

ASTRAL 4

Intermediate - DHV 2

General

The Astral 4 is already the third coup for Swing's highly successful development and test team made up of Michael Hartmann, Manuel Croci and Christian Amon. The successful concept of the Mistral 3 was further developed and optimised for a DHV-2 glider. The Astral 4 is clear proof that performance, agility and safety can all be found in the one glider...

Target market

The Astral 4 will appeal in particular to pilots who enjoy flying a dynamic glider, but at the same time place importance on relaxed flying. The glider is suitable for experienced social pilots and also for ambitious cross-country pilots.

Flight behaviour

The Astral 4's high canopy stability, even in accelerated flight, is outstanding. The glider can be stabilised very easily in turbulent conditions, it has almost no tendency to shoot forward and can be precisely centred in thermals. After it has begun to turn, it follows the desired path with precision which is unsurpassed. Banked turns are just as enjoyable as flat turns in weak thermals.

On launch, the glider can be steered very well and it rises evenly above the pilot even in difficult conditions, and there is little tendency to overshoot.

Design and workmanship

As with all new Swing gliders, the top surface of the Astral 4 is made from a highly UV resistant double-layer siliconised fabric which guarantees that the glider will have a long life. The Astral 4 has very elaborate design features: cell construction from diagonal segments, which originates in the high performance area, and a system of load-bearing tapes in the bottom surface help the wing to maintain its profile. The load-bearing tapes allow ideal energy transfer from the lines to the wing, so as to avoid unnecessary hesitation and wrinkling in the bottom surface.

The canopy has 57 cells and an aspect ratio of 5.55. The design allows the lines to be reduced to two levels, i.e. main lines and top lines which reduces the overall resistance of the wing and increases glide performance.



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| ASTRAL 4 | 22 | 24 | 26 | 28 |
|---|-----------|-----------|-----------|------------|
| DHV Homologation DHV Zulassung homologation DHV | 2 | 2 | 2 | 2 |
| Take off weight Startgewicht (kg) min. max. Poids pilote avec équipement | 55 80 | 70 95 | 85 110 | 100 125 |
| Cells Zellen Caissons | 57 | 57 | 57 | 57 |
| Wing area Flügelfläche (m²) Surface | 26 | 27 | 28,4 | 29,8 |
| Wing area projected Flügelfläche projiziert (m²) Surface projetée | 22,6 | 23,5 | 24,8 | 25,9 |
| Wing span Spannweite (m) Envergure | 12 | 12,25 | 12,55 | 12,85 |
| Projected wing span Spannweite projiziert (m) Envergure projetée | 9,6 | 9,75 | 10 | 10,25 |
| Aspect ratio Streckung Allongement | 5,55 | 5,55 | 5,55 | 5,55 |
| Projected aspect ratio Streckung projiziert Allongement projetée | 4,04 | 4,04 | 4,04 | 4,04 |
| Canopy weight Schirmgewicht (kg) Poids de l'aile | 6,1 | 6,4 | 6,7 | 7 |
| Min. sink rate Min. Sinkgeschwindigkeit (m/s) Taux de chute min | 1,05 | 1,05 | 1,05 | 1,05 |
| Max speed Max. Geschwindigkeit (km/h) Vitesse avec accélérateur | >53 | >53 | >53 | >53 |
| Trim speed Trimmgeschwindigkeit (km/h) Vitesse bras hauts | 38 | 38 | 38 | 38 |