



 **AEROS**

Style **3**

User's manual

*Style***3**



USER'S MANUAL

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INTRODUCTION

Welcome to Aeros Team!

First of all we congratulate you on buying your new AEROS Style-3 and wish you many enjoyable and safe flights.

We produce our paragliders and equipment at our own facilities using materials of the world's best manufacturers. We carefully check each step of production, from materials supply to packing of the finished products. This enables us to produce canopies of excellent quality with precise characteristics.

Style-3 was developed as a post school and recreational glider – a wing with easy handling and high in-flight stability. It is ideal for school graduates and for pilots flying for fun and looking for maximum safety combined with performance sufficient for XC flights. Style-3 took in the style and character of the well-reputed Style-2 and at the same time it became even more stable and fast.

Please, read this manual carefully before flying your Style-3.

Please, keep this manual. If you give your glider to the next owner, don't forget to hand this manual over, too.

Fly safely and enjoy every flight!

AEROS TEAM

Our R&D team is a harmonious staff, a real company of pilots and professionals. We create paragliders based on the concept.

DESIGNED BY PILOTS FOR PILOTS

Our aim is to make products that give you joy, unforgettable experience and an ocean of the brightest emotions.

Our team constantly moves forward introducing new technologies, making research and applying the most modern materials while designing new products with the maximum possible performance. The maximum attention is paid to safety, controllability, comfort while using our products as well as their attractive appearance.

Making the paragliders for you, we aim at passing to you all our love for air, giving you the opportunity to fully feel the absorbing beauty and power of the Fifth Ocean.

WARNINGS

Paragliding is an amazing sport but it can be dangerous and is able to lead to an injury or even death. You as a paraglider user should be aware of all these existing risks. Being a paraglider owner, you undertake full responsibility for the risks connected with the use of a paraglider. Undue use or usage of the defective equipment increases the risks. Neither the manufacturer, nor the dealers or distributors can be held responsible for any damage caused by or to the paraglider. At the time of delivery Aeros Style-3 meets the requirements of EN 926-2. Any alterations to the paraglider will make certification invalid!

In order to be able to do paragliding you should be physically healthy and mentally sane. You should complete your training course and have your valid paragliding license.

Obtain your flying experience step by step, best of all under the supervision of a more experienced pilot. Constantly improve your paragliding skills, practice on the ground as much as you can.

You should have an operable and proper rescue parachute.
Always wear your helmet, gloves and boots.

Make sure that you have performed the due pre-flight inspection. Do not try to fly the equipment that is either unsuitable or damaged. Pilots are responsible for their own safety and airworthiness of their paragliders.

Make sure that the weather and aerology allow to fly a paraglider. Do not pass the margins of safety – do not fly in strong turbulence and winds or in an unsuitable place.
In case of the slightest doubt of any kind do not take off!

Safe decisions will allow you to enjoy paragliding for many years.

WHAT IS YOUR PARAGLIDER DESIGNED FOR

Style-3 is a paraglider designed specially for weekend pilots from post-school level to confident crosscountry flights. It is perfectly suited for improving your skills received during your training course, for dynamic flying and certainly for crosscountry flights covering long distances.

Style-3 has successfully continued the line that started with the first Style and the bestseller Style-2. Keeping up the style, it became even better and speedier. Its success is ensured by the new technologies, new materials and advanced design. Additional ribs along the trailing edge are used to improve aerodynamics of the paraglider while flying at high speed. The leading edge reinforcements ensure clean profile throughout all flight modes. The paraglider utilises new simplified design of the risers with the “ear” line routed separately.

These as well as other innovations allow the pilot to feel the canopy and fully use the power of both strong and weak lift.

Style-3 paraglider is suitable for beginners and weekend pilots with over 20 hours logged annually.

WHAT'S IN THE PACKAGE?

Your paraglider is supplied with a number of things useful for flying, transportation and storage. First of all this is a big bag pack capable of accommodating all the equipment you will need for flying. The back pack is made of durable fabric but at the same time it is really light. Being ergonomically designed, it distributes the load evenly and thus ensures your comfort while walking with the back pack on your back.

The wing is packed into a light-weight bag for additional protection and ease of storage. The breather mesh in the bag makes the packing procedure easier.

When folded your paraglider is strapped with a compression strap, thus making it less voluminous. There is a separate bright protective bag for the risers, too.

In the back pack pocket for small atributes you will find a double-step speed bar, repair set, paraglider passport and user manual.

Control lines (brakes)

We think that the brake length should be matched individually.

It is important to make sure that all the control lines to the speed bar had the same length. The control lines should necessarily pass through the corresponding pulley on the risers. Adjusting the lines, leave them a bit loose, to avoid deformation of the trailing edge with the controls fully released and the speed bar pulled down. All adjustments should be done before the flight.

Canopy

The Style-3 has the modified profile that proved to be efficient in the Style-2.

The ribs which suffer the most tension, are made from NCV Porcher Marine hard finish fabric. NCV Porcher Marine with medium finish is used for the top and bottom panels. Trilam reinforcements of the ribs provide extra stiffness and stability of the leading edge and help reduce the weight of the paraglider, thus easing the inflation of the canopy at launch and improving its flight performance. Along the trailing edge between the main ribs some small ribs are added for better aerodynamics of the paraglider.

Special paraglider design combined with diagonal ribs ensures high stability, quiet conduct at landing, ease of inflation and excellent controllability.

Lines

Lines with superaramid core and polyester coating showed excellent results during laboratory and flight tests.

Top stage – diam. 1.2 mm (118 kg)

Middle stage – diam. 1.5 mm (163 kg)

Bottom stage – diam. 1.9 mm (321 kg)

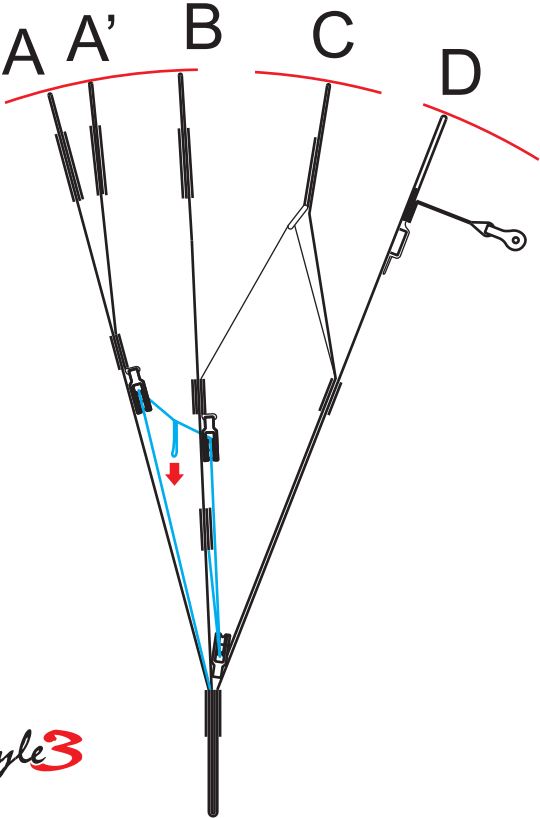
Brake lines top and middle - Dyneema diam. 1,1 mm (128 kg)

Risers and Speedsystem

For easy identification all risers are marked with different colours: A-row is red, B-row is yellow. The lines are connected to the risers by the quick links – triangular carabiners fitted with a twisted rubber ring preventing any slipping of the lines on the triangles and fraying through. The carabiners are covered with a thermoforming tube which prevents occasional unlocking of the quick links.

ATTENTION: The thermoforming tube does not ensure 100% security. Control your carabiners before every flight.

The speedsystem of Aeros Style-3 is foot-operated. It changes proportionally the length of A, B and C risers which allows to keep up the wing's shape at high speed.



Style3

DISTANCE BETWEEN RISERS						
Speedsystem	distances					
	A/A' - B	A/A' - C/D	A/A' - D	B - C/D	B - D	C/D - D
not active	0	0	0	0	0	0
activated	50	120	200	75	150	75

To fit the speed system, pass the free ends of the speed system cords (the opposite ends are attached to the bar) through the metal rings, holes or pulleys on your harness, following the harness manual. Connect the loops of the cords to the speed bar line using the oval-shape carabiner.

When connecting the speed system cord on the risers with the speed bar, make sure that the speed system line goes outside. If it is misconnected, you will not be able to use the speed system.

Test your speed system on the ground for the correct cord length, sitting in your harness with the risers attached. The risers should not deform with the speed bar loose. The speed bar should have minimum looseness to give you an opportunity to use its travel in full. The maximum speed is reached when pulleys on the A-risers are joined together.

To increase your speed in the air, just push the bar by your feet. The loop on the speed bar is made to help you catch the bar by your heel.

It is allowed to use different bar designs, provided they have been adjusted and ground tested on the rig.

When the speed system is being used, the paraglider flies at a lower angle of attack and is more subject to folding. Therefore, try to avoid using the speed system at low altitude and in turbulent conditions.

Harness

The harness with the hang point at around the chest height (42 - 46 cm between the carabiners) can be used for flying with the Style-3. It is only important to ensure that the harness is properly adjusted and you are comfortable in flight.

All-up weight

Every paraglider can be operated within a certain load range. Try to choose the optimal size for yourself. The all-up weight can be easily found by weighing yourself with the full set of gear.

For higher speed and for flying in strong conditions it's preferable to choose the canopy size where you are closer to the upper range limit. For better sink speed and for smooth conditions you should better be close to the lower range limit. Feel free to use the ballast, if necessary.

FLIGHT

We recommend to get acquainted with your new paraglider on the ground. The second step should be a few flights down the small gentle slopes. This will allow you to get used to your equipment, get some skills and tune it. In case of the slightest doubt do not hesitate to contact an instructor or a local dealer for assistance.

Preflight check and launch preparations

It is absolutely necessary to check lines, risers and canopy for tears and damage before each flight. Also check your harness, check knots on the brake handles, check if the carabiners are properly attached and secured. Make sure that your reserve deployment handle is properly secured with the security pins. Lay the canopy in a half moon shape against the wind. This will allow A-lines in the center to be tensioned before the other "A"-s. So the canopy will be inflated gradually beginning from the middle sections, and this will make the non-horizontal inflation less likely. Pull the lines slightly and sort them into A,B,C,D and brakes beginning from the risers. For easy control A1 and A2 risers on Aeros Style-3 are marked red, B-risers are marked yellow. The brake lines should run freely through the pulleys to the trailing edge of the canopy. It is important to check that no lines are looped around the canopy ("lineover"). Check that there are no sticks or other things caught by the lines and that the lines are free from knots. Check the lines from the risers to the canopy on one side first, do the same on the other side. All lines should be free, without any overlapping, tangling or knots.

Checklist

1. Reserve chute – handle, securing
2. Helmet, fastening
3. Locks on all belts are closed, re-checking leg loops
4. Carabiners and mailons are closed

5. A-row and the brakes are in your hands
6. The leading edge is open
7. There's the headwind
8. Air space is free, there's an excellent visibility

Launch

Your Style-3 allows you to use both the forward and the reverse launch method.

Forward launch

This method is applied in no wind or low wind conditions. Lay the paraglider out upwind, half-moon-shaped. Hold A-risers (A1 and A2) with brake handles in your hands, keeping B, C and D risers in the arm bow. Taking a steady run, pull the canopy up progressively. Control the paraglider rise with your arms. When the canopy is above your head, you should feel the reduction of drag, at that moment release the A-risers, still keeping the brake handles. Move your body to the center of the glider to correct the roll, if necessary.

Now you should visually check that the canopy is fully inflated and that the lines go properly and are not tangled. If anything is not correct, abort the launch and try again.

Reverse launch

Use this method for windy conditions. It is recommended to practice the reverse launch on a training hill to obtain the feeling of the canopy. The paraglider is placed in the same way as it is done for the forward launch. Load the canopy with the harness. Make sure that the canopy is rising evenly and symmetrically. If necessary, move towards the canopy. When the paraglider is up, turn in the launch direction. Visually check if the canopy is fully inflated and the lines go properly and without any tangles. If you decided to abort the launch, apply the D-rows.

Try to practice on the ground as much as possible. While doing this, in the first place you will enjoy controlling your paraglider, and in the second place you will acquire good practical skills and feeling of the canopy that are sure to help you take off in various conditions.

Flying

Aeros Style-3 has better glide ratio at or close to its trim speed (hands up). Use this mode for flying in normal air, with tail wind and if there is no strong sink. With head wind or in a strong sink use the speed system to increase your horizontal velocity. This will allow you to fly upwind in an optimal way or to quickly pass the descending flow area. Avoid using the speed system in full at low altitude or in very turbulent conditions. The minimum descend rate can be achieved with the brake handles drawn slightly in. Use this mode in lifts. Before doing this, feel the brake handle travel in smooth air, thus making sure that you are not going to stall the canopy in the lift.

Turns

Handling of the Style-3 is easy and responsible. The most efficient turning method is the simultaneous weight shift and pulling the inside brake. To increase the wing resistance to collapses in turbulence and to obtain optimum sink rate, pull the outside brake slightly while thermalling.

ATTENTION: Apply brakes smoothly. Don't pull brakes too fast or too hard, as this can result in negative spin. Practice turns gradually. Do not start your turn at minimum speed as this can lead to negative spin.

Active flying

In turbulence pilots prevent tucks by way of active flying. This means that the pilot should constantly work with the canopy, reacting to all external inputs and managing them in a balanced manner. Constant feedback is a must. It's easier to prevent collapses than to correct them. Forward movement of the canopy can be countered by pulling brakes smoothly and precisely.

Backward movements are countered by letting the brakes go and allowing the paraglider to gain speed. To feel your paraglider better, hold the brakes slightly tightened.

Try to avoid chaotic braking. Acting in a random way, you risk to increase the paraglider's oscillation. The best solution in this case would be to stop braking for some time (hands up).

It's recommended to get experience with controlling your paraglider on the ground.

Even if you can perfectly use the active flying methods, you are not insured against collapses. Do not fly in turbulent conditions, if you are not skilled enough or are unable to control the situation.

Flying with the speed system

Use of the speed system lowers the angle of attack of the canopy which results in lower glider stability. Push the bar smoothly. If you feel drop in the bar pressure, it means that the leading edge of your canopy is close to collapse. Release the bar gently and apply brakes to counter collapses. Try not to use the speed system in turbulence.

To control the paraglider with the speed bar pressed on you can use the D-row lines. This will allow you to minimize the loss in glide ratio between thermals, as with the wing being controlled through the D-lines the wing profile is less distorted than when being controlled by brakes.

To manage the fore-and-aft bank movements, use the whole row, controlling the paraglider's oscillations similar to the brake control. However, please, bear in mind that the D-row should not be pulled as much as the brake lines.

The most efficient way to control your course and turns is to use the last line of the D-row, marked as D-3 in the diagram.

Landing

Style-3 is easy to land. Plan your landing approach from a sufficient height, giving you enough time to correct mistakes, if any. At the final leg you should go against the wind and with brakes slightly pulled down from the trim position to avoid tucks. Fly at a higher speed when you are on your final approach. Begin to apply brakes harder at 1-1.5m above the ground so that you pull full brakes just before touching the ground. Stronger wind in the landing zone requires less brakes to be applied. When the wind is over 6-7 m/s, to deflate the canopy pull the D-lines when you touch the ground. Use of the brakes in strong wind conditions can result in the pilot being lifted and dragged backwards. If you are dragged back, be ready to run after the paraglider. Before landing take the upright position in your harness. Be ready to do a parachute roll, when necessary.

We wish you soft landings!

Tow launching

Aeros Style-3 can be tow launched by either an active or a passive winch. The paraglider is stable when being pulled. For brake control keep in mind that the brakes are more loaded and the paraglider responds slowly to control inputs. Braking range should be narrower than in the free flight. In case of emergency release immediately.

Folding away

Spread your canopy on the surface with the bottom side facing upwards, place the lines over the canopy. Put the front rib parts of the canopy together and secure them with the strap. S-fold the canopy along the trailing edge into a 60-cm wide strip. Press the remaining air out of the canopy, moving from the trailing edge to the leading edge. Fold the paraglider sufficiently to be able to put it into the packsack, secure it with a strap and pack it into the packsack. While folding away, try to avoid folding the canopy along the previous creases. Try to fold your wing as loosely as possible.



EXTREME FLYING MANEUVERS

These flying maneuvers should be practiced under the experienced instructors' supervision. Practice at high altitude and take all precautions.

Big ears

With “big ears” your paraglider's sink rate increases to around 4m/s, whereas horizontal speed remains the same. This technique is used to leave away either a strong cloud lift or a dynamic lift on the ridge, or to shorten your landing approach.

To make big ears, pull left and right A-risers (A2) about 30-40cm downwards.

ATTENTION: Do not pull A2 too much in order not to pull A1.

With big ears you may initiate turns by weight shift. If you engage brakes, this will result in exiting from big ears. Too much braking can induce stall earlier than without big ears.

Big ears combined with use of the speed bar

You can combine the use of big ears with the speed bar use.

It is important to keep in mind that the ears are folded first and after that the speed bar is used. One can have trouble if doing this in the reverse order.

Big ears in steep spiral

We do not recommend to use this flying mode as the maximum allowed load onto the lines can be exceeded and the paraglider can be destroyed. Do not use this mode.

Wing-overs

Style-3 has not been designed for aerobatic flights. Maximum 90-degree wing-overs are allowed.

Uncoordinated wing-overs can cause big trouble. Do not practice any wing-overs at low altitude.

B-line stall

Pull the left and right B-risers down symmetrically by about 20-30cm. The canopy will enter the vertical descent flight with a sink rate of about 8-10m/s with zero horizontal speed.

Control how deep you are pulling the B-risers. If they are pulled too much, the wing will start to take the horseshoe shape which will cause instability of the flying mode.

To exit from the B-line stall, release the B-risers fast but not sharply. Releasing the B-risers slowly will extend the time of returning to a normal flight. Don't apply brakes for 2-3 seconds after releasing the risers, as the canopy should gain its normal horizontal speed.

We have never experienced the situation when a Style-3 couldn't recover from the B-line stall. However, if this occurs, try to pull either the A-risers or the speed bar slightly. If this doesn't help either, use the full stall to return to normal flight.

Spiral dive

To enter a spiral dive on the Aeros Style-3, you should slowly apply brakes on one side. While the bank angle increases, apply more brake. Control this angle by increasing or reducing the amount of inside brake. Also use weight shift to make it easier to enter a spiral dive.

To exit, shift weight to the center and release the brake gently. Exit the mode slowly. Do not use the outer brake sharp while exiting as this can cause severe overshooting.

ATTENTION: While entering a spiral dive, don't pull the inside brake too fast, as this can result in a negative spin. Brake should be applied in conformity with the G-force and your bank angle. Be careful with extra G-force, keeping in mind that both you and your canopy can be overloaded. Be aware of how you feel.

Asymmetric front collapse

Most of tuck situations are caused by turbulence (thermal activity, rotors or combination of the above). After the asymmetric front collapse the canopy begins to turn to the side of the tucked wing. Usually Aeros Style-3 reinflates without the pilot's input, smoothly and fast. To speed up inflation of the canopy, the pilot should:

a) counter the turn by pulling slightly the brake opposite to the turn and shift his (her) weight to stop the turn. This will increase speed of the deflated wing and help it to reinflate. But don't pull the brake too hard, beware of stall.

b) pump the deflated wing by a slow (within 1 second) long pump on the brake of the deflated wing. This will accelerate the recovery of the canopy.

In any case don't rely upon the canopy recovering on its own, try to speed this process up, especially at low altitude.

Symmetric front collapse

Symmetric front collapse occurs when you are flying in a very turbulent air. Use active type of flying (counter all forward and backward canopy movements with light brake inputs) to prevent frontal tucks. If this happens, the canopy will recover on its own. Brake input will stop the longitudinal swings faster.

Line over

We have never experienced the line over during any of our flight tests on the Style-3. But theoretically it's possible that the collapsed wing top is caught between the lines due to turbulence or incorrect pilot's behavior. A line over leads to a spiral dive. If the line over occurs, try to stabilize the glider at a straight flight by gentle brake input. Then try to make one of the following procedures:

- a) pump the collapsed area;
- b) pull an ear line to untangle the stabilizer;
- c) if you are at the sufficient altitude, provoke its loss by the full stall;
- d) if none of the above steps helps or if you don't have enough altitude, engage your rescue.

Deep stall

It can occur when you pull both brake lines slowly until the canopy has no more forward speed – the sail bends between the lines which means the loss of internal air pressure. To recover from this situation, release the brakes slowly. Style-3 will recover fast.

In case the recovery is delayed (due to turbulence, etc.), pull the A-risers slightly or use the full stall maneuver.

Full stall

To induce full stall it's necessary to pull both brakes down all way long until the canopy suddenly falls backwards. It will be an unusual experience for you, but don't release brakes immediately. Wait until the canopy stabilizes above your head. Releasing brakes too early (while the canopy surges backwards) will cause a sharp forward movement of the canopy which can result in the frontal collapse or the pilot falling into the canopy. Bear in mind that big effort should be applied to the brakes at that moment. Now you can release brakes gently but not too slowly (approx. during one second).

Apply brakes symmetrically to avoid tucks.

Spin

Usually the spin occurs when the brake is being pulled too hard on one side with the speed being too low. To enter this situation intentionally, flying at the speed slightly higher than V_{min} , pull one brake hard and release the opposite one.

ATTENTION: Never do this maneuver near the ground and without the sufficient experience.

To recover, release the pulled down brake when the canopy is above you and be prepared to prevent asymmetric collapses which can occur during the recovery. If the brake is released while the canopy is moving backwards, the pilot can fall into the wing.

MAINTENANCE AND REPAIRS

Storage

Store your paraglider in a cool dry place, away from UV exposure. Never leave the canopy wet for a long time, as this will reduce the lifetime of both fabric and lines.

Cleaning

Clean the canopy with fresh lukewarm water only. Do not use chemical detergents. Bird's droppings should be removed and the spot should be carefully rinsed in fresh water and dried.

Repair

Repairs should be made by the manufacturer, distributor or authorized workshop only.

Additional information

UV exposure can seriously impair durability of the fabric. When not flying, always do your best to protect your canopy from the sunrays. In between flights put the canopy into the bag. Remember that clouds are not an absolute obstacle for UV rays.

For Style-3 we use fabric with silicone coating. It is much more resistible to abrasion than other fabric types. However, do your best to minimize your canopy rubbing the ground.

Always rinse the glider with fresh water (both outside and inside the canopy) after contact with salt water. Salt crystals impair durability of the lines and fabric. Although you can rinse fabric, it's quite difficult to rinse lines well. Therefore we recommend to replace all lines after being immersed into salt water.

When folding your paraglider on the grass, take care to avoid insects folded inside the canopy.

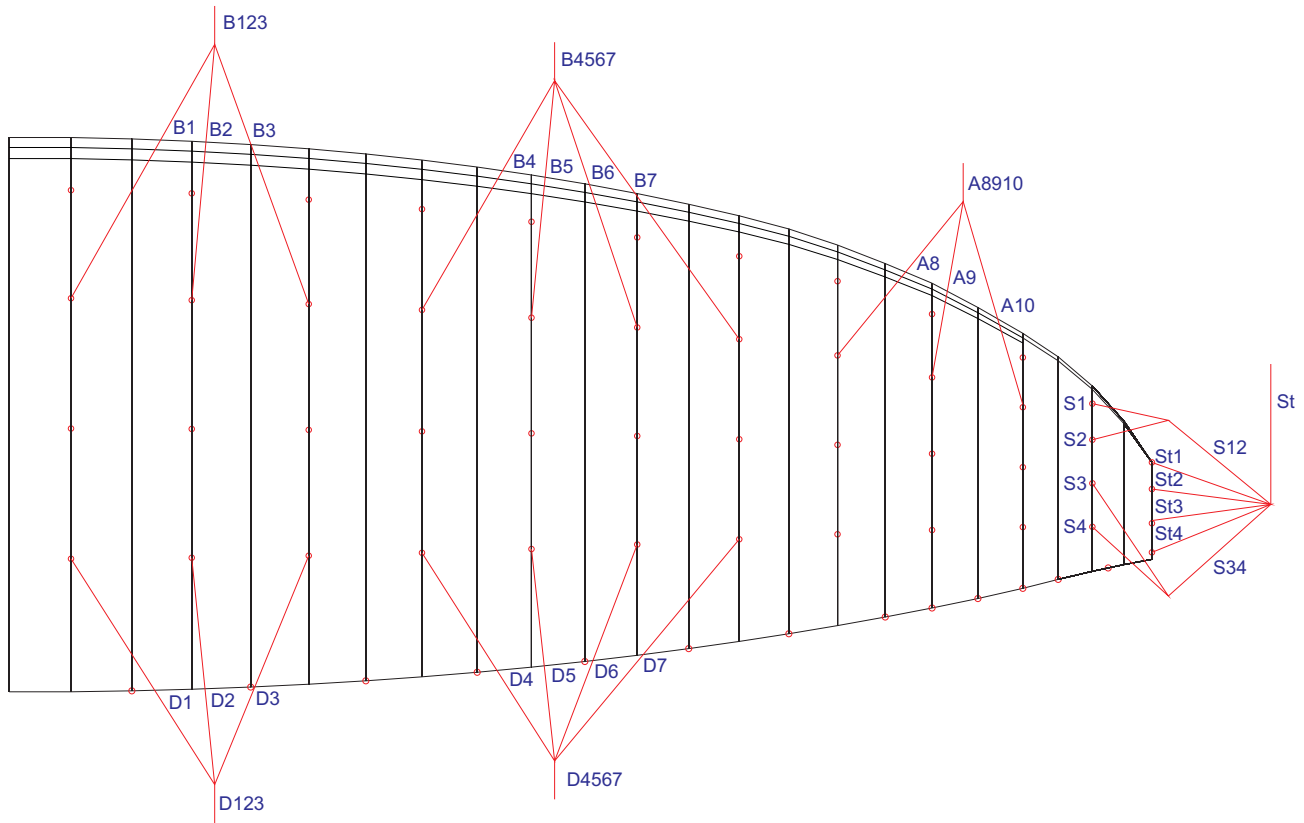
Grasshoppers and other big insects can gnaw through the sail trying to set themselves free.

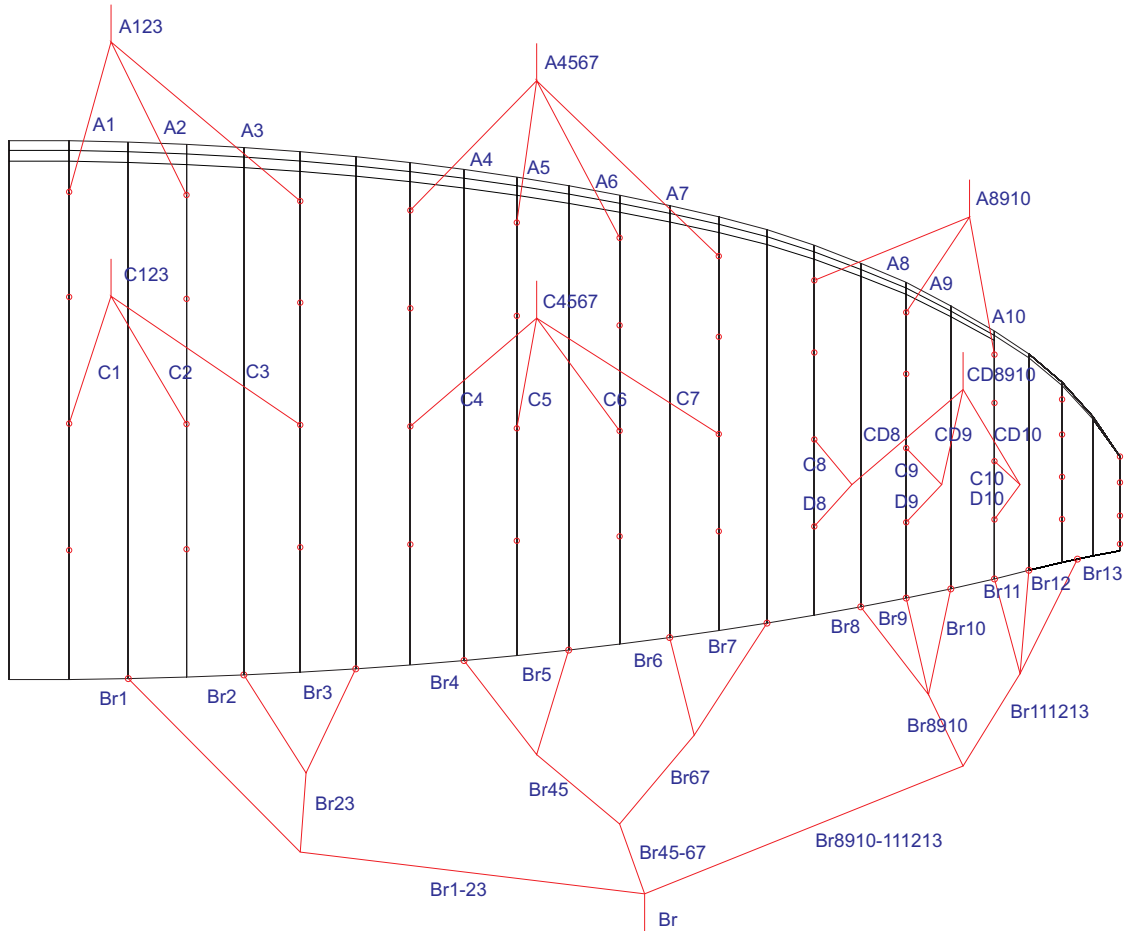
TECHNICAL DATA

Size		XXS	XS	S	M	L	XL
Cells					46		
Area	m ²	20	23	25.3	27	29	31.6
Span	m	10.24	10.98	11.51	11.89	12.33	12.87
Aspect					5.24		
Area projected	m ²	17.36	19.97	21.96	23.41	25.17	27.43
Span projected	m	8.29	8.88	9.32	9.62	9.98	10.41
Aspect ratio proj					3.96		
Root chord	m	2.48	2.66	2.79	2.88	2.99	3.12
Tip chord	m	0.43	0.47	0.49	0.5	0.52	0.55
Weight	kg	5.4	5.6	6	6.5	6.8	7.5
Take off weight *	kg	55-70	65-85	75-95	80-105	90-115	105-130
Category					EN B		

* Pilot + ca. 17kg of equipment (incl. canopy)







Style-3

Paraglide

Size

Serial number

Date manufacturing

Distributor

Date sale

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