

STEMME



Soaring and Power **S6^{-T}_{-RT}**



for aviation passionates only

the new face - smiling to the world

STEMME S6 - The New Generation of Motor Glider



Prototype S6-T ready for take-off

- Fastest cruising - up to 180 kts
- Soaring with an L/D of up to 39
- Short take-off and landing
- Powerful for glider-towing

STEMME S6 offers a **new experience in flying**

A beautiful and elegant appearance invites you to take seat in a comfortable cockpit with first-class leather interior. Multi-adjustable seats allow you to find easily your individual convenient position. Taxiing is easy on the robust steerable undercarriage. At take-off S6 demonstrates its power. A short take-off run, even on grass strips, and it climbs away fast after being rotated. The spectators back on the ground are left wondering where the noise has gone to.

The S6 speeds you to new horizons with up to 180 kts (with retractable gear) at low fuel consumption. Under power with a setting of 55% the range is more than 1.300 NM. Much wider of course, when you switch to soaring mode. A fascinating silence engulfs you and you feel the aircraft being lifted by the power of nature. Enjoy sportive soaring in thermals as well as in waves side-by-side in the comfortable cockpit with a spectacular view. Pure independence in choosing flight mode and route ensures most fun and brings you almost everywhere.

Flying the STEMME S6 is **purely fascinating**

The S6 is the perfect all-in-one aircraft meeting the growing requirements of modern pilots. Highest quality, innovative technique, dynamic appearance and best aerodynamics melt to become everybody's darling.

For **private pilots**:

Independence and great fun factor. The reliable, easy-handling aircraft for sportive flying in powered flight as well as in soaring mode. S6 is providing low direct operating costs.

Go for recreational flying, for a short trip or for holiday - go by S6!

For **flight schools**:

Perfect for basic training as all systems are freezable in one standard defined configuration.

Advanced and complex training with constant speed propeller, variable wing profile with flaps, retractable gear, turbocharged engine.

Soaring and powered flight under safety conditions with high reliability and good glide ratio.

For **flight clubs**:

Promises a high utilisation due to its multi-use character: Powerplane for fast cruising, good sailplane, towplane. Robust and easy to handle, for instruction as well as for advanced training, low direct operating costs.

For **business flights**:

Elegant and presentable appearance with luxurious cockpit and many options for the business traveller.

Fast cruising, long range, spacious luggage compartment, short take off and landing, even on grass strips, providing thereby a short distance to final destination.

The S 6 is the newest type of STEMME aircraft setting new standards right from the start. A powerful and fast aircraft, most reliable with excellent handling qualities and good soaring performance. Last but not least the S6 is environmentally friendly due to low fuel consumption and extremely low noise emission even under full power – all this in one aircraft. At the heart of the S6 is the remarkable STEMME propulsion system. It is similar to the one well proven in 200 S10-aircraft.

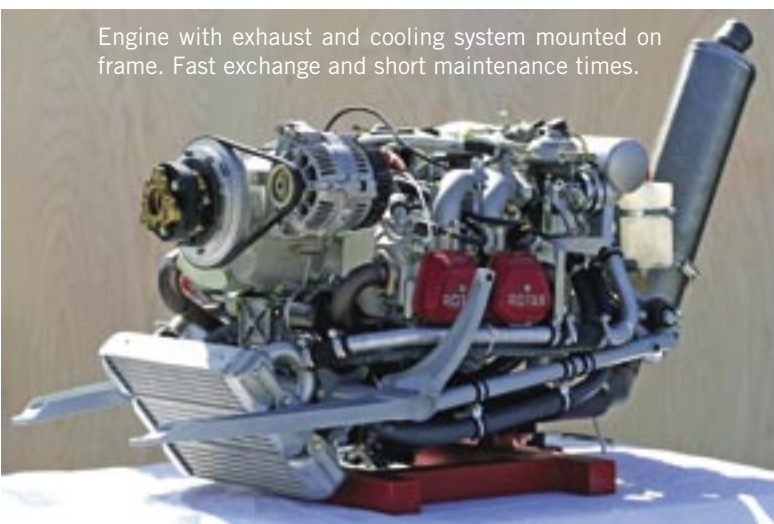
The S6 has a mid-plane-engine, currently the ROTAX 914 with turbocharged 115 hp. The propeller is a Mühlbauer constant speed 3-blade propeller suitable for reduced propeller speed as well as high static thrust at the same time. The connection between front propeller and mid-plane-engine is provided by a carbon drive shaft. This combination allows an ideal engine position from the perspective of weight balance and aerodynamics – at 2 m distance from the propeller. For soaring, drag can be minimized by fully feathering the propeller blades to soaring position.



STEMME S6 at maiden flight.

In the spacious cockpit both pilots enjoy comfortable seats, full control and best panoramic view. Ergonomic principles have been considered during designing seats and controls. Sitting side-by-side is best positioning for instructing, training, crew coordination or recreational and social flying just for fun. Easy access is ensured by the low canopy frame. The cockpit meets the highest level of safety architecture. The structural centre console and the short side-by-side length lead to a new standard of cockpit stiffness and crash-worthiness.

Engine with exhaust and cooling system mounted on frame. Fast exchange and short maintenance times.



For easy handling during taxiing, start and landing the S 6 is equipped with a tricycle gear including a steerable nose-wheel. The sophisticatedly developed suspension system is capable to absorb shocks in a very smooth manner. Wide wheel track and wheel base increase comfort and safety even more. Fix gear and a retractable gear are optional.



Robust undercarriage for smooth landings.

The aerodynamics of the S 6 are outstanding. Clean aerodynamics are the basis for best performance as well as best behaviour. The high position of the wings frees their upper side from fuselage influence. Done by Boermans in Delft the wing design provides an optimization for laminar airflow along the whole span. High attention has been paid to the fuselage-wing junction in order to minimize interference drag. Special profiles were developed for the wing region closest to the fuselage to take into account the unavoidable turbulent airflow in this region, responsible for stall behaviour. This makes the S6 completely docile at stalls. The aircraft has flaps along the whole span optimizing flight performance throughout the wide speed range.

No hangar space available? The S6 can live outside during the whole year. If you like better to keep it inside for a longer period of not flying, there is a trailer available, rigging time 30 min. (2 people).





Ergonomically designed cockpit
with precious materials - most
comfortable

design by www.udo-hamburg.com

| technical data | S 6-RT | | S 6-T | |
|---|-------------|--------------|----------|--------------|
| max. take off weight (MTOW) | 850 kg | 1.870 lb | 850 kg | 1.870 lb |
| empty weight | 640 kg | 1.411 lb | 630 kg | 1.389 lb |
| total payload | 210 kg | 463 lb | 220 kg | 485 lb |
| Bombardier-Rotax engine 4 cyl. 4 stroke | 914F | 914F | 914F | 914F |
| MTOP | 115 hp | 115 hp | 115 hp | 115 hp |
| MCP | 100 hp | 100 hp | 100 hp | 100 hp |
| fuel capacity standard | 70 l | 18,5 gal | 70 l | 18,5 gal |
| fuel capacity long range (option) | 140 l | 37 gal | 140 l | 37 gal |
| wing span | 18 m | 59,1 ft | 18 m | 59,1 ft |
| wing span folded for hangar spacing (option) | 7,2 m | 23,6 ft | 7,2 m | 23,6 ft |
| wing area | 17,9 qm | 192,7 sqft | 17,9 qm | 192,7 sqft |
| aspect ratio | 18,1 | 18,1 | 18,1 | 18,1 |
| length | 8,5 m | 27,9 ft | 8,5 m | 27,9 ft |
| height | 2,5 m | 8,2 ft | 2,5 m | 8,2 ft |
| landing gear: tricycle type, steering nose gear | retractable | retractable | fixed | fixed |
| wheel track | 2 m | 6,6 ft | 2 m | 6,6 ft |
| wheel base | 2 m | 6,6 ft | 2 m | 6,6 ft |
| best glide ratio about | 39 | 39 | 32 | 32 |
| airspeed of best glide ratio | 121 km/h | 65 kts | 115 km/h | 62 kts |
| min. sink rate (empty weight +70 kg) about | 0,8 m/s | 157 ft/min | 0,93 m/s | 183 ft/min |
| min. wing loading (empty weight +70kg) about | 40 kg/qm | 8,13 lb/sqft | 39 kg/qm | 8 lb/sqft |
| max. wing loading about | 48 kg/qm | 9,76 lb/sqft | 48 kg/qm | 9,76 lb/sqft |
| rate of climb at MTOP (MTOW) at MSL | 5,9 m/s | 1160 ft/min | 5,6 m/s | 1100 ft/min |
| cruising speed at MCP (TAS) at 16,000 ft | 345 km/h | 186 kts | 310 km/h | 167 kts |
| cruising speed at 55 % MCP (TAS) at 16,000 ft | 280 km/h | 151 kts | 250 km/h | 135 kts |
| fuel consumption at MCP | 27 l/h | 7,1 gal/h | 27 l/h | 7,1 gal/h |
| fuel consumption at 55 % MCP | 15 l/h | 4 gal/h | 15 l/h | 4 gal/h |
| range at 55 % MCP, | | | | |
| long range version, no fuel reserve, 16,000 ft | 2500 km | 1340 nm | 2300 km | 1250 nm |

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All data and specifications subject to change without notice