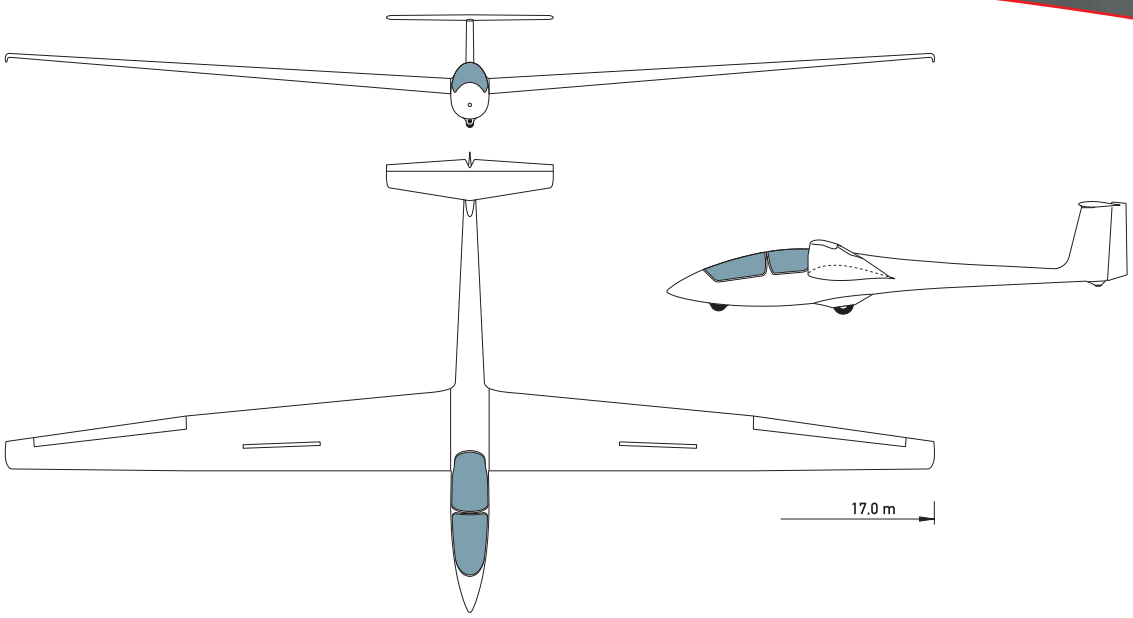
ASK 21

Instruction
Aerobatics
Performance
Fun to fly for two up

...competence right from the beginning



ASK 21

The Design

The ASK 21 is a two-seater mid-wing with T-tail. This aircraft stands out particularly by its wide range of flying tasks. The ASK 21 accompanies the student pilot from instruction up to the first cross-country or competition flights.
The experienced pilot may use its suitability for aerobatics and cloud flying. Its easy ground handling due to the low tail weight and low all-up weight must be pointed out. Moreover; the low all-up weight pays off also for winch launches where considerably more height in tow is gained compared to bigger and heavier two-seaters. This is a pre-condition for an effective instruction operation in flying circuits or for reaching thermals. In flight the extremely harmless flight characteristics together with good flight performance are noticeable.
The high production quality, as well as the low-maintenance and very rugged design offer a fully developed versatile aircraft lasting in value, for everybody. It is an acquisition which pays off for syndicates and clubs.

Fuselage

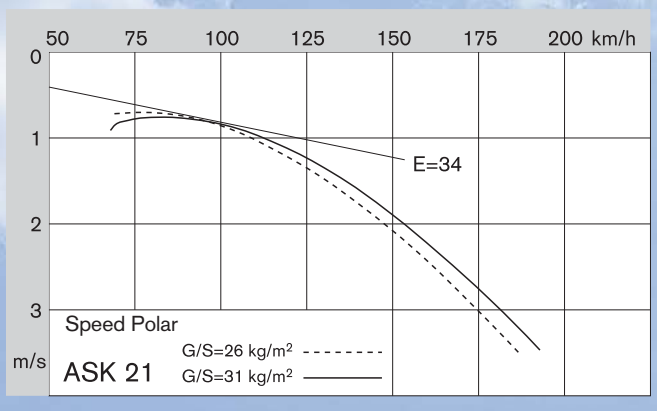
The fuselage is a GRP tubuscore honeycomb sandwich which affords the pilot a high level of passive accident safety with low weight of structural components. The plexiglass canopies are hinged fore and aft and together with the upwards hinging instrument panel in the front seat they offer a comfortable entry and exit. The layout of the canopy locking levers and the fitting of a canopy interlock mechanism guarantee reliably the locking of the canopies, particularly of the rear canopy which is valuable on solo flights or when carrying passengers.
The comfortable rubber-shock-mounted landing gear not only absorbs the smaller bumps which are common on every take off and landing, but is also very forgiving of heavy landings. Especially flight instructors appreciate after a long instruction day the convenience of the comfortable non-fatiguing seat position and of the easy-to-use and easily accessible operating levers.

Wing and Tailplane

The two-part double-tapered wing is built as a fiberglass sandwich with hard foam core; the GRP roving wing spars use a conventional tongue and fork spar extension which give a straight-forward wing assembly. All control system push rods are running smoothly in low-maintenance anti-noise ball-bearings.
There are very effective large dive brakes on the wing upper surface which give very good maneuverability even in case of steep landing approach.
The rudder is actuated by stainless steel cables. The tailplane is fitted with an automatic elevator connection which, on rigging, ensures that the stabilizer can be assembled only when the elevator control is correctly connected. The low actuating hand forces are particularly comfortable and guarantee non-fatiguing flying even with long flights.

Technical Data

Span	17 m	55.77 ft
Wing area	17.95 m²	193.21 sqft
Wing aspect ratio	16.1	16.1
Fuselage length	8.35 m	27.39 ft
Cockpit width (clear width)	0.68 m	2.23 ft
Cockpit height, front	0.90 m	2.95 ft
Cockpit height, rear	0.90 m	2.95 ft
Height at tailplane	1.55 m	5.08 ft
Empty mass	~ 360 kg	~ 794 lbs
Max. take-off mass	600 kg	1323 lbs
Wing loading (at 85 kg useful load)	24.5 kg/m²	5.01 lbs/sqf
Wing loading (at 200 kg useful load)	31.0 kg/m²	6.34 lbs/sqf
Useful load, front cockpit, max.	110 kg	242.5 lbs
Useful load, rear cockpit, max.	110 kg	242.5 lbs
Max. speed	280 km/h	151 kts
Min. sink (one pilot)	0.65 m/s	128 ft/min
Best glide ratio (~90 km/h)	34	34



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