

# Instruction manual for HHOP adjustable positioning & restraint lanyard type HELI 6, certified according to EN 358:2018



Thank you for choosing VERTIQUAL®! You have purchased a high quality product that will reliably protect you and will be your companion for a long time when working at heights and depths. This manual must be read and understood before using the product! This product will be used with other equipment (components) thus forming a system for working at heights. Please refer to the instruction manual of each component in your system for compatibility and correct use! Following these instructions accordingly is essential for your safety. Failure to do so can result in serious or even fatal accidents! Keep these instructions together with the product, accessible to all users, so they can consult them whenever is needed!

**WARNING!** These instructions are a basic comprehensive guide to the safe use of the purchased equipment. They contain general information about the product, intended to help the user, but cannot cover all the situations that may occur in the daily activities and cannot in any case replace the specialized training courses for safety at heights. This PPE against falls from heights can only be used by well-trained users, who are familiar with the relevant legislation and who have successfully completed a special safety training course for working at heights.

**WARNING!** For works with risk of falling from heights or in depths, a risk assessment must be carried out in advance in accordance with current regulations and legal provisions (EN standards or specific national rules) that will provide adequate measures for safety and rescue!

**WARNING!** Instructions for use are updated when technical or legislative changes occur. The latest version of the instructions overwrites previous versions and is the only valid version. Please make sure you follow the instructions of the most recent version. You can download the most recent instructions from our website [www.vertiqualsafety.com](http://www.vertiqualsafety.com) by accessing the section of each product. For help or additional questions, please contact us at [office@vertiqualsafety.com](mailto:office@vertiqualsafety.com) or Tel. (+40) 0365/882143.

**WARNING!** The user must be medically fit and capable to ensure his own safety and act accordingly in possible emergency situations! Seek medical approval according to the national legislation in force!

**WARNING!** If the product is re-sold outside the original country of destination, the reseller must provide these instructions manual in the language of the country where the product will be used.

## DESCRIPTION

The adjustable positioning & restraint lanyard type **HELI 6** for **HHOP (Helicopter Hoist Operators/ Pilots)** is made of 45mm and 28mm high tensile PES webbings. The length of the lanyard can be adjusted by means of an aluminum buckle. The adjustable part of the lanyard consists of two layers of webbing and it is covered by a mesh sleeve which will prevent entanglement. The free end of the webbing is rolled using an aluminum piece and secured by an elastic string. The lanyard is also equipped with a quick release buckle, which the user can deploy when it is safe to disconnect, without the need to reach the connector at the opposite end of the lanyard. The release buckle can be deployed only voluntarily, following a set of successive actions. The two ends are equipped with EN 362 certified connectors.

## FIELD OF USE

Work positioning & restraint lanyards belong to the category of personal protective equipment (PPEaF) and are intended to protect the user while working at heights or in depths. These lanyards can be used only with certified positioning belts according to EN 358 or other complex harnesses that integrate a positioning belt (eg: combined-full body harness according to EN 361 + EN 358 or multifunctional harnesses according to EN 361 + EN 813 + EN 358). These products must be used in usual environments with temperatures between -30°C and +50°C, without potentially explosive atmospheres, far away from flames, sparks or hot metal splash. Avoid contact with sharp edges, electricity, chemicals, corrosive solutions and substances, excessive heat, oils, paints or any other contaminants. The structures used for anchoring have to meet the requirements of EN 795:2012, must have NO sharp edges and must be capable to withstand minimum 12 kN for full metallic anchors and 18 kN for any other types of anchors. The structures used for anchoring must NOT allow accidental disconnection of the lanyard or carabiner.

These lanyards are intended for exclusive use in positioning systems and restraint systems. It is strictly forbidden to use them as shock absorbing lanyards (for arresting a fall)!

The **positioning system** allows the user to support his / her body by keeping the lanyard in tension, in such way that any free fall is prevented. The user must chose/adjust the length of the lanyard in such way that if any fall occurs, the fall distance will not exceed 0,6m!

The **restraint system** prevents the user to reach areas where the risk of falling exists. The user will chose / adjust the length of the lanyard in such way that the he or she cannot reach any area where a fall from height can occur.

**WARNING!** Positioning & restraint equipment must NOT be used in fall arrest applications! If the risk of falling from height cannot be completely eliminated, the positioning / restraint system must always be supplemented with a fall arrest system! For the additional fall arrest system, suitable components must be used, including an EN 361 certified harness!

**WARNING!** This product is developed as a Personal Protective Equipment against Fall (PPEaF). Bringing modifications to it or assigning other uses are strictly forbidden! Each user shall use his own PPEaF as well as his own rescue equipment. The user must know the performances and limitations of his equipment! In case of uncertainty regarding the equipment seek advice from the manufacturer or distributor.

**WARNING!** For work positioning applications it is essential for your safety to use only suitable anchor points, placed **above** your waist level!

The lanyards are equipped with length adjustment device which will allow the user to set the required length for the application. Shortening / lengthening of the lanyard should always be done in safe conditions that will NOT expose the user to hazardous situations. The images below show how shortening / lengthening of the lanyard can be done, so the positioning lanyard:

## LENGTH ADJUSTMENT



Shortening



Lengthening

## ROLL & HOLD KEY



1. Use the aluminium key to roll the excess webbing after adjusting the length



2. Using the elastic string, hook the key head around the lanyard to hold it in place

## QUICK RELEASE BUCKLE

### LOCKING

- Slide open the security sleeves.
- Lay the buckle insert on the bearings in such a way that the red marker points on the housing and the insert are aligned with one another (as shown below).
- Press down the insert until you hear it click into place (image below). If the insert should not snap by (strongly) pressing down, but only if you press the release buttons at the same time, it is an indication that the buttons have been swapped or the button drill have become stiff because of contamination or icing and as a result require a cleaning and lubrication. For lubrication only use acid-free oils or greases.
- Slide the security sleeves all the way down in the direction of the release buttons.
- Release check:** The heads of both buttons have to be positioned above the security sleeves. After securing the release buttons, both security sleeves must be placed level with one another.



### OPENING

- Slide back both security sleeves.
- Open the Quick Release Buckle by simultaneously and completely pressing down on both release buttons.

### Dangers

#### Icing and contamination

By strong contamination, corrosion or icing, the buttons of the quick release buckle can block in pressed position. Then, as you can see in the image below, the security sleeve on the left can be pushed over the head of the little release button. For the bigger button this is not possible. The security sleeves are hence not situated on equal height and thereby indicate that the buckle is not locked!

**WARNING!** If buckle does not close and lock properly or there is any doubt regarding its safe operation DO NOT USE it, instead send it to the manufacturer or his authorized representative for a professional evaluation!



### Maintenance and Care

Clean and grease the release buttons and riser axle of the insert once a year, after use in salty air monthly, after contact with freshwater weekly, after contact with salt water daily. To do this, remove the riser axle and the release button at the installation slot and blow out the right-hand release button using dry compressed air. Only use acid-free oil (Art. No. HÖI) or marine grease Klüber STABURAGS NBU 12 K. Secure the axle thread of the insert with Loctite.

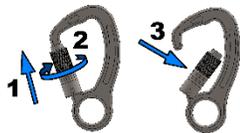
The security sleeves should open and close easily. If the resistance is too strong, put some LIQUI MOLY Lubricant Fix 1080 in the guiding grooves. If the security sleeves are too loose, a replacement is necessary.

## CONNECTORS: GATE OPENING / CLOSING

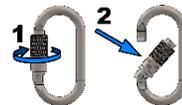
Auto-Lock



Tri-Lock



Twist-Lock



Screw



**WARNING!** If the lanyard is equipped with **SCREW locking** carabiners, please make sure that the gate is fully closed and tightened correctly, before using it! Note: SCREW locking carabiners shall NOT be used at workplaces where the user must connect/disconnect frequently! If the lanyard is equipped with **AUTO-LOCK**, **TRI-LOCK** or **TWIST-LOCK** carabiners, make sure that the gate is fully closed and secured before use.

-The user must monitor their integrity, functionality and correct settings before, during, and after using their PPE!

-Avoid contact of the product with abrasive edges, sharp edges, greases and oils, corrosive chemicals, heat, flames, sparks and incandescent metal splash.

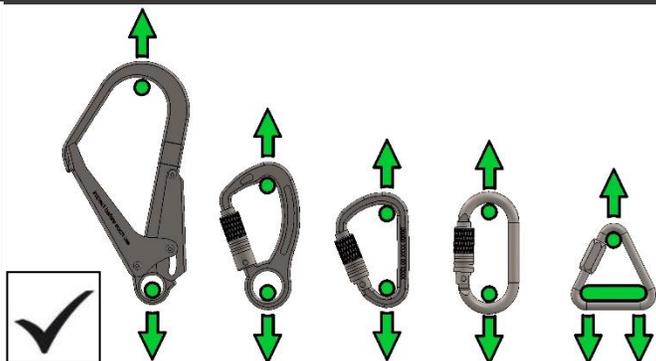
-This products can be used only by trained persons! Beginners may use it only under direct supervision of trained and experienced users!

-It is forbidden to intentionally or accidentally apply mechanical shocks to these products (eg. use for material handling or securing goods during transport etc.)!

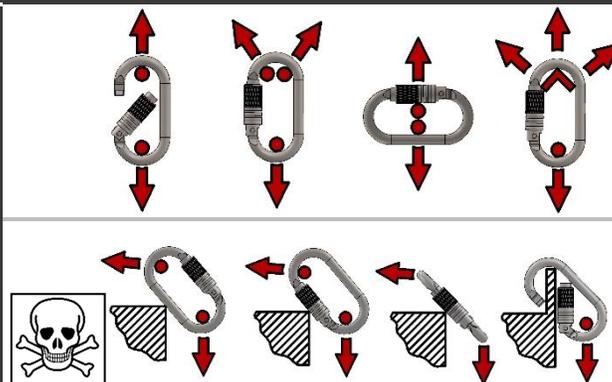
Below some examples of correct / incorrect use of these of the lanyard & carabiners are presented. Please note that these are the most encountered situations in use, but a full list of all possible incorrect uses cannot be covered by this manual. Use only certified components for your system and read their instructions carefully, before use!

## CONNECTORS: CORRECT / INCORRECT LOADING

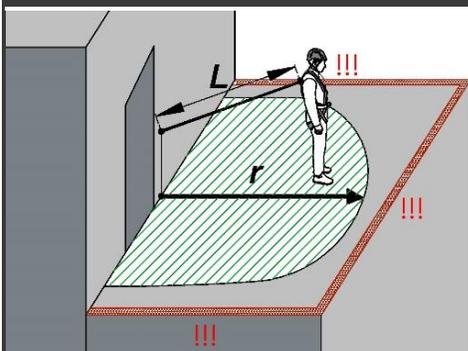
CORRECT



INCORRECT



## Restraint systems



The **restraint system** prevents the user to reach areas where the risk of falling exists.

Connect one end of the lanyard to a suitable anchor point and the other end to the attachment point of a certified harness (EN 358 / EN 361 / EN 813). Use only EN 362 certified connectors to attach the lanyard and always take into account the length these connectors add to your lanyard!

**L** = maximum length of the lanyard (including connectors used)

**r** = the distance from the anchor point to the closest area with risk of falling

Before starting the work, make sure that the maximum length of the lanyard (including connectors used) is shorter than the distance to the closest area with risk of falling  $L < r$

**WARNING! Before each use a visual inspection and functional test must be performed by the user!**

Beware: damages can be inflicted without your knowledge (e.g. negligence of a coworker) and it is important that a visual check is performed before each use!

**The equipment must be withdrawn from use if:**

1. The marking/label is missing or is unreadable.
2. **DAMAGE has been identified (incisions, cuts, tearing, worn seams, discoloration, hardened or thinned areas, burns, melted areas, rust, plastic deformations) if any other abnormalities of the parts or structure have been found or if the product had suffered any changes compared to its original condition!**
3. Contact with paints or unknown chemicals had occurred (irreversible contaminations).
4. The equipment was involved in a fall arrest or had been subjected to heavy loading.
5. The integrity of the equipment is questionable and the inspection log is incomplete or missing.
6. The equipment was in service longer than **10 years**.

**WARNING!** The equipment must be immediately withdrawn from use if it was involved in an incident or was subjected to heavy loading! If there is any doubt regarding the condition of the equipment **DO NOT USE it!** Instead, send it to the manufacturer or to an authorized representative of the manufacturer for a professional evaluation!

**RESCUE!** A rescue plan must be made before starting the work at heights or depths! It is mandatory to set up and know the specific rescue plan for every situation and to have designated personnel and appropriate means of intervention!

**The SERVICE LIFE** \* of PPE against falls, made of textile materials is 6-8 years under normal conditions, but a **maximum of 10 years** \* from the date of first use. The date of the first use must be noted in the logbook, otherwise the date of manufacture is considered as the date of the first use. **The storage** of new, unused products under optimal conditions (darkness, dryness, original packaging, constant temperature, without chemical vapors, etc.) should not exceed **2 years**. \* PPE that belongs to a single user, has not been used excessively and not often, has been subjected to regular checks by experts, has been found to be "safe" and recorded in the test book, has a complete product history, has not been involved in a fall, is carefully treated and cared for, have been stored in accordance with regulations, have not come into contact with oils, fats or aggressive chemicals, (attention - incomplete list) can remain in use for up to 10 years. Intensive use, heavy and demanding working conditions, incorrect application, incorrect maintenance and care can greatly reduce the service life of the equipment. Certain events, such as falls, high exposure to heat, exposure to corrosive chemicals, can limit the use of your equipment to a single time. A generally valid, binding statement about the duration of use of textile PPE cannot be made, as this depends on a large number of factors such as UV light exposure, working conditions, contact with various substances, etc. The service life of the equipment ends when one of the cases mentioned in the previous chapter occurs or when the inspector / certified expert decides this on the basis of other facts. The theoretical total service life of textile PPE against falls (Storage time + Service life) is limited to a maximum of 12 years from the date of manufacture.

**STORAGE, MAINTENANCE, TRANSPORT:** the equipment should be stored in a dry, cool and well-ventilated room, if possible, in its original packaging. While in storage, this PPEaF must be protected from UV radiation, solar radiation, heat, sparks, incandescent metal splash, electricity, chemicals, sharp objects, heat sources, dust, cement, oils and greases or any kind of contaminants. If necessary, the textile parts can be cleaned using warm water (30°C) then rinsed. Drying the wet equipment will be made by hanging it in well-ventilated room away from any heat source. When fully dried, the equipment can be stored accordingly in its packaging (bag or box). The use of disinfectants is forbidden, as long term effects of various types of disinfectants and concentrations are not known! Transport of the equipment must be made in its protective bag or box, away from any factor that could contaminate or inflict damage.

**MARKING:** VERTIQUAL® positioning & restraint lanyards are fitted with a label which contains the following elements and essential **information:** manufacturer (Vertiquel Engineering S.R.L), name of the model and version (e.g. HELI 6), maximum length (Lmax.= ... m), **Max. 150kg** (Maximum weight allowed for a fully equipped user), manufacturing date (mm/yyyy), standards/norms the product complies to (EN 358:2018), European CE marking with notified body number (CE 2756), international

symbol for reading the instructions before use and the product's serial number (000000). The label must be always present and readable!

**PERIODIC INSPECTIONS AND CHECKS:** The user must perform a visual and functional inspection of his equipment before and after each use! During use, it is important to monitor your equipment in order to identify possible damages inflicted in use, without being aware of it. The equipment must be inspected **at least once every 12 months** or more often if required, depending on the working conditions and compulsory after every incident it has been involved in. Inspections can be carried out only by the manufacturer or by an authorized inspections center. **If the periodic inspections were not performed at least once every 12 months, were carried out by unqualified persons, or without strictly respecting the manufacturer's instructions, the warranty is lost and the manufacturer declines any responsibility related to the equipment!**

**Inspection Log:** Every PPEaF is delivered with an Inspection Log. This document must be kept safely and sent along with the product for every inspection. The Log (table) contains important data regarding your equipment. The date, signature of the inspector and the results are also recorded. The **date of first use** must be written in the Inspection Log by the user!

**Repairs** or any other modifications can be performed only by the manufacturer! Any repairs, modifications or additions (even minor ones) performed by anyone else are strictly forbidden, lead to the loss of the manufacturers guarantee and any responsibility related to this product!

**WARRANTY AND LIABILITY!** The manufacturer offers a **24 month** warranty for this PPEaF from the date of first use. The user has the obligation to write the date of first use in the Inspection Log. If the date of first use was not filled in, the warranty period will be calculated from the manufacturing date. The warranty is applicable only for material or manufacturing defects! Damage resulting from normal wear and tear, corrosion, poor maintenance (or no maintenance at all), those resulted from carelessness, accidents, fall arrest, unauthorized repairs or modifications, wrong use of this PPEaF or any other reasons are NOT covered by the warranty! The warranty does NOT cover the springs of the carabiners as these can be damaged due to inadequate storage or improper use. Warranty claims only apply to the product. All claims by the user or any other party for the direct, indirect or any consequential damages resulting from the use of this PPEaF are excluded from guarantee and liability assumptions. Any claims in this regard are hereby expressly rejected. The user must be informed regarding the dangers of work at heights and depths. He should be aware of the risks and he has to be aware that he is the only responsible for eventual damage, accidents or even death which may result from the use of this equipment. If the user is unable to do so or if he does not have the competence to do so, he cannot use this PPEaF. VERTIQUAL Engineering SRL herewith rejects any liability claims for direct, indirect, accidental or consequential damages resulting from the use of this PPEaF (Personal Protective Equipment against Fall).

This product complies with the **European PPE Regulation (EU) 2016/425** and the following harmonized standard: **EN 358:2018**. Conformity assessment was carried out by **NB 1019** (VVUÚ, a.s. Adress: Pikartská 1337/7, 716 07 Ostrava-Radvanice, Czech Republic) and production control by **NB 2756** (INCDPM: Adress, 35 A, Ghencea Blv, Sector 6, Postal code: 061 692, Bucharest). The **EU Declaration of Conformity** can be downloaded from our website [www.vertiqualsafety.com](http://www.vertiqualsafety.com) by accessing the product's dedicated section.

### INSPECTION LOG

<b>Product:</b>			
<b>Owner / Company:</b>			
Serial/Batch No:	Date of purchase:	User:	Date of first use:
<b>Inspection date</b>	<b>Results of the inspection</b>		<b>Signature of the inspector</b>