

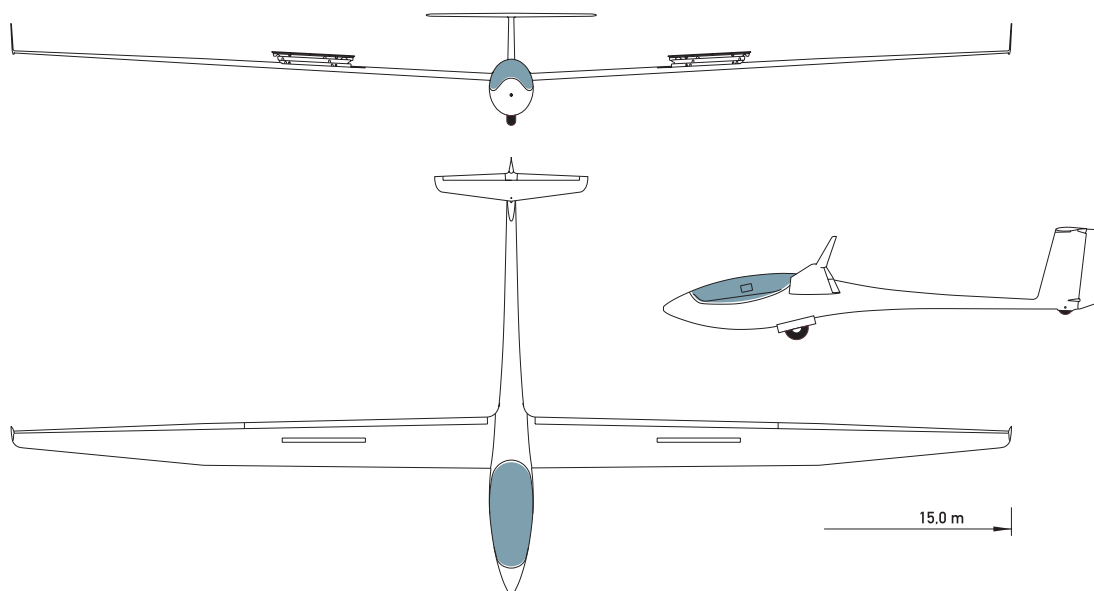


ASW 27 B

...no compromise design
yields maximum performance
in 15 m racing class!



...competence right from the beginning



ASW 27 B

Cockpit

The ASW 27 B is a high performance glider for the FAI-15m-class (racing class), of the latest state of the art technology. This glider is moreover type-certificated for cloud flying and semi-aerobatics.

The roomy safety cockpit of the ASW 27 B, designed according to latest research results in the field of safety and accident protection, offers all modern comforts and ease of operation, even for tall pilots. The rubber-shock-mounted, re-tractable landing gear with a "crumpling zone" in the steel struts for over load cases and hydraulic disc brake, the in flight adjustable back rest, the upwards hinging instrument panel and the speed trim, are only some of the many available conveniences.

Wings

The high performance wing airfoil with boundary layer control by means of turbulator holes, combined with an outstanding construction quality, imparts to the ASW 27 B flight performances that are comparable to those of the former Open Class gliders.

Due to the high construction quality of the wing and of the control surface gap sealing it has been possible to build a production wing with a laminar airflow of 95 % along the profile underside. The sophisticated control linkage system gives very good maneuverability and harmless flight characteristics, even in landing approach, to the ASW 27 B.

Tailplane

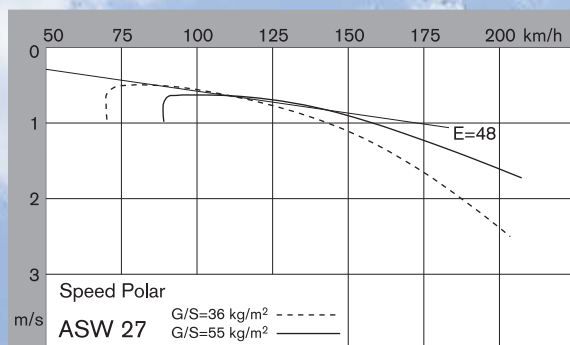
The low-drag airfoil of the T-tail (elevator with stabilizer) was developed specially for the ASW 27 B design by the Delft University of Technology. Elevator and rudder are new-technology sandwiches of aramide fiber / plastics with a hard foam core. All control surface hinges of the wing and of the horizontal tail unit use needle bearings or low-maintenance plastic bearings. The actuating levers and bellcranks are fitted with ball bearings or precise "uniball"-joints. While the desirable feedback from the air loads at the control surfaces can just still be felt at the stick, the hand forces for the pilot are comfortable, - a pre-condition for non-fatiguing flying.

Technical Data

Span incl. Winglets	15 m	49.21 ft
Wing area	9 m ²	96.88 sqft
Wing aspect ratio	25	
Fuselage length	6.55 m	21.49 ft
Cockpit height	0.80 m	2.62 ft
Cockpit width	0.64 m	2.1 ft
Height at tailplane	1.3 m	4.26 ft
Winglet height	0.45 m	1.48 ft
Empty mass (min.equipment)	245 kg	540 lb
Empty mass "SL" (min.equipment)	230 kg	507 lb
Max. take-off mass	500 kg	1102 lb
Mass of one wing	58 kg	128 lb
Max. wing loading	55.56 kg/m ²	11.38 lb/sqft
Min. wing loading	34 kg/m ²	6.96 lb/sqft
Water ballast max.	190 l	50 US gal
Useful load, max.	130 kg	286.7 lb
Useful load in the pilot seat, max.	115 kg	253.6 lb
Max. speed	285 km/h	154 kts
Maneuvering speed	215 km/h	116 kts

For m = 320 kg (705 lb) flight mass:

Min. speed	70 km/h	38 kts
Min. sink	0.52 m/s	102.4 ft/min
Best glide ratio (100 km/h)	48	



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