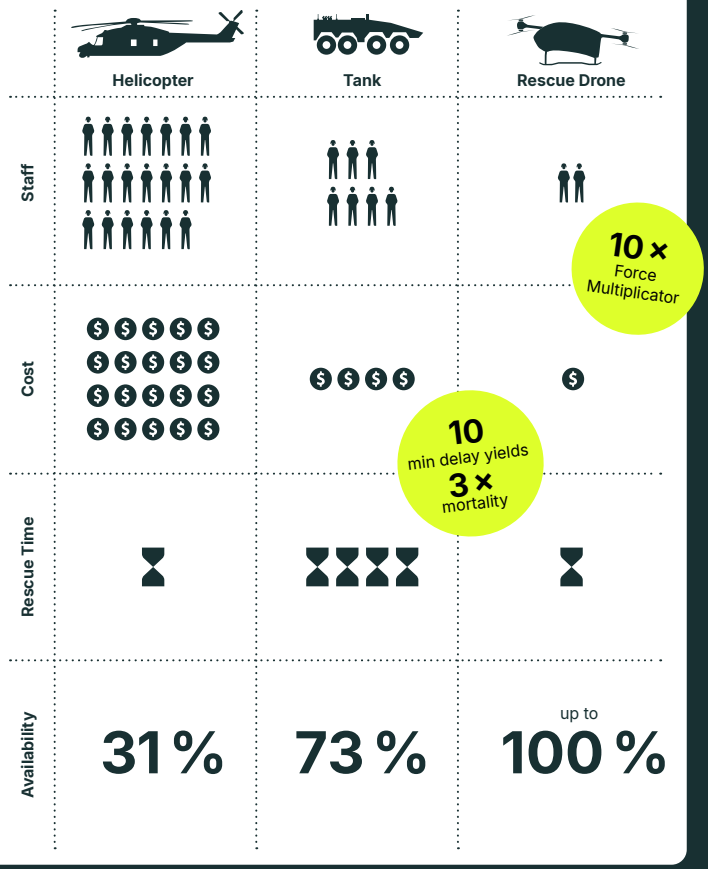
Mobility
The aircraft fits an ISO 20 feet container, is assembled in 15 minutes and lands on a trailer with its integrated high precision landing system.

Safety
No single point of failure in avionics or powertrain – for additional safety the drone includes a parachute system.

Maintenance
All parts like engine units and batteries are easily swappable without tools. Therefore, no downtime and no maintenance experts required.

Game Changer in Rescue

Unmanned systems boost transport capacities.



Medical Concept

Developed by Leading Trauma Surgeons.

Pre-flight Measures

Medical Equipment
Emphasis on bleeding and respiratory control.

In-Flight Measures

Video call-based support
Psychological care throughout the whole flight.

Patient's Vital Data
Continuously monitored and communicated with the ground control.

Post-Flight Measures

Swap Cabin
Minimal downtime, maximum hygiene, and fast decontamination.

Secondary Use Case: ↓

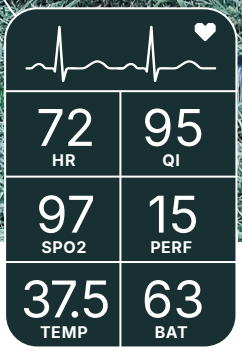
Emergency Air-Cargo

Primary Use Case →

Medical Evacuation



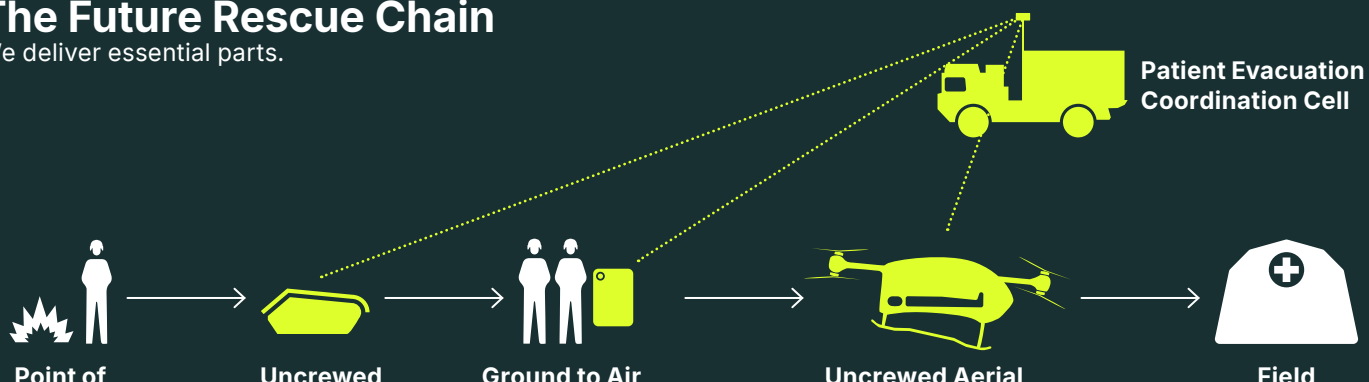
Cargo
Time-critical sustainment of troops within the brigade area.



Medical Evacuation
After basic stabilization measures the patient is loaded into the drone for direct transport to field hospital.

The Future Rescue Chain

We deliver essential parts.



PECC

Patient Evacuation Coordination Cell.

The Aeromedical Control Hub

Dispatcher
One crew member receives the incoming 9-Liners, approves and monitors the automatically planned missions.

Paramedic
The medical specialist takes over patient monitoring and psychological care if necessary.

Digitalization
The battle management system integration allows mission management, live-access to vital data and operating room capacities.

Parallelization
Due to the high degree of automation, the crew of two can carry out a large number of rescue missions at the same time.

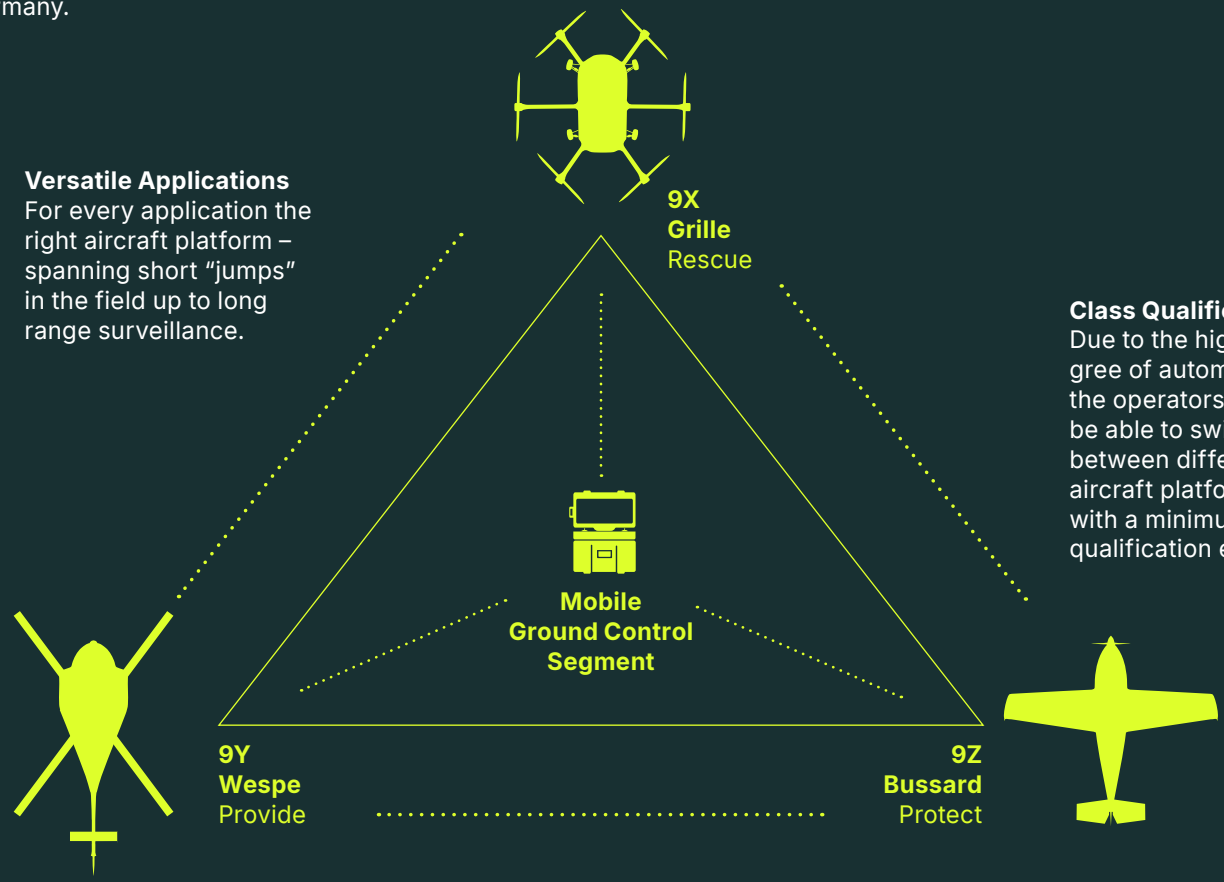


In Cover
The aircraft lands close to the casualty collection point where the soldiers can stay in cover.

A New Class of Drones

Made in Germany.

Versatile Applications
For every application the right aircraft platform – spanning short "jumps" in the field up to long range surveillance.



Class Qualification
Due to the high degree of automation, the operators shall be able to switch in between different aircraft platforms with a minimum of qualification effort.

Military Grade Avionics

Reliability even in contested environments.

Flexibility
Suitable for manned to unmanned conversion of diverse aircraft topologies.

Resiliency
Electronic warfare resiliency due to military grade inertial reference unit (IRU).

Redundancy
Multiple dissimilar redundancies in computers, sensors and data links.

Connectivity
Battle Management System (BMS) connectivity and flexible architecture for additional sensor and payload interaction.

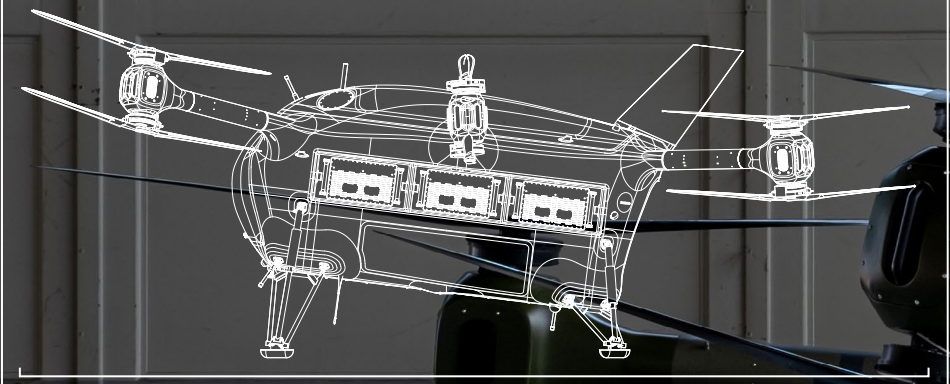
Compliance
Compliant with EASA rules for missions within the Specific Category.



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Specifications



Feature	Metric	Imperial
Enclosing Diameter	7.8 m	25 ft
Propeller Diameter	2.25 m	7 ft
Packing Size	20 ft ISO-container	
Cruise Speed	86 km/h	47 kts
Service Ceiling	2100 m	6890 ft
Range	51 km	32 NM
Patient	135 kg	298 lb
Medical Cabin	40 kg	88 lb
Total Payload	175 kg	386 lb
Maximum Takeoff Weight	750 kg	1653 lb
Max. Power	240 kW	326 HP
Powertrain	Full electric	
Safety	Fail-safe system design	
Flight Control	Primary and secondary flight control system	
Navigation	Satellite and inertial navigation	
Data Links	Multiple LOS and BLOS links	
Rescue System	Ballistic parachute	
Ground Control	Duplex GCS integrated in mobile PECC	
Battle Management	Integrated for planning and monitoring	

Get in touch with us

AVILUS is a manufacturer and operator of a new class of dual-use drones for medical evacuation, logistics, and ISR support.

Made in Germany.

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