MAESTRO 3

Manual Version 1.02, 02.10.2025



Congratulations!

Thank you for choosing a PHI MAESTRO 3!
The MAESTRO 3 represents the continuation of a long tradition. Like its predecessors in the High B class, it sets standards in terms of performance and speed. The MAESTRO 3 provides a maximum of performance for a big target group. The limited aspect ratio is easy to fly and with low line drag is offering extraordinary performance at high speeds.

For questions or suggestions, please contact us at info@phi-air.com.
More information about this and our other products can be found at phi-air.com.
In order to be able to use all service and warranty services, you must register your paraglider on our homepage under SERVICE / REGISTRATION.

PHI

The PHI brand stands for experience, competence and passion. The PHI team consists of experts and enthusiasts with a lot of experience. First-class technical professionalism is the base to further push the limits.

The PHI MAESTRO 3

The MAESTRO 3 is a highly technical High-B. The resulting dynamic performance and the high degree of passive safety set new standards. The additional miniribs in the leading and trailing edge double the number of cells in the flow-critical area. Combined with the optimized triple-staggered zigzag 3D shaping, a new level of surface quality is achieved. The MAESTRO 3 features Nitinol steel rods that are highly resistant to deformation. Innovative neoprene padding protects the fabric in the leading edge and ensures even distribution of the pressure generated by the Nitinol rods.

Technical description

The MAESTRO 3 has 78 cells across the entire span, of which 9 cells each on the Stabilo are designed as closed cells. This creates a very form stable and homogeneous wing. The profiles used combine high performance with a very forgiving flight behavior.

4 levels of lines on the sail lead to 3 or 2 main lines on each side (depending on A,B,C cascades and size). The outermost A lines hang on a separate riser for easy big ears. The suspension system is extremely optimized, which minimizes the line resistance.
On the front A riser, the speed system is attached.
For better distinction, all A-lines on the maillon rapide are covered and red. Except the stabilo line all lines are covered.

Safety

The MAESTRO 3 is characterized by very high stability in turbulent air. If the wing collapses, the reaction is typical B-class: with no dynamics.

The maneuver ratings of B in the EN / LTF tests confirm the large safety margin of this glider.

Handling

The brake travel is short and direct. The brake pressure shows a good progression with excellent feedback. The MAESTRO 3 can be turned very sensitively and with comparatively small control inputs in thermals.

Performance

Due to the additional miniribs in the profile nose, the leading edge remains very stable even in fast flight. Thus, the MAESTRO 3 offers a very flat polar with an outstanding performance for its class.

Target group

The MAESTRO 3 is aimed at ambitious and trained pilots who are flying regularly with an active flying style.

Pilot requirements

A paraglider with B classification does not place very high demands on the pilot. Nevertheless, self-evident action is indispensable.
In order to fly the MAESTRO 3 safely, the pilot should have already gained experience and completed flights in various conditions.
Each pilot must be able to judge whether his/her skills and equipment are actually up to the expected flying conditions! Even with equipment with maximum passive safety, a wrong decision can have devastating consequences!
It is solely up to the pilot to avoid such misjudgments by continuing his education in theory and practice, and making his/her decisions wisely and according to his/her skills.
It is also up to the pilot to use suitable protective equipment and to ensure the constant function of his/her equipment.
Only those who are aware of these principles can practice paragliding safely and enjoyably.

Before the first flight

First flight

Each PHI paraglider must be flown in and inspected by a PHI dealer prior to being handed out to the customer. This first flight must be entered together with the date and pilot on the type table sheet of the paraglider (in the intake of the middle cell).

Registration

In order to be able to use all service and guarantee services, you must register your paraglider on the PHI homepage under SERVICE / REGISTRATION.

Scope of delivery

The PHI MAESTRO 3 comes with a pack sack, inner pack sack, packing tape and repair kit.

Modifications to the paraglider

The specifications on delivery match those the wing has been certified with. Any unauthorized modification (such as changing the length of the lines, changing the riser) will most likely result in a loss of certification!
Only the main brake line can be adjusted to a small extent:
On the main brake line is a mark where the brake handle is knotted. This setting can be slightly adapted to have sufficient braking distance available in extreme flight situations and when landing, and on the other hand not to constantly pull the brakes, especially in accelerated flight!
It is recommended that you take advantage of expert assistance to avoid the wrong setting or wrong knotting technique. A wrong knot can slip surprisingly, also too short brake lines can significantly affect the flight behavior, resulting in the loss of certification.

Suitable harness

The choice of the harness significantly influences the flight behavior of the MAESTRO 3. There are harnesses that allow very effective weight shifting, but also pass on turbulences relatively undamped to the pilot. Less agile harnesses allow no extreme weight shift, but the pilot is less shaken by turbulences.
A competent flight school can help with individual expert advice.

According to EN926-2, the harness used in the approval tests must correspond to a defined geometry: distance between the main suspension points = width of the attachment points, see the type plate on the stabilizer or the technical data table in the appendix.

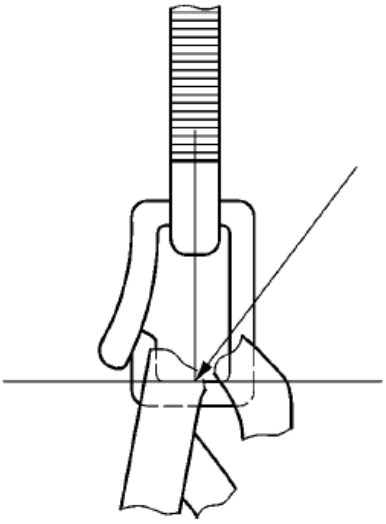


Figure 3 — Harness upper measuring point

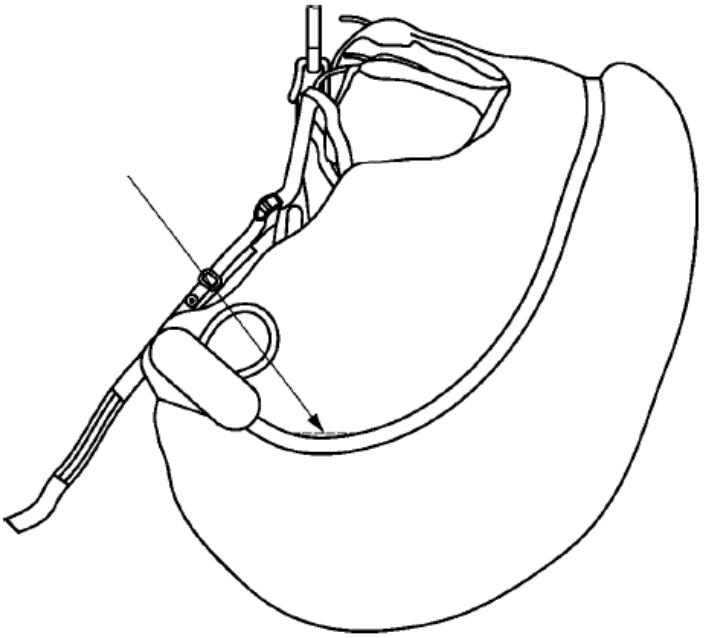


Figure 4 — Harness lower measuring point

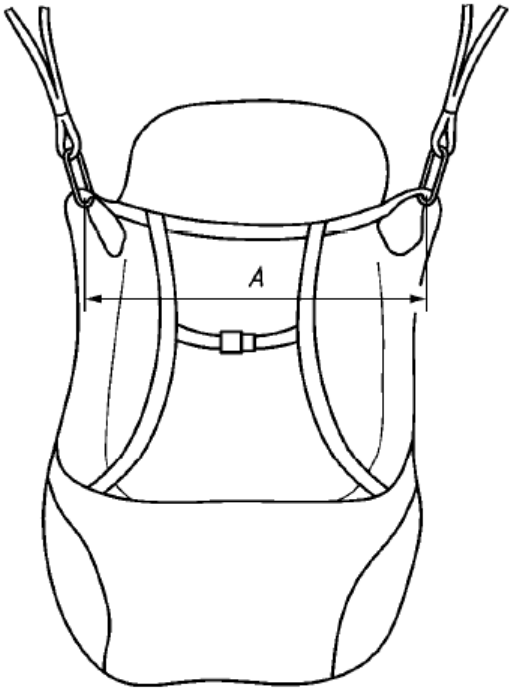


Figure 5 — Width of harness attachment points

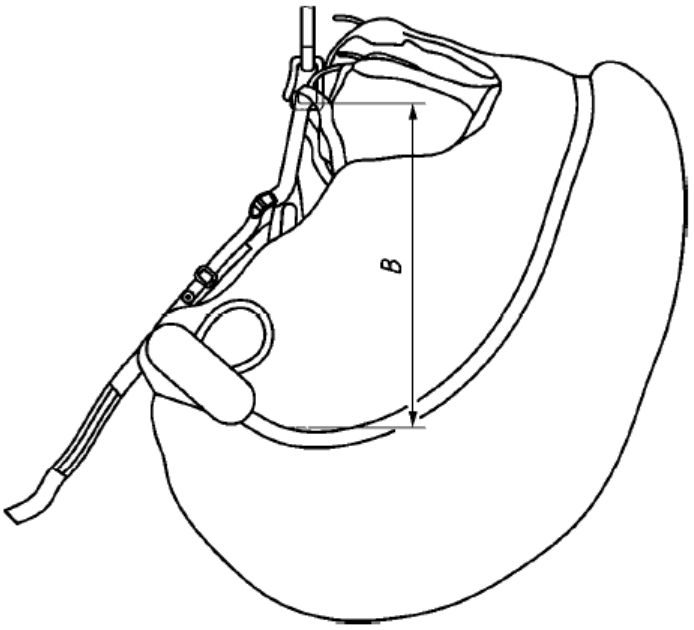


Figure 6 — Height of harness attachment points

Table 48 — Total weight in flight

TWF (total weight in flight)	< 80 kg	80 kg-100 kg	> 100 kg
Width (Measurement A on Figure 5)	(40 ± 2) cm	(44 ± 2) cm	(48 ± 2) cm
Height (Measurement B on Figure 6)	(40 ± 1) cm	(42 ± 1) cm	(44 ± 1) cm

Legal weight range

The MAESTRO 3 is only approved for operation within a certain weight range. It is the total weight, including pilot, paraglider and harness (and other equipment).
If the MAESTRO 3 is flown in the lower half of the legal weight range, reduced agility can be expected. In strong turbulences a lower stability may be noticeable. The reaction on extreme maneuvers is very relaxed.
Flying the MAESTRO 3 in the upper half of the weight range increases the dynamics and stability of the glider. The trim speed increases slightly. The dynamics on extreme maneuvers are slightly higher.

In flight with the MAESTRO 3

It is recommended to do the first flights with a new glider in calm conditions to get used to the flight behavior. Also, a few launches on the training hill or ground handling are recommended to get a feel for the wing and its reactions.

Start

The pilot must make sure that all equipment is in good condition before take-off. In particular, the wing, the harness and the rescue system. The type table must be checked. It is important to make sure that you are in the legal weight range.

Necessary start checks:

1. **Strapped in** (leg straps and chest strap on the harness closed, chin strap on the helmet closed)
2. **Hooked in correctly** (risers not twisted, hooked in carabiner, accelerator connected correctly, carabiners locked)
3. **Lines** (A-line above, all lines sorted, brake line runs freely to the brake pulley)
4. **Canopy** (canopy is prepared in a bow with open leading edges)
5. **Wind and airspace** (wind direction from the front, airspace free)

The pilot performs the control look up and makes sure that the wing is completely open above him, with no knots in the lines.
The final decision to start has to be made only in the case there are no faults.
Otherwise, the start should be stopped immediately for security reasons!

The FANTASIA is characterized by a very simple inflation behavior when launching forwards or backwards. The glider rises very directionally stable without a tendency to overshoot. Overall, the launch behavior is very easy and forgiving and requires no further knowledge than the standard techniques for forward and reverse launch that are taught in flight schools.

In general, it is advisable to practice regularly on the practice slope or through ground handling in the wind.

Straight on flight

The MAESTRO 3 has the best glide performance at trim speed (with fully released brakes). In calm air, the glider is reaching the greatest distance at a given altitude.
In headwinds or sinking air masses you fly at maximum glide when you push the accelerator. In turbulent air you should consider the more dynamic reactions on a collapse in accelerated flight and therefore choose a greater safety altitude over the ground.

Attention!
Never push the accelerator with too little safety altitude over the ground!
The safety height allows the glider to open by itself after a large collapse, or the pilot to actively recover the wing. There should also be enough reserve of altitude to use the rescue system, in the case of unsolvable problems.

In strong turbulence, a light brake input on both sides is recommended to increase stability and to get that feedback on the brakes necessary for active flying.

Active flying is the constant control and correction of the angle of attack and airspeed in turbulent air.

With a perfected active flying style you can prevent most collapses. Part of the necessary reactions can also be learned and practiced during ground handling, for example by trying to stabilize the glider without looking at the wing above.

Flying turns

A turn is an interaction of inner brake, outer brake and weight shifting. The art is the right dosage. The MAESTRO 3 is characterized by a sensitive handling. Small brake inputs are enough to fly precise turns.

The MAESTRO 3 loves the modern, dynamic thermal flight. It is recommended not to pull too much outer brake and to keep speed while turning. The MAESTRO 3 "carves" very efficiently around the turn and climbs dynamically. Tight and controlled turns, or swing-free curve changes, require practice and should be the goal of every pilot.

Attention!
Should it happen that the wing is no longer controllable by the brake lines, e.g. the brake lines are knotted due to a faulty start check, then the MAESTRO 3 can be controlled to a limited extent via the C-risers. In combinations with weight shift, relatively good directional corrections are possible. A safe landing is also possible with this technique. The C-risers should only be pulled down slightly to avoid a stall.

Attention!
If the brake lines are pulled too far or too fast, there is a risk of a spin/stall!
A one-sided stall (negative turn) clearly announces itself: the wing starts to lose inner pressure and shape during the curve. In this phase, the inside brake is to be released immediately!

Landing

The MAESTRO 3 is easy to land. In the final approach against the wind flare the wing at an appropriate height. Normally about 1m above ground level, the angle of attack should be increased by more and more braking. When the minimum speed is reached, the brakes are pulled to the max, the wing and this technique allows a soft touch down.
In strong headwinds you brake very little. Only when the pilot is safely on the ground, he stalls the wing with caution (possibly with the rear risers).

Attention!
Landings with steep turns in the final approach are absolutely to be avoided (dangers resulting from pendulums)!
A complete stall can result in a very hard impact of the pilot even at just two meters altitude. Therefore, the brakes should be fully pulled only just before touchdown.

Rapid descents

Attention!
All rapid descent maneuvers should be practiced in calm air and with sufficient safety height to safely use them in emergency situations with turbulent air.

For all extreme flying maneuvers and rapid descents:
- first practice under the guidance of a teacher as part of a safety training.
- before initiating maneuvers, the pilot ascertains that the airspace below/around him is clear.
- during the maneuver, the pilot must constantly control the altitude above ground.

Big ears

Applying big ears is extremely effective and easy to perform with the MAESTRO 3. Initiate the outer A-risers (red/orange) by grabbing at the top of the shackle on both sides, and pulling symmetrically down. The brake handles remain in the hand (without additional wrapping). As long as the risers are held down, the wingtips remain folded and the sink value increases.

If wingtips do not fold completely at the beginning, it is advisable to repeat the initiation, pulling the A-straps faster and / or grasping the outer A-riser above the shackle. The more impulsive pull and the larger amount of pull on the outer A-riser facilitates the folding of the wingtips.
It is recommended to accelerate the wing additionally to increase the sink rate and the forward speed. It also compensates for the increase in angle of attack caused by the added resistance of the applied ears.

To release the maneuver, it is sufficient to release the outer A risers back up again, whereupon the MAESTRO 3 independently recovers the wingtips.
If the ears do not fill completely by themselves, the filling can be achieved by a short brake input. It is important to ensure that it is only a short and limited brake input, or that the brakes are released immediately.

Attention!

The big ears maneuver increases the drag on the canopy. This increases the angle of attack! In order to compensate for the increase in the angle of attack and to avoid a stall, it is strongly recommended to use the accelerator.
When braking (pumping) to open the ears again (after releasing the speed bar), care must be taken not to stall the wing.

Bunny Ears

The modern technique of pulling the outer C lines to initiate “bunny-ears” is not recommended for the MAESTRO 3. In development we have reduced line consumption and line drag by reducing the number of lines. As a result The area held by the outer C line is larger and pulling on the line affects a large area of the sail which can put the wing into a stalled configuration.

B-Stall

The B-stall is initiated by symmetrical pulling down (about 20cm) of the B-risers. The introduction forces are relatively high, but decrease with increasing amount of pulling. For maximum effect, it is recommended to grab the risers at the top of the shackles.

The wing immediately loses its forward speed when the B risers are pulled down and enters a stable stall. The pilot shifts slightly in front of the wing. The further the B-risers are pulled down, the larger the sink rates (up to 9m / s).

If you pull too far, the glider starts to rotate slowly around its vertical axis. In this case, the hands should be raised again until the rotation stops. (A rotation can also be caused by asymmetric pull).

The B-stall is recovered again by quickly moving the hands upwards.
The brake is held throughout the maneuver (without additional wrapping around the hand). During the recovery, make sure that the brake is fully released.

Deep spiral

The deep spiral is the most demanding fast descent and should only be learned at high altitudes, ideally as part of a safety training course.

The initiation can be divided into two phases:
First, you fly a turn by applying one brake and by shifting your weight to the same side, the glider will bank up and increase its turning speed. Then the g-forces increase rapidly and the leading edge will lean towards the ground. In a fully developed deep spiral, the leading edge is almost parallel to the ground. The maximum sink rate with the MAESTRO 3 can get up to 25m/s and more.

The first attempts to fly a deep spiral should be stopped clearly before reaching a fully developed deep spiral to get used to the quick rotation and to practice the exit without pendulum swinging. The exit should be performed by simply releasing the inner brake with a neutral weight-shift. The MAESTRO 3 will then decrease its bank angle and go back to normal flight. To avoid a pendulum movement, the inner brake has to be pulled in the moment the wing wants to reduce its bank rapidly.

The actual spiral movement begins with the leading edge nearly parallel to the horizon. At this moment the harness banks and the pilot is pushed to the outside of the rotation movement. The pilot should allow this movement to avoid a stable spiral situation. (see below). Now the sink values can be varied by inner and outer brake.

If the pilot weight shifts to the outer side, the spiral movement will get slower as soon as the pilot releases the inner brake. The rest of the exit works as explained above.

If the pilot shifts his weight significantly inwards, the MAESTRO 3 can continue to spiral when releasing both brakes. In this case apply both brakes simultaneously or brake the outside of the turn and of course shift your weight to the outside.

The sink values in the spiral can be between 10m/s and 20m/s. The load on the body is over 4g and can lead to unconsciousness depending on the physical constitution of the pilot.

So it is important that you slowly approach this maneuver in order to master the maneuver actively and confidently, and to know the reaction of the body in this demanding situation of high g-forces.

Attention!
Actively exiting a stable deep spiral requires an unusually large amount of body force due to the high g-load!

Attention!
Due to the high performance and dynamics of the wing you have to expect that the glider rises up some altitude after the release of the deep spiral and hits his own vortex turbulence!

Collapse

Asymmetric collapse

When entering strong turbulence, one side of the paraglider may collapse. Specifically, this happens when one side of the wing is losing lift by decreased or negative angle of attack. As a result the lines are getting unloaded and the wing is collapsing.

When such a collapse only affects a small part of the span the MAESTRO 3 will show no significant reaction. For larger collapses with more than 50% of the span affected, the glider shows a more dynamic reaction:

Due to the increased drag of the folded wing, the MAESTRO 3 will start to turn to the side of the collapse. At the same time, the glider pitches forward as a result of the smaller loaded wing surface and therefore higher wing load and needed airspeed.

The pilot can prevent the glider from pitching and turning, by applying the brake on the non collapsed side of the wing.

If a collapse occurs close to the ground it is essential to react properly. The proper reaction should be taught at high altitude, ideally under professional guidance (safety training).

If the brake input on the open side is clearly too strong, it can lead to an asymmetric stall (see spin).

Frontal collapse

The front collapse, often misunderstood as a "front stall", is also a consequence of turbulence. In contrast to the asymmetric side collapse, the entire leading edge folds down.

The MAESTRO 3 opens automatically from the frontal collapse, as well as the side collapse independently.

To speed up the reopening, we recommend a slight double-sided braking.

Stall manoeuvres

Spin

A wing rotates negatively when the airflow detaches on one wing half. The canopy turns around the vertical axis with the center of rotation within the span. The inner wing flies backwards.

There are two causes for spinning:

- a brake line is pulled too far and too fast (for example, when introducing the spiral dive)

- one side is slowed down too much in slow flight (for example during thermal flying)

If an accidentally initiated negative turn is corrected immediately, the MAESTRO 3 goes into normal flight without any major loss of altitude. The brake that has been pulled too far should be released until the airflow on the inner wing attaches again.

Attention!
After a longer negative turn, the paraglider may shoot on one side. This can result in an impulsive collapse or a cravate.

Fullstall

The Fullstall is a complex maneuver whose correct technique can not be fully explained in this manual. Those who want to learn this maneuver should do so under the supervision of a pilot who masters this maneuver perfectly - the best way is during a safety training.

The available brake travel down to the stall point depends on the wing size! In turbulent air, the stall can occur much earlier or significantly later. Who wants to use the full brake travel, must train many full stalls and get a feeling for the partially or fully developed stall.

Parachutal stall

The parachutal stall is a flight condition without forward speed and with a significantly higher sink rate. The parachutal stall can be initiated by the pilot by strong symmetrical braking and is effectively the precursor to a full stall.

The MAESTRO 3 automatically exits the parachutal stall by fully releasing the brakes.

A very heavily used wing with a porous cloth and / or with an incorrect trim (for example, as a result of many winch starts or deep spirals) can stay in a stable parachutal stall. This can happen, e.g. when the B-stall is released slowly, or after a large frontal collapse.

In addition, the tendency to a parachutal stall is higher with a wet glider or by flying in the rain or in very cold air.

In the case of a stable parachutal stall you should release any brake inputs and push the A-risers forward or pull them down, or - even better - push the accelerator. After a slight pendulum movement, the glider returns to normal flight.

In the case of a parachutal stall close to the ground the pilot has to decide whether the altitude is high enough for a pendulum movement or it is better to prepare himself for a hard landing.

Attention!
When the wing is in a parachutal stall, additional brake input may result in a fullstall!

Cravates

After a big collapse or after a badly executed full stall, a part of the wing might be tangled up in the lines, and won't reopen automatically. This is what you call a cravate. During our extensive test flights with the MAESTRO 3 we never experienced a cravate but this situation can not be eliminated for any paraglider.

In case of a cravate we recommend the following actions:

1. **Counter steer:** Probably the wing wants to turn to the side of the cravate. In some cases, the turning happens quickly and will end in a stable deep spiral without the pilot's action. So it is important to react quickly by counter steering.
2. **Opening the cravate by applying the brake with an impulse movement:** Some cravats can be opened with this method. It is important to keep the wing in straight flight by pulling the other brake all the time.
3. **Pulling the stabilo line:** Some cravats can be opened by strongly pulling the stabilo line. (It is the orange line on the B-riser. Have a look at it or grab it every once in a while and you will be able to react quicker in a moment of danger.)
4. **Induce a collapse on the side with the cravate.** Sometimes this helps as well to get rid of the cravate.
5. **Full stall:** Many cravats can be opened by using the Full Stall. But of course you have to have solid experience with this maneuver to be able to use it properly.
6. **Reserve:** If you lose control or if you are not absolutely sure that you have enough height for further attempts to recover, immediately use your reserve!
7. **Landing:** In some cases it could be the best option to land with the cravat still inside. When you still have good directional control and a large landing area this can be the safest option. Be aware that the wing will stall earlier during the flare.

Many pilots wait way too long before using their reserve. Some don't use the reserve at all if they lose control of their glider. We strongly recommend to at least mentally practice the use of the reserve from time to time: Grab the handle of the reserve in flight, like you would do it in case of an emergency. Many clubs or schools offer to throw the rescue for example in a gym. The most realistic way of training is to use the reserve in real flight. Many SIV Clinics offer that as part of their training.

Please use these possibilities: There are already too many pilots, who almost forgot that they have a reserve they could use, which is a very bad precondition to use it without hesitating in a dangerous moment.

Winch launch

The MAESTRO 3 is very easy to launch on the winch. You should start to climb at a flat angle.

We recommend the use of a towing adapter. This is connected on top of the main carabiner and connects it with the tow release.

Speed system

Mounting of the speed system

Most harnesses have two pulleys on each side, some (light) harnesses instead have two simple rings. The two accelerator cables supplied with the harness are guided from top to bottom through the two pulleys / rings and fixed on the speed bar.

Important is the correct adjustment of the length. If you set it too short, the glider might fly accelerated all the time, which definitely has to be avoided. If you set it too long, you might not be able to use the full accelerator travel.

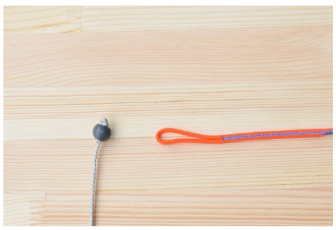
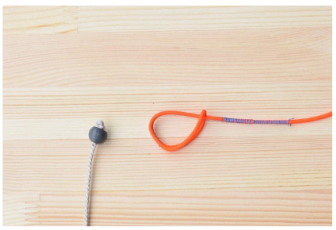
We recommend that you set the accelerator slightly too long during the first assembly to estimate the free travel in flight. You can then shorten the accelerator if necessary.

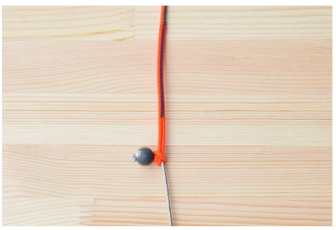
Using the accelerator in flight

Before take off, when hooking the risers into the main carabiners, be sure to connect the speed system rope with the speed system on the risers: connect the “brummel hooks” or the ball / loop system.

Overview of available risers: https://phi-air.com/project/risers/

Connection with ball and loop:



In flight, the MAESTRO 3 can now be accelerated by pushing the speed bar, which results in a reduction of the angle of attack and as a consequence an increase of airspeed. The speed increase compared to trim speed is about 15 - 17km/h.

The use of the accelerator is useful to penetrate against the wind or to make more distance in a certain time during XC flights.

Attention:
Braking during the accelerated flight not only costs a lot of gliding performance, but as well increases instability and may lead to collapses! Always release the speed bar before pulling the brakes! Many pilots who fly with a wrap/half-wrap often push bar like this and inadvertently apply some brakes during accelerated flight.

To turn, simply shift weight, or push the speed bar asymmetrically. (If you push the right side further, the wing will perform a left turn.) You may also turn with a ‘smart riser’ like our R07 riser with the C handles.

Geometric data of the accelerator

If the entire available accelerator travel is used, the A-risers shorten by 18cm or 20cm compared to the C-risers, depending on size: see technical data.

Flying with the R14 riser: usage of the C handle:

The MAESTRO 3 can optionally be equipped with the new R14 riser. This offers an ergonomically optimized position for the C-handle. The system can be operated using a padded handle or, optionally, a removable short carbon handle.

This system allows the angle of attack to be changed in any flight position with minimal effort.

– not just in straight flight!

The riser has a very minimalist and clear design.

Thanks to the use of the highest-quality ball-bearing rollers, it runs very smoothly.

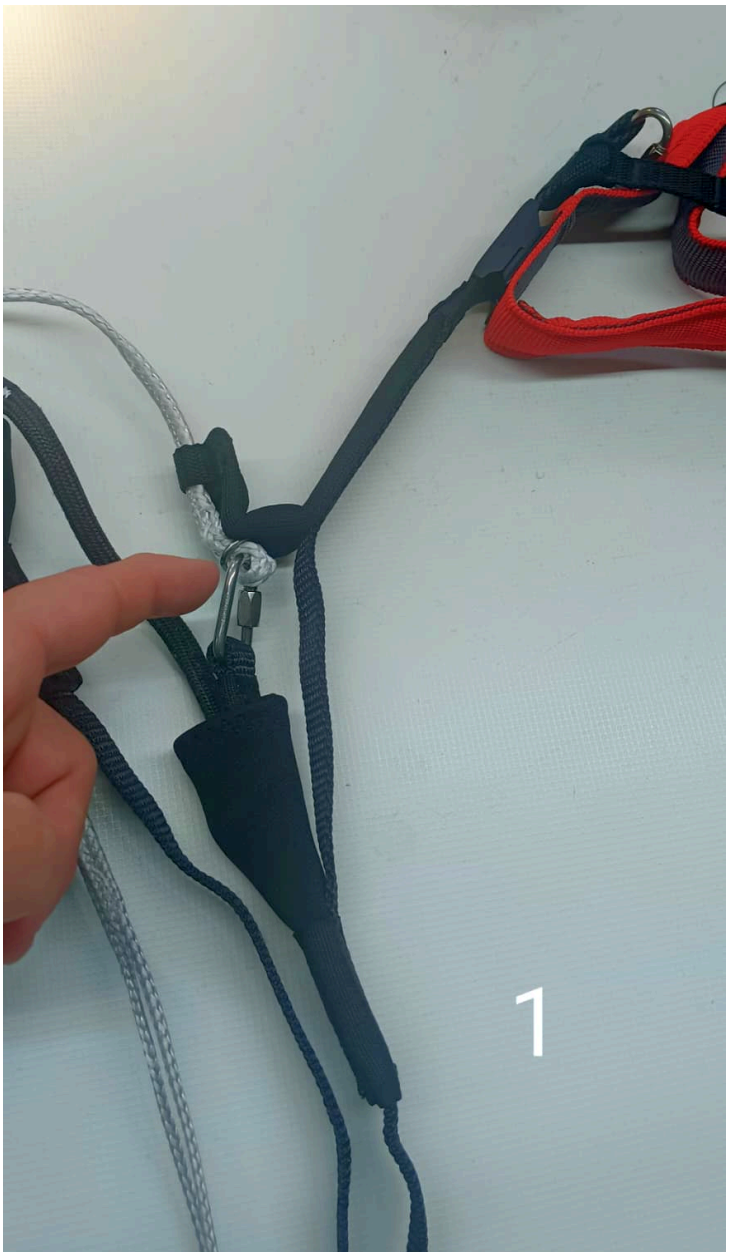
The development goal was very comfortable operation and good length consistency.

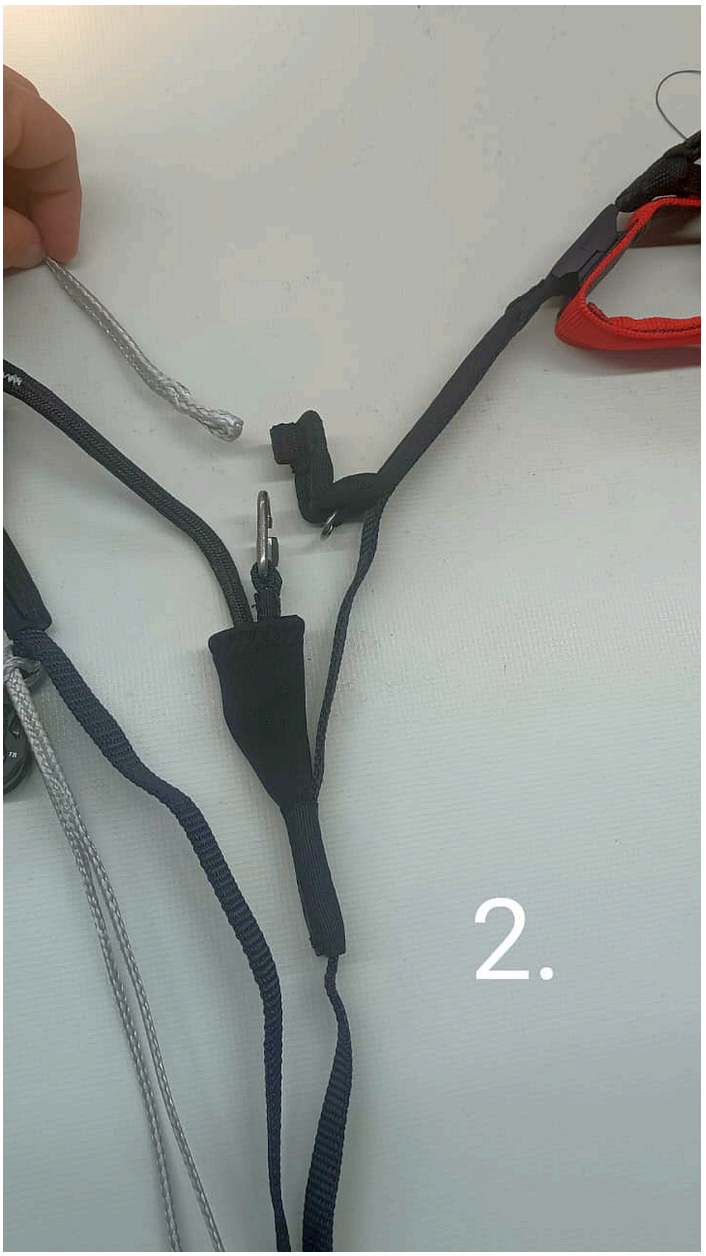
The central high-strength Dyneema line can be easily replaced by a qualified person.



The R14 riser can be operated with a carbon handle or directly on the soft grip.

Optionale Montage des Carbon Griffes auf dem R14 Tragegurt:






3.


4.



The carbon handle can be mounted over the soft handle using the included strap loop.

Attention:
If the C handle is pulled down too far, you will stall the wing!
The C-Handle is not a substitute for the brake line!
This technique is primarily intended to adapt the accelerator travel or to correct the direction when the accelerator is pushed.
Be careful not to pull the brake line when pulling down the handle! Braking during accelerated flight reduces the collapse stability!

Service and maintenance

General advice

With proper and careful handling of the paraglider, it will remain in perfect technical condition for many years even when used intensively. Please note the following:

Don't expose your glider to unnecessary UV radiation – for example by leaving it on the landing site unpacked.

When folding, you should not bend the polyamide rods at the leading edge more as necessary.

If you pack the glider when it is wet or just damp, it has to be dried later. Don't leave it packed in a wet condition!

When you practice ground handling, avoid crashing the glider hard on the ground with the leading edge, as this might lead to damage.

Avoid unnecessary dirt or sharp stones touching the lines and the cloth. Don't step on the lines if they are laying on a stony surface!

Humidity combined with dirt can lead to shrinking of the lines and thereby to the wrong trim on your glider. Salt water (sweat) may damage the lines in the long run.

Storage

Ideal is a light-protected, dry storage of the paraglider. Permanent storage at very high temperatures (for example in the car during midsummer) should be avoided.
For longer storage, the paraglider should not be compressed.

Transport

For transport, the paraglider can be compressed very tightly. The nylon monofilaments used for nose stiffening are very insensitive to permanent deformation.

If a very small pack volume is required, a compression bag can also be used. To minimize the weight, make sure that the paraglider is packed dry. The nylon cloth absorbs water at high humidity and gets heavier.
If vibrations occur during transport (eg: motorcycle), make sure that the fittings (line locks) do not touch the sail cloth (use the riser bags).

Cleaning

To clean the wing, only use water and a cleaning cloth. Never use any solvents!

If there is sand, dirt or small stones inside the canopy, you should remove them because they will damage the coating of the cloth and the seams in the long run.

Repair

Repairs should only be carried out by the manufacturer or by authorized companies. If you have any questions, please contact PHI directly: (info@phi-air.com)

Exceptions are the replacement of lines as well as the repair of small tears (up to 5 cm, which do not affect seams) or holes in the cloth, which can be repaired with the original PHI repair set. A small set of sticking cloth is supplied with the wing.

Check

The general check interval is two years, unless the checker sets the check interval to a shorter time because of a heavily used wing.
Commercially used equipment (school gliders, tandems) must always be checked every year. This is also recommended for gliders under heavy load, e.g. with more than 150 flight hours in two years, or with regularly flown acro maneuvers. We also recommend an annual check if there is a lot of flying in terrain that puts a plenty of strain on the material: in rocky areas, in salty air, or especially after salt water contact.
In these cases it is even more than usual for the pilot to regularly check his glider for damage.
Each check must be confirmed by the check-stamp. In case of non-compliance, the quality seal expires. For further information on the maintenance check, see the check-in instructions on the PHI homepage (http://www.phi-air.com): Downloads: Check.
This is constantly updated according to the state of the art, experience and knowledge.

Registration, warranty

In order to be able to use all service and warranty, you must register your paraglider on our homepage under SERVICE / REGISTRATION.

Further details see PHI Homepage.

Environment friendly behaviour

Finally, we would like to call on you to operate our sport as nature and landscape friendly as possible. In addition to self-evident things, such as not to leave garbage, you should also avoid scaring animals by flying too close. Especially in the cold season, this stress can be life-threatening for animals.

Disposal

The plastic materials used in a paraglider require proper disposal. Please return your used wing to PHI: it will be disassembled and disposed of by us.

PHI

PHI, eine Marke der Papesh GmbH

Grillparzerstrasse 10

6067 ABSAM

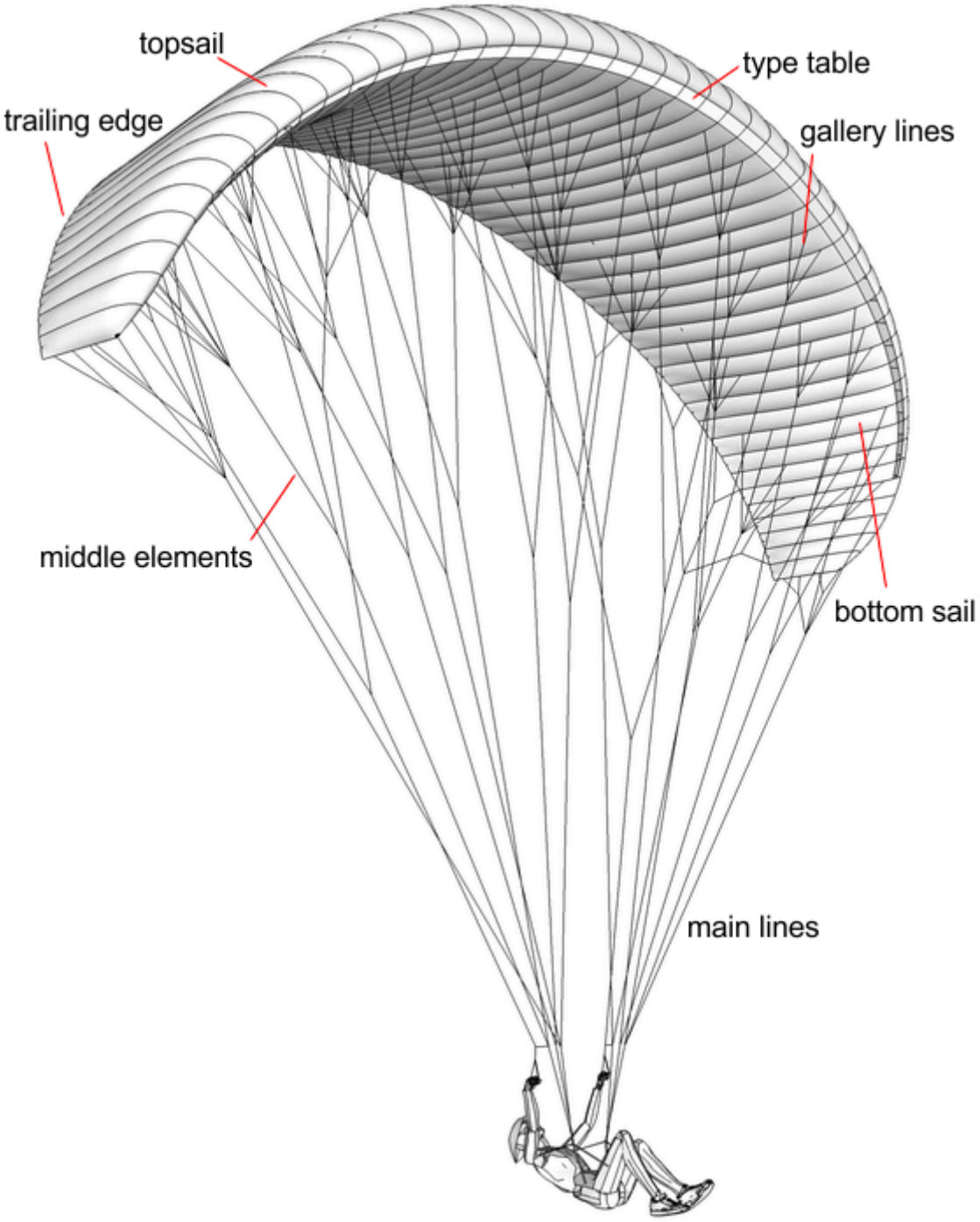
Österreich

Technical Data

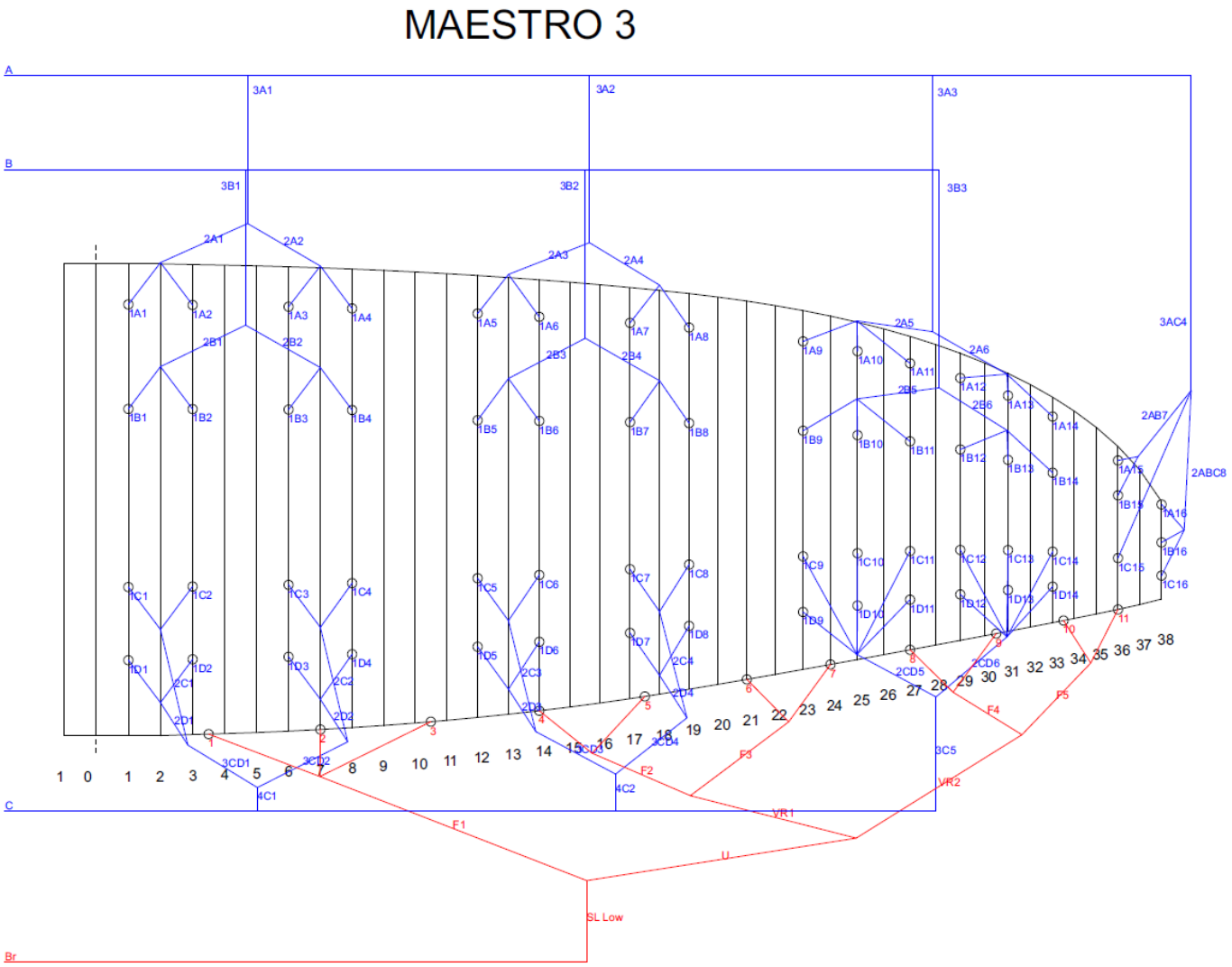
MAESTRO 3					
size		**19**	**21**	**22**	**23**
number of cells		76	76	76	76
projected span	m	8,77	9;24	9,46	9,67
projected area	m²	18,62	20,65	21,66	22,6
projected aspect ratio		4,13	4,13	4,13	4,13
flat span	m	11,08	11,67	11,95	12,21
flat area	m²	21,75	24,12	25,29	26,4
flat aspect ratio		5,65	5,65	5,65	5,65
line length	m	6,56	6,91	7,08	7,23
maximum chord	m	2,45	2,58	2,65	2,70
minimum chord	m	0,51	0,53	0,55	0,56
weight	kg	4,3	4,75	4,95	5,1
standard weight range	kg	65-85	75-95	83-103	90-110
extended weight range	kg	85-90	95-100	103-108	110-115
certified weight range	kg	65-90	75-100	83-108	90-115
certification (EN/LTF)		B	B	B	B
ext. weight range motor	kg	65-150	75-150	83-170	90-170
max brake travel	cm	>60	>60	>65	>65
distance main carabiner	cm	44+-2	44+-2	48+-2	48+-2
certification DGAC		i.A.	i.A.	i.A.	i.A.
material		Porcher Skytex 32 / 27 double coated			
risers		R14 (3+1)			
riser length	mm	540	540	540	540
speedway	mm	180	180	180	180

Attention:
The maximum control travel depends on a number of parameters. In practice it can be lower than indicated in this table. The values in this table refer to the test scenario as part of the test according to EN 926-2 (in calm air) and are only rough guide values. Turbulence, which is omnipresent in practice, has a negative effect on the maximum control travel! The stall occurs earlier!

Overview wing



Leineplan


MAESTRO 3
A
B
C
Br
3A1
3A2
3A3
3B1
3B2
3B3
3AC4
2ABC8
SL Low
F1
F2
F3
F4
F5
U
VR1
VR2