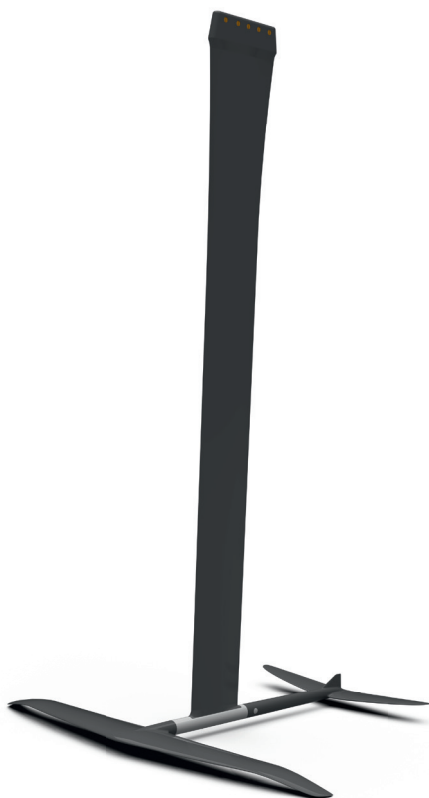


LEVITAZ Hydrofoils

Manual R5



LevitaZ[®]
HYDROFOILS

Manual for Hydrofoil

GDM003450-ENG-A

Table of Contents

1	INTRODUCTION	2
2	WARNING & SAFETY PRECAUTIONS	3
3	APPLICATION OF THE PRODUCT AND TECHNICAL DATA.....	5
3.1	Connection to the board	6
4	HYDROFOIL DESCRIPTION	8
5	HYDROFOIL ASSEMBLY INSTRUCTIONS.....	9
5.1	Connection of the glider.....	10
5.2	Connection of the glider and the mast	12
5.3	Adjustment of the rearwing's angle of attack	14
5.4	Control correct assembly.....	14
6	DISASSEMBLY OF THE HYDROFOIL	15
6.1	Dismounting the glider and the mast.....	15
6.2	Disassembly of the glider	17
7	Part ID.....	19
8	PACKAGING AND STORAGE	20
9	MAINTENANCE AND REPAIR INFORMATION.....	21
9.1	Maintenance	21
9.2	Repair information.....	21
10	DISPOSING OF USED PARTS.....	22
11	ORDERING REPLACEMENT PARTS.....	23
	WARRANTY POLICY	24
	CONTACT INFORMATION	25

1 INTRODUCTION


General information

The Levitaz hydrofoil attaches to the bottom of any kind of watersport board and lifts the board out of the water as it is accelerated by an external force. Because the Levitaz hydrofoil reduces the drag on the board as it moves across the water, a user can often achieve a greater speed.

This manual contains important information about the proper use of the product and its safety. Follow these instructions carefully and precisely. This helps to reduce the risk of damage to the product, personal injury or death.

- This manual is part of the product.
- Keep this manual in a safe place for the entire life of the product.
- If the product is transferred to a new owner, this manual and all associated documents must be passed on to the new owner.

The meaning and appearance of safety symbols used in this manual are as follows:

 WARNING!	The text after the signal word "WARNING!" contains important information, which must be followed to avoid serious personal injury or death.
--	--

NOTICE!	The text after the signal word "NOTICE!" contains information, which must be followed to avoid damage to the product.
----------------	--

Use of this product and any of its components, as well as hydrofoiling in any type of water sports involves certain inherent risks, dangers and hazards. Even if all the following instructions are followed, the risk of serious injury or death to you or others will not be eliminated. Levitaz, a brand of Geislinger GmbH or any of its agents shall not be liable for any loss, cost, claim, damage, demand or expense you may suffer whatsoever arising as a result of your actions when using the product.

2 WARNING & SAFETY PRECAUTIONS



WARNING!

Hydrofoiling in any kind of water sports is inherently a dangerous activity that can result in serious injury or death to the user or people in the proximity of the user, with or without a Levitaz product. These risks include drowning or being hit by the product if the user loses control of it. The product may increase the risk of some injuries to users or bystanders by adding additional structure to the board that may strike users or bystanders; by increasing the speed at which the board can be operated, or by changing the manner in which an out-of-control board reacts as it contacts water or ground during an out-of-control situation. The user of this product should understand that the use and participation in the sport and any foiling activity could cause injury or death to you and/or others around you.

OBSERVE THE FOLLOWING SAFTY STANDARDS WHENEVER USING THIS PRODUCT:


- Hydrofoiling and kite boarding are dangerous sports.
- Use of this product exposes the user to unexpected and unavoidable risks, dangers and hazards.
- Read the manual for important information about the installation, care and maintenance of the board before use.
- Always use extreme caution when using this product.
- Never use this product unless you are in good physical health.
- Never use this product unless you are an experienced swimmer.
- Never act in a careless manner when using this product.
- We do not recommend hydrofoiling in breaking surf.
- Always observe local rules and regulations when using this product.
- Always wear an approved life and protection vest.
- Always wear a suitable helmet.
- This product is designed for use on water only.
- Make sure you take lessons before using this product on the water. Never use this product in conditions that are above your ability level.
- Surf under control and do not use at speeds that exceed the skills of the rider.
- Never use this product in shallow water or near the shore, or near docks, pylons, swimmers or other activities.
- Do not use this product in thunderstorm and/or lightning conditions.
- The users are responsible for their safety and the safety of those around them.
- Components in this product are subject to the random forces of natural elements and are subject to irregular wear.
- Only use original Levitaz replacement parts.

- It is the user's responsibility to inspect equipment for wear before every use.
- It is the user's responsibility to repair and maintain this product.
- The use of damaged products is not allowed.
- Before riding ensure that the bolts are tightened with the tightening torque that is described in this manual.
- Geislinger GmbH is not responsible for injuries, death or damage to the product due to misuse or any use not consistent with these instructions.
- Do not use this product under the influence of alcohol, drugs or medications.
- Minimum age of rider: 18 years.
- At temperatures above $\geq 650\text{ }^{\circ}\text{C}$, decomposition of the carbon fiber can cause respirable fiber particles (WHO-fibers). Do not inhale combustion gases.

Failure to follow these instructions may increase the risk of serious personal injury or death, damage to the product or both.

3 APPLICATION OF THE PRODUCT AND TECHNICAL DATA

The product will only function properly if it has been mounted according to the instructions contained in this manual. Carefully follow these instructions.

 WARNING!	<p>This product is designed for use on water and by trained personnel (over 18 years) only.</p> <p>Failure to do so may cause serious personal injury or death, damage to the product or both.</p>
--	--

NOTICE!	<p>Do not use power tools for the assembly or disassembly process as control of torque and power is limited.</p> <p>This may cause serious damage to the product. Doing so will render your warranty void.</p>
----------------	--

NOTICE!	<p>Do not use hammer or other sharp objects for the assembly or disassembly process.</p> <p>This may cause serious damage to the product. Doing so will render your warranty void.</p>
----------------	--

NOTICE!	<p>As your hydrofoil system is exposed to a harsh environment, there is the risk of corrosion even with the high quality materials used.</p>
----------------	--

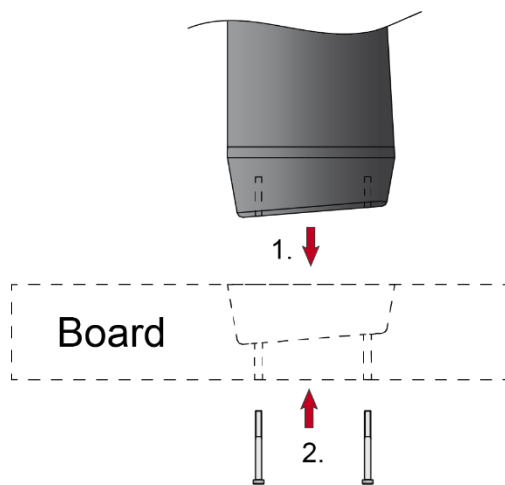
Material: carbon; steel

The connection bolts between the hydrofoil and the board are not delivered by Levitaz. Please make sure to use stainless bolts provided with a minimum strength class 70.

3.1 Connection to the board

The Levitaz Ventus hydrofoil can be used with boards that have a tuttle box. The tuttle box is not standardized. Please check always dimensions. See fig. 3.2.

The connection bolts between the hydrofoil and the board are not delivered by Levitaz. Please make sure to use stainless M6 bolts provided with a minimum strength class 70.



1. Insert the mast into the tuttle box of the board. Note that the inclined surfaces from the mast and the tuttle box fit together and are clean of any objects like dirt or sand prior to the assembly.
2. Before proceeding, apply a small amount of the Loctite grease provided in the Tool kit onto the threads and undersides of the heads on the two screws (Note: screws are not included)
3. Connect the mast with suitable M6 bolts from the deck side. Due to the tight fit between the board tuttle box and the mast, it is very important that you carefully tighten the greased screws evenly (matching turns of each screw at a time). If you tighten one screw significantly more than the other, the board box could locate unevenly and damage the mast. Do not over torque the bolts. The recommended tightening torque is 9 ± 1 Nm. Keep the material of the board in mind.

Figure 3.1: Mast for tuttle box

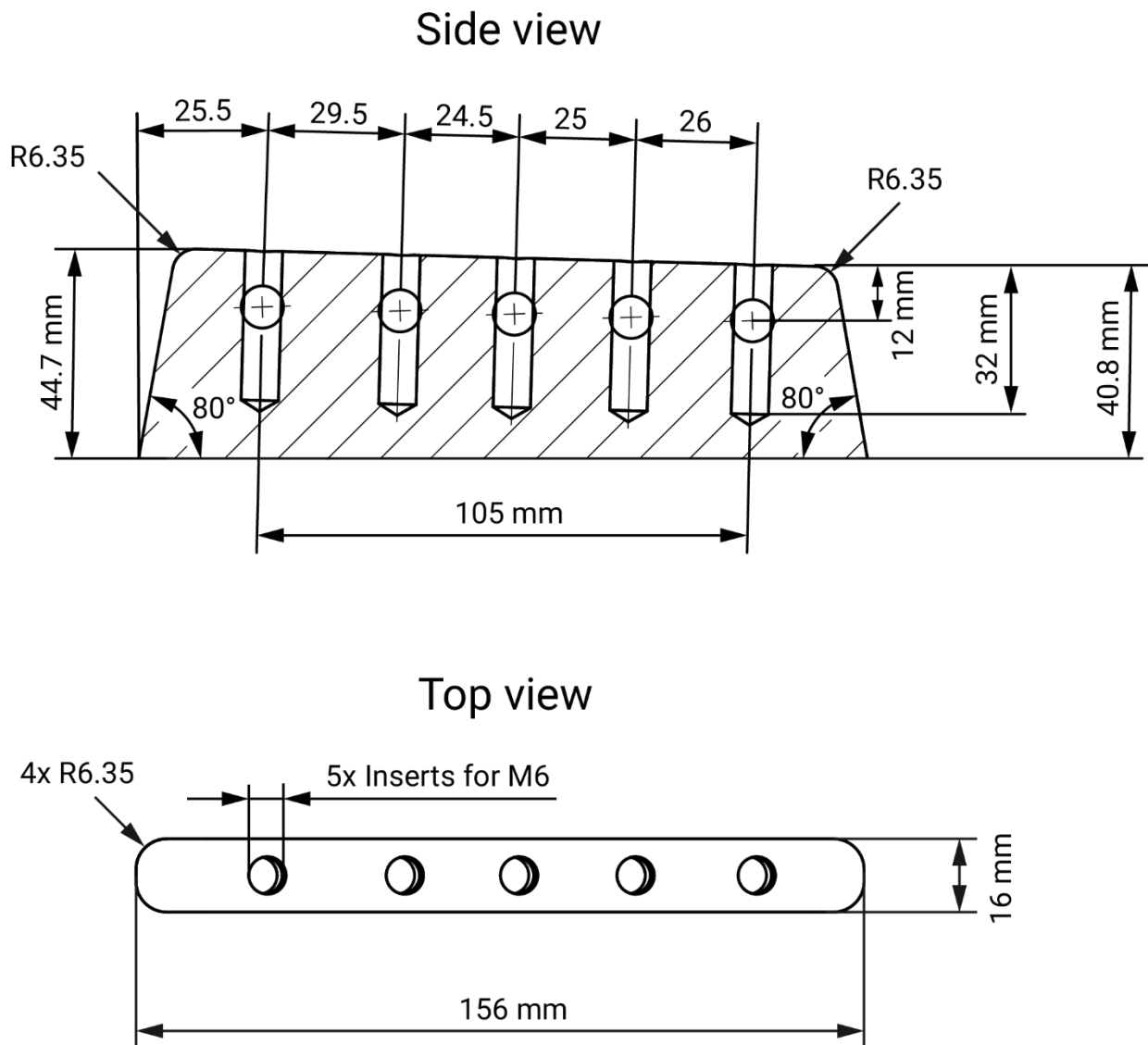
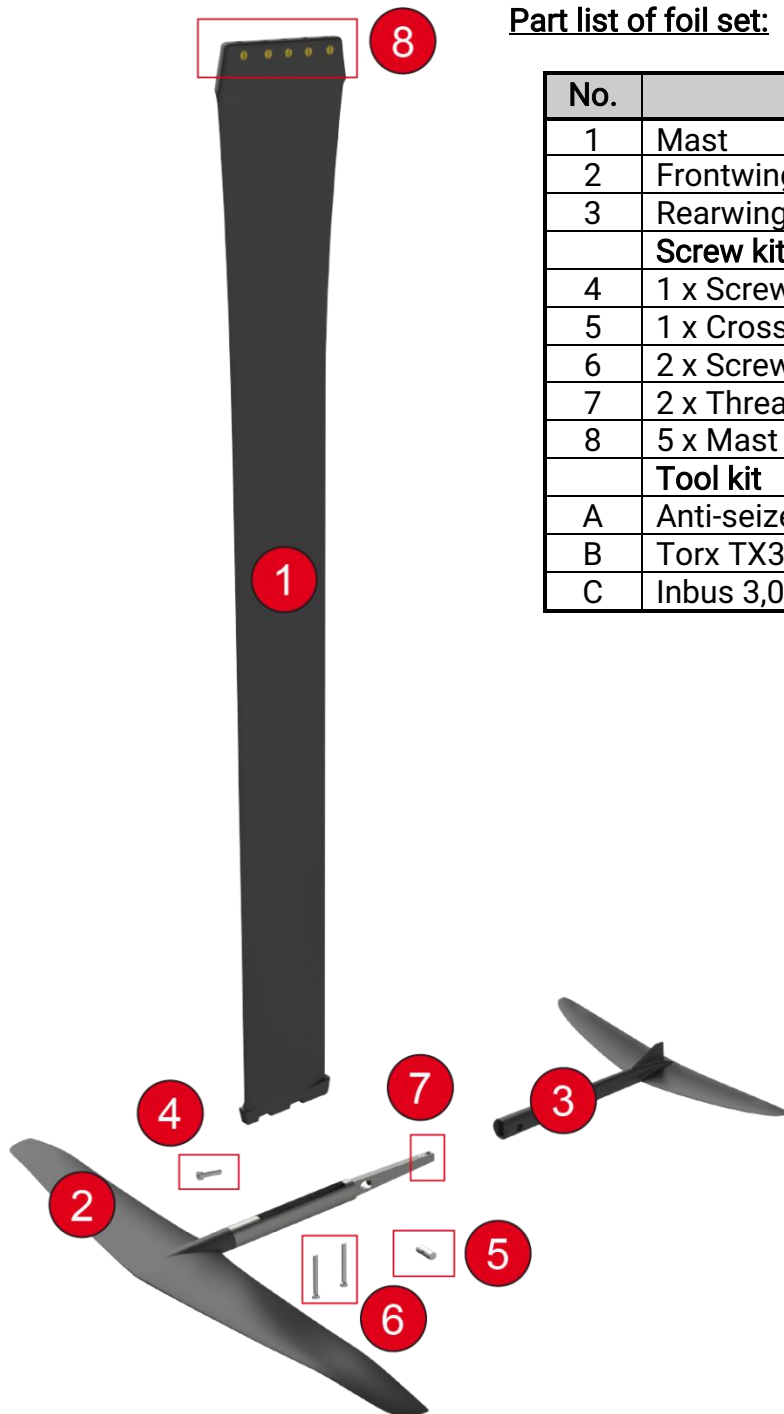


Figure 3.2: Dimension tuttle box

4 HYDROFOIL DESCRIPTION

The standard hydrofoil set consists of 5 parts: The mast (1), the frontwing (2), the rearwing (3), the Screw kit and the Tool kit.



No.	Designation
1	Mast
2	Frontwing
3	Rearwing
	Screw kit
4	1 x Screw M6x30, TX
5	1 x Crossway bolt
6	2 x Screw M6x60, TX (pre-mounted)
7	2 x Threaded pins (mounted)
8	5 x Mast inserts, Ø 9 mm (mounted)
	Tool kit
A	Anti-seize paste (Loctite)
B	Torx TX30 tool
C	Inbus 3,0 mm tool

Figure 4.2: Symbol photo

5 HYDROFOIL ASSEMBLY INSTRUCTIONS

**WARNING!**

The components of the Levitaz hydrofoil can have sharp edges.

For users and any other personnel involved there is a danger of injury while the components are being assembled and while the Levitaz hydrofoil is in use.

NOTICE!

Do not use an electric screwdriver, hammer or other sharp objects for the assembly or disassembly process.

This may cause serious damage to the product.

NOTICE!

Ensure that all surfaces are free from dirt or sand prior to the assembly. This is particularly important when assembling the glider onto the mast.

NOTICE!

Grease the threads of the screws supplied in the Screw kit properly using the Loctite grease provided in the Tool kit.

5.1 Connection of the glider



Figure 5.1

1. Notice the correct position for the frontwing (2) and the rearwing (3) (marking for "Port" side).
Orientation of the rearwing: middle fin shows to the mast (box side)



Figure 5.2

2. Connect the rearwing and the frontwing by simply plugging the parts together.

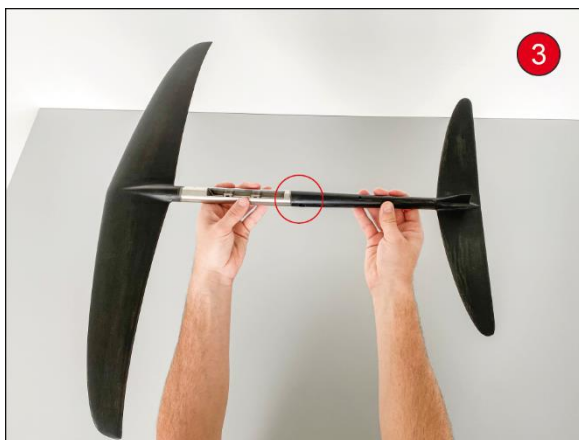


Figure 5.3

3. Make sure that the holes of the steel part and rearwing are in exact alignment.



Figure 5.4

4. Insert the crossway bolt (5) according to the correct surface curvature. Use the red mark as orientation to insert the bolt from "Port" side.

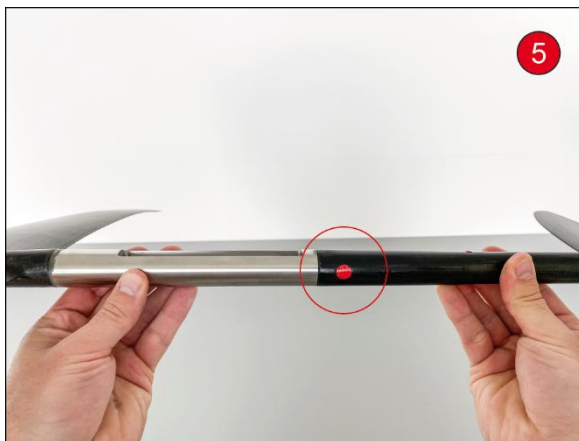


Figure 5.5

5. Check with your fingertips the correct surface curvature.

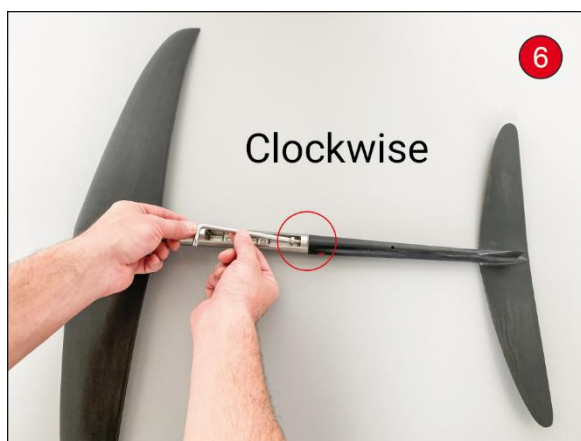


Figure 5.6

6. Now use the M6x30 Screw (4) supplied in the Screw kit. Before proceeding, apply a small amount of the Loctite grease (A) provided in the Tool kit onto the thread and underside of the head. Connect the frontwing to the rearwing using the greased screw. Tighten the screw to **9 ±1 Nm tightening torque** using the Torx TX30 tool (B) provided in the Tool kit until the rearwing is fully secured and the screw is tight.

NOTICE!

Do not overtighten screws as they are subject to extreme loads. Screw tightness should be checked regularly.

5.2 Connection of the glider and the mast

NOTICE!

Ensure that the mast box, mast threads and frontwing box are free from dirt or sand prior to the assembly. While transporting the mast disassembled always keep the screws screwed in.



Figure 5.7

7. Remove the pre-mounted screws (6) from the mast (1). Position the glider onto the bottom of the mast whilst ensuring the correct position is maintained.

Tip: If you first mount the mast onto your board, you can ensure a safe and secure positioning. See chapter 3.1 "Connection to the board".

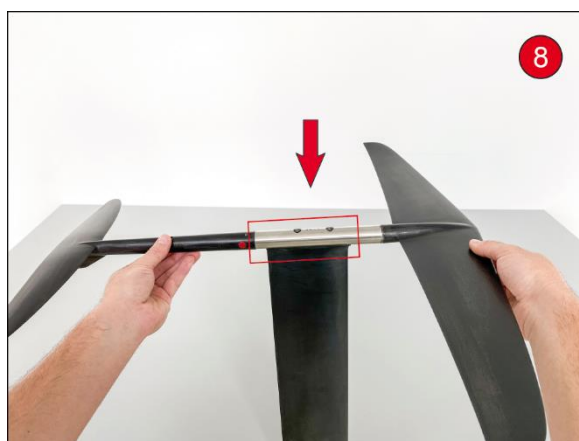


Figure 5.8

8. Make sure that the holes of the steel part and mast are in exact alignment. See figure 5.8. Next, grease the threads of the screws M6 (6) supplied in the Screw kit properly (apply a small amount onto the threads and undersides of the heads) using the Loctite grease (A) provided in the Tool kit.

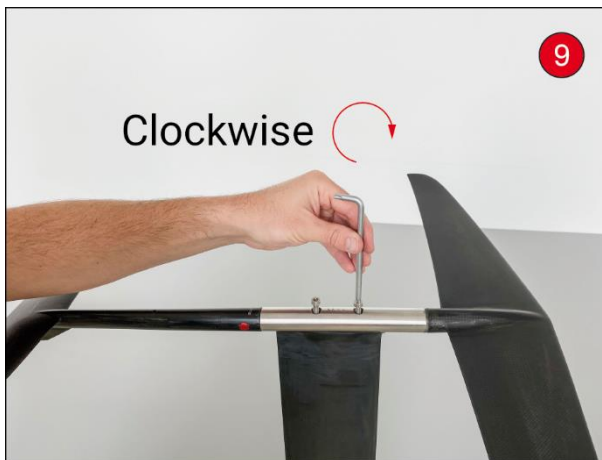


Figure 5.9

9. Due to the tapered design of the box connection between the glider and the mast, it is very important that you carefully tighten each of the greased screws evenly (matching turns of each screw at a time). If you tighten one screw significantly more than the other, the glider could locate unevenly and damage the box connection.

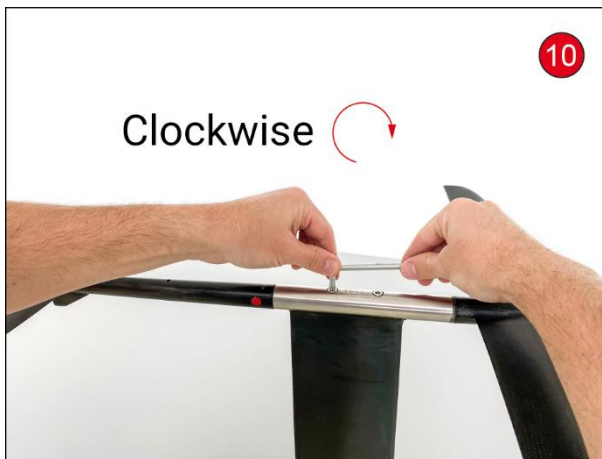


Figure 5.10

10. Tighten the screws to **9 ±1 Nm tightening torque** using the Torx TX30 tool (B) provided in the Tool kit until the glider is fully secured and the screws are tight.

NOTICE!

Do not overtighten screws as they are subject to extreme loads. Screw tightness should be checked regularly.

5.3 Adjustment of the rearwing's angle of attack



Figure 5.11

11. In order to adjust the desired angle of attack use the Inbus 3,0mm tool (C) provided in the Tool kit.

Both threaded pins are pre-greased and pre-mounted



Figure 5.12

12. The two threaded pins (7) adjust the angle of attack. To adjust the front foot pressure, follow these instructions:

- Turn the lower screw (bottom side) clockwise to increase front foot pressure. See figure 5.11.
- Turn the upper screw (box side) to reduce front foot pressure. See figure 5.12.
- It takes two to three turns to adjust the desired angle.
- It is recommended to lock both screws to ensure maximum safety.

NOTICE!

Ensure that the threaded pins for angle adjustment are always greased and free from dirt or sand prior to the assembly.

5.4 Control correct assembly

Check your hydrofoil prior to each use. Ensure that the screws are tight and there are no cracks, holes or scratches which could compromise your Foil System's structure.

6 DISASSEMBLY OF THE HYDROFOIL



WARNING!

The components of the Levitaz hydrofoil can have sharp edges.

For users and any other personnel involved there is a danger of injury while the components are being assembled and while the Levitaz hydrofoil is in use.

NOTICE!

Do not use power tools for the assembly or disassembly process as control of torque and power is limited.

This may cause serious damage to the product. Doing so will render your warranty void.

NOTICE!

Ensure that the threaded pins for angle adjustment are always loosened prior to the disassembly.

6.1 Dismounting the glider and the mast



Figure 6.1

1. Use the Inbus 3,0 mm tool (C) provided in the Tool kit to loosen the 2 threaded pins for angle adjustment.

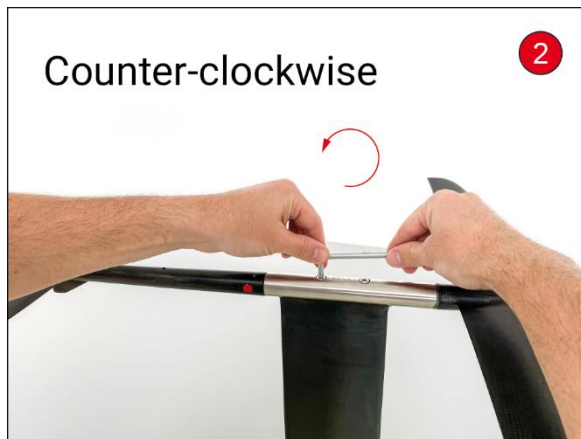


Figure 6.2

2. Remove the two screws M6 (6) using the Torx TX30 tool (C) provided in the Tool kit.



Figure 6.3

3. Pull the glider off the bottom of the mast. (1)

Tip: If you leave the hydrofoil mounted onto your board, you can ensure a safe and secure positioning.

Tip: Gently tapping by hand against the frontwing (direction away from mast, frontwing in its cover) will help you to pull the glider off.

Tip: Insert the M6 screws (6) again in the mast threads to avoid sand or dirt entering the mast threads.

6.2 Disassembly of the glider



Figure 6.4

4. Remove the M6x30 screw (4) using the Torx TX30 tool (B) provided in the Tool kit.



Figure 6.5

5. Before pulling out the rearwing remove the crossway bolt (5) by pushing against the bolt with your finger and then pull it out.

Tip: If the bolt is stuck use a stick with a smooth surface to avoid mechanical damage to the metallic crossway bolt.



Figure 6.6

6. Hold the frontwing (2) and pull out the rearwing (3).

NOTICE!	Ensure that the threaded pins for angle adjustment are loosened as described in “step 1” in the disassembly instruction.
----------------	--

STORAGE

See chapter “Packaging and Storage”.

NOTICE!	<p>Always store the disassembled product in suitable covers and carrier bag for optimal protection.</p> <p>Failure to do so can reduce the service life of the product.</p>
----------------	---

7 Part ID

Each Hydrofoil System part has an individual Part ID. These can be found in the following locations:

Mast:

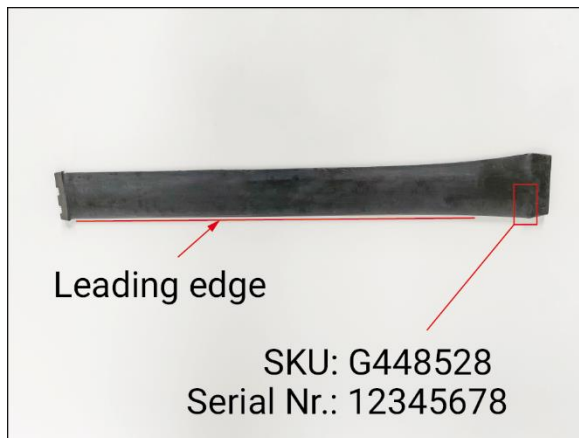


Figure 7.1: Example of Part ID

Frontwing and rearwing:



Figure 7.2: Example of Part ID

8 PACKAGING AND STORAGE

All parts are packed in a cardboard box.

- Take the parts out of the box.
- Remove the packing film from the product parts. Check the product parts for possible damage that may have occurred during transportation.
- Stick the parts' bar code label on the first page of this manual.

DISPOSAL OF STANDARD PACKAGING

The cardboard box and PE film can be recycled.

STORAGE INSTRUCTIONS

The following instructions must be observed to prevent the product from being damaged during storage:

NOTICE!	<p>Only store the product clean and dry in disassembled condition and in its covers and suitable bag for optimal protection.</p> <p>Failure to do so can reduce the service life of the product.</p>
----------------	--

- Do not place heavy parts on top of the product.
- Do not leave or store the product in cars.
- Protect the product from direct sunlight or heat.

Storage temperatures:

NOT PERMITTED	OPTIMAL	PERMITTED UP TO	NOT PERMITTED
< -30 °C (-22 °F)	-10 °C – +25 °C (+14 °F – +77 °F)	+80 °C (+176 °F)	> +80 °C (+176 °F)

9 MAINTENANCE AND REPAIR INFORMATION

9.1 Maintenance

- Clean all hydrofoil parts with fresh water after every use and dry the parts.
- To prevent oxidation of the screws and threads, we strongly recommend that before reassembling use re-greased screws (as per the assembly instructions).
- Check your hydrofoil prior to each use. Ensure that the screws are tight and there are no cracks, holes or scratches which could compromise your Foil System's structure.
- Do not overtighten screws as they are subject to extreme loads. Screw tightness should be checked regularly.
- Always store the disassembled product in suitable covers and a durable carrier bag for optimal protection. This is to prevent unnecessary sun exposure, exposure to hot temperatures, scratches and other wear and tear.

NOTICE!	Failure to do so may cause serious damage to the product and void the warranty.
----------------	---

9.2 Repair information

INSPECTED CONDITION	CORRECTIVE MEASURE
Visible fiber failure or any other heavy damage like delamination (separation of the single layers of the composite).	DO NOT REPAIR the reinforced plastic components! Dismantle the product and send it back to Levitaz.
It is not clear if the damage is critical or not.	Take a photo, document the extent of the damage and contact Levitaz for advice.

If any other damage or wear to the product is identified but not described in this table, contact Levitaz to identify the appropriate corrective measure. See www.levitaz.com

Dispose of worn parts as instructed in the chapter "Disposing of used parts".

10 DISPOSING OF USED PARTS

After replacing individual components:

- All metal parts can be recycled (scrap metal).
- All old fiber reinforced plastic parts must be disposed of as residual waste.

Federal, state and local regulations must always be observed when disposing of the product or parts thereof.

11 ORDERING REPLACEMENT PARTS

NOTICE!	<p>Use only original Levitaz replacement parts.</p> <p>Failure to do so may cause serious damage to the product and void the warranty.</p>
----------------	--

Keep the parts' bar code label and invoice with this manual. This will help to speed up your order for replacement parts or any possible troubleshooting.

WARRANTY POLICY

Levitaz warrants this product to be free from major defects – in material or workmanship – to the consumer, as defined by the E.U. Consumer Protection Act for a period of 24 months worldwide. If the customer is a company, it must inspect the goods provided immediately for non-conformances in quality and defects and must notify us in writing within two weeks from receipt of the goods; otherwise, assertion of warranty claims is excluded. To meet the deadline, the notice must be sent on time.

This warranty is subject to the following limitations:

The warranty is valid only when this product is used for normal recreational activities and does not cover products used in rental or teaching operations.

Levitaz will make the final warranty determination, which may require inspection and/or photos of the equipment, which clearly show the defect(s). If necessary, this information must be sent to the Levitaz head office or distributor in your country – postage prepaid. Product may be returned only if a return authorization is given in advance by the Levitaz head office or official distributor.

If a product is deemed to be defective by Levitaz, the warranty covers the repair or replacement of the defective product only. Levitaz will not be responsible for any costs, losses or damages incurred as a result of loss of use of this product.

This warranty does not cover damage caused by misuse, abuse, neglect or normal wear and tear including, but not limited to: punctures, rigging with other than Levitaz components, damage due to excessive sun exposure or damage caused by improper handling and storage, damage caused by use in waves or shore break and damage caused by crashing the foil at high speed, or damage caused by anything other than defects in material and workmanship.

This warranty is void if any unauthorized repair, change or modification has been made to any part of the equipment. The warranty for any repaired or replaced equipment is good from the date of the original purchase only. The original purchase receipt must accompany all warranty claims. The name of the retailer and date of purchase must be clear and legible. A claim form can be downloaded from levitaz.com.

There are no warranties which extend beyond the warranty specified herein.

CONTACT INFORMATION

LEVITAZ Hydrofoils
a brand of Geislinger GmbH
Hallwanger Landesstr. 3
5300 Hallwang/Salzburg
AUSTRIA

T: +43 662 66 999-0
E: office@levitaz.com
levitaz.com



FLY OVER WATER

Levita**Z**.com

LEVITAZ Hydrofoils

a brand of Geislinger GmbH
Hallwanger Landesstr. 3
5300 Hallwang/Salzburg
AUSTRIA

T: +43 662 66 999-0

E: office@levita**Z**.com



LevitaZ****[®]
HYDROFOILS