



**FLYSURFER**

**USER  
MANUAL  
STOKE<sup>2</sup>**

EN

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# 01 SAFETY NOTES

**Read the entire Gear Guide online** thoroughly before using the kite, and strictly confirm to the procedures noted. **The following safety guidelines are only guidelines and do not claim to cover every instance.**

01. Kitesurfing is a **potentially dangerous sport**, that holds **risks for the athlete or the people surrounding them**. Incorrect use of this product may result in **serious injury or even death** for the user or third parties. Every user should be qualified by a FLYSURFER kiteschool or a FLYSURFER dealer.
02. The user carries the **sole responsibility** for themselves and third parties when using this product. The user must check their equipment for wear, especially wearing parts, before each kite session. Do a test activation of your quick release before every launch. This will ensure the system is working and reinforces the release instinct of the kiter.
03. The product may **only be used with original spare parts**, and may not be modified.
04. This product has been designed for riders weighing 40-120kg. We cannot guarantee the proper functioning of the product outside of this weight range.
05. Never kite in unsuitable conditions such as storm fronts, lightning, or offshore winds. Check the weather and wind conditions carefully and choose the according kite size.
06. Check out the kiting spot beforehand. Make sure you are aware of any risks such as obstacles, shallows, currents and bans. Also be aware if a rescue craft can get to you in case of an emergency. It is always best to ask people (locals) who know the area well.
07. Keep a safety margin of at least two line-lengths downwind of you, and never kite near people or obstacles. Kiting near powerlines, roads, airports, cliffs, etc. is extremely dangerous.
08. Make sure that someone is looking out for you and that help is there if you need it. Never go out alone. Never kite further away from shore than you can swim back.
09. The incorrect usage of lines creates a high risk of injury for yourself as well as others. Body parts that get caught in the lines of the kite may suffer from severe injury or burns.
10. Only use bars with a safety system that you can open in emergency situations. Use a quick-release kite leash so that you can disconnect your body from the product in case of an unforeseeable emergency.

## 01.01 Do not fly with kites

A kite is not designed, tested or licensed as an aircraft or flying device. The use of a kite as a flying device is illegal and not covered by insurance. **Flying** with this product **can lead to death!**

## 02 OVERVIEW OF THE KITE



### 1 SHORT BRIDLE SYSTEM

The Short Bridle System consists of DC500, DC300, DC200, DPRO 3mm lines, and allows for efficient angle of attack adjustments and shortens the distance needed for the kite to reach full depower performance. Control impulses are implemented more directly. The extremely simple design of the bridle is easy to maintain and parts can be exchanged in a few simple steps.

### 2 HIGH LOAD FORCE FRAME

The High-Load Force Frame sets the standard for FLYSURFER Tube-Kites – a sturdy frame made of tightly-woven, high-strength fibers from DuPont, which are resin-fixed and tempered. Lowest elongation, high tear strength, no moisture absorption and very good UV resistance ensure the smallest deformation of the kite even while under the highest stress. Thanks to the optimized shape of the High Load Force Frame, a noticeably smooth and even air flow is achieved which improves its flight stability.

### 3 POWER TRANSMISSION SURFACE

The Power Transmission Surface distributes the forces and tension of the different materials in the tensile direction, the power is transferred directly into the sail and the kite responds immediately to the rider. Thanks to the added reinforcements in stress zones and the reduced fluttering of the trailing edge, the longevity of the kite is decisively improved.

### 4 3D SHAPE TECHNOLOGY

3D Shape Technology optimizes the construction of our kites to perfectly join our selected materials using high-precision equipment. The sewn construction is incredibly clean, which gives our innovative product its perfect shape.

### 5 FREE FLOW

The Free Flow Valve allows for maximum air flow and user-friendliness. The valve is conveniently opened or closed with the push of a button, enabling fast, effortless inflation or deflation. The Free Flow Valve can be easily replaced with a tool.

### 6 FREE FLOW SYSTEM

The Free Flow System is the connection of the Front Tube to the Struts. The locations of the connecting tubes have been chosen to ensure that the kite can be deflated quickly.

### 7 NON SNAG PAD

This safety feature consists of a foam pad with cover, which acts to prevent the lines from snagging at the tip of the kite.

+ FLYSURFER Kiteboarding relies on LIROS lines, which are manufactured to high quality standards in Germany. Thanks to the strong Dyneema-fiber cores, it is possible to use a smaller line diameter to maintain same breaking strength.

+ This feature forms the structure necessary for keeping the kite extremely dimensionally stable. We exclusively use high-quality materials such as Polyant 175LL Dacron for the front tubes and the struts, and the proven Teijin TECHNO FORCE D2.

+ The optimized strut design allows for quick repairs and easy patching in the event of damage.

+ The Free Flow Valve is compatible with SUP pumps. To use a conventional pump you will need to use the bayonet adapter, which can be found in a bag on the middle strut of the STOKE. The optimal air pressure is printed beside the valve and depends on the size of the kite.

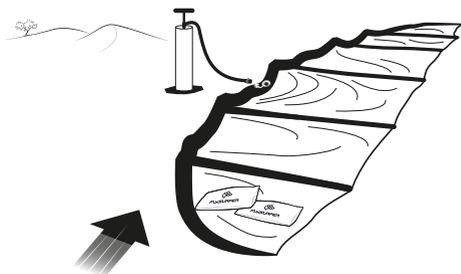
## 03 HANDLING



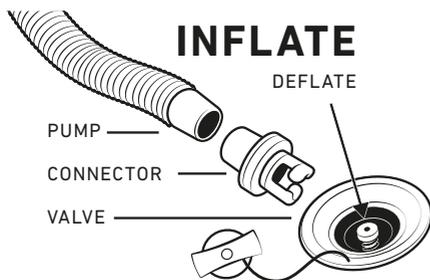
*A kite needs to be secured properly even if the wind is light. A runaway kite can be a serious danger to people downwind.*

### 03.01 Inflating the L.E.I kite

1 Lay the kite out on a surface free of hard or sharp objects. Turn the kite with the leading edge into the wind. The bottom side of the kite turned up. Weigh the wingtip down with a suitable object (kiteboard, sand, etc.).



2 Look to see if the check valve is closed. If it is not, then press the pin – this should then visibly stand out of the valve.

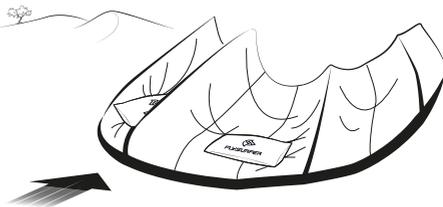


3 Inflate the kite until all struts and the leading edge are firmly inflated and then close the valve. Please observe and follow the PSI guidelines.



### 03.02 Securing

1 Turn the kite around so that the leading edge lies on the ground and points into the wind. Weigh the kite down with sand or any other soft and heavy object.

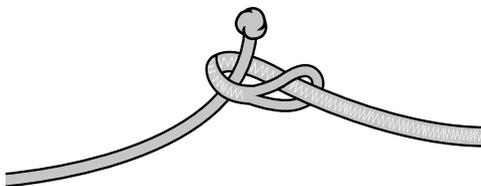


### 03.03 Connecting the bar to a L.E.I Kite

1 Unwind the bar and sort the flight lines. Check these for damage and knots.



2 Start at the leading edge and sort the bridle lines. Then connect your grey front lines with a larkshead at the end of the bridle line as shown in the picture. Attach your colored backlines with a larkshead with the colored pigtail to the tip of the kite.

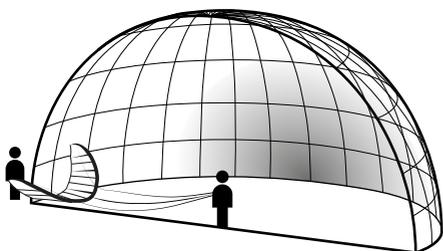


## 04 LAUNCHING

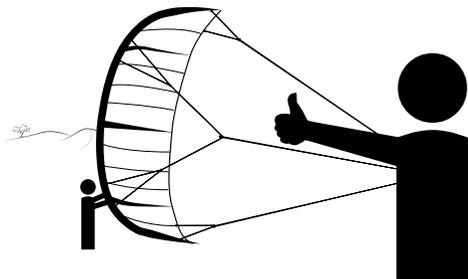
Please check not only the wind and weather conditions, but also all your equipment, especially the safety system before launching. Do not use any kite outside of its recommended upper wind range. When launching in strong winds, we recommend that you have an assistant holding you from the back of your harness. During launching, always pay attention that your bridle lines do not get caught on anything or become tangled.

### 04.01 Wind window edge with helper on the L.E.I kite

❶ It is important that your helper is experienced with this technique and you have explained them how it's done. Position the kite and helper exactly on the edge of the window.



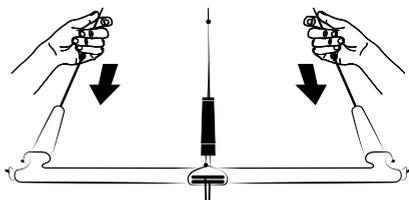
❷ Pick up the bar and signal the starting helper that he can raise the kite in a C-shape with the front tube facing the windward side. Make sure all lines are clear and your helper is in the right position. If you feel a steady pull in the kite, give the helper the sign to let go.



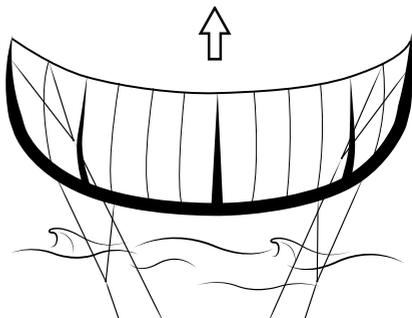
## 05 RELAUNCH

### 05.01 Reverse Launch on L.E.I kite

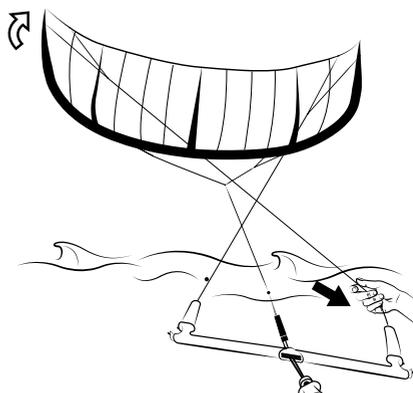
❶ Grab the leader lines above the floaters as high up as you can. Make sure that the bar is the right way up, e.g. black side of the bar on the left. Do not cross over your hands.



❷ Pull in both leader-lines as far towards yourself as possible to reverse the kite off the water. Strong pulls or pumping the lines may help in light winds. If the kite does not release from the water, grab the leader lines higher up.

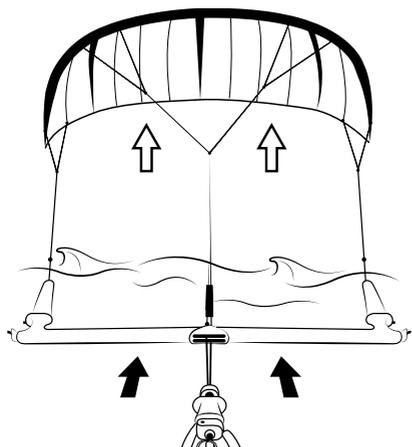


❸ When the kite is at least one wingspan above the water, let go of one of the leader lines. Make sure you keep hold of the other one and the bar is in the right position.



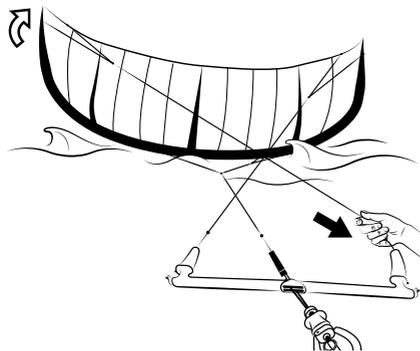
**Note:** Get aligned with the wind, the helper retains his position and is not moving around.

- ④ The kite will now spin around. As soon as the leading edge of the kite points up let go of the remaining leader line and put your hand back on the bar. Depower the kite till its back in the sky towards the zenith.



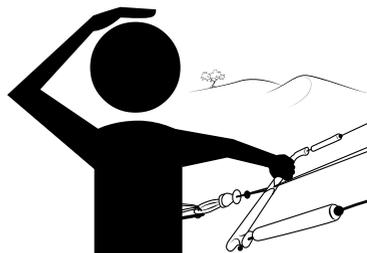
### 05.02 With 1 steeringline on a L.E.I. kite

- ① Pull on one leader-line and keep pulling until the kite launches at the edge of the wind window. As soon as the leading edge of the kite points up put your hand back on the bar. Depower the kite till its back in the sky towards the zenith.

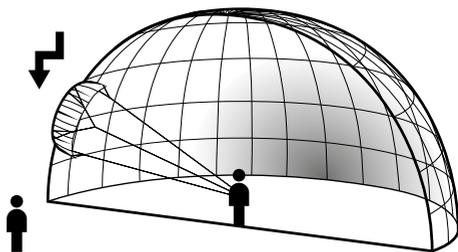


## 06 LANDING WITH A HELPER

- ① Signal a helper who knows how to land your kite, that you want to land. The helper should be standing well upwind of the kite.

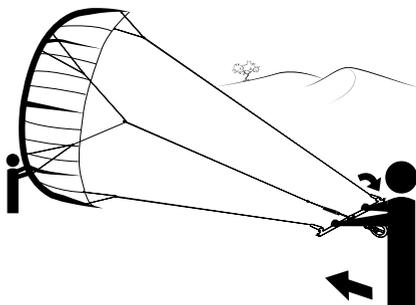


- ② Lower the kite towards the helper along the edge of the wind window. The helper can now approach the kite and grab hold of the leading edge of the kite.



!!! **Warning:** The helper should never grab any lines.

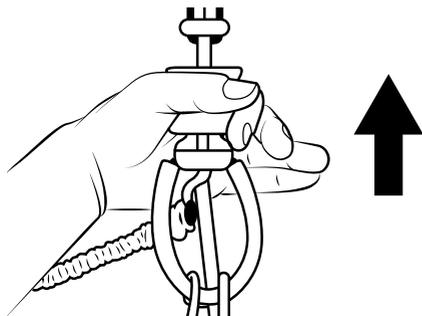
- ③ Walk towards the helper and pull hard on the leeward side steering line as soon as they have the kite securely in their hands. That way the kite will flag out downwind of the helper.



- ④ Secure the kite as described in "Securing the Kite".

## 07 SAFETY SYSTEM

❶ The STOKE kites are equipped with a Frontline Safety (FLS). After triggering the Quick Release, the Control Bar will slide up to the stopper ball / knot.



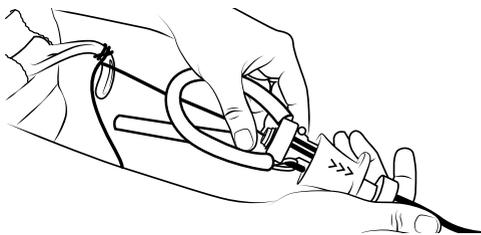
❷ The kite will flag out on this single front line.

### 07.01 Reactivating the kite

After triggering it, it is possible to reassemble the Quick Release while on the water and start the kite again.

*We recommend reading our Bar Safety Guide in detail!*

❶ Work your way up the safety endline until you get to the control bar. When you reach the bar, secure the endline to your harness hook. Now the quick release can be reset with both hands.

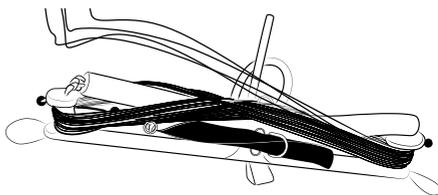


❷ Hook in the chickenloop and secure it with the chickendick. Slowly release the endline bit by bit. Make sure that it has not wrapped itself around any part of your body. Do not let the endline slip too quickly through your fingers to avoid getting burns or cuts.

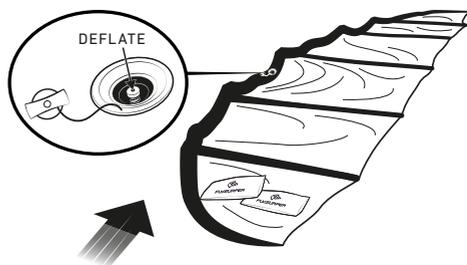
*Tip: It can happen that the kite tangles after flagging out. If this cannot be solved by pulling on the steering lines, you can try to solve the problem by flagging out the kite again.*

## 08 PACKING UP

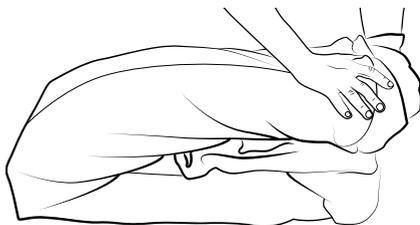
❶ Wind the lines round the bar until you get to the mixer. Secure the lines with the elastics or a half hitch.



❷ Empty the air from the kite using the Free Flow Valve. To do this, push in the pin of the check valve.



❸ Roll the kite up from one wingtip to the other. Fold the kite and store it in the kitebag.



## 09 EMERGENCIES

In an emergency situation it is important not to panic, and to react purposefully and goal orientated.



*Especially in very gusty conditions the kite can overfly its pilot. This can be corrected by powering up the kite by pulling the bar towards you or pulling in the leader lines. It is also possible to counter the kite's overflying, or get it back into the wind window by flying it back and forth.*



*Should the center of the kite collapse towards the pilot (e.g. frontstall) it is important to activate the quick release before it opens again, as the kite can develop a lot of power when it opens again in the wind-window.*



*A backwards flying kite (backstall) can be recovered by depowering (pushing the bar towards the kite). In very light winds you can grab hold of the adjuster and give short effective pulls to accelerate the kite.*



*If one is in danger of drifting away from the shore with an un-relaunchable kite, then it may be prudent to abandon the kite and swim back to shore if possible. Otherwise it is wise to stay with your kite, as it will make you easier to spot for rescuers. Caution: It is very easy to get caught up in the bridle lines that are floating around. Avoid unnecessary swimming movements. A line knife in your harness is a very useful tool in a worst case scenario.*

## 10 KITE CARE

FLYSURFER kites are very durable and very UV and saltwater resistant. With proper care, your kite may last even longer. Eventual color changes of the cloth can be caused by environmental causes, UV-exposure, mechanical strain as well as it getting dirty. A color change has no influence on the flight characteristics whatsoever and is not covered by warranty.

### **Do not leave the kite exposed to the elements.**

People who pack away their kite right after a session, or for a longer break, will minimise the amount of time the material is exposed to the sun and flapping in the wind, extending the "active" lifespan of their kite.

### **Drying**

If a kite is packed away wet and left for a long period of time it can develop ugly mildew spots, rust on the metal parts or color bleeding of the cloth. This does not effect how the kite performs, but will reduce the value of your kite. In extreme cases the kite may get mouldy. To dry, simply continue to fly the kite until the canopy is dry.

### **Rinsing**

Rinse your kite from time to time with clear water, after using it in salt water, and leave it to dry in the shade. Do not use any detergents. The warranty will be void after the use of detergents on the cloth.

### **Check**

Check all parts of the kite before each use. Especially parts that can wear out. Material failure on those parts can lead to further damages, or put the kiter at risk.

## 11 MAINTENANCE

The main parts that wear on the kites are the Depower Line, the Safety Endline (see the bar manual), as well as the Sparepart Lines and the pulleys. Depending on use, the flying lines and other parts will need to be replaced within the lifespan of your kite. If you do not service these parts, it can lead to damage to the kite and will void the warranty.

### 11.01 Repairing the Cloth

In case you get a small tear (e.g. through contact with a sharp object) we have included a repair kit with your kite. The area that needs to be repaired must be clean, dry and grease-free. Temporary repairs are possible with spinnaker repair tape, but the tear should be taped from the inside of the kite. It is recommended that you round off the edges of the repair tape. There is the possibility to have a professional repair done by us. We can exchange whole parts of the canopy, so that there will be no trace of the damage.

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**Tip:** *When a tear is close to a seam (less than 5cm), we recommend using sewing to repair the damaged area.*

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## 12 TRIMMING

### 12.01 Optimum trim of the flying lines

Steering (back) lines shorten over time in relation to the flying (front) lines. Underneath the floaters, the back line can be shortened or extended by using knots. Extension of the back lines is necessary when the trimmer needs to be pulled in too much to keep the kite flying normally in its intended wind range. (back-stall tendency)



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