- <u>SpanSet</u>®



Height Safety Lifting Load Control Safety Management ERGO HARNESS RANGE Technical Data Sheet





SpanSet Australia Ltd

150 Old Bathurst Road Emu Plains NSW 2750 Australia

 Telephone

 +61 2 4735 3955

 Fax

 +61 2 4735 3630

 Email

 sales@spanset.com.au

 Internet

 www.spanset.com.au

ERGO full body fall arrest harnesses are our most popular range and have now been further improved with the latest technology and manufacturing techniques available.

Now 20% lighter, yet just as robust, these harnesses offer simplicity in donning and practicality when working.

Comfortable enough to wear all day, these reliable harnesses are certified to AS/NZS 1891.1 and supported by a NATA accredited compliance and batch testing regime.

- Optimised positioning of front connection lighter than shoulder Ds but small enough for efficient and safe connection of snap hooks for spreader bar insertion to confined spaces.
- Documents pouch keeps compliance labels and inspection record clean and intact.
- Manufactured, designed, tested and fully certified in Australia to AS/ NZS1891.1
- Local BSI accreditation for trust and peace of mind.
- Adjustable chest D ring to centralise ability to centralise chest D ring ensures even and comfortable front loading.
- Optimised stitch patterns shaped and designed for optimum strength and security.
- Maximised adjustment of chest strap additional adjustment options for small and large chests alike.
- Rubber end grips confortable tabs for easy adjustment.
- Optimised positioning of front connection
- Lower positioning keeps connectors out of your face in front attachment applications.
- Front fall arrest D ring precise connection for front fall arrest applications such as climbing and ladder systems
- 2 and 3 bar buckles proven as the most reliable connection with no moving parts.
- Elastic webbing keepers
- Easy storage and housekeeping of excess adjustment webbing.
- Large rear fall arrest D ring, easy to make a positive connect
- Ergonomic pull up shoulder strap adjustment allows one handed and additional adjustment.Small D ring slider pad; stops D ring digging into the back while minimising plastic to body contact.





- Breathable mesh panel mesh panel airflow counteracts heat build-up, while giving the harness structure and form to minimise tangling and ensure correct donning.
- Fitted with suspension trauma relief straps allows a suspended conscious operative to minimise the effects of suspension trauma.
- Optimised buttock strap position and lock down stitch
- Minimises the potential for harness peel out in a reversed crouched position.
- Supplied in free storage bag keeps harness free of dirt and moisture.
- Adjustment points; ensures correct fitting of chest, shoulder and leg straps conforming to a maximum amount of body shapes.
- 20% lighter than previous models
- Reduces weight and fatigue leading to greater worker acceptance and compliance.



1100 Miners ERGO Full Body Fall Arrest Harness



1104 ERGO Full Body Fall Arrest Harness



1150 ERGO Full Body Fall Arrest Harness



1100 ERGO Full Body Fall Arrest Harness



1107 ERGO Full Body Fall Arrest Harness



1300 ERGO Full Body Fall Arrest Harness



1500 ERGO Full Body Fall Arrest Harness



1800 ERGO Full Body Fall Arrest Harness



User Weight Limits

All harnesses = 160kg. Refer to specific lanyard and inertia reel data for force calculations.

Attachment Hardware

| Rear D | Alloy hardened steel for increased tensile strength | | | | | | |
|-----------------------------|--|--|--|--|--|--|--|
| | Stamped and rumbled for smoother edges | | | | | | |
| | Zinc coated for corrosion resistance | | | | | | |
| | Minimum tensile strength 22kN (5M–5000lb) | | | | | | |
| | Ring internal diameter 55.6mm | | | | | | |
| | Webbing slot size 16 x 54mm | | | | | | |
| | Compatable with Gotcha rescue kit | | | | | | |
| | Stamped with batch number and rating | | | | | | |
| Front D | Alloy hardened steel for increased tensile strength | | | | | | |
| | Webbing slot size 9mm x 44mm | | | | | | |
| | Compatable with Gotcha rescue kit | | | | | | |
| | Forged and rumbled for smoother edges | | | | | | |
| | Zinc coated for corrosion resistance | | | | | | |
| | Minimum tensile strength 22kN (5M–5000lb) | | | | | | |
| | Ring internal diameter 44mm | | | | | | |
| | Stamped with batch number and rating | | | | | | |
| | | | | | | | |
| O Rring | Alloy hardened steel for increased tensile strength | | | | | | |
| O Rring ERGO 1500 | Alloy hardened steel for increased tensile strength Forged and rumbled for smoother edges | | | | | | |
| - | | | | | | | |
| - | Forged and rumbled for smoother edges | | | | | | |
| - | Forged and rumbled for smoother edges Zinc coated for corrosion resistance | | | | | | |
| - | Forged and rumbled for smoother edges Zinc coated for corrosion resistance Minimum tensile strength 22kN (5M–5000lb) | | | | | | |
| ERGO 1500 | Forged and rumbled for smoother edges Zinc coated for corrosion resistance Minimum tensile strength 22kN (5M–5000lb) Ring internal diameter 80mm Stamped with batch number and rating | | | | | | |
| - | Forged and rumbled for smoother edges Zinc coated for corrosion resistance Minimum tensile strength 22kN (5M–5000lb) Ring internal diameter 80mm Stamped with batch number and rating Alloy hardened steel for increased tensile strength | | | | | | |
| ERGO 1500 Wide Mouth D | Forged and rumbled for smoother edges Zinc coated for corrosion resistance Minimum tensile strength 22kN (5M–5000lb) Ring internal diameter 80mm Stamped with batch number and rating Alloy hardened steel for increased tensile strength Forged and rumbled for smoother edges | | | | | | |
| ERGO 1500 Wide Mouth D | Forged and rumbled for smoother edges Zinc coated for corrosion resistance Minimum tensile strength 22kN (5M–5000lb) Ring internal diameter 80mm Stamped with batch number and rating Alloy hardened steel for increased tensile strength Forged and rumbled for smoother edges Minimum tensile strength 22kN (5M–5000lb) | | | | | | |
| ERGO 1500 Wide Mouth D | Forged and rumbled for smoother edges Zinc coated for corrosion resistance Minimum tensile strength 22kN (5M–5000lb) Ring internal diameter 80mm Stamped with batch number and rating Alloy hardened steel for increased tensile strength Forged and rumbled for smoother edges Minimum tensile strength 22kN (5M–5000lb) Ring internal diameter 58mm | | | | | | |
| ERGO 1500 Wide Mouth D | Forged and rumbled for smoother edges Zinc coated for corrosion resistance Minimum tensile strength 22kN (5M–5000lb) Ring internal diameter 80mm Stamped with batch number and rating Alloy hardened steel for increased tensile strength Forged and rumbled for smoother edges Minimum tensile strength 22kN (5M–5000lb) Ring internal diameter 58mm Webbing slot size 14 x 46mm | | | | | | |
| ERGO 1500 Wide Mouth D | Forged and rumbled for smoother edges Zinc coated for corrosion resistance Minimum tensile strength 22kN (5M–5000lb) Ring internal diameter 80mm Stamped with batch number and rating Alloy hardened steel for increased tensile strength Forged and rumbled for smoother edges Minimum tensile strength 22kN (5M–5000lb) Ring internal diameter 58mm Webbing slot size 14 x 46mm Cranked 30° for ease of attachment | | | | | | |
| ERGO 1500 Wide Mouth D | Forged and rumbled for smoother edges Zinc coated for corrosion resistance Minimum tensile strength 22kN (5M–5000lb) Ring internal diameter 80mm Stamped with batch number and rating Alloy hardened steel for increased tensile strength Forged and rumbled for smoother edges Minimum tensile strength 22kN (5M–5000lb) Ring internal diameter 58mm Webbing slot size 14 x 46mm | | | | | | |

| Buckles | 2 bar and 3 bar interlocking for secure connection and easy adjustment | | | | | |
|------------------|--|--|--|--|--|--|
| | Alloy hardened steel for increased tensile strength | | | | | |
| | Forged and rumbled for smoother edges | | | | | |
| | Zinc coated for corrosion resistance | | | | | |
| | Minimum tensile strength 17kN | | | | | |
| | Webbing slot size 46mm | | | | | |
| | Stamped with batch number and rating | | | | | |
| Confined Space | UV resistant polyester tubing | | | | | |
| Attachment Loops | Colour contrasted for ease of identification | | | | | |
| Except 1800 ERGO | Must be used together | | | | | |
| | Clearly labelled | | | | | |
| | | | | | | |

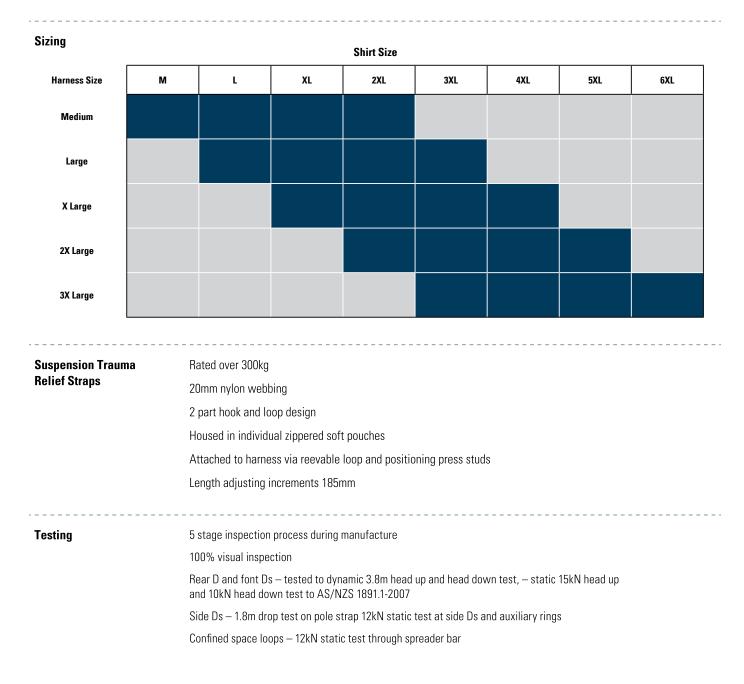
| Construction | Original ERGO Euro style geometry | | | | | |
|------------------|---|--|--|--|--|--|
| | 3 layer pocket webbing supporting load bearing chest strap for font D | | | | | |
| | Ergonomic, pull up adjustment at front shoulder straps | | | | | |
| | Sub-pelvic strap to minimise peel out | | | | | |
| | Fully adjustable shoulder, leg and chest straps | | | | | |
| | Leg straps fixed at hips – no excessive tightening around thighs in the event of an arrested fall | | | | | |
| | Front D allows for easier attachment with remote rescue kits | | | | | |
| | Colour contrasted for ease of identification | | | | | |
| | | | | | | |
| Fall Arrest | UV resistant polyester tubing | | | | | |
| Attachment Loops | Seamless for snag free connection with karabiners and hooks | | | | | |
| 1500 ERGO only | Must be used together | | | | | |
| | Clearly labelled | | | | | |
| | | | | | | |

Labels

Compliance labels contained in protective pouch Thermal transfer printing

| Rear Mesh Panel | PVC coated polyester |
|-----------------|--|
| | Open mesh to allow unrestricted airflow |
| | Shaped to give the harness structure and form to aid donning and minimise tangling |
| | |
| | |

| Sewing | Hight tensile polyester light fast, UV resistant thread |
|--------|--|
| | Load bearing seams sewn with high density, multi-bar tack patterns for extra wear and ease of inspection |
| | Load bearing seams sewn on computerised lock-stitch machines for consistency and security |
| | Contrasting colour for ease of inpection and compliance to AS/NZS1891.1 |
| | Non load-bearing patterns (labels, web end fold backs, decorative etc) flat manual sews |
| | All finished with over-stitching |
| | |



| Certification | Designed, tested and certified to AS/NZS1891.1-2007 |
|---------------------------------------|---|
| | |
| | |
| | |
| | |
| | |
| | |
| · · · · · · · · · · · · · · · · · · · | |
| Webbing | Colourfast polyester high tensile |
| | Heat set for lower friction co-efficient – longer wear |
| | Light (UV) degradation certified to AS/NZS1891.1 |
| | High visibility orange/blue |
| | Minimum tensile strength 30kN |
| | Lay flat – non-roping |
| Webbing Keepers | Nylon high density elastic for easy stowage of excess webbing |
| | Contrasting black for quick identification |
| | |
| | |
| | |

_ _ _ _

_ _ _ _ _ _ _ _

_ _ _ _ _ _ _ _

| | | | ners | | | | | | |
|--|-----------|-----------|------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| | 1000 ERGO | 1100 ERGO | 1100 ERGO Miners | 1104 ERGO | 1107 ERGO | 1150 ERGO | 1300 ERGO | 1500 ERGO | 1800 ERGO |
| Features | | 1 | | | 1 | | | | |
| Harness Weight | 1.120kg | 1.410kg | 1.845kg | 1.479kg | 1.980kg | 2.140kg | 1.925kg | 2.515kg | 2.185kg |
| Auxiliary 80mm pole strap rings | | | | | | | | • | |
| Breathable rear mesh panel | • | • | • | • | • | • | • | • | |
| Confined space attachment loops | | • | • | • | • | • | • | • | |
| Elasticated rear leg droppers | | | | | | | | | • |
| Front fall arrest and abseil widemouth Ds | | | | | | | | | • |
| Front fall arrest D ring | • | • | • | • | • | • | • | | |
| Front fall arrest loops | | | | | | | | • | |
| Padded waist band | | | • | | • | | | | |
| Padded waist band and side pole strap widemouth Ds | | + | | | • | | | • | • |
| Padded waist band with battery and self rescuer straps | | | • | | | | | | |
| Plastic reinforced gear loops | | | | + | | | | | • |
| Quick release shoulder buckle | | + | + | + | + | | | | • |
| Rear fall arrest D ring | • | • | • | • | • | • | • | • | • |
| Rear fall arrest extension strap | | + | + | • | • | | | | |
| Suspension trauma relief straps | • | • | • | • | • | • | • | • | |
| Waist band and side Ds | | + | + | + | • | | • | | |
| Suitable for | | | | | | | | | |
| Confined space entry | | • | • | • | • | • | • | • | |
| Construction | • | • | • | • | • | • | • | • | • |
| Elevated work platforms | • | • | • | • | • | • | • | | |
| Fall arrest | • | • | • | • | • | • | • | • | • |
| Hire industry | • | • | | + | + | • | | | |
| Ladder safety systems | • | • | • | • | • | • | • | • | • |
| Maintenance | • | • | • | • | • | • | • | • | • |
| Pole work | | + | + | + | • | + | • | • | • |
| Rescue | | + | + | + | | | | | • |
| Roof work | • | • | + | • | • | + | • | • | • |
| Rope access | + ' | + ' | + | + | + | + | | + | • |
| Tower work | + | + | + | • | + | + | | • | • |

Underground mining

Types of Attachment Points



1 Confined space attachment loops Reverse folded loops to eliminate snagging and minimise metal components in contact

with the body. Both loops must be used together.

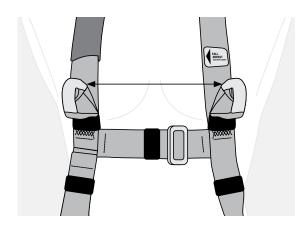
2 Front fall arrest D ring For versatility and ease of rescue.

Pole strap attachment D rings Easy to locate and connect to.

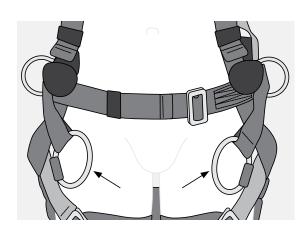


3

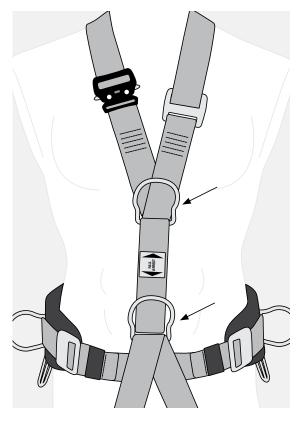
Rear fall arrest D ring Easy to locate and connect.



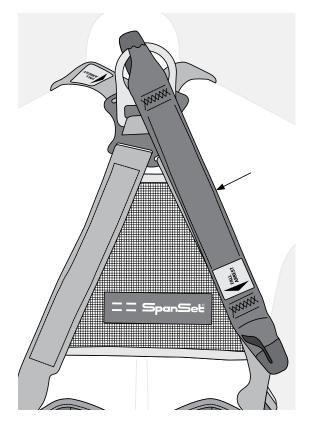
Front Fall Arrest Loops (Both loops must be used together)



Auxiliary Pole Strap Rings (Both Ds must be used)



Front Fall Arrest Attachments (can also be used for abseiling, work positioning or belay work)



Dorsal/Rear (Fall Arrest) Extension Strap

WARNING: ONLY USE ATTACHMENTS THAT ARE SPECIFICALLY LABELLED FOR THE APPLICATION

Fitting Instructions

Vest Style Harnesses



Hold harness by the Rear D with all straps undone



Place both shoulder straps over the shoulder as in donning a vest



Connect chest buckle, ensuring that green spot is seen in the receiver window. Tighten strap.



If a waist belt is fitted, connect and tighten



Connect leg buckle



Tighten leg strap



Connect opposite leg strap



Tighten straps and retain free webbing within the elastic web tidy



Fitted harness should be snug and firmly fitted, particularly the leg straps

Step-in Style Harnesses



Hold harness by the shoulder straps and disconnect the chest fast release buckle



Place left leg through the left leg strap



Place the right leg through the right leg strap



Pull the harness upwards to waist level



Place the left shoulder strap over the shoulder



Repeat for right shoulder strap and connect the buckle. Ensure green spot can be seen in the receiver window



Tighten waist strap by pulling both sides



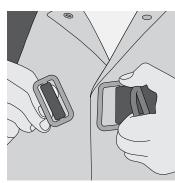
Tighten leg straps



Fitted harness should be snug and firmly fitted, particularly the leg straps

Buckle Connection Instructions

2-3 Bar Buckles



Bring the 2 buckles together, ensuring there are no twists in the webbing

Turn the 3 bar buckle and push it through the 2 bar buckle



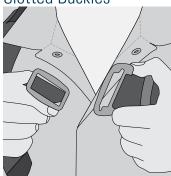
Ensure both buckles lay flat against one another and tension the strap



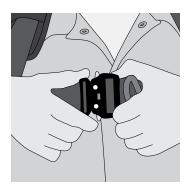


Align the tongue with the slot in the receptor buckle and insert

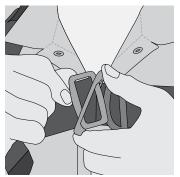
Slotted Buckles



Bring the 2 buckles together, ensuring there are no twists in the webbing



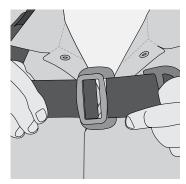
Push together until you hear a distinct click and the green mark appears in receiver window



Push the smaller buckle through the slot in the larger buckle

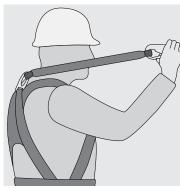


To release, push the two side tabs simultaneously and separate the buckles

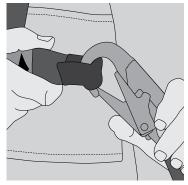


Ensure both buckles lay flat against one another and tension the strap

Dorsal Extension



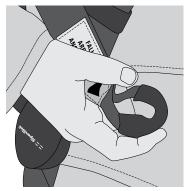
The dorsal extension is located at the rear of the harness, held in place by velcro strip



Connect attachment hardware to the eye, making a visual check for secure connection



Remove dorsal extension from velcro strip and bring under the armpit



Ensure the eye is open to receive the connection hardware

Note: All SpanSet dorsal extensions are deliberately located on the rear of the harness in order to keep an attached lanyard away from the neck and face.

The harness is correctly fitted (donned) when:

- The dorsal D ring (rear) is between the shoulder blades
- The shoulder straps are firm
- The chest strap is firm and located mid-chest
- The leg straps are firm
- There are no twists in any straps
- The butt strap is located just below the buttocks
- Spare strap ends are tucked away.

Types of Harnesses and Environmental Conditions

ERGOplus and ERGOiplus Harnesses

These premium harnesses are padded for comfort and feature quick connect buckles for convenience when donning. For professional users in dry conditions where no excessive dirt, mud and grime build up is experienced. ERGOiplus also features iWeb inspectable webbing with Xtreme Guard coating

ERGO Harnesses

These are the workhorses in the range and are best suited for dirty and harsh conditions by professional operators who appreciate no nonsense reliability. They feature the most reliable buckle system, being the 2 and 3 bar buckle, and don't feature any moving parts or unnecessary padding.

Compliance Harnesses

Tradie and EWP (also known as Spectre) harness are compliant entry level harnesses without many of the features of the previous harness ranges such as confined space loops, centre front D and suspension trauma straps

HotWorks Harnesses

These harnesses are for use around welding, grinding and similar hot work. They are made from heat resistant materials including the padding and have a lower total cost of ownership compared to polyester harnesses which are susceptible to heat.

WaterWorks Harnesses

These are for use around constantly wet areas and confined spaces and utilise all stainless steel fittings for longevity. Additionally they have Xtreme Guard coated webbing for water oil and dirt resistance.

ToughWorks

These are PVC or polyurethane coated harnesses for added resistance to paint, abrasion and excessive wear.

StageWorks

These particular harnesses have little or no reflectivity for working backstage and aloft at productions where the riggers and support personnel need to work at height but remain inconspicuous.

Belts

Waist belts one their own must not be used for fall arrest applications. SpanSet generally only manufacture miners' belts, to carry battery packs and self-rescuer devices. These belts may be integrated into full body harnesses however only the load bearing and tested harness attachment points listed in AS/NZS 1891.1 may be utilised in fall, rescue or suspension applications.

Maximum User Weights

SpanSet harnesses are rated in excess of 150kg.

General Maintenance

- A visual check should be carried out before and after daily use, and a 6 monthly periodic inspection is to be performed by a competent person and the results recorded.
- Clean prior to inspection.

Checklist for Inspection of Harnesses and Pole Straps

The following points should be checked before use:

- Check all webbing for effects of cuts, tears, abrasion, heat, chemicals, corrosives or solvents, hardening, excessive stretching, glazing due to friction, excessive wear or fuzziness, discolouration due to chemical contamination or prolonged ultraviolet exposure, excessive stiffness due to overloading, possibly as a result of a fall.
- Check all stitch blocks for broken, cut or worn stitching and damage due to heat, corrosives, solvents or mildew
- Check all buckles and D-rings for deformation, distortion, corrosion, wear and correct orientation
- Ensure the protective sleeve is in place on the pole strap
- Check ID number and Standards logo for legibility
- Check Date of manufacture life shall not exceed 10 years
- Check for evidence of a fall. Must be withdrawn from service after a fall and destroyed if any damage has been sustained
- Check with the user for possible causes of damage.

If any of these points are not satisfactory then the harness 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.

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*



SpanSet Accreditations

ISO 9001:2015 Certified Quality Management System

ISO 14001:2015 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

Accredited for compliance with ISO/IEC 17025 - Testing

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 "Round Slings—Synthetic Fibre"



