

Height Safety Lifting Load Control Safety Management

# **ERGO HARNESS RANGE**

Technical Data Sheet



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# ERGO Harness Range

1000 ERGO Full Body Fall Arrest Harness



1100 Miners ERGO Full Body Fall Arrest Harness



1107 ERGO Full Body Fall Arrest Harness



1100 ERGO Full Body Fall Arrest Harness



1104 ERGO Full Body Fall Arrest Harness



1150 ERGO Full Body Fall Arrest Harness



# ERGO Harness Range

# 1300 ERGO Full Body Fall Arrest Harness



1800 ERGO Full Body Fall Arrest Harness



# 1500 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 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

Wide Mouth D 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
Compatible with Gotcha rescue kit
Stamped with batch number and rating

ERGO 1800

**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 Attachment Loops UV resistant polyester tubing

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 Attachment Loops UV resistant polyester tubing

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

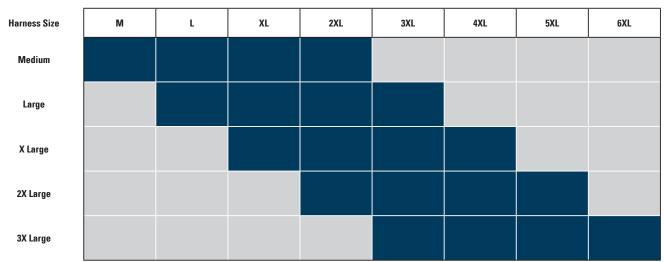
Contrasting colour for ease of inpection and compliance to AS/NZS1891.1

Non load-bearing patterns (labels, web end fold backs, decorative etc) flat manual sews

All finished with over-stitching

## Sizing

#### **Shirt Size**



## Suspension Trauma Relief Straps

Rated over 300kg

20mm nylon webbing

2 part hook and loop design

Housed in individual zippered soft pouches

Attached to harness via reevable loop and positioning press studs

Length adjusting increments 185mm

#### **Testing**

5 stage inspection process during manufacture

100% visual inspection

Rear D and font Ds - tested to dynamic 3.8m head up and head down test, - static 15kN head up and 10kN head down test to AS/NZS 1891.1-2007

Side Ds-1.8m drop test on pole strap 12kN static test at side Ds and auxiliary rings

 $Confined\ space\ loops-12kN\ static\ test\ through\ spreader\ bar$ 

# 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

|                                                        | Ainers       |              |                  |              |              |           |           |                |           |  |
|--------------------------------------------------------|--------------|--------------|------------------|--------------|--------------|-----------|-----------|----------------|-----------|--|
|                                                        | 1000 ERGO    | 1100 ERGO    | 1100 ERGO Miners | 1104 ERGO    | 1107 ERGO    | 1150 ERGO | 1300 ERGO | 1500 ERGO      | 1800 ERGO |  |
| Features                                               | 1000         | 1100         | 1100             | 1104         | 1107         | 1150      | 1300      | 1500           | 1800      |  |
| 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                        |              | T ·          |                  |              |              |           |           | •              |           |  |
| 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                          |              | +            |                  |              |              |           |           | <del> </del> · | •         |  |
| Quick release shoulder buckle                          |              | +            |                  |              |              |           |           | <del> </del> · | •         |  |
| Rear fall arrest D ring                                | •            | •            | •                | •            | •            | •         | •         | •              | •         |  |
| Rear fall arrest extension strap                       | <del></del>  | <del>-</del> |                  | •            | •            |           |           | † ·            |           |  |
| Suspension trauma relief straps                        | •            | •            | •                | •            | •            | •         | •         | •              |           |  |
| Waist band and side Ds                                 | <del> </del> | +            |                  |              | •            |           | •         | † ·            |           |  |
| Suitable for                                           | +            |              |                  |              |              |           |           |                |           |  |
| Confined space entry                                   |              | •            | •                | •            | •            | •         | •         | •              |           |  |
| Construction                                           | •            | •            | •                | •            | •            | •         | •         | •              | •         |  |
| Elevated work platforms                                | •            | •            | •                | •            | •            | •         | •         | <del> </del> · |           |  |
| Fall arrest                                            | •            | •            | •                | •            | •            | •         | •         | •              | •         |  |
| Hire industry                                          | •            | •            |                  |              |              | •         |           | <del> </del> · |           |  |
| Ladder safety systems                                  | •            | •            | •                | •            | •            | •         | •         | •              | •         |  |
| Maintenance                                            | •            | •            | •                | •            | •            | •         | •         | •              | •         |  |
| Pole work                                              | +            | +            |                  |              | •            |           | •         | •              | •         |  |
| Rescue                                                 | +            | +            | +                |              |              |           |           | <del> </del>   | •         |  |
| Roof work                                              | •            | •            | +                | •            | •            |           | •         | •              | •         |  |
| Rope access                                            | +            | +            | +                | <del> </del> | <del> </del> |           |           | <del> </del>   | •         |  |
| Tower work                                             | +            | +            |                  | •            |              |           |           | •              | •         |  |
| Underground mining                                     | +            | +            | •                |              |              |           |           | +              |           |  |



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# **Shirt Size**

| Harness<br>Size | М | L | XL | 2XL | 3XL | 4XL | 5XL | 6XL |
|-----------------|---|---|----|-----|-----|-----|-----|-----|
| Medium          |   |   |    |     |     |     |     |     |
| Large           |   |   |    |     |     |     |     |     |
| X Large         |   |   |    |     |     |     |     |     |
| 2X Large        |   |   |    |     |     |     |     |     |
| 3X Large        |   |   |    |     |     |     |     |     |

Sizing Standard (Large) harness comfortably fits up to XXL shirt size

Harnesses available up to XXXL or 5XL shirt size  $\,$ 

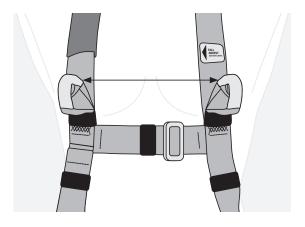
Other sizes options available on request  $% \left( 1\right) =\left( 1\right) \left( 1\right$ 

# Types of Attachment Points

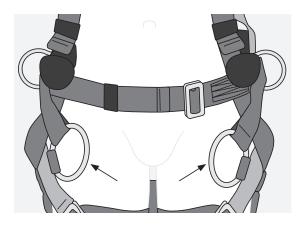


- Confined space attachment loops
  Reverse folded loops to eliminate snagging and minimise metal components in contact with the body. Both loops must be used together.
- Front fall arrest D ring
  For versatility and ease of rescue.

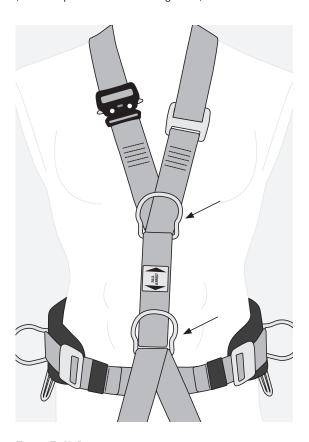
- Pole strap attachment D rings
  Easy to locate and connect to.
- Rear fall arrest D ring
  Easy to locate and connect.



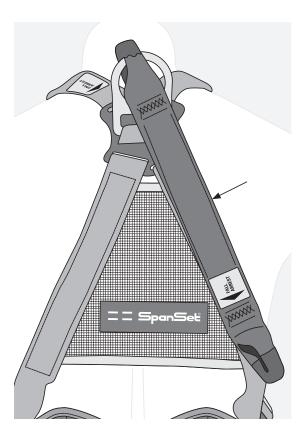
Front Fall Arrest Loops (Both loops must be used together)



**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

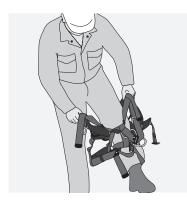


Fitted harness should be snug and firmly fitted, particularly the leg straps

# Step-in Style Harnesses



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



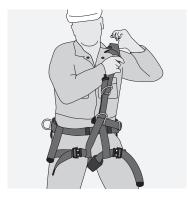
Place left leg through the left leg strap



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



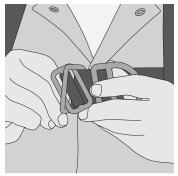
Fitted harness should be snug and firmly fitted, particularly the leg straps

# **Buckle Connection Instructions**

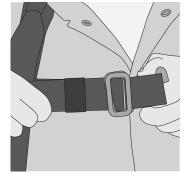
## 2-3 Bar Buckles



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

## **Quick Connect Buckles**



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

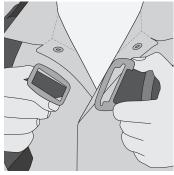


Push together until you hear a distinct click and the green mark appears in receiver window

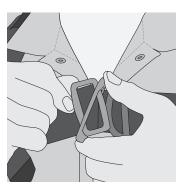


To release, push the two side tabs simultaneously and separate the buckles

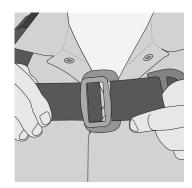
## Slotted Buckles



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

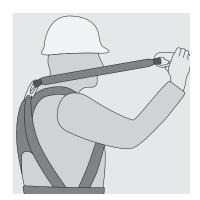


Push the smaller buckle through the slot in the larger buckle



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

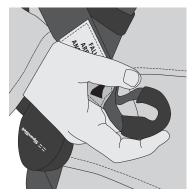
# **Dorsal Extension**



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



Remove dorsal extension from velcro strip and bring under the armpit



Ensure the eye is open to receive the connection hardware



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

**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 9001:2008 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

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"





Lic: QEC5088



Lic: CEM21958





Health & Safety OHSAS 18001:2007 Australian Standard Lic: OHS21464

