Manual

LT1

CCC

SOL
PARAGLIDERS

Summary

WELCOME TO THE SOL TEAM

You have just acquired a high-quality product, manufactured under one of the most demanding industry standards worldwide. We are certain that this equipment will allow you to learn, increase and amplify your knowledge and technique during your flights.

We hope your paraglider LT 1 will provide you with many nice flights and that you're experiencing moments that will last forever in your memory. This way our philosophy will proof right: security, performance, easy handling and innovation.

Please, read this manual carefully. All necessary information you'll need for your new equipment is right here.

In case of questions or doubts regarding your paraglider or in case you simply are interested in our new products - we are at your dispose.

       Thank you very much for choosing SOL PARAGLIDERS.

Symbols

Warnings and important notes - pay attention and read carefully

Additional information

Notes regarding environment protection

❗ IMPORTANT NOTES

- As owner of a Sol Paraglider you are responsible for all possible risks existing by using this equipment. The inappropriate and/or abusive use of your equipment increases this risks.

- It's not possible to transfer this responsibility of risks, using this equipment, to the producer, distributor or seller.

- A regular training, whenever possible, especially on the ground, is indispensable and necessary. A poor handling and control of the glider, especially on the ground, is one of the most frequent causes of accidents.

- Always be prepared to improve your skills. Attending special workshops will improve your skills and maintain your knowledge about materials and techniques, which always are developing, up to date.

- Only use a certified paraglider, harness with protector and reserve and use them within the described and certified limits. Remember, if you fly a paraglider outside the certified norms your insurance will not pay the damage. It is in your responsibility as a pilot to know what your insurance covers.

- Sol Paragliders is flying and testing every single paraglider produced, to assure our clients full quality and function of every glider. We recommend that every new or reviewed paraglider will be tested on the ground and flew from the training hill by his pilot.

- Never take off without helmet, hand-gloves and boots.

- Check all your equipment before each flight. Never take off with an inappropriate or damaged equipment.

- As pilot you only are allowed to use a paraglider in accordance to your skills and in accordance to the instruction level required in each country.

- Before each flight check your physical and mental state. Are you fit to fly?

- Before take off choose the right Paraglider and environment, check the weather conditions, if you have any doubt - don't fly.

- Never fly during rain, snow, strong wind, turbulent conditions or if thunderstorm clouds are in the sky.

- If you are always flying with conscious - you'll be able to fly for many years your glider.

LT 1 - THE PROJECT

LT 1 is the first XC Sport paraglider with 2-lines technology. High performance for experienced pilots ready to fly C or higher class wings. With 6,25 aspect ratio and 66 cels LT 1 is easy and safe to fly demanding pilot input like a C class wing.

He corresponds a light air sport equipment with less than 120 kg empty weight.

Recommendation

LT One is a performance wing, which should be flown exclusively experienced, performance-orientated cross country pilots.

To fully master LT One a pilot must be ready for performance wings in a typical variety of atmospheric conditions.

An LT One pilot must be capable of active flying technique, and fly frequently. Only then will the full performance
potential of this paraglider be achieved, and the pilot be able to go on his cross country way safely, in a relaxed frame of mind.

Certification

The LT 1 received CCC classification . The certification details are available on this manual and on web-site www.solparagliders.com.br.

The LT 1 S was tested by Air Turquoise SA with the maximum weight of 95kgs. Other sizes are directly scaled from this S and were tested in flight and self-certified by the Sol Paragliders. Certification Flight Testing for all sizes were performed with the use of collapse lines and special risers, as defined by the standard CCC 023.2019.

Special characteristics

High Performance - Stability in accelerated flight - Precise piloting - Easy to launch
2-lines-concept - Optimized Arching - Steerable from the B-Riser

Accessories

Along with your paraglider you receive:

- Backpack   - Basic repair kit
- Protection sack for the glider   - Manual
- "Easy check" measure tape

Technology

Our double „3D Shaping" is a 3 dimension shaping technology, which decreases the imperfections and wrinkles at the leading edge, resuLT 1ing in more aerodynamic performance.

With A – B row in all levels resuLT 1s in less 25% line consumption and line weight.

High Tenacity fabrics; Vectran lines in gallery and intermediate level results in a 22% better induced drag compared to traditional covered lines; Duralumin - and Inox Hardware.

X Battens reinforce the profile.
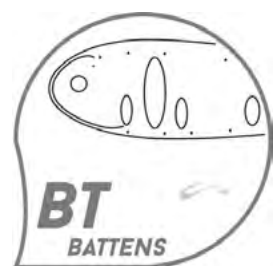
Flexible nylon battens reinforcements.

Product developed and produced using materials and processes that cause less impact to the environment..

Higher Project Aspect Ratio
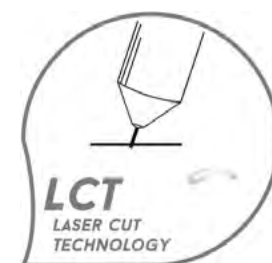
Cutting edge technology laser equipments prepare all molds and parts of the canopy.

LDT are Load Distribution Tapes between the suspension points for a weight distribution along the whole wing during flight, resuLT 1ing in better performance and stability.

Profiles between the cells of the trailing edge, resuLT 1ing in better performance and handling.

A new profile design to increase the wing pressure, resuLT 1ing in form stability. More performance along the whole speed range is the resuLT 1.

Fabrics composed out of different materials assure long life and more resistance with less deformation and weight.

Overview paraglider

1. Trailing edge
2. Top
3. Leading edge
4. Bottom
5. Stabilo
6. Lines
7. Risers
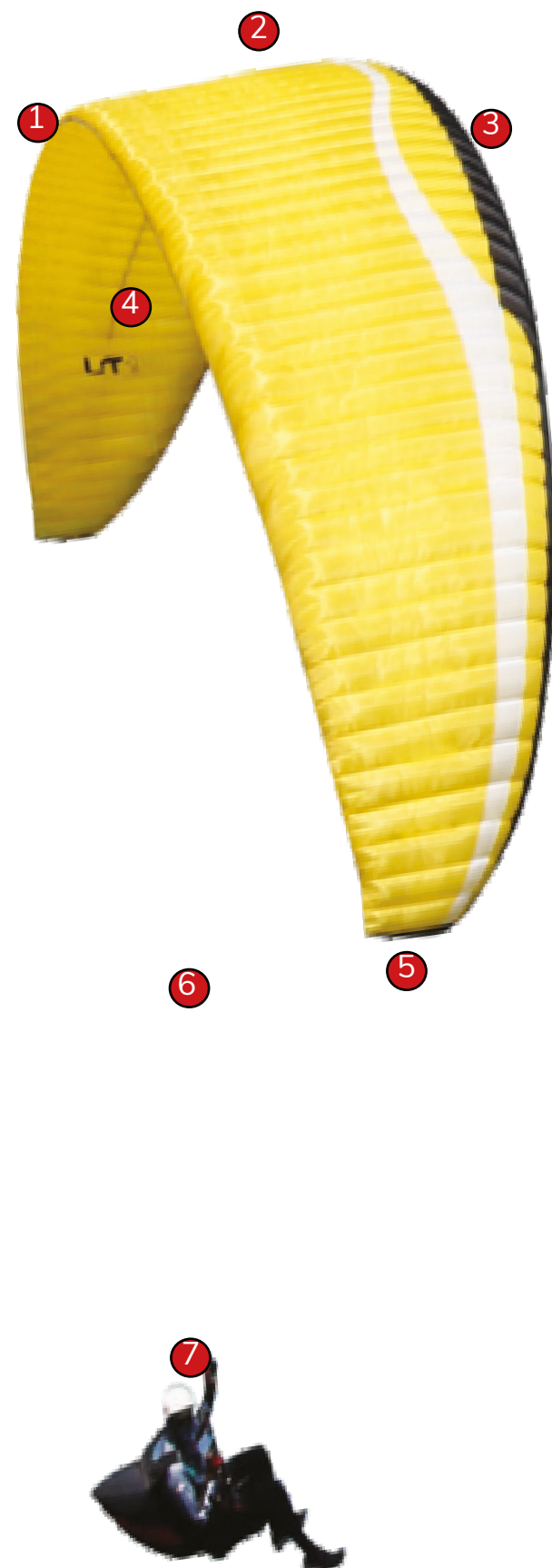
Overview risers

1. Riser A
2. Riser A'
3. Riser B
4. Brake lines
5. Toggle connection
6.Toggle riser B
7. Toggle
8. Speed system
9. Accelerator
10. Accelerator connection
11. Connection to harness
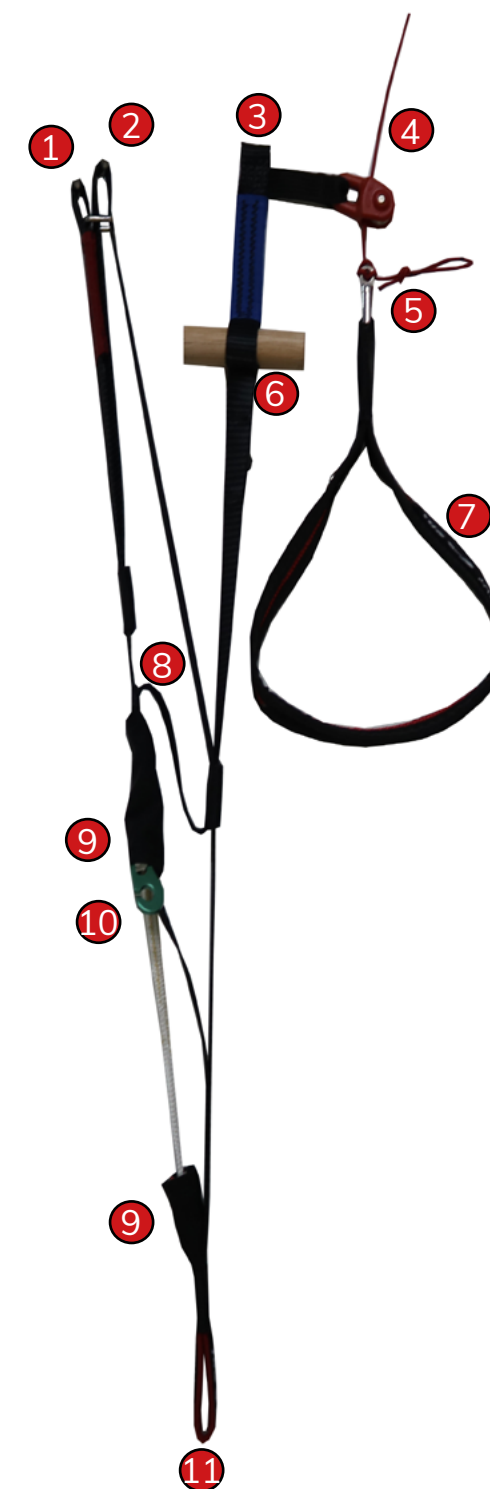
Line plan

The suspension point design was developed for an ideal weight distribution and long life. During all consideration and calculation, security always is our first goal.. The used material mix for the lines of the LT 1 forms an ideal combination: long life with little deformation and aerodynamic drag.

Never and under no circumstances the line length can be altered!
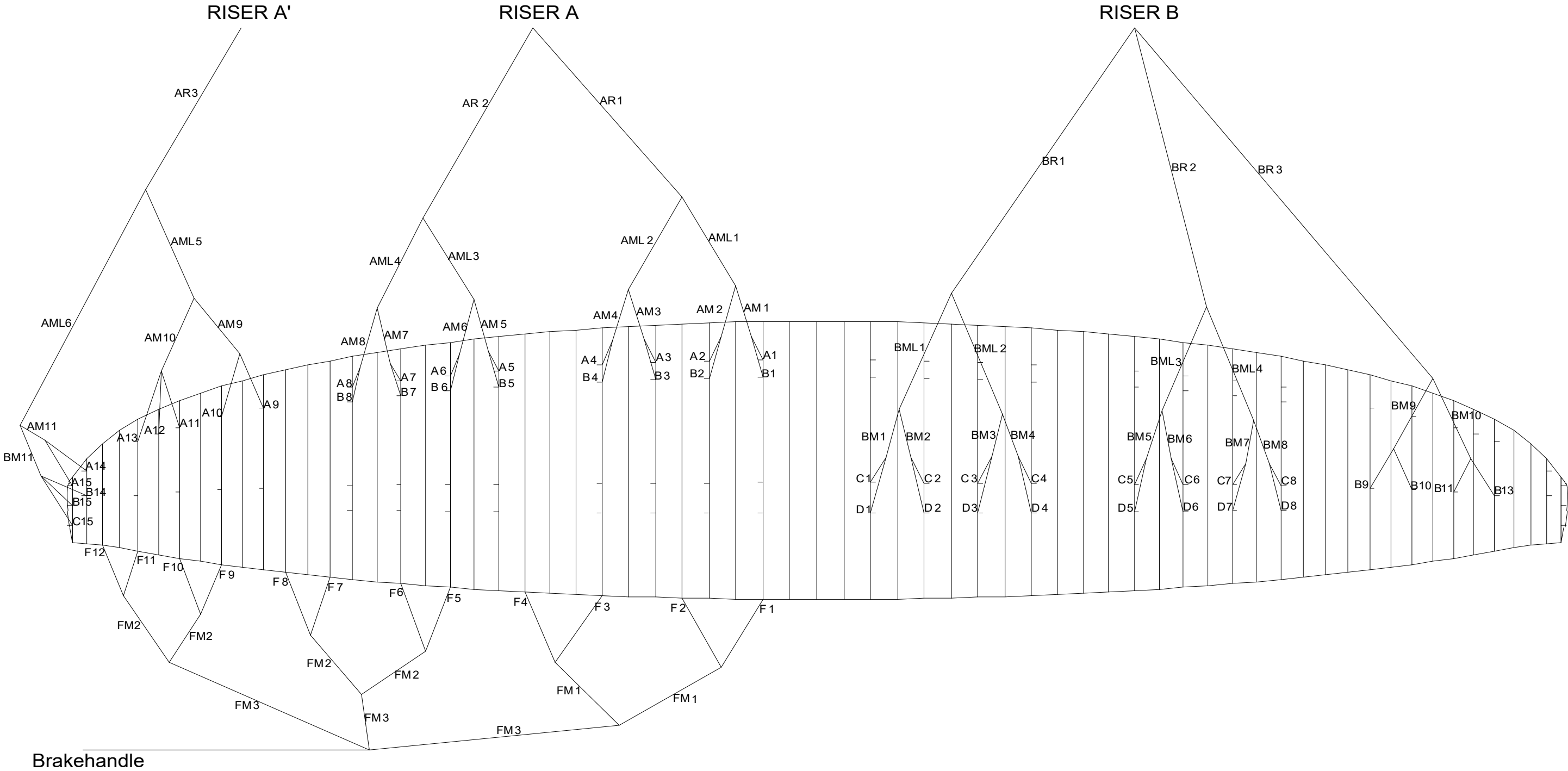
THE PARAGLIDER - INFORMATION

Take off weight

Each paraglider seize is dedicated to a certain weight range, from a minimum take off weight to a maximum. The take off weight is the sum of the weight of:

1. the pilot
2. the paraglider
3. the harness with reserve
4. all flight accessories
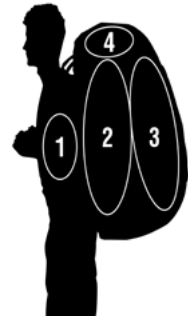
It's not recommended to fly outside the weight range.

If your take off weight is between two weight ranges we suggest the following procedure:

- For a more accurate and dynamic handling or if you usually fly in the mountains and/or turbulent conditions, you should choose to fly in the upper weight range.

- For a better sink rate and if you usually fly above flat land and in light weather conditions, you should choose to fly in the lower weight range.

Tow release take off

The LT 1 can be used for towed flight. The used equipment must be certified, the team handling the equipment must be licensed and you must have done a workshop learning this take off. Always use the special tow connection. The take off only should be done if the canopy is filled completely and steady above the pilots head.

Flight with engine

The LT 1 was not designed and is not certified for engine flight. SOL Paragliders doesn't recommend this type of flight.

Tandem flight

The LT 1 was not designed and is not certified for tandem flight. SOL Paragliders doesn't recommend this type of flight.

Safety notices

Safety notices are issued when defects arise during use of a paraglider which could possibly also affect other gliders of the same model. The notices contain instructions on how the affected gliders can be inspected for possible fauslt and the steps required to rectify them.

SOL Paragliders publishes on its website any technical safety notices and airworthiness instructions which are issued in respect of SOL products. The paraglider owner is responsible for carrying out the action required by the safety notice. Safety notices are issued by the certification agencies and published on the relevant websites. You should therefore visit on a regular basis the safety pages of the certification agencies and keep up-to-date with new safety notices which cover any products relating to paragliding.

Parachute

It is a mandatory requirement to carry an approved reserve for use in emergency situations where the paraglider fails, and recovery is not possible, for example after colliding with another aerial sports craft. In choosing a reserve, you should be careful that you remain within the specified take-off weight. The reserve is fitted according to the manufacturer's instructions.

Glider category and guidelines

The descriptions of flight characteristics contained in this Manual are all based on experiences from the test flights, which were carried out under standardized conditions. The classification is merely a description of the reactions to these standard tests.

The complexity of the paraglider system means that it is not possible to give any more than a partial description of the glider's flight behavior and reactions to disturbances. Even a small alteration in individual parameters can result in flight behavior which is markedly modified and different from the description given.

Description of flight characteristics

Paragliders with a CCC certification have demanding flying characteristics and potentially reactions to turbulence and pilot errors. Recovery to normal flight requires precise pilot input.

Target group and recommended flying experience

Performance pilots with extensive flying experience of at least approx. 75 hours airtime per year, who wish to fly at a top performance level in, e.g. cross-country flying.

Designed for experienced pilots who have passed through categories A and B and are looking for large flights, pilots who fly frequently in categories C and D or even CCC, but desire passive C-level safety with superior performance features in the class.

PREPARING FOR FLIGHT

Laying out the glider

- Choose an easy training elevation with less inclination for the first flight, without obstacles and a day with easy weather conditions.
- Open your canopy and lay him down in shape of a horseshoe.
- Check fabric and lines, if there is any damage or fatigue caused by wear.
- Check if all quick links are closed.
- Identify, separate and organize all risers (A, A', B and the brake lines).

It is extremely important that there are no entanglements and/or bunched lines present.

Harness

The LT 1 was tested within the standard of (LTF) with a harness of type (GH). We can recommend for the LT 1 all harness of type (ABS), tested with a carabiner connection height between 42 and 48 cm, measured form the seat and depending on the seize. Attention: the suspension height will influence the "normal" brake position. Always use a harness with back protection.

The distance between the carabiners should be between 40 and 48 cm. Together with your glider comes an "Easy Check" measure tape which might help you to check the distance exactly.
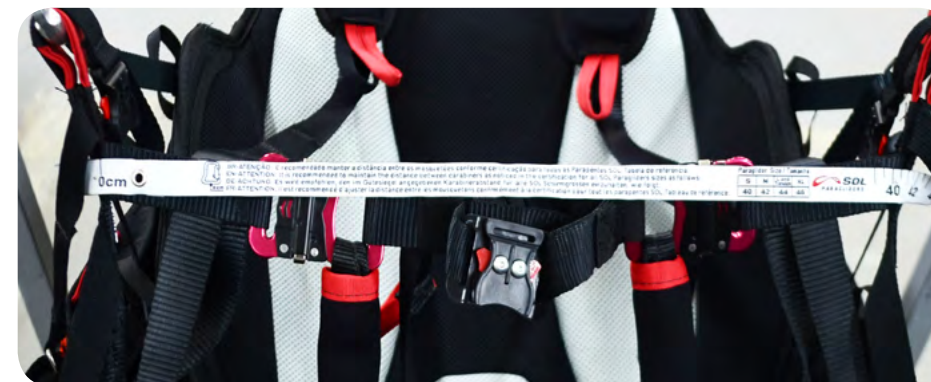
If the distance is not within the range, the glider could have extreme, dangerous or abnormal reaction in flight.

Connecting paraglider and harness

Without twisting the risers connect them with the carabiners of the harness. Check if they are connected and positioned in the right way without any twist. The (A riser) must be in front in flight direction.

Check if the carabiners are really looked and closed!

Accelerator

Most of modern harness have pulleys for assembling the Foot Speed System. The line must be firmly attached to the stirrup. The other end of the line is fed through the harness' pulleys and comes out vertically, and must be firmly attached to the clip of the quick look.

In order to adjust the Speed System, we suggest that you connect the harness and the risers, suspended from the ground. Ask a friend to pull the risers (A) upwards. At this time, adjust the length right to the bar in such way to be easily reachable with your feet in flight and by stretching the legs, make sure to allow for a clear path to maximize the accelerator usage.

Risers not accelerated

A = 55 cm
A' = 55 cm
B = 55 cm

Risers accelerated

A = 41 cm
A' = 48 cm
B = 55 cm

Measure with quick links

Measure with quick links.

FLIGHT

Take Off Check List

- Helmet closed?

- Carabiners looked and closed?

- Harness all looks closed?

- Carabiner distance OK.?

- Risers (A) in hands?

- Brake lines free, toggles in hand?

- Pilot stays in the midst of the canopy?

- Take off area free?

- Paraglider and pilot lined up against the wind?

- Air space in take off direction free?

Forward Take off

When ready to takeoff, the pilot must have risers (A) and the toggles in hand. The arms must be extended to the side, as if they are extensions of risers (A). A decisive run allows a quick and stable inflation.

After the initial inflation momentum, the pilot must keep the tension forward on risers (A), not pulling them downwards, until the canopy is above his head. At this point, the brakes must be carefully activated and the pilot must be prepared for possible directional changes. A move to underneath the center of the paraglider is the best method for corrections, provided there is room for it.

The pilot glances at last upwards to ensure the canopy is properly located above, completely unobstructed and inflated. Only at this point, the pilot decides whether or not to takeoff.

Reverse Take off

The preparation is the same as to forward take off. But this time you have to turn towards the canopy. During the turn lift the hand which is turning away from the glider with the risers above your head. Now you can inflate the glider with the red (A) risers. Push the risers up and let them go when the canopy is over your head. If necessary use the brakes gently. Turn out and begin the start run. Attention: check to turn out to the right side. Example you turned with your left side to the glider you have to turn out with your left side to the glider. Otherwise you will have made a 360 degree turn and all your risers are twisted.

In case of strong wind it could be necessary to make some steps towards the canopy during inflation. This take off method can be used even with little wind.

Thermals and Soaring

In turbulent conditions, the paraglider must be flown with the brakes softly applied, resuing in greater canopy stability. The pendulum effect back and forth must be avoided! The canopy must remain on top of the pilot. For this purpose, the speed must be increased by releasing the brakes upon entering a thermal (depending on its intensity) or braking on exit. This is part of the basic technique on "active flying".
During soaring, a minimum height of 50m over ground is highly recommended, for safety reasons. Knowing and respecting flight regulations is extremely important, especially when airspace within close proximities of mountains is shared among several pilots, where last minute anti-collision maneuvers are not executable.

Turns

The LT 1 is very sensitive, responding instantly to turn commands. Leveled turns can be achieved with the shifting of weight on the risers with minimum aitude loss. A combination of weight shifting and breaking technique is the most efficient way of executing turns in any situation. The given brake utilized determines the radius of turns.
By activating the brakes on the outside edge of the turns, as well as applying maximum weight shifting on the risers, the efficiency and resistance to collapse in turbulences (at the edge of thermals) is increased.
In case it becomes necessary to perform turns in a constrained space we recommend to release the outside brake in the given turn and pull a little more the brake on the inside of the turn. The paraglider glides best when no brakes are applied.

⛔ By pulling either brake too strongly or suddenly, there is a danger of creating a negative spiral!

Accelerated flight

It is recommended to use the accelerator when flying against the wind or in zones with descending air. Due to a decreased angle of attack, the canopy may collapse easier than when set at the normal position. The pilot must remember that the higher the speed, the more dynamic the collapse response or symmetric closing will be.

⛔
- Exercise the use of the accelerator during calm conditions.
- Be cautious flying accelerated in difficult and turbulent conditions.
- Remember: The higher the speed the higher the descent rate.
- Check always on all accelerator parts for good function and signs of wear.

Active flying

For best performance during your flight, it is important to be always sensitive to what your canopy is trying to communicate. The key elements of active flying are: controlling the canopy advancement and the canopy pressure. If you apply gently the brakes (about +- 15cm) you are getting a good feedback about the canopy pressure, which can alter easily in turbulent air. You can feel it very well on the brakes. The general idea: keep the pressure constant.
Avoid flying excessively with the brakes on, cause you might brake to the point of stopping the canopy from flying. Always consider your aerodynamic speed. Your movements can be symmetric or asymmetric and both or one brake can be applied. This corrections control your flight and reduce the risk of collapses. We suggest that you practice on the ground. Canopy advancement and pressure loss can be simulated well on the ground.

B-Riser control

The LT 1 responds very nicely to B-riser control. With the speed system applied the B-risers can be pulled backwards towards the pilot to directly control the angle of attack of the glider. Pulling backwards pitches the wing nose-up, increasing the angle of attack, and reduces the chordwise compression in the sail from the lines, making the wing more tuck-resistant.

The control movement is subtle and fluid, and only small movements are required. It is important to recognize how much B-riser movement is needed to return the glider to trim speed.

The riser-limiters provide a good indicator of when trim speed is approached, making it clear when the maillons are getting close to level (which is a sensible limit to the amount of B-riser control that should be applied). B-riser control can be used to fluidly pilot the wing through turbulence by controlling pitch.

The aim should be to control pitch so that the wing stays directly above you. B-riser control can also be used for steering. It is good practice to always glide with gentle tension applied to the B-risers (pulling them backwards about 5cm) so that you can feel the inputs from the wing. Those inputs warn you when turbulence is coming, but also allow you to feel the lifty side of the wing – when the tension on the B-riser on one side increases, pull back on that side to turn slightly towards the lifting air. Following lifting lines using the B-risers this way can make a huge difference to flight performance and gives the LT 1 pilot a very satisfying feeling of being connected to the air movements.

A pilot fully in tune with the LT 1 can use these B-riser inputs to follow the lifty lines that lead to the cores of thermals.

Landing

Always choose a secure and clean landing side with lots of space, great distance to natural obstacles and is not under the influence of turbulent air.

- The final approach stage must be done in straight line upwind.

- With less than 30m above ground avoid steer turns, they may result in dangerous pendulous movements and the pilot could crash to the ground with high velocity.

- Before landing get up in your harness with the weight against the chest strap, especially in turbulent conditions.

- Fly with hands up, without brakes, until more or less 1m over ground. In turbulent conditions fly active until the end. Than apply slowly and progressively the brakes to reduce velocity until you can almost without speed land on the ground.

- Always adapt your landing on space, circumstances and wind.

- If the wind is strong and you feel it might be possible been dragged or uplifted after landing, pull symmetrically the B risers. This movement kills the glider fast and controlled and avoids a re-inflation or that the glider turns into a great sail. After killing the glider pull him back to you using the B risers.

FAST DESCENT MANEUVERS

The following maneuvers should be used only in emergency situations and need a special training fore safety use. If possible attend a workshop to learn and practice this maneuvers. This maneuvers are used by cloud entrance and in case of approaching thunderstorms.

Remember: a good weather analysis before flight helps to avoid this maneuvers during flight.

Positive spiral

A positive spiral has a high sink rate. But the high acceleration, G-Force, impedes to fly this maneuver for a long time. The G-Force may cause that the pilot looses his consciousness and spirals until he crashes the ground. The same high energy is acting on the equipment and will shorten his endurance.

A positive spiral never should be exercised in turbulent conditions or strong lateral wind. Under strong wind conditions the pilot has to remember that the lateral drift could be enormous.

When the pilot activates just one brake, slowly and progressively, the paraglider inclines sideways in a sharp angle and enters in a steep and quick turn, which may become a positive spiral. During a spiral the rotation radius can be controlled by the force applied to the inside brake.

In order to come out of the spiral, the pilot must release the brake slowly and shift his weight lightly to the outside of the turn. A sudden exit may result in an exaggerated forward movement of the canopy, and cause a collapse. For this reason, on the last turn, the inside brake of a given turn must be softly applied again.

In case the canopy collapses during this process, the spiral must be counter-acted, as the active canopy area will be reduced.

- Never combine big ears with spirals. The canopy active area reduction plus the 'G' force may result in line and/or canopy damage.
- Leaving a fast spiral must be executed slowly and progressively.
- The maneuver requires high alt 1itudes (at least 600 meter over ground) and is dangerous, due high descent ratio the pilot can lose the altitude reference.

B3-Descent

To increase your sink rate, pull in the (BR3) lines simultaneously, firmly, and progressively. To exit the maneuver, release the tips simult aneously and progressively and then release the speed bar.

Behavior in extrem maneuvers and collapses

Pilot error, extreme wind conditions or turbulence which goes unnoticed by the pilot for too long may leave the wing in an unusual flying position, requiring special reaction and skills on the part of the pilot. The best way to learn how to react calmly and correctly in a serious situation is to attend safety training, where you will learn how to manage extreme situations under the guidance of a professional.

Ground-training is another safe and effective method of familiarizing yourself with your glider's reactions. Launch can be practiced, as can small flying maneuvers, such as stall, asymmetric collapse, front stall etc.

Any pilot who flies in turbulent conditions or who makes an error in handling the glider is at risk of getting into an extreme situation. All the extreme flight figures and flight attitudes described here are dangerous if they are carried out with inadequate knowledge, without the right safety altitude or without training.

Always keep within the recommended limits. Avoid aerobatics and extreme loading such as spirals and big ears. This will prevent accidents and avoid over-loading the glider.

In turbulent conditions, always keep enough distance from rock faces and other obstacles.Time and sufficient altitude are needed to recover from extreme situations.

Deploy your reserve if the corrective maneuvers described in the following sections do not return the glider to a controllable flying position or if there is not enough altitude for correction.

EXTREME FLIGHT SITUATIONS

Front-stall

Normally the paraglider opens on his own after a front-stall. In turbulent conditions it may happen that the canopy make a fast movement forward, in order to avoid another front-stall it is necessary to apply the brakes precisely.
Caution: If the brake lines are applied too much the glider could get into a full-stall.

Lateral closing

Active flying almost ever avoids lateral closing. If lateral closing happens, the canopy folds predictable and progressively from the tip to the center. This corresponds a collapse of 50% or more and results in a slight tendency for a turn. The glider can be held on course using the brake on the open side.Normally the paraglider opens on his own.

If the collapse happens during accelerated flight the canopy has a more dynamic reaction, but even than the turn can be controlled without problems.To facilitate the closed side to fill the pilot has to pull down slowly (ca. 2 seconds) the brake on the closed side and let go again (pump). Shifting the weight to the open side helps to re-inflate the sail and increases security, cause the brake has to be used less and this avoids a full-stall.

Without action, the paraglider will begin a positive spiral. The pilot must lightly apply the brake on the external side to stop a spiral and at the same time shift his weight on the same side until the canopy is stabilized. Exactly at this stage of pendulum effect under the canopy, it is important that the pilot controls carefully the amount of force applied on the brakes, and often it is needed to decrease the force.

Once a straight flight is achieved, the closed side can be re-inflated by the pumping action.

Parachutal

This paraglider does not have parachutal flight tendencies and recovers on its own from an intentional parachutal flight induced by braking commands. In case of a parachutal flight after an extreme situation loose the brakes and use the accelerator. Before using the brakes again make sure that the glider flies normally.

> ❗ If the glider is wet or the regular inspections weren't made, the risk of a parachutal flight exists.

Full-stall

The LT 1 has a long way on the brakes before he enters a full-stall. A full-stall happens if the brakes are pulled symmetrically and excessively downwards. Normally the glider starts to fly backwards and deforms to a horseshoe, the opening on the front.

Before terminating the canopy must be stabilized. Afterwards both brake lines have to be loosened symmetrically and slowly, to avoid that the canopy kicks forward.

Negative spiral

The LT 1 has a long way on the brakes and difficulties to enter in a negative spiral. But if one of the brakes is extremely pulled downwards it can happen.

The side with the brake pulled down enters in a stall, while the other side maintains open. In this case the brake must be loosened at once, before the glider turns 180°, in order to get the glider back to normal flight. Depending on the situation in which the brake is loosened, the canopy can react quite dynamic and kick forward provoking a collapse.

Line Over

If the tip of the wing is trapped in lines it could cause a positive spiral, which is difficult to control. To get out of this situation, first stabilize your wing and get him into normal flight. In other words control direction. Than pump on the side of the Line Over. During this procedure lean on the opposite side, otherwise there is a risk to turn or increase the spiral.
You also may try to pull the stabilo lines (AR3), the line on the riser (A'), to free the canopy. Watch out for the brake to avoid a stall on the clean side.
If the Line Over is big and all the counter action does not help and the glider is not to manage, release the reserve, whilst you are having height enough.

Emergency flying

In case of a brake line crack or the brake line is trapped or anything else happened and doesn't allow to use the brakes, use the (B risers) and weight shifting to steer the glider. Land on the nearest possible side. This situation could happen in case of poor maintenance of the equipment or an extreme flight situation.

Attention: the steering commands on (B risers) are much shorter than on the brake lines.

OTHER TIPS FOR DANGEROUS SITUATIONS

Flying in the rain

We strongly advise you not to fly in the rain on any paraglider including the LT 1. If you do fly in the rain, be aware that you will have a greater risk of entering a deep stall. It is wise to apply speed bar after passing through rain until you are confident that the glider is flying normally and has preferably dried out so that there is no longer any risk of deep stall.

Flying in extremely humid weather or in rain is outside of the operating limits of the glider. If you are not able to avoid flying in rain, please observe the following:

- it is advisable to fly with slight acceleration during and after the rain (min. 30% or more)
- use no brake input or as little as possible
- control travel reduces
- avoid tight turns, especially in the final approach. If conditions allow, you should also fly slightly accelerated in this phase
- avoid large angles of attack and the possible early stall near the ground (release the speed bar only slowly

Advertising and adhesives

Always make sure before attaching advertising to the glider that the adhesive planned will not alter the glider's flight behavior. If you are in doubt, we recommend that you do not attach the adhesive. Attaching adhesives to the glider which are large, heavy, or made of unsuitable material may resultin revocation of the certification.

Overloading

The glider structure is put under high levels of strain in particular on extreme flight maneuvers, rapid descent methods (spiral dives) or prohibited aerobatic maneuvers. They considerably accelerate the aging process of the structure and should therefore be avoided.

The glider must be inspected earlier than is usually the case if it has been put under more than the usual degree of strain.

Sand and salt air

In many cases, sand and salt air cause the lines and fabric to age much more rapidly. If you often fly near the sea, the glider should be inspected more frequently than normally required.

Safety training

The LT 1 is under no circumstances suitable for a pilot's first experience with safety training.

Special folding lines were used for certification of the LT 1. Without these folding lines, tucks and front stalls may vary from the CCC guidelines.

PACKING YOUR PARAGLIDER

There are different ways who can help to extend the life of your paraglider. One way is to fold the glider right. It's most important to watch out for the reinforcements to maintain the take off characteristics and the performance. We are recommending the "Origami Method" and the use of a Folding bag (see below). Together with your glider you get a traditional pack sack who also protects your glider. How to use it we describe after the "Origami Method".

Origami-Method

Step 1: Open the folding bag and pull the partially in. The outside will look like a cabbage. This way you're avoiding that the glider drags over the ground during folding.

Step 2: Begin with the center of the trailing edge. Put one profile over the other. Each side separate.

Step 3: Now do it in the same way with the leading edge profiles. Put the reinforcements of top and bottom in the right way, don't close the cell openings and push out the fabric.

Step 4: Fold the wing like an accordion from both sides and close the folding bag. Watch out for the lines and fabric closing the zipper.

Step 5: At last fold the sack as shown in the photo. This method is very gentle to the more stiffer parts of the glider.

Traditional-Method

Step 1: Bundle up your glider in form of a cabbage. This way you're avoiding that the glider drags over the ground during folding.

Step 2: Begin with the center of the trailing edge. Put one profile over the other. Each side separate.

Step 3: Now do it in the same way with the leading edge profiles. Put the reinforcements of top and bottom in the right way, don't close the cell openings and push out the fabric.

Step 4: Fold the wing like an accordion from both sides and put one side over the other. Now all reinforcements are laying side-wise one above the other.

Step 5: Fold the sack as shown in the photo. This method is very gentle to the more stiffer parts of the glider.

Step 6: At last put the glider into the protection bag.

Storing

Most part of the glider fabric is Nylon. As all other synthetic materials it suffers and deteriorates under the influence of ultraviolet radiation (UV). It looses his stiffness and gets more porous. Whenever it is possible avoid to submit your glider to the sun light, it has a high UV rate, especially in heights.

It is recommended to store your paraglider very well whilst it not in use. It should be stored dry in a dry place, protected from UV rays, distant from chemical products. Avoid to store the glider in hot places like the trunk of a car.

Back Pack

We recommend that you store your equipment in the back pack. That way it is easy to transport and protect. Your back pack was designed to be useful and comfort. Do it this way:

Step 1: Open your back pack and put your glider in.

Step 2: Your harness put above the glider and close the zipper.

Step 3: Store your helmet and accessories between the glider and the harness or in the upper part of the back pack.

Step 4: Close all parts and pockets of the back pack.

TIPS FOR CARE

- Over-stressing of individual lines, more than normal load in flight, should be avoided. An excessive deformation is irreversible and can't be undone. For the same reason avoid stepping on the lines, bending or folding them, especially the main lines.

- Always open the glider on clean ground, otherwise dirt could penetrate the fabric, shorten the lines or damage the canopy. Lines should not be entangled to objects during the phase of inflation, otherwise they could be deformed or damaged. Never step on the canopy, especially not on hard ground.

- Take offs and landings under strong wind conditions could force the glider to crash uncontrolled with high velocity on the ground, the crash could damage fabric and sewings.

- In case of a Line Over the brake lines could wear of or a main line could be cut by a brake line or crack by friction.

- Handling the paraglider on a earthy ground under strong wind conditions accelerates the aging process of your equipment.

- After a water or tree landing the paraglider must be sent for inspection to an authorized dealer's workshop.

- It must be avoided that sand, stones or snow enter in the cells, otherwise the weight on the trailing edge could brake the glider and cause a full-stall. Besides, the sharped edges could damage the sail's fabric.

- After the landing be careful, avoid crashing the leading edge on the ground. Otherwise the material and sewings of the cell openings could be damaged.

- In case the paraglider gets in contact with salty water, he must be washed with sweet water and dry in the shadow. Never use tools to accelerate the drying process. Salty water could reduce the line resistance and increase the porosity of the fabric, even washed out with sweet water.

- After any kind of accident: the equipment must be sent for inspection to an authorized dealer's workshop or to the manufacturer.

- Keep up to the required inspection data, to assure that your equipment is always save for use and within the certification requirements.

INSPECTION

Your paraglider has strictly to follow the required inspection intervals. The first inspection check is mandatory completing 24 months or 100 flights, whichever comes first.
After the first inspection any wing must be checked yearly or at each 100 flights, whichever comes first. In any of these inspections may occur that a shorter period for the next inspection will be defined (f. ex. 6 months or 50 flights).
Without performing the mandatory inspections, the paraglider loses its certification and the warranty becomes null and void.
After any kind of accident or a long period without use: sent the paraglider for inspection to an authorized dealer's workshop or to the manufacturer. It's for your own good.
Minor repairs (see below) you could do by yourself, but all other repairs must only be made by an authorized dealer's workshop or the manufacturer.

REPAIRS

Repairs must only be made by an authorized dealer's workshop or to the manufacturer. In case of minor repairs you are receiving with your glider a basic repair kit. It contains adhesive labels in case of minor tears and quick link sealing.

FABRIC TEARS

Small tears up to 10 cm away from the line suspension points may be fixed by yourself. Beyond that the maintenance must be made by an authorized dealer's workshop or the manufacturer.

- Clean the spot where the adhesive label will be applied with a humid cloth.
- The adhesive label has to be at least 2,5 cm larger than the tear.
- Round the edges, otherwise the adhesive label could loosen after the aplication.
- Apply on both sides of the tear.

LINE CRACK

In case of a line crack we recommend to contact your dealer, an authorized dealer's workshop or the manufacturer. After the repair test the glider on the ground and check if everything is alright.

QUICK LINK SEALING

Along with your kit you're get sealing for the quick links. Don't leave your risers without them, because they avoid the movement of the screw nut, making it impossible to open.

WARRANTY

Every paraglider manufactured by SOL Paragliders has a Warranty of 3 Years or 300 Hours of Flight, whichever comes first. Our technology, through the utilization of quality materials and the adoption of new manufacturing processes, allows us to offer you, our client this added bonus.

1. This warranty refers to materials and possible processing defects of the paraglider. The conditions below have to be considered carefully.

2. This warranty is valid for all paragliders from SOL with LTF/EN certification, rated for leisure use only. This warranty does not include paragliders used professionally (school, competitions, aerobatics, etc).

3. Due to the extreme use, competition and acro paragliders and gliders used professionally are not included in the SOL 3 years (300 flight hours) warranty. All paragliders used for competition or acro have a 1 year warrant for production errors.

WARRANTY TERMS

1. A warranty registration has to be filled out correctly within 30 days after the purchase (you can find the registration here: www.solparagliders.com.br/registro.php).

2. All flights must be logged providing information on date, place and length of flight.

3. The equipment must be kept and used in accordance with the instructions provided in this manual. All the storage, folding, cleaning and care instructions must be carefully taken.

4. Maintenance and inspections can only be performed by the manufacturer or authorized dealers workshops and must be properly documented.

5. Your paraglider has strictly to follow the required inspection intervals. The first inspection check is mandatory completing 24 months or 100 flights, whichever comes first. After the first inspection any wing must be checked yearly or at each 100 flights, whichever comes first. In any of these inspections may occur that a shorter period for the next inspection will be defined (f. ex. 6 months or 50 flights). Without performing the mandatory inspections, the paraglider loses its certification and the warranty becomes null and void.

6. The owner is responsible for all shipping expenses to and from the manufacturer.

7. In order to make a plea for repair or equipment exchange, which shall be decided and performed only by SOL Paragliders, the owner must send the paraglider to the manufacturer with the following documents:

 - A copy of all inspection data and the log book (flight data)

 - A copy of the warranty registration from SOL Paragliders

TIS WARRANTY DOES NOT COVER

1. Any alterations on original fabric colors, lines and risers.

2. Any damage caused by chemical products, sand, friction, cleaning products or salt water.

3. Any damage caused as a result of errors during operation of the harness, incidents or emergency situations.

4. Any damage caused by inadequate operation of the paraglider.

5. A paraglider that may have been subjected of any alteration from the original design and without proper permission from SOL Paragliders.

6. Damages caused by inappropriate transport, storage or settings of the paraglider.

7. Damages caused by the use of not compatible components with the paraglider.

8. Damages caused by the use of inappropriate packaging for the transport.

9. Products without original identification label and serial number.

10. Handling the paraglider otherwise than to the instructions given in the owner´s manual.

ENVIRONMENT AND RECYCLING

Please be aware of our environment: don't toss your garbage into nature, respect the animals. Remember: nature is our gliders engine.

If your paraglider gets out of use remember it cannot be recycled. Please give it to your dealer or your flying-school, they should know how to handle it.

OPERATION LIMITS

The paraglider must be operated only within the operating limits. These are exceeded, if one or more of the following points are compiled:

- the take-off weight is not within the permissible weight range
- the glider is flown in rain or drizzle, cloud, fog and / or snow
- the canopy is wet
- there are turbulent weather conditions or wind speeds on launch higher than 2/3 of the maximum flyable airspeed of the glider (varies according to the total take-off weight)
- air temperature below -10°C and above 50°C
- the glider is used for aerobatics/extreme flying or flight maneuvers at an angle greater than 90°
- there have been modifications to the canopy, lines or risers which have not been approve

FINAL WORDS

Safety is the major theme of our sport. In order to fly safely, pilots must train, study, practice and be alert to the dangers around us. In order to achieve excellent safety levels, we must fly regularly as much as possible, don't go beyond our limitations and avoid exposing ourselves to unnecessary dangers. Learning to fly is a slow process and takes years, so don't pressure yourself. If conditions are not favorable, keep your equipment stored away.

Don't overestimate your skills and be honest with yourself. Every year we see many accidents which in most cases could be prevented with a minor adjustment.

We are a part of the community in which we live: friends, family and even people we don't necessarily know worry about us. Our obligation towards this community is to keep ourselves healthy and that at each landing we will be one landing happier than before. We fly so that we can feel more alive.

We wish you good and safe flights with your new paraglider.

SOL Paragliders Team !!

TECHNICAL DATA

Weight, measure and data

Model	XS	S	M	L	XL	XXL	
Cells	66	66	66	66	66	66	
Real Surface	21,74	23,40	24,87	26,64	28,74	31,20	m²
Real Span	11,66	12,10	12,47	12,91	13,41	13,97	m
Real A/R	6,25	6,25	6,25	6,25	6,25	6,25	
Projected Surface	18,71	20,13	21,40	22,92	24,73	26,84	m²
Projected Span	9,41	9,76	10,07	10,42	10,82	11,27	m
Projected A/R	4,73	4,73	4,73	4,73	4,73	4,73	
Line diameter	Vectran 0.6 - 0.9 - 1.0 - 1.2 - 1.4 - 2.2 / Technora 2.1						mm
Height	742	768	790	816	846	879	cm
Profile max.	231	240	247	256	266	277	cm
Profile min.	55	57	59	61	63	66	cm
Paraglider weight	5,4	5,8	6,2	6,6	6,8	7,7	kg
Take off weight	70-85	80-95	90-105	100-115	110-130	120 - 140	Kg
Certification	CCC	CCC	CCC	CCC	CCC	CCC	
Accelerator	14	14	14	14	14	14	cm
Risers	2 + 1	2 + 1	2 + 1	2 + 1	2 + 1	2 + 1	
Trimmer	0	0	0	0	0	0	
Other connected or adjustable parts	0	0	0	0	0	0	

Parts and materials

Top	WTX 40 PU + Silicon 40 gr/sm - WTX 29 PU + Silicon 29 gr/sm
Bottom	WTX 29 PU + Silicon 29 gr/sm
Profiles/Diagonal tapes	Pro-Nyl High Tenacity Nylon rip-stop Hard finish 36 gr/sm
Reinforcements	Nylon Maxfio 2,5 mm
Reinforcements inside/outside	Cetim Polyester 25mm
Loops	FRL0027 Polyester 10 X 1.0 mm white
Sewing thread on canopy	Graal Polyester filament continuous 60 white
Sewing thread on risers	Nylbond Polyester filament continuous 30 - 40 Black
Lines	Cousin Vectran 0.6 - 0.9 - 1.0 - 1.2 - 1.4 - 2.2 mm / Technora 2.1 mm
Quick Links	Ansung Precision 15 mm. 800 kg
Risers	Polyester Venus 15 mm. 1.600 kg
Pulleys	Nylon Sol 12 mm / ISR 16 mm ball bearing
Magnet clip	Magneten aus Alnico 15 mm - ISR
Accelerator clip	Aluminium - ISR

Lines

Model	12100	12240	16330	12470	16560	16999	988
Manufacturer	Cousin FRA	Cousin FRA	Cousin FRA	Cousin FRA	Cousin FRA	Cousin FRA	Cousin FRA
Number resistance test	LI 611.2018	LI 612.2018	LI 613.2018	LI 614.2018	LI 615.2018	LI 683.2018	LT 949
Diameter	0.6	0.9	1.0	1.2	1.4	2.2	2.1
Material	Vectran	Vectran	Vectran	Vectran	Vectran	Vectran	Technora
Rope coating	no	no	no	no	no	no	Polyester
Resistance after bending	35.8 daN	96.2 daN	127.2 daN	186.6 daN	243.6 daN	231 daN	181.2 daN

Line lengths

LT 1 XS

	A	B	C	D	F
1	7361	7336	7343	7411	7709
2	7280	7255	7262	7332	7445
3	7252	7227	7235	7303	7265
4	7276	7255	7260	7327	7183
5	7203	7180	7185	7245	7014
6	7117	7097	7101	7161	6917
7	7083	7064	7067	7124	6856
8	7098	7086	7085	7139	6866
9	6981	6976			6816
10	6889	6888			6772
11	6820	6819			6743
12	6780				6716
13	6770	6759			
14	6620	6621			
15	6571	6589	6665		

Measuring incl. risers and carabiners with 5 daN load
Brake line measuring without riser

LT 1 M

	A	B	C	D	F
1	7839	7812	7821	7894	8228
2	7753	7726	7735	7810	7949
3	7723	7697	7707	7780	7761
4	7750	7727	7734	7806	7676
5	7673	7648	7656	7720	7497
6	7582	7561	7567	7631	7395
7	7546	7525	7531	7592	7330
8	7562	7549	7551	7608	7340
9	7438	7435			7285
10	7340	7341			7237
11	7267	7268			7203
12	7224				7173
13	7213	7205			
14	7053	7055			
15	7000	7021	7103		

Measuring incl. risers and carabiners with 5 daN load
Brake line measuring without riser

LT 1 S

	A	B	C	D	F
1	7619	7593	7600	7670	7988
2	7535	7509	7517	7589	7716
3	7506	7481	7489	7560	7533
4	7532	7510	7515	7585	7450
5	7457	7433	7439	7502	7275
6	7369	7348	7352	7415	7175
7	7334	7314	7317	7377	7113
8	7349	7337	7336	7392	7123
9	7229	7225			7070
10	7134	7134			7024
11	7062	7063			6993
12	7021				6964
13	7011	7001			
14	6856	6857			
15	6804	6824	6903		

Measuring incl. risers and carabiners with 5 daN load
Brake line measuring without riser

LT 1 L

	A	B	C	D	F
1	8096	8069	8078	8153	8506
2	8008	7980	7990	8067	8220
3	7977	7950	7961	8037	8028
4	8006	7982	7990	8064	7942
5	7927	7901	7910	7977	7758
6	7833	7811	7818	7885	7653
7	7796	7775	7781	7845	7587
8	7813	7800	7802	7862	7597
9	7686	7684			7540
10	7585	7587			7489
11	7509	7512			7453
12	7466				7420
13	7454	7447			
14	7289	7291			
15	7234	7256	7340		

Measuring incl. risers and carabiners with 5 daN load
Brake line measuring without riser

LT 1 XL

	A	B	C	D	F
1	8390	8361	8372	8450	8824
2	8298	8270	8281	8361	8530
3	8267	8239	8251	8330	8332
4	8297	8272	8281	8359	8245
5	8216	8189	8199	8268	8055
6	8119	8096	8104	8174	7946
7	8081	8059	8066	8133	7878
8	8099	8085	8088	8151	7889
9	7966	7966			7828
10	7862	7866			7774
11	7784	7788			7735
12	7739				7699
13	7726	7720			
14	7554	7557			
15	7498	7520	7608		

Measuring incl. risers and carabiners with 5 daN load
Brake line measuring without riser

LT 1 XXL

	A	B	C	D	F
1	8721	8691	8695	8777	9185
2	8626	8596	8600	8684	8880
3	8594	8564	8569	8652	8676
4	8625	8600	8602	8682	8587
5	8541	8513	8516	8589	8390
6	8440	8416	8418	8491	8277
7	8401	8378	8379	8449	8206
8	8420	8406	8403	8468	8218
9	8284	8276			8154
10	8175	8173			8097
11	8094	8091			8055
12	8047				8017
13	8035	8022			
14	7855	7858			
15	7797	7820	7912		

Measuring incl. risers and carabiners with 5 daN load
Brake line measuring without riser

Line lengths individually

LT 1 XS

Name	Line reference		Diameter / mm	Number of lines	Length / mm
A15	Cousin vectran	12100	0,6	2	604
A14	Cousin vectran	12100	0,6	2	653
A13	Cousin vectran	12240	0,9	2	699
A12	Cousin vectran	12240	0,9	2	709
A11	Cousin vectran	12240	0,9	2	749
A10	Cousin vectran	12240	0,9	2	843
A9	Cousin vectran	12240	0,9	2	935
A8	Cousin vectran	12240	0,9	2	333
A7	Cousin vectran	12240	0,9	2	337
A6	Cousin vectran	12240	0,9	2	337
A5	Cousin vectran	12240	0,9	2	342
A4	Cousin vectran	12240	0,9	2	358
A3	Cousin vectran	12240	0,9	2	366
A2	Cousin vectran	12240	0,9	2	370
A1	Cousin vectran	12240	0,9	2	373
B15	Cousin vectran	12100	0,6	2	622
B14	Cousin vectran	12100	0,6	2	654
B13	Cousin vectran	12240	0,9	2	680
B11	Cousin vectran	12240	0,9	2	740
B10	Cousin vectran	12240	0,9	2	834
B9	Cousin vectran	12240	0,9	2	922
B8	Cousin vectran	12240	0,9	2	321
B7	Cousin vectran	12240	0,9	2	318
B6	Cousin vectran	12240	0,9	2	317
B5	Cousin vectran	12240	0,9	2	319
B4	Cousin vectran	12240	0,9	2	337
B3	Cousin vectran	12240	0,9	2	341
B2	Cousin vectran	12240	0,9	2	345
B1	Cousin vectran	12240	0,9	2	348
AM11	Cousin vectran	12100	0,6	2	350
AM10	Cousin vectran	16330	1	2	1025
AM9	Cousin vectran	16330	1	2	1000
AM8	Cousin vectran	16330	1	2	602
AM7	Cousin vectran	16330	1	2	583
AM6	Cousin vectran	16330	1	2	617
AM5	Cousin vectran	16330	1	2	698
AM4	Cousin vectran	16330	1	2	755
AM3	Cousin vectran	16330	1	2	723
AM2	Cousin vectran	16330	1	2	747
AM1	Cousin vectran	16330	1	2	825
AML6	Cousin vectran	12240	0,9	2	2510
AML5	Cousin vectran	16560	1,4	2	1945
AML4	Cousin vectran	16560	1,4	2	970
AML3	Cousin vectran	16560	1,4	2	970
AML2	Cousin vectran	16560	1,4	2	970
AML1	Cousin vectran	16560	1,4	2	970
AR3	Cousin vectran	16560	1,4	2	2610
AR2	Cousin vectran	16999	2,2	2	4700
AR1	Cousin vectran	16999	2,2	2	4700
C15	Cousin vectran	12100	0,6	2	698

LT 1 XS

Name	Line reference		Diameter / mm	Number of lines	Length / mm
C8	Cousin vectran	12240	0,9	2	642
C7	Cousin vectran	12240	0,9	2	679
C6	Cousin vectran	12240	0,9	2	711
C5	Cousin vectran	12240	0,9	2	739
C4	Cousin vectran	12240	0,9	2	782
C3	Cousin vectran	12240	0,9	2	799
C2	Cousin vectran	12240	0,9	2	809
C1	Cousin vectran	12240	0,9	2	815
D8	Cousin vectran	12100	0,6	2	696
D7	Cousin vectran	12100	0,6	2	736
D6	Cousin vectran	12100	0,6	2	771
D5	Cousin vectran	12100	0,6	2	799
D4	Cousin vectran	12100	0,6	2	849
D3	Cousin vectran	12100	0,6	2	867
D2	Cousin vectran	12100	0,6	2	879
D1	Cousin vectran	12100	0,6	2	883
BM11	Cousin vectran	12100	0,6	2	350
BM10	Cousin vectran	12240	0,9	2	1025
BM9	Cousin vectran	12240	0,9	2	1000
BM8	Cousin vectran	12240	0,9	2	378
BM7	Cousin vectran	12240	0,9	2	323
BM6	Cousin vectran	12240	0,9	2	325
BM5	Cousin vectran	12240	0,9	2	381
BM4	Cousin vectran	12240	0,9	2	413
BM3	Cousin vectran	12240	0,9	2	371
BM2	Cousin vectran	12240	0,9	2	388
BM1	Cousin vectran	12240	0,9	2	463
BLM4	Cousin vectran	16330	1	2	875
BLM3	Cousin vectran	16330	1	2	875
BLM2	Cousin vectran	16330	1	2	875
BLM1	Cousin vectran	16330	1	2	875
BR3	Cousin vectran	12470	1,2	2	4555
BR2	Cousin vectran	12470	1,2	2	4700
BR1	Cousin vectran	12470	1,2	2	4700
F12	Cousin vectran	12100	0,6	2	606
F11	Cousin vectran	12100	0,6	2	633
F10	Cousin vectran	12100	0,6	2	662
F9	Cousin vectran	12100	0,6	2	706
F8	Cousin vectran	12100	0,6	2	756
F7	Cousin vectran	12100	0,6	2	746
F6	Cousin vectran	12100	0,6	2	807
F5	Cousin vectran	12100	0,6	2	904
F4	Cousin vectran	12100	0,6	2	983
F3	Cousin vectran	12100	0,6	2	1065
F2	Cousin vectran	12100	0,6	2	1245
F1	Cousin vectran	12100	0,6	2	1509
FM1	Cousin vectran	12100	0,6	4	1400
FM2	Cousin vectran	12100	0,6	8	1310
FM3	Cousin vectran	12100	0,6	6	2150
FR	Technora	988	2,1	2	2690

LT 1 S

Name	Line reference		Diameter / mm	Number of lines	Length / mm
A15	Cousin vectran	12100	0,6	2	632
A14	Cousin vectran	12100	0,6	2	684
A13	Cousin vectran	12240	0,9	2	730
A12	Cousin vectran	12240	0,9	2	740
A11	Cousin vectran	12240	0,9	2	781
A10	Cousin vectran	12240	0,9	2	878
A9	Cousin vectran	12240	0,9	2	973
A8	Cousin vectran	12240	0,9	2	333
A7	Cousin vectran	12240	0,9	2	338
A6	Cousin vectran	12240	0,9	2	342
A5	Cousin vectran	12240	0,9	2	354
A4	Cousin vectran	12240	0,9	2	372
A3	Cousin vectran	12240	0,9	2	380
A2	Cousin vectran	12240	0,9	2	384
A1	Cousin vectran	12240	0,9	2	387
B15	Cousin vectran	12100	0,6	2	652
B14	Cousin vectran	12100	0,6	2	685
B13	Cousin vectran	12240	0,9	2	712
B11	Cousin vectran	12240	0,9	2	774
B10	Cousin vectran	12240	0,9	2	870
B9	Cousin vectran	12240	0,9	2	961
B8	Cousin vectran	12240	0,9	2	321
B7	Cousin vectran	12240	0,9	2	318
B6	Cousin vectran	12240	0,9	2	321
B5	Cousin vectran	12240	0,9	2	330
B4	Cousin vectran	12240	0,9	2	350
B3	Cousin vectran	12240	0,9	2	355
B2	Cousin vectran	12240	0,9	2	358
B1	Cousin vectran	12240	0,9	2	361
AM11	Cousin vectran	12100	0,6	2	310
AM10	Cousin vectran	16330	1	2	1065
AM9	Cousin vectran	16330	1	2	1040
AM8	Cousin vectran	16330	1	2	633
AM7	Cousin vectran	16330	1	2	613
AM6	Cousin vectran	16330	1	2	644
AM5	Cousin vectran	16330	1	2	720
AM4	Cousin vectran	16330	1	2	777
AM3	Cousin vectran	16330	1	2	743
AM2	Cousin vectran	16330	1	2	768
AM1	Cousin vectran	16330	1	2	849
AML6	Cousin vectran	12240	0,9	2	2660
AML5	Cousin vectran	16560	1,4	2	2020
AML4	Cousin vectran	16560	1,4	2	1010
AML3	Cousin vectran	16560	1,4	2	1010
AML2	Cousin vectran	16560	1,4	2	1010
AML1	Cousin vectran	16560	1,4	2	1010
AR3	Cousin vectran	16560	1,4	2	2705
AR2	Cousin vectran	16999	2,2	2	4880
AR1	Cousin vectran	16999	2,2	2	4880
C15	Cousin vectran	12100	0,6	2	731

LT 1 S

Name	Line reference		Diameter / mm	Number of lines	Length / mm
C8	Cousin vectran	12240	0,9	2	666
C7	Cousin vectran	12240	0,9	2	704
C6	Cousin vectran	12240	0,9	2	739
C5	Cousin vectran	12240	0,9	2	768
C4	Cousin vectran	12240	0,9	2	812
C3	Cousin vectran	12240	0,9	2	829
C2	Cousin vectran	12240	0,9	2	840
C1	Cousin vectran	12240	0,9	2	846
D8	Cousin vectran	12100	0,6	2	722
D7	Cousin vectran	12100	0,6	2	764
D6	Cousin vectran	12100	0,6	2	802
D5	Cousin vectran	12100	0,6	2	831
D4	Cousin vectran	12100	0,6	2	882
D3	Cousin vectran	12100	0,6	2	900
D2	Cousin vectran	12100	0,6	2	912
D1	Cousin vectran	12100	0,6	2	916
BM11	Cousin vectran	12100	0,6	2	310
BM10	Cousin vectran	12240	0,9	2	1065
BM9	Cousin vectran	12240	0,9	2	1040
BM8	Cousin vectran	12240	0,9	2	410
BM7	Cousin vectran	12240	0,9	2	353
BM6	Cousin vectran	12240	0,9	2	353
BM5	Cousin vectran	12240	0,9	2	411
BM4	Cousin vectran	12240	0,9	2	443
BM3	Cousin vectran	12240	0,9	2	400
BM2	Cousin vectran	12240	0,9	2	417
BM1	Cousin vectran	12240	0,9	2	494
BLM4	Cousin vectran	16330	1	2	890
BLM3	Cousin vectran	16330	1	2	890
BLM2	Cousin vectran	16330	1	2	890
BLM1	Cousin vectran	16330	1	2	890
BR3	Cousin vectran	12470	1,2	2	4725
BR2	Cousin vectran	12470	1,2	2	4880
BR1	Cousin vectran	12470	1,2	2	4880
F12	Cousin vectran	12100	0,6	2	634
F11	Cousin vectran	12100	0,6	2	663
F10	Cousin vectran	12100	0,6	2	694
F9	Cousin vectran	12100	0,6	2	740
F8	Cousin vectran	12100	0,6	2	793
F7	Cousin vectran	12100	0,6	2	783
F6	Cousin vectran	12100	0,6	2	845
F5	Cousin vectran	12100	0,6	2	945
F4	Cousin vectran	12100	0,6	2	1025
F3	Cousin vectran	12100	0,6	2	1108
F2	Cousin vectran	12100	0,6	2	1291
F1	Cousin vectran	12100	0,6	2	1563
FM1	Cousin vectran	12100	0,6	4	1455
FM2	Cousin vectran	12100	0,6	8	1360
FM3	Cousin vectran	12100	0,6	6	2230
FR	Technora	988	2,1	2	2780

LT 1 M

Name	Line reference		Diameter / mm	Number of lines	Length / mm
A15	Cousin vectran	12100	0,6	2	653
A14	Cousin vectran	12100	0,6	2	706
A13	Cousin vectran	12240	0,9	2	752
A12	Cousin vectran	12240	0,9	2	763
A11	Cousin vectran	12240	0,9	2	806
A10	Cousin vectran	12240	0,9	2	909
A9	Cousin vectran	12240	0,9	2	1007
A8	Cousin vectran	12240	0,9	2	334
A7	Cousin vectran	12240	0,9	2	338
A6	Cousin vectran	12240	0,9	2	352
A5	Cousin vectran	12240	0,9	2	365
A4	Cousin vectran	12240	0,9	2	382
A3	Cousin vectran	12240	0,9	2	391
A2	Cousin vectran	12240	0,9	2	397
A1	Cousin vectran	12240	0,9	2	399
B15	Cousin vectran	12100	0,6	2	674
B14	Cousin vectran	12100	0,6	2	708
B13	Cousin vectran	12240	0,9	2	736
B11	Cousin vectran	12240	0,9	2	799
B10	Cousin vectran	12240	0,9	2	902
B9	Cousin vectran	12240	0,9	2	996
B8	Cousin vectran	12240	0,9	2	321
B7	Cousin vectran	12240	0,9	2	317
B6	Cousin vectran	12240	0,9	2	331
B5	Cousin vectran	12240	0,9	2	340
B4	Cousin vectran	12240	0,9	2	359
B3	Cousin vectran	12240	0,9	2	365
B2	Cousin vectran	12240	0,9	2	370
B1	Cousin vectran	12240	0,9	2	372
AM11	Cousin vectran	12100	0,6	2	320
AM10	Cousin vectran	16330	1	2	1100
AM9	Cousin vectran	16330	1	2	1070
AM8	Cousin vectran	16330	1	2	665
AM7	Cousin vectran	16330	1	2	645
AM6	Cousin vectran	16330	1	2	667
AM5	Cousin vectran	16330	1	2	745
AM4	Cousin vectran	16330	1	2	805
AM3	Cousin vectran	16330	1	2	769
AM2	Cousin vectran	16330	1	2	793
AM1	Cousin vectran	16330	1	2	877
AML6	Cousin vectran	12240	0,9	2	2740
AML5	Cousin vectran	16560	1,4	2	2080
AML4	Cousin vectran	16560	1,4	2	1040
AML3	Cousin vectran	16560	1,4	2	1040
AML2	Cousin vectran	16560	1,4	2	1040
AML1	Cousin vectran	16560	1,4	2	1040
AR3	Cousin vectran	16560	1,4	2	2790
AR2	Cousin vectran	16999	2,2	2	5030
AR1	Cousin vectran	16999	2,2	2	5030
C15	Cousin vectran	12100	0,6	2	756

LT 1 M

Name	Line reference		Diameter / mm	Number of lines	Length / mm
C8	Cousin vectran	12240	0,9	2	689
C7	Cousin vectran	12240	0,9	2	727
C6	Cousin vectran	12240	0,9	2	762
C5	Cousin vectran	12240	0,9	2	792
C4	Cousin vectran	12240	0,9	2	838
C3	Cousin vectran	12240	0,9	2	856
C2	Cousin vectran	12240	0,9	2	866
C1	Cousin vectran	12240	0,9	2	873
D8	Cousin vectran	12100	0,6	2	746
D7	Cousin vectran	12100	0,6	2	788
D6	Cousin vectran	12100	0,6	2	826
D5	Cousin vectran	12100	0,6	2	856
D4	Cousin vectran	12100	0,6	2	910
D3	Cousin vectran	12100	0,6	2	929
D2	Cousin vectran	12100	0,6	2	941
D1	Cousin vectran	12100	0,6	2	946
BM11	Cousin vectran	12100	0,6	2	320
BM10	Cousin vectran	12240	0,9	2	1100
BM9	Cousin vectran	12240	0,9	2	1070
BM8	Cousin vectran	12240	0,9	2	372
BM7	Cousin vectran	12240	0,9	2	314
BM6	Cousin vectran	12240	0,9	2	315
BM5	Cousin vectran	12240	0,9	2	374
BM4	Cousin vectran	12240	0,9	2	406
BM3	Cousin vectran	12240	0,9	2	361
BM2	Cousin vectran	12240	0,9	2	379
BM1	Cousin vectran	12240	0,9	2	458
BLM4	Cousin vectran	16330	1	2	970
BLM3	Cousin vectran	16330	1	2	970
BLM2	Cousin vectran	16330	1	2	970
BLM1	Cousin vectran	16330	1	2	970
BR3	Cousin vectran	12470	1,2	2	4870
BR2	Cousin vectran	12470	1,2	2	5030
BR1	Cousin vectran	12470	1,2	2	5030
F12	Cousin vectran	12100	0,6	2	653
F11	Cousin vectran	12100	0,6	2	683
F10	Cousin vectran	12100	0,6	2	717
F9	Cousin vectran	12100	0,6	2	765
F8	Cousin vectran	12100	0,6	2	820
F7	Cousin vectran	12100	0,6	2	810
F6	Cousin vectran	12100	0,6	2	875
F5	Cousin vectran	12100	0,6	2	977
F4	Cousin vectran	12100	0,6	2	1056
F3	Cousin vectran	12100	0,6	2	1141
F2	Cousin vectran	12100	0,6	2	1329
F1	Cousin vectran	12100	0,6	2	1608
FM1	Cousin vectran	12100	0,6	4	1500
FM2	Cousin vectran	12100	0,6	8	1400
FM3	Cousin vectran	12100	0,6	6	2300
FR	Technora	988	2,1	2	2860

LT 1 L

Name	Line reference		Diameter / mm	Number of lines	Length / mm
A15	Cousin vectran	12100	0,6	2	682
A14	Cousin vectran	12100	0,6	2	737
A13	Cousin vectran	12240	0,9	2	783
A12	Cousin vectran	12240	0,9	2	795
A11	Cousin vectran	12240	0,9	2	838
A10	Cousin vectran	12240	0,9	2	949
A9	Cousin vectran	12240	0,9	2	1050
A8	Cousin vectran	12240	0,9	2	334
A7	Cousin vectran	12240	0,9	2	349
A6	Cousin vectran	12240	0,9	2	364
A5	Cousin vectran	12240	0,9	2	378
A4	Cousin vectran	12240	0,9	2	397
A3	Cousin vectran	12240	0,9	2	405
A2	Cousin vectran	12240	0,9	2	411
A1	Cousin vectran	12240	0,9	2	413
B15	Cousin vectran	12100	0,6	2	704
B14	Cousin vectran	12100	0,6	2	739
B13	Cousin vectran	12240	0,9	2	768
B11	Cousin vectran	12240	0,9	2	833
B10	Cousin vectran	12240	0,9	2	943
B9	Cousin vectran	12240	0,9	2	1040
B8	Cousin vectran	12240	0,9	2	321
B7	Cousin vectran	12240	0,9	2	328
B6	Cousin vectran	12240	0,9	2	342
B5	Cousin vectran	12240	0,9	2	352
B4	Cousin vectran	12240	0,9	2	373
B3	Cousin vectran	12240	0,9	2	378
B2	Cousin vectran	12240	0,9	2	383
B1	Cousin vectran	12240	0,9	2	386
AM11	Cousin vectran	12100	0,6	2	330
AM10	Cousin vectran	16330	1	2	1140
AM9	Cousin vectran	16330	1	2	1105
AM8	Cousin vectran	16330	1	2	706
AM7	Cousin vectran	16330	1	2	674
AM6	Cousin vectran	16330	1	2	696
AM5	Cousin vectran	16330	1	2	776
AM4	Cousin vectran	16330	1	2	836
AM3	Cousin vectran	16330	1	2	799
AM2	Cousin vectran	16330	1	2	824
AM1	Cousin vectran	16330	1	2	910
AML6	Cousin vectran	12240	0,9	2	2835
AML5	Cousin vectran	16560	1,4	2	2150
AML4	Cousin vectran	16560	1,4	2	1075
AML3	Cousin vectran	16560	1,4	2	1075
AML2	Cousin vectran	16560	1,4	2	1075
AML1	Cousin vectran	16560	1,4	2	1075
AR3	Cousin vectran	16560	1,4	2	2890
AR2	Cousin vectran	16999	2,2	2	5205
AR1	Cousin vectran	16999	2,2	2	5205
C15	Cousin vectran	12100	0,6	2	788

LT 1 L

Name	Line reference		Diameter / mm	Number of lines	Length / mm
C8	Cousin vectran	12240	0,9	2	713
C7	Cousin vectran	12240	0,9	2	753
C6	Cousin vectran	12240	0,9	2	790
C5	Cousin vectran	12240	0,9	2	821
C4	Cousin vectran	12240	0,9	2	868
C3	Cousin vectran	12240	0,9	2	886
C2	Cousin vectran	12240	0,9	2	896
C1	Cousin vectran	12240	0,9	2	903
D8	Cousin vectran	12100	0,6	2	773
D7	Cousin vectran	12100	0,6	2	817
D6	Cousin vectran	12100	0,6	2	857
D5	Cousin vectran	12100	0,6	2	888
D4	Cousin vectran	12100	0,6	2	942
D3	Cousin vectran	12100	0,6	2	962
D2	Cousin vectran	12100	0,6	2	973
D1	Cousin vectran	12100	0,6	2	978
BM11	Cousin vectran	12100	0,6	2	330
BM10	Cousin vectran	12240	0,9	2	1140
BM9	Cousin vectran	12240	0,9	2	1105
BM8	Cousin vectran	12240	0,9	2	394
BM7	Cousin vectran	12240	0,9	2	333
BM6	Cousin vectran	12240	0,9	2	333
BM5	Cousin vectran	12240	0,9	2	394
BM4	Cousin vectran	12240	0,9	2	427
BM3	Cousin vectran	12240	0,9	2	380
BM2	Cousin vectran	12240	0,9	2	399
BM1	Cousin vectran	12240	0,9	2	480
BLM4	Cousin vectran	16330	1	2	1000
BLM3	Cousin vectran	16330	1	2	1000
BLM2	Cousin vectran	16330	1	2	1000
BLM1	Cousin vectran	16330	1	2	1000
BR3	Cousin vectran	12470	1,2	2	5040
BR2	Cousin vectran	12470	1,2	2	5205
BR1	Cousin vectran	12470	1,2	2	5205
F12	Cousin vectran	12100	0,6	2	680
F11	Cousin vectran	12100	0,6	2	713
F10	Cousin vectran	12100	0,6	2	749
F9	Cousin vectran	12100	0,6	2	800
F8	Cousin vectran	12100	0,6	2	857
F7	Cousin vectran	12100	0,6	2	847
F6	Cousin vectran	12100	0,6	2	913
F5	Cousin vectran	12100	0,6	2	1018
F4	Cousin vectran	12100	0,6	2	1102
F3	Cousin vectran	12100	0,6	2	1188
F2	Cousin vectran	12100	0,6	2	1380
F1	Cousin vectran	12100	0,6	2	1666
FM1	Cousin vectran	12100	0,6	4	1550
FM2	Cousin vectran	12100	0,6	8	1450
FM3	Cousin vectran	12100	0,6	6	2380
FR	Technora	988	2,1	2	2950

LT 1 XL

Name	Line reference		Diameter / mm	Number of lines	Length / mm
A15	Cousin vectran	12100	0,6	2	711
A14	Cousin vectran	12100	0,6	2	767
A13	Cousin vectran	12240	0,9	2	820
A12	Cousin vectran	12240	0,9	2	833
A11	Cousin vectran	12240	0,9	2	878
A10	Cousin vectran	12240	0,9	2	986
A9	Cousin vectran	12240	0,9	2	1090
A8	Cousin vectran	12240	0,9	2	340
A7	Cousin vectran	12240	0,9	2	363
A6	Cousin vectran	12240	0,9	2	379
A5	Cousin vectran	12240	0,9	2	393
A4	Cousin vectran	12240	0,9	2	412
A3	Cousin vectran	12240	0,9	2	421
A2	Cousin vectran	12240	0,9	2	426
A1	Cousin vectran	12240	0,9	2	429
B15	Cousin vectran	12100	0,6	2	733
B14	Cousin vectran	12100	0,6	2	770
B13	Cousin vectran	12240	0,9	2	806
B11	Cousin vectran	12240	0,9	2	874
B10	Cousin vectran	12240	0,9	2	982
B9	Cousin vectran	12240	0,9	2	1082
B8	Cousin vectran	12240	0,9	2	326
B7	Cousin vectran	12240	0,9	2	341
B6	Cousin vectran	12240	0,9	2	356
B5	Cousin vectran	12240	0,9	2	366
B4	Cousin vectran	12240	0,9	2	387
B3	Cousin vectran	12240	0,9	2	393
B2	Cousin vectran	12240	0,9	2	398
B1	Cousin vectran	12240	0,9	2	400
AM11	Cousin vectran	12100	0,6	2	345
AM10	Cousin vectran	16330	1	2	1180
AM9	Cousin vectran	16330	1	2	1150
AM8	Cousin vectran	16330	1	2	741
AM7	Cousin vectran	16330	1	2	700
AM6	Cousin vectran	16330	1	2	722
AM5	Cousin vectran	16330	1	2	805
AM4	Cousin vectran	16330	1	2	867
AM3	Cousin vectran	16330	1	2	828
AM2	Cousin vectran	16330	1	2	854
AM1	Cousin vectran	16330	1	2	943
AML6	Cousin vectran	12240	0,9	2	2945
AML5	Cousin vectran	16560	1,4	2	2235
AML4	Cousin vectran	16560	1,4	2	1120
AML3	Cousin vectran	16560	1,4	2	1120
AML2	Cousin vectran	16560	1,4	2	1120
AML1	Cousin vectran	16560	1,4	2	1120
AR3	Cousin vectran	16560	1,4	2	3000
AR2	Cousin vectran	16999	2,2	2	5405
AR1	Cousin vectran	16999	2,2	2	5405
C15	Cousin vectran	12100	0,6	2	821

LT 1 XL

Name	Line reference		Diameter / mm	Number of lines	Length / mm
C8	Cousin vectran	12240	0,9	2	741
C7	Cousin vectran	12240	0,9	2	784
C6	Cousin vectran	12240	0,9	2	822
C5	Cousin vectran	12240	0,9	2	853
C4	Cousin vectran	12240	0,9	2	902
C3	Cousin vectran	12240	0,9	2	921
C2	Cousin vectran	12240	0,9	2	932
C1	Cousin vectran	12240	0,9	2	939
D8	Cousin vectran	12100	0,6	2	804
D7	Cousin vectran	12100	0,6	2	851
D6	Cousin vectran	12100	0,6	2	892
D5	Cousin vectran	12100	0,6	2	922
D4	Cousin vectran	12100	0,6	2	980
D3	Cousin vectran	12100	0,6	2	1000
D2	Cousin vectran	12100	0,6	2	1012
D1	Cousin vectran	12100	0,6	2	1017
BM11	Cousin vectran	12100	0,6	2	345
BM10	Cousin vectran	12240	0,9	2	1180
BM9	Cousin vectran	12240	0,9	2	1150
BM8	Cousin vectran	12240	0,9	2	412
BM7	Cousin vectran	12240	0,9	2	347
BM6	Cousin vectran	12240	0,9	2	347
BM5	Cousin vectran	12240	0,9	2	411
BM4	Cousin vectran	12240	0,9	2	444
BM3	Cousin vectran	12240	0,9	2	395
BM2	Cousin vectran	12240	0,9	2	414
BM1	Cousin vectran	12240	0,9	2	498
BLM4	Cousin vectran	16330	1	2	1040
BLM3	Cousin vectran	16330	1	2	1040
BLM2	Cousin vectran	16330	1	2	1040
BLM1	Cousin vectran	16330	1	2	1040
BR3	Cousin vectran	12470	1,2	2	5235
BR2	Cousin vectran	12470	1,2	2	5405
BR1	Cousin vectran	12470	1,2	2	5405
F12	Cousin vectran	12100	0,6	2	714
F11	Cousin vectran	12100	0,6	2	750
F10	Cousin vectran	12100	0,6	2	789
F9	Cousin vectran	12100	0,6	2	843
F8	Cousin vectran	12100	0,6	2	904
F7	Cousin vectran	12100	0,6	2	893
F6	Cousin vectran	12100	0,6	2	961
F5	Cousin vectran	12100	0,6	2	1070
F4	Cousin vectran	12100	0,6	2	1155
F3	Cousin vectran	12100	0,6	2	1242
F2	Cousin vectran	12100	0,6	2	1440
F1	Cousin vectran	12100	0,6	2	1734
FM1	Cousin vectran	12100	0,6	4	1610
FM2	Cousin vectran	12100	0,6	8	1505
FM3	Cousin vectran	12100	0,6	6	2470
FR	Technora	988	2,1	2	3050

LT 1 XXL

Name	Line reference		Diameter / mm	Number of lines	Length / mm
A15	Cousin vectran	12100	0,6	2	711
A14	Cousin vectran	12100	0,6	2	767
A13	Cousin vectran	12240	0,9	2	820
A12	Cousin vectran	12240	0,9	2	833
A11	Cousin vectran	12240	0,9	2	878
A10	Cousin vectran	12240	0,9	2	986
A9	Cousin vectran	12240	0,9	2	1090
A8	Cousin vectran	16330	1	2	340
A7	Cousin vectran	16330	1	2	363
A6	Cousin vectran	16330	1	2	379
A5	Cousin vectran	16330	1	2	393
A4	Cousin vectran	16330	1	2	412
A3	Cousin vectran	16330	1	2	421
A2	Cousin vectran	16330	1	2	426
A1	Cousin vectran	16330	1	2	429
B15	Cousin vectran	12100	0,6	2	733
B14	Cousin vectran	12100	0,6	2	770
B13	Cousin vectran	12240	0,9	2	806
B11	Cousin vectran	12240	0,9	2	874
B10	Cousin vectran	12240	0,9	2	982
B9	Cousin vectran	12240	0,9	2	1082
B8	Cousin vectran	16330	1	2	326
B7	Cousin vectran	16330	1	2	341
B6	Cousin vectran	16330	1	2	356
B5	Cousin vectran	16330	1	2	366
B4	Cousin vectran	16330	1	2	387
B3	Cousin vectran	16330	1	2	393
B2	Cousin vectran	16330	1	2	398
B1	Cousin vectran	16330	1	2	400
AM11	Cousin vectran	12100	0,6	2	345
AM10	Cousin vectran	16330	1	2	1180
AM9	Cousin vectran	16330	1	2	1150
AM8	Cousin vectran	16330	1	2	741
AM7	Cousin vectran	16330	1	2	700
AM6	Cousin vectran	16330	1	2	722
AM5	Cousin vectran	16330	1	2	805
AM4	Cousin vectran	16330	1	2	867
AM3	Cousin vectran	16330	1	2	828
AM2	Cousin vectran	16330	1	2	854
AM1	Cousin vectran	16330	1	2	943
AML6	Cousin vectran	12240	0,9	2	2945
AML5	Cousin vectran	16560	1,4	2	2235
AML4	Cousin vectran	16560	1,4	2	1120
AML3	Cousin vectran	16560	1,4	2	1120
AML2	Cousin vectran	16560	1,4	2	1120
AML1	Cousin vectran	16560	1,4	2	1120
AR3	Cousin vectran	16560	1,4	2	3000
AR2	Cousin vectran	16999	2,2	2	5405
AR1	Cousin vectran	16999	2,2	2	5405
C15	Cousin vectran	12100	0,6	2	821

LT 1 XXL

Name	Line reference		Diameter / mm	Number of lines	Length / mm
C8	Cousin vectran	12240	0,9	2	774
C7	Cousin vectran	12240	0,9	2	817
C6	Cousin vectran	12240	0,9	2	856
C5	Cousin vectran	12240	0,9	2	889
C4	Cousin vectran	12240	0,9	2	941
C3	Cousin vectran	12240	0,9	2	960
C2	Cousin vectran	12240	0,9	2	972
C1	Cousin vectran	12240	0,9	2	979
D8	Cousin vectran	12100	0,6	2	839
D7	Cousin vectran	12100	0,6	2	887
D6	Cousin vectran	12100	0,6	2	929
D5	Cousin vectran	12100	0,6	2	962
D4	Cousin vectran	12100	0,6	2	1021
D3	Cousin vectran	12100	0,6	2	1043
D2	Cousin vectran	12100	0,6	2	1056
D1	Cousin vectran	12100	0,6	2	1061
BM11	Cousin vectran	12100	0,6	2	360
BM10	Cousin vectran	12240	0,9	2	1230
BM9	Cousin vectran	12240	0,9	2	1200
BM8	Cousin vectran	12240	0,9	2	427
BM7	Cousin vectran	12240	0,9	2	360
BM6	Cousin vectran	12240	0,9	2	360
BM5	Cousin vectran	12240	0,9	2	425
BM4	Cousin vectran	12240	0,9	2	459
BM3	Cousin vectran	12240	0,9	2	407
BM2	Cousin vectran	12240	0,9	2	426
BM1	Cousin vectran	12240	0,9	2	514
BLM4	Cousin vectran	16330	1	2	1085
BLM3	Cousin vectran	16330	1	2	1085
BLM2	Cousin vectran	16330	1	2	1085
BLM1	Cousin vectran	16330	1	2	1085
BR3	Cousin vectran	12470	1,2	2	5470
BR2	Cousin vectran	12470	1,2	2	5635
BR1	Cousin vectran	12470	1,2	2	5635
F12	Cousin vectran	12100	0,6	2	737
F11	Cousin vectran	12100	0,6	2	775
F10	Cousin vectran	12100	0,6	2	817
F9	Cousin vectran	12100	0,6	2	874
F8	Cousin vectran	12100	0,6	2	938
F7	Cousin vectran	12100	0,6	2	926
F6	Cousin vectran	12100	0,6	2	997
F5	Cousin vectran	12100	0,6	2	1110
F4	Cousin vectran	12100	0,6	2	1197
F3	Cousin vectran	12100	0,6	2	1286
F2	Cousin vectran	12100	0,6	2	1490
F1	Cousin vectran	12100	0,6	2	1795
FM1	Cousin vectran	12100	0,6	4	1680
FM2	Cousin vectran	12100	0,6	8	1570
FM3	Cousin vectran	12100	0,6	6	2575
FR	Technora	988	2,1	2	3175

CCC Line calculation LT 1 size: XS-S-M-L-XL

Name	LIne reference		Diameter	Resistance	Number	Resistance new (daN)			
			mm	daN	of line	Level 1	Level 2	Level 3	Level 4
A15	Cousin vectran	12100	0,6	35,8	2				71,6
A14	Cousin vectran	12100	0,6	35,8	2				71,6
A13	Cousin vectran	12240	0,9	96,2	2				192,4
A12	Cousin vectran	12240	0,9	96,2	2				192,4
A11	Cousin vectran	12240	0,9	96,2	2				192,4
A10	Cousin vectran	12240	0,9	96,2	2				192,4
A9	Cousin vectran	12240	0,9	96,2	2				192,4
A8	Cousin vectran	12240	0,9	96,2	2				192,4
A7	Cousin vectran	12240	0,9	96,2	2				192,4
A6	Cousin vectran	12240	0,9	96,2	2				192,4
A5	Cousin vectran	12240	0,9	96,2	2				192,4
A4	Cousin vectran	12240	0,9	96,2	2				192,4
A3	Cousin vectran	12240	0,9	96,2	2				192,4
A2	Cousin vectran	12240	0,9	96,2	2				192,4
A1	Cousin vectran	12240	0,9	96,2	2				192,4
B15	Cousin vectran	12100	0,6	35,8	2				71,6
B14	Cousin vectran	12100	0,6	35,8	2				71,6
B13	Cousin vectran	12240	0,9	96,2	2				192,4
B11	Cousin vectran	12240	0,9	96,2	2				192,4
B10	Cousin vectran	12240	0,9	96,2	2				192,4
B9	Cousin vectran	12240	0,9	96,2	2				192,4
B8	Cousin vectran	12240	0,9	96,2	2				192,4
B7	Cousin vectran	12240	0,9	96,2	2				192,4
B6	Cousin vectran	12240	0,9	96,2	2				192,4
B5	Cousin vectran	12240	0,9	96,2	2				192,4
B4	Cousin vectran	12240	0,9	96,2	2				192,4
B3	Cousin vectran	12240	0,9	96,2	2				192,4
B2	Cousin vectran	12240	0,9	96,2	2				192,4
B1	Cousin vectran	12240	0,9	96,2	2				192,4
AM11	Cousin vectran	12100	0,6	35,8	2			71,6	
AM10	Cousin vectran	16330	1	127,2	2			254,4	
AM9	Cousin vectran	16330	1	127,2	2			254,4	
AM8	Cousin vectran	16330	1	127,2	2			254,4	
AM7	Cousin vectran	16330	1	127,2	2			254,4	
AM6	Cousin vectran	16330	1	127,2	2			254,4	
AM5	Cousin vectran	16330	1	127,2	2			254,4	
AM4	Cousin vectran	16330	1	127,2	2			254,4	
AM3	Cousin vectran	16330	1	127,2	2			254,4	
AM2	Cousin vectran	16330	1	127,2	2			254,4	
AM1	Cousin vectran	16330	1	127,2	2			254,4	
AML6	Cousin vectran	12240	0,9	96,2	2		192,4		
AML5	Cousin vectran	16560	1,4	243,6	2		487,2		
AML4	Cousin vectran	16560	1,4	243,6	2		487,2		
AML3	Cousin vectran	16560	1,4	243,6	2		487,2		
AML2	Cousin vectran	16560	1,4	243,6	2		487,2		
AML1	Cousin vectran	16560	1,4	243,6	2		487,2		
AR3	Cousin vectran	16560	1,4	243,6	2	487,2			
AR2	Cousin vectran	16999	2,2	440,3	2	880,6			
AR1	Cousin vectran	16999	2,2	440,3	2	880,6			
C15	Cousin vectran	12100	0,6	35,8	2				71,6

Name	LIne reference		Diameter	Resistance	Number	Resistance new (daN)			
			mm	daN	of line	Level 1	Level 2	Level 3	Level 4
C8	Cousin vectran	12240	0,9	96,2	2				192,4
C7	Cousin vectran	12240	0,9	96,2	2				192,4
C6	Cousin vectran	12240	0,9	96,2	2				192,4
C5	Cousin vectran	12240	0,9	96,2	2				192,4
C4	Cousin vectran	12240	0,9	96,2	2				192,4
C3	Cousin vectran	12240	0,9	96,2	2				192,4
C2	Cousin vectran	12240	0,9	96,2	2				192,4
C1	Cousin vectran	12240	0,9	96,2	2				192,4
D8	Cousin vectran	12100	0,6	35,8	2				71,6
D7	Cousin vectran	12100	0,6	35,8	2				71,6
D6	Cousin vectran	12100	0,6	35,8	2				71,6
D5	Cousin vectran	12100	0,6	35,8	2				71,6
D4	Cousin vectran	12100	0,6	35,8	2				71,6
D3	Cousin vectran	12100	0,6	35,8	2				71,6
D2	Cousin vectran	12100	0,6	35,8	2				71,6
D1	Cousin vectran	12100	0,6	35,8	2				71,6
BM11	Cousin vectran	12100	0,6	35,8	2			71,6	
BM10	Cousin vectran	12240	0,9	96,2	2		192,4	192,4	
BM9	Cousin vectran	12240	0,9	96,2	2		192,4	192,4	
BM8	Cousin vectran	12240	0,9	96,2	2			192,4	
BM7	Cousin vectran	12240	0,9	96,2	2			192,4	
BM6	Cousin vectran	12240	0,9	96,2	2			192,4	
BM5	Cousin vectran	12240	0,9	96,2	2			192,4	
BM4	Cousin vectran	12240	0,9	96,2	2			192,4	
BM3	Cousin vectran	12240	0,9	96,2	2			192,4	
BM2	Cousin vectran	12240	0,9	96,2	2			192,4	
BM1	Cousin vectran	12240	0,9	96,2	2			192,4	
BLM4	Cousin vectran	16330	1	109,1	2		218,2		
BLM3	Cousin vectran	16330	1	109,1	2		218,2		
BLM2	Cousin vectran	16330	1	109,1	2		218,2		
BLM1	Cousin vectran	16330	1	109,1	2		218,2		
BR3	Cousin vectran	12470	1,2	186,6	2	373,2			
BR2	Cousin vectran	12470	1,2	186,6	2	373,2			
BR1	Cousin vectran	12470	1,2	186,6	2	373,2			
						Total level 1	Total level 2	Total level 3	Total level 4
						3368	3886	4611,2	7280
						Nb G L1	Nb G L2	Nb G L3	Nb G L4
						25,91	29,89	35,47	56,00

CCC Canopy measurement

LT 1 XS

	Rib nb from center	Measure mm:	Tension	Tolerances
Full Span:		11683	5 daN	2%
1/2 Trailing Edge:		5938	5 daN	1%
Chord A:	1	2323	5 daN	1%
Chord B:	15	2049	5 daN	1%
First fully lined RIB of group 1 (from center)				
	Rib n°	Distance	Tension	Tolerances
Chord:	1	2323	1 daN	10mm +/-
Top of inlet:	1	2287	5 daN	10mm +/-
Bottom of inlet:	1	2251	5 daN	10mm +/-
Tab Aa	3	2006	5 daN	10mm +/-
Tab Ab	3	1859	5 daN	10mm +/-
Tab B	3	988	5 daN	10mm +/-
Tab C	3	735	5 daN	10mm +/-
First fully lined RIB of group 2 (from center)				
	Rib n°	Distance	Tension	Tolerances
Chord:	13	2121	1 daN	10mm +/-
Top of inlet:	13	2089	5 daN	10mm +/-
Bottom of inlet:	13	2054	5 daN	10mm +/-
Tab Aa	13	1833	5 daN	10mm +/-
Tab Ab	13	1700	5 daN	10mm +/-
Tab B	13	904	5 daN	10mm +/-
Tab C	13	672	5 daN	10mm +/-
Last lined RIB (stabilo) (from center)				
	Rib n°	Distance	Tension	Tolerances
Chord:	33	553	1 daN	10mm +/-
Tab A	33	483	5 daN	10mm +/-
Tab B	33	319	5 daN	10mm +/-
Tab C	33	155	5 daN	10mm +/-
Aspect ratio: 4*Span(Chord A + 2,5 * Chord B) = 6,28				
Chord lenght, inlet position, tabs position measured from trailing edge.				
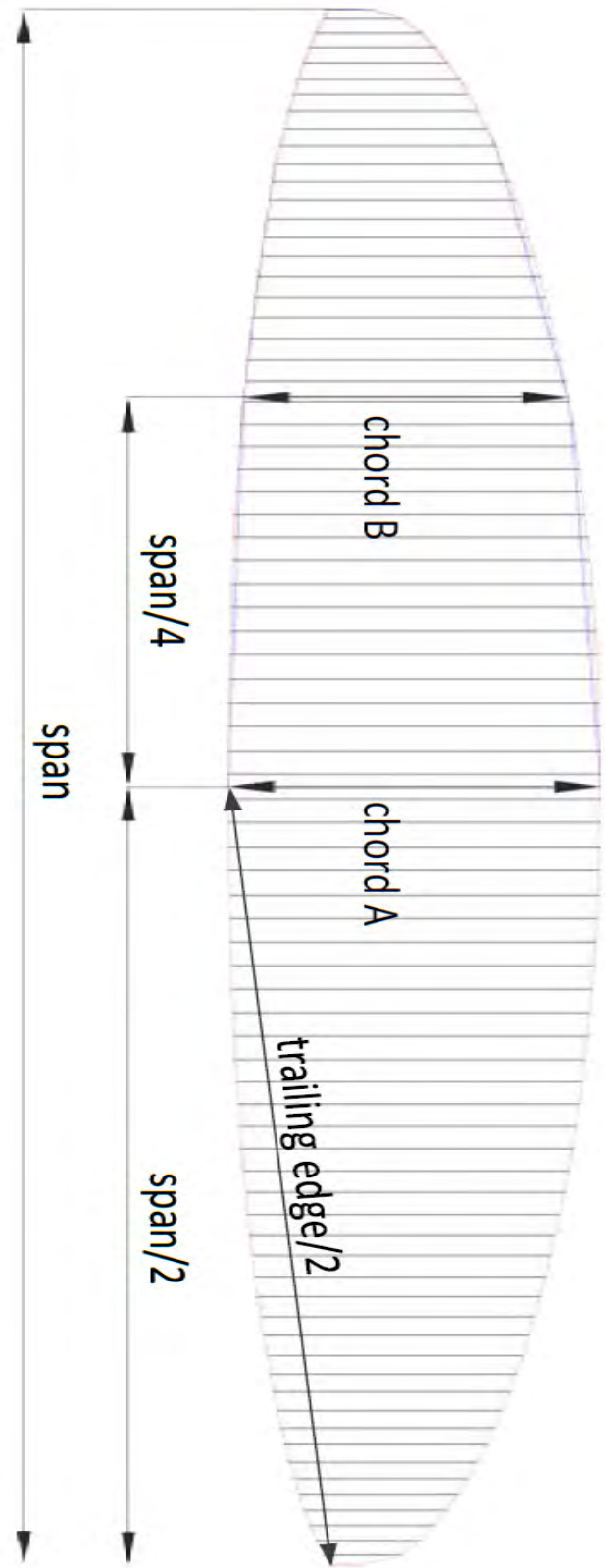
LT 1 S

	Rib nb from center	Measure mm:	Tension	Tolerances
Full Span:		12120	5 daN	2%
1/2 Trailing Edge:		6160	5 daN	1%
Chord A:	1	2410	5 daN	1%
Chord B:	15	2126	5 daN	1%

First fully lined RIB of group 1 (from center)

	Rib n°	Distance	Tension	Tolerances
Chord:	1	2409	1 daN	10mm +/-
Top of inlet:	1	2373	5 daN	10mm +/-
Bottom of inlet:	1	2335	5 daN	10mm +/-
Tab Aa	3	2081	5 daN	10mm +/-
Tab Ab	3	1929	5 daN	10mm +/-
Tab B	3	1025	5 daN	10mm +/-
Tab C	3	762	5 daN	10mm +/-

First fully lined RIB of group 2 (from center)

	Rib n°	Distance	Tension	Tolerances
Chord:	13	2200	1 daN	10mm +/-
Top of inlet:	13	2167	5 daN	10mm +/-
Bottom of inlet:	13	2131	5 daN	10mm +/-
Tab Aa	13	1901	5 daN	10mm +/-
Tab Ab	13	1763	5 daN	10mm +/-
Tab B	13	938	5 daN	10mm +/-
Tab C	13	697	5 daN	10mm +/-

Last lined RIB (stabilo) (from center)

	Rib n°	Distance	Tension	Tolerances
Chord:	33	574	1 daN	10mm +/-
Tab A	33	501	5 daN	10mm +/-
Tab B	33	331	5 daN	10mm +/-
Tab C	33	161	5 daN	10mm +/-

Aspect ratio: 4*Span(Chord A + 2,5 * Chord B) = 6,28

Chord lenght, inlet position, tabs position measured from trailing edge.
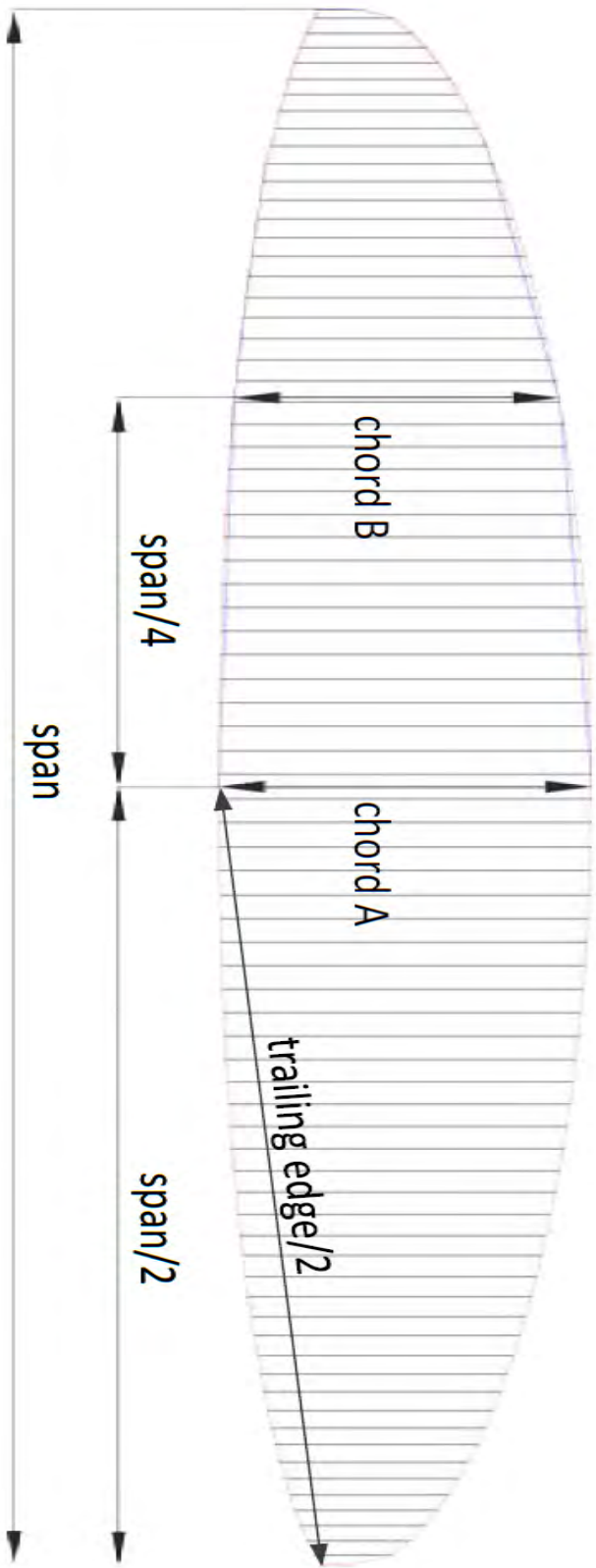
LT 1 M

	Rib nb from center	Measure mm:	Tension	Tolerances
Full Span:		12460	5 daN	2%
1/2 Trailing Edge:		6351	5 daN	1%
Chord A:	1	2485	5 daN	1%
Chord B:	15	2190	5 daN	1%

First fully lined RIB of group 1 (from center)				
	Rib n°	Distance	Tension	Tolerances
Chord:	1	2485	1 daN	10mm +/-
Top of inlet:	1	2443	5 daN	10mm +/-
Bottom of inlet:	1	2404	5 daN	10mm +/-
Tab Aa	3	2143	5 daN	10mm +/-
Tab Ab	3	1988	5 daN	10mm +/-
Tab B	3	1055	5 daN	10mm +/-
Tab C	3	785	5 daN	10mm +/-

First fully lined RIB of group 2 (from center)				
	Rib n°	Distance	Tension	Tolerances
Chord:	13	2268	1 daN	10mm +/-
Top of inlet:	13	2233	5 daN	10mm +/-
Bottom of inlet:	13	2197	5 daN	10mm +/-
Tab Aa	13	1960	5 daN	10mm +/-
Tab Ab	13	1818	5 daN	10mm +/-
Tab B	13	967	5 daN	10mm +/-
Tab C	13	719	5 daN	10mm +/-

Last lined RIB (stabilo) (from center)				
	Rib n°	Distance	Tension	Tolerances
Chord:	33	590	1 daN	10mm +/-
Tab A	33	517	5 daN	10mm +/-
Tab B	33	341	5 daN	10mm +/-
Tab C	33	166	5 daN	10mm +/-

Aspect ratio: 4*Span(Chord A + 2,5 * Chord B) = 6,26

Chord lenght, inlet position, tabs position measured from trailing edge.

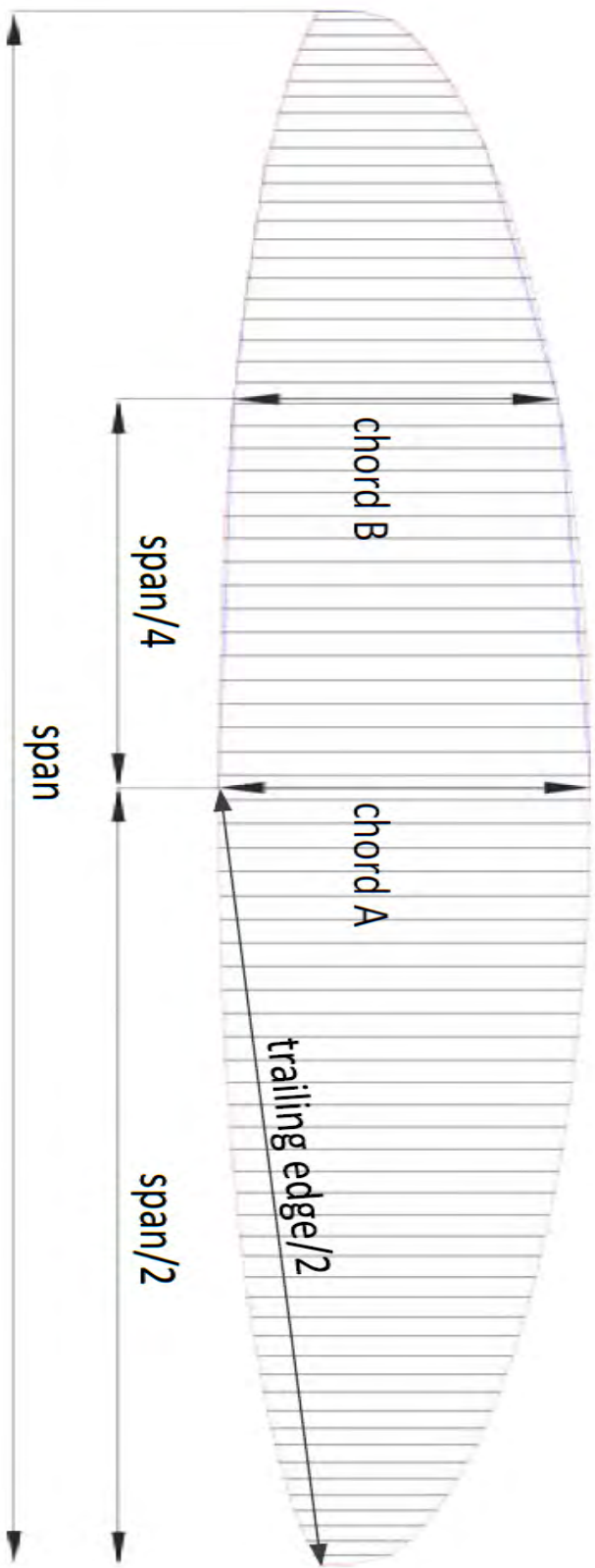span, span/4, span/2, chord B, chord A, trailing edge/2
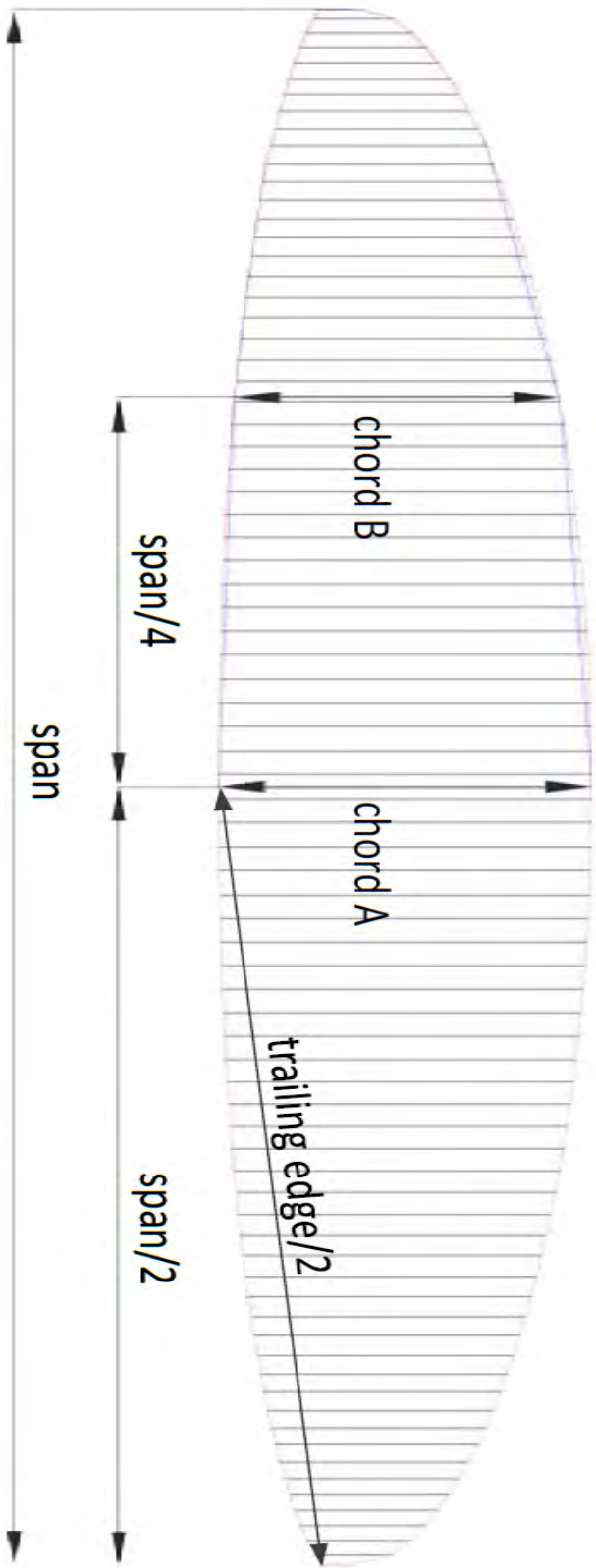
LT 1 L

	Rib nb from center	Measure mm:	Tension	Tolerances
Full Span:		12896	5 daN	2%
1/2 Trailing Edge:		6573	5 daN	1%
Chord A:	1	2572	5 daN	1%
Chord B:	15	2267	5 daN	1%
First fully lined RIB of group 1 (from center)				
	Rib n°	Distance	Tension	Tolerances
Chord:	1	2572	1 daN	10mm +/-
Top of inlet:	1	2529	5 daN	10mm +/-
Bottom of inlet:	1	2488	5 daN	10mm +/-
Tab Aa	3	2218	5 daN	10mm +/-
Tab Ab	3	2058	5 daN	10mm +/-
Tab B	3	1092	5 daN	10mm +/-
Tab C	3	812	5 daN	10mm +/-
First fully lined RIB of group 2 (from center)				
	Rib n°	Distance	Tension	Tolerances
Chord:	13	2347	1 daN	10mm +/-
Top of inlet:	13	2311	5 daN	10mm +/-
Bottom of inlet:	13	2274	5 daN	10mm +/-
Tab Aa	13	2029	5 daN	10mm +/-
Tab Ab	13	1882	5 daN	10mm +/-
Tab B	13	1001	5 daN	10mm +/-
Tab C	13	744	5 daN	10mm +/-
Last lined RIB (stabilo) (from center)				
	Rib n°	Distance	Tension	Tolerances
Chord:	33	611	1 daN	10mm +/-
Tab A	33	535	5 daN	10mm +/-
Tab B	33	353	5 daN	10mm +/-
Tab C	33	172	5 daN	10mm +/-
Aspect ratio: 4*Span(Chord A + 2,5 * Chord B) = 6,26				
Chord lenght, inlet position, tabs position measured from trailing edge.				
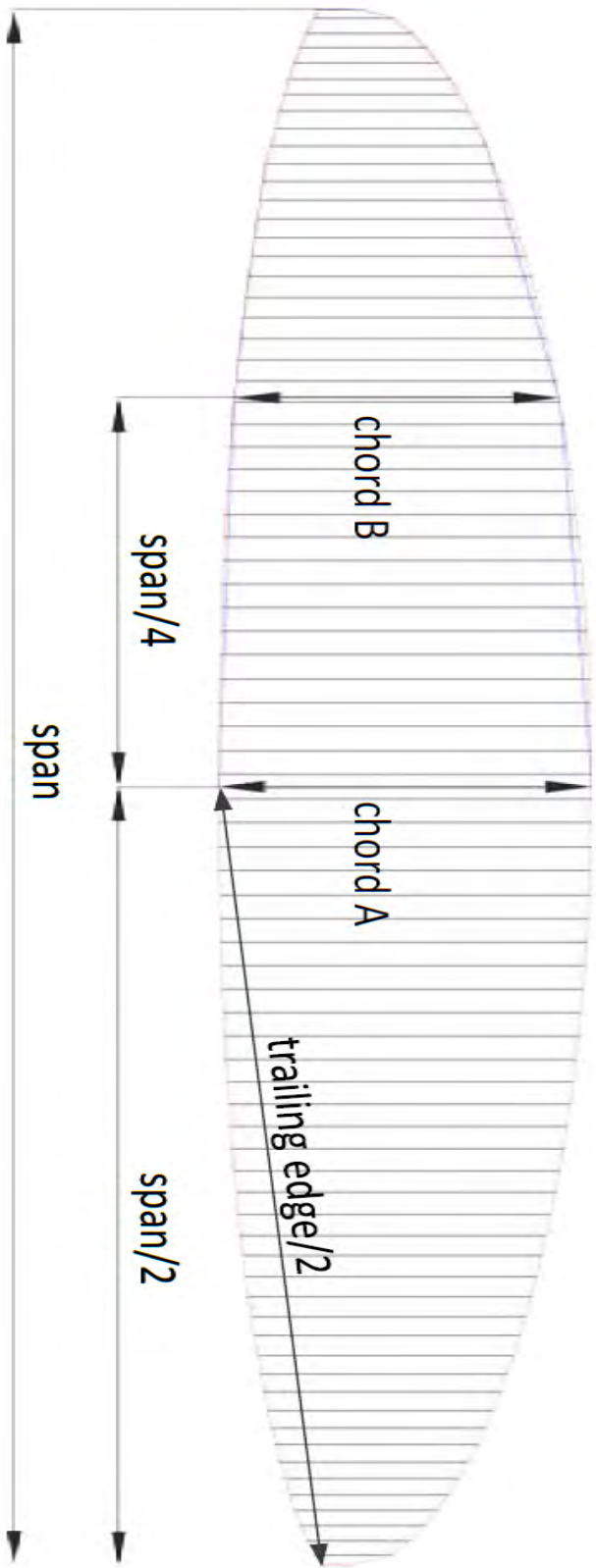
LT 1 XL

	Rib nb from center	Measure mm:	Tension	Tolerances
Full Span:		13440	5 daN	2%
1/2 Trailing Edge:		6860	5 daN	1%
Chord A:	1	2671	5 daN	1%
Chord B:	15	2360	5 daN	1%
First fully lined RIB of group 1 (from center)				
	Rib n°	Distance	Tension	Tolerances
Chord:	1	2671	1 daN	10mm +/-
Top of inlet:	1	2626	5 daN	10mm +/-
Bottom of inlet:	1	2584	5 daN	10mm +/-
Tab Aa	3	2304	5 daN	10mm +/-
Tab Ab	3	2137	5 daN	10mm +/-
Tab B	3	1134	5 daN	10mm +/-
Tab C	3	844	5 daN	10mm +/-
First fully lined RIB of group 2 (from center)				
	Rib n°	Distance	Tension	Tolerances
Chord:	13	2438	1 daN	10mm +/-
Top of inlet:	13	2400	5 daN	10mm +/-
Bottom of inlet:	13	2362	5 daN	10mm +/-
Tab Aa	13	2107	5 daN	10mm +/-
Tab Ab	13	1954	5 daN	10mm +/-
Tab B	13	1040	5 daN	10mm +/-
Tab C	13	773	5 daN	10mm +/-
Last lined RIB (stabilo) (from center)				
	Rib n°	Distance	Tension	Tolerances
Chord:	33	634	1 daN	10mm +/-
Tab A	33	556	5 daN	10mm +/-
Tab B	33	367	5 daN	10mm +/-
Tab C	33	178	5 daN	10mm +/-
Aspect ratio: 4*Span(Chord A + 2,5 * Chord B) = 6,27				
Chord lenght, inlet position, tabs position measured from trailing edge.				

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