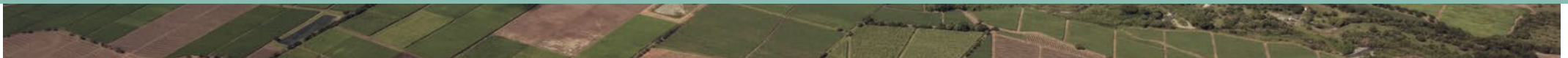




SIGMA11

Product presentation

XC SPORTSTER





SIGMA 11

Ambitious Cross Country

For 30 years the legendary SIGMA series has consistently represented tradition and progress. The first ADVANCE serial wing in 1989 was the SIGMA. Since then a series of SIGMA's has set the handling standard for the Sport Class.

The SIGMA 11 is a completely new development and once more takes its place among high-performing C wings. The new profile excels in both balanced pitch stability and a high level of directional stability. The result of these handling advances is not only better performance, but above all greater flying comfort: relaxed flying over long distances without tiredness. An effective Pitch-Control-System gives a real two-liner feeling. The new cross country sportster is a whole 400 gms lighter than the SIGMA 10, and perfect wing structural design does away with C-wires. This means the 11 is simpler to fold with an even more compact result.

An aspect ratio of 6.07 and 67 cells put the high quality XC-Intermediate in the middle of the C Class. The SIGMA is intended for the experienced and ambitious cross country pilot, who particularly likes sporting and lively handling. Pure flying fun is guaranteed, including while enjoying the satisfaction of long cross country adventures.



SIGMA 11

Ambitious Cross Country





ADVANCE

Pioneering spirit and Swiss precision
Our story

Putting our ideas into the air. That's what we can do. For more than 30 years, ADVANCE have kept the needs and wishes of our pilots at the forefront. With Swiss precision we refine model after model. Highest quality and absolute reliability have our top priority, in the air and in our customer service. So from pioneers we have become perfectionists, and a leading worldwide comprehensive service provider.





SIGMA 11

Ambitious Cross Country



PERFORMING



SPORTY



HIGH-TECH



SIGMA 11

Quick facts

- **Outstanding performance** (benchmark for the class), extremely good to have along in turbulent air
- **Very good comfort in flight**, especially when accelerated due to balanced pitching behaviour and good directional stability. This avoids fatigue during long cross countries
- **Much better extreme flight characteristics** and more passive safety due to the softer canopy
- **Low weight from 4 kg**; the SIGMA 11 is 400gms lighter than its predecessor
- No upper surface C-Wires thanks to perfect structure design, **very simple to pack with extremely compact result**



SIGMA 11

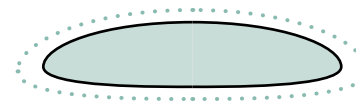
Technical features and comparison with the SIGMA 10



STABLE CENTRE OF PRESSURE

PROFILE

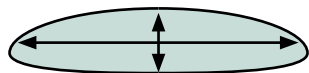
Achieves more usable performance and clearly more flying comfort because of better pitching behaviour. Requires lower degree of corrective input from pilot.



A LITTLE SMALLER

AREA

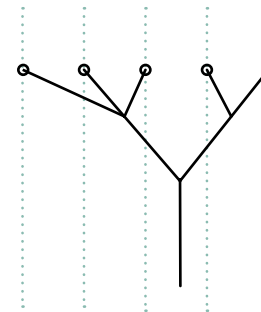
The efficiency of the new profile made it possible to reduce the wing area by one square metre. The end result is more performance and speed.



SLIGHTLY REDUCED

ASPECT RATIO

Aspect ratio has been reduced by 0.1 to 6.07. The flying feeling effect of this small change is marked, the SIGMA 11 feels noticeably more compact.



MODIFIED C LEVEL

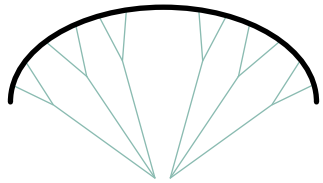
SUSPENSION

This change leads to even better extreme flight characteristics and therefore increased passive safety.



SIGMA 11

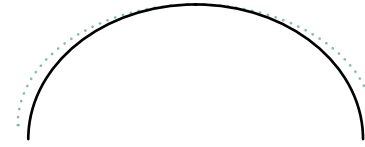
Technical features and comparison with the SIGMA 10



REDUCED

LINE DRAG

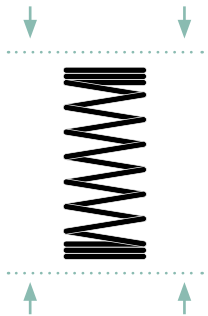
The total forward-facing area of drag-producing line has been reduced by another 2.5%, contributing to increased glide performance.



SLIGHTLY INCREASED

ARCHING

Adjusted wing curvature provides a more direct handling.



SOFTER

CANOPY STRESS DISTRIBUTION

Altered stressing gives the pilot a better flying feeling because canopy feedback is more damped, and this canopy absorbs turbulence better.



NEW

PLANFORM

Less sweepback creates less induced drag – therefore more performance. Handling is also smoother.



SIGMA 11

ADVANCE Brandfaces



THE SOFTER CANOPY MAKES THE SIGMA 11 RELAXING AND STRESS-FREE TO FLY, ESPECIALLY WHEN ACCELERATED. ADD THE DIRECT AND EASY-TURNING HANDLING AND THIS IS THE PERFECT WING FOR BIG XC EXPLOITS.

Sepp Inniger
ADVANCE test pilot

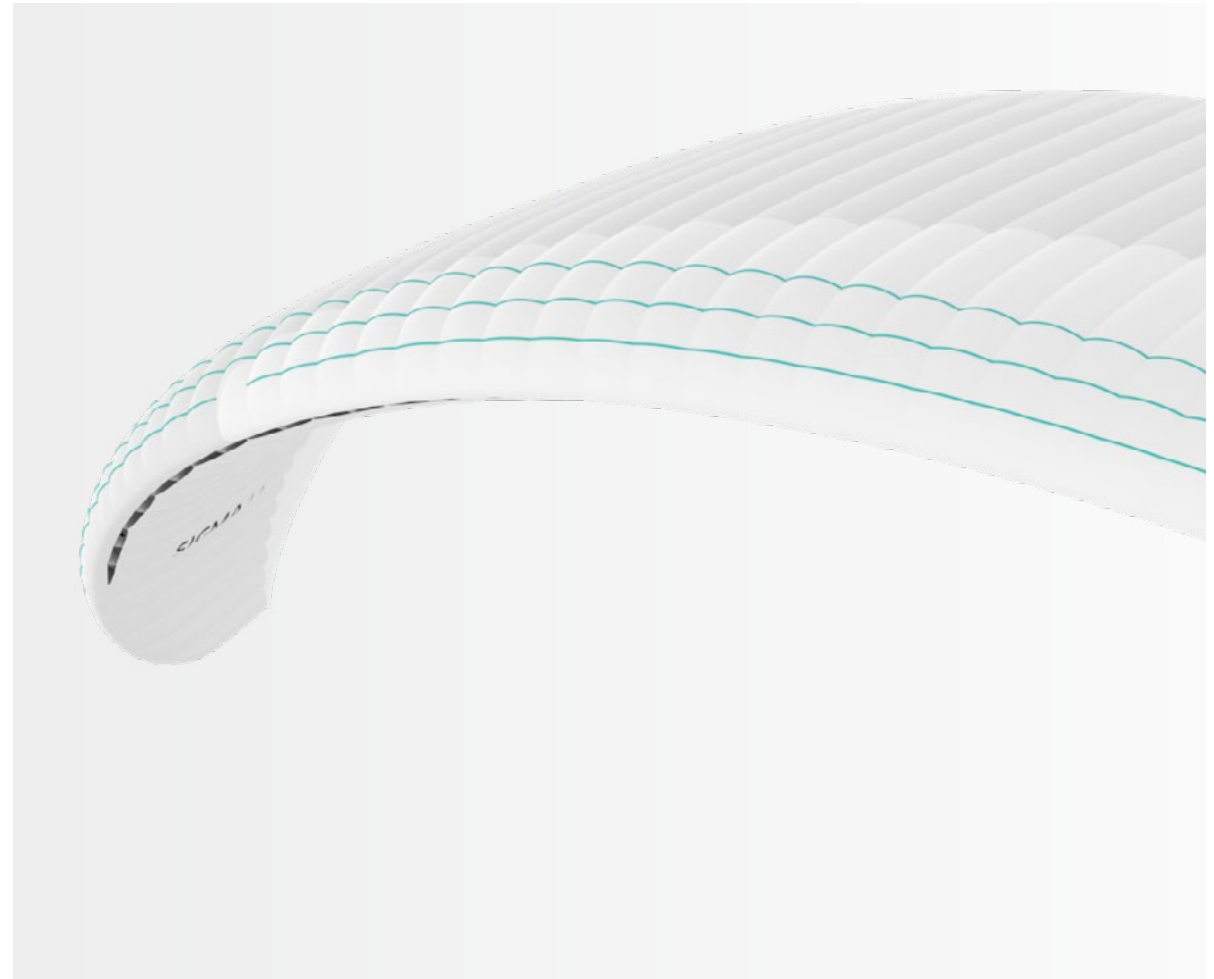


SIGMA 11

Features

NEW 3X3D-SHAPING

The strongly curved and flow-sensitive area of the leading edge is now integrated by a triple graduation of 3D shaping. The result: a crease-free leading edge and smooth upper wing surface for clean airflow and more performance.



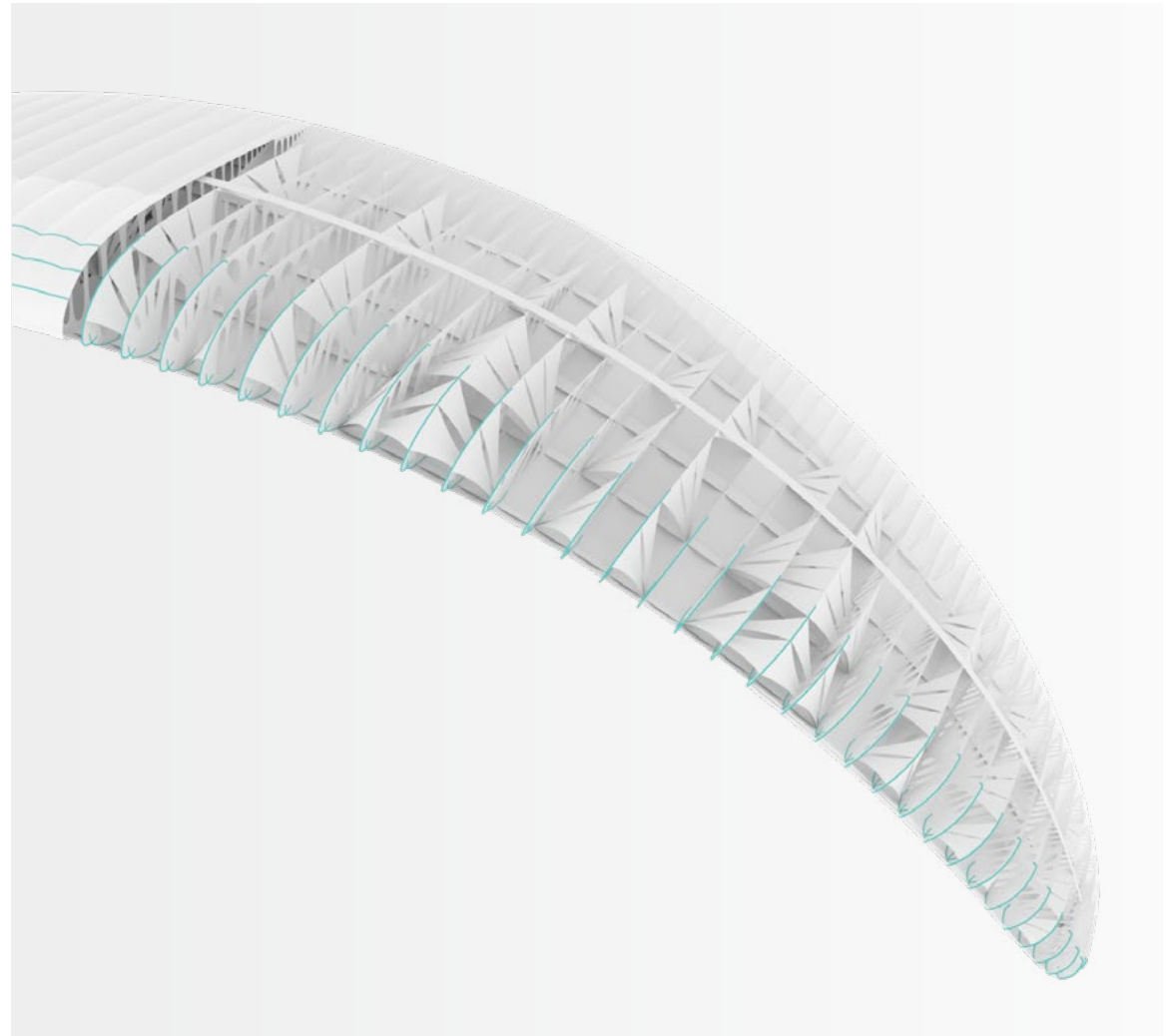


SIGMA 11

Features

ESTABLISHED ADVANCE QUALITY LIGHTBUILD CONSTRUCTION

The new SIGMA is 400 gms lighter than the previous model. It weighs only some 100 gms more than equivalent light wings, yet has a robust outer surface of 38 gm/32 gm cloth. The low weight from 4.0 kgs was primarily achieved by a cleverly detailed inner structure, with no compromise in strength and robustness. High quality cloth from European manufacturer Porcher Sports is used exclusively.





SIGMA 11 & IMPRESS 4

The Perfect Match

THE IMPRESS 4 AND THE SIGMA 11 FORM A UNIT, THE TWO PRODUCTS ARE PERFECTLY BALANCED FOR CROSS-COUNTRY FLYING.





SIGMA 11

Features

EFFICIENT PITCH-CONTROL-SYSTEM WITH C HANDLES

The SIGMA 11 has an up-to-date Pitch-Control-System with C handles. This system transmits an element of C line input to the B line level so as to maintain an ideal profile shape. Even in accelerated flight the wing can be actively flown and steered by means of this C/B arrangement, giving a realistic two-liner feeling.





SIGMA 11

Features

LATEST EDELRID PRO DRY LINES

The SIGMA 11 is equipped throughout with colour-differentiated Pro Dry Lines from Edelrid. This latest generation of uncovered line is a further development of the highly respected 8000 Aramid line and has a 60% higher humidity exclusion factor. This line is extremely stable in length and demonstrates above-average resistance to failure after long use.



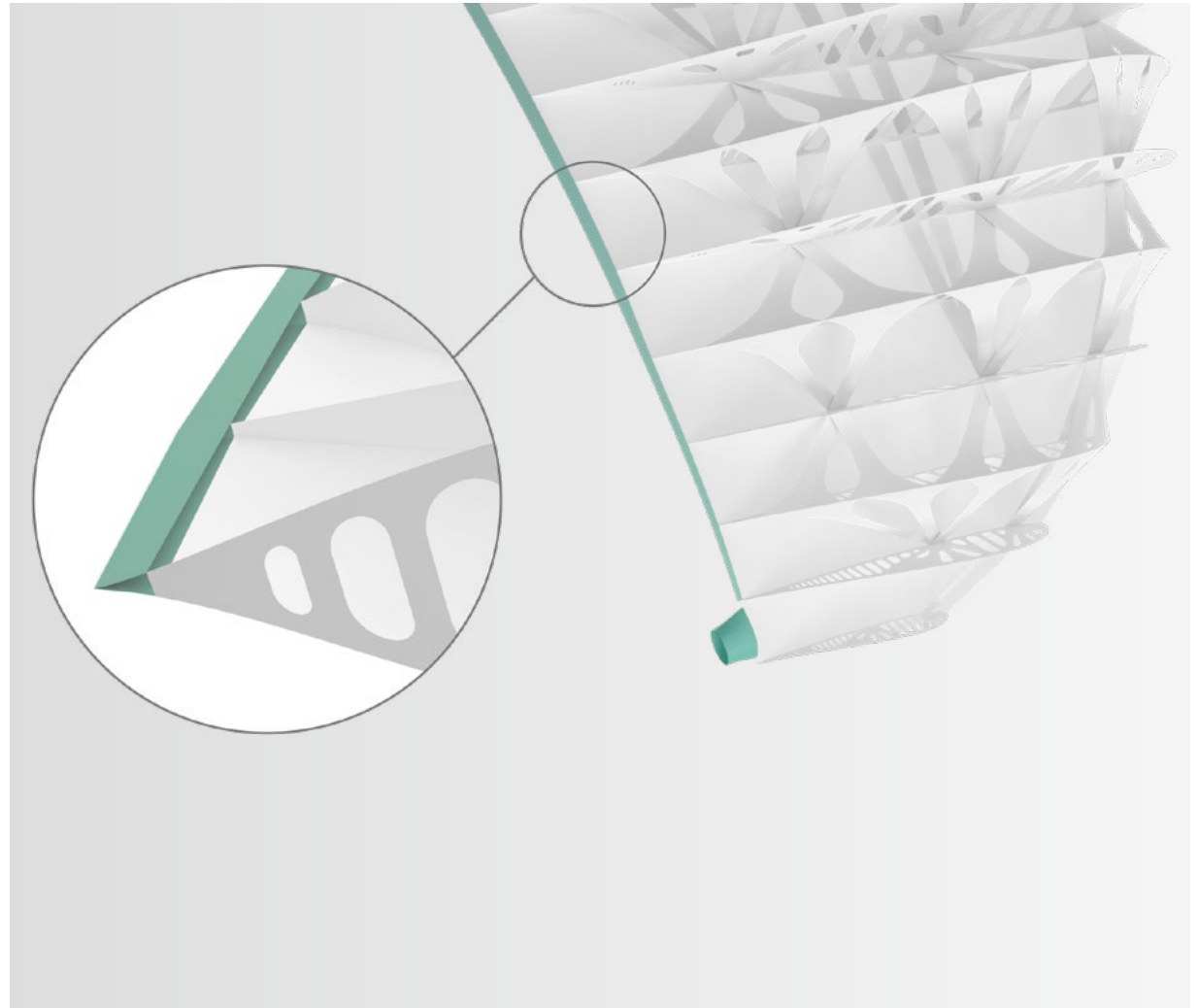


SIGMA 11

Features

NEW AUTOMATIC DUST REMOVER

The SIGMA 11 has a new, continuous, cross-cell dust removal channel along its trailing edge. Foreign bodies and substances such as dust, sand and melting snow can be emptied as required. Dirt can be either removed by shaking out on the ground, or passively airflowed out during flight.





SIGMA 11

Colours



spectra



fire



royal



SIGMA 11

ADVANCE Brandfaces

IN THE SIGMA 11 WE HAVE SUCCEEDED IN BUILDING A LIGHT BUT ALSO ROBUST C WING. ITS WEIGHT BEGINS AT 4.0 KG AND THAT INCLUDES THE 38/32GM CLOTH USED FOR THE OUTER SURFACES. A LIGHT AND LONG-LIVED WING FOR YOUR XC ADVENTURES.

Lucien Caviezel
ADVANCE test pilot

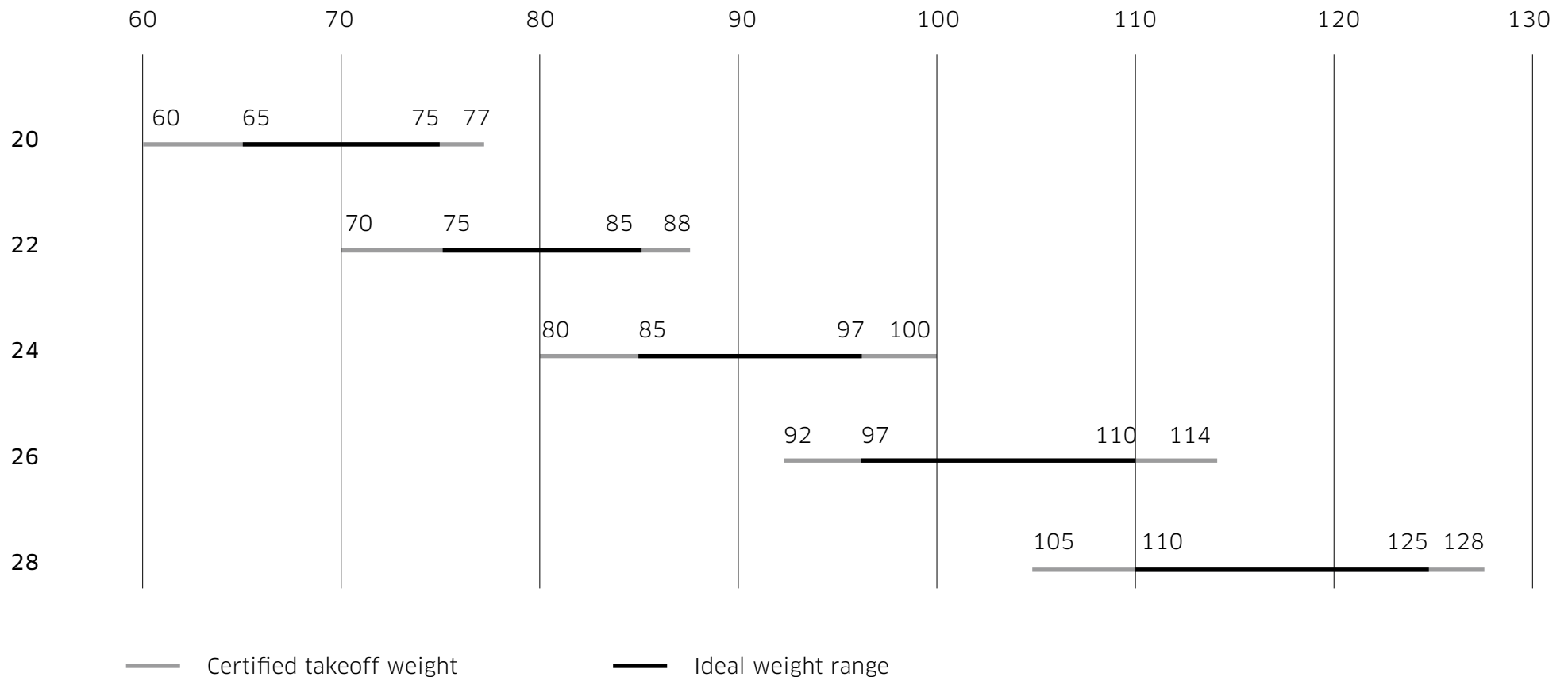




SIGMA 11

Seamless Weight Ranges

SIGMA 11 sizes cover the complete glider Ideal Weight Range in 10 to 15 kg steps (small to large wings). Any flying weight occurs within only one glider size, because this range extends progressively through the glider sizes, with no overlaps. These SIGMA 11 ideal takeoff weight areas provide the optimal relationship between gliding speed and climb performance for each size in all normal flying conditions, and also take into account the different paraglider size characteristics.





SIGMA 11

Technical data

SIGMA 11		20	22	24	26	28
Flat surface	m ²	20.4	22.0	23.6	25.5	27.4
Projected surface	m ²	17.4	18.8	20.1	21.7	23.3
Ideal weight range	kg	65-75	75-85	85-97	97-110	110-125
Certified takeoff weight	kg	60-77	70-88	80-100	92-114	105-128
Glider weight	kg	4.00	4.20	4.45	4.75	5.05
Span	m	11.13	11.56	11.97	12.45	12.90
Projected span	m	8.87	9.17	9.49	9.87	10.23
Aspect ratio		6.07	6.07	6.07	6.07	6.07
Projected aspect ratio		4.48	4.48	4.48	4.48	4.48
Max. chord	m	2.30	2.39	2.47	2.57	2.66
Number of cells		67	67	67	67	67
Certification		EN/LTF C	EN/LTF C	EN/LTF C	EN/LTF C	EN/LTF C
Number of risers		3+1	3+1	3+1	3+1	3+1



SIGMA 11

Materials

Leading edge	Skytex 38 universal, 39 g/m ²
Upper surface	Skytex 32 universal, 33 g/m ²
Lower surface	Skytex 32 universal, 33 g/m ²
Profiles	Skytex 40 hard finish, 40 g/m ²
Unsuspected profiles	Skytex 32 hard finish, 33 g/m ²
Risers	PES/Technora 12mm

Main lines	A-8001-230, -130, -190
Galery lines	A-8001-130, -090, -070, -050
Brake lines	A-8001-070, -050
Steering lines	A-8001-190, A-7850-240
Quick links	MR Delta 3.5mm / S12



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