

BEST IN CLASS

marengo
swisshelicopter



SWISS HELICOPTER INNOVATION

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A FLAGSHIP PROJECT FOR THE HELICOPTER INDUSTRY

Marengo Swiss Helicopters fits into a worldwide growing market. With outstanding features, our aircrafts will be best in class.

The life cycle of a helicopter lasts over 30 years. Through maintenance and services, Aftersales companies create many highly qualified jobs & economic growth.

PILATUS AIRCRAFT is known worldwide for its success. High-quality jets and services are sold that are in demand worldwide. Marengo Swiss Helicopters has the potential to become a valuable supplier of helicopters and services in the global market as well.



OUR VISION BEST IN CLASS

With a new helicopter family we enable a broad market coverage. The lucrative civil market, as well as the military market, can be served thanks to the helicopter modularity with a single- (M12) and twin-engine (M22) 2 ton class.

The helicopter family will be the most economical and economic product on the market, as well as captivating with its performance and safety, because we can use the most modern technologies and components from the ground up and build on our experience.

Our user-oriented design makes the helicopter family a multi-mission aircraft, which is ideally suited for all kinds of missions. Taxi, medical, firefighting, authorities, cargo.



Helicopter Lifecycle

The product endurance lasts over 30 years / The design concept takes account of future technologies such as high performance batteries can be adapted any time, without major design changes

Maintenance & Services

Aviation means high-maintenance / Due to security aspects: the maintenance & services sector with spare parts & future updates is highly lucrative / An average lifecycle of an helicopter fleet in the USA is 29 years

Helicopter Development

The product development will need several certification processes / First flight after 4 years of development / fully certified and ready for delivery after 8 years / followed by product updates every 2-4 years

Sales

Sales activities can start in year 4 / selling intention contracts with prepayments will keep up the cashflow

ISN'T eVTOL THE NEXT BIG THING?



We focus on the current need for helicopters. We combine the latest, most advanced technologies and components on the market and integrate them into a user-oriented design: for the needs of today's passengers, pilots and maintenance personnel. No risk of unproven, uncertified inventions and markets that don't yet exist.

A hybrid powertrain simplifies the powertrain mechanically, it enables greater redundancy and more safety in the event of an engine failure. The helicopter can be flown by any helicopter pilot without the need for flight control software, enabling certification and use.



Fancy eVTOL concepts have been around for years and are still a long way from flying. Drive technology issues, performance, safety issues, legal issues, and certification issues have not yet been resolved and will take many more years without making money.

The market for eVTOLs may exist, but it has yet to develop.

WHERE WE COME FROM

MARENCO SWISSHELICOPTER



SKYe SH09

*Design & Development 2010-2014,
Marenco Swisshelicopter*

Sold to LEONARDO, 2020

The first helicopter since 1976, which was completely redeveloped under the leadership of Martin Stucki. Starting with a team of 45 specialists and a budget of 45 mio \$, the helicopter was developed within 4 years until its first flight.

Through the SH09, we have created the knowledge base to develop an even more revolutionary family of helicopters.

Our helicopter family will have an improved and complete new design.



In the single engine helicopter market the best selling and newest product was initially developed 1975. The available models are overaged when it comes to design, technology, ergonomics and safety features .

In the twin market the situation is not over the whole range that obvious from the perspective of overaged models but also in this segment the available models base mostly on old type certificates. In addition customers are forced to heavier and larger models as the lighter helicopter do not perform good enough.

Compared with other products spare parts are overpriced. In addition the service and delivery times of parts are sometimes bad.

The few helicopter models available, from mostly one manufacturer only makes the market customer unfriendly.

8

8 western manufacturer

1K

Small series, around 1'000 turbine helicopter delivery per year. Mainly from three manufacturer

0

No products available for aerial work in the 2t class that have a cabin and can operated competitive.
No modern helicopter to replace Bell 205/212/412

45

In the single engine market 45% market in USA followed by Europe

LIGHT
TWIN

Light twin largest market in Europe, HEMS



Large growing markets, market potential in other parts of the world

MARKET POTENTIAL

800

Around 800 helicopters deliveries per year

50

Minimum 50%, 400 helicopters market potential with the two models

60

60% of the light single-engine market

100

100% of the light twin-engine market

30

With a market share of 30 percent, 120 helicopters per year could be sold

High Efficiency thanks to low disc load

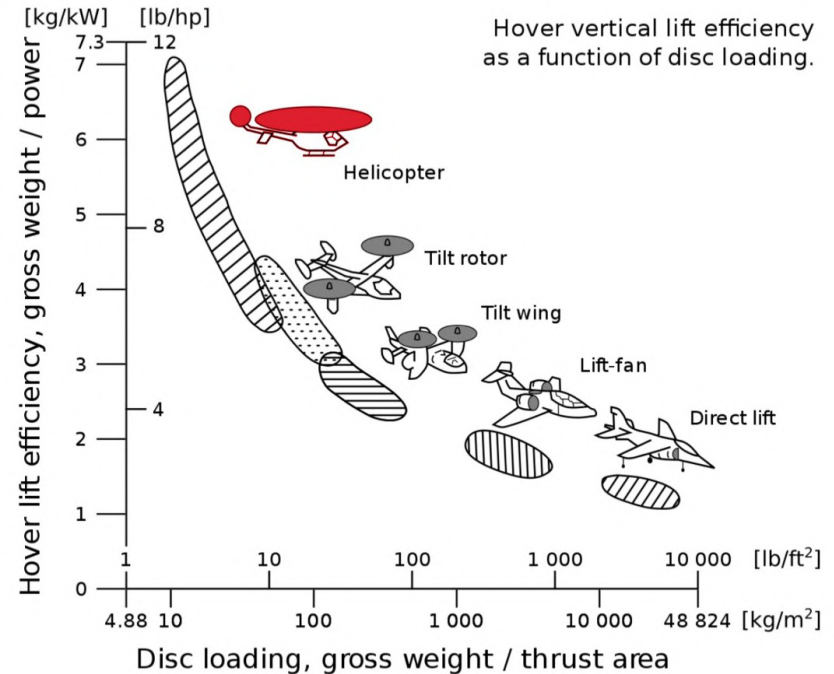
Drivetrain prepared for future technologies, e.g. fuel cells, powerful batteries

Possibility to allow for variable rotor speed or turned off tail rotor in forward flight, better efficiency lower noise level

Operation purely electrical close to noise sensitive areas for certain models

Simple implementation of a twin-engine based on the single-engine, using the same platform

Modern turbine engine with a low specific fuel consumption



POTENTIAL FOR 30%+ MARKET SHARE

Structure of the market, one manufacturer, Airbus delivers 70% of the aircrafts in this segment (H125, H145).
Our new models outperform the existing models in:

Performance (excellent hot and high performance of both models, higher payload)

Ergonomy, modern aircrafts, designed for serviceability, designed to provide the best possible working environment for the crew

Modern engine with low fuel consumption, modern drive train with additional safety advantages for the single and twin helicopter

The SH09 has proven that the market does not only accept new models, the market is eager for new models!





THE HELICOPTER WITH HYBRID DRIVETRAIN

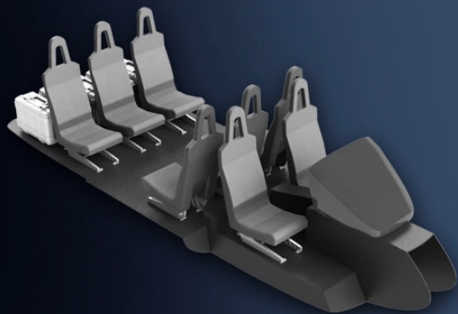
A conventional but innovative helicopter with a serial hybrid drivetrain.

Largest possible commonality between the single and the twin model

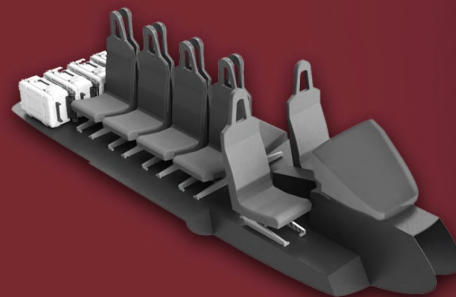
Multi purpose layout through a large cabin, flat floor excellent cabin access through two sliding- and clamshell doors

Excellent ergonomics and view for the crew

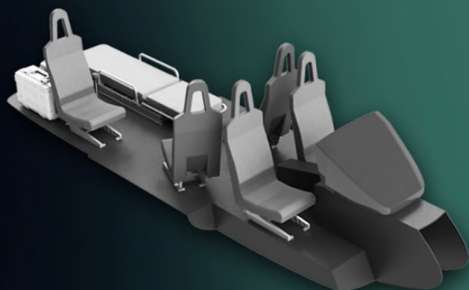
A Helicopter for: Aerial work, HEMS, Firefighting, Passenger Transport



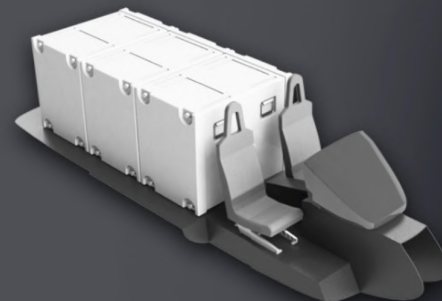
TAXI
7 PAX / 1 PIC
BAGGAGE



FIREFIGHTERS
9 CREW / 1 PIC
EQUIPMENT



MEDICAL
4 PAX / 1 PIC
STRETCHER
EQUIPMENT



CARGO
1 CREW / 1 PIC
LOAD AREA:
2.8 x 1.6 x 1.3 METERS

We focus on the individual need of our customers. Our multiple layout options make our helicopter a multi mission aircraft. Ready for passenger transports (Taxi), authorities (Firefighters, Police, Military, etc.), rescue missions (Medical) and transport flights (Cargo).



1 Serial Hybrid Drivetrain | Electrically driven Main and Tailrotor | Simplified Gearboxes | No Tailrotor Driveshaft | Higher Safety through Battery Backup

2 Modern, Lightweight 5 | Blade Mainrotor | Low Vibration

3 Modern Cockpit | Fully adjustable seats | Excellent view for the pilot | Special Provision for Sling Load

4 Spacious Cabin Wide Sliding Door Flat Floor, Rail

5 Up to 8 Passenger and Luggage | Stretcher, 4 Crew Seats, Equipment | Fast and Simple Changes between Configurations

6 Large Fuel Capacity 3h Autonomy | Crash Resistant Fuel Tank

7 Large Clamshell Doors

8 Shrouded Tailrotor | Lower Noise | Higher Safety

9 Modern Engine | Low Specific Fuel Consumption



M12 / M22

4'478 m / 14'692 feet / payload 1'200 kg

SH09

4'478 m / 14'692 feet / payload 600 kg

Lama

4'000 m / 13'123 feet / payload 600 kg

H125

3'500 m / 11'482 feet / payload 600 kg

Bell 407 H130

3'000 m / 9'482 feet / payload 600 kg

Payload: + Pilot 80 kg / 176 lbs / + Fuel 120 kg / 264 lbs / @ ISA +20 °C / + 68 °F

Best in class hot and high performance

Outstanding payload capability in high altitudes and hot weather conditions

1'200 kg at 4'500 MAMSL instead of 600 kg as the closest competitor

In combination with a spacious and highly flexible cabin and a modern drivetrain

Capable to compete in the H125 and Bell 205 class for aerial work and in the H135/H145 for HEMS operation

MARENCO SWISS HELICOPTER: SAFE - ECOLOGICAL - ECONOMICAL



Thank you for your attention!
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