NEXT GEN
UNMANNED
AIRCRAFT

EDePro
Engine Development & Production

HORNET/STRŠLJEN X-01

The power of multi-mission in multi-domain environment

The Hornet/Stršljen X-01 is the first-ever Serbian unmanned, autonomous helicopter designed as EdePro's answer to cover the entire spectrum of intelligent military operations. Its multi-mission performance relying on the implementation of the latest most innovative solutions for observation, monitoring, surveillance, reconnaissance, and ground attack place the Hornet among the NextGen solutions of unmanned aircraft system (UAS). Field-proven performance, long-endurance with automatic takeoff and landing features, along with modular design enable its an multirole applications, both military and civilian.

Tactical Use

Designed as a multi-mission solution, the Hornet finds usage in a wide range of military and civilian applications, from providing battlefield intelligence to protect troops on the ground, reconnaissance missions, attack forces, target acquisition, and electronic warfare, to surveillance and observation of specific zones, different topographic missions, logistics, data collection, and radiation detection.

The Hybrid Design

The airframe of the Hornet rotary-wing unmanned aerial vehicle (UAV) is composed of carbon composite materials, high-strength chrome-molybdenum steel, as well as lightweight aluminum alloys. The main and tail rotor blades are built using high-strength, fibre-reinforced composite materials. This advanced design enables its empty and gross mass are 400/750 kg respectively, with the possibility of carriage of multiple payloads including sensors, fuel, and armament. Open architecture allows it to be customized as per the different mission requirements of the customers.

The Electro-optical/Infrared System

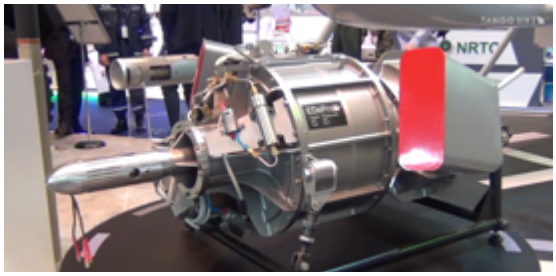
The EO/IR system provide unprecedented reconnaissance and surveillance capabilities of the Hornet, allowing safe navigation beyond-visual-line-of-sight. It scans with high-resolution mid-wave infrared sensors, and can additionally be equipped with a laser designator.

MAIN SPECIFICATIONS

- Payload: 220 kg + fuel
- Endurance: 5.7 h
- MTOW: 750 kg
- Max speed: 180 km/h

The Engine Performance

The Hornet is powered by a turbo-shaft engine with a centrifugal compressor and turbine. The engine produces 180 kW of power, allowing a maximum flight speed of 180 km/h. Its small installation dimensions, low weight, and leading-edge technology provide reliability, flight duration, and large payloads, while greatly reducing noise. The rotorcraft takes off vertically using a two-blade main rotor with a teetering head controlled by electric-driven actuators.



EDePro INNOVATIONS

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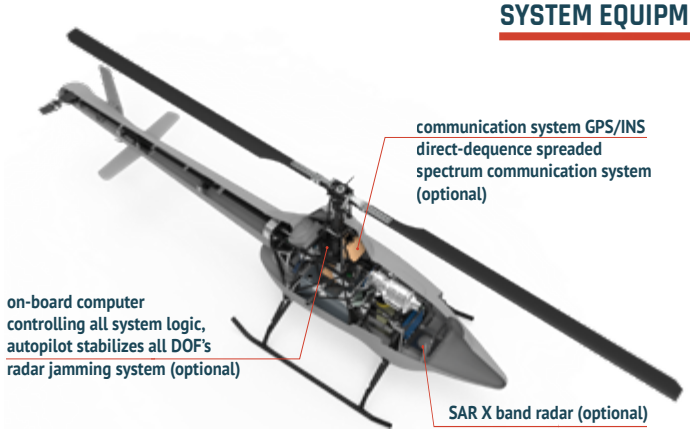
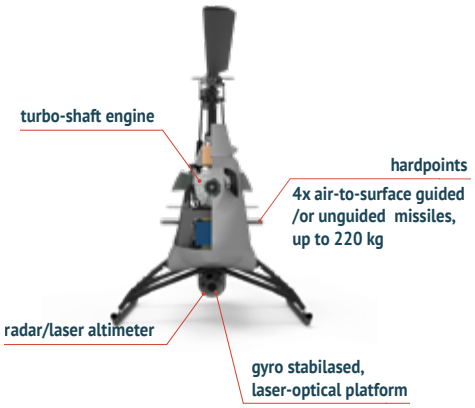
MAIN TACTICAL AND TECHNICAL PERFORMANCES

Technical Specification	Data	Unit
Height	2440	mm
Length	8750	mm
Width	1800	mm
Empty mass	400	kg
Maximum takeoff mass (MTOW)	750	kg
Maximum payload	350	kg
Payload (fuel + weapon)	130 + 220	kg
Main rotor diameter	7630	mm
Tail rotor diameter	1240	mm
Maximum speed	180	km/h
Cruising speed	160	km/h
Rate of climb	8	m/s
Ceiling	4000	m

SYSTEM EQUIPMENT (customisable)





BENEFITS

- Main rotor blades - carbon fibre reinforced, lastic CFR.
- Teetering rotor head contolled by electric driven actuators.
- Nose cone, tail rotor blades and boom - CFRP.
- Automatic takeoff and landing.
- Optical gimbal (with optional laser designator).
- Undercrriage/middle section made of chrom-molibdenium steel, covers CFRP.

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