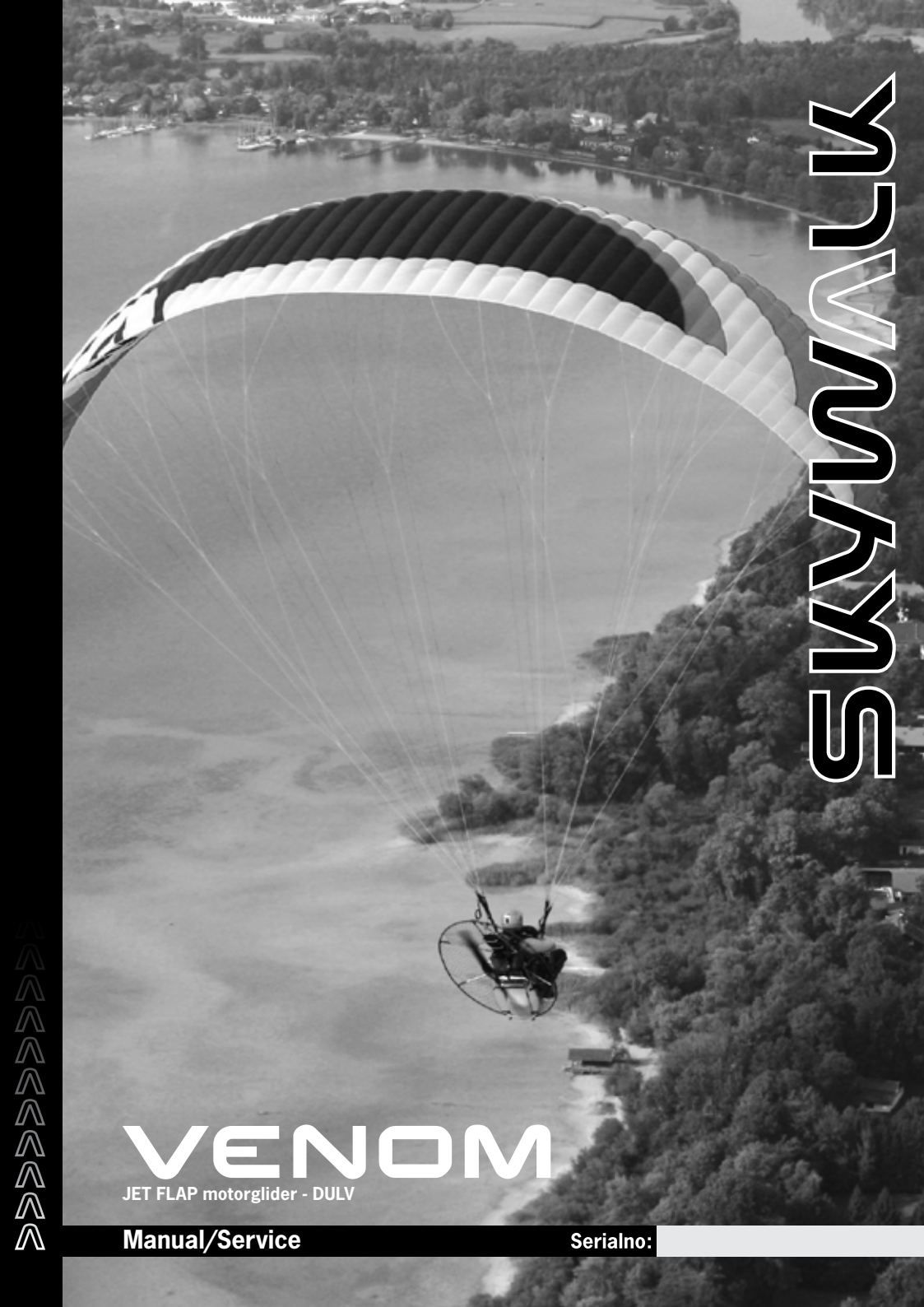

SKYWALK

VENOM

JET FLAP motorglider - DULV

Manual/Service **Serialno:**

CONTENT

1 CONGRATULATIONS

Congratulations on your purchase of a new VENOM, and for placing your trust in skywalk. We are certain that you will enjoy every minute in the air. In order to fully comprehend flying procedure with your new wings, we recommend that you read the entire handbook. In this way you will be able to quickly grasp the fundamentals of operating your new glider. The handbook also offers quick tips for safe flying, so that your enjoyment will last for years. skywalk is open to any comments or suggestions that you might have. Please feel free to contact us at our internet email address, or you may send us a fax. The skywalk Team is always here to help.

Sincerely,
Your skywalk Team

2 DESCRIPTION

The VENOM is a paragliding wing for ambitious motor pilots.
The VENOM is an outstanding motorglider with very agile handling, as well as considerably good performance data.
The VENOM was developed for the sport pilot who is seeking high speed potential with very agile handling.
The VENOM is equipped with a special trimmer riser. As with the risers of the MOJITO, there is the additional possibility to attach the skywalk Handle Bars. The VENOM is certified up to 130kg in the DULV "advanced" class.
The high performance of the VENOM makes it possible to cruise efficiently over the landscape while using minimal fuel.
The profile, the stress ratio of the canopy as well as the JET FLAPS are decisive factors responsible for the above-average launch and landing performance, extremely important for a motorglider.
Diagonal or parallel bands in all of the cells provide for an equal distribution of load.
With the help of so-called ballooning, the expansion of the cells on the computer model, we were able to create a very homogenous canopy.
The high surface quality of the wing is a direct result of this ballooning and generates the high performance, among other things.
The VENOM has been specially developed for motorgliding with reinforcements in profile, line loops and lines especially required for the forces inherent in motorgliding.
The Porcher Marine cloth 9092E85, extremely durable with high-quality workmanship, which is used on the front area of the VENOM, is a guarantee for the long-life and high value retention of the VENOM.
We wish you pleasant, long and successful flights.
Your equipment is delivered fully ready for flying.

Your skywalk Team

3 LINE SYSTEM

To provide you with an optimal line system, we have worked and calculated meticulously. Skywalk works in cooperation with the line manufacterer LIROS, and for the VENOM we selected the optimal combination of materials especially for motorgliding.
Using a generous scale of dimensioning, the lines offer exceptionally high weight load reserves crucial for motorgliding.
The intelligent combination of both Technora and Dyneema lines is both robust and offers less resistance.
Excellent rebounding effect even under extreme load as well as a minimum of stretch, are also proof of the quality of the line mix.
The skywalk VENOM is equipped with 3 A-, 3 B-, 3 C-, and 1 Stabilo line as well as 2 D-Main lines.
The load-bearing lines are composed of Top Lines and Main Lines. The Main Lines comprise 3 Top Lines together and lead to the line locks (Maillon Rapide) which connect the load-bearing lines with the risers.)
The Stabilo Lines connect the upper Stabilo-forked lines with the Line Shackle.
The Brake Lines are not load-bearing and lead from the rear edge of the glider over the Main Brake Line through the pulley on the D-riser to the Brake Handle.
For easier identification, the A-Lines the A-Riser are red and the Stabilo Lines are pink. The B-Lines, the Main Brake Lines and the Brake Lines are yellow, and all of the other lines are blue.
The Shackles are triangular, and an elastic band prevents the looped-in lines from slipping.

CAUTION

GENERALLY SPEAKING IT SHOULD BE UNDERSTOOD BY EVERY PILOT THAT WHEN FLYING WITH A PARAGLIDING WING, A MAXIMUM OF CAUTION SHOULD ALWAYS BE USED. WE WANT TO EMPHASIS THAT YOU FLY YOUR PARAGLIDER AT YOUR OWN RISK, AND IT IS THE PILOTS OWN RESPONSIBILITY TO ASSURE THAT THEIR WING AND EQUIPMENT ARE IN PROPER CONDITION BEFORE EACH AND EVERY FLIGHT.

The skywalk VENOM is not permitted to be flown:

> outside of the permissable minimum and maximum certified launch weight range.
> In rain, snowfall, extremely turbulent weather conditions or strong winds.
> Directly into clouds or fog situations where visual flight regulations are hampered.
> By Pilots lacking proper paragliding education or experience.

Every Pilot carries the responsibility for their own safety and must therefore be certain that their flying equipment (paragliding wing and motorsystem) is in proper flight maintenance and condition and is checked regularly.
The skywalk VENOM is only permitted to be flown where permission is granted from the legal authorities governing each country.
Your skywalk VENOM has already under gone many careful Quality Control checks. Before leaving the factory, each wing is checked to insure certified manufacturering tolerances have been met.

4 TECHNICAL INFORMATION

Typ	S
Number of cells	56
Area [qm]	25
Wingspan [m]	11,84
Aspect ratio	5,6
Area projected [qm]	21,45
Wingspan projected [m]	9,5
Aspect ratio projected	4,21
Canopy weight	6,1
Speed Min	23
Speed Trimmer closed	42
Speed Trimmer open	55
DHVTrimmer closed	90-110kg DHV 1-2 GH
jet flap Technology	yes
DULV homologation	DULV-Advanced
Weight range DULV [kg]	75-130

CAUTION

THE WING-TYPE LABEL IS PRINTED ON THE INSIDE OF THE STABILO. THE DULV LABEL IS FOUND IN THE POCKET ON THE MIDDLE PROFILERIB. THE DATE AND PILOT FOR THE INITIAL FLIGHT ARE TO BE ENTERED. IN GERMANY AND AUSTRIA; THE DULV LABEL MUST BE ATTACHED TO THE GLIDER. IN COUNTRIES WITHOUT CERTIFICATION REQUIREMENTS, THE SKYWALK SEAL MUST BE VISIBLE, WHICH IS PROOF THAT THE GLIDER MEETS THE REQUIREMENTS OF THE DULV-INSPECTED MODEL.

5 HARNESS

Harnesses with bulky back protection are not recommended for motorgliding.
The harness used must be registered and certified by DULV (German ultra-light aircraft association), together with the sail and motor system.

6 WINCH TOW

The skywalk VENOM has no homologation for winch towing.

7 RISER MAIN SYSTEM

The VENOM has 5 risers. The two inner A-Main Lines lead to the front A-Riser, the outermost A-Lines lead to the rear A-Riser, the B-Lines to the B-Riser, C-Lines and Stabilo Line lead to the C-Riser and the D-Lines finally to the D-Riser.
Additionally, the VENOM has a Trimmer which increases overall wing speed and corrects for torque motion in flight. See page 56.

WHILE START AND LANDIND THE TRIMMER SHOULD ALWAYS BE CLOSED

8 MOTORISED FLIGHT

The VENOM has DULV-homologation to the uppermost weight limit with trimmer.
If the foot-accelerater is used in flight, homologation is no longer valid.

CAUTION:

WITH INCREASED SPEED, COLLAPSES HAVE A MORE DRASTIC EFFECT THAN WHEN FLYING AT SLOW SPEEDS.

9 PRE FLIGHT CHECK AND SERVICE

Your complete line of flying equipment, wing, motor, harness, etc. must be carefully maintained and inspected for any potential shortcoming or deficiency. This should especially be the case after long pauses between flights or longer storage of your wing and equipment.

Carefully Inspect and Check:

- >All stitching on your harness, the stitching on the reserve chute and attachment, and your Riser System.
- >All Connection points, line locks, and check if carabiners are fully closed.
- >The Brake and steering grip to line connection knot, and inspect the brake line through to the canopy.
- >Symmetry of the brake lines.
- >All other lines leading from the riser to the canopy.
- >All line connection point and stitching, knots on the canopy.
- >The upper and lower wing segments for damage or wear.
- >The leading edge profile and crossports from within.

Even the smallest defect is grounds for cancelling launch!
In the event that you have identified damages or wear to your equipment, please contact your local Flight school or Dealer.

Laying Out your Wing
We recommend that you first try out your new wing by performing some ground handling exercises. Make your first flights in places you know and with calm weather conditions.
You should lay out your new wing so that the leading edge is lightly arched and that the wings center lays at the highest point of the arch. By using this method, when pulled, the A-Lines tension first, the glider fills consistently and an easier, direction-stable launch is guaranteed.
Separate the line levels carefully and order the risers. When the risers are not twisted, the brake lines runs free through the pulleys on the rear edge of the glider.
All lines must be free and run without plaiting or knotting from the risers to the canopy.
The brake lines lay directly on the ground, therefore please be careful

to make sure that the brake lines are free of any entanglements before trying to start. There should never be any lines laying underneath the wing itself. A line which is wrapped around another part of the glider can result in a serious mishap. The trimmer must be closed symmetricaly.

The Launch

The skywalk VENOM is easy to launch. You hold both the A riser Lines and the Brake Handles in your hands. For better orientation and control, the A-lines, as well as the Webbingbandcover is red. The Brake lines are yellow and the Brake Handle is black. Your arms are extended outward and back holding the A lines in your hands.
Before launching you must check to make sure your wing is properly layed out, the wind direction is good, and the airspace at launch site is free.
Holding the risers in your hands, it is best to launch by pulling the A--Lines equally, and making sure that you are in the middle of your wing.
Using a nice homogeneous surge to start the skywalk VENOM, the wings leading edge should fill quickly and reliably.
In normal wind conditions, making sure the wind is approaching optimally from the front, your VENOM should climb upward and over you in a continual climb.
The wing should not in anyway hang back at the start, instead will climb immediately over your head, even with little or no forward wind.
During backwards launches or launches in strong wind, the glider can shoot forward more quickly or earlier than expected. In order to avoid this, run after the canopy during the hoisting phase. We recommend that you practice these demanding launch techniques without a motor at first.
When starting backwards in strong winds we recommend that you use only the front A-risers, then the wing should open somewhat slower and the pressure in the wing is somewhat diminished, thus making your launch easier to control.

Cross Country Flying (Motor)

The best flying performance of your VENOM is achieved when flying with an open trimmer. You may still want to close down a Trimmer somewhat to compensate for the torque produced by the motor. However when there is excessive turbulence in the air, you should not use the trimmer, as the wing stability may be compromised by the increased angle of attack of the forward leading edge. It is also possible to use the foot accelerator which will substantially increase flight speed. The same rule applies here as well: close the trimmer in turbulent conditions.

CAUTION

THE DULV-HOMOLOGATION IS NO LONGER VALID WITH THE USE OF THE FOOT ACCELERATOR.

Flying in Curves
The VENOM has versatile, direct and immediate curve handling. The wing has a high level of safety reserves, however, it should only be flown by experienced pilots. The VENOM has a high level of precision handling, and is great fun when motorized. Through the high level of direct curve control, the wing is very easy to steer even against the torque, and allows for excellent dynamics.

CAUTION

WHEN ACTIVATING THE BRAKE LINES TOO AGGRESSIVELY OR STRONGLY, THERE IS A POTENTIAL DANGER OF BREAKING OFF THE AIR FLOW TO THE WING.

When lift is lost from one side of the wing due to aggressive braking, you will notice right before this happens that the brake pressure increases and the tip of the leading edge of your wing will bend downwards. If this happens you must immediately release the brake on the inside curve wing side.

Emergency Steering
In the Event that a brake line breaks, or your knot on your brake grip loosens or releases from the line, you can still control your wing using the D-riser line levels. That will help restore some directional control and you can land immediately.

Turbulent Air Conditions
Even though the danger of a wing collapse is relatively low when flying your wing with a running motor, with its high level of surface tension on the wing, and the higher level of leading edge attack, in comparison to free flight without motor, it is recommended that the Trimmer always be closed in heavy or strong turbulence.

Fly in turbulence using a minimum of brake and try to control the wing over your head by flying actively. In that way you can avoid a single sided loss of your wing. However in the event that you do lose a side of a wing, fold down, you should still maintain the direction of your curve. Only after you have stabilized your wing in the curve, may you also attempt to open the folded down wing, by lightly pumping the loose side.
When flying into hard or strong thermals do not brake, instead open up the wing, and reduce your motor speed, so that you don't get involved in a dynamic loss of lift.
Back off of the brakes when entering a strong thermal and reduce the motor rotations, in order to avoid getting into a dynamic stall. In contrast, brake more strongly when exiting the thermal and increase motor rotations, in order to avoid a possible front stall.

Landing (with Motor off)
The skywalk VENOM is simple to land. When making your final approach against the wind, let the wing glide out in combination with light braking. When the wing has reached a level of 1 meter over ground, increase angle of attack by increased braking, and intercept the glider. When you have reached the minimum speed, pull the brakes fully through.
In a strong headwind, apply the brakes sparingly. Only when you have touched down and successfully landed should you allow the wing to stall out carefully. Landing with steep curve changes in the final approach should absolutely be avoided at all costs. (Danger of occilation)

Landing (with Motor running)
You may also want to land using the support of motor power.
The flight level height and speed can then be controlled with the help of your brakes and motor torque to control the landing approach and touch down.

CAUTION

BREAKAGE IS ALMOST GUARANTEED IF THE ROTORING PROPELLER MAKES CONTACT WITH THE GROUND DUE TO EXCESSIVE BEND IN THE PILOT'S KNEES.

10 FLIGHT DECENT ASSISTANCE

The Operation manual is not meant to be an instruction manual for flying.
The education and flight course study must be completed from a recognised flight school as required from each of the individual countries according to their local laws governing sport flying. The following tips will allow you to get the best out of your skywalk VENOM

Steep Spiraling
Using a steep spiral flying manoeuver you have the best opportunity to increase your descent.
The steep spiral is performed by cautiously increasing the brake pressure on one side and simultaneously leaning your body weight into the curve.
In the event that the glider does not bank become sufficiently,
break off the manoeuver and try again, don't just apply more and more brake without sensitivity.
The steep spiral is best performed when the VENOM enters a sharp
axilar curve and starts to fly in a quicker steeper curve. This sharp axilar curve and sinking speed is controlled using a measured dose of increased or decrease of the brakes on the curve inner side.
A light amount of braking pressure on the outside curve may be applied to avoid stall in steep spirals

CAUTION

HIGH SINK RATES CAUSED BY THE STEEP SPIRAL CAUSE A CENTRIFUGAL FORCE LEADING TO A STRONG G FORCE LOAD AND SHOULD THEREFORE NOT BE PERFORMED BY INEXPERIENCED PILOTS!

Contraction of stomach muscles can be helpful when performing a steep spiral.
As soon as you notice any lightheadedness or tunnel vision or the approach of unconsciousness, you must immediately stop the steep spiral maneuver.
Because of the extreme loss of altitude during the steep spiral maneuver, you must

always maintain sufficient altitude.
In order to avoid a strong pendulum motion during the ending phase of the steep spiral, you should slowly release the inside wing brake, while braking lightly with the outside wing brake. Under adverse influences, or as well by open trimmers, it can happen that the spiral must be actively diverted. At the same time, the outer wing side must be braked in doses.

CAUTION

AS SOON AS THE GLIDER BEGINS TO STRAIGHTEN UP, RELEASE THE BRAKES SO THAT THE ACTION IS NOT TOO VIOLENT AND THE GLIDER DOES NOT BEGIN TO CLIMB UPWARDS UNPLEASANTLY. IN THE CASE THAT THE GLIDER PITCHES FORWARD NOTICEABLY AFTER EXITING THE SPIRAL, IT MUST BE CAUGHT WITH THE BRAKES. CONTROL PRESSURE IS CONSIDERABLY HIGHER THAN DURING NORMAL FLIGHT!

B-Line Stall (Motor and Free Flight)
To perform a B-Line Stall, the B-risers are pulled down symmetrically by approx. 20 cm. At the same time you should still hold the brake handles in your hands.
The airflow over the upper wing profile is then broken off and the wing starts to enter what appears to be a sack stall type of flight condition without any forward flight.
By pulling strongly on the B-riser, you can reduce the wing surface even more, and thus raise sink rate.
Though quick and simultaneous release of both of the B-risers, you can lead your wing back into normal flight. The wing surges forward and begins to fly normally again.
In the event that the wing forms into a Rosette or backwards U form, you must release the B-riser lines immediately and allow the wing to fly normally. If the wings leading edge does not fully inflate then you can add some brake pressure equally to both sides to help inflation.

CAUTION

WITH OPEN TRIMMERS, THE FORWARD SURGE IS GREATER THAN WITH CLOSED TRIMMERS.

Big Ears (Motor and Free Flight)
Another sink rate maneuver option, other than B-Stall and Steep Spirale, is the „Big Ears“ concept using a combination of forward ground speed and sink. This form of sink maneuver is used when an area of danger exists and you want to change your direction horizontally and fly out of the danger area quickly.
To perform this „Big Ear“ maneuver pull down both outside A-risers. Now you can easily lose altitude without any danger, by decreasing the wing surface and causing the wing to fly only from the mid section of the wing. To steer the wing, simply rotate or shift your weight from side to side. By performing this maneuver you should not be shortening the brake line by wrapping the lines around your hand.
The opening of the wing tips to full form is performed by simply releasing the A-risers on both sides and through dosed pumping of the brakes to support the opening, when necessary.

ATTENTION

WHEN USING THE FLIGHT DECENT METHOD „BIG EARS“ BE ADVISED THAT YOUR WING AND ESPECIALLY THE LINE GROUPS ARE UNDER A HIGHER LOAD OR STRESS, THEREFORE DO NOT FLY ANY EXTREME FLIGHT MANUEVERS WHILE PERFORMING „BIG EARS“.

Valid for all types of extreme flight maneuvers and flight descent assistance :
First learn all types of new flying methods, like quick sink methods under the observation of a qualified flight instructor in a teaching course covering flight safety. When performing these maneuvers be certain that you have adequate air space around and especially, below you. When performing these methods it is advised that the pilot have constant eye contact with their wing.

SPECIAL NOTICE

ALL EXTREME FLIGHT MANEUVERS HAVE THE CONSEQUENCE OF ADDING ADDITIONAL STRESS TO THE WING, LINES, AND CANOPY, AND THUS HAVE A NEGATIVE EFFECT ON MATERIAL DURABILITY. THE RESULT IS THAT THE WING WILL HAVE A SHORTER LIFESPAN.

One Sided Wing Loss

In the event of extreme weather conditions with increased levels of turbulence it is not unusual that your wing may collapse on one side.
As a general rule, the skwalk VENOM opens independently also by big collapses.
By a strongly deformed wing on one sided collapse, you should only apply a dosed or cautious amount of brake pressure on the open side, to avoid a complete air flow stall.
If the wing does not open after the collapse, even after applying brake pressure on the good side, you can try to stabilize the wing on the collapsed side, by repeated pulling of the brake on the collapsed side, this may help some in the reopening phase.
When applying brake pressure on the good side, you may experience some roll down of the wing tip but that should not have any real relevance on safety. The VENOM should perform extremely well when reopening and not have any negative tendency in direction control.

SPECIAL NOTICE

WITH OPEN TRIMMERS, THE REACTION DURING COLLAPSES IS NOTICEABLE MORE IMPULSIVE AND IS ASSOCIATED WITH STRONGER AND QUICKER ROTATION.

Front Stall

A paragliding wings leading edge will collapse into a front stall if you pull hard on the A riser or through sudden instances of strong down winds.
The Leading edge will impulsively collapse across the entire front wing span.
Through careful dosing of your brakes, both sides equally, the occilation on the cross axis should be minimized and at the same time the reopening time is accelerated.
The skywalk VENOM should normally open after a front stall without any pilot reaction.

In the event that the reopening phase is delayed, you can help accelerate the reopening by pulling both brake lines with equal pressure.

CAUTION

DO NOT OVER BRAKE YOUR WING. WITH OPEN TRIMMERS, THE REACTION DURING FRONT STALLS IS NOTICEABLY MORE IMPULSIVE AND YOU MUST CALCULATE FOR GREATER COLLAPSE AS WELL AS STRONGER PENDULUM MOTION

Deep stall

In this condition your wing will not have any forward flight tendency, instead will flutter above you and have a higher rate of sink.
The cause of this deep stall flight condition is often a poorly performed B-stall especially when the pilot is too slow in releasing the B Level-riser, during the reopening phase. Wings which have a very porous surface, caused by aging and heavy UV radiation exposure, or through use with winch tow systems, which cause a heavy strain on the wing materials and especially on the A lines, are especially subject to backstall.
The Pilot can try and correct this flying condition by lightly pulling forward on the A-riser at the height of the line locks, or through apply pressure on his speed bar.
As a general rule, the skywalk VENOM should correct itself automatically to exit the backstall condition.

CAUTION

BE ADVISED THAT IN THE EVENT OF A BACKSTALL, IF THE PILOT ACTIVATES HIS BRAKES, THE WING WILL IMMEDIATELY GO INTO A FULL STALL CONDITION. IN THE EVENT THAT THE BACKSTALL HAPPENS NEAR GROUND LEVEL, DO NOT ATTEMPT A RECOVERY OF YOUR WING, AS THE DANGER OF OCCILATION IS TOO GREAT . INSTEAD, THE PILOT SHOULD MOVE FORWARD AND OUT OF HIS HARNESS, STRAIGHTEN HIS LEGS, AND PREPARE FOR LANDING CONTACT USING THE PARATROOPER ROLL.

Fullstall
In order to perform a Full Stall the pilot should wrap his brake lines once around the grips, symettrically on both sides, and pull the brake line down constantly and fully.
The wing will slowly start to lose speed until the wing completely collapses.
The wing will shoot back suddenly. In spite of this unpleasant sensation, both brake lines should be continued to be held down, until the wing has a chance to stabilize itself above you.
The skywalk VENOM will fly backwards and most often form a Rosette (backwards U Form) bending towards the front.
In order to reopen your wing after the full stall, you should release the brake lines symettrically upwards, (time interval of more than or equal to 1 second). The wing will begin to open, occilating forwards some before it recovers into full flight.
Through a symettric holding of the brakes, you will hinder or minimalize the tendency of the wing to shoot forward.
In the event that the Pilot does not apply the brakes, the skywalk VENOM will shoot forward marginally, where a possible front stall collapse of the wing could happen.

CAUTION

IF THE FULL STALL IS OPENED TOO EARLY; TOO QUICKLY OR IMPROPERLY; A FURTHER OVERSHOOT OF THE WING IS THE CONSEQUENCE.

Spin
A wing can turn negatively into a spin, when the airflow is lost over one side of the wing surface.
In this event the wing cap turns on the horizontal axis inside the wingspan. The inside wingspan then flies backwards.

There are 2 possible causes for a spin.
The brake lines are pulled down too quickly and too far, (as when entering a steep spiral maneuver).
In very slow flight when the brakes are applied to strongly on one side, for example when entering into a thermal or when a pilot applies the brakes too hard when flying

with a motor or (while trying to compensate for torque).
In the event of an unwanted negative curve the pilot should release his brakes so that the skywalk VENOM can recover into normal flight without much loss of altitude.
The brake lines are released to the point that the air flow starts to recover over the inner wingspan. After a longer held negative curve, it may be that the wing will shoot forward considerably on one side, after release. This may lead to a one sided wing collapse. A cross over stabilizing harness strap will increase the tendency of spin in all wings.

Wingover
To perform this maneuver the wing is flown in narrow curves, with the banking increasing after each curve. When performing wingovers with a substantial tilt, the outside wing tips may be deformed slightly. Overly tilting your wing should be avoided, since the eventual collapse can be quite impulsive.

ATTENTION

FULLSTALL, SPIN, AND WING OVER (OVER 90 DEGREES) ARE FORBIDDEN ACROBATIC MANEUVERS, AND SHOULD NOT BE PERFORMED UNDER NORMAL FLYING CONDITIONS. INCORRECT EXIT PROCEDURE OR OVERREACTION OF THE PILOT CAN LEAD TO VERY DANGEROUS CONSEQUENCES, REGARDLESS OF GLIDER MODEL!

11 MATERIALS

The skywalk VENOM is made of the highest quality materials. Skywalk has selected the best possible combinations of materials, with regard to material longevity, load, stress, and performance. The life-span of a glider is of the great importance for customer satisfaction.

Cloth

After more than 1 year of development and countless testing, we decided in the beginning of 2005 to use a very special robust nylon material made by Porcher Marine. This cloth is somewhat heavier than others which we have tested, but the advantages in durability are really unusually good.

Our philosophy is to select materials according to the conditions that they must meet, and therefore we have chosen the proven 9017, also from Porcher for implementation on the bottom sail and in the rear area of the top sail. The low weight and very good tear-resistance have predestined it for use in this field.

Lines

LIROS has proven to be one of the best manufacturers of paragliding wing lines. For the main lines, we chose a proven Technora line. Reason being, the excellent stretch-resistant quality with small diameter, good resistance to bend as well as good recovery values.

Top and brake lines are	PPSL 120/PPSL 200
A,B, and C- Main lines	NTSL 350
CIII, D and Stabilo Main	Lines TSL 280
Main Brake Lines	DFLP 200/32

Riser

The Risers are produced using a 25 mm Polyester from Güth and Wolf. Stretch values, durability and stability of this material are the trademarks of this special riser material and belong to the top riser material currently in use.

12 SERVICE

When treated with proper care and maintenance, your skywalk VENOM will remain in good flying condition for many years.
A well maintained paragliding wing will have double the flight time in contrast to wings which are just shoved into your packsack after flying.
Don't forget that your life is dependant upon the condition of your wings.

Storage
Store your skywalk wing in a dry environment safe from light and away from any chemicals. Moisture is your wings worst enemy, so before you repack your wing, make sure it is dry, for instance, by hanging it up in a heated room.

Cleaning
Every form of rubbing on the material or washing will age your wing more quickly.
The PU--impregnated cloth material of your skywalk VENOM is designed to be dirt-resistant.
If you find that your wing needs to be cleaned in certain spots, then just use a soft cloth moistened with lukewarm water or a sponge without soap or other wash powder or fluids. Don't use any harsh cleaning solutions, as these may attack and damage the materials.

Repair
Repairs may only be performed by authorized skywalk service centers.

Material handling in normal retail use
The skywalk VENOM is made primarily from nylon materials, which are subject to the negative influence of UV rays causing material break down and loss of porosity. Avoid strong light situations by only taking out your wing at the last minute to launch, and upon landing, immediately repack your wing away from the strong rays of the sun.

Line Repair
The line system of the skywalk VENOM is made of a Technora or Dyneema Core with a polyester outer covering.
Excessive stress, over weight, or strain on the materials is to be avoided, as this could

lead to an irreversible stretching of the lines.
Avoid over bending of the lines at the same point, that may lead to damage.
Every form of visual damage to the lines, even when the damage is only to the outer sheaf, requires a line replacement.
Replacing a line requires that you contact a skywalk authorized service center to make sure that the line is replaced correctly.
Your school, or dealer can help you with this task. Before you change a line, be sure to check it to make sure that you have the correct length, by comparing it to the same line on the other wing half.
You should also test fly the wing on the ground first, after any line replacement, to insure its proper function.

General Tips:

- When laying out your wing inspect your wing cloth material and lines to make sure they are not dirty. Dirt, sand, etc. can collect in the fibers of the material, damaging them and causing shrinkage.
  If your lines are entangled with debris, rocks, roots, etc. and are not free when launching, this may cause overstretching or tearing of the lines.
- Don't step on your lines.
- Pay attention when starting to make sure your wing cap does not have any snow, sand, pebbles or rocks in the chambers, as this material can all end up at the back edge of your wing and slow it to the point of stall.
- Sharp edges, stones etc. can injure your cap material.
- When launching your wing in strong winds, note that the inflated wing can crash back onto the ground. This can lead to damage of the wing profile, or generally damage the cloth and stitching.
- When landing don't allow your wing to crash forward onto the ground over you, as this can lead to damage of the material in the wing nose area.
- After every tree landing, or landing in water, check the lines and material for damage.
- After contact with any type of salt water, you must immediately rinse the complete wing and riser with fresh water.
- A complete current list or diagram of your lines should be included with the delivery of your wing and Handbook, or can be requested from your dealer, flight school, or skywalk directly.

13 2-YEAR CHECK

After 24 Months DHV requires a service check of your wing.
The 2 Year Check Test as described in the DHV requirements, can be carried out by the manufacturer, or service centers contracted by the manufacturer.
The service check is to be confirmed with a DHV stamp.
If the Service check is not performed in the authorized time frame, or is done by an unauthorized center, your skywalk VENOM will lose its manufacturing certification.

Changes or Alterations to your Paragliding wing
The skywalk VENOM is guaranteed to be in the required manufacturing tolerances when leaving the factory.
This tolerance range is very exact and should never be changed. The correct balance of performance, handling, and safety is therefore guaranteed.
Any alteration to the wing could end in forfeiture of operating license.

CAUTION

ANY LIABILITY OF THE MANUFACTURER OR SALES CENTER IS EXCLUDED.

The diverse certification tests as well as the DULV certification represent the final phase in the development process of the wing manufacturer. The certification and test flight is thus accomplished only when the testing team is totally satisfied with the results of the wing performance. We must inform that the certification test results have no real effect regarding the flying characteristics or performance of the wing in thermally active or turbulent air. Certifications only provide you with performance characteristics of the wing when performing extreme flight manoeuvers in normal or calm air. The extreme flight manuevers as described in the certification and validation testing procedures should be handled only as one benchmark in a complex row of correlating relationships to your wings performance characteristics, and should not be overrated.

14 A FEW CLOSING WORDS

The skywalk VENOM is at the pinnacle of development standards in Motorgliding technology.
This wing will offer you years of flying pleasure, if you handle it properly.
Take into account the demands of flying and respect the dangers involved, that is the basic requirement for successful and problem free flying. Even the safest wing can not save you from disaster if you miscalculate or falsely interpret the weather conditions. Remember that every form of sport flying has a potential for danger and your inevitable safety is in your hands alone. In the interest and respect to our sport, remember to always fly within your own safe bounds and always under the local laws governing flight in your country.

Remember - Every pilot flies at their own risk!

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83224 GRASSAU
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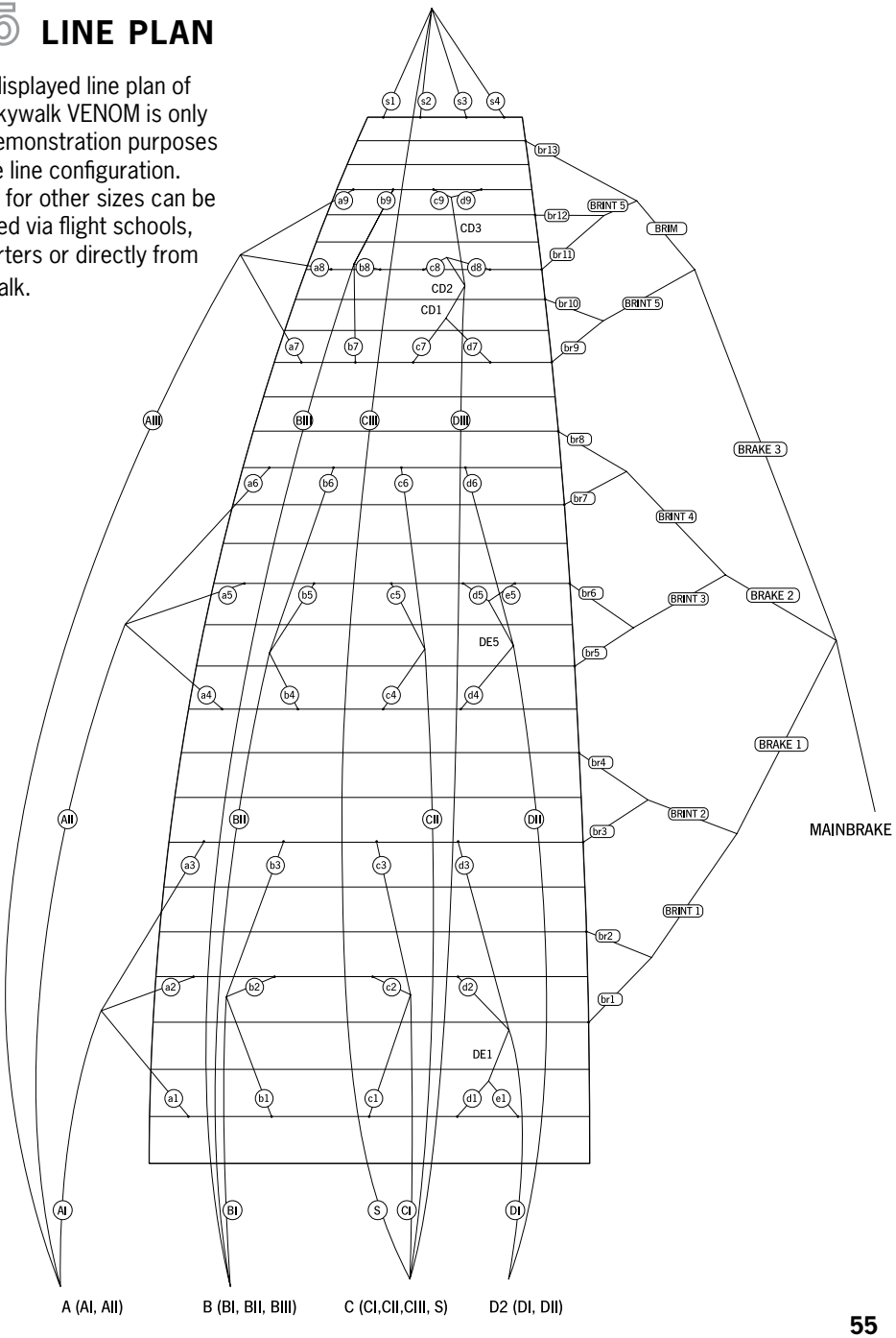
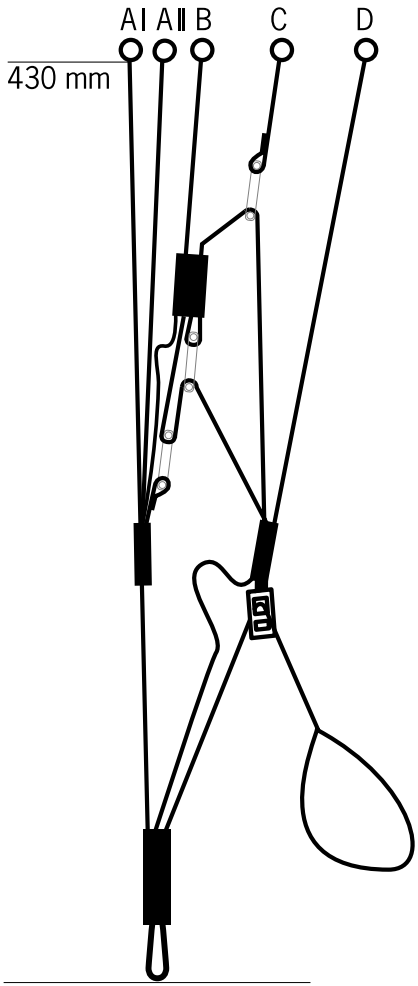
15 LINE PLAN

The displayed line plan of the skywalk VENOM is only for demonstration purposes of the line configuration. Plans for other sizes can be aquired via flight schools, importers or directly from skywalk.

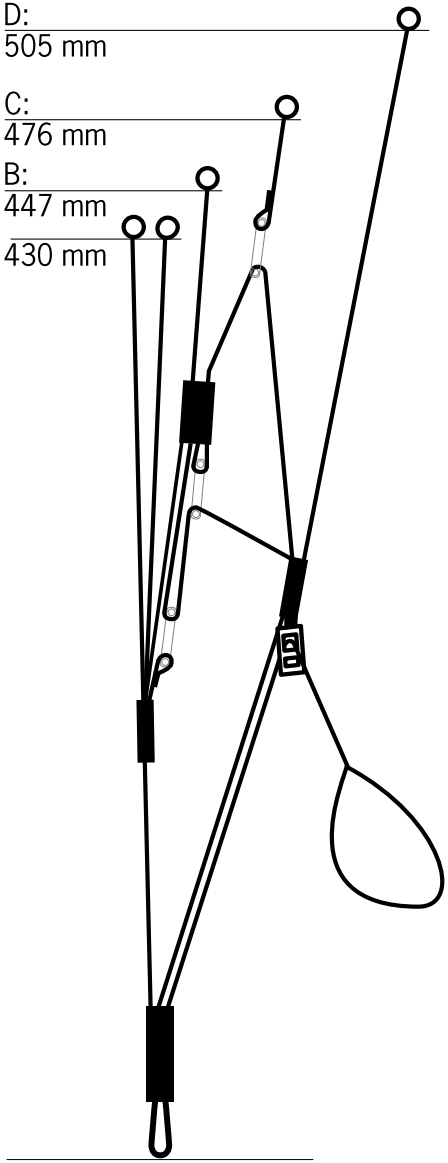


16 RISER

VENOM Size S



Trimspeed



Accelerated

17 TEST PROTOCOL

Test Protocol		Date:
Customer, Name:		
Adress:		Phone:
Glider:	Size:	Serial number:
Gütesiegelnr.		Date of last check:
Date of first flight:	Year of construction:	

Accomplished checking:	Results: [+/–]	Description of failure	Suggested repairs
Identification:	+ –		
Visual check of canopy:			
Upper surface:	+ –		
Lower surface:	+ –		
Profiles:	+ –		
Line flares:	+ –		
Leading edge:	+ –		
Trailing edge:	+ –		
Crossports:	+ –		
Visual check of lines:			
Seams:	+ –		
Abrasion spots:	+ –		
Core withdrawals:	+ –		
Vis. check of connectionparts			
Suspension line screw locks:	+ –		
Risers:	+ –		
Lenght measurement:			
Risers:	+ –		
Lines:	+ –		
Examinations of the canopy:			
Firmness of canopy:	+ –		
Porosity:	+ –		

Examinations of the lines:			
Firmness of main lines:	☐ ☐ ☐ ☐ ☐ daN		
Visual check of trimming:	☐ + ☐ –		
Checkflight necessary?	☐ + ☐ –		
Gütesiegel plaque?	☐ + ☐ –		
Identification plate?	☐ + ☐ –		

Condition:

- ☐ New
- ☐ Very good condition
- ☐ Good condition
- ☐ Well used
- ☐ Heavily used, but within gütesiegel standards, frequent checks required
- ☐ No longer airworthy, outside of the limit values.

Repairs made?

Signature of tester:	Date:

17 TEST PROTOCOL

Test Protocol		Date:
Customer, Name:		
Adress:		Phone:
Glider:	Size:	Serial number:
Gütesiegelnr.		Date of last check:
Date of first flight:	Year of construction:	

Accomplished checking:	Results: [+/–]	Description of failure	Suggested repairs
Identification:	+ –		
Visual check of canopy:			
Upper surface:	+ –		
Lower surface:	+ –		
Profiles:	+ –		
Line flares:	+ –		
Leading edge:	+ –		
Trailing edge:	+ –		
Crossports:	+ –		
Visual check of lines:			
Seams:	+ –		
Abrasion spots:	+ –		
Core withdrawals:	+ –		
Vis. check of connectionparts			
Suspension line screw locks:	+ –		
Risers:	+ –		
Lenght measurement:			
Risers:	+ –		
Lines:	+ –		
Examinations of the canopy:			
Firmness of canopy:	+ –		
Porosity:	+ –		

Examinations of the lines:			
Firmness of main lines: ☐ ☐ ☐ ☐ ☐ daN			
Visual check of trimming:	☐ + ☐ –		
Checkflight necessary?	☐ + ☐ –		
Gütesiegel plaque?	☐ + ☐ –		
Identification plate?	☐ + ☐ –		

Condition:

- ☐ New
- ☐ Very good condition
- ☐ Good condition
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Repairs made?

Signature of tester:	Date:

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