SpanSet®

01

Height Safety
Lifting
Load Control
Safety Management

ERGO LANYARD RANGE

Technical Data Sheet

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Webbing	Colourfast polyester high tensile webbing
	Heat set for lower friction co-efficitent = longer wear
	Light (UV) degradation certified to AS/NZS 1891.1
	Minimum tensile strength 30KN
	Lay flat – non-roping
Tear Webbing Energy Absorber	Polyester tear web cutter thread design
	Clear heat shrink for ease of inspection of stitch patterns for verification
	Activates between 2–6kN
	Fitted with back up strap
Rope	Kernmantle construction innercore contained in an outer sheath
	Rescue standard to AS4142.3
	Internal marker tape for traceability
	Contrasting core and sheath for ease of inspection
	MBS 30kN
	All terminations sewn with polyester thread, heat shrunk and thimble eye
Wire Rope	6mm PVC coated galvanised
	Double swaged each end
	Thimble eye
Sewing	High tensile polyester lightfast, UV resistant thread
	Load bearing seams sewn on computerised lock stitch machines for consistency and security
	Contrasting colour for ease of inspection and compliance
	Non load bearing patterns (labels, web and fold backs, decorative...) flat manual sew

Labels	UV resistant PVC underneath heat shrink Thermal transfer printing
Testing	5-stage inspection process during manufacture 100% visual inspection Type tested to dynamic 3.8m at 100kg drop test Type tested 15kN static tensile strength—held for 3 minutes ASNZS 1891.1-2007

Fall Clearance Allowances

Length of lanyard =	1800mm	+
Height of operator =	1800mm	+
Residual clearance	1000mm	
	= 4600mm	**+**
Sub-total =	**Plus the following:**	
	Energy Absorber	
Fall distance +	**Extension**	
	300mm	
600mm	500mm	
1000mm	600mm	
1500mm	900mm	
2000mm		
	= Fall clearance allowance	
TOTAL		

Fitting Specifications

Code	Description	Gate Type	Gate Opening (mm)	Strength (kN)	Material
H1	Safety Snap Hook	Double Action	23.0	25	Alloy Steel
H1HD	Heavy Duty Snap Hook—16kN gate	Double Action	22.5	25	Alloy Steel
H3	Safety Scaffold Hook	Double Action	51.0	23	Alloy Steel
H3L	Large Scaffold Hook	Double Action	64.0	23	Alloy Steel
H3HD	Heavey Duty Scaffold Hook—16kN gate	Double Action	65.0	23	Alloy Steel
K4	Captive Pin Karabiner—16kN gate	Triple Action	24.0	30	Alloy Steel
K10	Fixed Eye Karabiner	Triple Action	20.0	25	Alloy Steel
N-3050	Tie Back Hook	Double Action	21.0	23	Alloy Steel

K2

H1

K10

K4

H1HD

N-3050

H3L

H3HD

H3

Assembly Descriptions and Weights

ERGO Webbing Lanyards

Code	Type	Material	Length (m)	Fitting at Shock Absorber	Fitting at Free End(s)	Weight (g)	Capacity (kg)	Certification
3051	Shock Absorber	Webbing	0.47	K2 Karabiner	K2 Karabiner	700	100	AS/NZS 1891.1
3053	Single Leg	Webbing	1.80	H1 Snap Hook	H1 Snap Hook	945	100	AS/NZS 1891.1
3053 A	Single Leg Adjustable	Webbing	0.735–1.80	H1 Snap Hook	H1 Snap Hook	1040	100	AS/NZS 1891.1
3053 BH HD	Singal Leg Back Hook	Webbing	1.80	H1HD Snap Hook	N-3050 Tie Back Hook	1190	140	AS/NZS 1891.1
3053 HD	Single Leg	Webbing	1.80	H1HD Snap Hook	H1HD Snap Hook	1087	140	AS/NZS 1891.1
3053 K4	Single Leg	Webbing	1.80	K4 Karabiner	K4 Karabiner	837	100	AS/NZS 1891.1
3054	Single Leg	Webbing	1.20	H1 Snap Hook	H1 Snap Hook	903	100	AS/NZS 1891.1
3054 K4	Single Leg	Webbing	1.20	K4 Karabiner	K4 Karabiner	798	100	AS/NZS 1891.1
3055	Single Leg	Webbing	1.80	H1 Snap Hook	H3 Scaffold Hook	1095	100	AS/NZS 1891.1
3055 A	Single Leg Adjustable	Webbing	0.808–1.80	H1 Snap Hook	H3 Scaffold Hook	1190	100	AS/NZS 1891.1
3055 HD	Single Leg	Webbing	1.80	H1HD Snap Hook	H3HD Scaffold Hook	1539	140	AS/NZS 1891.1
3055 K4	Single Leg	Webbing	1.80	K4 Karabiner	H3 Scaffold Hook	1041	100	AS/NZS 1891.1
3055 L	Single Leg	Webbing	1.80	H1 Snap Hook	H3 Scaffold Hook	1283	100	AS/NZS 1891.1
3058	Twin Leg	Webbing	1.80	H1 Snap Hook	H3 Scaffold Hook	1733	100	AS/NZS 1891.1
3058 A	Twin Leg Adjustable	Webbing	0.808–1.80	H1 Snap Hook	H3 Scaffold Hook	1923	100	AS/NZS 1891.1
3058 HD	Twin Leg	Webbing	1.80	H1HD Snap Hook	H3HD Scaffold Hook	2550	140	AS/NZS 1891.1
3058 K4	Twin Leg	Webbing	1.80	K4 Karabiner	K4 Karabiner	1679	100	AS/NZS 1891.1
3058L	Twin Leg	Webbing	1.80	H1 Snap Hook	H3 Scaffold Hook	2105	100	AS/NZS 1891.1

ERGO Elastic Lanyards

Code	Type	Material	Length (m)	Fitting at Shock Absorber	Fitting at Free End(s)	Weight (g)	Capacity (kg)	Certification
3053E	Single leg	Webbing	1.40–1.80	H1 Snap Hook	H1 Snap Hook	940	100	AS/NZS 1891.1
3053E HD	Single leg	Webbing	1.40–1.80	H1HD Snap Hook	H1HD Snap Hook	1082	140	AS/NZS 1891.1
3053E K4	Single leg	Webbing	1.40–1.80	K4 Karabiner	K4 Karabiner	837	100	AS/NZS 1891.1
3053E K10	Single leg	Webbing	1.40–1.80	K10Alu Karabiner	K10Alu Snap Hook	952	100	AS/NZS 1891.1
3055E	Single leg	Webbing	1.40–1.80	H1 Snap Hook	H3 Scaffold Hook	1090	100	AS/NZS 1891.1
3055E HD	Single leg	Webbing	1.40–1.80	H1HD Snap Hook	H3HD Scaffold Hook	1534	140	AS/NZS 1891.1
3058E	Twin leg	Webbing	1.40–1.80	H1 Snap Hook	H3 Scaffold Hook	1723	100	AS/NZS 1891.1
3058E HD	Twin leg	Webbing	1.40–1.80	H1HD Snap Hook	H3HD Scaffold Hook	2540	140	AS/NZS 1891.1
3058E K4	Twin leg	Webbing	1.40–1.80	K4 Karabiner	K4 Karabiner	1669	100	AS/NZS 1891.1
3058E K10	Twin leg	Webbing	1.40–1.80	K10 Karabiner	K10 Karabiner	1690	100	AS/NZS 1891.1

ERGO Rope Lanyards

Code	Type	Material	Length (m)	Fitting at Shock Absorber	Fitting at Free End(s)	Weight (g)	Capacity (kg)	Certification
3061	Single Leg	Rope	1.8	H1 Snap Hook	H1 Snap Hook	940	100	AS/NZS 1891.1
3061A	Single Leg Adjustable	Rope	1.8	K4 Karabiner	K4 Karabiner	1303	100	AS/NZS 1891.1
3061 K4	Single Leg	Rope	1.8	K4 Karabiner	H3 Scaffold Hook	837	100	AS/NZS 1891.1
3063	Single Leg	Rope	1.8	H1 Snap Hook	H3 Scaffold Hook	1090	100	AS/NZS 1891.1
3063A	Single Leg Adjustable	Rope	1.8	K4 Karabiner	H3 Scaffold Hook	1453	100	AS/NZS 1891.1
3063 K4	Single Leg	Rope	1.8	K4 Karabiner	H3 Scaffold Hook	1035	100	AS/NZS 1891.1
3068	Twin Leg	Rope	1.8	H1 Snap Hook	H3 Scaffold Hook	1723	100	AS/NZS 1891.1
3068A	Twin Leg Adjustable	Rope	1.8	K4 Karabiner	H3 Scaffold Hook	2449	100	AS/NZS 1891.1
3068 K4	Twin Leg	Rope	1.8	K4 Karabiner	H3 Scaffold Hook	1723	100	AS/NZS 1891.1
3072 K4	Single Leg	Wire Rope	1.8	K4 Karabiner	K4 Karabiner	1300	100	AS/NZS 1891.1
3073 K4	Single Leg	Wire Rope	1.8	K4 Karabiner	H3 Scaffold Hook	1450	100	AS/NZS 1891.1

User Weight Limits (kg)

Harness	305* Series ERGO Lanyards	306* Series ERGO Lanyard	HD Series ERGO Lanyards	305* Series ERGOplus Lanyards	306* Series ERGOplus Lanyards	UB033 Inertia Reels	FAB* Inertia Reels	LW* Latchways Inertia Reels	3201 Retracting Lanyard
1100 series	100	100	140	140	140	136	136	140	100
1104 series	100	100	140	140	140	136	136	140	100
1107 series	100	100	140	140	140	136	136	140	100
1600 series	100	100	140	140	140	136	136	140	100
1600NC series	100	100	140	140	140	136	136	140	100
1800 series	100	100	140	140	140	136	136	140	100
1100 Miners series	100	100	140	140	140	136	136	140	100

Types of Lanyards

Webbing Lanyards (ERGO)
These are the most cost effective and feature lightweight polyester 29kN webbing integrated with a tear web energy absorber with steel hardware

Webbing Lanyards (ERGOplus)
Feature iWeb inspectable webbing including aluminium hooks and karabiners with ANSI high strength gates.

Adjustable Lanyards
These are commonly used in EWPs and in areas where limiting the free fall distance is desirable. Less fall distance = less force on the body.

Elastic Lanyards
These are ideal for preventing snagging and tripping as the slack remains taught. Commonly used in EWPs and climbing applications.

HotWorks Lanyards
For use around welding and grinding applications where the sparks generated would normally melt polyester webbing

StageWorks Lanyards
These are for use in stage productions and theatre where the operator or rigger needs to remain inconspicuous and blend in to the darkness during performances.

Rope Lanyards

Serve the same function as a webbing lanyard. Using rescue standard rope means the outer sheath is a contrasting colour to the inner load bearing core, making inspection easier.

Energy Absorbers
All fall arrest lanyards have integrated energy absorbers. Stand alone energy absorbers are available for use with adjustable rope grabs and on fall arrest anchorages lines of extended length

Twin Webbing and Rope Lanyards
These are used to maintain a continuous connection when passing from one structure or anchorage to another. Commonly used in climbing and transversing applications

Wire Rope Lanyards
PVC coated wire leg used to prevent contamination from paint and chemicals or offer resistance to heat. Note: the energy absorber component is not protected from heat

Back Hooking Lanyards
Allows back hooking or “choking” around beams and structures. Fitted with a wear sleeve for abrasion resistance, and a reinforced hook to resist side loading. Do not back hook with a lanyard unless it is specifically designed to do so.

Maximum User Weights
SpanSet energy absorbing lanyards are rated to 140kg.

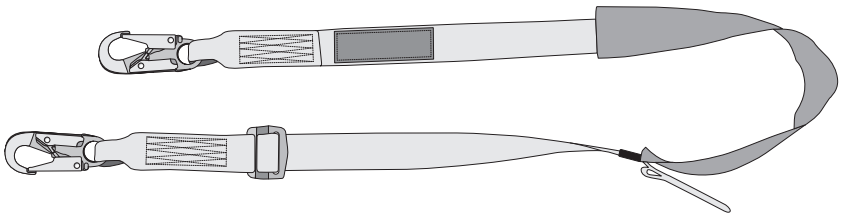
All energy absorbing lanyards must reduce the forces experienced in an arrested fall to under 6kN (approximately 600kg).

Energy Absorbing Lanyard Warnings

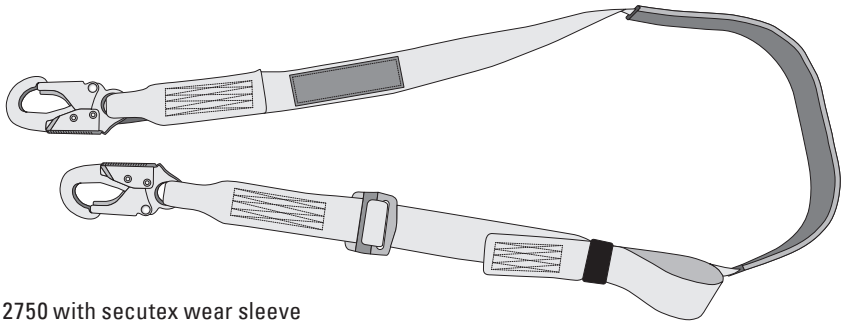
- Connection between the harness and anchor system is usually made via a fall arrest lanyard or device
- Maximum allowable free fall is 2m
- These are fixed or adjustable length lanyards (maximum slack length of 2m) normally manufactured from rope or polyester webbing, and include an in-line personal energy absorber, which limits the force on the body to less than 6kN
- The shock absorbing end of the lanyard should always be attached to the harness. Never choke (back-hook) the lanyard end around the anchor **unless the lanyard is specifically design to do so**; this will weaken the lanyard and in the event of a fall could cause it to fail, or result in the snap hook bending over an edge and/or accidentally rolling open
- It is critical that the worker checks for adequate ground/nearest level clearance prior to using an energy absorbing lanyard
- Energy absorber tear out stitching should not release below 2kN (200kg) so that the lanyard can be used for work positioning support at the worksite
- Do not use the lanyard as a pole strap
- The lanyard must be destroyed if a fall has occurred, where the shock absorber has been deployed
- The lanyard must be destroyed if the 10 year life has expired
- Lanyards should be inspected before use and externally by a competent person every 6 months
- When using a shock absorber in conjunction with a twin tail lanyard, the tail end not in use should either be attached to the stowage point supplied on the lanyard or be clipped alongside its partner on the anchor point so as not to inhibit the tear out function of the energy absorber. Only the shock absorbing end should be connected to the harness - **the free or tail end must not be attached to the harness!** Failure to observe this may isolate the energy absorber and cause excessive forces on the body of the user
- Never substitute a twin tail lanyard with two single lanyards; two single shock absorbers will not tear out sufficiently in the event of a fall and may result in excessive shock loading to the user
- Avoid wrapping or looping the lanyard around or over sharp edges

For further guidance consult with AS/NZ 1891.4.

2700 Series Pole Straps



2700 with webbing wear sleeve

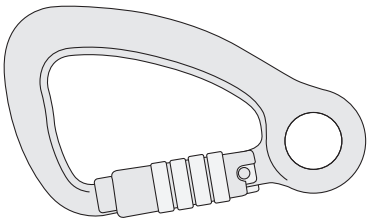


2750 with secutex wear sleeve

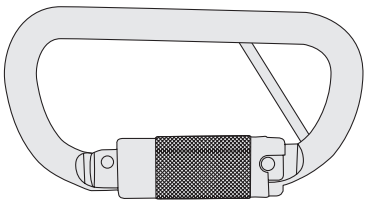
A pole strap is suitable for work positioning when attached to the side Ds of a full body harness

- Connect the pole strap via the safety hooks to the side D rings with the locking gates furthest from the body
- Ensure both sides are securely connected before applying load to the strap
- Use the tensioner buckle to adjust the length of the strap
- Always ensure the strap is in tension and not slack
- Beware of sharp edges and pinch points to avoid damage to the main strap
- Ensure the protective wear sleeve is in place on the strap
- For steel and abrasive contact always use a pole strap with secutex wear sleeve
- Ensure that the pole strap is always above the position of the D rings
- Do not connect more than 1 pole strap to each D ring
- An energy absorbing lanyard attached to the rear or front D is recommended as a backup provision.

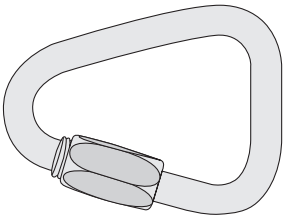
Types of Connectors



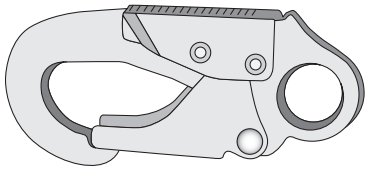
Triple lock karabiner with captive eye



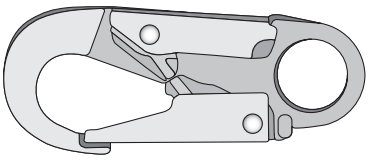
Triple lock karabiner with captive bar



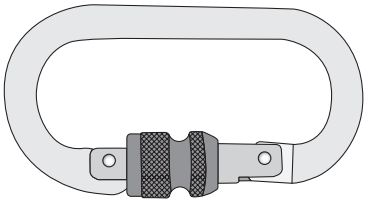
Delta quick link



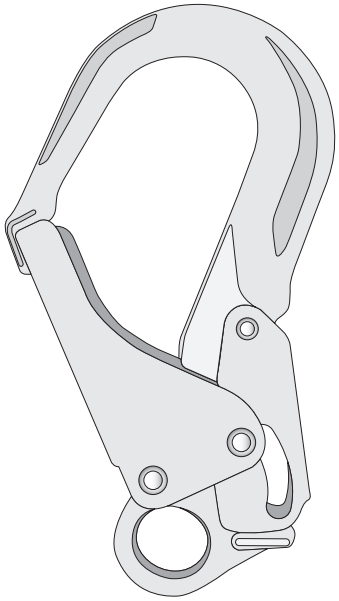
Double action safety hook - heavy duty



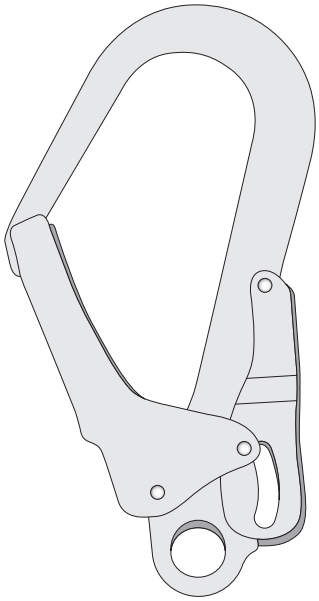
Double action safety hook



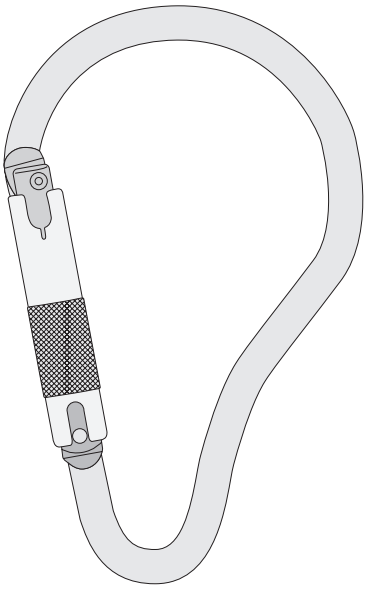
Screwgate karabiner



Double action scaffold hook - heavy duty

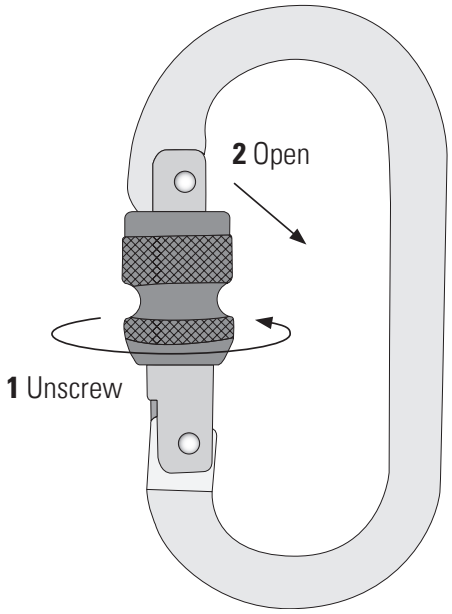


Double action scaffold hook

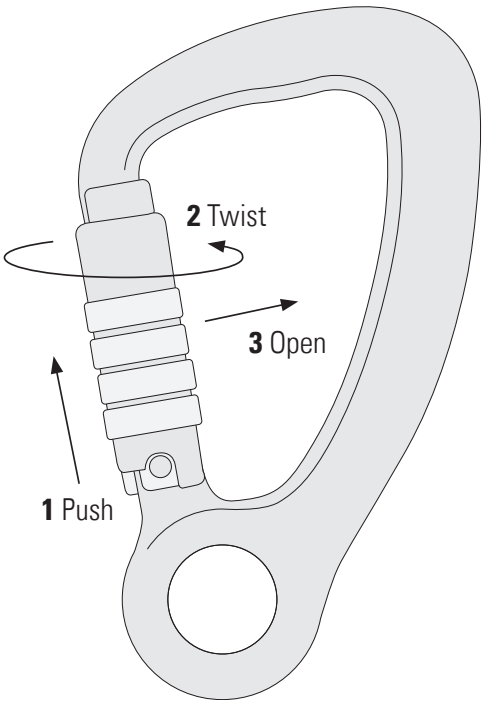


Triple action scaffold karabiner

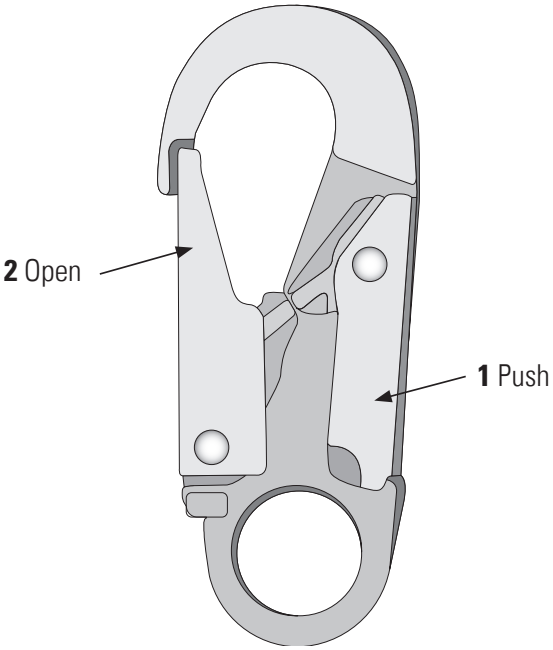
Connector Instructions



Screwgate karabiner



Triple lock karabiner



Double action safety hook

WARNING:

- Always ensure that all gates are closed and locked tight prior to use
- Check for smooth spring and gate function prior to use
- Check for corrosion, distortion or damage prior to use
- Ensure all springs and gates are free of dirt and dust
- Never connect two snap hooks together
- Ensure any locking latch is furthest from the body when making a connection
- Do not use snap hooks or karabiners for lifting or towing
- Do not apply a load to the gate
- Avoid overcrowding.

Checklist for Inspection of Lanyards

Polyester Components

- Label present with date of manufacture - shelf life shall not exceed 10 years
- Cuts and abrasion to rope or webbing
- Cuts and abrasion to stitching
- Glazing or crispiness - due to friction, heat damage or possible chemical contamination
- Damage due to contact with heat, corrosives, chemicals and solvents
- Discolouration - due to chemical contamination or prolonged UV exposure
- Excessive stiffness - due to overloading, possibly as the result of a fall.

Energy Absorbers

- ID label present with date of manufacture – check expiry date
- Visual check of attachment points
- Visual check of tear out element, checking for any signs of deployment or length extension

Adjustment and attachment devices should be function tested according to type and visually checked as per page 19 of this manual.

If any of these points are not satisfactory then the lanyard should be destroyed.

Inspecting iWeb Enabled Products

Webbing with iWeb is woven with a contrasting (red) core of load bearing webbing which runs the full width and length of the webbing. To inspect, simply look for signs of red in any abrasion point, scuff, or cut on the surfaces or edges. This gives an objective inspection and discard criteria for both the user and the competent inspection person to apply.

Washing Instructions

SpanSet Australia discourages the washing of fall arrest harnesses and associated equipment in industrial laundry facilities due to the severity and unknown nature of the solvents and cleaning agents used.

The preferred method is to use a mild, domestic soap, rinsed, then hung to dry naturally out of sunlight.

If a washing machine is used then the product should be placed in a mesh bag in order to avoid damage to the fittings and entanglement.

Do not use pressure sprays to clean harnesses, lanyards or webbing products.

Training Courses

Height Safety

Working Safely at Height

Working Safely at Heights Refresher

Height Safety Supervisor*

Height Safety Manager*

Rescue

Rescue Systems Operator*

Vertical Rescue*

Tower and Pole Rescue*

Wind Access Rescue Technician*

EWP Emergency Escape

Gotcha Rescue

Confined Space

Confined Space*

Confined Space - Refresher*

Breathing Apparatus*

Confined Space Non-Entry Rescue*

Inspection

Competent Person Practical Inspection and Record Keeping*

* Nationally Recognised Training

SpanSet Accreditations

ISO 9001:2008 Certified Quality Management System

ISO 14001:2004 Certified Environment Management System

OHSAS 18001:2007 Certified Occupational Health and Safety Management Systems

Australian/New Zealand Standard 4801:2001 certified Occupational Health and Safety Management Systems

5 Tick Certified Product

Accredited Laboratory Tested by NATA to ISO/IEC 17025

ASQA Registered Training Organisation certified to ISO 9001:2008

Certified manufacturer to AS/NZS 1891.1 "Industrial Fall Arrest Systems and Devices"

Certified manufacturer to AS/NZS 1353.1 "Flat Synthetic Webbing Slings"

Certified manufacturer to AS/NZS 4497.1 "Round Slings—Synthetic Fibre"

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