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B-Safe[®]







Arresto
Retrieval Inertia Reels User Manual

B-SAFE ARRESTO RETRIEVAL INERTIA REELS

ARRESTO INSTRUCTIONS FOR USE

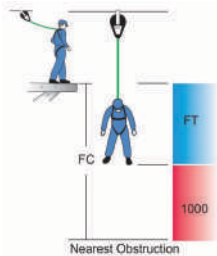
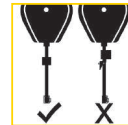
(Under Clause 1.6 of AS/NZS1891.3 1997 "Fall arrest devices complying with EN353-1, EN353-2 or EN360 are acceptable for use in Australia and New Zealand").

1. Retrieval inertia reels manufactured in accordance with EN 360:2002 provide AS/NZS 1891.3 compliant protection to the user when used in conjunction with a safety harness complying with AS/NZS1819.1 2007 and Anchors complying with AS/NZS5532 2013. Inertia reels with the recovery mechanism can be used to raise the fallen in an emergency. This device may only be used for its intended purpose. 
2. These instructions for use should be read and fully understood before use. Failing to do so may result in a danger to life. It is recommended that all users have accredited training in Working at Heights. 
3. The retrieval mechanism has only been approved for recovery purposes, not for lifting and lowering loads.
4. A Rescue Plan should form part of the use of fall protection equipment. Prolonged hanging in a harness while waiting for rescue could allow the onset of Suspension Intolerance.
5. Safety harnesses compliant with AS/NZS1891.1 2007 should be worn with the retrieval inertia reels (other harnesses etc. are not recommended). 
6. Retrieval inertia reels are for the protection of one person at a time during use - it may be used by more than one person, one after the other. A rescue plan taking into account all possible rescue scenarios during the work should form part of this use.
7. A suitable anchor point with sufficient load bearing capacity must be selected for the device (e.g. anchorage point in accordance with AS/NZS5532 2013; 15 kN). The device is fastened using karabiner/ hooks acceptable to AS/NZS1891.1 2007 or sling rope, the rope being pulled through the handle of the device and closed with a secured karabiner hook.
8. The retrieval inertia reel should be positioned as vertically as possible above the person's head so as to prevent the person from swinging and being subjected to swing fall collision. After fastening the device to the anchorage point, the end of the inertia reel (lifeline) must be fastened directly to the harness attachment point (D-ring, frontal Loops if rated for Fall Arrest or spreader bar) by using the small connector. 
9. Protection afforded to the user is established after fastening the inertia reel to a suitable anchorage point and connecting the fall arrest point on the full body harness.
10. The legibility of the product labeling must be checked before use to ensure servicing is up to date.
11. A functional test is to be carried out before each use by sharply pulling out the rope/webbing with a force of approximately 15 kg.
12. Retrieval inertia reels can be used for the safety of persons above bulk materials or similar substances into which they can sink (ie grain silos or the like) provided a stand by officer is on watch to ensure engulfment does not happen.
13. Once subjected to a fall, damaged or malfunctioning retrieval inertia reels (or if you have doubts concerning the safe state of the device) must be taken out of use immediately. It may only be returned to service after checking and written approval received from an authorised servicing agent.
14. Servicing requirements for inertia reels:
 - Normal environmental conditions without documented user external inspection device should be serviced every twelve months from the date placed into service.
 - Abnormal environmental conditions with six monthly documented user external inspection device can be serviced up to thirty six months.

All regular external inspections and servicing records must be documented and kept with the retrieval inertia reel. The effectiveness and durability of these devices depends on regular servicing.

FALL PREVENTION EQUIPMENT

- If a thread breaks, the cable is kinked, or the cable/webbing becomes abraded, worn or damaged in any way, the inertia reel must be removed from service and returned to the Authorised Service Agent for replacement of part.
- Where attachment point is above the user foot clearance can be calculated from the below Fall Clearance Calculation for inertia reels as per AS/NZS1891.4



Fall Clearances - Inertia Reel

$$FC = FT + 1000$$

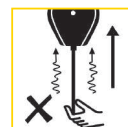
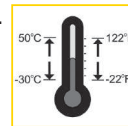
FC = Foot Clearance

FT = Fall Total (Free Fall, Activation and Deceleration to be 1.4m max) + 250mm
Harness Stretch and slide.

- AS/NZS1891.4 advises that this can be estimated at 700mm + stretch and slide
- 1000mm standard safety clearance figure

Note: When using the retrieval inertia reel on horizontal lifeline of rail the deflection of the cable/rail must also be taken into consideration when determining the foot clearance required (this information should be obtained from the installer of the Lifeline/Rail).

- Arresto** retrieval inertia reels can be used in the temperature range from -30° to +50° Celsius as per EN 360.
- The working load limit of **Arresto** retrieval inertia reels is 140 kg.
- Retrieval inertia reels should be protected against the effects of welding flames and sparks, fire, acids, caustic solutions and similar.
- No changes or modifications are permitted to the retrieval inertia reel. All repairs must be carried out by manufacturer or persons trained and authorised by the manufacturer.
- Retrieval inertia reels should only be used by persons who have received appropriate accredited training in Working at Heights and product usage. Users must not be impaired in any way (alcohol, drugs, medicines, heart or circulation problems).
- The ongoing service life of the inertia reel is determined during the regular inspection/service. This can be in excess of ten years, depending on the use to which it is subjected and the servicing regime.
- During the rescue operation, there must always be direct or indirect visual or communicative contact with the person to be rescued.
- After every use of the retrieval inertia reel, the device should be inspected by a height safety inspector.
- The retrieval inertia reel must not be used over edges.



CARE AND MAINTENANCE

- The cable/webbing lifeline should only be recoiled under tension. On no account should you fully pull out and release the lifeline, as the jolting impact of the small connector on the device can cause the return spring to break.
- For devices with a steel cable which are continuously exposed to the weather, we recommend lightly greasing the wire rope with acid-free oil or vaseline at regular intervals.
- The retractable webbing must only be cleaned with neutral PH soap suds and never with thinner or similar products.
- Inertia reels must be stored in a dry location free of dust and oil, if possible in the packaging supplied.



Attention, very important!

- Textile elements which have become wet during cleaning or use may only be left to dry naturally while extended, i.e. not in the vicinity of fire or heat sources.



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B-SAFE ARRESTO RETRIEVAL INERTIA REELS (CONT'D)

HORIZONTAL USE - ARRESTO RETRIEVAL INERTIA REELS WITH SUFFIX (SE)

Note: Retrieval inertia reels with the suffix (SE) have also been successfully tested for horizontal use simulating a fall over an edge. An edge radius of $r \geq 0.5 \text{ mm}$ was used for fall arresting devices with wire rope and webbing lanyards. **Arresto** retrieval inertia reels are suitable for use over similar edges such as rolled steel profiles, wooden beams or a covered, rounded parapet wall.

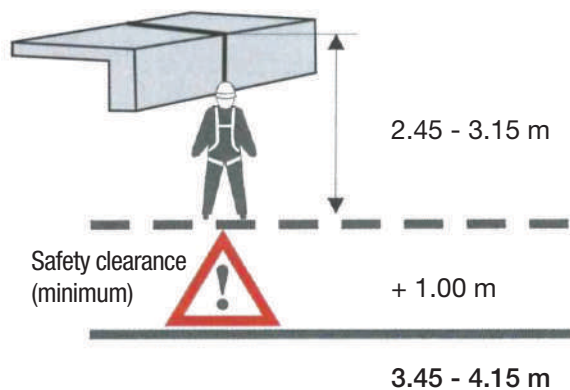


Retrieval inertia reels are successfully tested for falls over edges such as those of pliable (non-supported) trapezoidal sheeting or pre-cast concrete elements, or from in-situ concrete edges must observe the following when used horizontally or sloping where there is a risk of falling over an edge:

- If risk assessment reveals that the fall edge involved is particularly “sharp cutting” and/or “burred” (e.g. uncovered parapet walls or sharp concrete edge) and if devices with fasteners made from webbing are to be used:
 - Precautions must be taken so that a fall over the edge is precluded, or
 - An edge protection must be mounted before commencing work, or
 - The manufacturer must be contacted
- The point of attachment of the inertia reel must not be below the standing area (e.g. platform, flat roof) of the user.
- Swing fall must be risk assessed – considering side movement from the point of attachment to anchor (a maximum of 40 degrees from vertical).
- Note:** Consideration should be given to elimination of striking objects in the event of a fall.
- A rescue plan must be specified and practiced for the event of a fall over the edge.
- Note:** Retrieval inertia reels identified with this picture below are not suited for fall impacts over unprotected edges.



Rectangular fall over edges



Lateral fall over edges not recommended

S

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FALL PREVENTION EQUIPMENT

SERVICING

AS/NZS1891.4:2009 requires inertia reels (Type 2 and 3 Fall Arrest Devices) be serviced “by a height safety equipment inspector as recommended by the manufacturer to a maximum of five-yearly. Twelve-monthly service in the absence of such recommendations”. All inspections other than those by operator to be documented.

Arresto retrieval inertia reels can be serviced at three-yearly Intervals under certain conditions:

- It is documented at time of placing **Arresto** retrieval inertia reel into service that the environment is **not** extreme - considering
 - Exposure from servicing to elements
 - Temperature
 - Presence of dirt, dust wind
 - Moisture
 - Contaminants (welding, chemical)
- Visual inspections are undertaken every six months from date placed into service and are recorded.
- Failure to observe the two points above will void any warranty.

INERTIA REEL to EN 360/2002

TYPE -

SERIAL NO:

Date of Manufacture:

Item	Final Checking			
Break Adjustment:				
Web/Cable Diameter:				
Response of Pawls:				
Spring:				
Response Length 35kg				
Snap Hook:				
Response Length 35kg				
Catching Power:				
Web/Cable Retraction:				
Visual Inspection:				
Readability Label:				
Date:				
Purposes:				
Observed Defects:				

These user manual and operating instructions are part of the safety system and all users should be totally familiar with its contents. The user manual should be kept in a safe place and be freely available to users at all times.



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EQUIPMENT PREVENTION

www.bsafe.com.au

MANUFACTURED FOR BEAVER BRANDS

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Specifications and dimensions are subject to change without notice