EN

Instruction manual for Full Body Harnesses
Dynamic 1 / 2, Enterprise, Toronto, Winx, Toronto Flex, Rescue, Pharma, Offshore and Toronto Safe Recovery certified according to EN 361

Dynamic 1

Dynamic 2

Enterprise

Toronto

Winx

Flex Comfort

Rescue

Pharma

Offshore

Safe Recovery

Thank you for choosing a Edge-Vertiqual® harness! 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.edge-safety.eu by accessing the section of each product. For help or additional questions, please contact us at sales@edge-safety.eu or Tel. (+31) 0118745760.

WARNING! The user must be medically fit and capable to ensure their 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.

FIELD OF USE

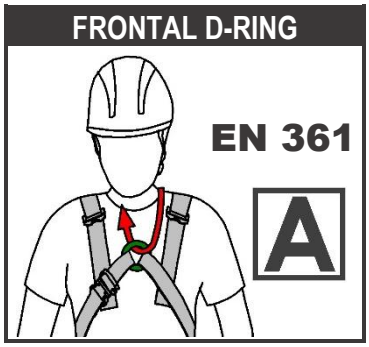
Along with other tested and certified components, the Full Body Harnesses are used in fall arrest systems. The purpose of this systems is to stop the free fall of the user, absorbing most of the shock and distributing the remaining force evenly, while holding the users body in a proper position until they are rescued.

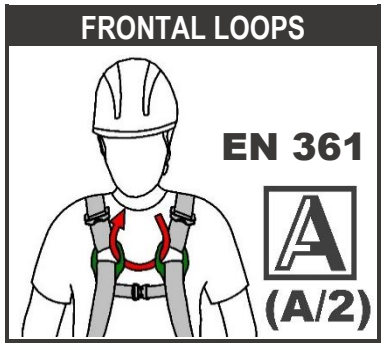
The product must be used exclusivelly as a PPEaF (Personal Protective Equipment against Fall), in usual environments with temperatures between -30°C and +50°C, without potentially explosive atmospheres, far away from flames, sparks or hot metal splash. Avoid contact with sharp edges, electricity, chemicals, 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. The anchor point must be located as high as possible above the user and as close as possible to the vertical axis of the users position, thus reducing the fall distance and prevent pendullum accidents. The minimum free space below the user (fall clearance) must be ensured to prevent hitting the ground or any obstacles while the fall is arrested.

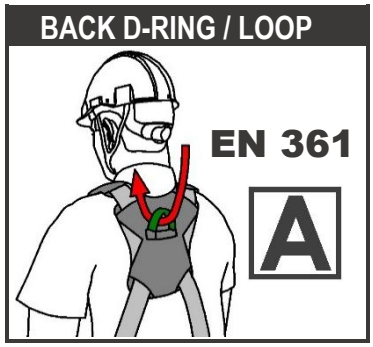
DESCRIPTION

Edge-VERTIQUAL® Full Body Harnesses are made of 45 mm textile high tensile webbings. The webbings used for the EVO, Power&Comfort and Galaxy series are treated against oil and dirt impregnation. Webbings used for the Galaxy series have an additional treatment called Ag+ Ions, which offers anti-microbial and anti-fungal properties. The anchor rings and the buckles are made of high tensile steel or high tensile aluminium alloy. The buckles used for opening/closing the straps can have manual locking (classic type) or automatic locking (click type). The harnesses can also be equipped with different types of fall indicators.

A Full Body Harnesses is comprised of shoulder straps, chest straps and leg straps. The D-ring attachment (marked with "A" symbol) is located at the intersection of the webbings, between the shoulder blades. The SCAFF version of the Dynamic 1 and 2 and Enterprise harnesses is fitted with an extended D-ring strap which has a total length of 0,5m. The frontal attachment ring located in the chest area can have various configurations. The Dynamic 2, Enterprise and Winx have two textile loops (marked „A/2") which need to be connected together in order to use as a fall arrest attachment point. The Toronto and Safe rescue models are fitted with a single frontal ring located in the chest area. Harnesses belonging to the EVO, Power&Comfort and Galaxy series are fitted with paddings for legs and shoulders for improved comfort.







The rings and textile loops marked with **"A"** or **„A/2" are the only attachment points that can be used for arresting a fall!** Only to these points it is allowed to connect one of the following fall arrest equipment:
- Retractable type fall arresters (EN 360)
- Guided type fall arresters including a flexible anchor line (EN 353-2)
- Guided type fall arresters including a rigid anchor line (EN 353-1)
- Descent and rescue devices (EN 341 and EN 1496)
- Energy absorbing lanyards (EN 354 and EN 355)

Scaff/ED versions (Extended D-Ring)

The dorsal extension strap can be used only if the D-ring at the free end is connected to a retractable type fall arrester (EN360) or to an energy absorbing lanyard (EN 354 and EN355). The length of the energy absorbing lanyard used **must not exceed 1,5 m** !

All Edge-VERTIQUAL® harnesses (Edge & Vertiqual series) have a minimum breaking load of 15 kN. All these harnesses were tested additionally with a dummy weighing 150 kg, being subjected to greater loads than requiered by the actual EN 361 standard. **Thus, these harnesses can be used by persons weighing up to 150 kg** (including equipment). In this case the shock absorbing lanyard used (or other fall arrest device) must be approved for higher user weight of 150 kg. The energy absorber must also be capable to offer the same performance and to reduce the shock force below 6 kN, in case of a fall, while working with higher user weight. For this purpose, we recommend using shock absorbing lanyards of the MAGNUM series (tested and certified for users between 50-150 kg). We recommend the use of Edge-VERTIQUAL® harnesses together with other Edge-VERTIQUAL® manufactured components, to have guaranteed 100% compatibility of your equipment!

Special purpose Full Body Harnesses (sub-types):

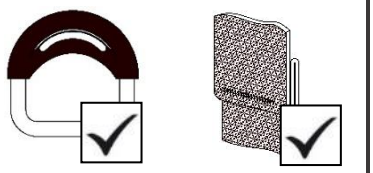
1.The **Toronto FLEX** full body harness integrates semi-elastic webbings which improves comfort and freedom of movement.
2.The **Toronto RESCUE** is fitted with an adittional rescue loop (EN 1497 certified) which is located in the shoulder area.
3.The **Toronto PHARMA** is made using white colour webbing with special treatments for antimicrobial and fungicide action. All metal parts of the harness are over moulded with a thick nylon layer. This harness is recommended for the food industry or environments where cleanlines and hygiene are important.
4.The **EXPLORER OFFSHORE** is manufactured using marine grade stainless steel hardware (all buckles and rings) and is recommended for marine environments.
5.The **Enterprise SAFE RECOVERY** prevents falling of the patient that is being rescued using a suspended stretcher.

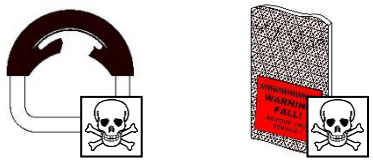
WARNING! Before use, the integrity and compatibility of the equipment must be checked.If damage is identified, the harness must be immediately withdrawn from use! If there is any doubt regarding the condition of the equipment it must be sent to the manufacturer or to an authorised representative of the manufacturer for a proffessional evaluation.

The harness must be immediatelly removed from service if:

1.The marking/label is missing or is unreadable.
2.Damage has been identified (incisions, worn seams, discolouration, hardened or thinned areas, burns, rusted or deformed metal parts, defective buckles) or if any abnormalities of the parts or structure have been found.
3.Contact with paints or unknown chemicals had occurred (irreversible contaminations).
4.The harness 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**.

FALL INDICATORS (OPTIONAL)



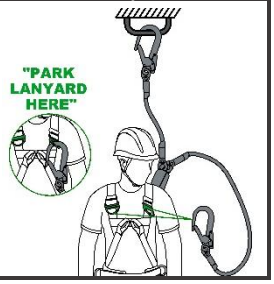


DANGER! Do NOT use the harness!
Remove from service immediately!

PARKING ELEMENTS (OPTIONAL)

When using forked lanyards, having one string connected to the anchor point, connect the second, unused string, only to approved **lanyard parking elements** on your harness! (e.g. a plastic ring).

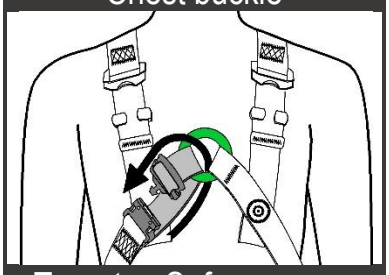
In case of fall, a lanyard parking element will break easily, allowing correct deployment of the absorber!



Fitting the harness:

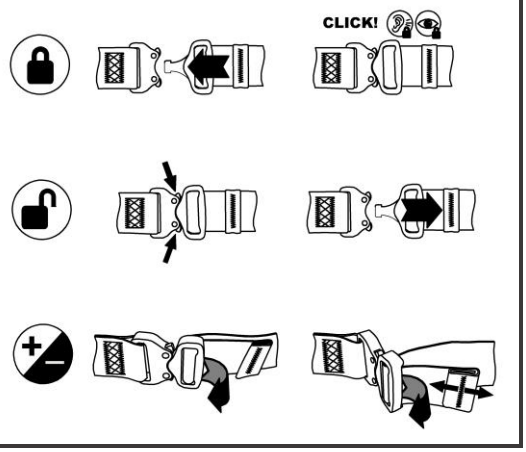
1. Pick up the harness by the back D-ring and swing it gently up and down to reposition the straps and to ease untangling.
2. Open all buckles then put the harness over the shoulders (like dressing a vest).
3. Ensure there are no twisted straps then,one by one, close the chest, waist and legs buckles.
4. For Toronto and Safe Recovery models, the chest buckle must be closed through the chest ring (check the images below).
5. Each leg strap will be passed between the legs, from back to front and the buckles will be closed with their corresponding counterpart.
6. Check if the straps are positioned correctly and adjust the length for each one.
7. Ensure that all buckles are closed and locked, that there are no twisted straps and all free ends of the straps are held using the elastic rings or rubber sliders provided on the harness.
8. A harness fitted correctly has the dorsal ring located in the middle, between the shoulder blades and the frontal ring / frontal loops located in the lower half of the chest.
9. The straps will be tightened so that one or two fingers can slide in between the body and the strap (check the images below). If the adjustment is too tight the harness will be uncomfortable and the user will have difficulties working. Insufficiently adjusted or loose straps can lead to serious or even fatal accidents!
10. Before working, it is recommended to perform a quick hanging test from a small and safe height, in order to check the adjustments and the comfort of the harness.

Chest buckle

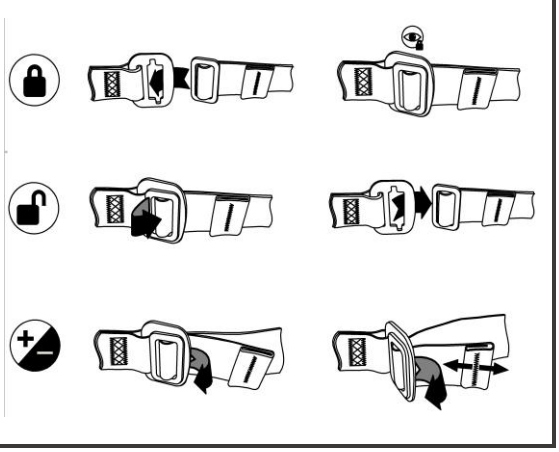


Toronto , Safe recovery

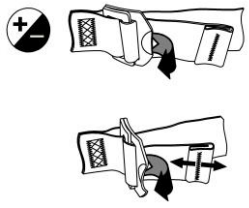
Automatic (CLICK) buckles



Manual (CLASSIC) buckles



Adjuster buckle



Checking straps adjustment

Fitting the SAFE RECOVERY will requiere following the next steps:
-open all buckles and lay down the harness over the rescue stretcher as it is presented in the drawing (sewn on the harness).
-Lay down the patient then close and check every buckle with its corresponding counterpart in the order shown by the drawing. Make sure no strap is twisted!
-Adjust every strap to the correct length, then connect a suitable lanyard / safety line to the frontal ring (chest ring). The patient will be secured with suitable connecting lanyard, having one end attached correctly to the chest ring of the harness and the other to a suitable anchorage point (eg. crane hook or transport device);
-WARNING! For moving an injured person all medical and emergency procedures will be strictly followed!

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 their own PPEaF as well as their own rescue equipment. The user must know the performances and limitations of their equipment! In case of uncertainty regarding the equipment seek advice from the manufacturer or distributor.

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 log book, 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 log book, has a complete product history, has not been involved in a fall, is carefully treated and cared for, has been stored in accordance with regulations, has not come into contact with oils, fats or aggressive chemicals, (attention - complete 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. Buckles and metal parts can be cleaned by using a soft cloth or using compressed air. 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

All Edge-VERTIQUAL® PPEaF are fitted with a label which contains the following elements and essential infromation: name of the manufacturer, name of the model and version (if applicable),size, manufacturing date (month and year), standards/norms the product complies to, European CE marking with identification number of the notified body that issued the certificate, international symbol/icon for reading the instructions before use and the product's serial number. 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 authorised 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 manufacturers instructions, the warranty is lost and the manufacturer declines any responsability 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, unauthorised 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 and automatic buckles 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. They should be aware of the risks and they have to be aware that they are the only responsible person 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 they do not have the competence to do so, they cannot use this PPEaF.

Edge Safety Equipment BV herewith rejects any liability claims for direct, indirect, accidental or consequential damages resulting from the use of this PPEaF (Personal Protective Equipment against Fall).

These products comply with the **European PPE Regulation (425/2016)** and the harmonized standard **EN 361:2002. The EU / EC type examination** was carried out by **NB 1019** (VVUÚ, a.s. Adress: Pikartská 1337/7, 716 07 Ostrava-Radvanice, Czech Republic) for model Winx and **NB 2756** (INCDPM - The National Research and Development Institute for Occupational Safety-Bucharest) for models Dynamic 1, Dynamic 2, Toronto, Enterprise, Safe Recovery. The production control for all modells is carried out by NB 2756 (INCDPM - The National Research and Development Institute for Occupational Safety-Bucharest).
The **EU / EC Declaration of Conformity** can be downloaded from our website www.edge-safety.eu by accessing the product's dedicated section.

INSPECTION LOG			
Product:			
Owner / Company:			
Serial/Batch No:	Date of purchase:	User:	**Date of first use:**
Inspection date	**Results of the inspection**		**Signature of the inspector**

Manufacturer: Edge Safety Equipment BV
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SAFETY EQUIPMENT