



**LEVEL**  
LEVEL WINGS

**FLEX**  
ENA

User's manual  
V1 04.2024

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## Warning : read this user manual before first flight !

### CAUTION !

Improper use of the equipment can cause serious and irreversible injuries, which may even lead to the death of pilot . Neither manufacturer nor dealer endorse or is responsible for the misuse of the equipment. It is the own pilot's responsibility to use his or her equipment properly.

This manual offers you all the information you need to get familiar with the characteristics of your new wing.

This manual is for information purposes only. It is by no means to be regarded as flight instructions. Flight training can only be guaranteed and provided by a competent and authorised training structure. Only regulatory authorities of the practice from the respective country can determine the pilot's competence.

Each country has its own regulations and laws regarding paragliding. It is your responsibility to know and comply with the regulation of the region you are flying in.

Make sure your piloting and training level are in correlation with the classification of this equipment.

We reserve the right to modify the contents of this manual at any time.

We therefore invite you to regularly consult our website :

[www.levelwings.com](http://www.levelwings.com)

Thank you for choosing our **LEVEL WINGS** glider.

We have made sure that its performance, its flying qualities and its construction give you complete satisfaction.

The **FLEX** wing is a glider meeting all the students and instructors requirements. It was designed for both intensive schooling and private use while providing great inflight comfort all along the pilot's progression curve.

Its ease of use and the feeling of security it exudes will allow you to focus on the essentials.

Son comportement est facile sûr et intuitif.

Its meticulous design and the choice of materials make it a lightweight and high-performance wing.

This manual gathers the information that will help you to know your wing, to use it in complete safety and to keep it in good condition.



## WHO IS THE FLEX INTENDED FOR?

The **FLEX** wing is a glider meeting all the students and instructors requirements.

It was designed for both intensive schooling and private use while providing great inflight comfort all along the pilot's progression curve.

The design and choice of materials have been thought out for intensive and long-lasting use.

The **FLEX** is intended for beginner pilots, intermediary or pilots who prioritize safety.

After reading this manual we advise you to inflate & check your wing on a training hill first.

## Certification

Air Turquoise laboratory carried the tests out.

The **FLEX** has been certified EN 926 -1 : 2015 & 926 - 2 : 2013 Classe A.

It can be used with most harnesses and attachments intended for solo wings available on the market.

### **When first used**

It is important to perform a thorough pre-flight check :

Check that the lines are correctly connected and that there are no knots.

Check that the riser straps are not twisted or rolled up.

Check the general appearance of the wing (attachment point, seam, fabric).

Finish with an inflation to control the general aspect of the wing once inflated.

### **For each use :**

Unfold the wing and place it in an arc on the upper surface, leading edge up.

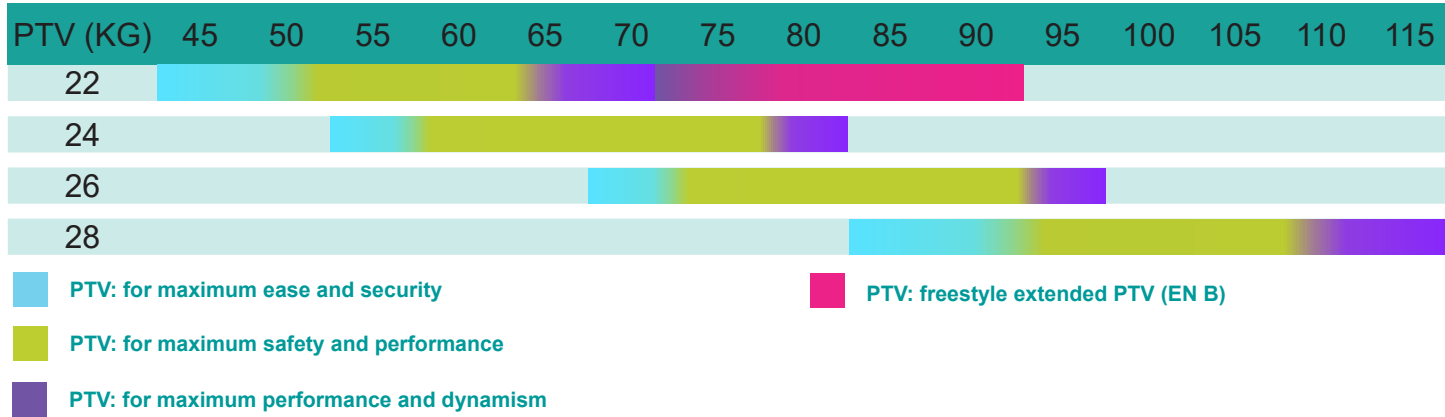
Separate A, B, C risers and the brakes ; make sure risers and lines don't make any knots and are free.

Check that :

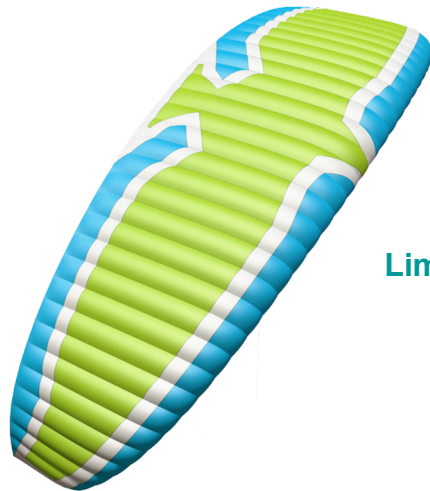
- harnesses, straps and carabiners are not altered
- all attachments are correctly connected (risers, rescue parachute, harnesses, etc.)

	22	24	26	28
Number of risers 3+1	3 + 1			
Cells	39			
Flat area (m2)	22	24	26	28
Wing span (m)	8,2	8,6	8,9	9,3
Cord (m)	2,6	2,7	2,8	2,9
Flat aspect ratio	4,8			
Projected area (m2)	19	20,7	22,4	24,1
Allongement projeté	3,6			
Weight range TWF	45-75	55-80	70-95	85-115
Dimensions of pilot harnesses used for certification	Lenght between attachment points : 44 +/- 2 cm Height of main suspension points : 42 +/- 1 cm	Lenght between attachment points : 44 +/- 2 cm Height of main suspension points : 42 +/- 1 cm	Lenght between attachment points : 44 +/- 2 cm Height of main suspension points : 42 +/- 1 cm	Lenght between attachment points : 44 +/- 2 cm Height of main suspension points : 42 +/- 1 cm
Brake range at TWF max (cm)	65	66	66	71
Certification	"Classe A, EN : 926-2 : 2013 & 926-1 : 2015, LTF NFL II-91/09"			
Trim	Non			
Speed system	Yes course : 120 mm			

**Weight range**



Blue



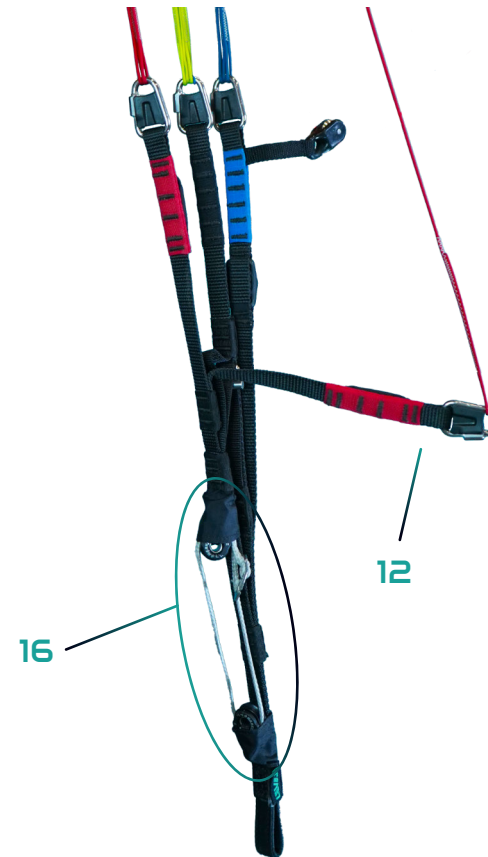
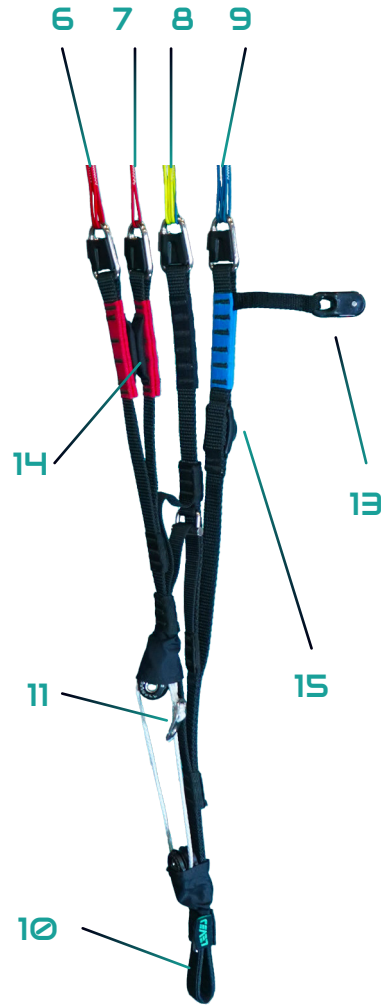
Lime



Purple



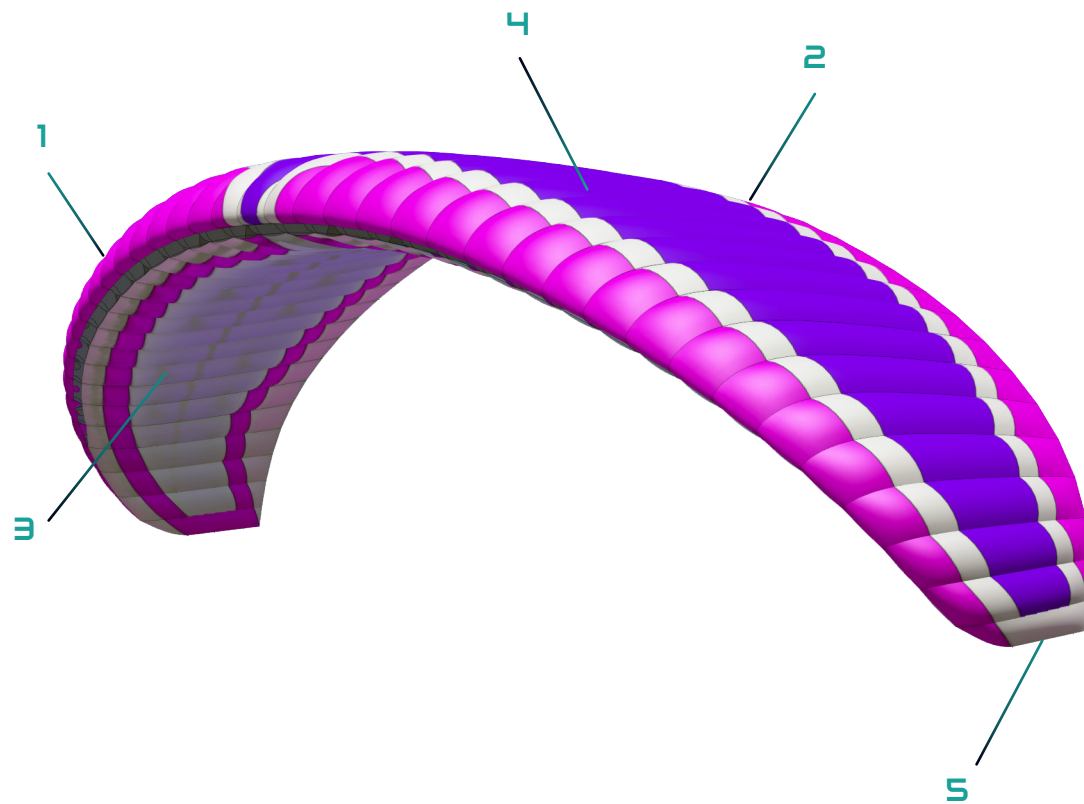
- 1 : Leading edge
- 2 : Trailing edge
- 3 : Lower surface
- 4 : Uper surface
- 5 : Stabilos
- 6 : A Riser
- 7 : A' Riser
- 8 : B Riser
- 9 : C Riser
- 10 : Main attachment point
- 11 : Speed system attachment point
- 12 : :Big Ears system
- 13 : Brake pulley
- 14 : Magnet Big Ears system
- 15 : Magnet brake handle
- 16 : Speed system



There are no other adjustable or removable or variable device, with information on adjustment limits (if applicable).



brake handle



## Take-off

The **FLEX** will offer you a progressive and easy inflation in any flight condition, both in light winds and in strong winds. Despite this, before the first flight, practice inflation to familiarize yourself with your new wing. It is possible to inflate facing or back to the wing depending on take-off conditions.

### Forward launch :

To inflate with your back to the wing, take the A and A' risers in hand at the level of the shackles, move forward gradually, adapting your pace to the wind conditions. When the wing is above your head, do a tempo and a visual check of the wing before deciding to accelerate in order to take off.

### Reverse launch :

If the direction and speed of the wind is suitable, we advise you to inflate facing the wing in order to facilitate visual control. The pilot positions himself or herself facing the glider. For inflation facing the wing, take the AA' risers. Apply a slight impulse to the risers to start inflation, adapting your movement to that of the wing in order to facilitate the tempo. Once the wing is stabilized and controlled at the zenith, the pilot turns around and begins the launch run. Make sure you never take off without having carried out all the safety checks. The speedbar should not be used during the takeoff.

## Turning

In order to initiate a turn after checking that the space is clear, apply weight to the side where you wish to turn.

You may ask the passenger to go along.

Make sure you are not braking on the opposite side, then gradually lower the brake control on the side where you have applied the weight, until you obtain the desired inclination.

You can regulate the radius and the speed of rotation using the outer control.

## Landing

Make sure beforehand that you have enough altitude to make an approach adapted to the aerological conditions and terrain used.

When approaching, avoid any committed manoeuvre or excessive braking.

Land into the wind, away from any turbulence.

During final phase, maintain maximum speed until you are about to make contact with the ground, gradually brake your wing until you come to a complete stop.

Be careful not to brake too early and too suddenly, this would lead to pitching up again.

### Using the accelerator/speedbar.

According to the EN A norm, the **FLEX** glider was designed to be stable throughout its speed range.

Accelerated, the wing becomes more sensitive to turbulence. If you sense a glider internal pressure decrease while pushing on the accelerator; lessen the speedbar tension to bring it back to its neutral default setting while slightly applying a small amount of brake by pulling the hand toggles and prevent a possible leading edge frontal collapse.

## Active piloting

Active piloting is the flying technique that will help you fly with greater safety and enjoyment.

It means flying in coherence with the wing, along with pendular movements, pitching and rolling axes, and anticipating actions in order to stay in control and safe.

If the air is smooth the wing feedback can be minimal, but in turbulence feedback is continuous and needs to be constantly checked by the pilot.

Such reactions become instinctive in good pilots.

In order to get the best performance from the wing, the pilot should try to control it through small brake inputs and weight-shift, rather than constantly being present on the brakes.

A small movement early is more efficient than a big brake movement later to control the wing.

The more you let the glider fly at trim speed, the better performance you will get out of it.

The objective of active piloting is to get the glider to fly smoothly through the air with a stable position above the head, and controlled angle of incidence.

Your paraglider is highly resistant to collapse without any pilot action at all, but learning how to fly actively will increase this safety margin even further.

## Piloting without the toggles/brakes

If for whatever reason, the toggles/brakes are no longer available, you will need to pilot your wing using the harness and "C" risers instead.

Beware not to overcontrol the glider to limit the risk of experiencing a possible stall.

To land, let your wing glide for as long as possible before applying a full braking motion. Braking using the "C" risers is not as efficient as using

the toggles and could bring a more energetic landing than normal.

## Descent in 360° turns

To initiate a 360° turn, ensure that the airspace is clear, lean on the inside of the turn then gradually operate the control on the desired side. The wing will accelerate gradually, regulate the rotation speed using the brake.

To exit the rotation, return to a neutral position in the harness and gradually raise the control of the inner side of the turn .

You can slightly brake the outer side to accelerate the exit.

Be careful that too drastic an exit will result in a large pitching up then down, that will need to be controlled.

This manoeuvre causes a great centrifugal force, which can have physical consequences on the pilot and the passenger : disorientation, temporary loss of vision (black veil).

In accordance with the EN A certification, the **FLEX** has no tendency to neutral spiral and comes out of rotation autonomously.

## Big Ears

Big Ears is a rapid descent technique, because it decreases surface area and increases sink rate.

In order to use this technique on the **FLEX**, grab the A' risers.

Pull gradually on one of the two, until the wingtip collapses.

It is better to engage one ear at a time.

To reopen the "Ears", bring the accelerator/speedbar back to its neutral

default setting, then let go the risers symmetrically. You can

pump the brake/toggles on either side of the wing to facilitate its reopening sequence.

## B-line stall

This technique is usually physically demanding and will provoke a parachutal wing configuration and hence wing control will be diminished.

Loosing altitude using the "B" risers is done by grabbing the risers at the metal links level and applying a symmetrical downward vertical pull until

the wing's profile is deformed. This maneuver can be maintained to increase the wing's sink rate.

To regain a normal flying configuration, bring your hands up progressively to the "A" risers red markers, then let go the "B" risers altogether.

The

wing will experience a moderate surge forward which will need to be instantly neutralized and controlled.

## Parachutal stall

If you notice that the wing descends vertically without horizontal speed and that it is partially deflated, you are certainly experiencing a parachutal stall.

If this happens, fully raise the brakes (up to the pulleys) and if necessary push the speedbar symmetrically. Make sure you resume normal flight before touching the controls again.

## Stall

Stall will only occur in the event of exaggerated inputs to the control by the pilot. This maneuver is very physical and can be dangerous. It is not a safe rapid descent technique.

## Spin / Asymmetrical stall

A spin will only occur in case of pilot error. If it happens, pull the brakes all the way up (to the pulleys) and control the resulting nose-down pitch.

## Asymmetrical collapses

Your wing may occasionally collapse due to turbulence or pilot error.

During a collapse, keep your heading, move away from the relief while keeping a straight and stabilized flight.

To do this, you must apply the maximum weight on the open side of the wing and, if necessary, accompany this movement with an adapted action on the same side control. If the closed side does not open spontaneously, repeat the operation as many times as necessary.

During testing, fold lines were used.

## Frontal collapses

In case of frontal collapse, the glider is designed to open spontaneously according to the standard. Take care not to brake the wing to stimulate the resumption of flight. During testing, fold lines were used.

## Cleaning

It is best not to clean your wing. However, if necessary, we advise you to use a damp cloth without soap nor detergent. Apply in small areas and be sure to let the wing dry thoroughly before using or packing it.

## Storage and transportation

When you are not using your wing, store it in a dry, temperate place protected from UV rays.

Make sure the wing is totally dry before storing it.

For transportation : protect the wing from all external aggressions it could suffer, such as : tearings, cutings, crushings, UV rays. Put it in a sturdy enough bag.

## Maintenance

Your wing's maintenance must be done on a regular basis.

We recommend that you have your glider fully checked by a specialist workshop every 24 months or every 150 flying hours.

Between these checks, we recommend that you be mindful of :

- Lines condition : folds, damages or cuts.
- Wing condition : holes, tears, premature wear
- Risers condition : straps, seams, attachment points.

We also recommend changing the spreaders and carabiners at least every 5 years, or as soon as they show signs of wear.



## Repair

Your wing may suffer damages due to external aggression. In this case, it must be checked and repaired in a specialized workshop. Items such as risers, brake pulleys or control handles can be ordered from your **LEVEL WINGS** dealer.

## Recycling

All our materials are selected for their excellent technical and environmental characteristics.

You can recycle most of the components, none of them are dangerous for the environment.

If you consider that your **FLEX** has reach the end of its life, you can separate all metal and plastic parts and apply the selective sorting rules in force in your country.

Regarding the recovery and recycling of textile parts, we invite you to contact the organizations guaranteeing the management of fabrics.

## Environmental Friendliness

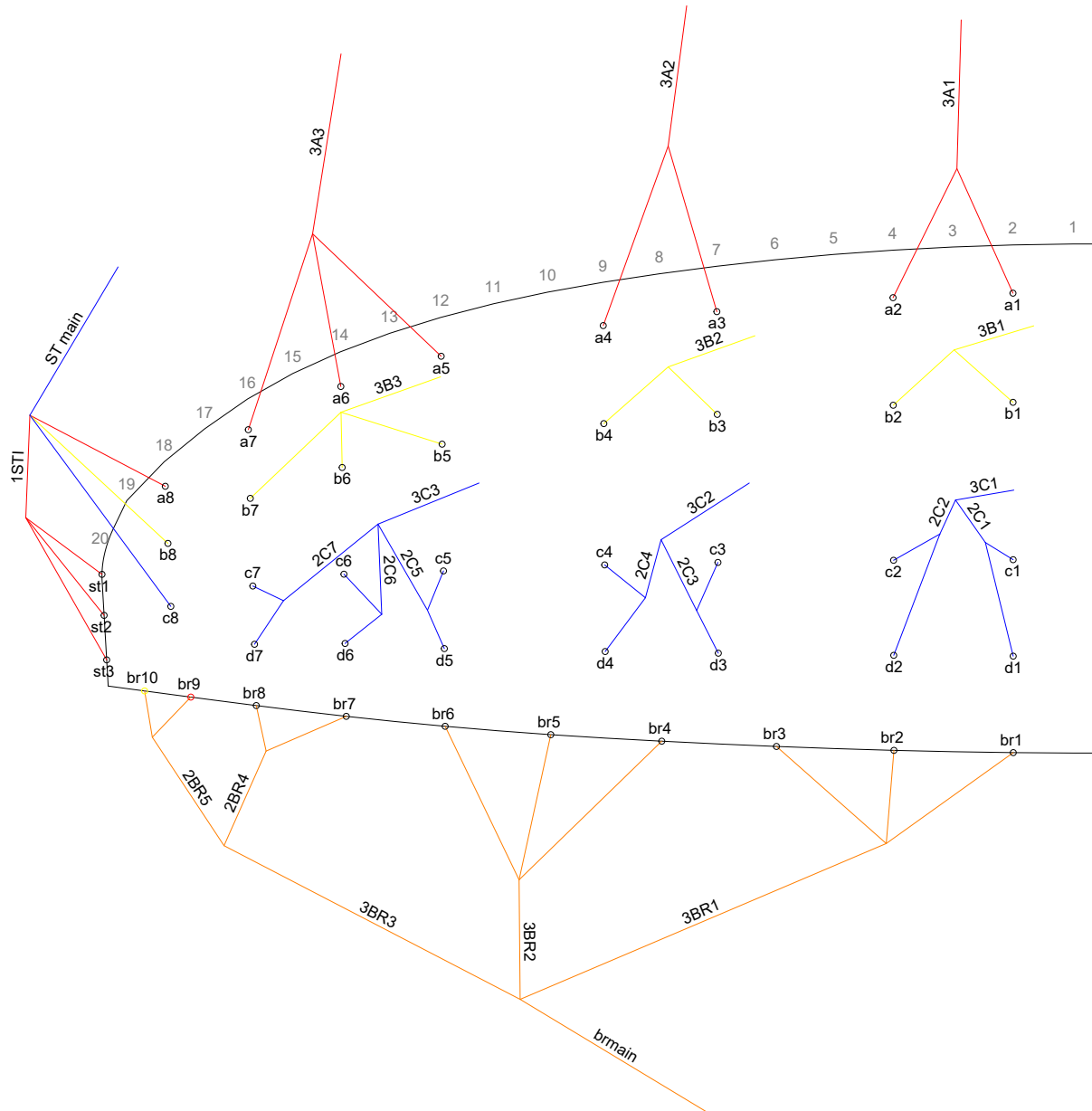
Paragliding is an outdoor activity. You evolve in an environment for which you are responsible.

So be sure :

- \* To respect the local flora and fauna
- \* Not to throw your waste on the ground
- \* Not to generate more noise than necessary.

You thus participate in the preservation of the environment and activity.

Vous participez ainsi à la préservation de l'environnement et de l'activité.



**Lines**

Tolerance margin ± 10 mm

Flex 22											
a1	6319	b1	6201	c1	6299	d1	6414	br1	6500	st1	5656
a2	6285	b2	6178	c2	6275	d2	6389	br2	6245	st2	5672
a3	6233	b3	6145	c3	6243	d3	6350	br3	6206	st3	5739
a4	6203	b4	6128	c4	6221	d4	6323	br4	6093		
a5	6181	b5	6121	c5	6200	d5	6305	br5	5961		
a6	6088	b6	6049	c6	6120	d6	6208	br6	6014		
a7	6031	b7	6001	c7	6055	d7	6136	br7	5956		
a8	5847	b8	5798	c8	5831			br8	5834		
								br9	5818		
								br10	5765		

Dimensions and lengths have been controlled by Air Turquoises Test Laboratory. When measuring the lines, a tension is applied progressively up to 50N.

**Risers**

Tolerance margin ± 5 mm

	CLOSED	OPEN
A	375	350
A'	375	350
B	375	385
C	375	475

**Lines**

Tolerance margin  $\pm 10$  mm

Flex 24											
a1	6584	b1	6462	c1	6571	d1	6691	br1	6760	st1	5930
a2	6551	b2	6440	c2	6548	d2	6668	br2	6537	st2	5935
a3	6499	b3	6408	c3	6509	d3	6621	br3	6460	st3	6004
a4	6469	b4	6391	c4	6487	d4	6593	br4	6349		
a5	6448	b5	6386	c5	6479	d5	6580	br5	6227		
a6	6352	b6	6311	c6	6397	d6	6485	br6	6268		
a7	6293	b7	6282	c7	6345	d7	6419	br7	6244		
a8	6107	b8	6067	c8	6109			br8	6114		
								br9	6038		
								br10	6005		

Dimensions and lengths have been controlled by Air Turquoises Test Laboratory. When measuring the lines, a tension is applied progressively up to 50N.

**Risers**

Tolerance margin  $\pm 5$  mm

	CLOSED	OPEN
A	375	400
A'	375	400
B	375	395
C	375	414
D	375	450

**Lines**

Tolerance margin  $\pm 10$  mm

Flex 26											
a1	6855	b1	6730	c1	6839	d1	6964	br1	7042	st1	6171
a2	6823	b2	6709	c2	6826	d2	6940	br2	6818	st2	6180
a3	6771	b3	6678	c3	6781	d3	6898	br3	6736	st3	6252
a4	6742	b4	6663	c4	6760	d4	6870	br4	6626		
a5	6723	b5	6658	c5	6760	d5	6852	br5	6511		
a6	6624	b6	6580	c6	6674	d6	6754	br6	6543		
a7	6563	b7	6542	c7	6608	d7	6677	br7	6528		
a8	6365	b8	6328	c8	6360			br8	6391		
								br9	6302		
								br10	6263		

Dimensions and lengths have been controlled by Air Turquoises Test Laboratory. When measuring the lines, a tension is applied progressively up to 50N.

**Risers**

Tolerance margin  $\pm 5$  mm

	CLOSED	OPEN
A	375	400
A'	375	400
B	375	395
C	375	414
D	375	450

**Lines**

Tolerance margin  $\pm 10$  mm

Flex 28											
a1	7118	b1	6990	c1	7102	d1	7232	br1	7307	st1	6418
a2	7086	b2	6969	c2	7081	d2	7202	br2	7091	st2	6435
a3	7037	b3	6940	c3	7057	d3	7175	br3	6997	st3	6509
a4	7007	b4	6925	c4	7036	d4	7147	br4	6887		
a5	6988	b5	6921	c5	7022	d5	7124	br5	6777		
a6	6886	b6	6841	c6	6939	d6	7022	br6	6803		
a7	6824	b7	6810	c7	6880	d7	6959	br7	6796		
a8	6621	b8	6582	c8	6623			br8	6652		
								br9	6558		
								br10	6508		

Dimensions and lengths have been controlled by Air Turquoises Test Laboratory. When measuring the lines, a tension is applied progressively up to 50N.

**Risers**

Tolerance margin  $\pm 5$  mm

	CLOSED	OPEN
A	375	400
A'	375	400
B	375	395
C	375	414
D	375	450

Lines Material

Flex 22 / 24 / 26 / 28											
a1	PPSL 160	b1	PPSL 160	c1	PPSLS 125	d1	PPSLS 125	st1	PPSLS 125	br1	PPSLS 125
a2	PPSL 160	b2	PPSL 160	c2	PPSLS 125	d2	PPSLS 125	st2	PPSLS 125	br2	PPSLS 125
a3	PPSL 160	b3	PPSL 160	c3	PPSLS 125	d3	PPSLS 125	st3	PPSLS 125	br3	PPSLS 125
a4	PPSL 160	b4	PPSL 160	c4	PPSLS 125	d4	PPSLS 125			br4	PPSLS 125
a5	PPSLS 125	b5	PPSLS 125	c5	PPSLS 125	d5	PPSLS 125	ST main	PPSL 160	br5	PPSLS 125
a6	PPSLS 125	b6	PPSLS 125	c6	PPSLS 125	d6	PPSLS 125			br6	PPSLS 125
a7	PPSLS 125	b7	PPSLS 125	c7	PPSLS 125	d7	PPSLS 125			br7	PPSLS 125
a8	PPSLS 125	b8	PPSLS 125	c8	PPSLS 125					br8	PPSLS 125
										br9	PPSLS 125
3A1	TSL 280	3B1		2C1	PPSL 160						
3A2	TSL 280	3B2		2C2	PPSL 160						
3A3	TSL 220	3B3		2C3	PPSL 160					3BR1	PPSL 160
				2C4	PPSL 160					3BR2	PPSL 160
				2C5	PPSLS 125					2BR4	PPSL 160
				2C6	PPSLS 125					2BR5	PPSL 160
				2C7	PPSLS 125						
										3BR3	PPSL 160
				3C1	TSL 280						
				3C2	TSL 280					brmain	PPSL 280
				3C3	TSL 220						

**Fabric**

INTRADOS	SKYTEX 32
EXTRADOS	SKYTEX 38
Suported PROfiles,ROD	SKYTEX 40 HARD
UNSuported PROfiles,ROD,V.T-TAPES, diagonals	SKYTEX 32 HARD

**Risers**

Technora webbing 13mm Black	13mm	Liros	Riser
Webbing poly horizen 25mm Black	25mm	Dandy Tapes	
Magic D Pro 2.5mm grey	2.5mm	Liros	Riser
NGFEB Magnet		Ningbo Zhaobao Magnet	Riser
Square Ring With Fixed Diameter 6mm Roller	13*7*3mm	B2	Riser
Riley Pully		L.W.Riley/Saint Marine	Riser
Riser Carabinner 14mm Stainless		Gin Glider -Korea	Riser
PARAGLIDING BLOCK P18mm		Saling Point	Riser





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