

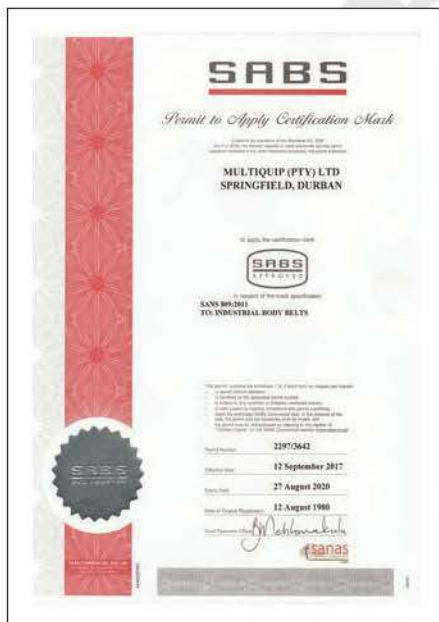


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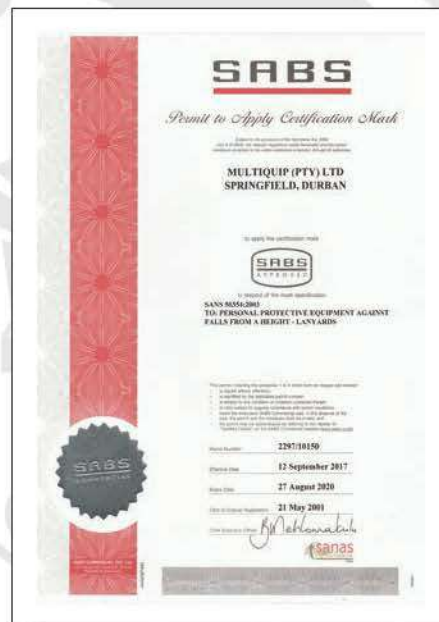
ISO 9001 : 2008



ISO 9001 : 2008 CERTIFICATE



PERMIT - SANS 809 : 2011



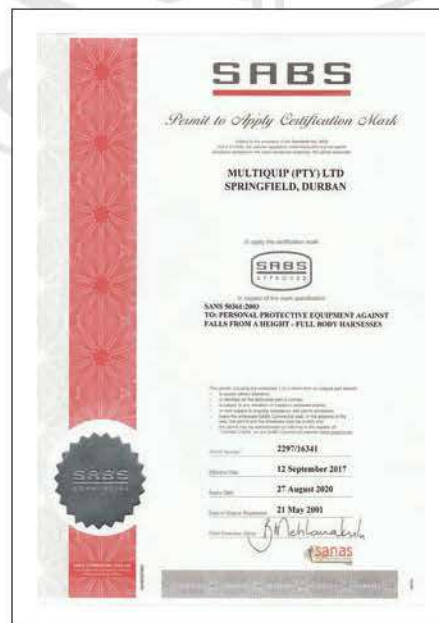
PERMIT - SANS 50354 : 2003



PERMIT - SANS 50355 : 2003



PERMIT - SANS 50358 : 2008



PERMIT - SANS 50361 : 2003



PERMIT - SANS 50566 : 1997





# IRON MAN®

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**DURBAN**  
NO. 2 CEDARFIELD CLOSE  
SPRINGFIELD PARK  
DURBAN  
PO BOX 74361  
ROCHDALE PARK  
4034  
sales@multiquip.co.za

**TEL: 031 579 4294**

**JOHANNESBURG**  
UNIT NO. 1, 4 PLATINUM ROAD  
SPARTAN EXT 16  
KEMPTON PARK  
PO BOX 8257  
EDENGLLEN  
1613  
sales1@multiquipgauteng.co.za

**TEL: 011 392 3398**  
**www.multiquip.co.za**

**CAPE TOWN**  
UNIT NO. 4, 40 STELLA ROAD  
MONTAGUE GARDENS  
CAPE TOWN  
capesales@multiquip.co.za

**TEL: 021 202 8246**

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*Harnesses can be manufactured using:  
Flame Retardant / Anti-Static / Kevlar® Webbing*



# IRON MAN®

## FULL BODY HARNESS WITH WAIST BELT



### HD-SERIES

#### HD / PLAIN

- Full body harness, with waist belt - no lanyard.
- 45mm Chest strap with 2 part interlocking buckle.
- SANS 50361.



#### HD / SINGLE / SNAP HOOK

- Full body harness with waist belt.
- Webbing lanyard with safety snap hook and shock absorbing element.
- Lanyard length - maximum, including shock absorbing element, of 2m.
- SANS 50354, 50355 and 50361.

#### HD / DOUBLE / SCAFFOLD HOOK

- Full body harness with waist belt.
- Double webbing lanyard with scaffold hooks, permanently attached.
- Lanyard length - maximum, including shock absorbing element, of 2m.
- SANS 50354, 50355 and 50361.



SEE PAGE 20 FOR HOOK / CONNECTOR  
OPTIONS





# IRON MAN®

## FULL BODY HARNESS WITHOUT WAIST BELT



### HE-SERIES

#### HE / PLAIN

- Full body harness without waist belt or lanyard.
- 45mm webbing with 45mm 2 part interlocking buckle on chest strap.
- SANS 50361.



#### HE / SINGLE / SNAP HOOK

- Full body harness without waist belt.
- Webbing lanyard with safety snap hook and shock absorbing element.
- Lanyard length - maximum, including shock absorbing element, of 2m.
- SANS 50354, 50355 and 50361.

#### SPARTAN

- Full body harness without waist belt.
- Double leg lanyard with shock absorbing element and scaffold hooks.
- SANS 50354, 50355 and 50361.



SEE PAGE 20 FOR HOOK / CONNECTOR  
OPTIONS



# IRON MAN® FULL BODY HARNESS



## CONSTRUCTION 10 HARNESS

- Full body harness with padded shoulder and leg straps.
- Standing step-in strap in pouch on leg strap.
- Attachment points on back and chest.
- Supplied with double leg shock absorbing lanyard with scaffold hooks.
- Supplied with restraint lanyard.
- SANS 50354, 50355 and 50361.

## ERGOLD HIGH MASTER

- Full body harness with kidney support.
- 2 x Attachment points - 1 x front and 1 x back.
- Work positioning attachment points on hips.
- Padded waist belt with 2 x work positioning attachment points on either side of the kidney support.
- 45mm Anti-static and flame retardant webbing.
- SANS 50358 and 50361.



## ERGOLD 2 POINT

- Full body harness without waist belt or lanyard.
- 45mm Anti-static and flame retardant webbing.
- 2 x Attachment points - 1 x front and 1 x back.
- SANS 50361.





# IRON MAN®

## FULL BODY HARNESS

### MINETEC 300 / 400 / 450 / 500



#### MINETEC 300

- Full body harness with padded shoulders and a kidney support - **leg straps with no padding**.
- 3 x Attachment points - 2 x front and 1 x back.
- D-ring on chest strap for rescue.
- Supplied with detachable double leg shock absorbing lanyard with scaffold hooks.
- Standing step-up strap in pouch on waist belt.
- SANS 50354, 50355 and 50361.



#### MINETEC 400

- Full body harness with **padded shoulder and leg straps** and a kidney support.
- 3 x Attachment points - 2 x front and 1 x back.
- D-ring on chest strap for rescue.
- Supplied with detachable double leg shock absorbing lanyard with scaffold hooks.
- Standing step-up strap in pouch on waist belt.
- SANS 50354, 50355 and 50361.



#### MINETEC 450

- Full body harness with **padded shoulder and leg straps**, a kidney support and a **double battery strap** on waist belt.
- 3 x Attachment points - 2 x front and 1 x back.
- D-ring on chest strap for rescue.
- Supplied with detachable double leg shock absorbing lanyard with scaffold hooks.
- Standing step-up strap in pouch on waist belt.
- SANS 50354, 50355 and 50361.

#### MINETEC 500

- Full body harness with **padded shoulder and leg straps, quick release buckles** and a kidney support.
- 3 x Attachment points - 2 x front and 1 x back.
- D-ring on chest strap for rescue.
- Supplied with detachable double leg shock absorbing lanyard with scaffold hooks.
- Standing step-up strap in pouch on waist belt.
- SANS 50354, 50355 and 50361.





# IRON MAN®

## FULL BODY HARNESS



### KEVLAR®

- Full body harness without waist belt.
- Supplied with webbing lanyard with shock absorbing element and scaffold hooks.
- Lanyard length (including shock absorbing element), is a maximum of 2m.
- High tensile strength, spark resistant webbing.
- SANS 50354, 50355 and 50361.

### ROPE ACCESS

- Full body, comfort-fit, harness without lanyard.
- Padded shoulder, leg and kidney support.
- 2 x Attachment points - 1 x chest and 1 x back.
- Work positioning attachment points on hips.
- SANS 50358 and 50361.



### TRANS-TEC PLUS

- Full body harness with padded shoulder, leg and kidney support.
- 3 x Attachment points - 2 x front and 1 x back.
- Work positioning attachment points on hips.
- Aluminium hardware.
- Quick release buckles.
- SANS 50358 and 50361.





# IRON MAN®

## FULL BODY HARNESS



### CLIMBERS

- Full body climber's harness.
- Padded shoulder, leg and waist straps.
- 2 x Attachment points - 1 x chest and 1 x back.
- Work positioning attachment points on hips.
- 3 x Tool loops.
- Elasticated buttock straps.
- For lanyard options, see pages 15 and 16.
- SANS 50358 and 50361.

### RIGGERS

- Full body harness with padded shoulder, legs and waist straps.
- 5 x Attachment points.
- Double leg fall arrest lanyard with shock absorbing element and scaffold hooks and stirrup line, or see pages 15 and 16 for other lanyard options.
- SANS 50354, 50355, 50358 and 50361.



### PYLON FALL ARREST KIT

- Full body harness with padded waist belt.
- Galvanized high tensile steel hardware and connectors.
- Fall Arrest attachment points on back and chest. Work positioning attachment points on hips.
- Double leg shock absorbing Fall Arrest lanyard with scaffold hooks.
- Adjustable work positioning lanyard with snap hooks.
- Attachment strap and hold-all bag.
- SANS 50354, 50355, 50358, 50361, 50566 and 50795.





# IRON MAN®

## FULL BODY HARNESS 400-SERIES



### HD / Plain 400 Series 1 Point

- Full body harness with 45mm waist belt.
- Single attachment point between shoulder blades.
- 45mm Chest strap with steel 2 part interlocking buckle.
- Extra attachment point between shoulder blades for recovery purposes.
- SANS 50361.

### HD / Plain 400 Series 3 Point

- Full body harness with 45mm waist belt.
- 3 x Attachment points:  
1 x between shoulder blades and 2 x on chest.
- 45mm Chest strap with steel 2 part interlocking buckle.
- Extra attachment point between shoulder blades for recovery purposes.
- SANS 50361.



### HD / Plain 400 Series 5 Point

- Full body harness with 45mm waist belt.
- 3 x Attachment points:  
1 x between shoulder blades;  
2 x on chest.
- Work positioning attachment points on hips.
- Kidney support - permanently attached to waist belt.
- 45mm Chest strap with steel 2 part interlocking buckle.
- SANS 50358 and 50361.





# IRON MAN®

## POWERLINES FALL ARREST KIT (D12700)



### The Fall Arrest Kit consists of:

- Full body harness with aluminium hardware and 4 x attachment points.
- 1.75m Double leg webbing lanyard including shock absorbing element, 1 x carabiner and 2 x scaffold hooks for fall arrest.
- 2m Adjustable webbing lanyard for work positioning.
- 2 x Attachment straps.
- 12mm Nylon Rope Work Positioning Lanyard.
- Hold-all bag.



### HD / Powerlines Harness

- Full body harness with aluminium hardware.
- Padded kidney support permanently attached.
- 2 x Attachment points:
  - 1 x between shoulder blades;
  - 1 x on chest.
- Work positioning attachment points on hips.
- SANS 50358 and 50361.



### 2 x Webbing Attachment Straps

- 1.75m Pull to pull.
- SANS 50566 and 50795.



### 12mm Nylon Rope Work Positioning Lanyard

- (a) Carabiner (PN160);
- (b) Stainless steel twist lock carabiner with captive pin;
- (c) Length: 2m;
- (d) Guided Type Fall Arrester S-2191iSS;
- (e) SANS 50354 and 50358.

### 1.75m Webbing Lanyard including:

- (a) Shock absorbing element;
- (b) Carabiner (PN160) for attachment to harness;
- (c) 2 x Scaffold hooks S-979 - Aluminium;
- (d) SANS 50354 and 50355.



### 2m Adjustable Work Positioning Webbing Lanyard

- 2 x Aluminium alloy carabiners (PN160) with twist lock and dedicated eye.
- SANS 50354 and 50358.







# IRON MAN®

## LIVE LINE FALL ARREST KIT (D12701)



### The Live Line Fall Arrest Kit consists of:

- Full body harness with aluminium hardware and 4 x attachment points.
- 1.75m Adjustable double leg webbing lanyard including shock absorbing element, 1 x carabiner and 2 x scaffold hooks for fall arrest.
- 1.75m Adjustable single leg webbing lanyard including shock absorbing element, 1 x carabiner and 1 x scaffold hook for fall arrest.
- 2m Adjustable webbing lanyard for work positioning.
- 2 x Attachment straps.
- 12mm Nylon Rope Work Positioning Lanyard.
- Hold-all bag.



### HD / Live Line Harness

- Full body harness with aluminium hardware.
- Padded kidney support permanently attached.
- 2 x Attachment points:  
1 x between shoulder blades;  
1 x on chest.
- Work positioning attachment points on hips.
- SANS 50358 and 50361.

### 2 x Webbing Attachment Straps

- 1.75m Pull to pull.
- SANS 50566 and 50795.



### 12mm Nylon Rope Work Positioning Lanyard

- (a) Carabiner (PN160);
- (b) Stainless steel twist lock carabiner with captive pin;
- (c) Length: 2m;
- (d) Guided Type Fall Arrester S-2191iSS;
- (e) SANS 50354 and 50358.



### 1.75m Double Leg Webbing Lanyard including:

- (a) Shock absorbing element;
- (b) Carabiner (PN160) for attachment to harness;
- (c) 2 x Scaffold hooks, S-979 - Aluminium;
- (d) SANS 50354 and 50355.



### 1.75m Single Leg Webbing Lanyard including:

- (a) Shock absorbing element;
- (b) Carabiner (PN160) for attachment to harness;
- (c) Scaffold hook, S-979 - Aluminium;
- (d) SANS 50354 and 50355.



### 2m Adjustable Work Positioning Webbing Lanyard

- 2 x Aluminium alloy carabiners (PN160) with twist lock and dedicated eye.
- SANS 50354 and 50358.







# Eskom

## RESCUE EQUIPMENT



### RESCUE SYSTEM (D12703)

The Rescue Kit consists of:

- 1 20m or 30m x 11mm static rope.
- 2 1.5m Anchor strap (SANS 50566 and 50795)
- 3 Red hold-all bag.
- 4 Knife.
- 5 Descending Device (EN341).
- 6 1 x Stainless steel carabiner with captive pin. (SANS 50362).



### FAS RESCUE KIT (D12704)

The Rescue Kit consists of:

- 1 20m or 30m x 11mm static rope.
- 2 1.5m Anchor strap (SANS 50566 and 50795)
- 3 Red hold-all bag.
- 4 Knife.
- 5 Descending Device (EN341).
- 6 1 x Stainless steel carabiner with captive pin. EN362.
- 7 Stirrup line.





# Eskom

## RESCUE EQUIPMENT



### ROPE GRAB SYSTEM (D12707)

The Rescue Kit consists of:

- 1 20m or 30m x 11mm static rope.
- 2 Remote pylon hook.
- 3 Black hold-all bag.
- 4 Lory descending device (EN341).
- 5 1 x Stainless steel carabiner with captive pin EN362.

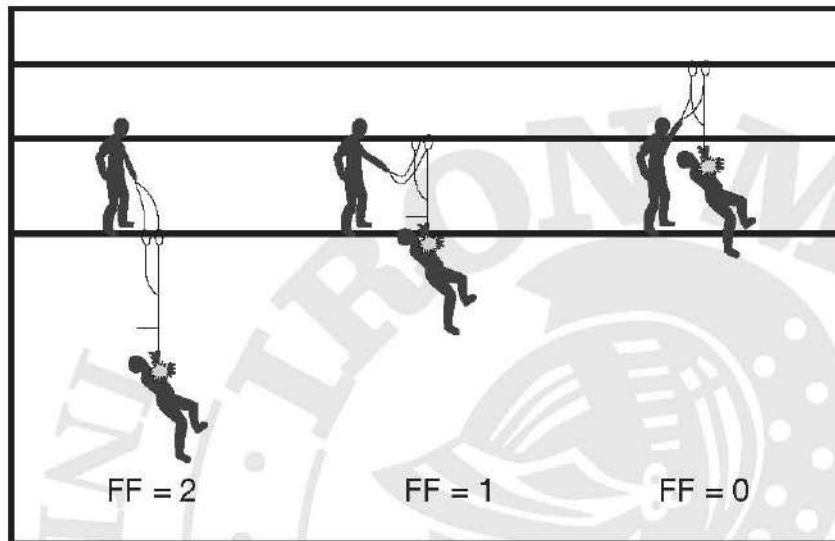






# TECHNICAL PRINCIPLES

## Fall Factor (FF)

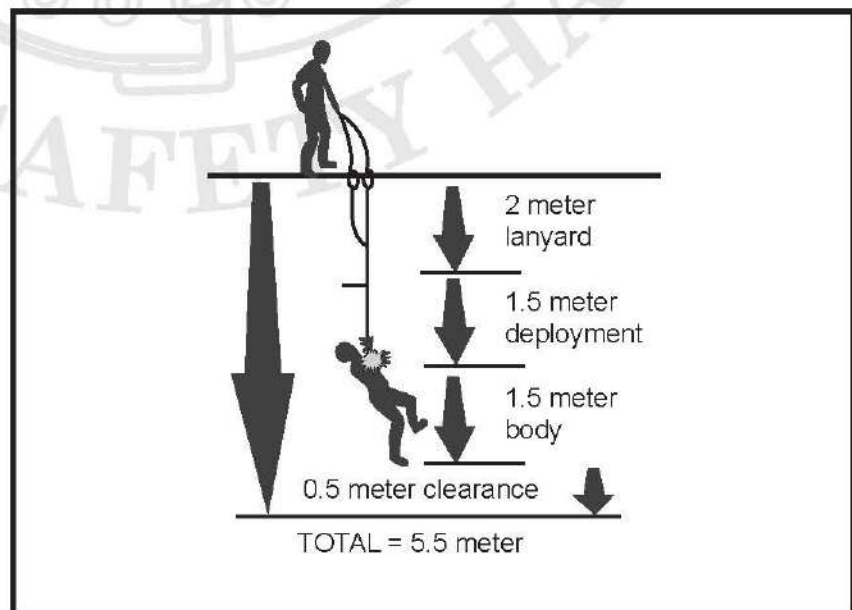


Fall arrest systems are designed to limit the extent of a person's fall. This is achieved by absorbing the energy generated in the fall by applying an arresting force to the faller over a distance i.e. the 'arrest distance'. In order to prevent the possibility of collision, there must be a sufficient free space directly under the user for the fall to be arrested i.e. the free space must be greater than the arrest distance. Free space means that the path of fall is free from obstacles.

This free space is called MFS and is defined as the vertical distance measured from the anchorage, (where the lanyard attaches to the structure), to the ground level, the next lower substantive platform, or nearest significant obstacle, depending upon the application. Application of the MFS ensures the safe arrest of a faller and avoids the possibility of collision.

## Minimum Free Space When Anchoring Beneath You

Using the Energy Absorbing Lanyard and Safety Harness Fall Arrest System, the MFS is determined by considering a number of factors. It is mainly dependent upon the length of the free fall, (the distance a faller could fall through before the lanyard becomes taut and operates the energy absorber), and to a lesser extent, the mass of the faller.





# IRON MAN® WORK POSITIONING BELTS



## HC / STD / SPWS - SNAP HOOK

- 75mm Waist belt with **single pin buckle** and kidney support.
- Sizes - small, medium and large.
- Fitted with 6-tool loops.
- 2m Webbing lanyard permanently attached to a D-Ring.
- Wear sleeve on lanyard.
- Terminating with safety snap hook.
- SANS 50354 and 50358.



## HC / UNI / DPWS - CARABINER

- 75mm Waist belt with **double pin buckle** and kidney support.
- Fitted with 6-tool loops.
- 2m Webbing lanyard permanently attached to a D-Ring.
- Wear sleeve on lanyard.
- Terminating with aluminium screw gate carabiner hook.
- SANS 50354 and 50358.

## MINERS CAPLAMP BELTS (NON SABS)



- 45mm Webbing shoulder straps.
- With EVA kidney support.
- Double battery strap.



### CDC 73

- 57mm Black webbing with 2 part interlocking buckle.
- Also available in 50mm webbing code CDC 74.
- Double battery strap.



### CDC 73 S/S

- As for CDC 73 but with adjustable shoulder straps.





# IRON MAN<sup>®</sup>

## LANYARDS

### WITH SHOCK ABSORBING ELEMENT



#### SINGLE WEBBING LANYARD / SAE / SNAP HOOKS

- Webbing lanyard up to a maximum of 2m overall length with shock absorbing element.
- Terminating with safety snap hooks.  
(Note: Any of the connectors shown on page 20 may be attached to these lanyards).
- SANS 50354 and 50355.

#### SINGLE ROPE LANYARD / SAE / SNAP HOOKS

- 12mm Nylon rope lanyard up to a maximum of 2m overall length with shock absorbing element.
- Types:
  1. Nylon - 12mm.
  2. Kernmantle - 11mm.
- Terminating with safety snap hooks.
- SANS 50354 and 50355.



#### DOUBLE WEBBING LANYARD / SAE / SCAFFOLD HOOKS

- Double leg webbing lanyard up to a maximum of 2m overall length with shock absorbing element.
- Terminating with scaffold hooks.
- SANS 50354 and 50355.

#### DOUBLE (ADJ) WEBBING LANYARD / SAE / SCAFFOLD HOOKS

- Double leg webbing lanyard up to a maximum of 2m overall length with shock absorbing element.
- Adjustable.
- Terminating with scaffold hooks.
- SANS 50354 and 50355.





# IRON MAN®

## LANYARDS

### WITH SHOCK ABSORBING ELEMENT



#### SINGLE STEEL WIRE ROPE / SAE / SNAP HOOKS

- Wire rope lanyard up to 2m overall length with shock absorbing element.
- Terminating with snap hook.
- SANS 50354 and 50355.

#### SINGLE WEBBING LANYARD / SAE / SCAFFOLD HOOK / STIRRUP LINE

- Webbing lanyard with shock absorbing element, up to a maximum of 2m overall length.
- With stirrup line.
- Terminating with safety snap hook one end, scaffold hook on the other end.
- SANS 50354 and 50355.



### WITHOUT SHOCK ABSORBING ELEMENT (NOT TO BE USED FOR FALL ARREST PURPOSES)



#### SINGLE WEBBING LANYARD / SNAP HOOKS

- Webbing lanyard up to a maximum of 2m overall length - no shock absorbing element.
- Terminating with safety snap hooks.
- **For work positioning or restraint purposes only.**
- SANS 50354.

#### SINGLE ROPE LANYARD / CARABINER

- 12mm Nylon rope lanyard up to a maximum of 2m overall length - no shock absorbing element.
- Terminating with aluminium carabiner hooks.
- **For work positioning or restraint purposes only.**
- SANS 50354.



#### WORK POSITIONING LANYARD

- Adjustable webbing lanyard up to 2m overall length - no shock absorbing element.
- Terminating with aluminium alloy carabiners with twist lock.
- **For work positioning or restraint purposes only.**
- SANS 50354.





# IRON MAN®

## BODY BELTS



Extract from SANS 809 / 2011 paragraph 4 page 5.

*"In order to ensure fitness-to-purpose suppliers and users are notified that the type of belt described in this standard shall not be used where there is a risk of free fall, i.e. as part of a fall-arrest system."*



### HA / 5 / SNAP HOOK

- 75mm Double layer webbing waist belt with 75mm 2 part interlocking buckle.
- 1.8m x 45mm Webbing lanyard terminating with safety snap hook.
- SANS 809 / 2011.



### HA / 7 / SNAP HOOK

- 75mm Double layer webbing waist belt with 75mm 2 part interlocking buckle.
- 1.8m x 12mm Ø Nylon rope lanyard terminating with safety snap hook.
- SANS 809 / 2011.



# ATTACHMENT STRAPS



- Webbing attachment strap.
- Loop / soft eye on one end, hard eye on other end, reeveable.
- Length to be determined, i.e. 1m, 2m, etc.
- Always wrap access webbing around anchor point to ensure effective length of harness lanyard is not increased.
- Complies with SANS 50566 and 50795.



- PVC covered wire rope with attachment point.
- Thimble eyes at each end.
- Length to be determined, e.i. 1m, 2m, etc.
- Always wrap access webbing around anchor point to ensure effective length of harness lanyard is not increased.
- Complies with 50566 and 50795.

- Webbing attachment strap.
- Soft eye on each end.
- Length to be determined, i.e. 1m, 2m, etc.
- Always wrap access webbing around anchor point to ensure effective length of harness lanyard is not increased.
- Complies with SANS 50566 and 50795.



- Webbing attachment strap.
- Solid eye on both ends.
- Length to be determined, i.e. 1m, 2m, etc. or any length required.
- Always wrap access webbing around anchor point to ensure effective length of harness lanyard is not increased.
- Complies with SANS 50566 and 50795.



- Webbing attachment strap.
- Length to be determined, i.e. 1m, 2m, etc.
- Always wrap access webbing around anchor point to ensure effective length of harness lanyard is not increased.
- Complies with SANS 50566 and 50795.





# SELF RECOVERY STIRRUP LINES



## DESCRIPTION OF HAZARD - SUSPENSION TRAUMA

Orthostatic intolerance may be experienced by workers using fall arrest systems. Following a fall, a worker may remain suspended in the harness. The sustained immobility may lead to a state of unconsciousness. Depending on the length of time the suspended worker is unconscious / immobile and the level of venous pooling, the resulting orthostatic intolerance may lead to death. While not common, such fatalities often are referred to as **"harness-induced pathology"** or **"suspension trauma"**.



## SOLUTION

A temporary solution to this potential hazard is the inclusion of the Self Recovery Stirrup Line. When deployed, the worker then steps into the appropriate loop on the vertical line and stands up, the pressure exerted in the groin area by the straps supporting the body is released. As a result of this, and the ability to move the legs, the blood supply to the upper body is restored.





# IRON MAN®

## CONNECTORS



### OVAL CARABINER WITH NUT

- Diameter: 10mm
- Throat opening: 17mm
- Material: High tensile steel
- Minimum breaking load: 25kN
- Finish: Zinc plated
- Code: S-507 / PN112
- SANS 50362

### SAFETY SNAP HOOK

- Throat opening: 18mm
- Material: High tensile steel
- Minimum breaking load: 23kN
- Finish: Yellow zinc plated
- Code: S-302 / PN121
- SANS 50362



### SCAFFOLD / PYLON HOOK

- Drop forged
- Throat opening: 60mm
- Material: Aluminium alloy
- Minimum breaking load: 22kN
- Finish: Polished
- Code: S-979 / PN136
- SANS 50362

### SCAFFOLD HOOK

- Throat opening: 50mm
- Material: High tensile steel
- Minimum breaking load: 23kN
- Finish: Yellow / Silver zinc plate
- Code: S-634 / PN131N
- SANS 50362



### CARABINER WITH TWIST LOCK

- Diameter: 11mm
- Throat opening: 21mm
- Material: Aluminium alloy
- Minimum breaking load: 23kN
- Finish: Anodized
- Code: S-958A / PN117
- SANS 50362

### CARABINER WITH SCREW GATE

- Diameter: 11mm
- Throat opening: 21mm
- Material: Aluminium alloy
- Minimum breaking load: 23kN
- Finish: Anodized
- Code: S-958AS / PN116
- SANS 50362



### STAINLESS STEEL CARABINER

- Diameter: 11mm
- Throat opening: 22mm
- Material: Stainless Steel
- Minimum breaking load: 23kN
- Finish: Chrome plate
- With captive pin
- Code: S-958I / PN113SSC
- SANS 50362

### FORGED CARABINER WITH INTEGRAL EYE

- Twist lock / Self locking
- Throat opening: 22mm
- Material: Aluminium alloy
- Minimum breaking load: 23kN
- Finish: Anodized
- Code: S-2149A / PN160
- SANS 50362







# ACCESSORIES

## VERTICAL LIFE LINES

### VERTICAL LIFE LINE

- Vertical rope.
- 11mm Ø Static rope and hook.
- Length on request - other end of rope back spliced.
- Altochute and short lanyard with hook (to attach to worker's harness).



### COTTON COVERED LIFE LINE

- 6mm Ø Galvanized Steel Wire Rope.
- Cotton covered to 10mm Ø.
- Eye one end and snap hook on other end.
- Length on request.



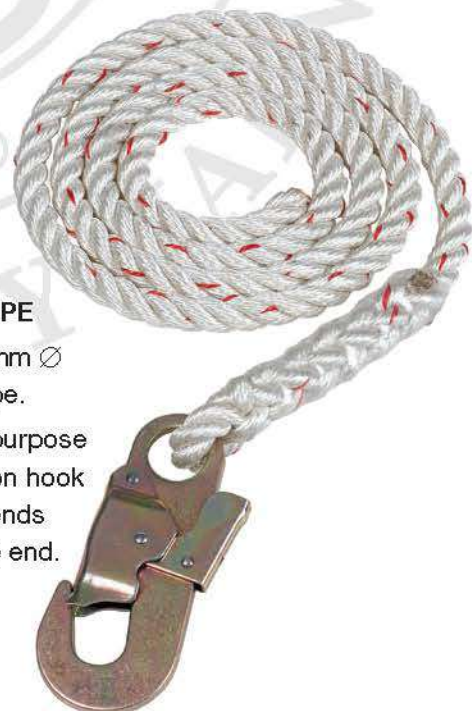
### KERMANTLE ROPE

- 11mm Ø Kernmantle rope.
- General purpose application hook on both ends or on one end.



### NYLON ROPE

- 12 or 16mm Ø Nylon rope.
- General purpose application hook on both ends or on one end.





## ACCESSORIES

### KIDNEY BELTS

#### EVA KIDNEY BELT

- Fit sizes Small to X-Large.
- Buckle closure with preset holes.



#### ELASTICATED KIDNEY BELT

- PVC strip reinforced.
- Velcro closure.
- Available in sizes Small, Medium, Large or on request for bigger sizes up to 5-X-Large.



#### ELASTICATED BACK SUPPORT / KIDNEY BELT

- With or without shoulder straps.
- Velcro closure.
- Available in sizes Small to 5-X-Large.
- Provides support for lower back.







## ACCESSORIES

### LADDERS / HARNESS / BELT



#### ROPE LADDER

- 16mm Polypropylene rope.
- Rectangular wooden rungs.
- Length on request.
- Top rope eyes or supplied with shackles or hook spliced into eyes.
- Maximum length: 5m.



#### WIRE LOOP LADDER

- 6mm Galvanized or stainless steel wire rope.
- 25mm Square tube aluminium ladder rungs.
- Length on request.
- Top wire rope soft eyes or supplied with shackles or fitted to eyes.

#### BRUSH CUTTER'S HARNESS

- Padded shoulder straps with reflective strips.
- Size adjustable.



#### TREE FELLER'S BELT

- 50mm Waist belt.
- Padded buttocks seat.
- 2 x Attachment points.
- Rope lanyard with wear sleeve and 2 x safety snap hooks.





# ACCESSORIES

## SYNTHETIC ROPE GRABS

### GUIDED TYPE FALL ARRESTER SYSTEMS

For use with 10 or 12mm Ø synthetic rope, with or without short nylon rope lanyard and connector.  
SANS 50353-2.



#### RG03

- The anchorage line has 1 side loop for connector and the other side a stop knot.
- Non openable and permanently stitched with shock absorber.
- Material: Alloy Steel.

#### RG06

- The anchorage line has 1 side loop for connector and the other side a stop knot.
- Highly corrosion resistant openable rope grab and can easily detach from the anchorage line.
- Material: Stainless Steel.



#### RG07

- Openable.
- Manual lock position to allow work on inclined roofs and, also restraint positioning.
- Light in weight and highly corrosion resistant.
- Material: Aluminium Alloy.

#### RG09

- Openable.
- The anchorage line has 1 side loop for connector and the other side a stop knot.
- Light in weight and highly corrosion resistant.
- Material: Aluminium Alloy.







# ACCESSORIES

## DESCENDING DEVICES



### ANTHRON LORY

- An abseiling device, complying with EN 341 Class A.
- A rope adjustment device, complying with EN 12841 Type C.



### GRIP DESCENDER

- For use with 10.5 or 11mm  $\varnothing$  Kernmantle rope.
- Material: Aluminium Alloy.
- Finish: Coloured / Anodized.
- Complying with EN 341.



# FALL ARRESTOR BLOCKS



## KARAM MINI BLOCK

- Protective casing.
- Retractable Webbing width: 47mm.
- Has shock absorbing element.
- Supplied with carabiner PN112.
- Minimum breakage strength: greater than 15kN.
- Maximum length: 2.5m.
- Weight: 1.2kg.



## KARAM WEBBING FALL ARRESTER

- Casing made from high impact strength polymer - to prevent breakage.
- Webbing width: 25mm.
- Anchorage eye with swivel action, prevents undue twist of the rope while working or in the event of a fall.
- Minimum breakage strength: greater than 15kN.
- Lengths available from: 2m to 10m.



## KARAM STEEL WIRE ROPE ARRESTER

- Casing made from high impact strength polymer - to prevent breakage.
- Galvanized steel wire rope with a diameter of 4.5mm.
- Anchorage eye with swivel action, prevents undue twist in the rope while working or in the event of a fall.
- Minimum breakage strength: 12kN.
- Lengths available from: 6m to 30m.
- 30m also available with retrieval system.





# FALL ARRESTOR BLOCKS



## MIKRON BLOCK

- Casing made up from robust and durable polymer.
- Has inbuilt textile energy absorber with protective cover.
- Attachment: Aluminium swivel quarter turn locking hook PN130, with impact indicator.
- Can be used horizontally and when anchor point is at foot level.
- Minimum breaking strength: 15kN.
- Maximum length: 2m.
- Extremely light in weight - less than 600 grams (excluding hook).



## KARAM TRITON RETRIEVABLE BLOCK

- Locking pin at the bottom of the handle allows this dual system to work in independent Fall Arrest & Winch modes.
- Attachment: Snap hook with impact indicator PN162.
- Can be easily mounted on the leg of the tripod PN800 using specialized brackets.
- Available with stainless steel wire rope or galvanized wire rope.
- Minimum breaking strength: greater than 12kN.
- Length available: 30m.



## KARAM STEEL WIRE ROPE SHARPON BLOCK

- Casing made up from high impact polymer - to prevent breakage.
- Galvanized steel wire rope with a diameter of 4.8mm.
- Attachment: Snap hook PN162 with impact indicator.
- Anchorage eye with swivel action, prevents undue twist in the rope while working or in the event of a fall.
- Equipped with external energy absorber to reduce impact of a fall to less than 6kN.
- Minimum breaking strength: greater than 12kN.
- Lengths available from: 7.5m to 10m.



# ACCESSORIES

## TOOL LANYARDS



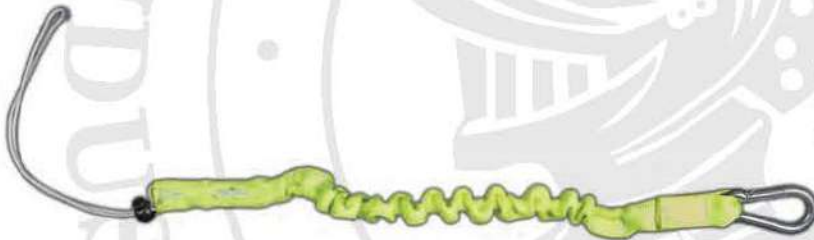
- 4mm Polyester braid.
- Loop on end to attach to tool.
- Webbing and valcro to attach to wrist - 500mm.



- 19mm Webbing.
- Hook on end to attach to tool.
- Webbing and valcro to attach to wrist - 500mm.



- 25mm Tubular Webbing.
- Hook one end to attach to tool.
- Hook other end to attach to belt loop -  
(a) 500mm Long when contracted.  
(b) 650mm Long when extended.



- 25mm Tubular Webbing.
- Hook one end to attach to tool.
- Drawstring other end to attach to belt loop -  
(a) 700mm Long when contracted.  
(b) 1000mm Long when extended.

## TOOL BAGS



### STYLE A

- 3mm Leather bag with shoulder strap.
- Size: 300mm x 300mm x 100mm.



### STYLE C

- Chrome Leather bag.
- Size: 240mm x 200mm x 60mm.



### STYLE B

- 3mm Leather bag with shoulder strap and provision for attachment to work positioning belt.
- Size: 240mm x 300mm x 80mm.
- 6 x Tool loops.



### STYLE D

- Canvas Bag, with hardboard base.
- Small: 440mm x 200mm x 200mm  
3 x External pockets.
- Large: 640mm x 200mm x 200mm  
5 x External pockets.
- Carry handle and shoulder straps.





## CONFINED SPACE ACCESSORIES



### TRIPOD - PN800 (10ft.)

- Fully adjustable telescopic legs.
- Fully adjustable height from: 1.9m to 3.07m.
- Wheelbase size: 1.7m Diameter.
- Weight: 16.8kg.
- Maximum load capacity: 500kg.
- 2 x Pulleys at the head of the tripod for passing cable.
- 2 x Eye bolts for attachment points.
- Aluminium alloy cast head and legs.
- Steel support shoes provided with rubber sole to increase friction and for more stability.
- Strength: 12kN.

## ACCESSORIES



### BRACKET - PN800 A(R)(09)

- For 30m retrieval block.



### CARABINER - PN112

- To be used with retrieval fall arrester blocks.



### PULLEY - AP 012(SS)

- To be used with retrieval fall arrester blocks.



### WINCH - PN801

- To be used for raising or lowering of personnel or material into confined areas.
- Equipped with bolting fixture for robust fitting.
- Maximum lifting load: 135kg.
- Maximum lifting load of machinery: 250kg.
- Length: 30m.



## ACCESSORIES



### SPREADER BAR - IMP003

- Used for raising and lowering a person during a rescue.
- The attached webbing loops can be used to secure the victim's arms when lifting or lowering them.
- Can be used in conjunction with IMP005 pilot chair.



### PILOT CHAIR - IMP005

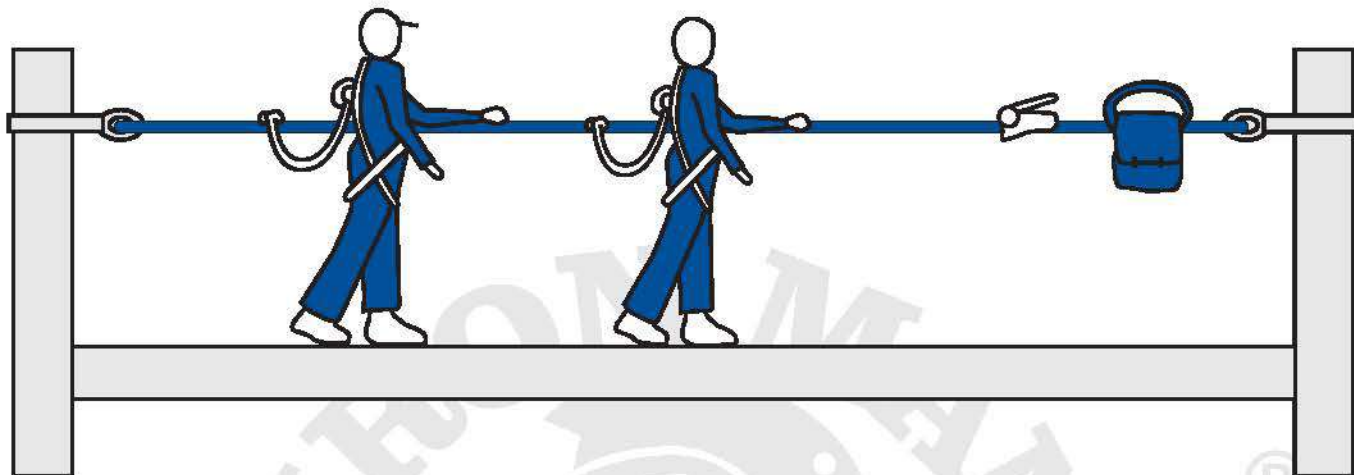
- Ergonomic and comfortable working chair.
- For verticle ascent and descent.
- Spreader Bar available as an optional accessory.
- Tested as per EN 1498.





## ACCESSORIES

### STATIC LIFE LINE KITS



#### STATIC LIFE LINE KIT – ROPE TYPE

- |  |  |
|--|--|
| 1 20m of 11mm diameter static rope.<br>(longer length on request). | 4 Lory to maintain tension and terminate end of<br>rope at anchor point. |
| 2 Hold all bag.  | 5 Oval carabiner for worker's attachment.                                |
| 3 2 x Attachment straps.   |  |



#### STATIC LIFE LINE KIT – WEBBING TYPE

- |                          |  |
|--------------------------|--|
| 1 Hold all bag.          | 4 20m of 50mm Webbing safety line with hooks<br>on both ends (longer length on request). |
| 2 2 x Attachment straps. | 5 Oval carabiner for worker's attachment.  |
| 3 50mm Ratchet.          |  |



# NOTES







## NOTES



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