

Powerplant: Masquito 2.6l - 120 hp 4-cylinder 4-stroke air-cooled engine. Pressure and temperature compensated, electronic, multipoint fuel injection. Dual, variable timing electronic ignition with maximum rpm limiter.

Max. Take-off weight:	450 kg 992 lbs
Empty weight:	230 kg 507 lbs
Useful payload (incl. fuel):	220 kg 485 lbs
Rotor diameter:	5.52 m 18.1 ft
Tail rotor diameter:	1.00 m 3.3 ft
Length (with rotor):	6.60 m 21.6 ft
Height:	2 . 25 m7.4 ft
Width cockpit:	1.30 m 4.3 ft
Width landing gear:	1.70 m 5.6 ft
Cruising speed:	150 km/h 80 kts
Vne:	180 km/h97 kts
Hover ceiling (OGE) M.T.O.W.	2000 m 6,560 ft
Tank capacity:	60 l 15.9 US gal
Fuel consumption:	± 15 l/h4 US gal/h
Max. endurance:	± 4.0 h
Max. range (no reserve):	± 600 km 370 miles
Rate of climb (max. T.O.W.)	5.6 m/s 1,100 ft/min
Main rotor speed:	690 rpm
Tail rotor speed:	3,200 rpm

Masquito Aircraft nv

Reigersbaan 31 - 1760 Roosdaal - Belgium Tel. +32 54 343 008 / Fax +32 54 343 009 www.masquito.be - post@masquito.be





Masquito M80



M80 2-seat very light helicopter



The "Masquito M80", is a two seat Very Light Helicopter completely designed and built in Flanders, Belgium.



Masquito Aircraft had one ambitious goal: design a safe and economical 2-seat helicopter, with good performance, low

power requirements and minimal maintenance needs.

The M80 is surprisingly different to anything available today. The helicopter will be powered by our own Masquito 2.6l 120Hp 4-cylinder 4-stroke aero engine. With a gross weight of 450 kg (992 lbs.), the M80 has a very acceptable climb rate and economical fuel consumption (unleaded gasoline). Depending on the load, the max. range will be 600 km (372 miles) with a 60 litre (15.9 US gal.) fuel tank. Doors, baggage compartment, heating and glass cockpit display will be standard.





Masguito Aircraft's ambition is to become the top player in the niche market of Very Light Helicopters. Important opportunities have been identified in overseas markets for recreational, agricultural, civil/military surveillance, flight training, and UAV purposes. Masquito Aircraft is presently (December 2002) certifying the M80 as a kit-built helicopter under

the U.K. CAA BCAR-VLH code.

JAR-VLR: European The Joint Aviation Authorities will



publish the new "Type Certificate", JAR-VLR, (Very Light Rotorcraft) early in 2003. This code will allow Masquito Aircraft to sell completely assembled and tested aircraft in all JAA member countries once approval has been obtained.

U.S. Primary Category:

The M80 will be introduced into the U.S.A. as an "Experimental" aircraft. The alternative - "Primary Category" certification (which is interchangeable with the JAR-VLR) will give the M80 significantly more sales potential because the aircraft may then be used for certain commercial activities, i.e. flight training, fish spotting and oil pipe surveillance which is not allowed with "Experimental" aircraft.



The helicopter design began in November 1994. A first basic prototype hovered in May 1996. On June 21st 1996, the company "Masquito Aircraft nv" was formed

to continue the design, manufacture, certify and commercialise the aircraft.



Prototype development:

In total four prototypes have been built, tested and flown in a restricted flight envelope:

- 1) A basic aircraft powered by a 65 Hp Rotax 2-stoke engine (vertically positioned) was constructed and tested as proof of concept.
- 2) The second prototype used many parts of the first but a horizontally positioned Jabiru 80 Hp 4-stroke aero engine substituted the 2-stroke engine.
- 3) A third prototype was built from scratch. The original Jabiru power plant, which was incapable of meeting the manufacturers' power output specifications, was substituted with a factory supplied improved version.
- 4) Using the design specifications of the third prototype, a fourth and final aircraft was constructed with the goals of drastically reducing the overall weight, improving engine performance and designing components for low maintenance and ease of manufacture.

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