DELTAPLUS

DELTA PLUS GROUP
B.P. 140 - ZAC de La Peyroliere
84405 APT Cedex
FRANCE
http: www.deltaplus.eu

MADE IN EU
3 year guarantee
3 leta garancije
Garantie 3 ans
Garantie 3 jahre
Garanzia 3 anni
Garantia 3 anos

TC007

Model: / Model: / Modele: / Modell: / Modello: / Modelo: **TC007**

Purchase date: / Datum nakupa: / Date de l'achat: / Kaufdatum: / Data di acquisto: / Fecha de compra:

Serial No.: / Serijska št.: / No. de serie: / Seriennumer: / No. di serie: / No. de serie:

Date of first use: / Datum prve uporabe: / Date de la premiere utilisation: / Datum der ersten Verwendung: / Data del primo utilizzo: / Fecha de la primera utilizacion:

Year of manufacture: / Leto izdelave: / Annee da fabrication: / Herstellungsjahr: / Anno di fabbricazione: / Ano de fabricacion:

User: / Uporabnik: / Utilisateur: / Benutzer: / Utilizzatore: / Usuario:

Inspection every 12 months / Kontrola vsakih 12 mesecev / Inspection tous les 12 mois / Kontrolle alle 12 Monate / Controllo ogni 12 mesi / Inspeccion cada 12 meses

	Date / Datum / Date / Datum / Data / Fecha	OK	Inspector / Kontroliral / Inspecteur habilite / Kontrollbeauftragter / Controllore / Inspector
1			
2			
3			
4			
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8			
9			
10			

Single rope descender with two jamming positions, work positioning lanyard



DELTAPLUS

CE 0123 — TÜV SÜD Product Service GmbH, Daimlerstraße 11, D-85748 GARCHING, GERMANY

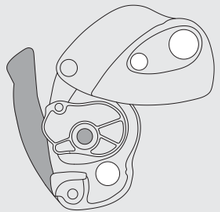
EN 358:1999 — Ropes diameter **10.5mm ≤ Ø ≤ 11mm**

EN 341:2011 Class A — Ropes diameter **Ø11mm**

EN 12841:2006 Type C — Ropes diameter **10mm ≤ Ø ≤ 12mm**

WARNING:
Activities done at heights are inherently dangerous. Understand and accept the risks involved before participating. You are responsible for your own actions and decisions. Before using this product, read and understand all instructions and warnings that accompany it and familiarise yourself with its proper use, capabilities and limitations. We recommend that every climber seeks proper training in the use of the equipment. Failure to read and follow these warnings can result in severe injury or even death!

NORM	TC007	USE
EN 358:1999	▲	WORK POSITIONING AND RESTRAINT
EN 341:2011 Class A	▲	RESCUE
EN 12841:2006 Type C	▲	ROPE ACESS



⚠ EN 341:2011 Class A

WORKING LOAD:
minimum rated load is 30 kg,
maximum rated load is 180 kg.
MAXIMUM DESCENT DISTANCE:
190 m (in this case approved for 22 consecutive descents)
APPROVED TEMPERATURE RANGE:
-20 °C ≤ approved temperature ≤ +60 °C
ROPE TYPE(S):
Tests according to the norm EN 341:2011 have been performed with the following low stretch kernmantel ropes (concordant with EN 1891).

Rope model	BORNACK TEC Static Pro, 11mm	SINGING ROCK Static R44 11.0
diameter	11 mm	11,2 mm
sheath slippage **Ss**	0,0 %	0,1 %
elongation **E**	3,9 %	3,2 %
mass per metre **M**	79 g/m	77 g/m
sheath proportion **Sp**	41,2 %	38 %
core proportion **C**	58,5 %	62 %
shrinkage **R**	1,3 %	3,7 %
material	PA	PA

TESTED AND APPROVED FOR DESCENTS WITH A RELEASED ENERGY OF 7,5MJ (according to EN 341 class A).

$$W = m \times g \times h \times n$$

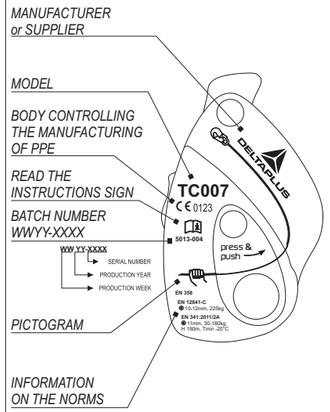
m: mass (kg)
g: acceleration of gravity = 9,81 m/s^2
h: height (m)
n: number of descents

⚠ EN 12841:2006 type C

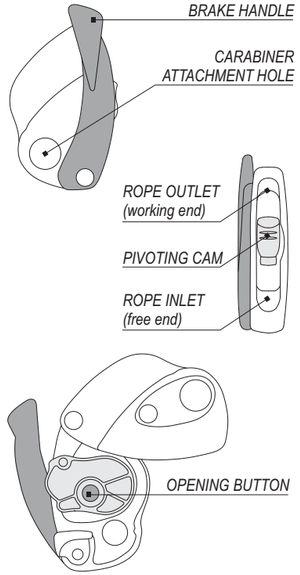
Certified for use with low stretch (EN 1891 Type A) ropes with diameters between 10 mm and 12 mm.

Diameter	Maximum rated load
10 mm - 12 mm	225 kg

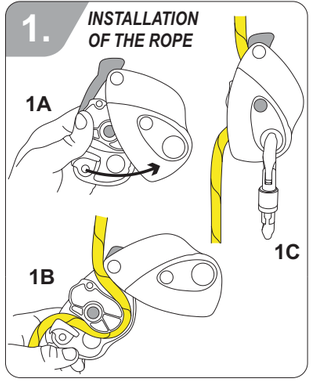
DATA ON TC007



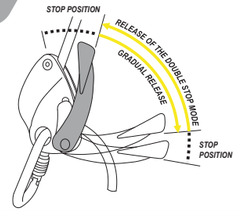
NOMENCLATURE OF PARTS



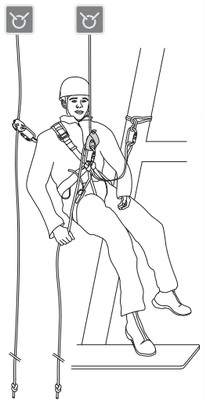
1. INSTALLATION OF THE ROPE



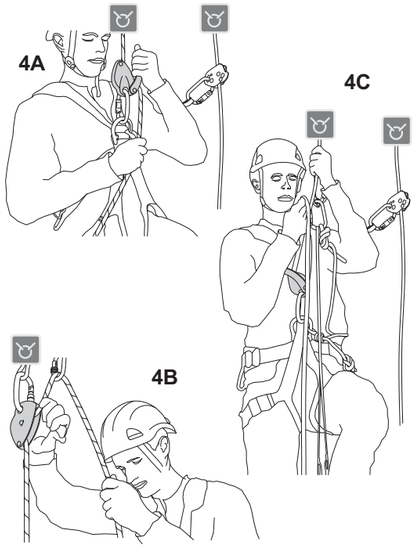
2. FUNCTIONAL PRINCIPLES



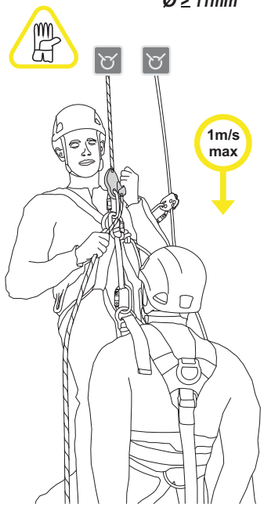
3. OPERATIONAL CHECK



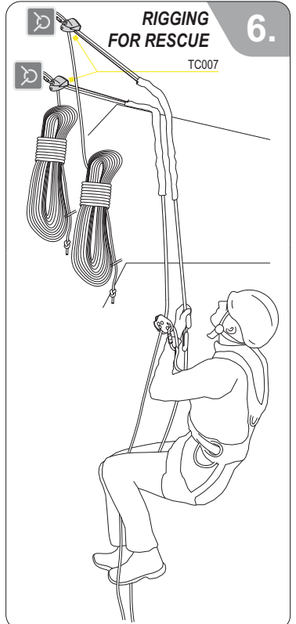
4. DESCENT AND SHORT ASCENTS



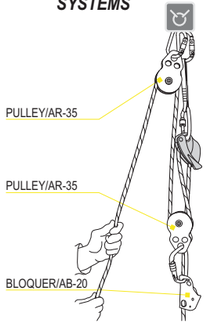
5. ACCOMPANIED DESCENT



6. RIGGING FOR RESCUE

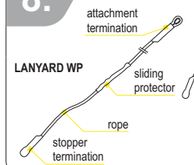


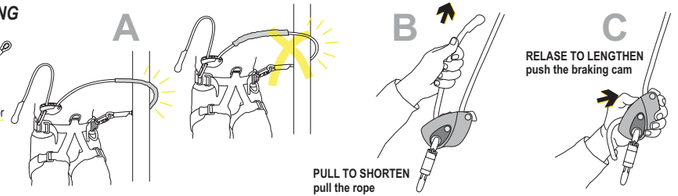
7. HAULING AND PROGRESS CAPTURE SYSTEMS



maximum load = 225kg

8. POSITIONING

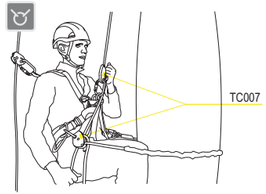




9. RESTRAINT



10. WORK ON WIND TURBINES



NOTES

TEMPERATURE / Température / Temperatur



STORAGE / Stockage / Lagerung



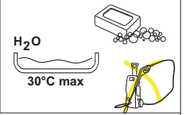
additionally away of sources of heat!

MAINTENANCE / Entretien / Wartung



moving joints!

CLEANING / Nettoyage / Reinigung



DANGEROUS PRODUCTS /
Produits dangereux / Gefährliche Produkte



IN CASE OF DOUBT, CONSULT PRODUCER OR VENDOR!



ENGLISH

UNDERSTAND AND FOLLOW THESE INSTRUCTIONS CAREFULLY!

This device was designed to offer you the degree of safety expected from personal protective equipment in accordance with the Directive 89/686/EEC.

SAFETY MEASURES AND WARNINGS

a) There are innumerable and even unimaginable possible modes of use of this device. Only techniques shown in the figures that are not crossed out or displaying a skull are recommended and covered by the warranty.

b) This product must be used exclusively by adequately skilled persons, otherwise the user must be constantly supervised by trained personnel, who must guarantee for the safety. This includes liability against damages, injuries and death incurred by improper use or misuse of the equipment.

c) This product may be used combined with personal protective equipment conforming to Directive 89/686/EEC and compatibly with the relevant information.

d) In work at a height the foreman must ensure proper management and planning (including risk assessment and rescue plan) of the work being performed.

e) The lifetime of this product will be extended if it is used with care. In particular, avoid rubbing against abrasive surfaces and/or sharp edges.

f) The primary functions of TC007 are progression along a working line, positioning, restraint and belaying. If not marked accordingly it is not suitable for use in a fall arrest system. It may be necessary to supplement arrangements with collective or personal means of protection against falls from a height. When used in accordance with EN 12841 it must always be used in

conjunction with a fall-arrest device on an independent safety line.

g) The braking action of the device and thus your safety may be considerably reduced if the device or the rope is dirty, oily, muddy or icy.
h) Prolonged use in salty environments (e.g. sea cliffs) may affect the performance of the product.
i) Do not expose the device to significant heat or cold (see work and stock temperature).
j) Avoid any contact with chemical reagents as they may affect the performance of this product. Contact the producer if in doubt.
k) The descender device should never be left in place (specifically outdoors), e.g. at a workstation, because of the weathering deterioration of the rope.

FUNCTIONING PRINCIPLES

Figure 1: INSTALLATION OF THE ROPE

To install the descender on the rope, press the opening button and simultaneously slide the housing sides apart. The working end of the rope exits the device close to the axle around which the housing sides rotate (consult the sketch on the housing for help). Lead the rope around the cam so that the free end of the rope exits the device between both camming elements. Slide the housing sides back together. The device is only closed properly once the opening button locks the top housing side and is fully released. The TC007 used as a descender can either be attached to a harness concordant with either EN 361+EN 358, EN 813 or EN 12277 (fig. 4/A – the operator slides with the descender along the rope) or it can be fastened to an anchor (fig. 4/B – the rope slides through the non-moving descender).

WARNING: If the rope is not inserted correctly the locking mechanism does not work.

Figure 2: FUNCTIONAL PRINCIPLES

Figure 3: OPERATIONAL CHECK

- Check that the sides of the housing cannot be slid apart and the closing button is fully released (the device is closed correctly).
- Check whether the rope is inserted correctly (according to the sketch on the housing).
- Before each use, carry out an operational check of the device by test-loading it with your body weight while secured by other means.
- It is essential to assess the reliability and security of the entire safety system you are relying on: adequate resistance of the anchors (EN 795) and the structure they are fixed on, their correct (higher) positioning to arrest a fall and prevent pendulum effects, correct positioning of the ropes – e.g. protecting sharp edges or points of rubbing, preventing ill running of the descender, redundancy, etc. – to tie a stopper knot at the free end of the rope. Any overload or dynamic loading of the descender may damage the rope.

Figure 4: DESCENT AND SHORT ASCENTS

While loading the system, the user should hold with one hand the free end of the rope and with the other hand gradually pull the handle (fig. 4/A). This unblocks the rope and allows for a controlled descent. The maximum permitted speed of descent is 2 m/s. By pulling the handle down to its terminal position, the user will activate the descender's second braking position (anti panic) and the descent will be stopped instantly. To resume descending, just return the handle in the closed position (fig. 2), and restart the process. Use a second braking carabiner to lower from a fixed position (fig. 4/B). Owing to the construction of the device there is no need to additionally secure the device for prevention of accidental uncontrolled descents. For short ascents install a rope clamp in the working end of the rope above the descender device. While lifting yourself on the rope clamp, pull the free end of the rope exiting TC007. Never allow any slack between the rope clamp and the descender device (fig. 4/C).

Figure 5: ACCOMPANIED DESCENT

This method of evacuation may only be adopted by rescuers specifically trained in this technique. No impact loading is tolerated. The rescuer fastens the descender to his harness and connects the injured person by means of an additional lanyard. There is no need of a redirectional carabiner for the free end of the rope. For all rescue manoeuvres the use of gloves, however, is warmly recommended. The rescuer and the injured person must be secured with an additional independently anchored safety line.

WARNING: With speeds above 1 m/s during rescue operations, the descender may get hot enough to damage the line.

Figure 6: RIGGING FOR RESCUE

Double rope length should be employed.

Figure 7: HAULING AND PROGRESS CAPTURE SYSTEMS

Hauling from a fixed position with TC007 is easiest done either with a 1:1 counterweight or for heavier loads by means of a 3:1 mechanical advantage pulley system (fig.7). Ergonomically easier pulling from above may be attained by employing another redirectional pulley on the free end of the rope.

Transition from ascent do descent is done by removing the pulley system, clipping the rope in a redirectional carabiner above the TC007 and starting to lower (fig. 4/B).

Figure 8: POSITIONING

Use of the work positioning lanyard is mandatory (**Lanyard WP**). Fasten the device on the side ring of the harness, pass the lanyard around a structure and fasten its end with a connector (EN 362) to the second side ring on the harness (fig. 8A). Protect any contacts of the lanyard with the underlying structure with the sliding protector. Always keep the line taught and the anchor point above the waist level. To shorten the lanyard, pull the free end of the rope in the direction of the arrow (fig. 8B). To lengthen the lanyard, push the braking cam in the direction of the arrow with your thumb (fig. 8C).

Figure 9: RESTRAINT

Anchor a restraint system perpendicular and away from the point on the edge where the workplace is. There should not exist any possibility of a fall over the edge. Therefore trim the line in the TC007 to the right length.

Figure 10: WORK ON WIND TURBINES

Use one TC007 as a descender device and the other for positioning around the blade.

GENERAL INFORMATION

Regular examination:

Do not hesitate to retire the device if it shows signs of wear or after a major fall or a major impact. They could cause internal or invisible damage that may significantly weaken its strength. In case of uncertainty treat the device as damaged or consult DELTA PLUS GROUP.

Regular periodical inspections should be carried out by an authorised person at least once a year. For this purpose an inspection record should be established (see the backside of these instructions). Furthermore, we would sincerely recommend one set of equipment is used by one person only as its history of use is best traced and understood in this way. Before each use, it is obligatory to check the device and verify that all its components (handle, jamming cleat, flanges) are faultless and in good working condition.

Packing, storage, maintenance and cleaning

Each product is packed with its INSTRUCTIONS FOR USE. Proper maintenance and storage are imperative to ensure correct functioning of the product (as well as all your equipment) and thus your safety.

Clean the product with a brush under running cold water of domestic supply. If the stains persist, clean it in warm water (maximum 30 °C) with ordinary soap. Then rinse thoroughly, wipe

it with a towel and dry naturally in a shaded ventilated place away from sources of heat.
If needed, lube sparingly the moving joints of the cam and handle with silicon based oil.

Temperatures
While it is permissible to use this product within the temperature range from -20 °C to +60 °C, it is advisable to stock it in a dry place at room temperature.

Lifetime
It is impossible to indicate the exact lifetime of this product for it depends on the frequency and mode of application, on the environment where it is used (marine, cave, corrosive atmosphere) and on mechanical wear or damage. Provided its correct use (in accordance with these instructions), the lifetime of the product on average use is expected to be 7 years.

Guarantee and its limitations
This product is guaranteed for 3 years from purchase against any faults in materials or manufacture. The guarantee does not apply in cases of misuse, normal wear and tear, unauthorised modifications or alterations, improper use, improper maintenance, accidents, negligence, damage or if the product is used for a purpose it was not designed for. If you discover a defect, you should return the product to the reseller you purchased the product from or directly to DELTA PLUS GROUP.

DELTA PLUS GROUP is not responsible for the consequences of direct, indirect, accidental or any other type of damage resulting from the use of its products.