

# ASW 22

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reprinted from FLIGHT International, September 5, 1981

## SCHLEICHER FLIES THE ASW 22

Alexander Schleicher is now flying its new, big open-class sailplane, the ASW-22. It has a span of either 22 or 24m. Technically very interesting is the four or six-part wing with an aspect ratio of either 32.5 or a record 37.2 in the 24m version. It features a triple-trapezoid planform and a Horstmann/Quast-developed profile.\* A total of 850 tiny tubed holes are drilled into the undersurface of the wing over 17m of the span. Each will eject 3cm<sup>3</sup> of air per second, fed by a small pitot tube. This is said to reduce the laminar bubble and thereby to increase performance by about 8% at high speeds.

The three flaps each side act differently to achieve an optimum lift distribution; the two outers also affecting roll control. In landing configuration, the flaps are set at +45°, +10° and -10° respectively. Large speed brakes are fitted. Construction is of carbon and

aramid fibers, while glass fiber is also used in the fuselage, mainly for the cockpit area. The one-piece canopy opens forward, thereby lifting the attached instrument panel, à la Glasflugel 304. The massive undercarriage has two wheels and the tailwheel is also retractable, with full enclosure.

Empty weight is 420kg and max take-off weights are 750kg (22m) and 600kg (24m version) respectively, allowing either 220kg or 100kg of water ballast. Wing loading can be as high as 50.3 kg/m<sup>2</sup>. Performance figures claimed by Schleicher include a glide angle of at least 55 and a minimum sink speed in the order of 0.45 m/sec at 85 km/hr. Stall speed is 70 km/hr.

Early test results and the competition debut last month at a regional contest indicate that these figures are likely to be met and that the ASW 22 can at least match the performance of the world championship-winning Nimbus 3 (see FLIGHT, April 25). Schleicher's new contender promises exciting contests and perhaps new world records in the years to come.

\* See TECHNICAL SOARING, Vol. VII, No. 1, September 1981.