

Fall Prevention and Rescue Equipment







/B₋Safe

Our comprehensive range of B-Safe fall prevention and rescue equipment is manufactured by Beaver Brands, who are specialists in the provision of quality, innovative products within the areas of materials handling, lifting and load restraint, height safety and fall prevention and personal protective equipment.

B-Safe products are:

- > Compliant to Australian Standards.
- > Designed with the users comfort in mind.
- > Easy to deploy.

To help make selection easier, B-Safe has focused on five key elements in height safety as outlined in this brochure.

These are:

Body Harnesses

Shock Absorbing Lanyards

Anchors

Fall Rescue

Education

Harness Selection Guide

The B-Safe harness range provides 136kg capacity when used with our Shock Absorbing Lanyards or Inertia Reels.

APPLICATION									
Fall Arrest / Riggers	Confined Space	Pole Work	Utilities	Tower Work					
BH01120	-	-	-	-					
BH01120K	-	-	-	-					
BH01151-ADJ	-	-	-	-					
BH02020-QB *	BH02020-QB *	-	-	-					
BH02030-QB *	BH02030-QB *	BH02030-QB *	-	-					
BH02020QB-EVOLVE	BH02020QB-EVOLVE	-	-	-					
BH02020DE-EVOLVE	BH02020DE-EVOLVE	-	-	-					
BH02030QB-EVOLVE	BH02030QB-EVOLVE	BH02030QB-EVOLVE	-	-					
BH02030DE-EVOLVE	BH02030DE-EVOLVE	BH02030DE-EVOLVE	-	-					
BH04055QB-EVOLVE	BH04055QB-EVOLVE	BH04055QB-EVOLVE	BH04055QB-EVOLVE	BH04055QB-EVOLVE					
BH04055DE-EVOLVE	BH04055DE-EVOLVE	BH04055DE-EVOLVE	BH04055DE-EVOLVE	BH04055DE-EVOLVE					
BH05200	BH05200	BH05200	BH05200	BH05200					

All Harnesses suitable for: Suspension Intolerance Fitment *All Harnesses are supplied with dorsal extensions:-

a) Have fall indicator

b) Should use maximum 1.6m Shock Absorbing Lanyard



Scan the above code with your phone for more information on the BSafe Evolve Harnesses.

Harness Usage Legend

All B-Safe Harnesses are designed and manufactured to exceed the requirements of AS/NZS 1891.1.

For your convenience icons have been derived, to readily identify each harness attachment points and its applications.





RESTRAINED FAL















ELEVATED WORK PLATFORM













Evolve Harnesses

RIGGER / CONFINED SPACE - BH02020QB-EVOLVE

Padded, Light Weight Confined Space Harness with Aluminium Quick Release Buckles, Trauma Straps and Carry Bag. Meets AS/NZS 1891.1.

Features

- > Light Weight with breathable padded Rear D Ring for extra comfort.
- > HD Aluminium Quick Release Buckles with connect indicator.
- > 22kN Rated Rear D Ring cranked for easy connection.
- > 22kN Rated Frontal D Ring.
- > Recovery loops on shoulders.
- > Fully adjustable straps.
- > Breathing pads to leg straps.
- > Suspension Trauma Straps included.
- > Convenient Carry Bag provided.

Applications and Usage

- > Fall Arrest Use with shock absorbing lanyard or inertia reel attached to Rear or Frontal D-ring.
- > Restraint Technique Use with a shock absorbing lanyard attached to Rear or Frontal D ring to restrict movement and access to fall situations.
- > Recovery & Rescue Use Rear or Frontal D Ring for limited rescue and recovery scenarios.
- > Confined Space Use recover loops with spreader bar for safe rescue.







EVOLVE Backpack

BA00024 - Trauma Strap Supplied

















POLE WORKER - BH02030QB-EVOLVE

Padded, Light Weight Pole Work Harness with Aluminium Quick Release Buckles, Trauma Straps and Carry Bag. Meets AS/NZS 1891.1.

Features

- > Light Weight with breathing padded Rear D Ring for extra comfort.
- > Waist Belt with Aluminium Side D Rings and breathable padded back support.
- > HD Aluminium Quick Release Buckles with connect indicator.
- > 22kN Rated Rear D Ring cranked for easy connection.
- > 22kN Rated Frontal D Ring.
- > Recovery loops on shoulders.
- > Fully adjustable straps.
- > Breathing pads to leg straps.
- > Suspension Trauma Straps included.
- > Convenient Carry Bag provided.

Applications and Usage

- > Fall Arrest Use with shock absorbing lanyard or inertia reel attached to Rear or Frontal D Ring.
- > Limited Free Fall Arrest Use with Pole Strap attached to side D Rings.
- > Restraint Technique Use with shock absorbing lanyard attached to Rear or Frontal D Ring to restrict movement and access to fall situations.
- > Recovery & Rescue Use Rear or Frontal D Ring for limited rescue and recovery scenarios.
- > Confined Space Use recover loops with spreader bar for safe rescue.







BA00024 - Trauma Strap Supplied



















EVOLVE Backpack



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UTILITIES / TOWER WORKER - BH04055QB-EVOLVE

Padded, Light Weight Utilities Harness with Aluminium Quick Release Buckles, Trauma Straps and Carry Bag. Meets AS/NZS 1891.1.

Features

- > Light Weight with breathing padded Rear D Ring for extra comfort.
- > Waist Belt with Aluminium Side D Rings and breathable padded back support.
- > Drop down Suspension seat and Aluminium D Rings for work positioning.
- > HD Aluminium Quick Release Buckles with connect indicator.
- > 22kN Rated Rear D Ring cranked for easy connection.
- > 22kN Rated Frontal D Ring.
- > Recovery loops on shoulders.
- > Fully adjustable straps.
- > Breathing pads to leg straps.
- > Suspension Trauma Straps included.
- > Convenient Carry Bag provided.

Applications and Usage

- > Fall Arrest Use with shock absorbing lanyard or inertia reel attached to Rear or Frontal D-ring.
- > Limited Free Fall Arrest Use with Pole Strap attached to side D Rings.
- > Work Positioning Use drop down seat in conjunction with Pole Strap attachment.
- > Restraint Technique Use with a shock absorbing lanyard attached to Rear or Frontal D ring to restrict movement and access to fall situations.
- > Recovery & Rescue Use Rear or Frontal D Ring for limited rescue and recovery scenarios.
- > Confined Space Use recover loops with spreader bar for safe rescue.





Quick Release Buckle

Note: Also available with a Di-Electric Push Through Buckle BH02020DE-EVOLVE



EVOLVE Backpack



BA00024 - Trauma Strap Supplied

































General Purpose Harnesses

Basic, general purpose harnesses are lightweight and comfortable with fully adjustable leg, shoulder and chest straps.

BH01120 - Basic Fall Arrest Harness

Applications and Usage

Fall Arrest – Use with a shock absorbing lanyard or inertia reel device attached to the Front Loops (together) or rear D ring.

Restraint Technique - Use with a shock absorbing lanyard to rear D ring or front loops (together) to limit access to fall situations.

Recovery & Rescue – Use both front loops connected together.



With rear and front attachment points



















Complete with 2m web shock absorbing lanyard permanently attached to the rear D ring.

Applications and Usage

Fall Arrest – Using the integrated shock absorbing lanyard on the rear D, an inertia reel device attached to the rear D or front loops (together) or a

separate lanyard attached to the front loops.

Restraint Technique – Use with a shock absorbing lanyard to rear D ring or front loops (together) to limit access to fall situations.

Recovery & Rescue - Using both front loops connected together.



With front attachment points













BH02020 - Confined Space Harness

Complete with rear attachment D ring with extension strap and fall arrest indicator.

Applications and Usage

Fall Arrest – Use with a shock absorbing lanyard or inertia reel device attached to the Front Loops (together), rear extension or rear D ring.











Restraint Technique - Use with a shock absorbing lanyard to rear D ring rear extension or front loops (together) to limit access to fall situations.

Recovery & Rescue - Using both front loops connected together.

Confined Space – Rescue & recovery.

Note: Also available with Quick Connect Buckle - BH02020-QB



With rear and front fall arrest attachment points







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Specialised Harnesses

BH05200 - Tower Workers Harness

Features

- > Padded back support thigh straps
- > Tool Loops
- > Fall arrest rated attachment D incorporated onto long extension strap for ease of connection
- > Side D rings. Front fall arrest D rings
- > Confined space recovery loops
- > Fully adjustable thigh, shoulder, and waist straps























Applications and Usage

Abseiling - Use the front Fall Arrest D rings.

Fall Arrest - Use with a shock absorbing lanyard or inertia reel device attached to the front D rings or rear extension.

Restraint Technique – Use with a shock absorbing lanyard to front or rear attachment points.

Work Positioning – Use with pole strap attached to both side D rings.

Confined Space - Work in conjunction with shoulder loops and spreader bar.

Available with Stainless Steel fittings on request Also available in fire proof, cut resistant Nomex/Kevlar webbing.



BH01120K – Welding Harness with Kevlar Straps

Full fire resistant harness manufactured from a special webbing which consists of 60% Nomex, 40% Kevlar. The Nomex outer ensures the webbing is fully fire retardant while the Kevlar inner fibres ensure that the webbing has excellent strength properties. The braking strength of the web exceeds 26kN or 2.6 tonnes. This web passes the NFPA 1981 heat and flame tests.



ELEVATED WORK CLIMBING PLATFORM LADDER















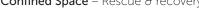
Applications and Usage

Ideal for use in Welding and other flame / high heat applications.

Fall Arrest – Use with a shock absorbing lanyard or inertia reel device attached to the Front Loops (together) or rear D ring.

Restraint Technique – Use with an shock absorbing lanyard to rear D ring or front loops (together) to limit access to fall situations.

Recovery & Rescue – Using both front loops connected together.









Height Safety Harness Kits

BK061015 Roofers Kit

Kit conveniently enclosed in a rugged back pack for safe access using both hands.

Kit Components:

- > BH01120 Harness
- > BL01112 2m Shock Absorbing Lanyard
- > BS010115A Rope and Grab
- > BP03102 Attachment Strap
- > BSK0001 Karabiner





BK080011 Miners Kit

Kit Components:

- > BA0351 Bag
- > BH02030 Harness with reflective tape
- > BL02402A Adjustable Rope Lanyard
- > BSK002TCx2 Karabiner
- > BP03001.5 Tie Off Adaptor
- > BL07662 Shock Absorbing Lanyard



TRP05A2B Confined Spaces Tripod Kit

Kit Components:

- > TRP05A2 Bare Tripod
- > Self locking 4:1 Rope Kit 375kg
- > BH02020 Confined Spaces Harness
- > Standby Person Protection:
 - BH01120 Fall Arrest Harness
 - BH05332.5 Retractable Lanyard

Custom Harnesses & Accessories

Custom Branded Harness

B-safe body harnesses, complete with your company logo and corporate colours can also be manufactured.

- > Promote your brand
- > ensure better traceability

Minimum order: 50





Shock Absorbing Lanyards

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Single Leg Lanyards

Product Code	Description	Length
BL01112	45mm Polyester Webbing with 2 x snap hooks	2m
BL01112-ADJ	45mm Polyester Webbing with adjustable lanyard & 2 x snap hooks	2m
BL01122	45mm Polyester Webbing with 1 x snap hook & 1 x scaffold hook	2m
BL01122-ADJ	45mm Polyester Webbing with adjustable lanyard & 1 x snap hook & 1 x scaffold hook	2m
BL02112	11mm Kernmantle Rope with 2 x snap hooks	2m
BL02122	11mm Kernmantle Rope with 1 x snap hooks & 1 x scaffold hook	2m
BL03112	PVC Coated Wire with 2 x snap hooks	2m
BL03122	PVC Coated Wire with 1 x snap hooks & 1 x scaffold hook	2m

Note: other configurations $\boldsymbol{\vartheta}$ high capacity lanyards are also available on request



Twin Leg Webbing Lanyards

Product Code	Description	Length
BL071112	Elasticised Tubular Webbing with 3 x snap hooks	2m
BL07222	Elasticised Tubular Webbing with 1 snap hook & 2 scaffold hooks Note:- Also available in a high capacity version with 155kg shock absorber.	2m
BL02402A	11mm Kermantle Rope with 2 x Triple Action Karabiner	2m

Note: other configurations & high capacity lanyards are also available on request



Pole Straps

BP02112 – Adjustable Pole Strap

2 metres, with wear sleeve and double action hooks.





Shock Absorbing Lanyards



Fall Arrest Blocks

ACB 1.8 Ikar Inertia Reel NEW

Length: 1.8 metres

Housing design: Aluminium

Connection device: Webbing strap (Dyneema)

Lightweight, with a swivel head, 140mm snap hook and robust aluminium housing, the ACB 1.8 has been specifically developed as an inertia reel with webbing to secure a person in mobile baskets (MEWP's).

- > Designed to provide less than 3kN in the case of a fall
- > Capable of sustaining fall loads over double edges as well as being able to be used in conjunction with a dorsal extension to the harness of max 400mm in length
- > Meets EN360:2002.
- > Accepted by AS/NZS 1891.3 cl 1.6 acknowledges an EN360 listing

Type Order No.	Connecting Device	Housing		Dimensions mm
ACB 1.8	1.8m web	Aluminium	0.96kg	240 x 84 x 61

Ikar Robusto Inertia Reel

Length: 12-42 metres

Housing design: Plastic or aluminium Connective device: Webbing strap or

galvanized steel rope

Sturdy, lightweight, low maintenance, self retracting inertia reel with either web straps or galvanised steel rope.

EN compliant - AS/NZS 1891.3 cl 1.6 acknowledges an EN360 listing.



Product Code	Connecting Device	Housing	Weight (kg)	Dimensions (mm)
HPS 12	12.00 m Steel Rope	Plastic	4.6	470 x 190 x 114
H 24	24.00 m Steel Rope	Aluminium	13.5	630 x 275 x 110
H 33	33.00 m Steel Rope	Aluminium	18.0	640 x 320 x 120
H 42	42.00 m Steel Rope	Aluminium	27.2	750 x 370 x 120

Note: Other sizes also available

Ikar Flexible Inertia Reel

Length: 3.5 metres - 15 metres Housing design: Plastic or aluminium Connective device: Webbing strap or

galvanized steel rope

Sturdy, low-maintenance heightsafety device with webbing strap and galvanized steel rope. The rotational hook prevents the strap or rope from twisting.

> AS/NZS 1891.3 cl 1.6 acknowledges an EN360 listing.

Type Order No.	Connecting Device	Housing	Weight	Dimensions mm
HWPB 3,5	3.50 m Web	Plastic	1.2 kg	326 x 104 x 78
HWPB 7*	7.00 m Web	Plastic	1.8 kg	300 x 145 x 80
HWPB 15*	15.00 m Web	Plastic	4.8 kg	400 x 195 x 95
HWS 6*	6.00 m Steel rope	Aluminium	3.0 kg	400 x 145 x 80
HWS 9*	9.00 m Steel rope	Aluminium	3.7 kg	455 x 160 x 85

Karabiners and Hooks

BSK0001 - Screwgate Steel Karabiner

Minimum breaking load 23kN Gate Opening: 16mm



c/w Retaining Pin Minimum breaking load 35kN Gate Opening: 26mm



Anchors

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Anchor Points

Weld-On Anchor Model Type: BSC Available in 15 & 21kN

- > Grade 100 quenched and tempered steel
- > Offers full WLL at all angles
- > Easily welded into required position
- > 100% MCI

Applications:

- > Mining
- > Offshore exploration
- > Road or rail transport
- > Maritime associated industries.



Product Code	Capacity tonnes	A mm	B mm	C mm	D mm	E mm	F mm	G mm	l mm	M mm	Weld mm HV+aL	Weight kg
BSC5024	1.5	38	79	66	14	13.5	32	25	31	2	HV 5+3	0.40
BSC5026	2.5	45	92.5	77	16	13.5	36	27	37	3.5	HV 7+3	0.60

Bolt-On, Rotating Anchor Model Type: BSC Capacity from 15 & 21kN

- > Grade 100 quenched and tempered steel
- > Offers full WLL at all angles
- > 100% MCI anglews
- > Easily attached

Applications:

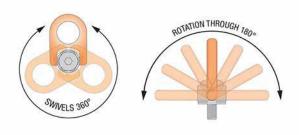
- > Road and Rail Transport
- > Mining
- > Offshore Exploration, Heavy Industry and Construction.



Product Code	Capacity tonnes	Tread Size mm		L mm			C mm			H mm						Z mm	Weight kg
BSC5025	1.5	M16	150	33	35.6	11.2	60	35.3	33.5	80.5	60.5	15.6	31.2	8.03	5	25.4	0.4
BSC5027	2.5	M20	300	33	61	19.1	82.6	60.2	57.2	137	103	26.7	53.3	15.9	9.4	44.5	1.8

Note: UNC and BSF thread sizes available on request.

Installation of permanent anchors should be undertaken by personnel competent in working at height and who hold a trade/qualification relative to the installation type.





Anchors



Temporary Anchors

BSM0045 – Beam Trolley

Capacity: 1 person (15kN rated)

76mm – 255mm Rolling capabilities for overhead applications.

BSM0035B - Sliding Beam Anchor

76mm - 260mm

Suitable for sliding capabilities for overhead applications.

Capacity: 1 person (15kN rated)

BP03002 – Tie Off Adaptor – 2 metres

Capacity: 1 person (15kN rated)

BP03001.5 – Tie Off Adaptor – 1.5 metres

Capacity: 1 person (15kN rated)



Temporary Life Lines

BK040120 Webbing Temporary Life Line

Suitable for 1 person. 20m length

- > UV stabilised heavy duty webbing tensioned by a ratchet
- > Lightweight and easy to handle
- > Ideal for general construction and maintenance.

BK030030 – 30m length Rope Temporary Life Line

Suitable for 2 persons*. 30m length

- > Easily tensioned
- > Rugged yet lightweight
- > Easy to install
- > Suitable for general construction and maintenance.
- * Conditions apply. Refer to technical data sheet.





Suitable for 2 persons*. 30m length

Fall Rescue

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Confined Space Kits and Accessories



TRP05A2 Bare Tripod

- > 2.35m high
- > Fully adjustable legs
- > Alloy construction
- > Retained leg pins
- > Pulley wheel in head
- > Capacity 750kg or 2 people
- > Rugged bag with wheels



TRP05A2B - Tripod Kit

- > TRP05A2 Bare Tripod
- > Self locking 4:1 Rope Kit 375kg Capacity
- > BH02020 Confined Spaces Harness
- > Standby Person Protection
 - BH01120 Fall Arrest Harness
 - BH05332.5 Retractable Lanyard



TRP05A2C - Tripod Kit

- > TRP05A2 Bare Tripod
- > 3 way Recovery Winch 136kg Capacity
- > BH02030PAD Confined Spaces Harness
- > Standby Person Protection
 - BH01120 Fall Arrest Harness -
 - BH05332.5 Retractable Lanyard







Fall Rescue



Automatic Descenders

BFMRD820 – Emergency Descender – 20 metres

Rope friction descender on 11mm Blue kernmantle rope – rescue kit for elevated work platforms, pole top rescue towers constructions cranes and forklifts,



Automatic Rescue Descenders

Rope friction descender on Kar-core rope 10mm (DINEN1891)

Capacity: 100kg

Max. descent height: 150m

Max. lifting height: 75m

Note: Available in varying lengths.

Product Code	Description		
BF42-ABSWH1015	Automatic Rescue Descender - 15 metre length	14	
BF42-ABSWH1030	Automatic Rescue Descender - 30 metre length	1	
BF42-ABSWH1060	Automatic Rescue Descender - 60 metre length	40	
		A Comment	



Rescue pole being used to connect to hook on rear of harness.

BSC0045 - Rescue Pole

2.4 metres, extends to 3.8 metres.



BA00024 - Suspension Trauma Strap

Suspension Trauma Straps are only to be used in conjunction with a full body harness and have been developed to extend the amount of time a person may be suspended after a fall, before the onset of suspension trauma.





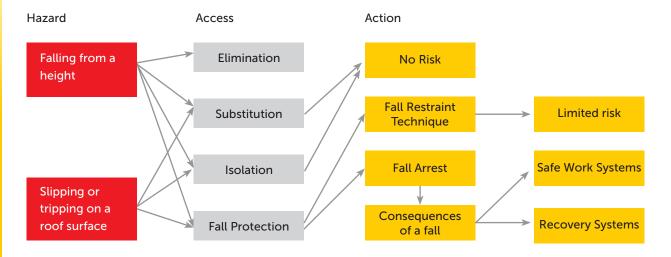
Education & Training

/B-Safe

Risk Assessment Procedures

Risk assessments should be conducted prior to any Work at Height or Confined Space Work being carried out to identify hazards that exist and the risks they pose. AS/NZS1891.4:2009 contains a Hierarchy of Control which provides an ideal platform for development of risk assessments.

Sample Risk Assessment Procedure



This table is a sample only as many other hazard factors can come into account. Other hazards may include, but are not limited to: Nature of the work, surface materials, fragile roofing material, personal training levels, competency, weather conditions, surface conditions, etc. Reference should be made to AS/NZS1891.4:2009.

General Technology used in Fall Prevention

Restraint Technique

Control of a person's movement by means of a combination of a harness, and a shock absorbing lanyard connected to an anchor point that will physically prevent the person from reaching a position at which there is a risk of a free fall.





Restrained Fall

A fall or the arrest of a fall where the person suffering the fall is partially restrained by a restraining device such as a pole strap under tension.



Limited Free Fall

A fall or the arrest of a fall where the free fall distance prior to the system taking the load does not exceed 600mm.



Free Fall Arrest

A fall or the arrest of a fall where the fall distance prior to the fall arrest system taking any load exceeds 600mm either vertically or on a slope on which is not possible to walk without assistance of a handrail or hand line. The maximum free fall distance permitted with an shock absorbing lanyard is 2m. (Refer notes on fall clearances).





Education & Training



Technical Training

Nationally recognised competency based training courses are offered by Robertsons to customers who wish to have their staff trained in height safety. The courses incorporate both theory and practical demonstrations and include:

- > Height Safety Operator 1 day
- > Breathing Apparatus 1 Day
- > Confined Spaces 2 Days
- > Industrial Rescue 2 Days
- > Height Safety Supervisor 3 Days
- > Height Safety Management 5 Days

Short Product Demonstrations

Together with B-Safe we can also provide a short two hour presentation.

The 120min presentation includes fitting a harness, selection of equipment, user inspections and a rescue demonstration based on the 5 Basic Elements of Height Safety:

Body Harness

Shock Absorbing Lanyard

Anchor

Fall Rescue and

Education









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