

Quintus M

The new open class
agile and sporty in the air
manageable on the ground



Quintus M

The first flight

The **Quintus M** (Serial Nr. 1) took off for the very first time at the Hahnweide at 2:30 in the afternoon with Tilo Holighaus at the controls. After the first flight maneuvers and tests, Tilo radioed to those on the ground, saying that the 23 m sailplane felt very harmonic in the controls and had an extremely fast roll rate. He called the glider "extremely responsive". Afterwards Tilo performed the first powered flight in the air. The rate of climb was approx. **4 m/s**. The following self launching take-offs, the ground roll on the grass runway was measurably less than 100 meters.

The design layout

The handiness of the **23m** wingspan makes for easy maneuvering on the ground, but especially in the air. A longer wingspan doesn't necessarily mean better performance. This very thin, high aspect ratio wing, with a maximum of **250 liters** of water ballast, allowing for a potential wing loading between **39 and 58 kg/m²**,

makes this sailplane extremely flexible, and with the best glide speed so high, a definite safe bet at competitions. In practice, a completely new level of speed should be possible with this aircraft.

We used our network of connections with **Lange Aviation** and **Professor Loek Boermans** in the conception and design of the wings. We used nine exact interacting wing airfoils with laminar flow over **95%** of the lower and **75%** of the upper wing surfaces and based on a superelliptical wing geometry. Structural design, ballasting and the patented, extremely light control design were the work of Lange Aviation. For the **Quintus M**, the concept of the outer wing panel with the winglets from Professor Mark Maughmer and the classic wingtip sweepback, makes the typical and excellent Schempp-Hirth flight characteristics.

The motor operation

Operating the motor controls is as easy as thinking, thanks to the **new automated concept**. To start the

engine, one simply switches the ignition to "**ON**" and after the motor is fully extended, push the start button. The warm-up performance is always optimal, as there is a microprocessor that adjusts the parameters to the particular start conditions. After switching off the ignition, the propeller stops perfectly in place and is retracted fully automatically by the elec-control and the help of the propeller brake.

Flight motor 2625-02i

The carburetor and ignition system in the **2625-02i** are replaced by a fuel injection and **electronic ignition system**. The former ignition is replaced by a generator which delivers enough energy for the injectors and the ignition. A controller regulates the fuel flow and ignition timing based on the rpm, throttle, motor temperature, air-pressure and air-temperature. This insures that whatever the altitude and temperature, the engine will **perform optimally**.

The consistent and uncompromising development will set new standards in the open class. We expect to achieve a new dimension in performance through this new interpretation of the open class, as well as **THE ADVENTURE FLIGHT EXPERIENCE** for distance, record and roaming flights.

Equipment

- Bugwiper aerodynamic stowaway
- Steerable tail wheel integrated into the rudder
- Maughmer winglets
- Flaperons along the entire wingspan
- Ergonomically optimal cockpit

Engine

- New electronic fuel injection engine from **SOLO**
- Ignition map control engine management
- Optimal performance for every altitude/temperature
- Perfect starting characteristics
- Simple operation with automatic extend/retract



Technical Data			
Quintus M empty weight	500 kg/1102 lb	Engine type	Solo 2625-02i
Max. all up mass	850 kg/1874 lb	Cylinder capacity	625 ccm
Wing area	14,70 m ² /158.2 ft ²	Cylinder	2
Wing span	23 m/75.5 ft	Rated power	52 kW/70 PS
Wing loading	ca.39.0 - 58.0 kg/m ² / 6.9 - 11.8 lb/ft ²	Tank capacity max.	ca. 40 Liter
Wing aspect ratio	36	Range (680 kg)	450 km/243 nm

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