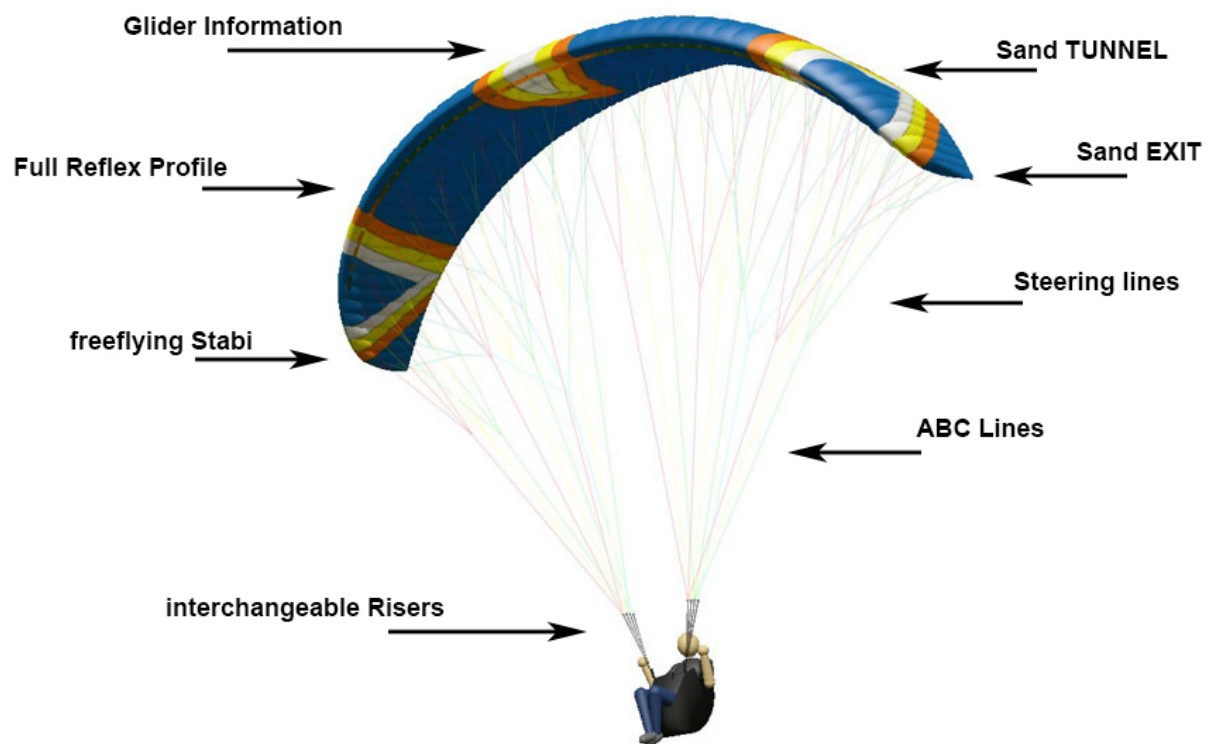




RAPTOR



VRIL-WINGS





VRIL-WINGS

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RAPTOR

Welcome to Vril Wings and our RAPTOR !!

We like to do parakiting!! That was our motivation to tackle the RAPTOR. Together with Mike Küng we started to make our dream come true, and now we can proudly present the RAPTOR to you.

The Raptor is characterized by the following features:

1. **Excellent performance**, even in crosswinds and small dunes.
2. **Smooth / dynamic handling**, allows hours of flying
3. **Easy take-off**, even with little and zero wind (mountain starts)
4. **Interchangeable risers** for mountain or motor flying.

We have installed a high-performance reflective profile in the Raptor, which in combination with the freeflying stabilizer and the optimized line setup has enormous performance and stability. The Raptor flies exceptionally well against the wind, and develops excellent performance even in light winds. This Great Wind Window in which the Raptor can be used is one of the points that makes it extraordinary. The dynamic and light handling is also a result of this.

In order to be able to fly the Parakite normally on the mountain, engine or even on the dune, you can change the risers of the RAPTOR easy in just a few simple steps, without having to knot the brake line. This makes the wing a good companion not only at the Dunes.

Feel like a RAPTOR!!

Be vrilled !!

The Vril-Wings TEAM



Disclaimer for the use of the paraglider

Important note: The use of this paraglider is at your own risk. The manufacturer, seller or distributor (hereinafter referred to as "Provider") accepts no liability for any damage, injury or loss arising from the use of this paraglider. By purchasing and using the paraglider, you expressly agree to the terms of this disclaimer as well as the applicable terms and conditions of the provider.

The user acknowledges that paragliding is a high-risk sport that requires special skills, experience and caution. The provider points out that the use of the paraglider may only be carried out by appropriately trained and qualified persons. The user is responsible for compliance with all legal regulations, safety standards and flight requirements.

To the extent permitted by law, the User waives any claims against the Provider that may arise in connection with the use of the Paraglider and its associated components, including existing and possible future claims. The User indemnifies the Provider and any related parties against any claims for loss, damage, injury or expense that the User, their next of kin, relatives or other users of the Paraglider may suffer as a result of the use of the Paraglider. This includes liabilities arising in connection with the design, manufacture or use of the paraglider and its components.

The liability of the Provider for damage to life, body or health resulting from an intentional or negligent breach of duty remains unaffected. A limitation or exclusion of liability for such damages is not permissible according to legal requirements (e.g. § 309 No. 7a BGB). The provider is not liable for bodily injury, property damage or other losses resulting from improper use, disregard of safety regulations or inadequate maintenance of the paraglider, damage caused by external factors such as weather conditions, improper storage or unforeseeable events, as well as consequential damage resulting from the use of the paraglider.

The user is obliged to regularly maintain and inspect the paraglider in accordance with the manufacturer's instructions. The provider accepts no liability for damage resulting from inadequate maintenance or faulty inspections. The provider does not guarantee that the paraglider is suitable for specific flight conditions, locations or individual requirements. It is the responsibility of the user to check the suitability of the paraglider for the situation at hand.

To the extent permitted by law, the liability of the provider is limited to gross negligence and intentional acts. Any further liability, in particular for indirect or consequential damages, is excluded. In the event of the death or disability of the User, the provisions of this Disclaimer shall be effective and binding on the User's heirs, next of kin, relatives, executors, executors, executors, attorneys and legal representatives.



The provider has not made any oral or written statements beyond this disclaimer or the manual of the paraglider and expressly denies having made such statements. By using the paraglider, the user agrees to the terms of this disclaimer. It is recommended to take out appropriate liability insurance before use and to carefully follow the manufacturer's instructions for use.

Pilot profile

The RAPTOR has a reflex profile installed, which differs significantly from conventional paraglider profiles. The Parakite risers are also different to fly than with conventional risers. This requires the pilot to learn new skills and adapt his flying style. This wing is aimed at experienced pilots who are already familiar with other paragliders, miniwings and speed gliders and are active pilots. Experience in extreme situations and collapses of the glider are essential. Assess your flying experience realistically and choose our parakites according to your skill level, weather conditions and local conditions.

specifications

RAPTOR					
size	13	16	19	22	25
cells	50	50	50	50	50
flat area (m²)	13.00	16.00	19	22	25
span (m)	8.60	9.54	10.4	11.39	12.34
a/r	5.70	5.70	5.7	5.9	6.1
area proj. (m²)	11.11	13.68	16.25	18.81	21.38
span proj. (m)	7.02	7.79	8.49	9.3	10.08
a/r proj.	4.44	4.44	4.44	4.6	4.75
Chord center (m)	1.76	1.95	2.13	2.25	2.35
Chord tip (m)	0.30	0.33	0.36	0.38	0.4



Materials

The best and most durable materials have been selected for the wing as well as for the lines and risers, to guarantee a long experience with the glider. When you pick up the glider for the first time, you notice the quality immediately.

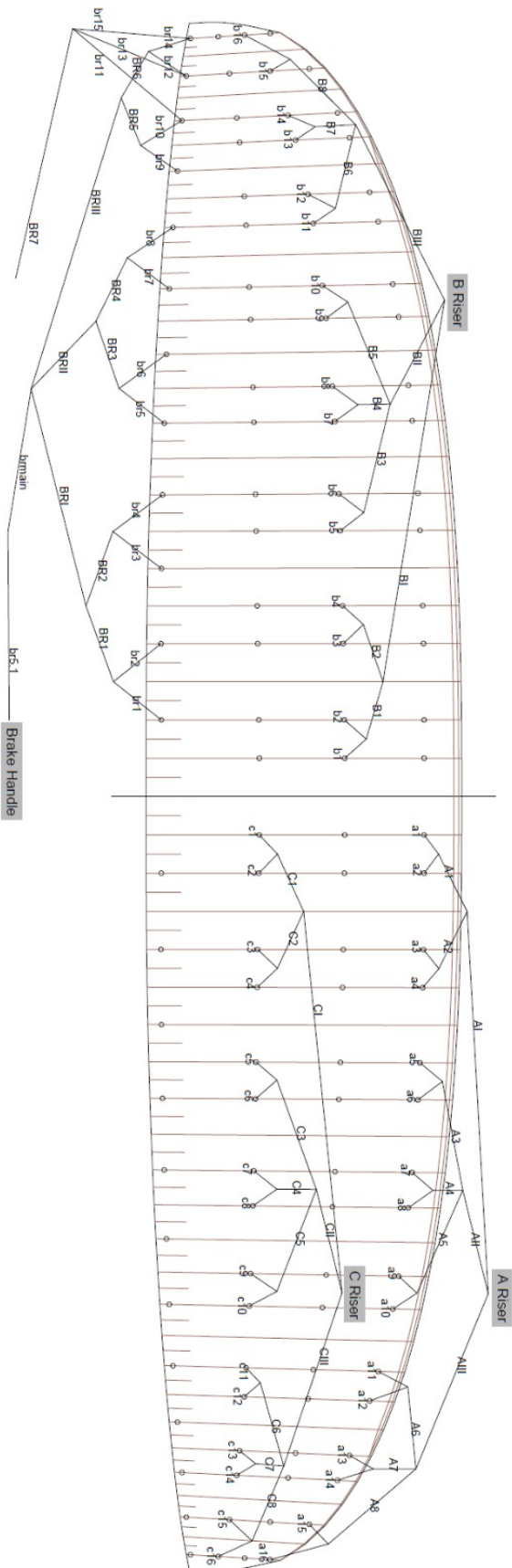
In our opinion, only the BEST belongs in a paraglider !!

The following materials were used for the lines and the wing :

USED LINES			
DC000-0060 - 171 RED			
DSL 070 - ORANGE - UNI			
DC000-0100 - 171 RED			
PPSLS 125 - RED - UNI			
PPSLS 125 - YELLOW UNI			
PPSLS 125 - BLUE UNI			
PPSLS 160 - BLUE UNI			
PPSLS 200 - RED UNI			
PPSLS 200 - YELLOW UNI			
PPSLS 200 - BLUE UNI			
PPSLS 260 - RED UNI			
PPSLS 260 - YELLOW - UNI			
2 7850 240 237 0 - FLUORED			
2 8000 070 222 0 - Red			
2 8000 090 222 0 - Red			
2 7343 280 222 0 - Red			
2 7343 280 114 0 - Citro			
2 7343 280 372 0 - Sky			
2 7343 340 222 0 - Red			
2 7343 340 114 0 - Citro			
USED FABRIC			
UPPER LOWER SAIL	70032 1580 E3W		
Ribs	70032 1580 E4D 006		

e

Line plan

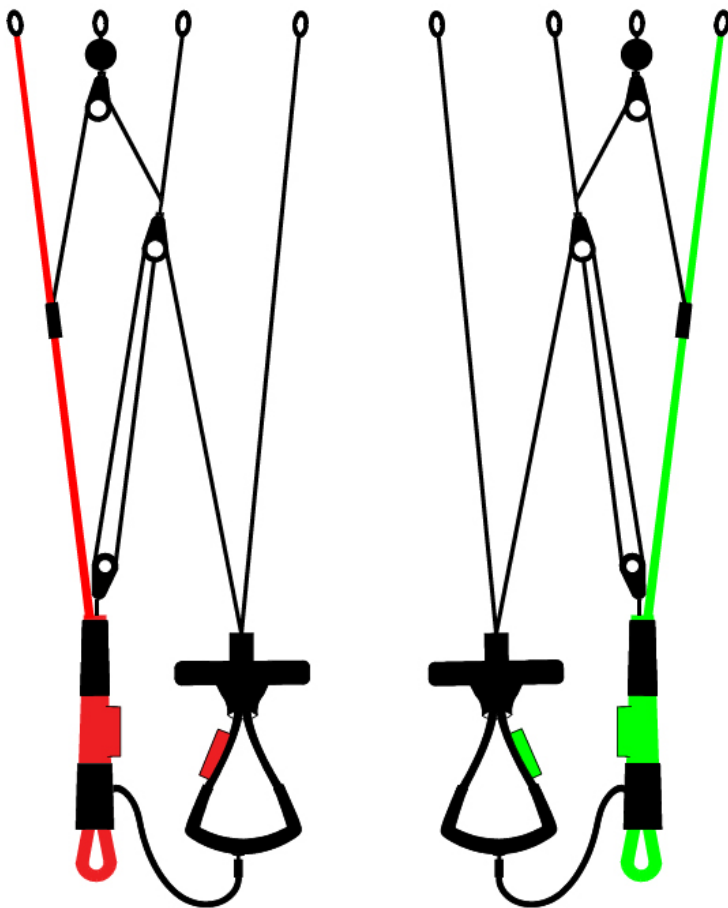


Risers / Handles

Our risers are color-coded for better hooking and handling. The left riser is marked RED, the right riser is marked GREEN.

1. Both colored A-risers are made of 17mm webbing to ensure better handling and a better overview.
1. On the B-riser there is a ball to stall the glider in too strong winds (killswitch)

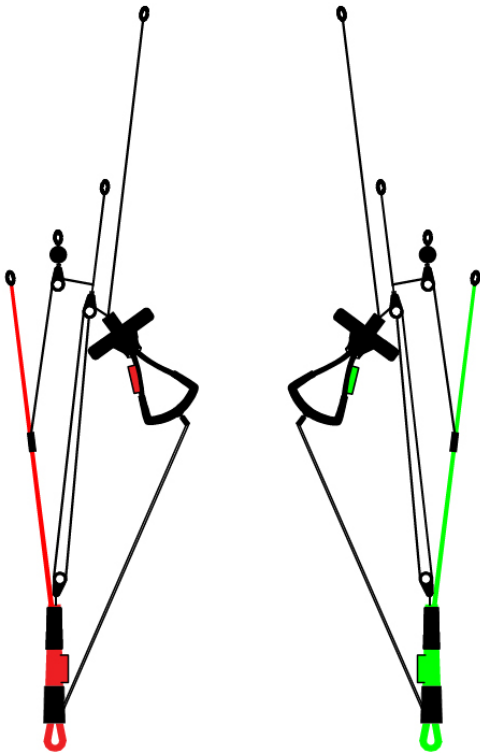
Risers in Trimm Position



In the trimming position (A,B,C same length) the riser has a length of 83 cm.

In this position, the glider flies at trim speed and has the best glide performance.

Riser fully accelerated

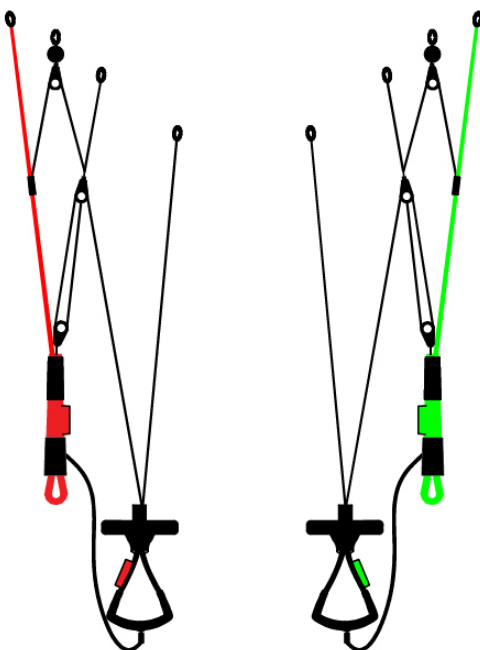


The wing is fully accelerated when the brakes are released all the way up and limited at the role of the C-riser.

The difference between A + C riser in this position is 16cm.

In this position, the glider has the greatest sink and the highest speed

Risers braked



If you brake the glider harder (below the trim position) you will get closer to the stall point and the stall speed.

Never stall your glider and never fly too slowly near the ground, as you have no residual energy left to flare out.

Handles and magnets

- The brake levers (acrohandles) are narrower and wrapped in neoprene. With this narrower design, the handles can be gripped better and more force can be applied !!
1. The large magnets are not susceptible to sand. Always hold, the sand can simply be wiped off.



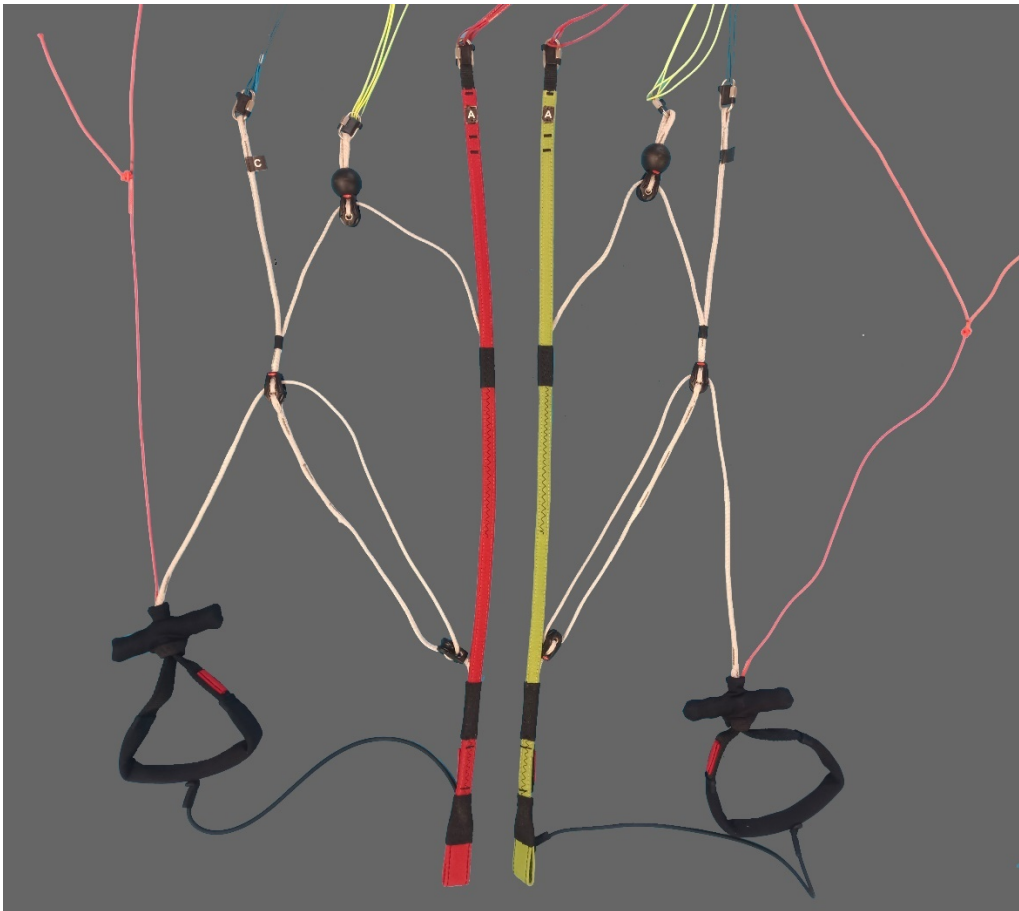
Position for best glide and trim speed

1. If the acro handle is at the same height as the magnets, the RAPTOR has the trim position. This position marks the trim speed and the best glide of the glider.



KITE Riser

- Overall length 83 cm



MOUNTAIN / MOTOR Riser

- Overall length 50cm
- 16cm Speedsystem



Changing the riser from kite to mountain / motor riser

Changing the risers from a kite riser to a mountain/motor riser is quite easy. Nevertheless, we recommend that the change is carried out by trained personnel, as a mistake during the change involves a high risk of danger.

When changing the risers, proceed as follows:

- 1 . Both risers are colour-coded with RED for the left riser and GREEN for the right riser. Furthermore, there are the labels for the A, B, C risers on both risers.

Kite RISER ABC



Mountain Riser ABC



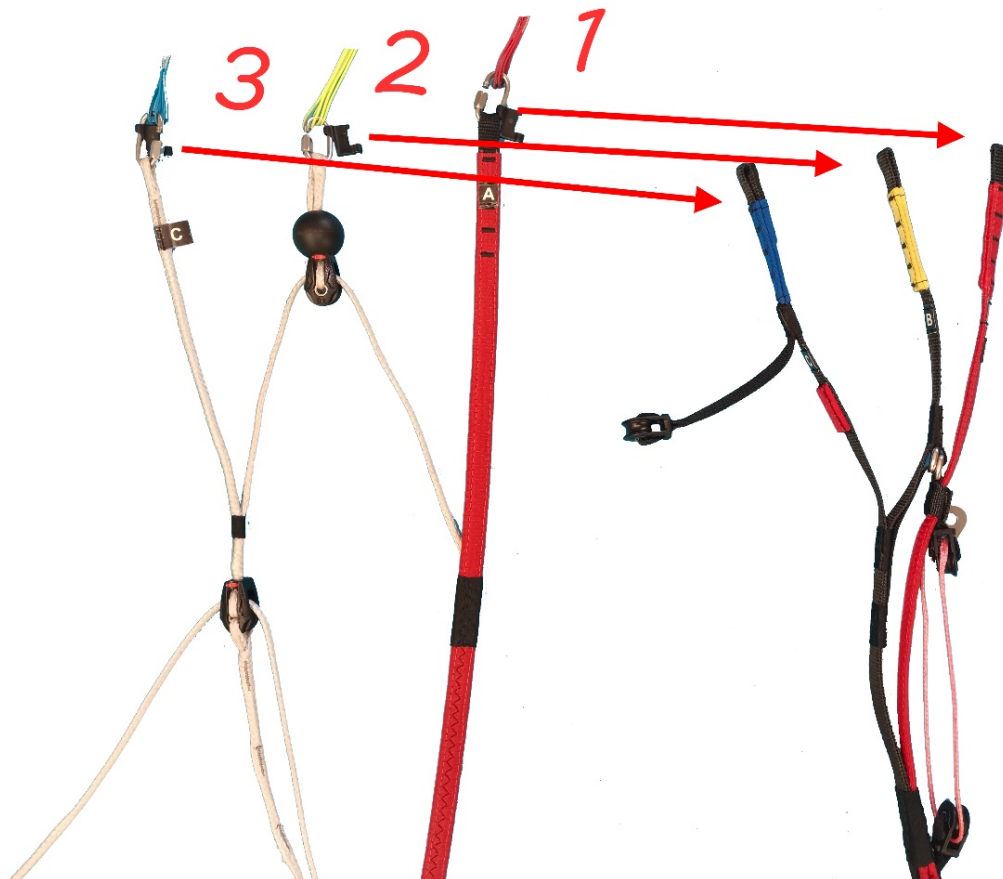
2. open the clip and the carabiner with a tool

3. Place the two Risers of the same colour, as shown in the picture, next to each other.

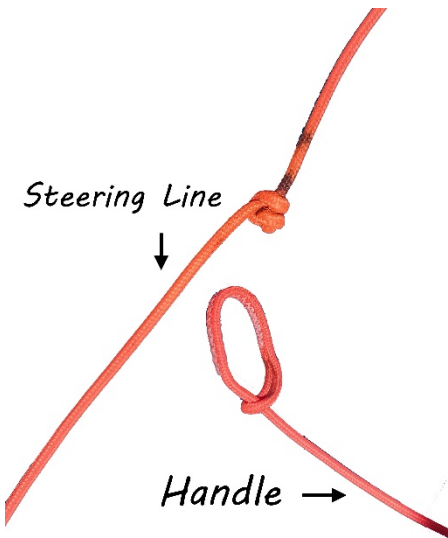
1 - hold the carabiner on the A-riser so that the lines do not fall out, transfer the line lock to the A-riser of the Berg/Motor riser. Close the carabiner and clip immediately.

2 - do the same as in point 1 with the B-riser

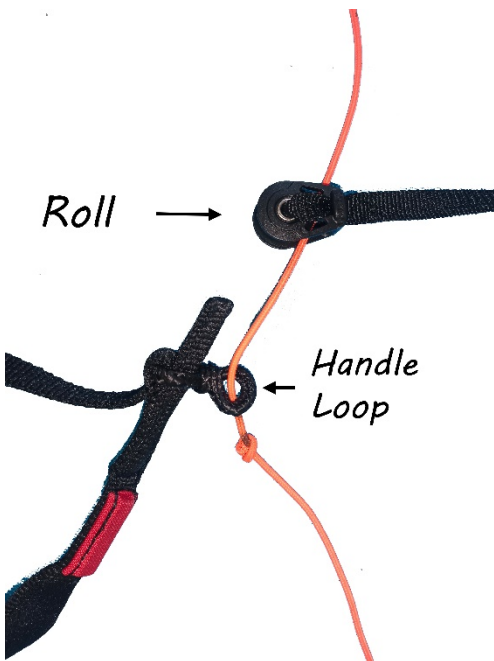
3 - last the C riser, the same as at point **1+2**



4. Changing the handle



- Kite Riser: loosen the anchor stitch on the brake handle and pull the knot of the brake line through. Separate the two lines.



- Mountain/Motor Riser : Pull the brake line with the knot through the Roll on the riser and then through the loop on the brake handle.



- Tighten knots !!!!

1. Check the lines carefully every time you change the riser before the next start. Pull up the glider or take off from the practice slope, even if the riser has been changed by a professional.

!! The handling of the RAPTOR with the mountain / motor risers is much more dynamic than with the kite risers !





Start

- Start 0 Wind / Kite Risers

One of the outstanding features of the Raptor is that it can be launched very well even with kite risers and little wind. Lay out the wing in a slightly curved shape. Run at medium speed and the glider comes straight over the pilot. Once the glider is above your head, brake it to the trim position, check if everything fits, and then continue running until you take off.

!! It is best to practice this starting technique on the practice slope or in a training session. Launching with kite risers differs significantly from launching with conventional risers !!

- Strong wind take-offs / kite risers

In very strong wind conditions, the glider should be launched with the Cobra launch technique. This allows the glider to be guided over the head without creating lift. This technique should be practiced beforehand in medium wind conditions.

In medium winds, the glider can be launched with the help of reverse take-off. Here, too, the glider comes straight over the head without any problems.

- Berg/ Motor Tragegurte

With the mountain/motor risers, the glider starts like any conventional paraglider.

Landing

The glider can be landed accelerated or at trim speed. Never make the landing approach in the negative trim position, because otherwise the wing could stall. Choose your landing technique depending on the wind, weather and pilot skills.

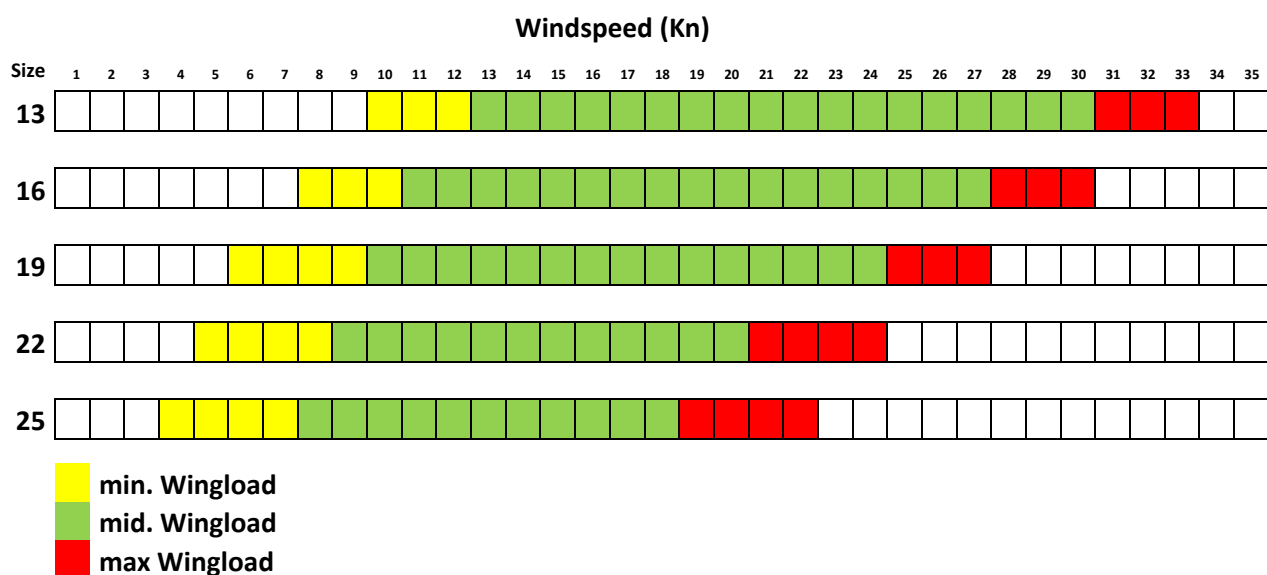
!! In order to be able to take off and land the glider perfectly, we advise you to complete a specially designed training course. This increases the safety with which you practice the sport extremely !!



We do not recommend extreme flight / acro maneuvers to fly with the glider. If you want to train these maneuvers, we recommend that you do so as part of a safety training. Here these maneuvers can be trained safely.

The wind range in which the glider works depends on many factors. Wing loading, sea level, terrain, piloting skills are just a few factors. Our information is only indicative. We recommend that each pilot carefully approaches his optimal wind range. This is best done in a training session with professionals. We are also available for consultation at any time.

Wing size	Min / Max Wind
13	10-33 kt
16	8-30 kt
19	6-27 kt
22	5-24 kt
25	4-22 kt





Care, storage, repairs

Life in the air depends on the condition of the paraglider. A well-maintained and properly treated paraglider can reach twice its age. To ensure that the RAPTOR carries its pilot safely through the air for as long as possible, please note the following points:

Fold:

For a long durability of the wing and in order not to unnecessarily bend the nylon rods in the nose area, we recommend folding the umbrella profile on profile (similar to an accordion), or rolling it up loosely from the stabilizer (without bending the nylon rods). If not packed properly and stored for a long time, it can happen that parts in the parasol deform.

Care:

- The sun's UV rays damage the fabric of the paraglider in the long run. Therefore, the paraglider should not lie unnecessarily in the sunlight.
- When laying out, make sure that neither the cap nor the lines get heavily dirty. The stored dirt particles can damage the material.
- After tree and water landings, you should check the line lengths.
- Do not pull the paraglider over the ground. The cloth coating is damaged.
- Moisture damages the coating of the cloth and shortens its service life.
- If the lines get caught on the ground, they can be overstretched or torn off during take-off.
- Do not step on the lines!
- When rolling up, please place the supplied cloth bag underneath to avoid mechanical abrasion and damage to the sail.
- The lines should be bent as little as possible.
- After contact with salt water, the device must be rinsed carefully with fresh water immediately!
- Insects that have strayed into the chambers should be removed alive, not only out of love for animals, but also because they secrete a corrosive liquid.
- Clean the paraglider with water at most. Avoid mechanical stresses such as brushing and rubbing. Chemical cleaning agents damage cloth and linen.



Storage:

- The paraglider must always be stored in a dry place. If it gets wet, it must be spread out to dry as soon as possible (but not in blazing sunlight!).
- Do not store the paraglider near chemical vapors and gases.
- When transporting and storing paragliders, especially in cars, make sure that the paraglider is not exposed to unnecessarily high temperatures.

Repairs:

- Smaller tears in the fabric, which do not run along the seam, can be temporarily closed with adhesive sails from paragliding retailers.
- All other types of damage such as large tears, tears in seams, torn out line eyelets, torn and damaged lines may only be repaired or replaced by an authorized specialist company or the manufacturer.
- Only original spare parts are to be used! A list of the lines used in the parasol model can be found in the individual line plan under item 16 "Single line lengths". Purchase is only possible from the manufacturer.
- Any modification to the paraglider, except those approved by the manufacturer, will void the operating license of the device.
- The RAPTOR must be inspected every 24 months or at the latest every 100 hours of operation (whichever is earlier) by an authorized specialist or by the manufacturer. The tandem strut as a connecting element between the paraglider and the harness should also be subjected to this inspection.

Service life and replacement period of components:

The RAPTOR has no components that need to be replaced regularly. Since the service life depends to a large extent on the attention of the user, we recommend that the paraglider including tandem spreader be regularly inspected for signs of wear and tear in addition to the re-inspection and that damaged components be replaced if necessary. Connecting elements used (e.g. carabiners of the tandem spreaders) must be changed according to the manufacturer's instructions

Disposal

The materials used in a paraglider require proper disposal. Please return disused devices to us. These are then disposed of professionally by us



Nature and landscape-friendly behaviour

Actually self-evident, but expressly mentioned again here: Please practice our natural sport in such a way that nature and landscape are protected! Please do not go off the marked paths, do not leave rubbish behind, do not make unnecessary noise and respect the sensitive balances in the mountains. Especially at the launch site, our consideration for nature is required.

Verification Instruction

Attention: The company VRIL-Wings is not liable for errors of the responsible person (or check company) who carries out the check. They always work on their own responsibility! If you have any doubts about the execution of the checks or the airworthiness of the device, always contact VRIL-Wings, or if necessary, send the device directly to us for inspection.

Subject of the audit:

1. Every paraglider type is subject to the obligation to test.
2. The tests can be carried out by the manufacturer or a person appointed by him who meets the following personnel requirements. Since 01.07.2001, there has also been the legal possibility for the owner to check his device himself. This option is expressly not recommended by the manufacturer, as the owner usually does not have the appropriate personnel requirements and measuring instruments available. In addition, in this case, the device may only be flown by the owner, and the use of the paraglider by third parties is then excluded!! A test report is drawn up for each inspection. The keeper is obliged to always keep the last document and to send the manufacturer a copy of this inspection report. Each test step must be carried out conscientiously and entered in the inspection report.
3. If a defect is found during the inspection, the device may not be flown any further. Repairs must then be carried out by the manufacturer or a person commissioned by him.