Be Safe.. Think

B-Safe®

BEAVER®

BK040020 & BK040120

WEBBING TEMPORARY HORIZONTAL LIFELINE USER MANUAL

A

ANCHORS

WAHA
WORKING AT HEIGHT ASSOCIATION
REACHING NEW LEVELS IN SAFETY

bsi. ISO 9001 Quality Management

WARNING **These products are part of a personal fall prevention system; users must follow the manufacturer's instructions for each component of the system. These instructions must be provided to the user of the equipment. The user must read and understand these instructions before using the equipment. The equipment must be maintained in accordance with the instructions for each component. Alterations, misuse or failure to follow these instructions, may result in serious injury.**

B-SAFE WEBBING HORIZONTAL LIFE LINE SYSTEM

The Webbing Horizontal Life Line System is a flexible webbing temporary life line for single person use only. It can be erected over a maximum 15m span without intermediate supports. The system can run over a 18m length providing you have intermediate supports and sufficient ground clearance to operate safely.

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TRAINING - GENERAL REQUIREMENTS

All users of height safety equipment require training in its selection and use.

The information contained within this manual does not constitute or replace the necessary training. Users should be competent in the use of the equipment prior to commencement of any task that requires its use.

General Requirements

- Care must be taken to position the lifeline at a level that will result in the minimum free fall distance being achieved.
- The horizontal lifeline should be as close as practically possible to vertically above the place of work to reduce the likelihood of swing or pendulum effect.
- 15m is the maximum span recommended, for spans of greater than 15m, intermediate supports must be used. The longer the span is, the greater the momentary stretch of the webbing at the instance of falling.
- When fall clearances are minimal then intermediate supports can assist in being able to operate the lifeline safely.
- For use by one (1) person only.
- When tightening lifeline, do not attempt to over tighten.
- Do not try to wind too much webbing onto ratchet tensioner this will cause it to jam and not allow it to lock.
- Before use check all components.
- Do not alter or mis-use the lifeline.
- If system has been shock loaded due to a fall arrest occurring, remove from service immediately and destroy or return to supplier for inspection,
- Inspect the webbing closely after every use, and before the next use, look for damage to the fibres, the both externally and internally.
- The lifeline requires an annual inspection and certification by a height safety inspector.
- Never lubricate the tensioner - wash with clean water and allow to dry naturally in the shade.
- Do not use the lifeline as an anchor point for abseiling.
- The system should be installed as horizontally as possible or within 5 degrees of horizontal
- All equipment used with the horizontal lifeline must comply with AS/NZS1891.1
- If an intermediate support is used then Twin Leg lanyard should be used to pass the intermediate tie off point, this ensures the users are connected to the lifeline at all times.
- Never expose any component on the horizontal lifeline to any chemical, corrosive or heat source.
- Only people that have received competency based training should use this system.
- In a fall arrest application, each intermediate support must be able to withstand 12kN in the direct of the force (the direction the webbing will pull in the case of a fall).

USAGE INSTRUCTIONS

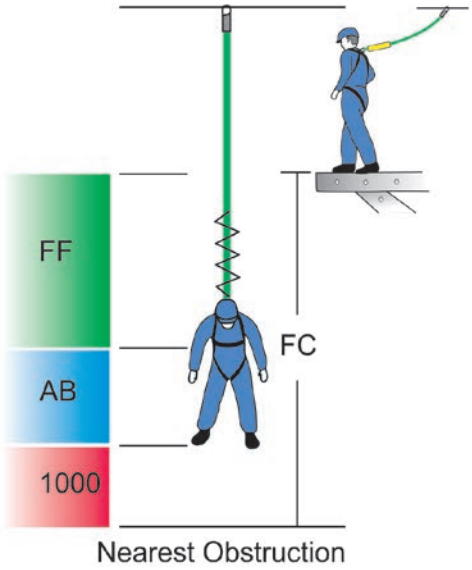
Prior to commencement of installation, a competent person shall assess:

- Anchorage Point Suitability - must be installed on all anchorages as specified in the table pg 5
- Fall Clearance - It is essential that there be adequate clearance under the system so that in the event of a fall the user of the system will not strike the ground - For additional details please refer to AS/NZS 1891.4 section 7.

Note: Fall Clearances when using Horizontal Lifeline and Energy Absorbing Lanyard

- FC = V in Webbing + FF + AB + 1000
- FC = Foot Clearance
  V in Webbing is a function of span - for approximated values see table on pg 5
- FF = Free Fall (Maximum allowed 2000mm)
- Add 250mm for Harness Slippage
- AB = Energy Absorber Extension

AS/NZS 1891.4 advises that this can be estimated using FF which reduces FC accordingly



FF	AB
600 mm	300 mm
1000 mm	500 mm
1500 mm	600 mm
2000 mm	900 mm

1000mm Standard Safety Clearance

FALL CLEARANCES

To keep fall clearances to a minimum, it is best practice to follow:

- Keep span lengths as short as possible, which decreases the webbing deflection in a fall arrest situation
- Use fall restraint technique where possible - energy absorbing lanyard used from the lifeline will not allow the person to reach the edge where fall can occur
- Ensure that lifeline tension is maintained at all times. It may be necessary to re-tighten lifeline as small loads applied to the webbing will allow the webbing to stretch

End Anchorage Forces for B-Safe Webbing Horizontal Life Lines.

Design Ultimate Anchorage Force kN + Static Line Deflection (metres) Longest Single Span 15 Metres

Overall Line Length (m)	One Person per Span	Expected Line Deflection (mm)	Overall Line Length (m)	One Person per Span	Expected Line Deflection (mm)
2.38 m	13.30 kN	425 mm	8.680 m	13.10kN	1.190 m
3.28 m	13.40 kN	540 mm	9.580 m	11.90kN	1.280 m
4.48 m	13.60 kN	600 mm	10.780 m	11.60kN	1.490m
5.38 m	14.00 kN	770 mm	11.69 m	5.60kN	1.655 m
6.58 m	13.60 kN	890 mm	12.88 m	5.55kN	1.955 m
7.48 m	12.90 kN	1.020 mm	13.78 m	5.80kN	2.215 m
			15 m*	5.80kN	2.5 m*

The above table is to be used as a guide only to B-Safe line end tensions at operating lengths. The above end load tensions have been developed through static testing and could be considered as a minimum load when a 6kN force is applied to the webbing safety line.

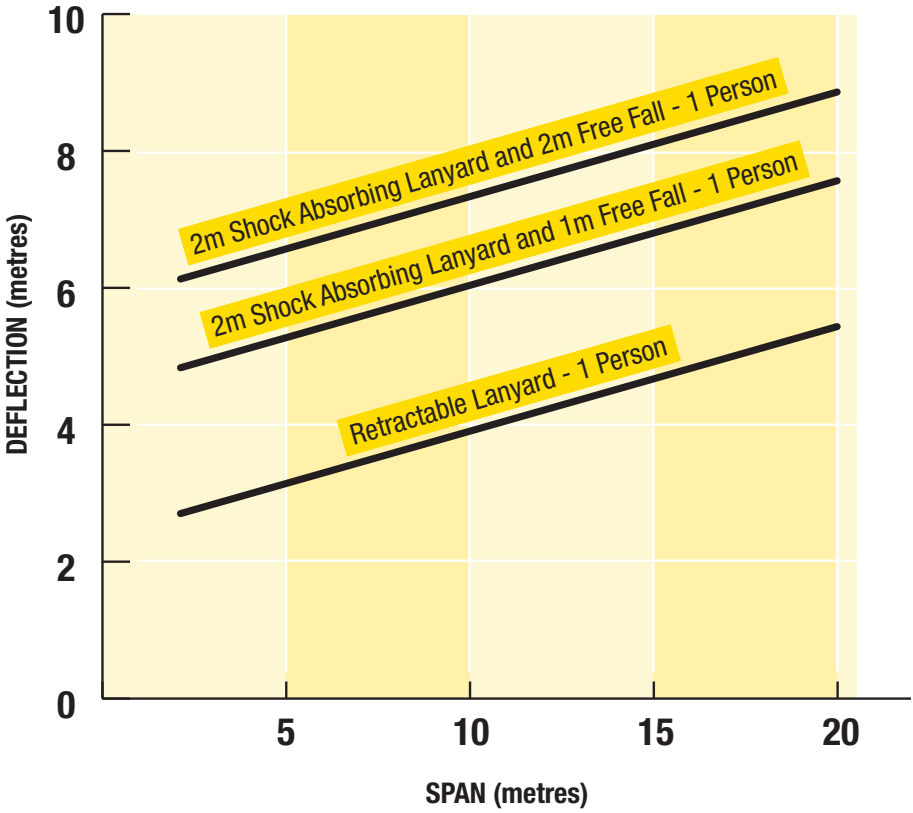
B-SAFE WEBBING SAFETY LINE TERMINATION

Specifications for the Webbing Safety Line Terminations shall meet the requirements of line terminations, fittings including end anchorages being able to resist a static force of at least twice the maximum fall arrest force in the line as specified in AS1891.2.

End anchorages shall be designed to resist and to transfer to the structure/anchorage the minimum break force along the axis of the line, either specified or calculated for that particular configuration in which the line is expected to be used and a force of 12kN acting at right angles to the axis of the line in the direction of loading if there was a fall close to the anchoring point.

GRAPH OF APPROXIMATE FOOT CLEARANCES

(includes allowance for dynamic deflection)



FITTING INSTRUCTIONS

- The end anchor and attachment points should be a rigid structure which has the load bearing capacity as designated in the table.
- Wrap attachment straps around the structure and use an offset D karabiner to connect the lifeline to the strap. Make sure the attachment strap has no loose ends and that there are no sharp unprotected edges affecting the attachment strap.
- When the assembly is at the required location remove the short fixed strap attached to the safety line bag and connect to the anchor point.
- Unpack the adjustable line, pull through the adjuster and connect to the anchorage point ensuring that the webbing line is not twisted.
- When both ends are connected pull the slack webbing through the ratchet.
- At this point the ratchet should be used to tension the line, this is done by pumping the ratchet handle which will tighten the load, i.e. the webbing line.

Note: There is no system in the line to indicate how much tension is in the system. It is recommended to use one hand only when using the ratchet to tension the safety line and it is recommended that the user should have the line taut but not over exert this when carrying out this operation.

- The webbing should have a minimum of 1.5 times the complete revolution of the tension bar in the ratchet. It is recommended that you do not over fill the ratchet around the tension bar, if this happens the webbing may jam which will require the user to release the webbing and start again.
- When tensioning is complete the ratchet handle should be pushed into the closed position and locked.
- Pack away surplus webbing in the webbing bag and close the flap on the pack.

Special Note: Ensure end attachments are set as high possible above the user's rear fall arrest "D" on his harness.

Releasing Tension and Removal of Webbing Safety Line

- Pull back release handle and open ratchet handle to unlock position which will release the load on the webbing safety line.
- After removing the webbing safety line from the end fittings roll the webbing up and fold all parts back into the webbing bag including the instruction sheet.

Note: A neatly packaged bag will assist when next setting up the webbing safety line and instructions for the use of this product should always be kept with the bag ensuring all users are able to review the correct method of usage.

Please read the following important points

- Thoroughly inspect all components before and after use.
- If in doubt do not use; refer to supervisor, supplier, and/or manufacturer.
- Do not use any additional hardware to induce higher line tensions.
- Ensure harnesses/lanyard adjusters etc, are free from sharp edges or burrs.
- If using attachment straps as anchorage points ensure a sleeve is positioned to prevent any abrasion or cutting of the strap.
- Installers must check to ensure there are no obstructions below this safety line which may come in contact with a person during a fall.
- Before installing B-Safe Horizontal Life Line, check minimum clearances below level of anchorage.

INSPECTION

- Keeping this instruction manual with the horizontal webbing safety line to aid in future use and inspection.
- This equipment must be visually examined by a competent person before any use and the following list should assist in the examination, any deficiencies should be reported to the supervisor and the safety line not used.
- **Webbing** – check for cuts, edge wear, tears, burns, abrasions, chemical degradation. Any of these problems should be reported and the line removed from service.
- **Stitching** – Look for broken, loose or worn stitching/threads.
- **Metal Components** – Look for signs of damage/distortion and ensure all moving parts and springs are fully operational.
- The B-Safe Safety line when subjected to any fall should immediately be removed from service.

Harness and Lanyard

- It is recommended that the B-Safe harness and lanyards be used by the operative when connecting to the B-Safe webbing horizontal Safety Line System.
- When fitting the harness and lanyard, car should be taken to read the instructions before use and the use should have ensured he has an understanding of how to wear and adjust the harness to ensure correct connection between the fall arrest “D” ring on the harness and the safety line. Always check that the lanyard hook is correctly connected to the rear fall arrest “D”.

Maintenance, Servicing & Storage

Please note that your life may depend upon the continued efficiency and durability of this equipment and that an inspection prior to each use is vital in preventing the use of faulty equipment.

BEFORE & AFTER USE CHECK

- Inspect tensioning mechanism, is operating and clean and free from obstacles
- Inspect rope for any abrasion, cuts, burns, chemical attack or weather deterioration
- Inspect attachment straps for any abrasion, cuts, burns chemical attack or weather deterioration
- Inspect karabiners, hooks and catches for correct operation, self-closing and locking.

Once system is installed check all components again for correct loading arrangement.

Storage

- When not in use store the temporary horizontal lifeline in a dry, clean and well ventilated area away from extreme conditions, chemicals and corrosives.
- Never store in direct sunlight.
- If the product is wet, allow to dry fully before using or replacing into storage.
- Never apply a direct heat source to the rope.

Cleaning

- Clean the temporary lifeline with water and a mild detergent (bleach free and neutral) **DO NOT USE ANY ABRASIVE MATERIAL.**

Note:

- Before using this B-Safe Horizontal Safety Line, operators should read and understand the limitations of this system and if training in its use is required then the user should contact the supplier or B-Safe for assistance.

6 MONTHLY INSPECTION CERTIFICATE

Date of Inspection	Comments	Signature of Competent Person	Certificate Number

Please Note: That you should adhere to inspection & maintenance requirements for harnesses & lanyards etc, refer to Manufacturer's Instructions.

NOTES

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BEAVER BRANDS

Beaver Brands - Producers of B-Safe Products that are manufactured to Australian Standard AS/NZS 1891.1:2007

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