# JESTER

User manual &
*Technical data*

AIRIUK BEYOND THE GLIDE

# Fly like never before, *play like always*

CATEGORIES

PARAKITE

LEISURE

## WELCOME

We welcome you to our team and thank you for the trust you have placed in us by choosing a Niviuk product. We would like you to share the enthusiasm with which we have created this parakite 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 wing.

The JESTER is our first parakite. Designed utilising on our experience with paragliders and developing kite wings for third parties, it offers a radically fun flying experience. It combines speed, agility and control for dynamic descents and proximity flying.

Fast, precise and playful. Piloting through the risers allows you to automatically adjust the wing's angle of attack, keeping it stable even at top speed.

The JESTER invites you to discover a new way to play with the wind.

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 parakite.

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 parakite.

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 JESTER manual.

Misuse of this equipment could lead to severe injuries or death. The manufacturers and dealers cannot be held responsible for misuse of the parakite. 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 JESTER breaks all the old rules: it is a parakite designed to experience playful flying, but requiring an active piloting attitude. An immersive, technical and incredibly fun experience. Fly close to the ground, adjusting your altitude precisely, but always in full control.

Perfect for soaring sessions on dunes, in strong (yet smooth) winds, dynamic descents near the terrain or proximity flights.

Above all, the JESTER is a true toy. Designed purely for fun, it turns any windy slope into your personal amusement park.

(!) Flying with the JESTER require new skills and different piloting style. It requires regular flying experience and active piloting.

## 1.2 CERTIFICATION

The JESTER has been submitted for the EN 926-1:2015 & NfL 2024-2-785-chapter 3 certification.

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

The model has passed the structural strength test.

The load test withstood 8G.

The tensile test withstood 800 daN of shock.

In the flight test, the certification result places all the sizes of the JESTER in the class: EN 926-1

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

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

We recommend pilots read the test report carefully. The report contains all the necessary information about the structural strength test.

## 1.3 IN-FLIGHT BEHAVIOUR

Niviuk developed this wing by adopting very specific goals: to offer the most possible fun handling, make flying easier for the pilot, and ensure full control of the angle of attack.

Our other aims were to achieve optimal playful handling 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.

Manoeuvrability: The JESTER is a fast wing, with agile and direct handling. It delivers precise and well-defined turns.

## 1.4 PARAKITE SYSTEM (PKS) RISERS

The JESTER features our completely new risers that allow adjustment of the wing's angle of attack thanks to the PARAKITE SYSTEM (PKS). These risers connect the brakes and speed system to a pulley mechanism that modifies the profile's incidence.

- **Glide angle:** Although the JESTER is designed primarily for descending rather than gliding, in the neutral position it keeps a good glide, facilitating control and smooth transitions during flight.

- **Maximum speed:** When the pilot raises their hands, the wing accelerates and simultaneously releases brake pressure, decisively shifting the incidence forward. This transforms the handling into a dynamic and fluid experience. Whether maintaining a low flight line, following a steep slope, or soaring by the sea in strong winds, the JESTER ensures full control.

- **Minimum speed:** When the pilot lowers their hands fully, the system increases the incidence, gaining lift and decreasing speed. At low speeds, it stands out for its predictable and accessible behaviour for this kind of wing. The progressive and intuitive brake pressure provides ideal feedback for flares and smooth landings.

(!) When pulling the handles below the bottom of the risers, you are approaching the stall point. Do not fly close to the ground in this position, as you will not have enough speed margin to perform a flare. Este punto depende sebretodo de la talla usada y la carga total en vuelo. This point depends mainly on the size used and the total wing loading.

(!) Never fly the JESTER by pulling only the main brake line. Control must always be applied by combining the pulley system line and the brake line.

## 1.5 TECHNOLOGIES, CONSTRUCTION, MATERIALS

The JESTER 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:

**RAM Air Intake -** the system is characterised by the arrangement of the air inlets, to ensure optimal maintenance of internal pressure across the whole range of angles of attack.
The result? Having greater internal pressure means better tolerance of turbulence, greater consistency of the profile shape across the speed range; excellent handling at low speed is achieved by allowing the pilot to extend the braking limit, there is a lower risk of collapse and consequently, greater control and safety.
The application of RAM technology ensures that the internal pressure of the wing is optimal and that the profile maintains its ideal shape in all flight conditions.

**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.

**SMC Structured Middle Chord -** The use of Nitinol rods in the mid-rear section of the profile creates the SMC. This technology preserves the wing's shape, providing great solidity and stability. The profile remains tight at all times, free of wrinkles, and fully optimised for every flight phase. It enhances performance and makes the wing significantly 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.

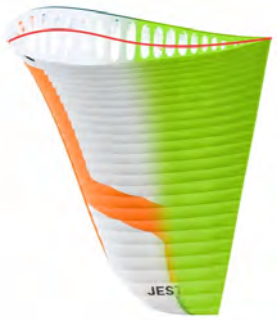
**3DL 3D Leading Edge -** this means adjusting the material of the leading edge to avoid ballooning and the creases that form in this curved area of the wing. Specifically, the leading edge is divided into "sub-panels" sewn into each of the cells at the front of the glider. As a result, the tension of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

**DRS Drag Reduction Structure -** The DRS is designed to reduce adverse pressure gradients and drag, optimising the aerodynamic shape of the wing. Its application ensures a smoother and more progressive airflow along the trailing edge. This increases performance without compromising safety or control, while also reducing the pressure required for manoeuvring.

The mini-ribs are integrated directly into the trailing edge, with special cuts allowing them to be incorporated into the wing's seam. This results in a cleaner profile, eliminates external stitching, and protects the ribs from wear caused by contact with the ground.

**RSP Reflex System Profile -** The RSP is a morphologically designed profile tailored to the technical characteristics of parakites. With a firm character, it provides greater pitch stability and increased safety for the pilot, especially at high speeds.

The reflex profile curvature naturally tends to self-stabilise, making the JESTER extremely resistant to collapses.



**PKS Parakite System -** With the JESTER, we use the new Parakite System (PKS) for the risers, which connects the brakes to a pulley system that lets you adjust the angle of attack.
When you raise your hands, the wing accelerates pitching forward and loses altitude. When you lower them, gradually slows it down by increasing the angle of attack, causing it to gain altitude. At the neutral point, the wing reaches its maximum glide performance.

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 JESTER 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.

All the materials used guarantee durability and strength, without any colour fading. The JESTER has been designed to withstand demanding environments such as windy slopes, sand, and repeated ground contact. For this reason, the chosen materials prioritise resistance, ensuring a long-lasting and reliable wing.

We know that a wing's lifespan is a key factor in ensuring pilot satisfaction and confidence, which is why every detail has been carefully designed to offer the highest level of reliability.

The lines are made of sheathed Dyneema and Aramid in the lower levels and
unsheathed Dyneema and Aramid on upper levels

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 products 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.

## 1.6 ELEMENTS, COMPONENTS

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

- An Inner Bag, an internal bag that allows you to keep the wing protected during storage and transport.
- 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 45 rucksack: 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.

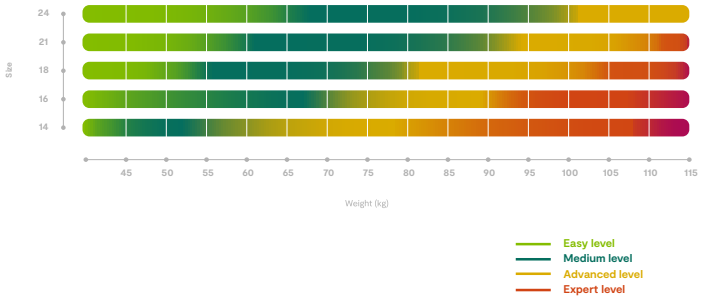
# 2. UNPACKING AND ASSEMBLY

## 2.1 CHOISIR LA TAILLE

Selecting the right size is a key step to ensure an optimal flying experience with your JESTER.

To make this choice easier, we have prepared a size guide that will help you accurately identify the option that best suits your weight, flying style, and wind conditions.

Choose your ideal size

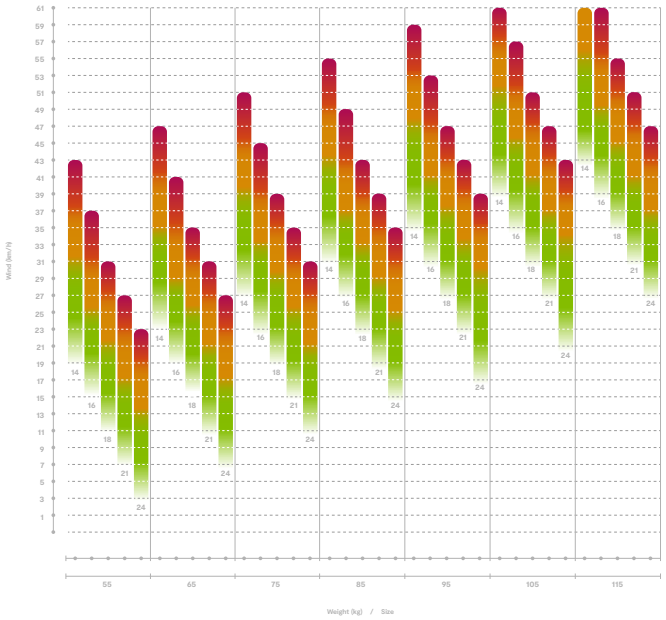



Compared to a traditional paraglider, the JESTER offers a much wider glide and wind range, thanks to its ability to completely adjust the angle of attack.

Keep in mind that wind speed constantly changes and usually increases with both strength and altitude. For this reason, always measure the wind at the top of the dune, slope, or cliff before taking off.

- Green: Safe zone, with optimal flying conditions.
- Yellow: Intermediate zone, where the wind starts to become stronger and may vary in strength or consistency. Fly with caution — only if you know the site and local conditions well, and if the weather forecast is stable.
- Red: Limit zone, recommended only for highly experienced pilots. The indicated speeds refer to possible gusts, not the average wind speed.

Choose your ideal size according to weight and wind speed




## 2.2 CHOOSING THE RIGHT LOCATION

We recommend unpacking the parakite 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 JESTER.

## 2.3 PROCEDURE

Take the parakite 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. Verify that the maillons connecting the lines to the risers are securely closed. Identify and arrange the A, B and C lines, the brake lines, and the corresponding risers in the correct position, ensuring there are no tangles or knots.

## 2.4 CONNECTING THE HARNESS

The JESTER 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 carabiners are properly fastened and securely locked.

## 2.5 TYPES OF HARNESS

The JESTER is compatible with all current harness types. If the harness used has an adjustable chest strap, we recommend setting it to the certified distance, which varies depending on the size. See certification details.

Keep in mind that the height of the anchor point directly affects the brake travel and the parakite's agility. Likewise, incorrect adjustment of the distance between the carabiners can affect wing control: a wider separation provides more feedback, but it may compromise the wing's stability; conversely, a narrower separation increases stability but reduces feedback and increases the risk of a twist in the event of a violent collapse..

Within the Niviuk harness range, we recommend pairing the JESTER with the reversible Kooper P harness, the most versatile in the range. Its modular structure and independent leg straps provide total freedom of movement during groundhandling and parakite sessions. Lightweight, ergonomic and compact, it includes an airbag and a reserve parachute compartment, ensuring comfort and safety at all times.

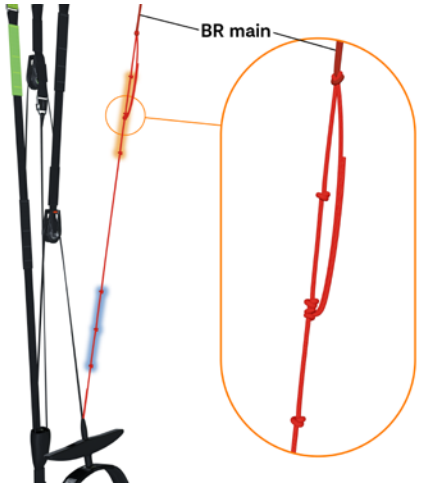
## 2.6 INSPECTION AND WING INFLATION ON THE GROUND

After your gear has been thoroughly checked and the weather conditions deemed favourable for flying, inflate your JESTER as many times as necessary to familiarise yourself with its behaviour. Inflating the JESTER is easy and should not require a great deal of physical effort. Inflate the parakite with a little pressure from the body using the harness. This may be assisted by using the A-risers, taking them below the green cover. 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.

## 2.7 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 JESTER.

You can adjust the brake and tip line lengths according to the specifications below. Both brake lines must be symmetrical and have the same length. This adjustment should only be carried out by qualified personnel.




The JESTER's main brake line can be adjusted to different lengths to make the wing's behavior in this area more or less responsive, depending on pilot preference.

(!) Under no circumstances install the main brake (Br Main) in the tip adjustment knots marked in blue; it must always be tied to one of the three knots furthest from the riser, identified in orange in the image. Do not move the brakes by more than one of the three brake-knot positions. You must ensure that the modification does not affect the trailing edge.

(!) The neutral position of the main brake line —that is, the correct one for a standard trim check— corresponds to the central knot of the orange group, circled in orange in the image.

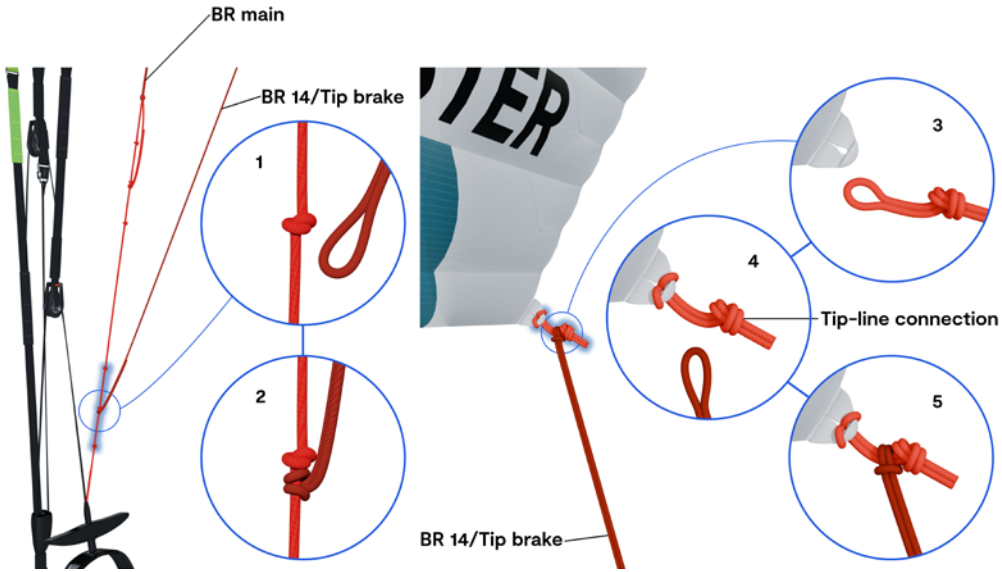
### 2.7.1 TIP LINE ADJUSTMENT (Br14)

The JESTER includes an auxiliary line (Br14) that allows more roll control of the wing using the tips when this line is attached to the handle. This line is supplied with the wing but not installed; it only needs to be added if you wish to fly with this configuration.

(!) The Br14 line adjustments correspond to the three knots closest to the riser, identified in blue in the image.

(!) The neutral position of the Br14 line corresponds to the central knot of the blue group, , circled in blue in the image.

(!) Note that if the Br14 line is installed, the line runs directly from the tip to the brake handle, which is different from a standard line setup. It may get caught on the ground during stab-touching maneuvers.



# 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.

(!) Make sure there is no sand or any other objects inside the wing. If sand accumulates on the trailing edge, it can make the wing more prone to collapses.

## 3.5 WING INFLATION, CONTROL AND TAKEOFF

It is recommended to perform a smooth and progressive inflation. The JESTER inflates easily and requires no extra effort; the process is regular and gradual. It does not have a tendency to overshoot, allowing for a calm inflation phase and providing enough time to control the wing and decide when to accelerate and take off.

Compared to a classic glider, we recommend taking the A-risers for take-off under the green cover. This will make the inflation smoother and more efficient.

Whenever the wind allows, it is advisable to take off facing the wing. This way, a proper visual check can be carried out with greater safety. Due to its parakite nature, the JESTER is particularly easy to control in “strong” wind conditions.

Preparing the wing and positioning it correctly in the take-off area is of fundamental importance. To ensure a good take-off, the appropriate area should be chosen according to the wind direction, and the parakite should be laid out as if it were part of a large circle, maintaining the canopy’s natural flying shape.

(!) Make sure to never fly with any knots in the lines. If you notice one during take-off, stop, remove the knot, and start the take-off again. If you have a knot in the lines and cannot stop the take-off procedure and end up flying, do not fly fast. Even a small knot in the brake lines or C-lines can disable the reflex profile and reduce stability and the stall point.

## 3.6 TURNS

The JESTER has a very distinctive behaviour when turning. To perform flat turns, keep the wing in the gliding position and use mainly your body weight to initiate the turn. Release the outside brake just enough to maintain control.

For tighter or more pronounced turns, combine weight shift with a greater release of the outside brake. Keep in mind that this will produce a strong bank and a significant increase in speed.

## 3.7 LANDING AND GROUND HANDLING

The JESTER allows for very long flares, even on flat terrain. It offers excellent landing characteristics, smoothly transforming speed into lift as the pilot commands.

If there is no headwind, make sure to choose a large landing area to have enough margin. It is recommended to make the final approach with the brakes slightly above the best glide position, allowing extra travel for a smooth and controlled landing.

In calm conditions, be ready to run decisively during touchdown.

If landing or doing ground handling in strong wind, we recommend pulling the B-riser with the blue cover down quickly and firmly to neutralise the wing. This is more effective than pulling the brakes, which would increase lift. Using the B-risers will stop the wing more quickly and prevent it from dragging you forcefully with the wind.

## 3.8 PACKING

The JESTER 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 parakite.

First, remove any remaining leaves, grass, sand, or other debris. Then, organise the lines and place them carefully on top of the parakite. Always make sure the parakite is completely dry and clean before storing it.

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.

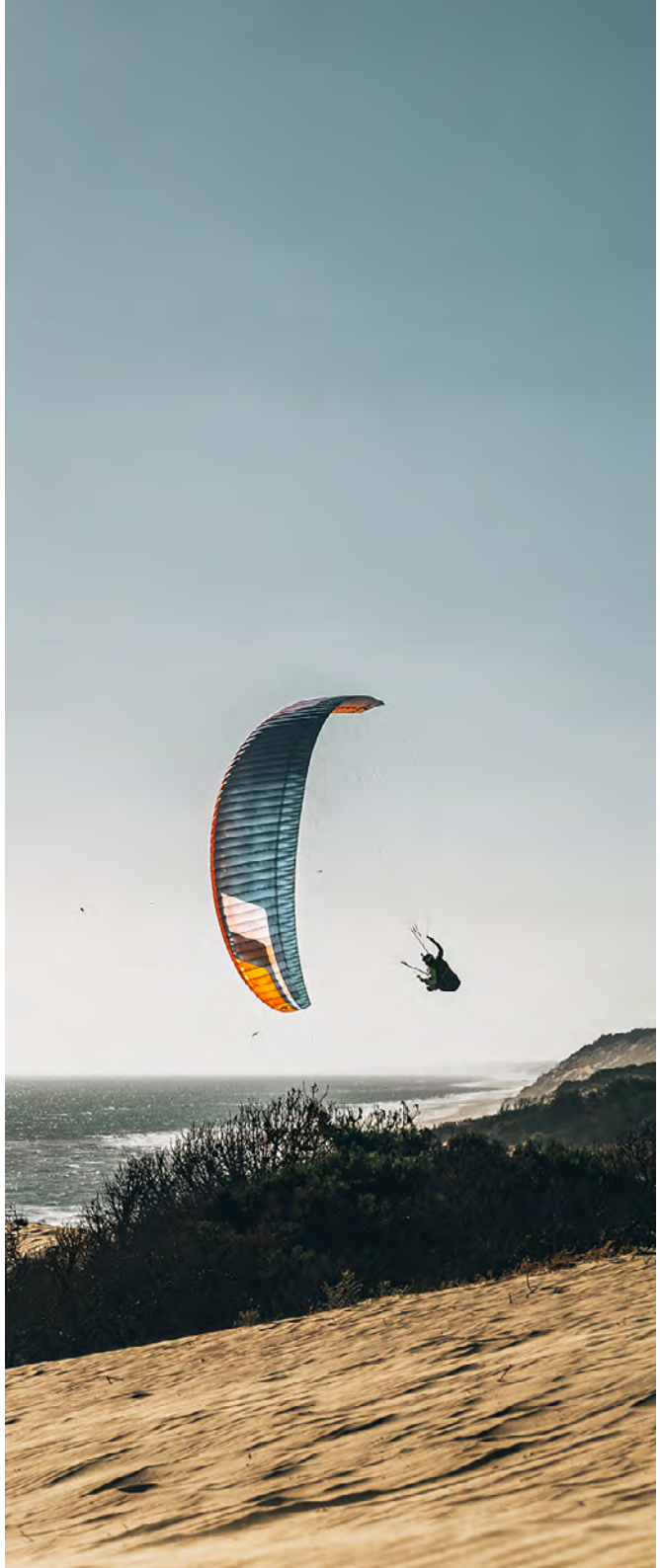
Niviuk have designed the ZipNkare bag. This will assist you in quickly folding the paraglider, keeping the profile and integrity of the internal structures in perfect condition.
The ZipNKare Bag will guide you through the folding process by allowing you to place the rods one on top of the other on the 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 JESTER remain in perfect condition.

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

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

If you prefer a more conventional folding bag that doesn’t convert into a briefcase, you can also use the Nkare Bag, which will assist you just as well during packing.

Watch the video tutorial to learn how to pack it correctly.



# 4. IN FLIGHT

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 depending on the wing loading.

In flight, do not release the brake handles under any circumstances, and always keep your hands inside the loops.

In extreme situations, only professional pilots should fly the JESTER. It is important to remember that the JESTER should NEVER be flown under any of the following conditions:

- Without sufficient pilot experience to handle the wing safely.
- Outside the recommended weight range (minimum or maximum).
- Inside clouds or fog; flight must always take place in visible conditions.
- In strong thermals, or under rain, snow, or turbulent weather conditions.
- When the parakite is wet or the fabric is damp.
- At extreme temperatures below -30 °C or above 50 °C.
- With more than one person on board; the JESTER is not designed for tandem flight.
- Performing acrobatic manoeuvres that exceed a bank angle of 90°.
- For kitesurfing, kiteboarding, or kitefoiling activities.

## 4.1 FLYING IN TURBULENCE

The JESTER has great stability and excellent in-flight response, but it should NOT be flown in turbulent conditions.

Every paraglider requires appropriate piloting for each situation, with the pilot being the final safety factor. Flying actively means flying while being connected to your parakite, feeling what is happening around you and constantly adapting. It’s not about keeping your hands still in a fixed position, but about reading the air and responding precisely to every small variation, especially when conditions become turbulent.

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.

> (!) Never release the brakes, especially in unstable wind. Even though the parakite is very stable, the pilot must accompany its behaviour with small brake and body adjustments, keeping the wing balanced at all times. With light and continuous pressure on the risers, you can feel how the wing "breathes" and anticipate any loss of pressure. This sensitivity will allow you to detect a possible collapse in time and correct it before it happens, maintaining full control at all times.

Generally, we don't recommand to fly the JESTER in thermal conditions or strong turbulances. If you have to go throught, don't put full hands up, make sure to always have some break pressure to keep it in it's more collapse resistance area

## 4.2 POSSIBLE CONFIGURATIONS

**Asymmetric collapse**

In spite of the JESTER'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 JESTER 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 JESTER'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**

This configuration (negative spin) is far from the JESTER's normal flight envelope, although a series of incorrect inputs can compromise the parakite's behaviour. A negative spin may occur when part of the wing enters a stall. In this case, the wing rotates around its vertical axis, with the centre of rotation located within the span, while the inner side of the wing moves backwards. The most common causes of a negative spin are:

- Pulling one brake too hard or too low, for example when trying to enter a spiral.
- Applying excessive brake input while flying at very low speed, causing one side of the wing to stall.

If corrected immediately, the JESTER usually returns to normal flight with minimal loss of altitude. To recover, simply release the inner brake progressively until the airflow is restored on that side of the wing.

If the spin is maintained for too long, part of the wing may surge forward abruptly when recovering, which could cause a sudden collapse.

**Parachutal stall**

If it enters a parachutal stall, the wing loses forward motion, becomes unstable, and the brake lines lose pressure, even though the canopy appears fully inflated. To regain normal airspeed, release the brakes symmetrically to the hands-up position.

**Stall**

The possibility of the JESTER 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%) down until the stall point is reached and held there. The parakite 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 parakite 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 need to control a possible frontal collapse, pull both brake handles down quickly and deeply to bring the wing back up, then release them immediately while the glider is still transitioning back to its overhead position.

**Cravat**

A cravat is very unlikely with the JESTER. Nevertheless, 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.

If you are on the ground, 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 becomes taut. This action will help to release the cravat.

If the cravat happens in flight, using the PKS system may make it impossible to act on the STAB line. We recommend pumping the affected side until the wing reinflates, or performing a full stall if you are high enough and have the necessary skills.

If this is ineffective, descend to the nearest possible landing area, controlling your direction with weight-shift and by applying brake on the opposite side of the cravat.

Be cautious when trying to clear a tangle while flying near terrain or other paragliders; it may not be possible to remain on your intended flight path. If the pilot feels overwhelmed by the situation, the reserve parachute should be deployed immediately.

**Wingovers**

This maneuver is done by alternating left and right turns while gradually increasing the bank angle. If wingovers are flown high with a large bank angle, the outside wingtip may lose pressure and start to feel light. In this case, do not increase the bank angle any further, as the tip could collapse abruptly.

Incorrect exit techniques or pilot overreactions can have dangerous consequences regardless of the glider or parakite type.

**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 JESTER 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.
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.

## 4.3 HANDS-UP FLIGHT

The JESTER's profile is designed to remain stable throughout its entire speed range. Flying in the full hands-up position —meaning full acceleration— will significantly increase both speed and sink rate.

When flying hands up, the profile becomes more sensitive to turbulence and closer to a possible frontal collapse. If you feel a loss of internal wing pressure, it is recommended to apply brake input to increase the wing's angle of incidence. Remember to restore airspeed after correcting the angle of attack.

It is NOT recommended to fly at full speed near obstacles or in very turbulent conditions. If necessary, constantly adjust brake pressure. This balance is considered "active piloting".

## 4.4 FLYING WITHOUT BRAKE LINES

Never release the brake handles while flying, and always keep your hands in the loops. Never steer the JESTER by pulling only the main brake line. Always steer using a combination of the C-pulley line and the main brake line.

## 4.5 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 you have a knot and cannot stop the take-off, do not fly fast. Even a small knot in the brake lines or C-lines can disable the reflex profile and remove your parakite's stability, potentially causing a collapse without any turbulence when flying at full speed.

You must fly with some brake pressure to avoid reaching full speed, and correct the roll by shifting your weight in the harness to the opposite side of the knot while also applying brake on that same side. You can gently pull a bit more brake on the side of the knot to see if it comes out, or identify the affected line and carefully pull it — always keeping a safe distance from the terrain. Be very cautious when trying to release the knot; do not pull too hard on the brake, as this may cause the wing to stall. Knots may also affect your stall speed. Before attempting to free the knot, make sure no other pilots are flying nearby.

If the knot is too tight and cannot be released, the best option is to fly down slowly with the brakes applied and choose a large, safe landing area. Do not attempt to land somewhere risky.

Again, under no circumstances should you try to accelerate the wing by raising your hands. Head for landing as soon as possible, keeping your hands in a neutral position and controlling the wing smoothly without excessive braking. Depending on the type of knot or wing deformation, collapses may occur if this piloting technique is not followed.

# 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

Be aware that you cannot perform Ears, Big Ears, or a B-stall with the JESTER.

We recommend flying circles or small wingovers (rolling) to lose altitude more quickly.

## 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 (downside 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 JESTER 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

We do not recommend using this parakite for acrobatic flying, it was not designed for it.

We consider acrobatic flights to be any form of piloting different than standard flights. 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, wings are gaining more safety and performance, which requires greater care of the materials.

(!) 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.

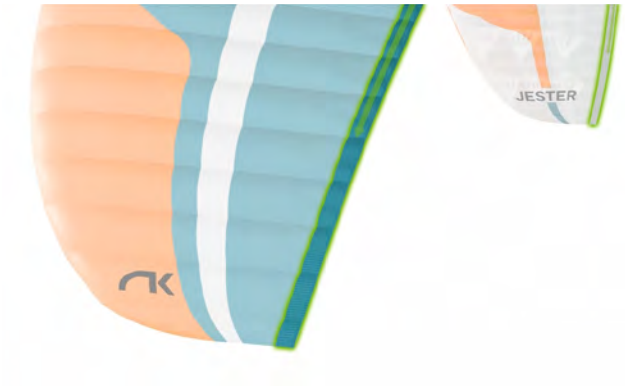
The fabric and the lines do not need to be washed. If they become dirty, clean them with a soft damp cloth, using only water. Do not use detergents or other chemicals.

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.

The JESTER is equipped with an automatic cleaning channel that helps evacuate sand from the trailing edge toward the wingtips. At the end of the flight, empty any sand that is in your parakite. 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 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 parakite 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 JESTER 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 JESTER.

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

The JESTER is fitted with a combination of sheathed and unsheathed lines. Their durability conforms to this type of 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 parakite 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 wing, depending on the conditions of each flying area, climatic conditions, temperature, humidity, type of terrain, wing loading, etc.

The PKS is an additional component that can move over time and must be checked regularly to maintain proper glider behaviour and performance. A lark's head knot is installed on the PKS to compensate for any loss of length. Refer to the riser dimension check. This operation must be carried out by a qualified inspection centre.

Thanks to the experience acquired and the thorough inspections that our R&D team carry out on all 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 wings 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 to the wing or its components invalidates the guarantee and the certification.

If you notice a fault or defect on your wing, contact Niviuk immediately for a full inspection.

# ANNEXES

# 10. ANNEXES

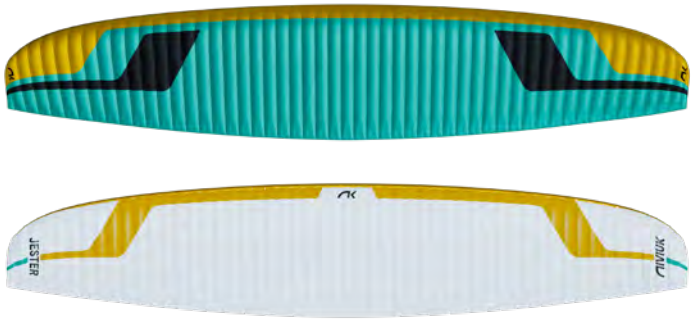
## 10.1 Technical specifications

| | | | 14 | 16 | 18 | 21 | 24 |
|---|---|---|---|---|---|---|---|
| **Cells** | Number | | 53 | 53 | 53 | 53 | 53 |
| **Aspect ratio** | Flat | | 5,50 | 5,50 | 5,50 | 5,50 | 5,50 |
| | Projected | | 4,20 | 4,20 | 4,20 | 4,20 | 4,20 |
| **Area** | Flat | m2 | 14 | 16 | 18 | 21 | 24 |
| | Projected | m2 | 11,91 | 13,62 | 15,32 | 17,87 | 20,42 |
| **Span** | Flat | m | 8,78 | 9,38 | 9,95 | 10,75 | 11,49 |
| **Chord** | Maximum | m | 1,97 | 2,11 | 2,24 | 2,42 | 2,59 |
| **Lines** | Total | m | 184 | 198 | 211 | 228 | 245 |
| | Main | | 3/3/3 | 3/3/3 | 3/3/3 | 3/3/3 | 3/3/3 |
| **Risers** | Number | | A/B/C | A/B/C | A/B/C | A/B/C | A/B/C |
| **Glider weight** | | kg | 3,29 | 3,65 | 3,95 | 4,50 | 5,00 |
| **Total weight in flight** | Min-Max | kg | Max. 115 | Max. 115 | Max. 115 | Max. 115 | Max. 115 |
| **Certification** | | | EN 926-1 | EN 926-1 | EN 926-1 | EN 926-1 | EN 926-1 |

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

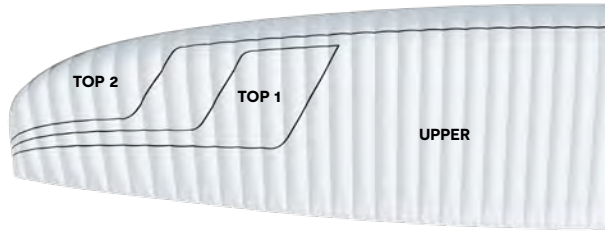
# 10.2 Colours

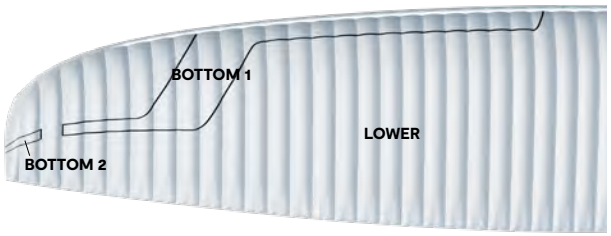

| | | | | |
|---|---|---|---|---|
| | **UPPER** | SLATE BLUE | **LOWER** | WHITE |
| **PACIFIC** | **TOP 1** | WHITE | **BOTTOM 1** | ORANGE |
| | **TOP 2** | ORANGE | **BOTTOM 2** | SLATE BLUE |




| | | | | |
|---|---|---|---|---|
| | **UPPER** | SPECTRA GREEN | **LOWER** | WHITE |
| **BELO** | **TOP 1** | BLACK | **BOTTOM 1** | DARK GOLD |
| | **TOP 2** | DARK GOLD | **BOTTOM 2** | SPECTRA GREEN |

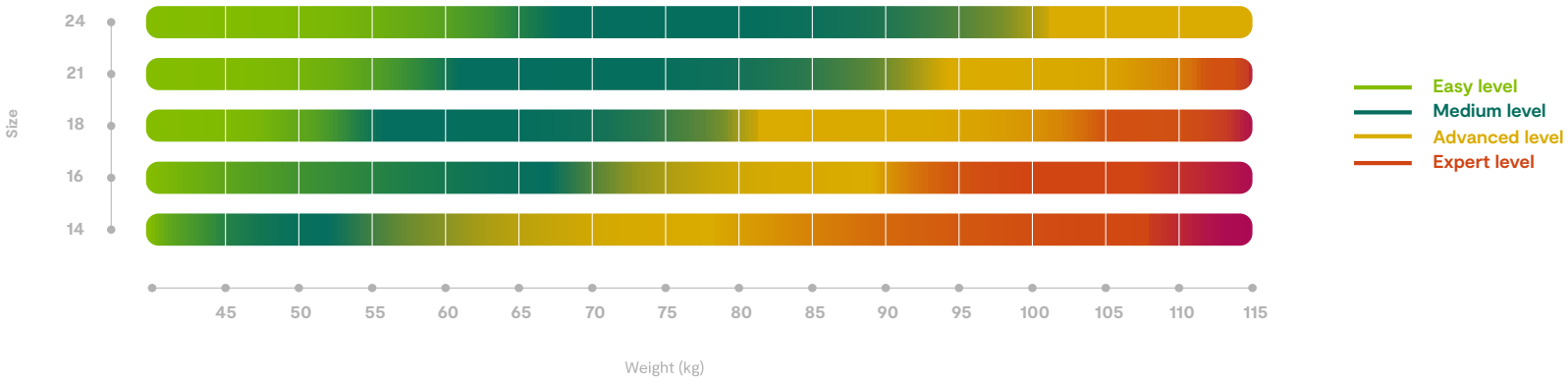

| | | | | |
|---|---|---|---|---|
| | **UPPER** | ORANGE | **LOWER** | WHITE |
| **BRICK** | **TOP 1** | BLACK | **BOTTOM 1** | DARK BRICK |
| | **TOP 2** | DARK BRICK | **BOTTOM 2** | ORANGE |



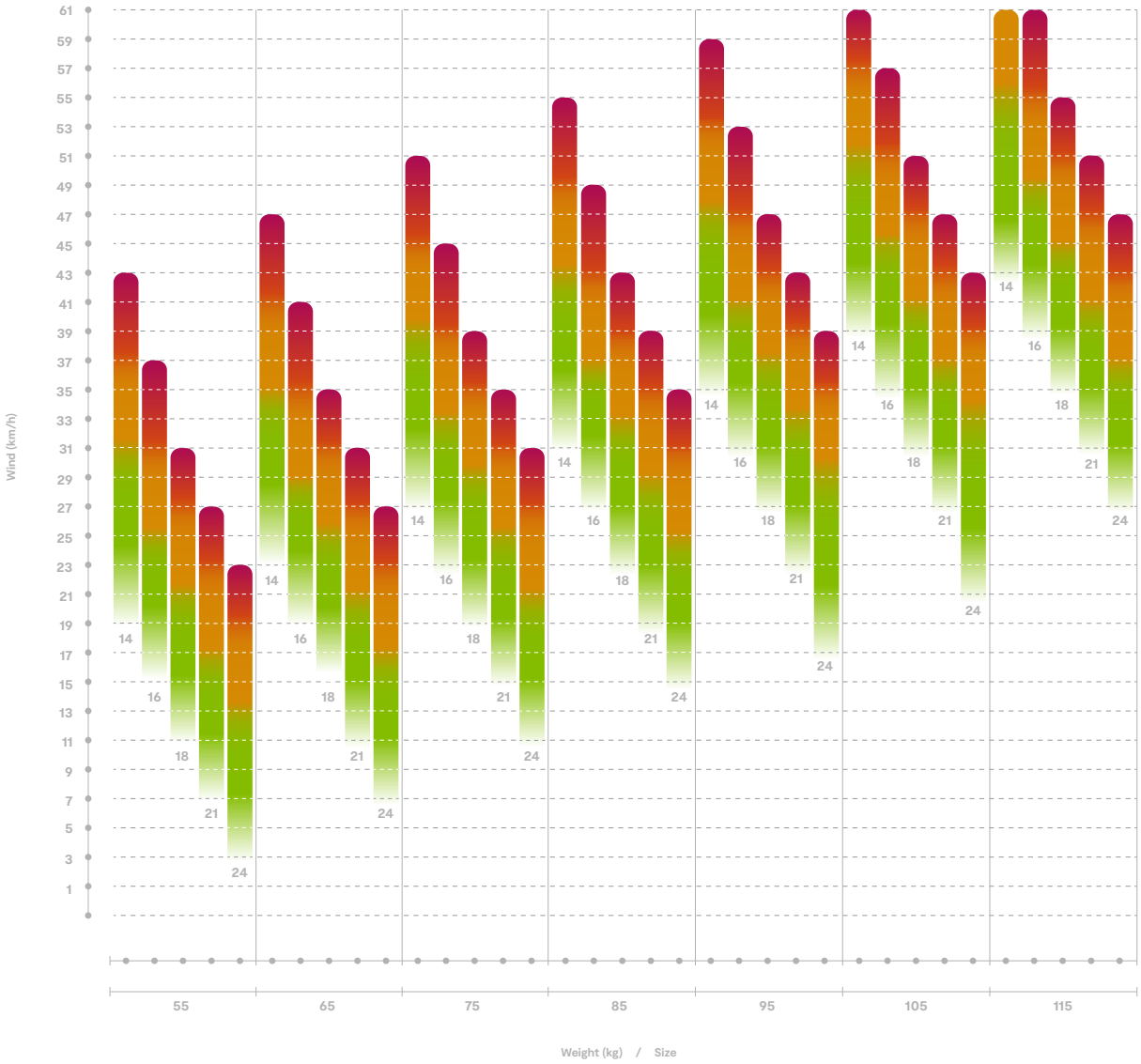



# 10.3 Choose your ideal size

## A. According to your weight



## B. According to weight and wind speed



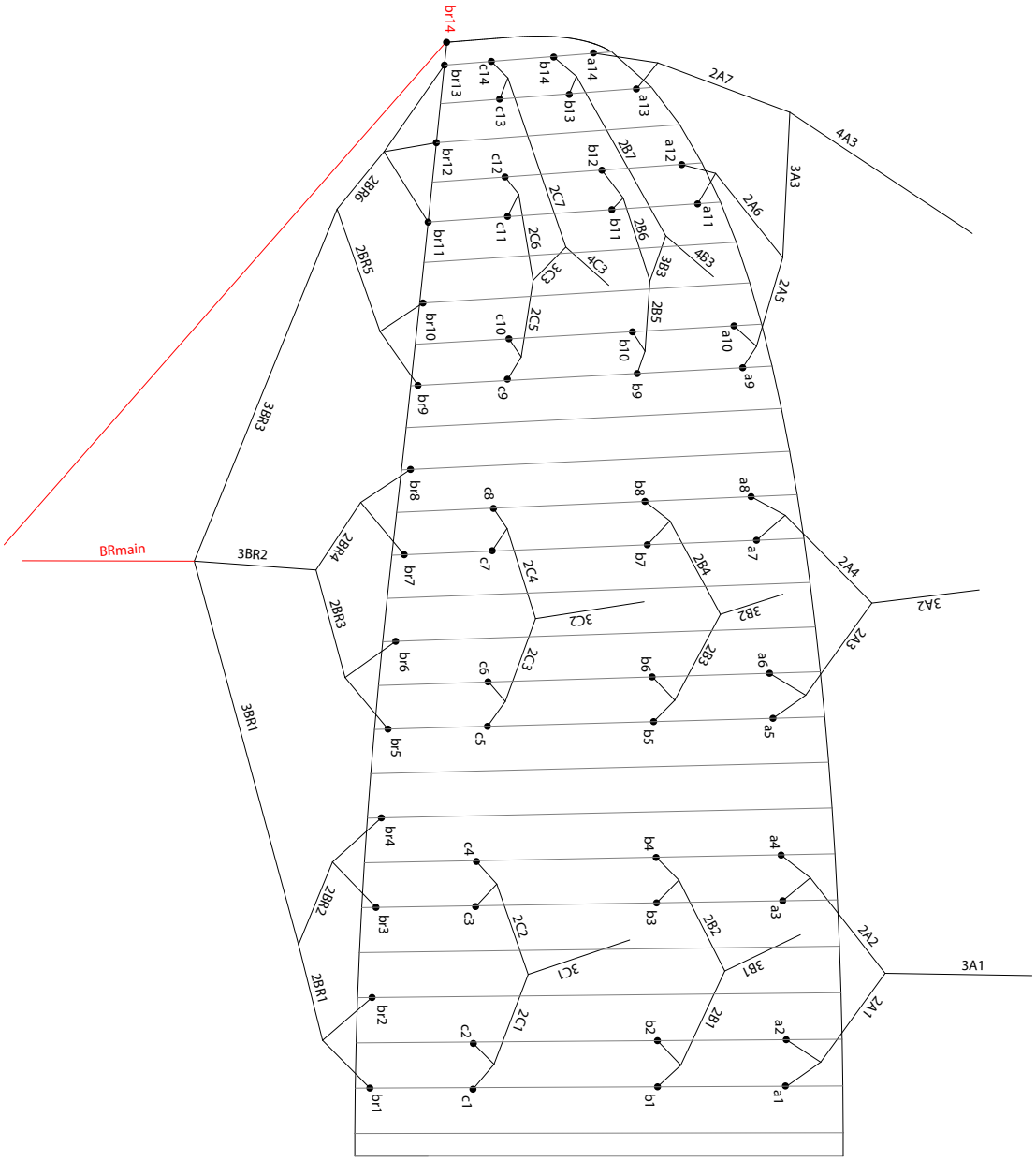
# 10.4 Materials

| CANOPY | FABRIC CODE | SUPPLIER |
|---|---|---|
| UPPER SURFACE | HYPERAIRTEX-41 / HYPERAIRTEX-36 | DOMINICO TEX CO (KOREA) |
| BOTTOM SURFACE | 2044 32 PS | DOMINICO TEX CO (KOREA) |
| PROFILES | HYPERAIRTEX-41 / 2044 32 FM | DOMINICO TEX CO (KOREA) |
| DIAGONALS | HYPERAIRTEX-41 / 2044 32 FM | DOMINICO TEX CO (KOREA) |
| LOOPS | LKI - 12 | KOLON IND. (KOREA) |
| REIFORCEMENT LOOPS | RIPSTOP FABRIC | DOMINICO TEX CO (KOREA) |
| TRAILING EDGE REIFORCEMENT | MYLAR | D-P (GERMANY) |
| RIBS REIFORCEMNET | LTN-0.8/1 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) |
| UPPER CASCADES | DC - 100 | LIROS GMHB (GERMANY) |
| UPPER CASCADES | PPSL - 120 | LIROS GMHB (GERMANY) |
| MIDDLE CASCADES | MATRIX 80 | EDELRID (GERMANY) |
| MIDDLE CASCADES | DC - 40 | LIROS GMHB (GERMANY) |
| MIDDLE CASCADES | A-8001/U 50 | EDELRID (GERMANY) |
| MIDDLE CASCADES | A-8001/U 70 | EDELRID (GERMANY) |
| MIDDLE CASCADES | A-8001/U 90 | EDELRID (GERMANY) |
| MIDDLE CASCADES | A-8001/U 130 | EDELRID (GERMANY) |
| MIDDLE CASCADES | A-8001/U 190 | EDELRID (GERMANY) |
| MAIN | TNL 220 | TEIJIM LIMITED (JAPAN) |
| MAIN | TNL 280 | TEIJIM LIMITED (JAPAN) |
| MAIN BREAK | TARAX-200 | EDELRID (GERMANY) |
| THREAD | SERAFIL 60 | AMAN (GERMANY) |

| RISERS | FABRIC CODE | SUPPLIER |
|---|---|---|
| MATERIAL | 3455 | COUSIN (FRANCE) |
| COLOR INDICATOR | 210D | TECNI SANGLES (FRANCE) |
| THREAD | V138 | COATS (ENGLAND) |
| MAILLONS | 3.5 | ANSUNG PRECISION (KOREA) |
| PULLEYS | RF25109 | RONSTAN (AUSTRALIA) |

# 10.5 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:

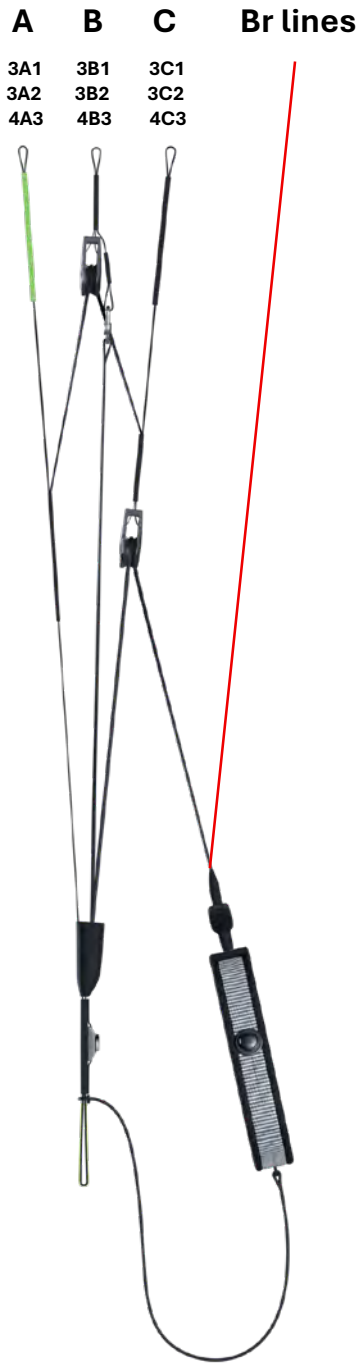
- That the line plan is correct according to the glider model and size.
- That the line kit is complete and correct. Never assume but always check each individual line for the correct specification.

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.*

## 10.6 Riser plan



# 10.7 Line measurements by size

## JESTER 14

| REF. | MAT. | kg | COLOR | mm | REF. | MAT. | kg | COLOR | mm | REF. | MAT. | kg | COLOR | mm | REF. | MAT. | kg | COLOR | mm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **A** | | | | | **B** | | | | | **C** | | | | **BRAKE** | | | |
| a1 | DC | 100 | WHT | 245 | b1 | DC | 60 | WHT | 242 | c1 | DC | 40 | WHT | 245 | br1 | MATRIX | 80 | RED | 534 |
| a2 | DC | 60 | WHT | 203 | b2 | DC | 60 | WHT | 200 | c2 | DC | 40 | WHT | 191 | br2 | MATRIX | 80 | RED | 306 |
| a3 | DC | 60 | WHT | 222 | b3 | DC | 60 | WHT | 219 | c3 | DC | 40 | WHT | 212 | br3 | MATRIX | 80 | RED | 456 |
| a4 | DC | 60 | WHT | 232 | b4 | DC | 60 | WHT | 229 | c4 | DC | 40 | WHT | 236 | br4 | MATRIX | 80 | RED | 458 |
| a5 | DC | 60 | WHT | 238 | b5 | DC | 60 | WHT | 233 | c5 | DC | 40 | WHT | 238 | br5 | MATRIX | 80 | RED | 486 |
| a6 | DC | 60 | WHT | 197 | b6 | DC | 40 | WHT | 196 | c6 | DC | 40 | WHT | 187 | br6 | MATRIX | 80 | RED | 347 |
| a7 | DC | 60 | WHT | 214 | b7 | DC | 40 | WHT | 208 | c7 | DC | 40 | WHT | 204 | br7 | MATRIX | 80 | RED | 419 |
| a8 | DC | 60 | WHT | 219 | b8 | DC | 60 | WHT | 216 | c8 | DC | 40 | WHT | 223 | br8 | MATRIX | 80 | RED | 448 |
| a9 | DC | 60 | WHT | 251 | b9 | DC | 60 | WHT | 245 | c9 | DC | 40 | WHT | 246 | br9 | MATRIX | 80 | RED | 450 |
| a10 | DC | 60 | WHT | 204 | b10 | DC | 40 | WHT | 201 | c10 | DC | 40 | WHT | 201 | br10 | MATRIX | 80 | RED | 355 |
| a11 | DC | 60 | WHT | 257 | b11 | DC | 40 | WHT | 199 | c11 | DC | 40 | WHT | 198 | br11 | MATRIX | 80 | RED | 678 |
| a12 | DC | 60 | WHT | 256 | b12 | DC | 60 | WHT | 205 | c12 | DC | 40 | WHT | 201 | br12 | MATRIX | 80 | RED | 673 |
| a13 | DC | 60 | WHT | 378 | b13 | DC | 60 | WHT | 323 | c13 | DC | 60 | WHT | 293 | br13 | MATRIX | 80 | RED | 768 |
| a14 | DC | 60 | WHT | 376 | b14 | DC | 60 | WHT | 323 | c14 | DC | 60 | WHT | 284 | br14 | PPSL | 120 | RED | 4490 |
| | | | | | | | | | | | | | | | | | | | |
| 2A1 | 8001/U | 130 | ORG | 1477 | 2B1 | 8001/U | 130 | BLUE | 1455 | 2C1 | 8001/U | 90 | BLUE | 1058 | 2BR1 | Matrix | 80 | Red | 727 |
| 2A2 | 8001/U | 130 | ORG | 1409 | 2B2 | 8001/U | 130 | BLUE | 1389 | 2C2 | 8001/U | 90 | BLUE | 988 | 2BR2 | MATRIX | 80 | RED | 478 |
| 2A3 | 8001/U | 130 | ORG | 1420 | 2B3 | 8001/U | 130 | BLUE | 1391 | 2C3 | 8001/U | 70 | BLUE | 1015 | 2BR3 | MATRIX | 80 | RED | 731 |
| 2A4 | 8001/U | 90 | ORG | 1348 | 2B4 | 8001/U | 90 | BLUE | 1330 | 2C4 | 8001/U | 70 | BLUE | 947 | 2BR4 | MATRIX | 80 | RED | 594 |
| 2A5 | 8001/U | 70 | ORG | 1319 | 2B5 | 8001/U | 130 | BLUE | 1266 | 2C5 | 8001/U | 70 | BLUE | 1267 | 2BR5 | MATRIX | 80 | RED | 799 |
| 2A6 | 8001/U | 70 | ORG | 1166 | 2B6 | 8001/U | 90 | BLUE | 1185 | 2C6 | 8001/U | 70 | BLUE | 1184 | 2BR6 | MATRIX | 80 | RED | 425 |
| 2A7 | 8001/U | 70 | ORG | 2414 | 2B7 | 8001/U | 50 | BLUE | 2348 | 2C7 | 8001/U | 70 | BLUE | 2304 | 3BR1 | MATRIX | 80 | RED | 2677 |
| 3A3 | 8001/U | 190 | ORG | 1476 | 3B3 | 8001/U | 90 | BLUE | 1372 | 3C3 | 8001/U | 130 | BLUE | 1308 | 3BR2 | MATRIX | 80 | RED | 2311 |
| | | | | | | | | | | | | | | | 3BR3 | MATRIX | 80 | RED | 2038 |
| | | | | | | | | | | | | | | | | | | | |
| 3A1 | TNL | 280 | GREEN | 3126 | 3B1 | TNL | 280 | BLUE | 3079 | 3C1 | TNL | 220 | BLUE | 3573 | BRMAIN | TARAX | 200 | RED | 1645 |
| 3A2 | TNL | 280 | GREEN | 3054 | 3B2 | TNL | 220 | BLUE | 3021 | 3C2 | TNL | 220 | BLUE | 3486 | POINT AT: | | | | 1445 |
| 4A3 | TNL | 280 | GREEN | 1492 | 4B3 | TNL | 220 | BLUE | 1613 | 4C3 | TNL | 220 | BLUE | 1736 | | | | | |

## JESTER 16

| REF. | MAT. | kg | COLOR | mm | REF. | MAT. | kg | COLOR | mm | REF. | MAT. | kg | COLOR | mm | REF. | MAT. | kg | COLOR | mm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **A** | | | | | **B** | | | | | **C** | | | | **BRAKE** | | | |
| a1 | DC | 100 | WHT | 262 | b1 | DC | 60 | WHT | 258 | c1 | DC | 40 | WHT | 262 | br1 | MATRIX | 80 | RED | 571 |
| a2 | DC | 60 | WHT | 218 | b2 | DC | 60 | WHT | 214 | c2 | DC | 40 | WHT | 205 | br2 | MATRIX | 80 | RED | 328 |
| a3 | DC | 60 | WHT | 238 | b3 | DC | 60 | WHT | 234 | c3 | DC | 40 | WHT | 227 | br3 | MATRIX | 80 | RED | 487 |
| a4 | DC | 60 | WHT | 248 | b4 | DC | 60 | WHT | 245 | c4 | DC | 40 | WHT | 252 | br4 | MATRIX | 80 | RED | 490 |
| a5 | DC | 60 | WHT | 254 | b5 | DC | 60 | WHT | 249 | c5 | DC | 40 | WHT | 254 | br5 | MATRIX | 80 | RED | 519 |
| a6 | DC | 60 | WHT | 210 | b6 | DC | 40 | WHT | 208 | c6 | DC | 40 | WHT | 199 | br6 | MATRIX | 80 | RED | 370 |
| a7 | DC | 60 | WHT | 229 | b7 | DC | 40 | WHT | 223 | c7 | DC | 40 | WHT | 218 | br7 | MATRIX | 80 | RED | 449 |
| a8 | DC | 60 | WHT | 234 | b8 | DC | 60 | WHT | 230 | c8 | DC | 40 | WHT | 238 | br8 | MATRIX | 80 | RED | 478 |
| a9 | DC | 60 | WHT | 269 | b9 | DC | 60 | WHT | 262 | c9 | DC | 40 | WHT | 263 | br9 | MATRIX | 80 | RED | 481 |
| a10 | DC | 60 | WHT | 216 | b10 | DC | 40 | WHT | 213 | c10 | DC | 40 | WHT | 213 | br10 | MATRIX | 80 | RED | 377 |
| a11 | DC | 60 | WHT | 276 | b11 | DC | 40 | WHT | 214 | c11 | DC | 40 | WHT | 213 | br11 | MATRIX | 80 | RED | 730 |
| a12 | DC | 60 | WHT | 272 | b12 | DC | 60 | WHT | 218 | c12 | DC | 40 | WHT | 214 | br12 | MATRIX | 80 | RED | 721 |
| a13 | DC | 60 | WHT | 405 | b13 | DC | 60 | WHT | 346 | c13 | DC | 60 | WHT | 315 | br13 | MATRIX | 80 | RED | 818 |
| a14 | DC | 60 | WHT | 401 | b14 | DC | 60 | WHT | 344 | c14 | DC | 60 | WHT | 302 | br14 | PPSL | 120 | RED | 4796 |
| | | | | | | | | | | | | | | | | | | | |
| 2A1 | 8001/U | 130 | ORG | 1578 | 2B1 | 8001/U | 130 | BLUE | 1553 | 2C1 | 8001/U | 90 | BLUE | 1130 | 2BR1 | Matrix | 80 | Red | 776 |
| 2A2 | 8001/U | 130 | ORG | 1507 | 2B2 | 8001/U | 130 | BLUE | 1486 | 2C2 | 8001/U | 90 | BLUE | 1057 | 2BR2 | MATRIX | 80 | RED | 512 |
| 2A3 | 8001/U | 130 | ORG | 1518 | 2B3 | 8001/U | 130 | BLUE | 1488 | 2C3 | 8001/U | 70 | BLUE | 1086 | 2BR3 | MATRIX | 80 | RED | 782 |
| 2A4 | 8001/U | 90 | ORG | 1438 | 2B4 | 8001/U | 90 | BLUE | 1419 | 2C4 | 8001/U | 70 | BLUE | 1009 | 2BR4 | MATRIX | 80 | RED | 632 |
| 2A5 | 8001/U | 70 | ORG | 1410 | 2B5 | 8001/U | 130 | BLUE | 1355 | 2C5 | 8001/U | 70 | BLUE | 1356 | 2BR5 | MATRIX | 80 | RED | 858 |
| 2A6 | 8001/U | 70 | ORG | 1237 | 2B6 | 8001/U | 90 | BLUE | 1258 | 2C6 | 8001/U | 70 | BLUE | 1258 | 2BR6 | MATRIX | 80 | RED | 447 |
| 2A7 | 8001/U | 70 | ORG | 2563 | 2B7 | 8001/U | 50 | BLUE | 2493 | 2C7 | 8001/U | 70 | BLUE | 2446 | 3BR1 | MATRIX | 80 | RED | 2865 |
| 3A3 | 8001/U | 190 | ORG | 1576 | 3B3 | 8001/U | 90 | BLUE | 1465 | 3C3 | 8001/U | 130 | BLUE | 1397 | 3BR2 | MATRIX | 80 | RED | 2471 |
| | | | | | | | | | | | | | | | 3BR3 | MATRIX | 80 | RED | 2170 |
| | | | | | | | | | | | | | | | | | | | |
| 3A1 | TNL | 280 | GREEN | 3379 | 3B1 | TNL | 280 | BLUE | 3329 | 3C1 | TNL | 220 | BLUE | 3857 | BRMAIN | TARAX | 200 | RED | 1778 |
| 3A2 | TNL | 280 | GREEN | 3301 | 3B2 | TNL | 220 | BLUE | 3266 | 3C2 | TNL | 220 | BLUE | 3763 | POINT AT: | | | | 1578 |
| 4A3 | TNL | 280 | GREEN | 1624 | 4B3 | TNL | 220 | BLUE | 1753 | 4C3 | TNL | 220 | BLUE | 1884 | | | | | |

## JESTER 18

| REF. | MAT. | kg | COLOR | mm | REF. | MAT. | kg | COLOR | mm | REF. | MAT. | kg | COLOR | mm | REF. | MAT. | kg | COLOR | mm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **A** | | | | | **B** | | | | | **C** | | | | | **BRAKE** | | |
| a1 | DC | 100 | WHT | 280 | b1 | DC | 60 | WHT | 276 | c1 | DC | 40 | WHT | 280 | br1 | MATRIX | 80 | RED | 612 |
| a2 | DC | 60 | WHT | 233 | b2 | DC | 60 | WHT | 230 | c2 | DC | 40 | WHT | 220 | br2 | MATRIX | 80 | RED | 352 |
| a3 | DC | 60 | WHT | 254 | b3 | DC | 60 | WHT | 250 | c3 | DC | 40 | WHT | 243 | br3 | MATRIX | 80 | RED | 521 |
| a4 | DC | 60 | WHT | 265 | b4 | DC | 60 | WHT | 262 | c4 | DC | 40 | WHT | 269 | br4 | MATRIX | 80 | RED | 524 |
| a5 | DC | 60 | WHT | 272 | b5 | DC | 60 | WHT | 267 | c5 | DC | 40 | WHT | 272 | br5 | MATRIX | 80 | RED | 556 |
| a6 | DC | 60 | WHT | 224 | b6 | DC | 40 | WHT | 222 | c6 | DC | 40 | WHT | 212 | br6 | MATRIX | 80 | RED | 395 |
| a7 | DC | 60 | WHT | 246 | b7 | DC | 40 | WHT | 240 | c7 | DC | 40 | WHT | 234 | br7 | MATRIX | 80 | RED | 482 |
| a8 | DC | 60 | WHT | 249 | b8 | DC | 60 | WHT | 246 | c8 | DC | 40 | WHT | 254 | br8 | MATRIX | 80 | RED | 510 |
| a9 | DC | 60 | WHT | 288 | b9 | DC | 60 | WHT | 280 | c9 | DC | 40 | WHT | 282 | br9 | MATRIX | 80 | RED | 515 |
| a10 | DC | 60 | WHT | 229 | b10 | DC | 40 | WHT | 226 | c10 | DC | 40 | WHT | 226 | br10 | MATRIX | 80 | RED | 401 |
| a11 | DC | 60 | WHT | 296 | b11 | DC | 40 | WHT | 230 | c11 | DC | 40 | WHT | 229 | br11 | MATRIX | 80 | RED | 786 |
| a12 | DC | 60 | WHT | 289 | b12 | DC | 60 | WHT | 232 | c12 | DC | 40 | WHT | 227 | br12 | MATRIX | 80 | RED | 772 |
| a13 | DC | 60 | WHT | 433 | b13 | DC | 60 | WHT | 371 | c13 | DC | 60 | WHT | 338 | br13 | MATRIX | 80 | RED | 872 |
| a14 | DC | 60 | WHT | 426 | b14 | DC | 60 | WHT | 366 | c14 | DC | 60 | WHT | 321 | br14 | PPSL | 120 | RED | 5126 |
| | | | | | | | | | | | | | | | | | | | |
| 2A1 | 8001/U | 130 | ORG | 1688 | 2B1 | 8001/U | 130 | BLUE | 1662 | 2C1 | 8001/U | 90 | BLUE | 1208 | 2BR1 | Matrix | 80 | Red | 830 |
| 2A2 | 8001/U | 130 | ORG | 1614 | 2B2 | 8001/U | 130 | BLUE | 1591 | 2C2 | 8001/U | 90 | BLUE | 1132 | 2BR2 | MATRIX | 80 | RED | 549 |
| 2A3 | 8001/U | 130 | ORG | 1626 | 2B3 | 8001/U | 130 | BLUE | 1593 | 2C3 | 8001/U | 70 | BLUE | 1164 | 2BR3 | MATRIX | 80 | RED | 839 |
| 2A4 | 8001/U | 90 | ORG | 1535 | 2B4 | 8001/U | 90 | BLUE | 1515 | 2C4 | 8001/U | 70 | BLUE | 1076 | 2BR4 | MATRIX | 80 | RED | 674 |
| 2A5 | 8001/U | 70 | ORG | 1509 | 2B5 | 8001/U | 130 | BLUE | 1451 | 2C5 | 8001/U | 70 | BLUE | 1452 | 2BR5 | MATRIX | 80 | RED | 922 |
| 2A6 | 8001/U | 70 | ORG | 1313 | 2B6 | 8001/U | 90 | BLUE | 1337 | 2C6 | 8001/U | 70 | BLUE | 1337 | 2BR6 | MATRIX | 80 | RED | 470 |
| 2A7 | 8001/U | 70 | ORG | 2720 | 2B7 | 8001/U | 50 | BLUE | 2647 | 2C7 | 8001/U | 70 | BLUE | 2599 | 3BR1 | MATRIX | 80 | RED | 3068 |
| 3A3 | 8001/U | 190 | ORG | 1681 | 3B3 | 8001/U | 90 | BLUE | 1565 | 3C3 | 8001/U | 130 | BLUE | 1493 | 3BR2 | MATRIX | 80 | RED | 2646 |
| | | | | | | | | | | | | | | | 3BR3 | MATRIX | 80 | RED | 2313 |
| | | | | | | | | | | | | | | | | | | | |
| 3A1 | TNL | 280 | GREEN | 3656 | 3B1 | TNL | 280 | BLUE | 3603 | 3C1 | TNL | 220 | BLUE | 4166 | BRMAIN | TARAX | 200 | RED | 1921 |
| 3A2 | TNL | 280 | GREEN | 3571 | 3B2 | TNL | 220 | BLUE | 3534 | 3C2 | TNL | 220 | BLUE | 4064 | POINT AT: | | | | 1721 |
| 4A3 | TNL | 280 | GREEN | 1772 | 4B3 | TNL | 220 | BLUE | 1906 | 4C3 | TNL | 220 | BLUE | 2045 | | | | | |

## JESTER 21

| REF. | MAT. | kg | COLOR | mm | REF. | MAT. | kg | COLOR | mm | REF. | MAT. | kg | COLOR | mm | REF. | MAT. | kg | COLOR | mm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **A** | | | | | **B** | | | | | **C** | | | | | **BRAKE** | | |
| a1 | DC | 100 | WHT | 300 | b1 | DC | 60 | WHT | 295 | c1 | DC | 40 | WHT | 300 | br1 | MATRIX | 80 | RED | 655 |
| a2 | DC | 60 | WHT | 251 | b2 | DC | 60 | WHT | 247 | c2 | DC | 40 | WHT | 236 | br2 | MATRIX | 80 | RED | 378 |
| a3 | DC | 60 | WHT | 271 | b3 | DC | 60 | WHT | 267 | c3 | DC | 40 | WHT | 259 | br3 | MATRIX | 80 | RED | 557 |
| a4 | DC | 60 | WHT | 285 | b4 | DC | 60 | WHT | 281 | c4 | DC | 40 | WHT | 289 | br4 | MATRIX | 80 | RED | 562 |
| a5 | DC | 60 | WHT | 291 | b5 | DC | 60 | WHT | 286 | c5 | DC | 40 | WHT | 291 | br5 | MATRIX | 80 | RED | 595 |
| a6 | DC | 60 | WHT | 241 | b6 | DC | 40 | WHT | 238 | c6 | DC | 40 | WHT | 227 | br6 | MATRIX | 80 | RED | 424 |
| a7 | DC | 60 | WHT | 263 | b7 | DC | 40 | WHT | 256 | c7 | DC | 40 | WHT | 251 | br7 | MATRIX | 80 | RED | 515 |
| a8 | DC | 60 | WHT | 267 | b8 | DC | 60 | WHT | 263 | c8 | DC | 40 | WHT | 272 | br8 | MATRIX | 80 | RED | 547 |
| a9 | DC | 60 | WHT | 308 | b9 | DC | 60 | WHT | 300 | c9 | DC | 40 | WHT | 302 | br9 | MATRIX | 80 | RED | 551 |
| a10 | DC | 60 | WHT | 245 | b10 | DC | 40 | WHT | 242 | c10 | DC | 40 | WHT | 241 | br10 | MATRIX | 80 | RED | 430 |
| a11 | DC | 60 | WHT | 317 | b11 | DC | 40 | WHT | 246 | c11 | DC | 40 | WHT | 245 | br11 | MATRIX | 80 | RED | 840 |
| a12 | DC | 60 | WHT | 310 | b12 | DC | 60 | WHT | 248 | c12 | DC | 40 | WHT | 243 | br12 | MATRIX | 80 | RED | 826 |
| a13 | DC | 60 | WHT | 465 | b13 | DC | 60 | WHT | 398 | c13 | DC | 60 | WHT | 361 | br13 | MATRIX | 80 | RED | 935 |
| a14 | DC | 60 | WHT | 458 | b14 | DC | 60 | WHT | 392 | c14 | DC | 60 | WHT | 344 | br14 | PPSL | 120 | RED | 5574 |
| | | | | | | | | | | | | | | | | | | | |
| 2A1 | 8001/U | 130 | ORG | 1805 | 2B1 | 8001/U | 130 | BLUE | 1777 | 2C1 | 8001/U | 90 | BLUE | 1291 | 2BR1 | Matrix | 80 | Red | 886 |
| 2A2 | 8001/U | 130 | ORG | 1730 | 2B2 | 8001/U | 130 | BLUE | 1705 | 2C2 | 8001/U | 90 | BLUE | 1214 | 2BR2 | MATRIX | 80 | RED | 589 |
| 2A3 | 8001/U | 130 | ORG | 1740 | 2B3 | 8001/U | 130 | BLUE | 1704 | 2C3 | 8001/U | 70 | BLUE | 1245 | 2BR3 | MATRIX | 80 | RED | 897 |
| 2A4 | 8001/U | 90 | ORG | 1645 | 2B4 | 8001/U | 90 | BLUE | 1622 | 2C4 | 8001/U | 70 | BLUE | 1153 | 2BR4 | MATRIX | 80 | RED | 724 |
| 2A5 | 8001/U | 70 | ORG | 1616 | 2B5 | 8001/U | 130 | BLUE | 1553 | 2C5 | 8001/U | 70 | BLUE | 1554 | 2BR5 | MATRIX | 80 | RED | 986 |
| 2A6 | 8001/U | 70 | ORG | 1406 | 2B6 | 8001/U | 90 | BLUE | 1432 | 2C6 | 8001/U | 70 | BLUE | 1431 | 2BR6 | MATRIX | 80 | RED | 506 |
| 2A7 | 8001/U | 70 | ORG | 2915 | 2B7 | 8001/U | 50 | BLUE | 2836 | 2C7 | 8001/U | 70 | BLUE | 2783 | 3BR1 | MATRIX | 80 | RED | 3280 |
| 3A3 | 8001/U | 190 | ORG | 1803 | 3B3 | 8001/U | 90 | BLUE | 1676 | 3C3 | 8001/U | 130 | BLUE | 1598 | 3BR2 | MATRIX | 80 | RED | 2833 |
| | | | | | | | | | | | | | | | 3BR3 | MATRIX | 80 | RED | 2482 |
| | | | | | | | | | | | | | | | | | | | |
| 3A1 | TNL | 280 | GREEN | 3951 | 3B1 | TNL | 280 | BLUE | 3894 | 3C1 | TNL | 220 | BLUE | 4498 | BRMAIN | TARAX | 200 | RED | 2087 |
| 3A2 | TNL | 280 | GREEN | 3867 | 3B2 | TNL | 220 | BLUE | 3827 | 3C2 | TNL | 220 | BLUE | 4395 | POINT AT: | | | | 1887 |
| 4A3 | TNL | 280 | GREEN | 1939 | 4B3 | TNL | 220 | BLUE | 2086 | 4C3 | TNL | 220 | BLUE | 2237 | | | | | |

## JESTER 24

| REF. | MAT. | kg | COLOR | mm | REF. | MAT. | kg | COLOR | mm | REF. | MAT. | kg | COLOR | mm | REF. | MAT. | kg | COLOR | mm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **A** | | | | | **B** | | | | | **C** | | | | **BRAKE** | | | |
| a1 | DC | 100 | WHT | 320 | b1 | DC | 60 | WHT | 315 | c1 | DC | 40 | WHT | 321 | br1 | MATRIX | 80 | RED | 700 |
| a2 | DC | 60 | WHT | 269 | b2 | DC | 60 | WHT | 265 | c2 | DC | 40 | WHT | 253 | br2 | MATRIX | 80 | RED | 405 |
| a3 | DC | 60 | WHT | 290 | b3 | DC | 60 | WHT | 285 | c3 | DC | 40 | WHT | 276 | br3 | MATRIX | 80 | RED | 595 |
| a4 | DC | 60 | WHT | 305 | b4 | DC | 60 | WHT | 301 | c4 | DC | 40 | WHT | 309 | br4 | MATRIX | 80 | RED | 601 |
| a5 | DC | 60 | WHT | 311 | b5 | DC | 60 | WHT | 305 | c5 | DC | 40 | WHT | 311 | br5 | MATRIX | 80 | RED | 636 |
| a6 | DC | 60 | WHT | 258 | b6 | DC | 40 | WHT | 255 | c6 | DC | 40 | WHT | 244 | br6 | MATRIX | 80 | RED | 454 |
| a7 | DC | 60 | WHT | 281 | b7 | DC | 40 | WHT | 274 | c7 | DC | 40 | WHT | 268 | br7 | MATRIX | 80 | RED | 550 |
| a8 | DC | 60 | WHT | 286 | b8 | DC | 60 | WHT | 282 | c8 | DC | 40 | WHT | 291 | br8 | MATRIX | 80 | RED | 585 |
| a9 | DC | 60 | WHT | 329 | b9 | DC | 60 | WHT | 321 | c9 | DC | 40 | WHT | 322 | br9 | MATRIX | 80 | RED | 589 |
| a10 | DC | 60 | WHT | 262 | b10 | DC | 40 | WHT | 258 | c10 | DC | 40 | WHT | 258 | br10 | MATRIX | 80 | RED | 461 |
| a11 | DC | 60 | WHT | 339 | b11 | DC | 40 | WHT | 263 | c11 | DC | 40 | WHT | 262 | br11 | MATRIX | 80 | RED | 896 |
| a12 | DC | 60 | WHT | 331 | b12 | DC | 60 | WHT | 265 | c12 | DC | 40 | WHT | 260 | br12 | MATRIX | 80 | RED | 883 |
| a13 | DC | 60 | WHT | 497 | b13 | DC | 60 | WHT | 425 | c13 | DC | 60 | WHT | 386 | br13 | MATRIX | 80 | RED | 1000 |
| a14 | DC | 60 | WHT | 489 | b14 | DC | 60 | WHT | 420 | c14 | DC | 60 | WHT | 367 | br14 | PPSL | 120 | RED | 5991 |
| | | | | | | | | | | | | | | | | | | | |
| 2A1 | 8001/U | 130 | ORG | 1928 | 2B1 | 8001/U | 130 | BLUE | 1898 | 2C1 | 8001/U | 90 | BLUE | 1379 | 2BR1 | Matrix | 80 | Red | 946 |
| 2A2 | 8001/U | 130 | ORG | 1852 | 2B2 | 8001/U | 130 | BLUE | 1826 | 2C2 | 8001/U | 90 | BLUE | 1301 | 2BR2 | MATRIX | 80 | RED | 631 |
| 2A3 | 8001/U | 130 | ORG | 1859 | 2B3 | 8001/U | 130 | BLUE | 1821 | 2C3 | 8001/U | 70 | BLUE | 1330 | 2BR3 | MATRIX | 80 | RED | 957 |
| 2A4 | 8001/U | 90 | ORG | 1760 | 2B4 | 8001/U | 90 | BLUE | 1736 | 2C4 | 8001/U | 70 | BLUE | 1235 | 2BR4 | MATRIX | 80 | RED | 776 |
| 2A5 | 8001/U | 70 | ORG | 1727 | 2B5 | 8001/U | 130 | BLUE | 1660 | 2C5 | 8001/U | 70 | BLUE | 1661 | 2BR5 | MATRIX | 80 | RED | 1052 |
| 2A6 | 8001/U | 70 | ORG | 1503 | 2B6 | 8001/U | 90 | BLUE | 1531 | 2C6 | 8001/U | 70 | BLUE | 1530 | 2BR6 | MATRIX | 80 | RED | 544 |
| 2A7 | 8001/U | 70 | ORG | 3116 | 2B7 | 8001/U | 50 | BLUE | 3032 | 2C7 | 8001/U | 70 | BLUE | 2975 | 3BR1 | MATRIX | 80 | RED | 3503 |
| 3A3 | 8001/U | 190 | ORG | 1928 | 3B3 | 8001/U | 90 | BLUE | 1792 | 3C3 | 8001/U | 130 | BLUE | 1708 | 3BR2 | MATRIX | 80 | RED | 3029 |
| | | | | | | | | | | | | | | | 3BR3 | MATRIX | 80 | RED | 2660 |
| | | | | | | | | | | | | | | | | | | | |
| 3A1 | TNL | 280 | GREEN | 4262 | 3B1 | TNL | 280 | BLUE | 4201 | 3C1 | TNL | 220 | BLUE | 4847 | BRMAIN | TARAX | 200 | RED | 2260 |
| 3A2 | TNL | 280 | GREEN | 4178 | 3B2 | TNL | 220 | BLUE | 4136 | 3C2 | TNL | 220 | BLUE | 4743 | POINT AT: | | | | 2060 |
| 4A3 | TNL | 280 | GREEN | 2120 | 4B3 | TNL | 220 | BLUE | 2277 | 4C3 | TNL | 220 | BLUE | 2439 | | | | | |

# 10.8 Total line length

## JESTER – 14

LINES HEIGHT + RISERS mm

| | A | B | C | br |
|---|---|---|---|---|
| **1** | 4834 | 4765 | 4868 | 5373 |
| **2** | 4792 | 4723 | 4814 | 5145 |
| **3** | 4743 | 4676 | 4765 | 5046 |
| **4** | 4753 | 4686 | 4789 | 5048 |
| **5** | 4701 | 4635 | 4726 | 4963 |
| **6** | 4660 | 4598 | 4675 | 4824 |
| **7** | 4608 | 4552 | 4624 | 4759 |
| **8** | 4613 | 4560 | 4643 | 4788 |
| **9** | 4521 | 4486 | 4544 | 4722 |
| **10** | 4474 | 4442 | 4499 | 4627 |
| **11** | 4374 | 4362 | 4413 | 4576 |
| **12** | 4373 | 4368 | 4416 | 4571 |
| **13** | 4277 | 4279 | 4329 | 4666 |
| **14** | 4275 | 4279 | 4320 | 4490 |

RISERS LENGHT mm

| | A | B | C | |
|---|---|---|---|---|
| | 670 | 535 | 405 | BRAKE |
| | 670 | 670 | 670 | STANDARD |
| | 670 | 765 | 860 | ACCELERATED |

## JESTER – 16

LINES HEIGHT + RISERS mm

| | A | B | C | br |
|---|---|---|---|---|
| **1** | 5205 | 5129 | 5241 | 5780 |
| **2** | 5161 | 5085 | 5184 | 5537 |
| **3** | 5110 | 5038 | 5133 | 5432 |
| **4** | 5120 | 5049 | 5158 | 5435 |
| **5** | 5062 | 4993 | 5090 | 5340 |
| **6** | 5018 | 4952 | 5035 | 5191 |
| **7** | 4960 | 4901 | 4977 | 5120 |
| **8** | 4965 | 4908 | 4997 | 5149 |
| **9** | 4862 | 4825 | 4887 | 5077 |
| **10** | 4809 | 4776 | 4837 | 4973 |
| **11** | 4696 | 4683 | 4739 | 4915 |
| **12** | 4692 | 4687 | 4740 | 4906 |
| **13** | 4585 | 4587 | 4641 | 5003 |
| **14** | 4581 | 4585 | 4628 | 4796 |

RISERS LENGHT mm

| | A | B | C | |
|---|---|---|---|---|
| | 670 | 535 | 405 | BRAKE |
| | 670 | 670 | 670 | STANDARD |
| | 670 | 765 | 860 | ACCELERATED |

## JESTER – 18

LINES HEIGHT + RISERS mm

| | A | B | C | br |
|---|---|---|---|---|
| **1** | 5610 | 5530 | 5646 | 6221 |
| **2** | 5563 | 5484 | 5586 | 5961 |
| **3** | 5510 | 5433 | 5533 | 5849 |
| **4** | 5521 | 5445 | 5559 | 5852 |
| **5** | 5458 | 5384 | 5487 | 5752 |
| **6** | 5410 | 5339 | 5427 | 5591 |
| **7** | 5344 | 5282 | 5361 | 5513 |
| **8** | 5347 | 5288 | 5381 | 5541 |
| **9** | 5233 | 5192 | 5259 | 5461 |
| **10** | 5174 | 5138 | 5203 | 5347 |
| **11** | 5045 | 5031 | 5091 | 5280 |
| **12** | 5038 | 5033 | 5089 | 5266 |
| **13** | 4918 | 4919 | 4978 | 5366 |
| **14** | 4911 | 4914 | 4961 | 4916 |

RISERS LENGHT mm

| | A | B | C | |
|---|---|---|---|---|
| | 670 | 535 | 405 | BRAKE |
| | 670 | 670 | 670 | STANDARD |
| | 670 | 765 | 860 | ACCELERATED |

# JESTER – 21

LINES HEIGHT + RISERS mm

| | A | B | C | br |
|---|---|---|---|---|
| **1** | 6042 | 5954 | 6082 | 6699 |
| **2** | 5993 | 5906 | 6018 | 6422 |
| **3** | 5939 | 5855 | 5964 | 6303 |
| **4** | 5952 | 5869 | 5993 | 6307 |
| **5** | 5886 | 5807 | 5918 | 6201 |
| **6** | 5836 | 5760 | 5854 | 6030 |
| **7** | 5767 | 5699 | 5786 | 5949 |
| **8** | 5770 | 5706 | 5807 | 5980 |
| **9** | 5650 | 5605 | 5678 | 5895 |
| **10** | 5586 | 5547 | 5618 | 5775 |
| **11** | 5449 | 5433 | 5499 | 5704 |
| **12** | 5442 | 5435 | 5496 | 5691 |
| **13** | 5312 | 5314 | 5377 | 5799 |
| **14** | 5305 | 5309 | 5360 | 5574 |

RISERS LENGHT mm

| | A | B | C | |
|---|---|---|---|---|
| | 670 | 535 | 405 | BRAKE |
| | 670 | 670 | 670 | STANDARD |
| | 670 | 765 | 860 | ACCELERATED |

# JESTER – 24

LINES HEIGHT + RISERS mm

| | A | B | C | br |
|---|---|---|---|---|
| **1** | 6496 | 6402 | 6539 | 7198 |
| **2** | 6445 | 6352 | 6471 | 6903 |
| **3** | 6390 | 6300 | 6416 | 6778 |
| **4** | 6405 | 6316 | 6449 | 6784 |
| **5** | 6337 | 6252 | 6371 | 6672 |
| **6** | 6284 | 6202 | 6303 | 6490 |
| **7** | 6211 | 6138 | 6232 | 6405 |
| **8** | 6216 | 6147 | 6255 | 6440 |
| **9** | 6088 | 6040 | 6118 | 6350 |
| **10** | 6020 | 5978 | 6054 | 6222 |
| **11** | 5873 | 5856 | 5927 | 6149 |
| **12** | 5866 | 5858 | 5924 | 6136 |
| **13** | 5727 | 5729 | 5796 | 6253 |
| **14** | 5719 | 5723 | 5777 | 5991 |

RISERS LENGHT mm

| | A | B | C | |
|---|---|---|---|---|
| | 670 | 535 | 405 | BRAKE |
| | 670 | 670 | 670 | STANDARD |
| | 670 | 765 | 860 | ACCELERATED |

# 10.9 Minimum strength of suspension lines

| LINE REFERENCE | SIZE | | | | |
|---|---|---|---|---|---|
| | **14** | **16** | **18** | **21** | **24** |
| **8001U-50** | 30 | 30 | 30 | 30 | 30 |
| **8001U-70** | 35 | 35 | 35 | 35 | 35 |
| **8001U-90** | 58 | 58 | 58 | 58 | 58 |
| **8001U-130** | 69 | 69 | 69 | 69 | 69 |
| **8001U-190** | 121 | 121 | 121 | 121 | 121 |
| **TNL-220** | 119 | 119 | 119 | 119 | 119 |
| **TNL-280** | 149 | 149 | 149 | 149 | 149 |
| **Matrix-80** | 58 | 58 | 58 | 58 | 58 |
| **DC-40** | 42 | 42 | 42 | 42 | 42 |
| **DC-60** | 62 | 62 | 62 | 62 | 62 |
| **DC-100** | 77 | 77 | 77 | 77 | 77 |

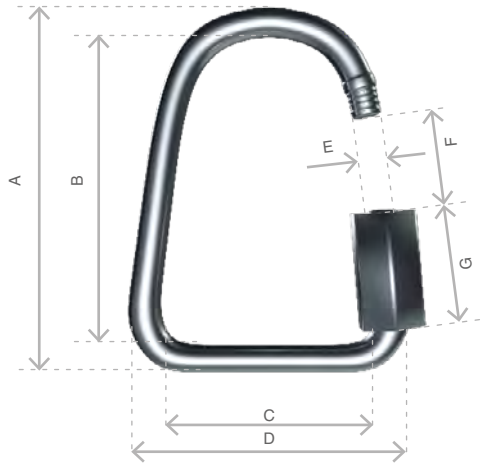
Minimum resistance values in daN

# 10.10 Maillon & Pulley

**DESCRIPTION**

| | |
|---|---|
| MAILLON | DELTA |
| CODE | 3.5 |
| MATERIAL | STAINLESS STEEL |
| SIZE | 3 m/m |
| WEIGHT | 5 G/PIECE |
| QUANTITY | 8 PIECES |
| INSERTS | 4 GREEN / 4 BLACK |

**TECHNICAL SPECIFICATIONS**




| **DIMENSIONS** | m/m |
|---|---|
| A | 37 |
| B | 29 |
| C | 14 |
| D | 22 |
| E | 4 |
| F | 5 |
| G | 12 |
| LOAD | KG |
| WORKING LIMIT | 110 |
| BREAKING | 550 |

| **MATERIAL** | |
|---|---|
| AISI 304 STAINLESS STEEL | STANDARD |

CLOSING APPLIED BY MANUAL & ENTIRE SCREWING OF THE NUT
TO GUARANTEE THE HIGHEST SAFETY (NO THREAD SHOULD BE OBVIOUS)

SYSTEMATIC CONTROL OF MAILLON QUICK-LINKS BEFORE EVERY FLIGHT

**DESCRIPTION**

| | | |
|---|---|---|
| | PULLEY | 20 m/m |
| | CODE | RF25109 |
| | MATERIALS | STAINLESS STEEL |
| | | NYLON |
| | | CARBON ACETAL |
| | BEARING | DELRIN® |
| | WEIGHT | 14 G/PIECE |

**TECHNICAL SPECIFICATIONS**


| DIMENSIONS | m/m |
|---|---|
| A | 33 |
| B | 20 |
| Ø | 5 MAX |
| LOAD | KG |
| WORKING LIMIT | 200 |
| BREAKING | 400 |

# 10.11 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

# CERTIFICATE

**Air Turquoise SA** has thoroughly tested the structural strength of the sample(*) mentioned hereunder and certifies its conformity with the standards EN 926-1:2015 & NfL 2024-2-785 chapter 3.

*This certificate confirms that the hereunder sample(*), identified by its serial number(**).*

| | |
|---|---|
| Manufacturer's name: | **Niviuk Gliders / Air Games S.L.** |
| Representative: | **Dominique Cizeau** |
| Street: | **C. Del Ter, 6 Nave D** |
| Post code / place: | **17165 La Cellera de Ter Girona** |
| Country: | **Spain** |
| Identification number: | **PS_187.2025** |
| Sample name and size(*): | **Jester 24** |
| Serial number(**): | **JESTER241** |
| Riser configuration: | **Without trimmer and speed system** |
| Date of inspection: | **11.08.2025** |

**Shock loading test done at** **800[daN]**

The sample showed no visible damage that could prevent its airworthiness.

**Sustained loading test**

The sample was tested up to 8 [g] of maximum total weight in flight during 3 seconds.

Maximum total weight in flight: **119[kg]**

**Remark**:

**Villeneuve 13.08.2025**
Place and date of issue

**Andrea Wigger**

**Niviuk Paragliders**
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**niviuk.com**