SKIN 4 P

User *manual*

AIVIUK BEYOND THE GLIDE

CATEGORIES

HIKE & FLY

Born on the *summit of K2*

WELCOME

We welcome you to our team and thank you for the trust you have placed in us by choosing a Niviuk paraglider. We would like you to share the enthusiasm with which we have created this paraglider and the importance and care with which we have developed the design and manufacture of this new model. All this, in order to be able to offer you the maximum pleasure in every flight under a Niviuk paraglider.

The SKIN 4 P is much more than an ultralight single-surface wing: it's the ultimate evolution of hike & fly. Its design is completely new, created from scratch with a single goal: to be the lightest and most compact wing possible, without sacrificing safety or the pleasure of flying.

The SKIN 4 P has been tested under extreme conditions, being the hero of the flight from the summit of K2. After that experience, it's ready for any mountain challenge.

We are confident you will enjoy flying this paraglider and will soon discover the meaning of our motto:

"The importance of small details to make great things happen".

This is the user manual and we recommend you read it carefully.

USER MANUAL

This manual provides you with the necessary information on the main characteristics of your new paraglider.

Whilst it provides information on the wing, it cannot be viewed as an instructional handbook and does not offer the training required to fly this type of paraglider.

Training can only be undertaken at a certified paragliding school and each country has its own system of licensing.

Only the aeronautical authorities of respective countries can determine pilot competence. The information in this manual is provided in order to warn you against adverse flying situations and potential dangers.

Equally, we would like to remind you that it is important to carefully read all the contents of your new SKIN 4 P manual.

Misuse of this equipment could lead to severe injuries or death. The manufacturers and dealers cannot be held responsible for misuse of the paraglider. It is the responsibility of the pilot to ensure the equipment is used correctly.

CONTENTS

1. CARACTERISTICS

1.1 WHO IS IT DESIGNED FOR?

The SKIN 4 P is designed for peaks. It is perfect for mountaineers, trail runners and climbers who need a light, versatile wing to descend after demanding routes.

Specially designed for all categories that combine high mountain sports with flying: hike & fly, run & fly, climb & fly, ski & fly... Its ultra-compact size allows it to be easily integrated into any small rucksack.

From 0.95 kg.

1.2 CERTIFICATION

The SKIN 4 P has been submitted for the European EN and LTF certification.

All certification tests were performed at the Swiss testing house Air Turquoise.

All sizes have passed the load, traction and flight tests.

The load test withstood 8G.

The tensile test withstood 800 daN of shock.

In the flight test, the certification result places the SKIN 4 P in sizes 16, 18 and 20 in the following classification:

EN B
LTF B

We recommend that only pilots who are familiar with gliders of this certification or above fly this paraglider.

Only the aeronautical authorities of respective countries can determine pilot competence.

We recommend pilots read the flight test report carefully, especially the comments of the test pilot. The report contains all the necessary information on how the paraglider reacts during each of the tested manoeuvres.

It is important to note that different size wings will react differently during manoeuvres. Even within the same size, at maximum or minimum load, the behaviour and reactions of the wing may vary.

Description of EN B class wing characteristics:

- Paragliders with a high degree of passive safety and very forgiving flight characteristics. Gliders with high collapse resistance outside normal flight.

Description of the skills required by the pilot to fly an EN B wing:

- Designed for all pilots, including pilots at all levels of training and qualification.

For details of the flight tests and the corresponding certification number, see the final pages of this manual or visit the download section of our website.

1.3 IN-FLIGHT BEHAVIOUR

Niviuk developed this wing by adopting very specific goals: to offer the best possible features and to make flying easier for the pilot.

Our other aims were to achieve optimal performance while maintaining the highest level of safety. To ensure that the wing transmits the maximum feedback in an understandable and comfortable way so that the pilot can focus on piloting and enjoying the flight. And, with active piloting, take advantage of all favourable conditions.

- **Tested in the Himalayas:** the SKIN 4 P is an evolved version of the wing used on K2 by our pilots. Thanks to their feedback, we have improved its accessibility, in-flight behaviour, and reduced its weight, while maintaining exceptional control even at extreme altitudes.

- **Minimalist risers:** the risers of the SKIN 4 P have been simplified to the maximum. Despite this, the wing offers higher speed than the SKIN 3 P, with better response to turbulence. Its behaviour in active air is more efficient and agreeable.

- **Reduced aspect ratio:** with its reduced aspect ratio of 4.9 and predictable in-flight behaviour, the SKIN 4 P is very stable and safe.

- **New internal structure:** the new combination of materials, along with a new layout of slots, ribs, and diagonals, results in a completely redesigned internal structure. The attachment points and load distribution are now much more efficient.

1.4 TECHNOLOGIES, CONSTRUCTION, MATERIALS

The SKIN 4 P benefits from all the construction and assembly techniques used in our factory. It has all the current technology and accessories available to improve pilot comfort whilst increasing safety and performance.

In the design of all Niviuk products the team aims to ensure development and continuous improvement. The technologies developed in recent years have allowed us to develop greater, better wings. It is in this context that we would like to introduce the technologies included in this new model:

TNT Titanium Technology - a revolutionary technique using titanium. Using Nitinol in the internal construction provides a more uniform profile and reduces the weight to gain efficiency in flight. Nitinol provides the highest level of protection against deformation, heat or breaks. Nitinol now features in all our wings.
The distribution of the Nitinol rods on the leading edge has been simplified and optimised to maintain the glider's lightness, durability and compactness when packing.

SLE Structured Leading Edge - SLE is the application of Nitinol rods in the leading edge. This technology provides increased strength and stability by maintaining the shape of the aerofoil throughout all phases of flight. This increases performance, efficiency and stability, absorbs turbulence better and makes the wing much more durable over time.

3DP Pattern Cut Optimisation - this involves placing the fabric of each panel in one direction only, taking as a reference its location on the leading edge. It has been proved that, if the cloth pattern is correctly aligned to the direction of the load axes, the material deforms much less flight after flight, so the leading edge keeps its shape better and is much more durable over time. Over the years, the design of our paragliding and paramotoring wings has evolved a lot, with a positive and specific advancement of the leading edge.

3DL 3D Leading Edge - this means adjusting the material of the leading edge to avoid ballooning and the creases that form in this curved area of the wing. Specifically, the leading edge is divided into "sub-panels" sewn into each of the cells at the front of the glider. As a result, the tension of the leading edge cloth is perfectly uniform, increasing the performance and durability of the glider.

The use of these technologies is a big technological leap forward in building wings and a big improvement in flight comfort.

For the construction process of the SKIN 4 P we use the same criteria, quality controls and manufacturing processes as in the rest of our range. From Olivier Nef's computer to fabric cutting, the operation does not allow for even a millimetre of error. The cutting of each wing component is performed by a rigorous, extremely meticulous, automated computer laser-cutting robotic arm. This program also paints the guideline markers and numbers on each individual fabric piece, thus avoiding errors during this delicate process.

The jigsaw puzzle assembly is made easier using this method and optimises the operation while making the quality control more efficient. All Niviuk gliders go through an extremely thorough and detailed final inspection. The canopy is cut and assembled under strict quality control conditions facilitated by the automation of this process.

Every wing is individually checked with a final inspection.

Weighing less than a kilo in its smallest size, the SKIN 4 P is the lightest wing ever created by Niviuk. Every component has been redesigned to reduce weight as much as possible. Made from the new ultra-lightweight and durable N10 22 g fabric, this wing is 23% lighter and 27% more compact than the previous model. The result is a glider that fits effortlessly into backpacks smaller than 20 litres.

All the materials used guarantee lightness, strength and durability, without any fading.

To further reduce weight and materials, there are no connectors between the lines and the risers. The lines are connected directly to the risers using a loop-to-loop knot, ensuring a secure and lightweight connection. All you need to do is secure the harness connection to the end of the risers and you are ready to fly.

Unsheathed Dyneema and Aramid are used in the lines.

The line diameter has been calculated depending on the workload and aims to achieve the required best performance with the least drag.

The lines are semi-automatically cut to length and all the sewing is completed under the supervision of our specialists.

Every line is checked and measured once the final assembly is concluded.

Each wing is packed following specific maintenance instructions as recommended by the fabric manufacturer.

Niviuk gliders are made of premium materials that meet the requirements of performance, durability and certification that the current market demands.

Information about the various materials used to manufacture the wing can be viewed in the final pages of this manual.

1.5 ELEMENTS, COMPONENTS

The SKIN 4 P is delivered with a series of accessories that will greatly assist you in the maintenance of your equipment:

- A Compress Bag, Niviuk's inner bag that allows you to compress the wing, ensuring compact and quick packing. It is the ideal bag for the lightest wings in the P Series range.
- A riser bag, to protect and pack them neatly.
- An adjustable compression strap, which allows you to compress the Inner Bag as much as possible to reduce packing.
- A repair kit with self-adhesive ripstop fabric.
- The Expe 30 rucksack fits every size of the SKIN 4 P. This is not included in the scope of delivery, but its purchase is recommended. With it you can carry all the equipment comfortably and without space problems.

Complete pack weighing less than 2 kg: complete your SKIN 4 P with other products from the P Series range and get a complete flying kit weighing less than 1.7 kg. The ultra-light Roamer 2 P harness, the Expe 30 rucksack and the Kase P front parachute container form a balanced, lightweight and functional set for your adventures.

2. UNPACKING AND ASSEMBLY

2.1 CHOOSING THE RIGHT LOCATION

We recommend unpacking and assembling the wing on a training hill or a flat clear area without too much wind and free of obstacles. It will help you to carry out all the recommended steps required to check and inflate the SKIN 4 P.

We recommend the whole assembly procedure is supervised by a qualified professional instructor or official dealer.

2.2 PROCEDURE

Take the paraglider out of the rucksack, open and unfold it on the ground with the lines positioned on the undersurface, oriented in the direction of inflation. Check the condition of the fabric and the lines for defects. Identify, and if necessary, untangle, the A, B and C-lines, the brake lines and corresponding risers. Make sure that there are no knots.

2.3 CONNECTING THE HARNESS

The SKIN 4 P risers are colour-coded:

- Right: green
- Left: red

This colour-coding makes it easier to connect the wing to the correct side and helps prevent pre-flight errors.

Correctly connect the risers to attachment points of the harness so that the risers and lines are correctly ordered and free of twists. Check that the connecting elements are properly fastened and securely locked.

2.4 TYPES OF HARNESS

The SKIN 4 P can be flown with all current harness types. However, a harness with a pod is recommended as the wing is designed for flying with this type of harness. If the harness features an adjustable chest strap, we recommend setting this to the distance specified in the certification report - this will vary depending on size. See the certification certificate.

Within the Niviuk range of harnesses, we recommend combining the SKIN 4 P with the ultra-light Roamer 2 P model, an option that offers maximum lightness without compromising on comfort or safety. This combination is designed for pilots who want to optimise every gram of their equipment, whether for hike & fly or simply to enjoy a lighter and more dynamic experience

Care should be taken with the chest strap setting, as the distance of the chest strap setting will affect the handling of the glider. If the chest strap is too wide, it allows greater feedback but this carries the risk of affecting the stability of the wing. If the chest strap is set too tightly, the wing feels more solid, but there is a loss of feedback and a risk of twisting in the case of a violent asymmetric collapse.

2.5 INSPECTION AND WING INFLATION ON THE GROUND

After your gear has been thoroughly checked and the weather conditions deemed favourable for flying, inflate your SKIN 4 P as many times as necessary to familiarise yourself with its behaviour. Inflating the SKIN 4 P is easy and should not require a great deal of physical effort. Inflate the wing with a little pressure from the body using the harness. This may be assisted by using the A-risers. Do not pull on them; just accompany the natural rising movement of the wing. Once the wing is inflated to the overhead position, appropriate control with the brakes will be sufficient to hold it there.

2.6 ADJUSTING THE BRAKES

The length of the main brake lines is adjusted at the factory and conform to the length stipulated during certification. However, they can be changed to suit your flying style. It is advisable to fly with the original setting for a period of time to get used to the actual behaviour of the SKIN 4 P. In case it is necessary to modify the brake length, loosen the knot, slide the line through the brake handle to the desired point and re-tighten the knot firmly. Only qualified personnel should carry out this adjustment. You must ensure that the modification does not affect the trailing edge and slow the glider down without pilot input. Both brake lines should be symmetrical and the same length. We recommend using a clove hitch or bowline knot.

3. THE FIRST FLIGHT

3.1 CHOOSING THE RIGHT LOCATION

For the first flight we recommend going to your usual flying area and that a qualified instructor is present and supervising the entire procedure.

3.2 PREPARATION

Repeat the procedures detailed in section 2 UNPACKING AND ASSEMBLY to prepare your equipment.

3.3 FLIGHT PLAN

Planning a flight before taking off to avoid possible problems later is always a good idea.

3.4 PRE-FLIGHT CHECK

Once ready, but before taking off, conduct another equipment inspection. Conduct a thorough visual check of your gear with the wing fully open, the lines untangled and properly laid out on the ground to ensure that all is in working order. Be certain the weather conditions are suited to your flying skill level.

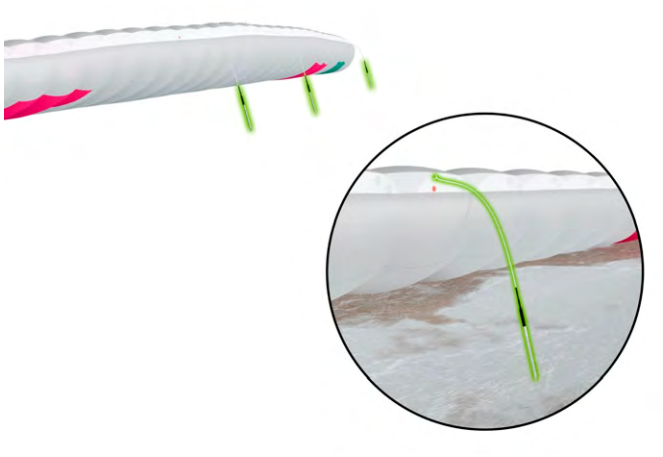
3.5 WING INFLATION, CONTROL AND TAKEOFF

For launch, a smooth and progressive inflation is recommended. The SKIN 4 P is easy to inflate and does not require a great deal of physical effort. It has no tendency to overshoot, which allows a smooth inflation phase, giving way to a control phase with enough time to make the decision to accelerate and take off when the pilot wishes to do so. During take off, the SKIN 4 P inflates with surprising ease. It rises vertically above the pilot immediately and without overshooting, even in light winds. It is a formidable tool for taking off safely, even in narrow or technical areas.

If the wind permits, we recommend a reverse launch, as this allows a better visual inspection of the wing during inflation. Correctly setting up the wing on the ground before launch is especially important. Choose an appropriate location facing the wind. Position the paraglider in a crescent configuration to facilitate inflation. A clean wing layout will ensure a trouble-free take off.

3.5.1 TAKE OFF TABS

The wing can be secured to the ground with small metal tabs attached to the canopy. This is especially useful on steep launches, snowy terrain or slippery surfaces. The metal tabs come as standard with the SKIN 4 P.



You can view a tutorial on how they work here.

3.6 LANDING

The SKIN 4 P has excellent landing characteristics, transforming speed into lift as the pilot requires, allowing for a huge margin for error. There is no need to take a wrap of the brakes to achieve more effective braking.

During landing, the wing offers greater speed, allowing for more predictable, intuitive and progressive energy retention.

3.7 PACKING

The SKIN 4 P has a complex leading edge, manufactured using a variety of different materials and it must be packed carefully. A correct folding method is very important to extend the useful life of your paraglider.

It should be concertina-packed, with the leading edge reinforcements flat and the flexible rods stacked one on top of the other. This method will keep the profile in its original shape and protect the integrity of the wing over time. Make sure the reinforcements are not bent or folded. It should not be folded too tightly to avoid damage to the cloth and/or lines.

Niviuk have designed the ZipNkare P bag. This will assist you in quickly folding the paraglider, keeping the profile and integrity of the internal structures in perfect condition.

The ZipNKare P Bag will guide you through the folding process by allowing you to place the rods one on top of the other on the longitudinal axis to “concertina” pack the glider. Then you can easily make the sectional folds that each model requires. This folding system guarantees that both the cloth and the reinforcements of the internal structure of your SKIN 4 P remain in perfect condition.

In addition, it converts into a briefcase with a zip closure. Its extremely light weight and ergonomic handle make it easy to carry and transport.

Watch this video tutorial on how to pack a wing correctly.

4. IN FLIGHT

We recommend that you pay close attention to the flight test report issued by the testing house responsible for the certification. In it you will find all the necessary information to know how the SKIN 4 P reacts to each of the tested manoeuvres.

It is important to note that depending on the size of the wing, the manoeuvre may vary, or even within the same size, the behaviour and reactions of the wing may be different, at maximum or minimum load.

Having the knowledge provided by the testing house through the flight test is essential to know how to deal with these possible situations.

To become familiar with the manoeuvres described below, we recommend practising within the auspices of a licensed training outfit.

4.1 FLYING IN TURBULENCE

The SKIN 4 P has an excellent profile to deal with incidents; it is very stable in all conditions and has a high degree of passive safety, even in turbulent conditions.

All paragliders must be piloted for the prevailing conditions and the pilot is the ultimate safety factor.

We recommend active flying in turbulent conditions, always taking measures to maintain control of the wing, preventing it from collapsing and restoring the speed required by the wing after each correction.

Do not correct the glider (braking) for too long in case this provokes a stall. If you have to take corrective action, make the input then re-establish the correct flying speed.

4.2 POSSIBLE CONFIGURATIONS

Asymmetric collapse

In spite of the SKIN 4 P's profile stability, strong turbulent air may cause the wing to collapse asymmetrically in very strong turbulence, especially if you do not fly actively and prevent the collapse. In this case the glider conveys a loss of pressure through the brake lines and the harness. To prevent the collapse from happening, pull the brake handle on the affected side of the wing. It will increase the incidence of the wing (angle of attack). If the collapse does happen, the SKIN 4 P will not react violently, the turning tendency is gradual and easily controlled. Weight-shift toward the open, flying side (the opposite side of the collapse) to keep the wing flying straight, while applying light brake pressure to that side if necessary. Normally, the collapsed side of the wing should then recover and reopen by itself. If it does not, try to weight-shift towards the collapsed side. If this does not resolve the issue, pull the brake handle on the collapsed side decisively and quickly all the way (100%) down and release it back up immediately. You may have to repeat this action to provoke the re-opening of the collapsed glider side. Do not over-brake or slow down the flying side of the wing (control the turn). Once the collapsed side is open make sure you return to normal flying speed.

Frontal collapse

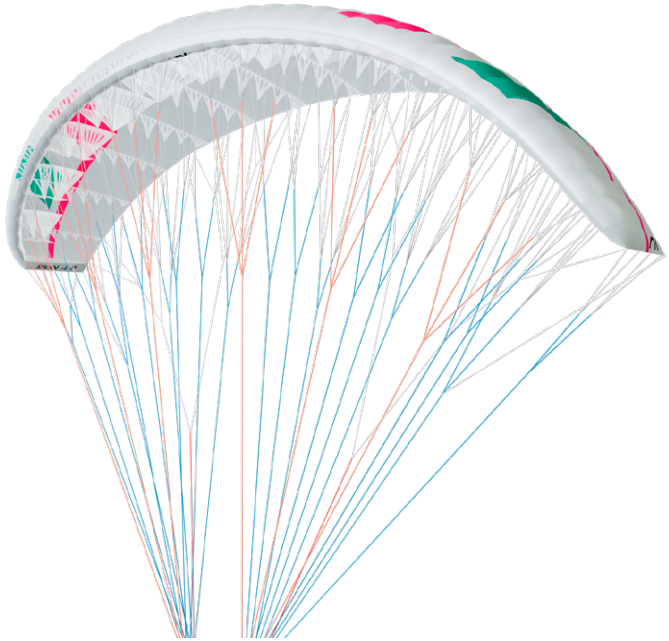
Due to the SKIN 4 P's design, in normal flying conditions frontal collapses are unlikely to take place. The wing's profile has great buffering abilities when dealing with extreme incidence changes. A frontal collapse may occur in strong turbulent conditions, entering or exiting powerful thermals. Frontal collapses usually re-inflate without the glider turning, but a symmetrically applied quick braking action with a quick deep pump of both brakes will accelerate the re-inflation if necessary. Release the brake lines immediately to return to default glider air speed.

Negative spin

A negative spin does not conform to the SKIN 4 P's normal flight behaviour. Certain circumstances however, may provoke a negative spin (such as trying to turn when flying at very low air speed whilst applying a lot of brake). It is not easy to give any specific recommendation about this situation other than quickly restoring the wing's default air speed.

Parachutal stall

The possibility of entering or remaining in a parachutal stall have been eliminated from the SKIN 4 P. A parachutal stall is virtually impossible with this wing. If it did enter into a parachutal stall, the wing loses forward motion, becomes unstable and there is a lack of pressure on the brake lines, although the canopy appears to be fully inflated. To regain normal air speed, release brake line tension symmetrically and manually push on the A-lines or weight- shift your body to any side WITHOUT PULLING ON THE BRAKE LINES.



Deep Stall

The possibility of the SKIN 4 P stalling during normal flight is very unlikely. It could only happen if you are flying at a very low air speed, whilst over-steering or performing dangerous manoeuvres in turbulent air.

To provoke a deep stall, the wing has to be slowed down to its minimum air speed by symmetrically pulling the brake lines all the way (100%) 10 down until the stall point is reached and held there. The glider will first pitch rearward and then reposition itself overhead, rocking slightly, depending on how the manoeuvre is done.

When entering a stall, remain clear-headed and ease off the brake lines until reaching the half-way point of the total brake travel. The wing will then surge violently forward and could reach a point below you. It is most important to maintain brake pressure until the glider has returned to its default overhead flying position.

To resume normal flight conditions, progressively and symmetrically release the brake line tension to regain air speed. When the wing reaches the overhead position, the brakes must be fully released. The wing will then surge forward to regain full air speed. Do not brake

excessively at this moment as the wing needs to accelerate to pull away from the stall configuration. If you have to control a possible frontal collapse, briefly pull both brake handles down to bring the wing back up and release them immediately while the glider is still in transition to reposition itself overhead.

Cravat

A cravat may happen after an asymmetric collapse, when the end of the wing is trapped between the lines. Depending on the nature of the tangle, this situation could rapidly cause the wing to spin. The corrective manoeuvres to use are the same as those applied in case of an asymmetric collapse: control the turn/spin by applying tension on the opposite brake and weight shift opposite to the turn. Then locate the STB main (stabilo) line (attached to the wing tip) trapped between the other lines. This line has a different colour and is located on the outside position of the B-riser.

Pull this line until it is taut. This action will help to release the cravat. If ineffective, fly down to the nearest possible landing spot, controlling the direction with both weight-shift and the use of the brake opposite to the tangled side. Be cautious when attempting to undo a tangle while flying near terrain or other paragliders; it may not be possible to continue on the intended flight path.

Over-controlling

Most flying problems are caused by wrong pilot input, which then escalates into a cascade of unwanted and unpredicted incidents. We should note that the wrong inputs can lead to loss of control of the glider. The SKIN 4 P was designed to recover by itself in most cases. Do not try to over-correct it!

Generally speaking, the reactions of the wing, which are caused by too much input, are due to the length of time the pilot continues to over–control the wing. You have to allow the glider to re-establish normal flying speed and attitude after any type of incident.

4.3 FLYING WITHOUT BRAKE LINES

If, for any reason at all, the SKIN 4 P's brake lines become disabled in flight, it will become necessary to pilot the wing gently using the C-risers and weight shifting until landing. These risers steer easily because are not under significant tension. You will have to be careful and not handle them too heavily in case this causes a stall or negative spin.

The wing must be flown at full speed (not accelerated) during the landing approach, and the C-risers should be pulled symmetrically shortly before contact with the ground. This braking method is not as effective as using the brake lines, and hence the wing will land with a higher ground speed.

4.4 LINE KNOT(S) IN FLIGHT

The best way to avoid knots and tangles is to thoroughly inspect the lines as part of a systematic pre-flight check. If a knot is spotted during the take off phase, immediately abort the launch sequence and stop.

If inadvertently taking off with a knotted line, the glider drift will need to be compensated by weight-shifting to the opposite side and applying a slight brake pull to that side. Gently pull the brake line to see if the knot can be undone or try to locate the problem line. Try pulling it to see if the knot can be undone. Beware of trying to clear a knotted line or untangle a line in flight when close to the terrain. If the knot is too tight and cannot be undone, carefully and safely fly to the nearest landing zone. Be careful: do not pull too hard on the brake handles because there will be an increased risk of stalling the wing or entering a negative spin. Before attempting to clear a knot, make sure there are no other pilots flying in the vicinity. 11 Knowledge of different descent techniques could become vital in certain situations. The most suitable descent method will depend on the particular situation. To become familiar with the manoeuvres described below, we recommend practising within the environment of a licensed training outfit.

5. LOSING ALTITUDE

Knowledge of different descent techniques could become vital in certain situations. The most suitable descent method will depend on the particular situation. To become familiar with the manoeuvres described below, we recommend practising within the environment of a licensed training outfit.

5.1 BIG EARS

“Big Ears” is a moderate descent technique, able to increase the sink rate to –3 or –4 m/s and reduces the ground speed by 3 to 5 km/h. The angle of attack and effective wing-loading will also increase due to the smaller surface area of the wing.

To perform the Big Ears manoeuvre, take the B”4c3” line on each side as high as you can and simultaneously, smoothly pull them outward and downward. The wingtips will fold in. Keep the ears pulled in until you have lost the desired altitude.

Let go of the lines to re-inflate the tips automatically. If they do not, try progressively pulling one brake then the other. Asymmetric reopening is recommended in order to avoid compromising the angle of attack, particularly when flying near the ground or in turbulent conditions.

5.2 SPIRAL DIVE

This is a more effective way to rapidly lose altitude. Beware that the wing will experience and be subjected to a tremendous amount of descending and rotating speed (g-force), which can cause a loss of orientation and consciousness (blackout). This manoeuvre must therefore be done gradually to increase one’s capacity to resist the g-force exerted on the body. With practise, you will fully appreciate and understand it. Only practise this manoeuvre at high altitude and with enough ground clearance.

To start the manoeuvre, first weight shift and pull the brake handle located on the inner side of the turn. The intensity of the turn can be controlled by braking slightly using the outer brake handle.

A paraglider flying at its maximum rotating speed can reach –20 m/s, or the equivalent of a 70 km/h vertical descent, and will stabilise in a spiral dive from 15m/s onwards. Good enough reasons to familiarise yourself with the manoeuvre and understand how to exit it.

To exit this manoeuvre, the inner brake handle (down side of the turn) must progressively be relaxed while momentarily applying tension to the outer brake handle opposite to the turn.

The pilot must also weight shift and lean towards the opposite side of the turn at the same time. The exit should be performed gradually and smoothly so that the changes in pressure and speed can be noted.

When exiting the spiral, the glider will briefly experience an asymmetrical acceleration and dive, depending on how the manoeuvre was carried out.

Practise these manoeuvres at sufficient altitude and carefully.

5.3 SLOW DESCENT TECHNIQUE

This technique allows descent without straining the wing or taxing the pilot. Glide normally while searching for descending air and begin to turn as if climbing in a thermal, but with the intention to sink.

Common sense has to be used to avoid dangerous areas of rotor when looking for descending air. Safety first!

6. SPECIAL METHODS

6.1 TOWING

The SKIN 4 P does not experience any problem whilst being towed. Only qualified winch personnel should handle the certified equipment to carry out this operation. The wing must be inflated similarly as during a normal take off.

It is important to use the brakes to correct the flight path alignment, especially in the first phase of the tow. Since the wing is subject to a slow airspeed and with a high positive angle of attack, we must make any corrections with a high degree of feel and delicacy, in order to avoid a stall.

6.2 ACROBATIC FLIGHT

Although the SKIN 4 P was tested by expert acrobatic pilots in extreme situations, it was not designed for it. We do not recommend using this glider for acrobatic flying!!!

We consider acrobatic flights to be any form of piloting different than standard flights. Learning acrobatic manoeuvres should be conducted under the supervision of qualified instructors within a school environment and over water with all safety/rescue elements in place. Centrifugal forces as high as 4 to 5 g can be exerted on the body and wing during extreme manoeuvres.

7. CARE AND MAINTENANCE

7.1 MAINTENANCE

Careful maintenance of your equipment will ensure continued top performance. Apart from the general checks, we recommend actively maintaining your equipment.

A pre-flight check is obligatory before each flight. If there is any damage to the equipment or you suspect any areas of the wing are susceptible to wear, you should inspect these and act accordingly.

Niviuk we are firmly committed to make technology accessible to all pilots. Therefore, our wings are equipped with the latest technological advances gained from the experience of our R&D team. Thanks to these new technologies, paragliders are gaining more safety and performance, which requires greater care of the materials.

(!) IMPORTANT: it is critical to avoid any kind of impact or dragging the leading edge on the ground. This part is reinforced with very durable and strong Nitinol rods that can be easily replaced. Dragging and/or hitting the leading edge can cause serious damage to the fabric, which is much more complicated and costly to repair.

The SKIN 4 P is a single-surface glider and part of our P Series (featherlight) range. In all the lightweight and ultra-light materials we use, there is a good compromise between performance and durability. The weight of the materials is minimised by reducing the amount and type of yarn and by modifying the surface induction, i.e. their strength. Therefore, care must be taken in the use of the product, and care must be taken to avoid increasing the natural wear and tear of the material itself.

The fabric and the lines do not need to be washed. If they become dirty, clean them with a soft damp cloth, using only water. Do not use detergents or other chemicals.
If your wing is wet from contact with water, place it in a dry area, air it and keep it away from direct sunlight.

Direct sunlight may damage the wing's materials and cause premature aging. After landing, do not leave the wing exposed to the sun. Pack it properly and stow it away in its backpack.

If you fly in sandy areas, avoid getting sand in the cells or down into the trailing edge. At the end of the flight, empty any sand that is in your wing. The openings at the end of the wingtips make this much easier.

If your wing is wet from contact with salt water, immerse it in fresh water and dry it away from direct sunlight.

7.2 STORAGE

It is important for the wing to be correctly folded when stored. Keep it in the in a cool, dry place away from solvents, fuels, oils.

Do not leave your gear inside a car boot, as cars left in the sun can become very hot. A rucksack can reach temperatures up to 60ºC.

Weight should not be laid on top of the equipment. It is very important to pack the wing correctly before storage.

In case of long-term storage, it is advisable, if possible, that the wing is not compressed and it should be stored loosely without direct contact with the ground. Humidity and heating can have an adverse effect on the equipment.

7.3 CHECKS AND INSPECTIONS

Following certification guidelines, you should check your SKIN 4 P periodically, every 24 months or every 100 hours of flight time, whichever comes first.

We strongly recommend that any repairs should be done in a specialist repair shop by qualified personnel.

This will guarantee the airworthiness and continued certification of your SKIN 4 P.

A thorough pre-flight check must be performed before every flight.

The SKIN 4 P is fitted with unsheathed lines. Their durability conforms to unsheathed line standards. Their strength is guaranteed and their resistance to UV is one of the highest in this type of lines.

To maintain the wing's standard performance, it is necessary to keep the trim constantly adjusted. Generally speaking, line lengths change as the glider is used. For this reason, we recommend a trim check after approximately the first 30 hours of flight. The hours or actions to be taken to repair the lines may vary for each glider, depending on the conditions of each flying area, climatic conditions, temperature, humidity, type of terrain, wing loading, etc.

Thanks to the experience acquired and the thorough inspections that our R&D team carry out on our gliders, we have the necessary information to be able to know the real behaviour of the lines. With this knowledge we can keep our gliders in the optimum condition for more flights without any loss of performance due to use.

7.4 REPAIRS

In the case of small tears, you can temporarily repair these by using the Ripstop tape included in the repair kit, as long as no stitching is required to mend the fabric.

Any other tears or repairs should be done in a specialist repair shop by qualified personnel.

Damaged lines must be repaired or exchanged immediately.

Please refer to the line plan at the end of this manual. We recommend any inspection or repair is performed by a Niviuk professional in our official workshop.

Any modification of the glider made in an external workshop will invalidate the guarantee of the product. Niviuk cannot be held responsible for any issues or damage resulting from modifications or repairs carried out by unqualified professionals or who are not approved by the manufacturer.

8. SAFETY AND RESPONSIBILITY

It is well known that free-flying with a paraglider is considered a high-risk sport, where safety depends on the person who is practicing it.

Incorrect use of this equipment may cause severe, life-changing injuries to the pilot, or even death. Manufacturers and dealers cannot be held responsible for your decisions, actions or accidents that may result from participating in this sport.

You must not use this equipment if you have not been properly trained to use it. Do not take advice or accept any informal training from anyone who is not properly qualified as a flight instructor.

9. GUARANTEE

The equipment and components are covered by a 2-year warranty against any manufacturing defect.

The warranty does not cover misuse of the equipment.

Any modification of the paraglider or its components invalidates the guarantee and its certification.

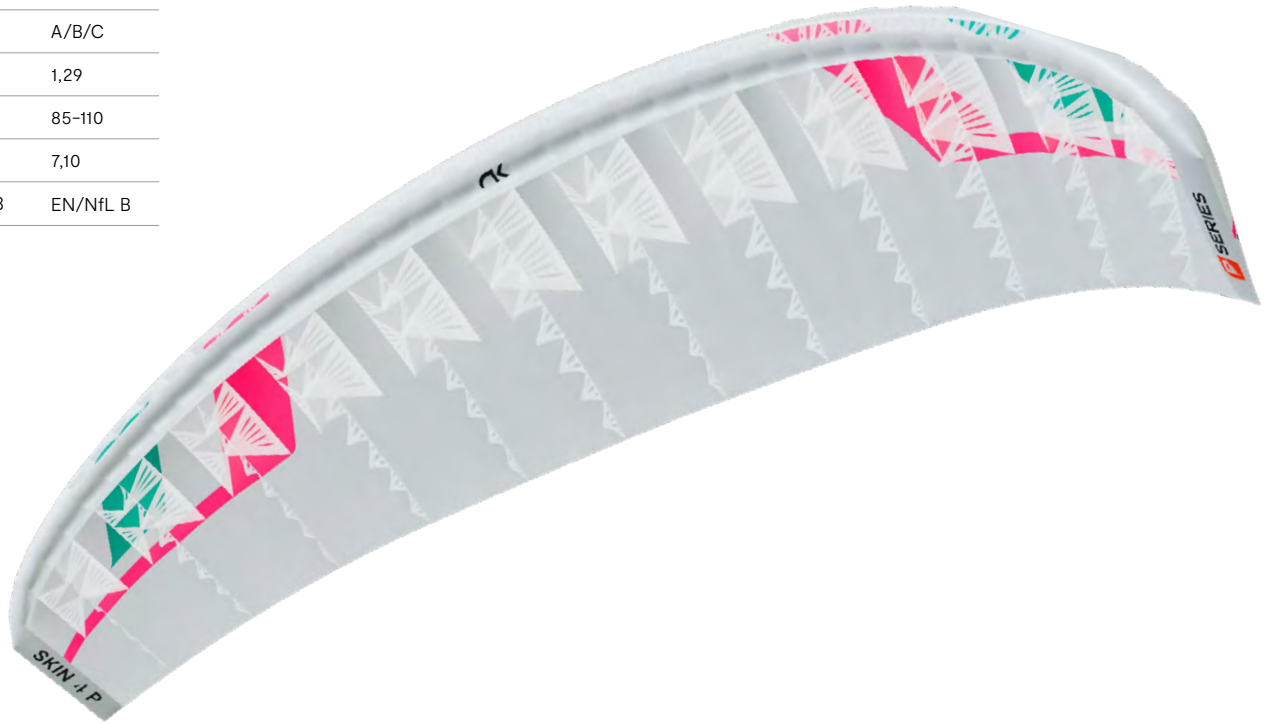
If you notice any defects in your harness, please contact Niviuk immediately for a more thorough inspection.

10. ANNEXES

10.1 TECHNICAL SPECIFICATIONS

			14	16	18	20
Cells	Number		39	39	39	39
Aspect Ratio	Flat		4,90	4,90	4,90	4,90
	Projected		3,93	3,93	3,93	3,93
Area	Flat	m2	14	16	18	20
	Projected	m2	11,84	13,53	15,22	16,91
Span	Flat	m	8,28	8,85	9,39	9,90
Chord	Max	m	2,02	2,16	2,30	2,42
Lines	Total	m	287	308	328	346
	Main		3/4/6	3/4/6	3/4/6	3/4/6
Risers	Number		A/B/C	A/B/C	A/B/C	A/B/C
Glider weight		kg	0,95*	1,09	1,19	1,29
Total weight in flight	Min-max	kg	50-75	60-85	70-90	85-110
Glider volume		L	4,40	5,20	6,15	7,10
Certification			EN/NfL C	EN/NfL B	EN/NfL B	EN/NfL B

*Pending confirmation.
The total weight of the wing may differ ±2% due to variations in the weight of the fabric supplied by the manufacturers.



10.2 COLOURS

SWAN

White + Pink + Spectra green

HALO

Dark Brick + White + Black

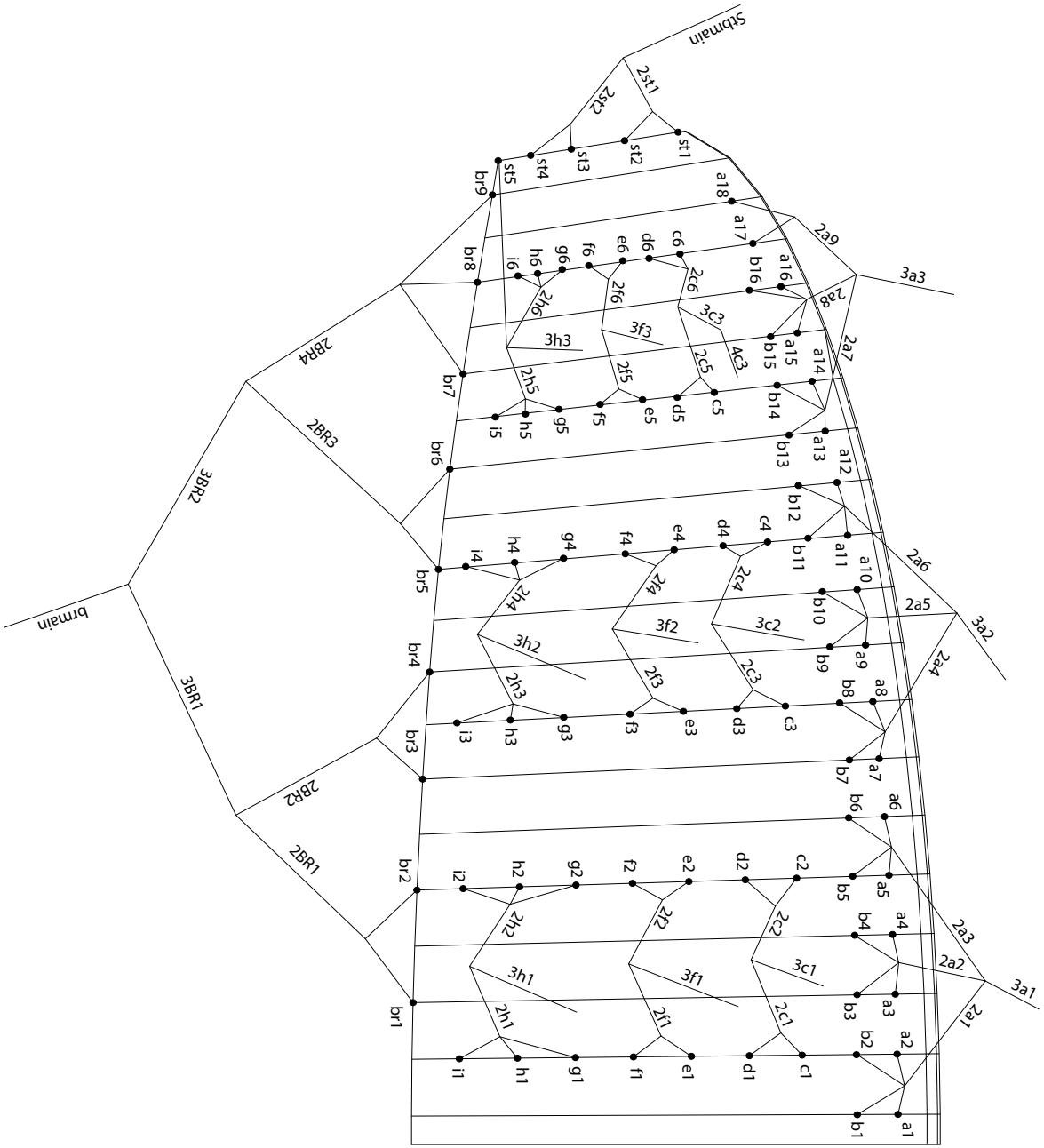
10.3 MATERIALS

CANOPY	FABRIC CODE	SUPPLIER
UPPER SURFACE	D10-22	DOMINICO TEX CO (KOREA)
BOTTOM SURFACE	D10-22	DOMINICO TEX CO (KOREA)
RIBS	70000 E91	PORCHER IND (FRANCE)
	D10-22	DOMINICO TEX CO (KOREA)
LOOPS	LKI - 10	KOLON IND. (KOREA)
REINFORCEMENT LOOPS	9017	PORCHER IND (FRANCE)
TRAILING EDGE REINFORCEMENT	MYLAR 20	D-P (GERMANY)
RIB REINFORCEMENT	LTN-0.5 STICK	SPORTWARE CO. (CHINA)
THREAD	SERAFIL 60	AMAN (GERMANY)

SUSPENSION LINES	FABRIC CODE	SUPPLIER
UPPER CASCADES	DC - 40	LIROS GMHB (GERMANY)
UPPER CASCADES	DC - 60	LIROS GMHB (GERMANY)
MIDDLE CASCADES	DC - 60	LIROS GMHB (GERMANY)
MIDDLE CASCADES	8001/U - 50	EDELRID (GERMANY)
MIDDLE CASCADES	8001/U - 70	EDELRID (GERMANY)
MIDDLE CASCADES	8001/U - 90	EDELRID (GERMANY)
MIDDLE CASCADES	8001/U - 130	EDELRID (GERMANY)
MAIN	DC - 60	LIROS GMHB (GERMANY)
MAIN	8001/U - 90	EDELRID (GERMANY)
MAIN	8001/U - 130	EDELRID (GERMANY)
MAIN	8001/U - 140	EDELRID (GERMANY)
MAIN	8001/U - 190	EDELRID (GERMANY)
MAIN	TNL - 140	EDELRID (GERMANY)
STAB MAIN	8001/U - 50	EDELRID (GERMANY)
MAIN BREAK	TARAX - 200	EDELRID (GERMANY)
THREAD	SERAFIL 60	AMAN (GERMANY)

RISERS	FABRIC CODE	SUPPLIER
MATERIAL	10148	LIROS GMHB (GERMANY)
COLOR INDICATOR	PAD	TECNI SANGLES (FRANCE)
THREAD	V138	COATS (ENGLAND)

10.4 LINE PLAN



LINE REPLACEMENT

The use of new high performance materials in modern wings is now common. The advantages of using these materials in terms of performance are widely acknowledged as part of our sport's evolution. However, along with those technological advances come additional responsibilities which cannot be avoided. As a result, line inspection and replacement must be carried out more frequently. That increased frequency appears to be encouraging some pilots to try to perform line replacement themselves.

WE STRONGLY RECOMMEND ANY LINE REPLACEMENT IS PERFORMED BY AN AUTHORISED SPECIALIST ONLY.

Ultimately, if the pilot decides to perform any line replacement without professional oversight they therefore assume all responsibility. In this case, these guidelines will have to be followed.

BEFORE REMOVING ANY LINES, CHECK:

- That the line plan is correct according to the glider model and size.
- That the line kit is complete and correct. Never assume but always check each individual line for the correct specification.

AFTER CONFIRMING THAT ALL LINES ARE CORRECT:

- Fit the new line(s) WITHOUT removing the label.
- Once replaced, measure each line length to confirm the correct measurement.
- Inflate the wing to check for any irregularities.
- The line labels may then be removed but NOT BEFORE completion of the line replacement.

Niviuk strongly recommends for any line replacement to be carried out by an authorised professional only, and will not accept responsibility for any damage or injury caused as a result of incorrect re-assembly.

10.5 RISER PLAN

A	B	C
3a1	3c1	3f1
3a2	3c2	3f2
3a3	4c3	3f3
	stb	3h1
		3h2
		3h3

10.6 LINE MEASUREMENTS

SKIN 4 P – 14

LINES HEIGHT + RISER mm

	A	B	C	D	E	F	G	H	I	br	Stab
1	5413	5495	5264	5254	5252	5263	5279	5303	5352	5557	4728
2	5346	5439	5207	5197	5198	5208	5226	5247	5293	5327	4714
3	5309	5396	5151	5143	5145	5156	5172	5195	5240	5148	4741
4	5286	5377	5083	5077	5084	5093	5113	5129	5166	5154	4805
5	5286	5375	4962	4959	4968	4980	4993	5012	5048	5048	4797
6	5310	5396	4816	4819	4824	4835	4850	4862	4888	4948	
7	5280	5359								4884	
8	5222	5311								4853	
9	5187	5267								4905	
10	5160	5246									
11	5148	5227									
12	5152	5233									
13	5086	5147									
14	5010	5083									
15	4952	5010									
16	4891	4960									
17	4875										
18	4848										

RISERS LENGHT mm

A	B	C	
480	480	480	STANDARD

SKIN 4 P – 16

LINES HEIGHT + RISER mm

	A	B	C	D	E	F	G	H	I	br	Stab
1	5782	5871	5630	5618	5617	5629	5646	5672	5724	5974	5066
2	5712	5812	5572	5562	5563	5574	5593	5615	5664	5729	5052
3	5674	5768	5516	5507	5509	5521	5538	5562	5610	5540	5081
4	5651	5749	5445	5439	5446	5456	5477	5494	5534	5548	5149
5	5652	5748	5317	5314	5323	5336	5349	5370	5408	5414	5136
6	5679	5772	5161	5165	5170	5181	5197	5210	5238	5308	
7	5653	5737								5221	
8	5592	5687								5188	
9	5555	5641								5246	
10	5527	5619									
11	5514	5600									
12	5520	5607									
13	5450	5516									
14	5368	5448									
15	5306	5368									
16	5242	5317									
17	5224										
18	5195										

RISERS LENGHT mm

A	B	C	
480	480	480	STANDARD

SKIN 4 P – 18

LINES HEIGHT + RISER mm

	A	B	C	D	E	F	G	H	I	br	Stab
1	6133	6228	5973	5961	5960	5972	5991	6018	6073	6357	5384
2	6061	6168	5916	5904	5906	5917	5937	5961	6013	6099	5369
3	6021	6121	5859	5849	5851	5864	5882	5907	5958	5900	5400
4	5998	6103	5785	5779	5786	5796	5818	5837	5879	5910	5472
5	6000	6103	5651	5647	5657	5670	5684	5706	5747	5769	5456
6	6030	6129	5486	5489	5495	5506	5523	5537	5566	5658	
7	6003	6093								5566	
8	5939	6041								5532	
9	5900	5993								5594	
10	5872	5970									
11	5859	5951									
12	5865	5958									
13	5791	5862									
14	5706	5790									
15	5639	5705									
16	5572	5651									
17	5552										
18	5522										

RISERS LENGHT mm

A	B	C	
480	480	480	STANDARD

SKIN 4 P – 20

LINES HEIGHT + RISER mm

	A	B	C	D	E	F	G	H	I	br	Stab
1	6465	6567	6298	6285	6284	6297	6317	6345	6404	6720	5685
2	6390	6504	6240	6229	6230	6242	6263	6289	6343	6449	5669
3	6349	6456	6183	6172	6175	6188	6207	6234	6288	6240	5701
4	6326	6437	6107	6100	6108	6118	6141	6161	6205	6251	5778
5	6330	6439	5966	5962	5972	5986	6001	6024	6067	6104	5757
6	6362	6467	5793	5796	5802	5814	5831	5846	5877	5988	
7	6334	6430								5892	
8	6267	6375								5858	
9	6227	6325								5924	
10	6198	6302									
11	6185	6282									
12	6192	6290									
13	6115	6189									
14	6024	6114									
15	5954	6024									
16	5884	5968									
17	5863										
18	5830										

RISERS LENGHT mm

A	B	C	
480	480	480	STANDARD

10.7 CERTIFICATION

AIR TURQUOISE SA | PARA-TEST.COM
Route du Pré-au-Compte 8 • CH-1844 Villeneuve • +41 (0)21 965 65 65

test laboratory for paragliders, paraglider harnesses
and paraglider reserve parachutes

paragliding by air turquoise

NIVIUK

Classification: **C**

In accordance with standards: EN 926-1:2015, EN 926-2:2013+A1:2021 and NfL 2024-2-785	PG_2645.2025
Date of issue (DMY):	11.12.2025
Manufacturer:	Niviuk Gliders / Air Games S.L.
Model:	Skin 4 P 14
Serial number:	SKIN4P114

Configuration during flight tests

Paraglider	
Maximum weight in flight [kg]	**80**
Minimum weight in flight [kg]	**50**
Glider's weight [kg]	**1.0**
Number of risers	**3**
Projected area [m²]	**11.84**

Accessories	
Range of speed system [cm]	**n/a**
Speed range using brakes [km/h]	**12**
Total speed range with accessories [km/h]	**n/a**
Range of trimmers [cm]	**n/a**

Harness used for testing (max weight)	
Harness type	**ABS**
Harness brand	**Niviuk**
Harness model	**Makan M**
Harness to risers distance [cm]	**41**
Distance between risers [cm]	**44**

Inspections (whichever happens first)
every 100 hours of use or every 24 months

Person or company having presented the glider for testing: **None**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
B	**A**	**B**	**C**	**0**	**0**	**A**	**A**	**A**	**A**	**A**	**A**	**B**	**A**	**A**	**A**	**A**	**A**	**A**	**A**	**0**	**A**	**0**

AIR TURQUOISE SA | PARA-TEST.COM
Route du Pré-au-Compte 8 • CH-1844 Villeneuve • +41 (0)21 965 65 65

test laboratory for paragliders, paraglider harnesses
and paraglider reserve parachutes

paragliding by air turquoise

NIVIUK

Classification: **B**

In accordance with standards: EN 926-1:2015, EN 926-2:2013+A1:2021 and NfL 2024-2-785	PG_2598.2025
Date of issue (DMY):	11.12.2025
Manufacturer:	Niviuk Gliders / Air Games S.L.
Model:	Skin 4 P 16
Serial number:	SKINR616

Configuration during flight tests

Paraglider	
Maximum weight in flight [kg]	**85**
Minimum weight in flight [kg]	**60**
Glider's weight [kg]	**1.1**
Number of risers	**3**
Projected area [m²]	**13.53**

Accessories	
Range of speed system [cm]	**n/a**
Speed range using brakes [km/h]	**12**
Total speed range with accessories [km/h]	**n/a**
Range of trimmers [cm]	**n/a**

Harness used for testing (max weight)	
Harness type	**ABS**
Harness brand	**Niviuk**
Harness model	**Makan M**
Harness to risers distance [cm]	**41**
Distance between risers [cm]	**44**

Inspections (whichever happens first)
every 100 hours of use or every 24 months

Person or company having presented the glider for testing: **None**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
B	**A**	**B**	**A**	**0**	**0**	**A**	**A**	**A**	**A**	**A**	**A**	**B**	**A**	**A**	**A**	**A**	**A**	**A**	**A**	**0**	**A**	**0**

The validation of this test report is given by the signature of the test manager on inspection certificate 91.20 // Rev 08 | 02.02.2025 // ISO | 91.21 // Page 1 of 1

10.7 CERTIFICATION

AIR TURQUOISE SA | PARA-TEST.COM
Route du Pré-au-Compte 8 • CH-1844 Villeneuve • +41 (0)21 965 65 65

test laboratory for paragliders, paraglider harnesses
and paraglider reserve parachutes

paragliding by air turquoise

NIVIUK

Classification: **B**

In accordance with standards: EN 926-1:2015, EN 926-2:2013+A1:2021 and NfL 2024-2-785	PG_2635.2025
Date of issue (DMY):	11.12.2025
Manufacturer:	Niviuk Gliders / Air Games S.L.
Model:	Skin 4 P 18
Serial number:	SKIN4P118

Configuration during flight tests

Paraglider	
Maximum weight in flight [kg]	**90**
Minimum weight in flight [kg]	**70**
Glider's weight [kg]	**1.3**
Number of risers	**3**
Projected area [m²]	**15.22**

Accessories	
Range of speed system [cm]	**n/a**
Speed range using brakes [km/h]	**12**
Total speed range with accessories [km/h]	**n/a**
Range of trimmers [cm]	**n/a**

Harness used for testing (max weight)	
Harness type	**ABS**
Harness brand	**Niviuk**
Harness model	**Makan L**
Harness to risers distance [cm]	**41**
Distance between risers [cm]	**44**

Inspections (whichever happens first)
every 100 hours of use or every 24 months

Person or company having presented the glider for testing: **None**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
B	**A**	**B**	**A**	**0**	**0**	**A**	**A**	**A**	**A**	**A**	**A**	**A**	**A**	**A**	**A**	**A**	**A**	**0**	**A**	**0**	**A**	**0**

AIR TURQUOISE SA | PARA-TEST.COM
Route du Pré-au-Compte 8 • CH-1844 Villeneuve • +41 (0)21 965 65 65

test laboratory for paragliders, paraglider harnesses
and paraglider reserve parachutes

paragliding by air turquoise

NIVIUK

Classification: **B**

In accordance with standards: EN 926-1:2015, EN 926-2:2013+A1:2021 and NfL 2024-2-785	PG_2618.2025
Date of issue (DMY):	11.12.2025
Manufacturer:	Niviuk Gliders / Air Games S.L.
Model:	Skin 4 P 20
Serial number:	SKIN4P1201

Configuration during flight tests

Paraglider	
Maximum weight in flight [kg]	**110**
Minimum weight in flight [kg]	**85**
Glider's weight [kg]	**1.3**
Number of risers	**3**
Projected area [m²]	**16.91**

Accessories	
Range of speed system [cm]	**n/a**
Speed range using brakes [km/h]	**12**
Total speed range with accessories [km/h]	**n/a**
Range of trimmers [cm]	**n/a**

Harness used for testing (max weight)	
Harness type	**ABS**
Harness brand	**Advance Thun AG**
Harness model	**Success 4 M**
Harness to risers distance [cm]	**43**
Distance between risers [cm]	**48**

Inspections (whichever happens first)
every 100 hours of use or every 24 months

Person or company having presented the glider for testing: **None**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
A	**A**	**B**	**A**	**0**	**0**	**A**	**A**	**A**	**A**	**A**	**A**	**B**	**A**	**A**	**A**	**A**	**A**	**0**	**A**	**0**	**A**	**0**

The validation of this test report is given by the signature of the test manager on inspection certificate 91.20 // Rev 08 | 02.02.2025 // ISO | 91.21 // Page 1 of 1

Niviuk Paragliders
C/ Del Ter 6 - D
17165 La Cellera de Ter - Girona - Spain
+34 972 422 878 | info@niviuk.com
niviuk.com