



Matik

Ref.1041

A REVOLUTIONARY BELAY-DESCENDER DEVICE WITH ASSISTED BRAKING THAT DELIVERS UNPARALLELED SAFETY AND CONTROL

- Gradual camming action reduces the impact force of a fall and decreases wear and tear on the rope
- Proprietary Anti-Panic system automatically blocks the rope if the user loses control of the descent
- Double-hinged lever and straight rope path make the descent feel very fluid and controlled
- Intuitive design eliminates the possibility of clipping a carabiner to the device if it is not completely closed
- Wide attachment hole allows the carabiner to rotate through the hole
- High-end manufacturing with hot-forged aluminum main body and precision-cast stainless steel for the critical components that come in contact with the rope
- For single dynamic ropes from 8.6 to 10.2 mm



ONLY ROPE ①

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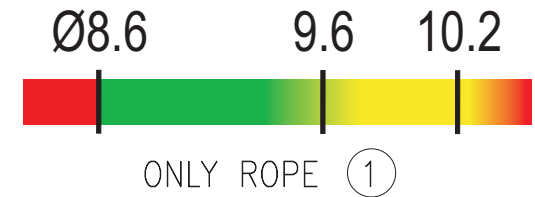
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MADE IN
ITALY



Matik



The assisted braking action of the Matik derives from an innovative camming design that makes the device safer and easier on the climber, the belayer, the anchor and the rope.

Instead of using a blunt angle to pinch the rope abruptly when the cam is engaged, the Matik is built so the cam rotates in and comes in line alongside rope before it captures the rope completely.

This alignment allows a much larger contact area between the cam and the rope (this makes the device more rope friendly than other auto-blocking devices), and the slight amount of slippage that occurs as the cam rotates into place reduces the impact force of a fall. This means less force on the bodies of the climber and belayer, and on the anchor!

When lowering, the proprietary Anti-Panic system helps prevent one of the most common accidents occurring with the use of an auto-blocking device -- losing control of the descent. The brake lever will automatically disengage causing the cam to automatically reengage if it is opened too quickly or if it is kept too far open where the speed of the descent can become unmanageable. This unique safety feature is particularly useful where there is little friction from rope drag between the belayer and the climber or during top-down descents where the Matik really delivers an unparalleled sense of safety and control.

Users will also instantly notice that the Matik creates a very natural path for the rope that does not require looping or twisting of the rope during descent. Combined with the dynamic camming action that limits the impact of the fall, this more natural rope path helps to reduce wear and tear on the rope. Other distinguishing features of the Matik include a better method for inserting the rope that eliminates the possibility of clipping a carabiner to the device until it is completely closed.

NOTE: The assisted braking capability of the Matik does not relieve belayers of the need to adhere to the basic principles of belaying and rappelling. It is imperative to be attentive to the climber's progress and always keep control of the brake line.



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PARTS

- 1. Back Flange:** hot forged aeronautic grade aluminum alloy for superior strength and resistance to wear-and-tear.
- 2. Front Flange:** hot forged aeronautic grade aluminum alloy with markings to indicate the proper direction for inserting the rope.
- 3. Attachment Hole:** large diameter allows for complete rotation of a locking carabiner. The carabiner cannot be attached unless the device is completely closed.
- 4. Lowering Lever:** hot forged aeronautic grade aluminum alloy and precision cast stainless steel with an ergonomic shape and double hinge for good leverage and control when lowering.
- 5. Fixed Cam:** precision cast stainless steel for superior strength and resistance to wear-and-tear. Also serves as a rope guide when lowering to limit contact between the rope and the aluminum side walls.
- 6. Mobile Cam:** precision cast stainless steel with proprietary geometry that allows the cam to rotate into place alongside the rope instead of pinching it at a sharp angle. This makes the action more rope-friendly and creates a small amount of slippage that can decrease the force of the fall.
- 6a. Cam Trigger:** the small flange on the bottom of the Mobile Cam can be used to momentarily hold the cam open for paying out slack or to initiate a descent when there is a lot of friction between the belayer and the climber.
- 7. Anti-Panic:** a proprietary mechanical system that will cause the lever to automatically disengage and cause the cam to automatically reengage if it is opened too quickly, or if it is kept too far open where the speed of the descent can become unmanageable.
- 8. Rivets:** Precision CNC stainless steel. The large diameter and precision pressing ensure exceptional strength and performance over the life of the device.

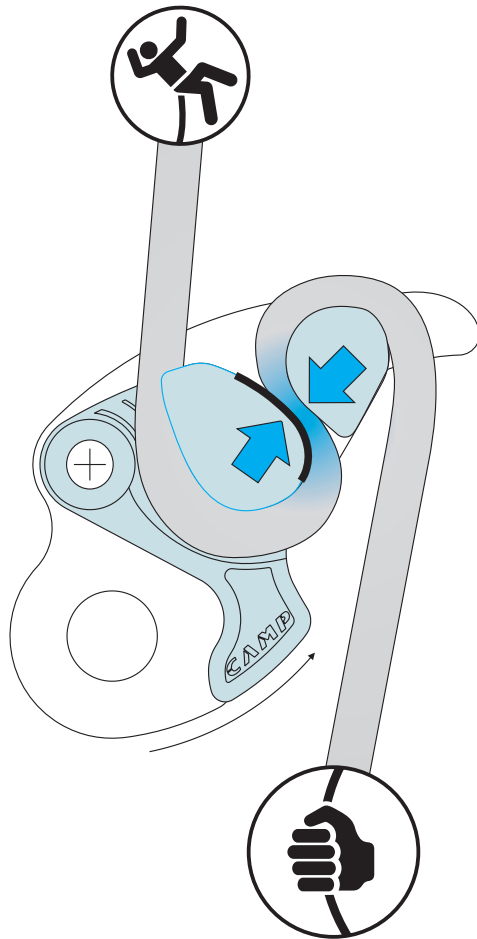


NEW DESIGN OF THE MOBILE CAM (Patent pending)

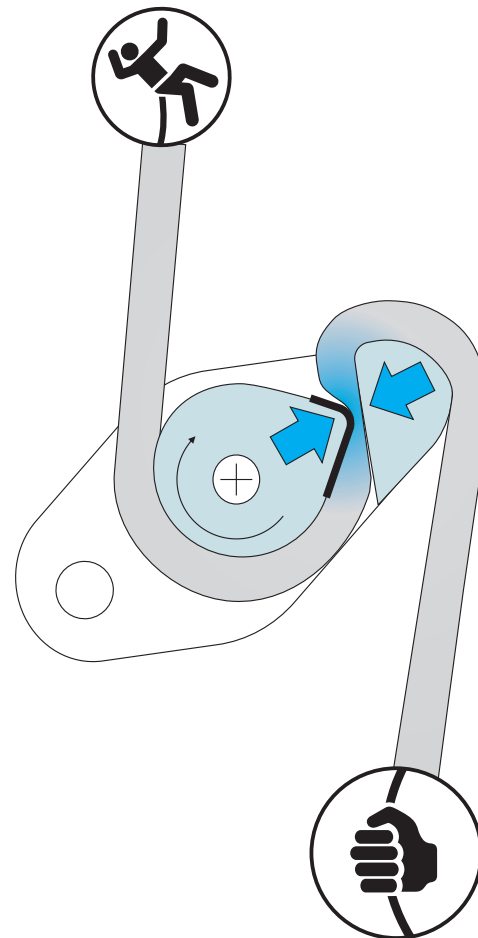
Instead of using a blunt angle to pinch the rope abruptly when the cam is engaged, the Matik is built so the cam rotates in and comes in line alongside the rope before it captures the rope completely.

This alignment allows a much larger contact area between the cam and the rope which makes the device more rope friendly than other auto-blocking devices and the slight amount of slippage that occurs as the cam rotates into place can reduce the impact force of a fall. This means less force on the bodies of the climber and belayer, and on the anchor.

Less stress on the rope also means a longer life for the rope.



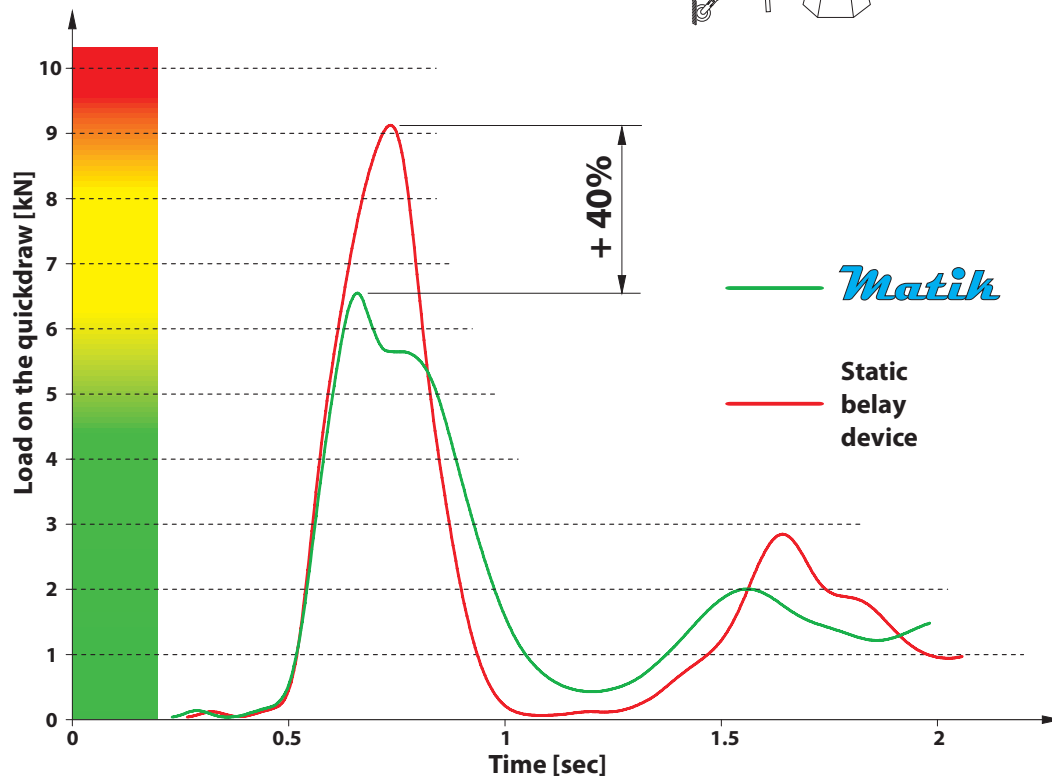
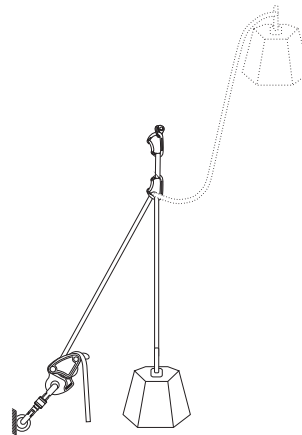
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**traditional
cam**

Fig.1

Factor 1 fall
 New dynamic rope d. 9.5 mm
 Height of fall: 3 m
 Dummy weight: 80 kg



LOW IMPACT FORCE

Several tests were made in order to prove the higher dynamic performance of Matik during a fall, through a comparison with other more static devices.

During a fall, a slight amount of rope slippage can occur, so the braking is smoother compared to a static immediate locking.

The worst fall situation happens when the leading climber falls after clipping the first protection (fall factor 1 approx.). During a lab test in this configuration, the load detected on the anchor for a static belay device is approximately 9 kN: with the Matik the load is 6 kN only (+40%) - **Fig.1**

Matik keeps a low fall arrest force also after several falls on the same rope length. Other static devices make the force increasing continuously, up to values that are double of the Matik - **Fig.2**

Dynamic performances of Matik are confirmed also for more serious fall situations (i.e. factor 2: fall of the leader on the belay point before clipping the first protection)- **Fig.3**

* Tests made at C.A.M.P. R&D lab.

Fig.2

Repeated fall factor 1 falls
 on the same length of rope
 New dynamic rope d. 9.5 mm
 Height of fall: 3 m
 Dummy weight: 80 kg

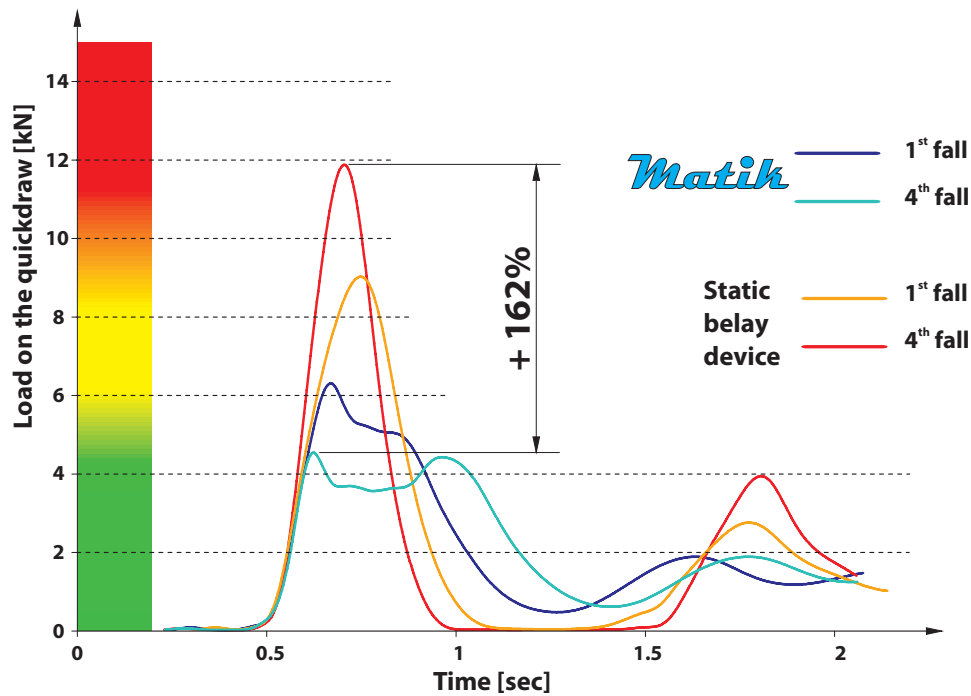
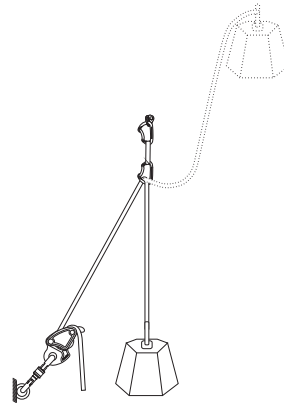
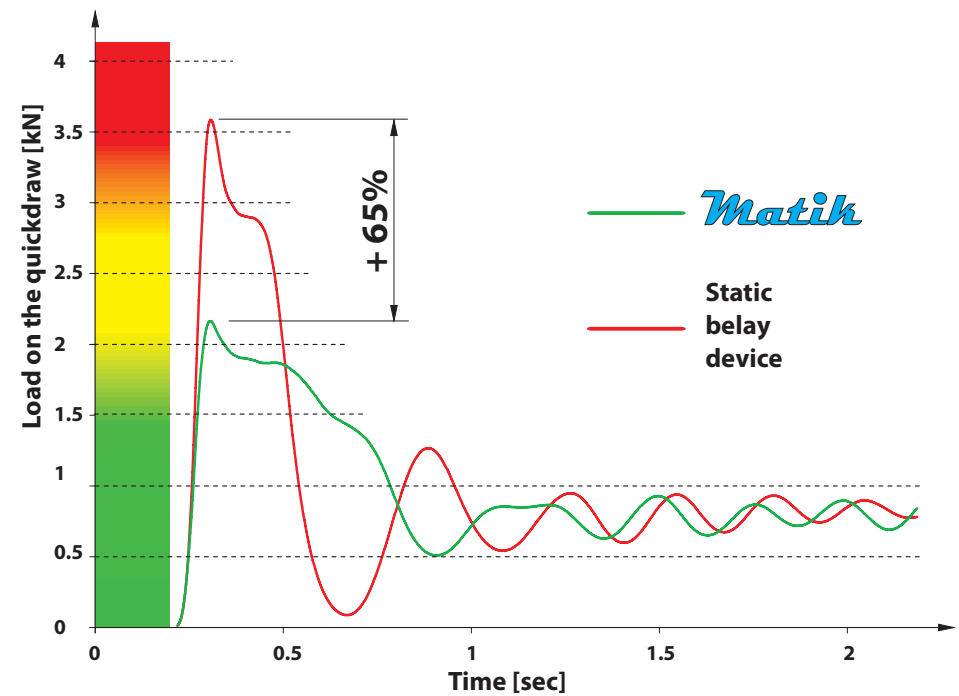
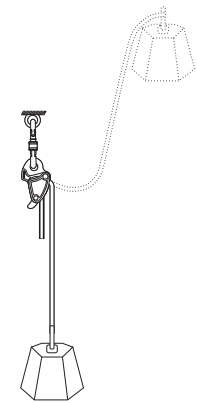


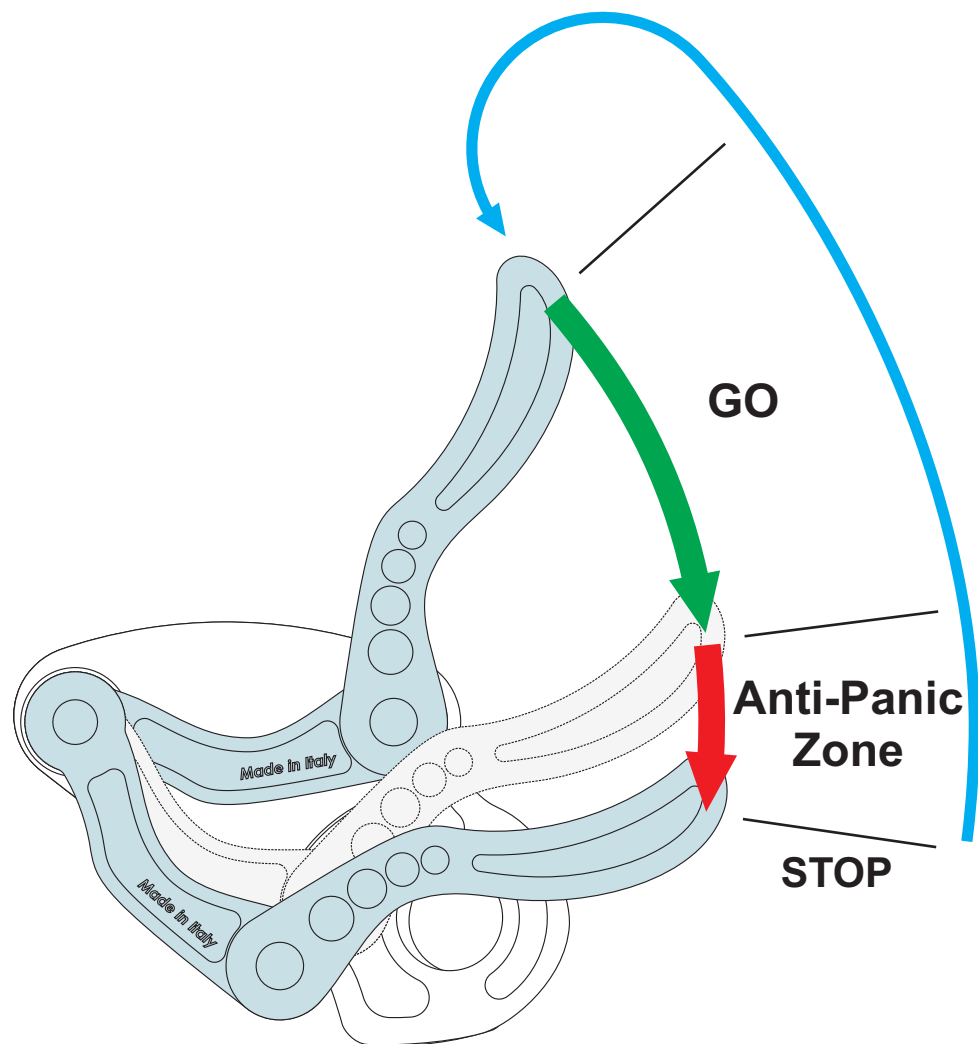
Fig.3

Factor 2 fall
 New dynamic rope d. 9.5 mm
 Height of fall: 2 m
 Dummy weight: 80 kg





Matik



ANTI-PANIC SYSTEM (Patent pending)

When lowering, the proprietary Anti-Panic system helps prevent one of the most common accidents occurring with the use of an auto-blocking device -- losing control of the descent.

The brake lever will automatically disengage causing the cam to automatically reengage if it is opened too quickly or if it is kept too far open where the speed of the descent can become unmanageable.

This unique safety feature is particularly useful where there is little friction from rope drag between the belayer and the climber or during top-down descents where the Matik really delivers an unparalleled sense of safety and control.



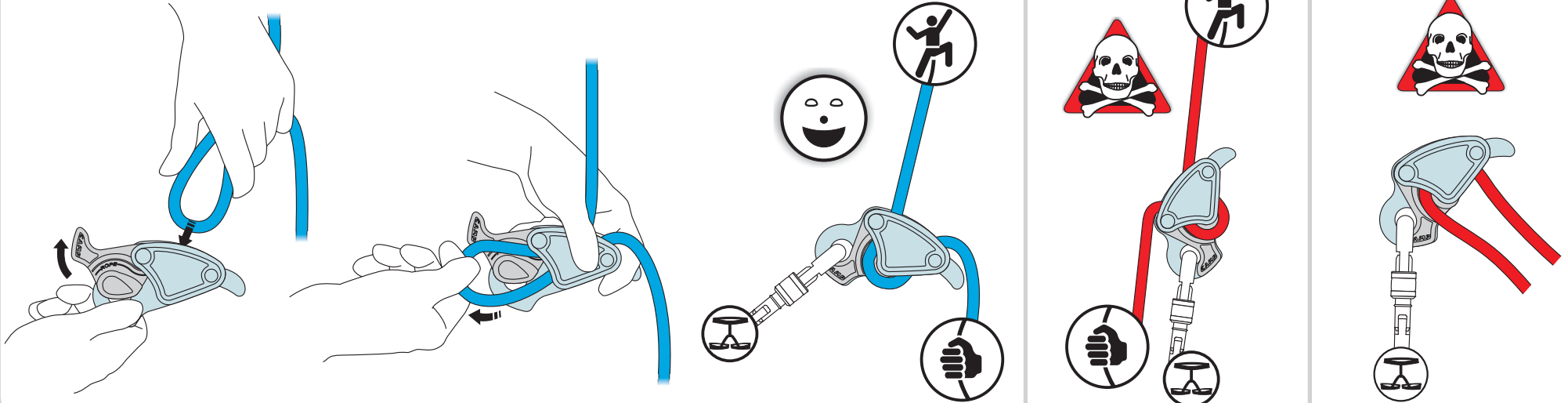
USER INSTRUCTIONS

Before use, carefully read and understand the instruction manual attached to the product

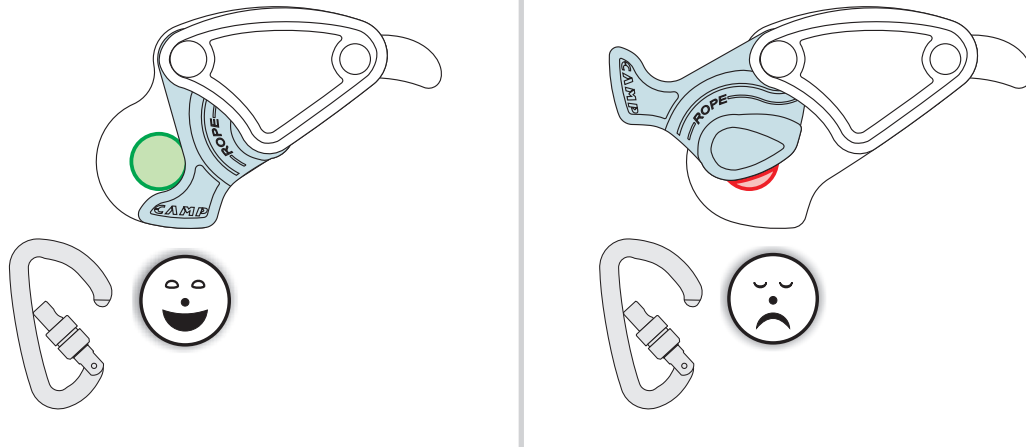


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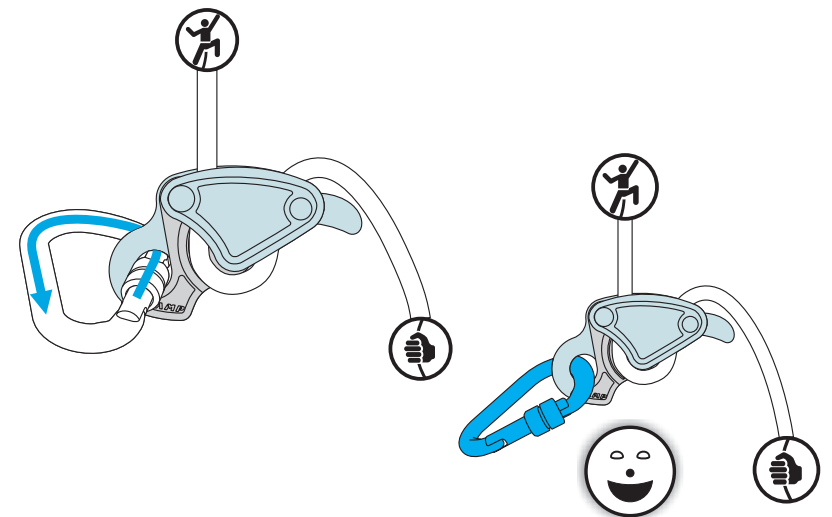
INSERTION OF THE ROPE



The carabiner can only be attached when the device is completely closed



The wide attachment hole allows for complete rotation of a locking carabiner



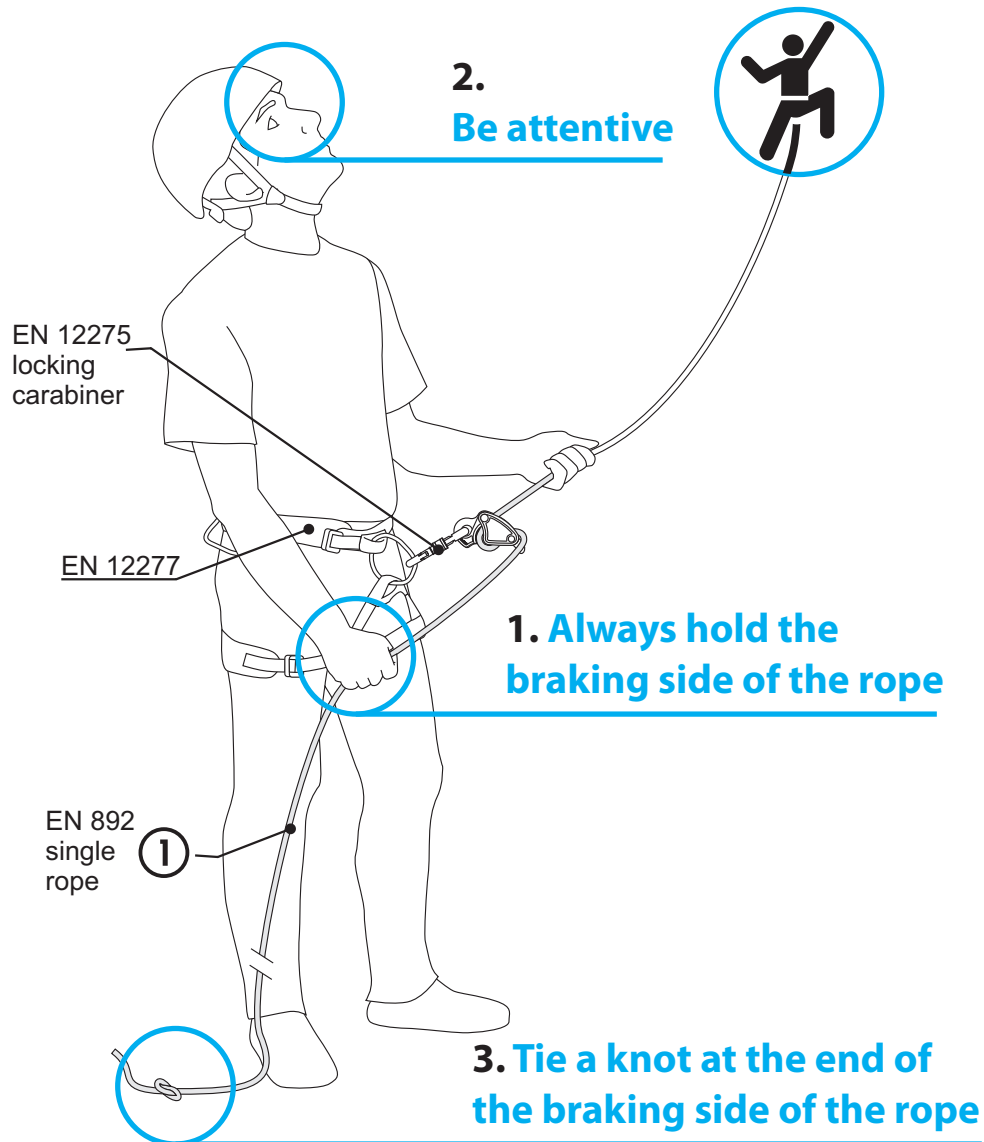
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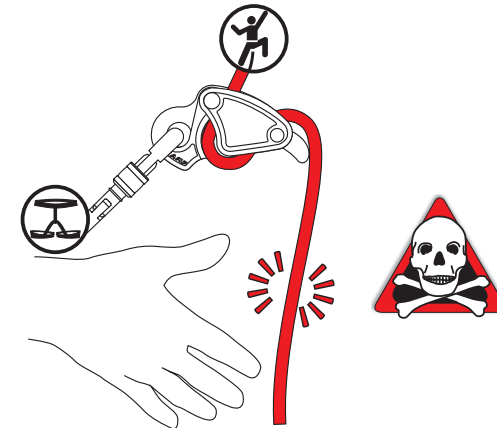


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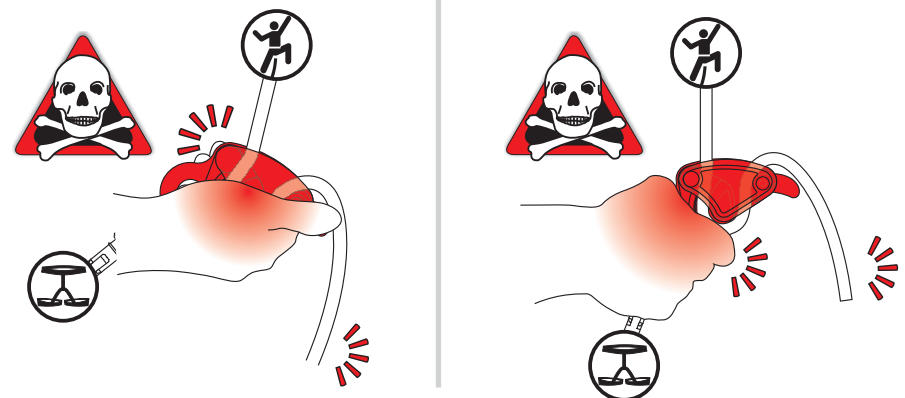
GENERAL WARNINGS



Always hold the braking side of the rope, during every step of the belaying process.



The device and the mobile cam must always be able to move freely. The trigger of the mobile cam can be pushed only for paying out slack quickly or for lowering in certain conditions, following specific instructions.



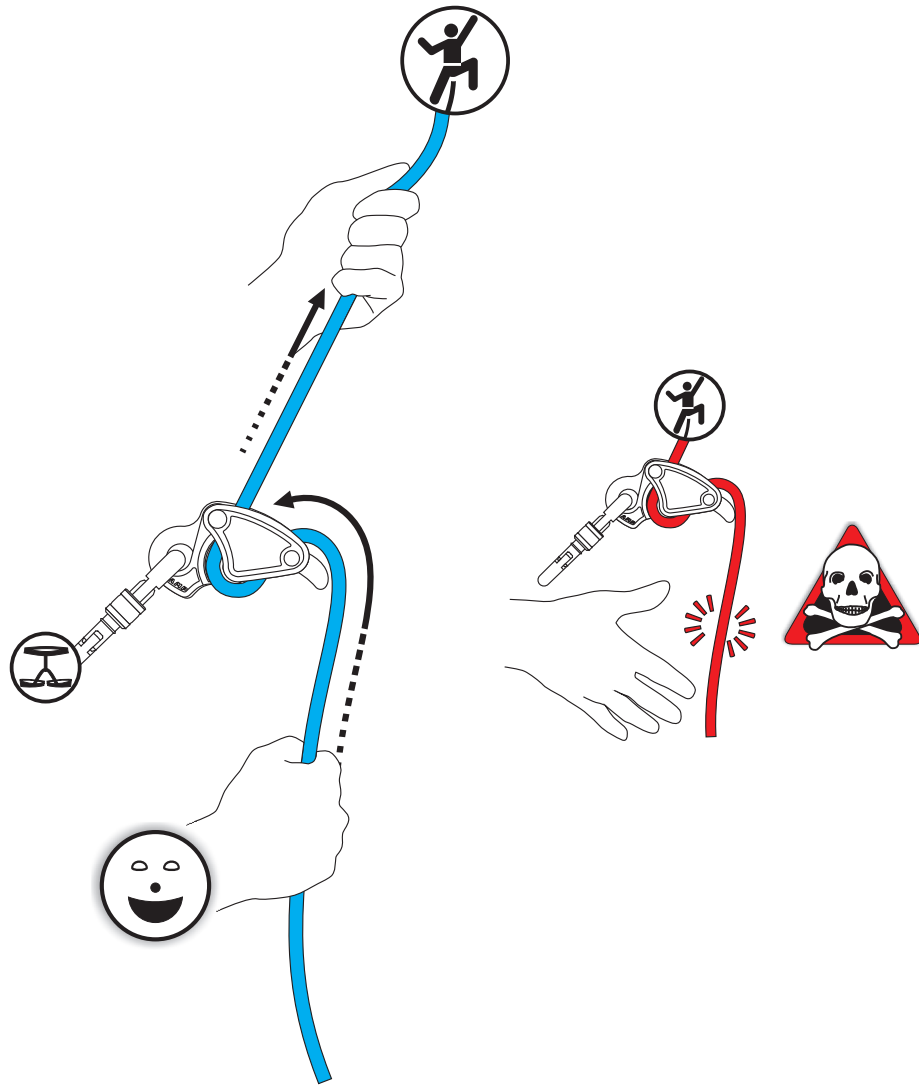
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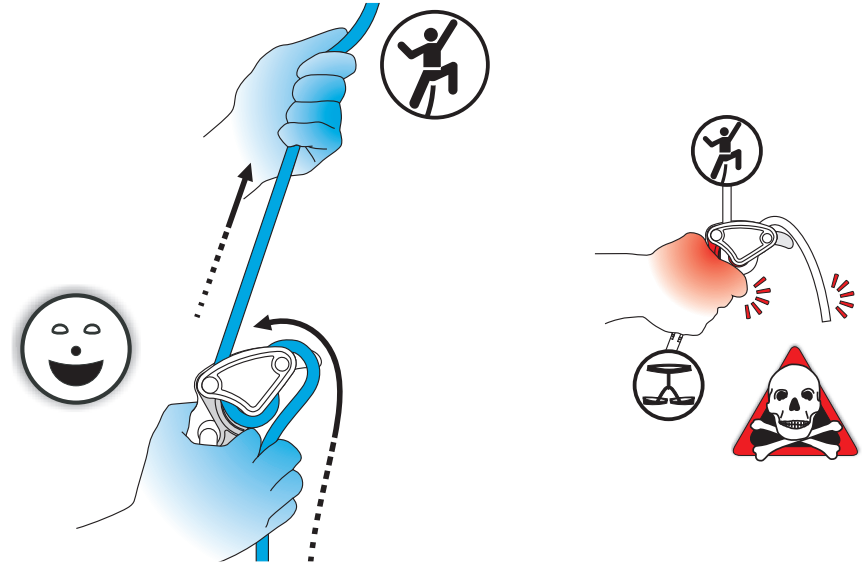


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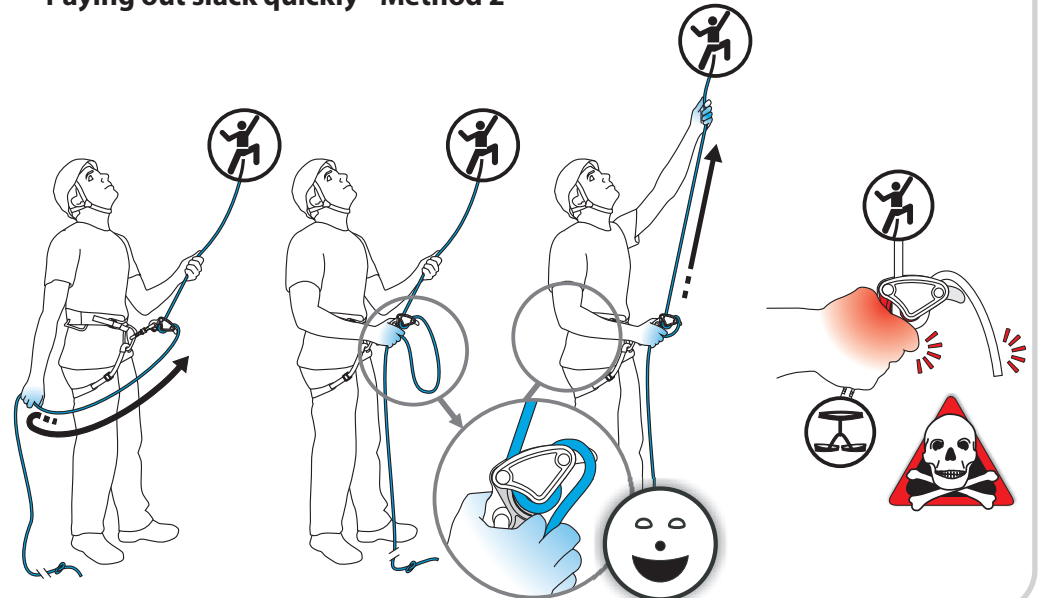
BELAYING THE LEADER



Paying out slack quickly - Method 1



Paying out slack quickly - Method 2



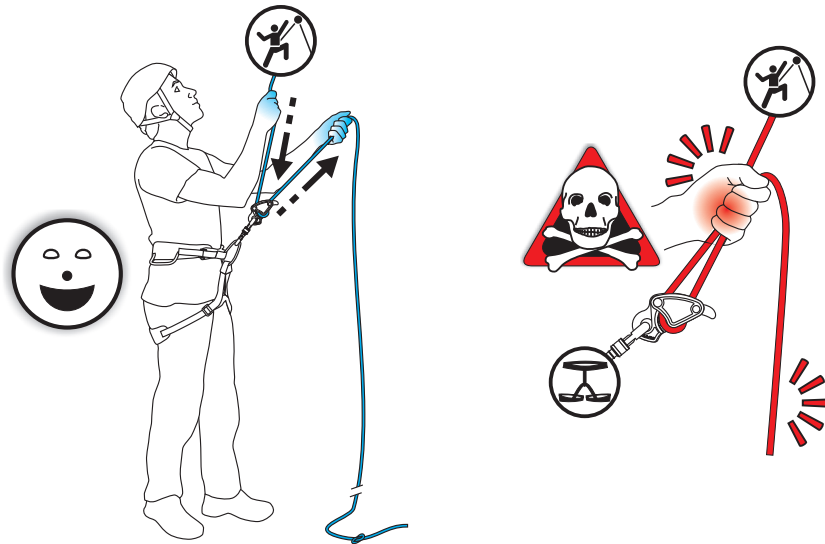
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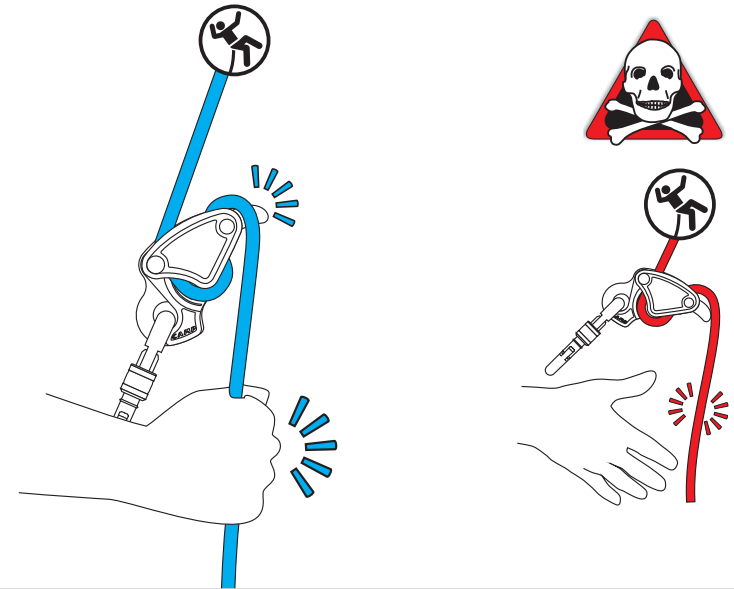


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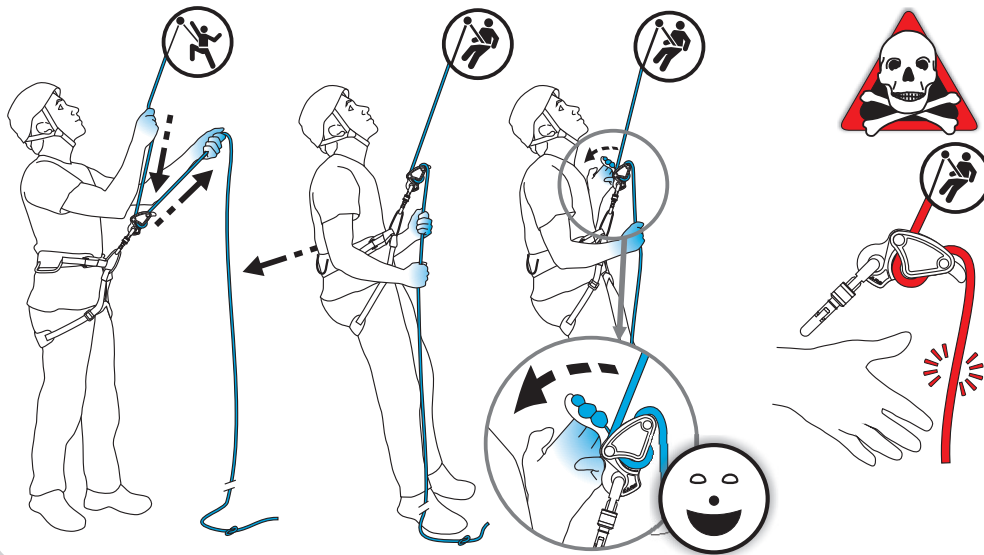
TAKING UP SLACK and TOP ROPE BELAYING



ARRESTING A FALL



LOWERING



INITIATING THE DESCENT WITH HIGH FRICTION

