

INSTRUCTION MANUAL

EN Forcer

T03

Rope Access Back-Up Device

CA 36677 / 36678 / ABNT NBR 14626:2020

CE 0598 EN 12841 Type A / ANSI-ASSE Z359.1-2007

WARNING

All users must read and understand this manual before use. This product must only be used by persons who are trained and competent in its use as part of a double rope access system. Users accept all risks and responsibilities for all damage, injury or death during all rope access activities involving the use of this product. If users are not able to accept full responsibility or all risks involved they should not use this product. All users must be competent in emergency procedures and rescue methods associated with the use of this device. These are detailed in the 'Deployment' section of these instructions. Users should take great care that hair, fingers, clothing or other items do not become entangled with the **EN Forcer**. DO NOT allow anything to affect the proper function of the device.

Do not use the device for any other purpose.

INDIVIDUALLY TESTED

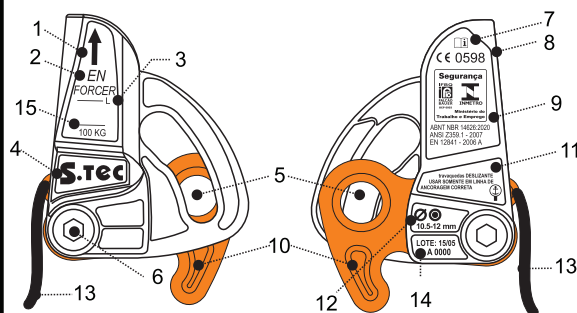


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1 - PARTS & MARKING



Requires a round section Locking Karabiner to connect to the harness. (Not supplied).
Oval shaped karabiners with a 10mm are recommended.
Users must check for the proper function of cam with selected Karabiner before use to verify suitability.
Do not use if karabiners affected cam function.

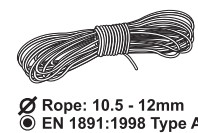
Rope Diameter
10.5 - 12 mm
Rope Type: EN1891:1998 Type A
Serial Number
E.g. 15 05-A 0000
15 - Year 2012
05 - Month - May
A 0000 - Unique Item Serial N°

305g / 10,7 oz
395g / 13,7 oz

Field of Application: The EN Forcer has been tested to the requirements of EN 12841:2006 Type A - Rope Adjustment Device. Tests were carried out using EN1891 Type A Low Stretch Ropes: Mammut Performance Static 10.5 & 11mm and Beal Industrie 10.5mm & 11mm. Other ropes have provided excellent results - check all different ropes prior to use. To be used in conjunction with EN 12841 Type C or B device. Terms: 'Back-Up Rope' is used to describe the 'Safety Line' as termed in EN 12841 2006. 'User' refers to individuals or persons selecting this device for use. The device has also been tested to Brazilian Standard: ABNT NBR 14626:2020 by IFBQ (Falcão Bauer Quality Institute) accredited in Brazil by INMETRO with code OCP 0003.

PARTS

1. Body with Orientation Arrow pointing to Rope anchor.
2. Model Name
3. Model L - Aluminium Cam / H - Steel Cam
4. Manufacturer's Logo
5. Connection Point
6. Bolt
7. Read User manual instructions
8. CE marking
9. Standards
10. Cam
11. Brazilian mandatory disclosure
12. Rope Type Ø 11 mm (Shell+Core)
13. Positioning Cord
14. Serial Number
15. Max Load



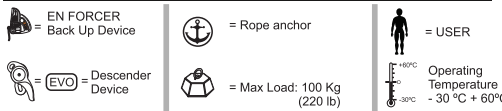
Rope: 10.5 - 12mm
EN 1891:1998 Type A

MATERIALS

The Safetec **EN Forcer** is available with either Aluminium Cam or Stainless Cam. The Cam colour identifies the model: Aluminium Cam Model has an Orange anodised Cam, the Stainless Steel Cam Model has a Silver Cam.

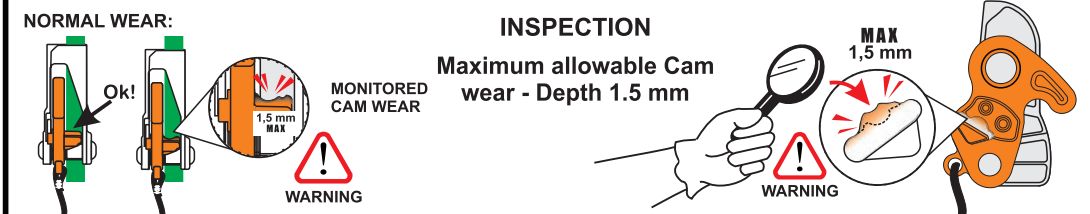
Materials
Body - Stainless Steel Silver / Cam Orange - Aluminium / Cam Silver
Stainless Steel / Spring - Stainless Steel / Cord - Nylon / Axis - Stainless Steel / Bolts - Stainless Steel.

LEGENDS



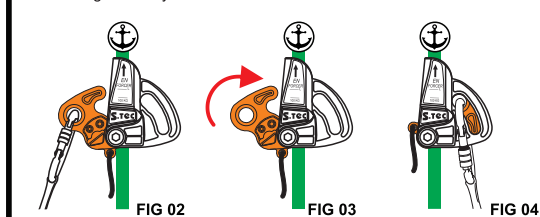
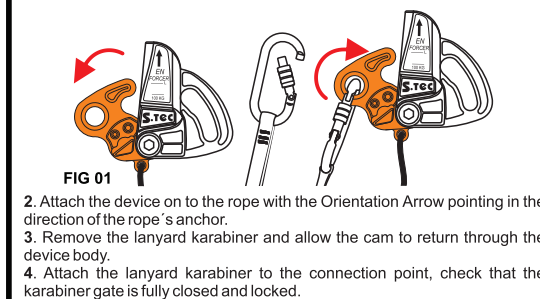
2 - INSPECTION

This **EN Forcer** must be inspected prior to each use. This inspection should check for any corrosion, cracks, evidence of abrasion, deformation, loose bolt or missing components together with full function test and markings are clear and readable. In addition to pre-use checks a regular detailed examination should be carried out by and recorded by an authorized competent person at suitable periods, these should be at no more than six months intervals. Following any emergency loading. Incident or droppage **EN Forcer** must be removed from service for examination. If users or inspectors are not 100% confident that the **EN Forcer** is fit for use, it must be removed from service. Devices passing inspection shall only be re-used once written records are completed.

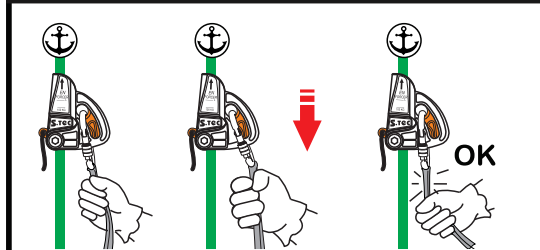


6 - STAGES OF INSTALLATION

1. Push the cam through the device body to the opposite side. Temporary attachment of the lanyard karabiner helps to prevent dropping the device.



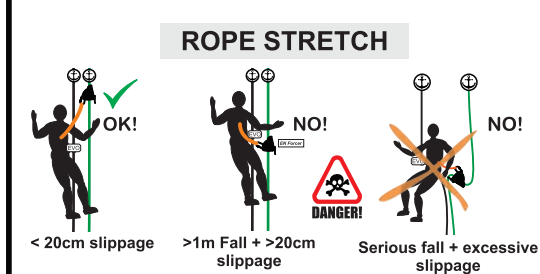
7 - OPERATIONAL CHECK - FUNCTION TEST



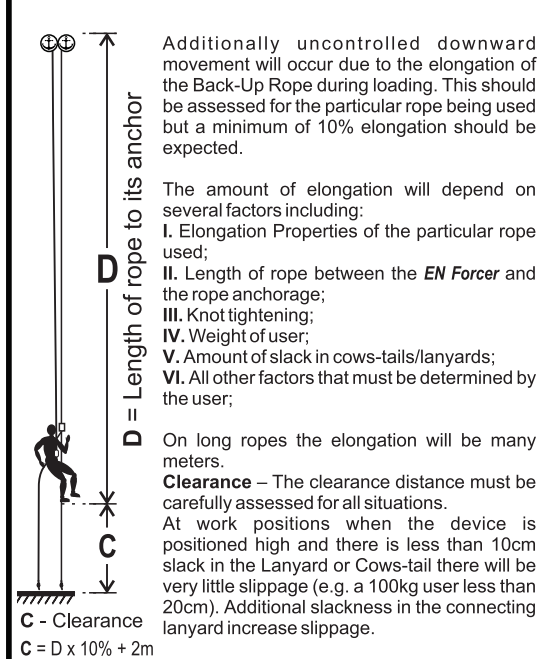
Move the device along the rope and check that it stays in position, then pull down vigorously using the lanyard or cows-tail to verify that the device locks on to the rope.

To maintain good spring action ensure that cam spring is lubricated regularly. See section 16.

13 - CLEARANCE DISTANCE



14 - EXAMPLE BASED ON 10% ELONGATION

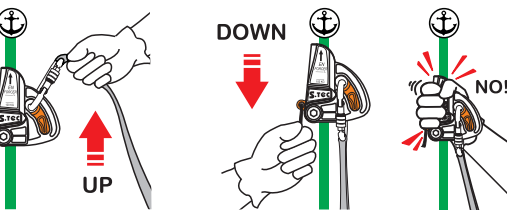


8 - POSITIONING

At all times that the user is stationary the **EN Forcer** should be positioned as high as possible. The **EN Forcer** must always be above the descender or chest ascender and never below its lanyard/cows-tail attachment point (FF1)

Ascent

To move the **EN Forcer** up the rope by holding the lanyard or karabiner - do not hold the device.



Descent:

The **EN Forcer** backup device is fitted with a Positioning cord. Users must always perform full function checks of both their descent device and **EN Forcer** before each descent.

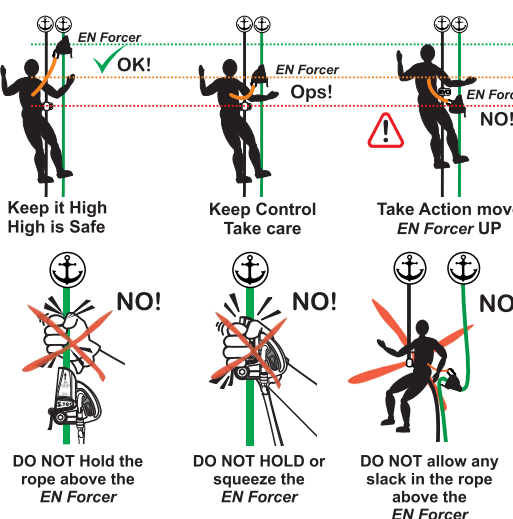
To move the **EN Forcer** down, pull the Positioning cord down using the index finger and thumb. Users should only hold the positioning cord for as short a period as necessary and ensure that they are prepared to let go of the Positioning cord immediately at all times.

In many applications the **EN Forcer** should be controlled independently of the descent device, in others it may be necessary to control both **EN Forcer** and descent device simultaneously. It is the responsibility of the user to carry out a risk assessment and determine which method is best for their operational activity and environment.

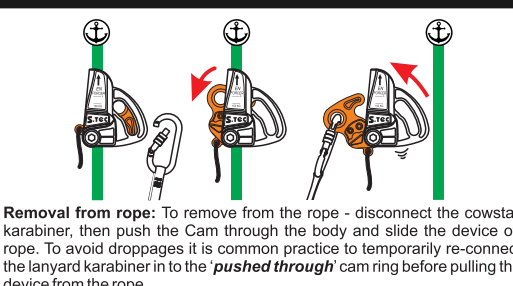
WARNING

If users keep hold of Positioning Cord the device will not function. Users must release their hold of the Cord immediately if anything unexpected occurs. At all times users must check that the lanyard is not caught on obstacles and that it will not come in to contact with sharp edges, heat, tools or any other source of damage.

9 - OPTIMUM POSITION



10 - REMOVAL FROM ROPE



Never leave the **EN Forcer** on a rope with the karabiner attached to the Cam when it is pushed through the body.

3 - TERMS

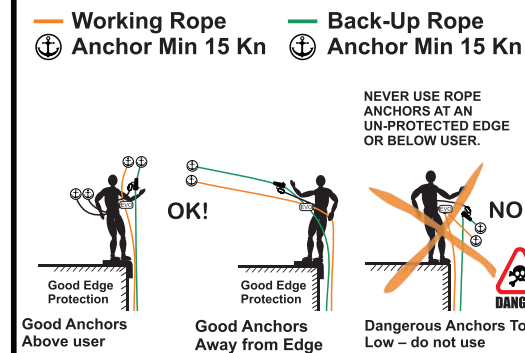
'Back-Up Rope' is used to describe the 'Safety Line' as termed in EN 12841 2006. 'Device' is used in place of the product name. 'User' refers to individuals or persons selecting this device for use.

4 - COMPATIBILITY

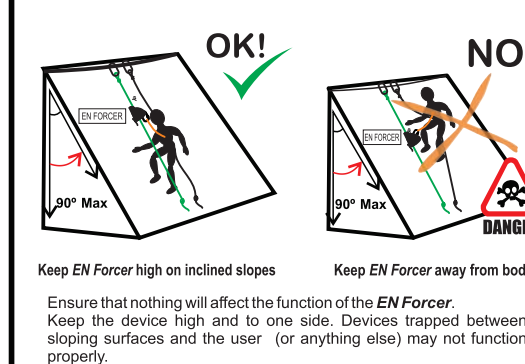
Lanyard: It is recommended that an EN354 lanyards up to 60cm long.
Cows-tail: Connection may be made using a dynamic climbing rope with suitable terminations, attached to either ventral (waist) or sternal (chest) points. **Recommended length:** waist <80cm, chest <50cm. Further information provided in section 22.
Harness: Front attachment point of an EN361 2002 or EN813 2008 harness. **Connectors:** EN 362 2004 Connector - Locking karabiner.
Ropes: the type of rope and its condition will greatly affect the dynamic designed slippage of the device. Factors include: manufacturer's coatings, weave pattern and tightness, wear from use, contaminants* Safetec recommend that 11mm ropes are used for most applications and that users assess performance prior to use. Rock Engineering (Geo) and other 'dirty' operation will often choose 10.5mm due to working conditions increasing friction on devices. *Abrasive contaminants - grit and dirt will provide more rapid breaking whilst grease may increase slippage beyond acceptable.
The **EN Forcer** is a non-aggressive device and during correct operational use it will not damage ropes. In emergency deployment (see 'Deployment' section) with the exception of very minor glazing a properly used **EN Forcer** will lock on to the Back-Up rope without causing serious damage to itself, its lanyard, karabiners or to the rope. The user is responsible for ensuring the combination of all components in the rope access system do not adversely affect the performance of any item with due regard to all user instruction.
Gloves: the use of suitable work gloves is recommended.

5 - INSTALLATION

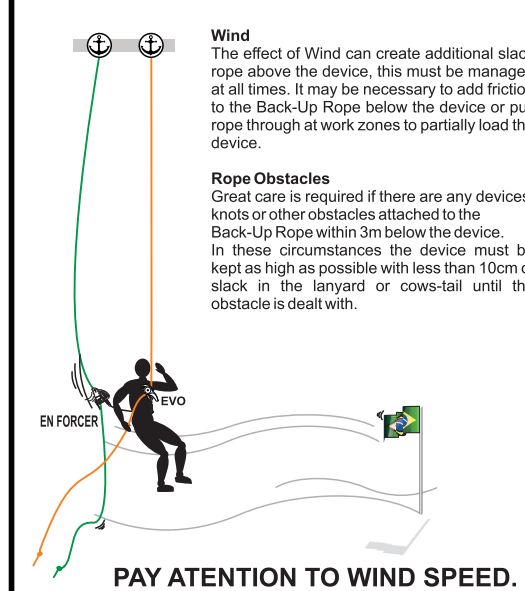
Always install the **EN Forcer** from a position safety or when two additional safety systems are in place.



11 - SLOPING SURFACES



12 - WIND & OBSTACLES



16 - GENERAL INFORMATION

Rope Condition: wear, wetness and contaminants will affect the performance of the **EN Forcer**. Some rope conditions will make positioning of the **EN Forcer** more difficult. Others e.g. oil & grease will affect the device's ability to perform - Back-Up may not be provided. The effective operation of the **EN Forcer** should be monitored and checked in all conditions. Where any performance doubt exists, the **EN Forcer** should not be used.
Sea Water: it is essential that this **EN Forcer** is cleaned as soon as practicable after each exposure to sea water or saline environment.
Chemical reagent: avoid contact with any substance or material that may cause corrosion or other damage to the device. If contact occurs consult expert advice as to damage and cleaning requirements. Inspect prior to any re-use.
Maintenance: the **EN Forcer** is not user maintainable with the exception of disinfection, cleaning and lubrication as detailed below.
Disinfection: following any contamination the source of the contamination should be determined and advice obtained as to suitable disinfecting procedure. After disinfection the device should be re-cleaned. Sterilisation may be required.
Cleaning: If soiled rinse in clean warm water of domestic supply quality (maximum temperature 40°C) with mild detergent at appropriate dilution (pH range 5.5 - 8.5). Dry naturally away from direct heat sources. To remove grease use a detergent that has properties that do not affect the metal spring, body, cam or nylon cord.
Lubrication: It is essential to maintain lubrication of the Cam spring. Lubricate regularly and after cleaning with light machine oil or teflon or silicone lubricant to ensure free movement of the cam. Wipe off the excess to avoid contamination of ropes and textile equip.
Lifespan: it is very difficult to define the safe lifespan due to varying use and storage conditions and may be as little as one use, or even earlier if damaged (e.g. in transit or storage) prior to first use. For the product to remain in service it must pass a visual and tactile examination. Maximum lifespan: 10 years from 1st use. Maximum Cam wear 1.5mm.
Obsolescence: this device may become obsolete before the end of its lifespan. Reasons for this may include changes in applicable standards, regulations, legislation, development of new techniques, incompatibility with other equipment etc.
Transportation & Storage: after cleaning store unpacked in a cool, dry, dark place in a chemically neutral environment away from excessive heat or heat sources, high humidity, sharp edges, corrosives or other possible causes of damage.
Declaration of Conformity: Can be accessed on www.safetecbr.com.br
Do not store wet.



7 899766 748621

17 - POSITIONING CORD

X = max length of cord

X

OK!

NO!

WARNING!

A positioning cord is factory fitted. If this becomes damaged or worn it can be replaced using cord. If 4mm cord is used it must be no longer than 40mm, 3mm cord must be no longer than 50mm. The only knot used must be to secure it tightly to the attachment point.

The diagram shows a fall protection device with various markings and callouts. The markings on the device include:

- CE - 0598
- Besparanex
- EN 12841
- EN 12841 - 2006 A Standard
- Personal fall protection equipment
- rope access adjustment device
- Brazilian mandatory disclosure
- EN 1891:1998 Type A
- rope diameter 10.5mm - 11 mm
- LOT: 1505 - A 0000
- 15/05 - A 0000
- Individual N°
- Month
- Year

ATTENTION:

If marking with users identification care must be taken to ensure that full function is maintained and the device is not damaged.

18- FURTHER INFORMATION ON MARKING

EU Type-examination for Regulation 2016/425 by Notified body number 0598: SGS Fimko Oy, Takomitie 8, Helsinki, 00380, Finland. Each **EN Forcer** is individually numbered and inspected. **SAFE TEC INDUSTRIA** do not recommend any user marking that affects the surface material or operational function. For engraving information contact Safe Tec.

The diagram shows a side view of the EN Forcer device. It is a white, ergonomic tool with a black handle and a black strap. The device has a white label with black text and symbols. The label includes an upward-pointing arrow, the text 'EN FORCER', a '100 KG' weight limit, and the 'S.Tec' logo. The device is shown in a position where the handle is pointing towards the top right. The diagram is used to illustrate the marking requirements for the device.

Orientation of device pointing to rope anchor.

Model name

MODEL REFERENCE
(L - Aluminum Cam)
(H - Stainless Steel Cam)

Max Load

Manufacture's Branding
S.Tec

20 - RESPONSIBILITIES

This product is guaranteed for 3 years against manufacturing faults. This excludes normal wear during use, corrosion due to incorrect storage, lack of maintenance or incorrect use. Uses outside those outlined in these instructions together with negligence or miss-use are also excluded.

Safe Tec Industria accepts no responsibility for the selection of this device for user applications or any consequences resulting from the use of this device.

No alterations or additions are to be undertaken without the prior written consent of Safe Tec Industria.

For more informations of our latest version go to:

www.safetecbr.com.br

<div style="display: flex; justify-content: space-between; align-items: center;"> 21 - RECORD OF USE </div> <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 10px;"> <div style="text-align: center;"> <h2 style="margin: 0;">EN Forcer</h2> </div> </div>		
Device	<i>Stec - EN Forcer</i>	
Supplier		
Serial Number		
1 st Use	Expiry	
Acquisition date		
User Traceability		
Record of Use and Periodic Examinations Users should record details of use. Maximum period between Periodic Examinations is 6 months		
Date	User or Examiner	Details of Use-or Result of examination
Duplicate this sheet for continued recording. Contact Safe Tec for further information.		

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22 - FURTHER INFORMATION

Lanyard and Cows-tail Lengths

(information additional to section 4).

Safe Tec acknowledge that the **EN Forcer** has successfully passed the EN12481A Fall Factor 2 (FF2) test with a 1m dynamic rope cows-tail, but do not advise or recommend its use in FF2 situations. SafeTec do not recommend 1m cows-tails. SafeTec recommend use in situations with no more than FF1.

See sections 8 & 9.

Recommended length: waist <80cm, chest <50cm.

FF1 tests with 1m cows-tails produce lower impact forces and considerably less slippage than the maximum allowed by EN12841A. If users choose to use a 1m cowstail, a risk assessment should be completed and control measures must include the requirement for users to keep Fall Factors below FF1.

SafeTec do not recommend 1m costails in normal use.

If users choose to use a cowstail of a different length to that recommended in this user manual, a full risk assessment shall be required and the user accept responsibility for the back-up provided.

The use of Lanyards/Cows-tails of lengths or material different to those recommended should be assessed for compatibility and allow proper function of the **EN Forcer** following a risk assessment sopecific for the intended use.

All users must be aware of, and pay attention to all factors associated with slack in cows-tails or lanyards:

- rope elongation/stretch, clearance, entanglement and any other factor/s affecting the safety of users and the performance of the **EN FORCER**.

All users should ensure optimal positioning of the **EN Forcer** during all use as detailed in section 9.

The **EN Forcer** is designed to be used on an unloaded untensioned ropes as required in EN12841. The performance on a rope that has been deliberately tensioned must be verified prior to use. If during a rescue (or rescue training) a casualties ropes are to be used for access to the casualty; the performance of both the rescuers and the casualties back-up and main working systems must be assessed and performance verified prior to starting rescue access. Additional safety measures will normally be required, including additional training and equipment. For rescue training additional ropes and/or safety attachments is best practice.