



A New ERA of SAFETY

CE 0120

product f certificates

Systems Certification (ISO:9001:2008)

Under this certification all processes and systems are stringently monitored to deliver quality product at each stage of manufacturing and service.

Product Certification (CE)

Nearly 100 products manufactured by KARAM are CE certified.

Our Certificates have been issued by Certifying Body SATRA-UK, in accordance with Article 10 of the PPE Directive 89/686/EEC. The Notified Body Number of SATRA is 0321.

Our on-going assessment body is SGS-UK which issues us our 11B certificate as per directive 89/686/EEC. The notified body number of SGS is 0120.





All our products are marked '0120'.

As per 11 B certificate all products marked CE 0120 must have a valid E.C. type examination certificate issued under Article 10.

Category	Norms
EN358	Belt for Work Positioning & Restraint & Work Positioning Lanyards
EN361	Full Body Harnesses
EN813	Sit Harnesses
EN362	Connectors
EN354	Lanyards
EN355	Energy Absorbers
EN795	Anchor Devices - Requirements & Test.
EN353-2	Guided type Fall Arrester including a Flexible Anchor Line
EN353-1	Guided type Fall Arrester including a Rigid Anchor Line
EN360	Retractable type Fall Arresters
EN1496	Rescue Lifting Devices
EN341	Descender Devices for Rescue



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ONTENTS



Unit - I (Main Operation : Metal Processing)

our company KARAM is a renowned name that spells & pronounces the Safety Story in a unique way. From a small group of 4 in the late Nineties to a team of more than 1500 today, we have been creating this planet, a safer place to work in. As a leading supplier to many Industries, KARAM has earned a reputation in the World of Safety of Trust and Reliability.

KARAM specializes in the field of fall protection by manufacturing the highest quality equipment, leading the way with new innovative products and solutions.

KARAM Manufacturing set-up is spread over a span of around 250,000 square feet area, and has an annual installed capacity of over one million harnesses. It is also the only one in the world having a completely vertically integrated plant giving us strong controls over quality at each step of manufacturing. All our systems & process are assessed by SGS U.K. & registered to ISO 9001-2008.

The journey at KARAM is never ending. There is a long way to go, many more dreams to accomplish; and we believe in joining hands together for a Safer Universe.

Collection 2011 by KARAM brings forward the commitment made in the last edition of 2009, with newer additions of products in its ever expanding range. Introducing an exhaustive assemblage of Fixed Vertical and Horizontal Anchorage Line Systems, Special Purpose Full Body Harnesses, and an expanding range of Retractable Fall Arrestor Blocks, KARAM today stands as a one-stop solution in the field of Fall Protection.



Unit - II (Main Operation : Textile Processing)

Operations at KARAM

HYDRAULIC FORMING



COLD STAMPING



HOT FORGING



HEAT TREATMENT



CNC VERTICAL MACHINING



KARAM is the only company in the world which has a vertically integrated manufacturing set up. Starting with yarn and processing it to make premium quality of webbing and rope, Converting hot rolled coils, flats and extrusions of Steel and Aluminium Alloys into Fall Arrest Components, KARAM does it in-house, making Harnesses, Lanyards, Hooks and Fall Arrester. All products ranging from Harnesses to Anchorage lines are manufactured and assessed for quality before reaching the valued customer.



CNC TURNING



AUTOMATIC GALVANIZING



WEBBING PRODUCTION



CNC TOOL MAKING



PRODUCT DESIGN & DEVELOPMENT



KERNMANTLE ROPE PRODUCTION



TWISTED ROPE PRODUCTION



EFFLUENT TREATMENT PLANT



ROPE SPLICING



BLOCK MOLDING



PACKAGING



ASSEMBLY LINE



MENT



HARNESS STITCHING



EATMENT PLANT



RETRACTABLE FALL
ARRESTER ASSEMBLY LINE

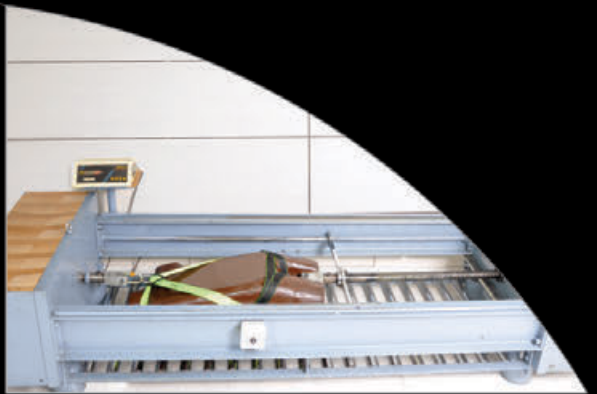


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perations at **KARAM®**



HARDNESS TESTING



STATIC HARNESS LOAD TESTING



100% VISUAL INSPECTION



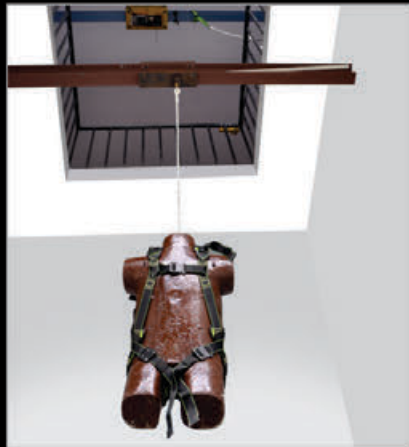
CHEMICAL ANALYSIS



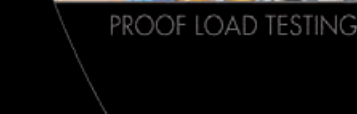
PROOF LOAD TESTING



SALT SPRAY TESTING



DYNAMIC PERFORMANCE TESTING



STATIC LOAD TESTING



TESTING PROCEDURES

Each and every step of manufacturing at KARAM follows adherence to strict quality parameters and focus lies on quality throughout the various stages involved. All raw as well as semi finished goods at KARAM also pass through stringent quality norms as laid down in the Quality Manual of the Company.

The final product, at KARAM is then tested to fulfill the requirements which are set much above the EN Norms and ANSI standards.



HARNESSES & BELTS

The Work Positioning System which comprises of a work positioning belt along with a work positioning lanyard enables the worker to work at heights in a well supported position, with both his hands free.



The Work Positioning Belts and Work Positioning Lanyards, however, should not be used for Fall Protection.

KARAM Work Positioning Belts have a sliding belt on the comfort pad, which enables the user to easily position the adjustment buckle of the belt at the center of his waist for smooth functioning.

Front



Ref. PN01

- ▶ Wide comfort pad to provide lumbar support for long working hours
- ▶ Fully Adjustable
- ▶ Two Lateral D-Rings for Work Positioning
- ▶ Tool holding webbing loops
- ▶ Rings for tool holders, bolt bags, etc
- ▶ Available in sizes- Medium, Large, Extra Large
- ▶ Conforms to EN 358:2000



Back

Front



Ref. PN02

- ▶ Optimum width comfort pad to provide sufficient lumbar support
- ▶ Fully Adjustable
- ▶ Two Lateral D-Rings for Work Positioning
- ▶ Tool holding webbing loops
- ▶ Rings for tool holders, bolt bags, etc
- ▶ Available in sizes- Medium, Large, Extra Large
- ▶ Conforms to EN 358:2000



Back

Front



Ref. PN03

- ▶ Optimum width comfort pad to provide sufficient lumbar support
- ▶ Two Lateral D-Rings for Work Positioning
- ▶ Rings for tool holders, bolt bags, etc
- ▶ Available in sizes- Medium, Large, Extra Large
- ▶ Conforms to EN 358:2000

A Full Body Harness is the ideal body wear that should be worn by a worker, since it distributes the force of impact incurred in the event of a fall evenly on the thighs and torso region of the body.

The material of construction of the webbing of KARAM Harnesses is Polyester. Since this has the least elongation properties as compared to other materials, the Harness does not stretch dangerously when subjected to a fall. The Wearer hence does not risk slipping out of the Harness.

Before wearing a Harness it is important to inspect the Harness for certain features-

- ▶ Hold the Harness by the Back D-ring, and allow the straps to fall in place. The Harness has clear and separate colours for the shoulder and thigh straps, for them to be easily distinguished.
- ▶ Inspect the Harness webbing for any cuts, burns or damages.
- ▶ Check the stitches for their continuity.
- ▶ Carefully look for any evidence of corrosion on the metal parts.
- ▶ KARAM Harnesses also give an assurance that the Harness has not been subjected to a fall, if the unique Tell-Tale Indicator is still secure on the shoulder straps.



The Tell-Tale Indicator is a small label stitched to the back side of the shoulder strap, and it flies out of the harness in the event of a fall. All KARAM Harnesses are supplied with Tell - Tale indicator on special Request.

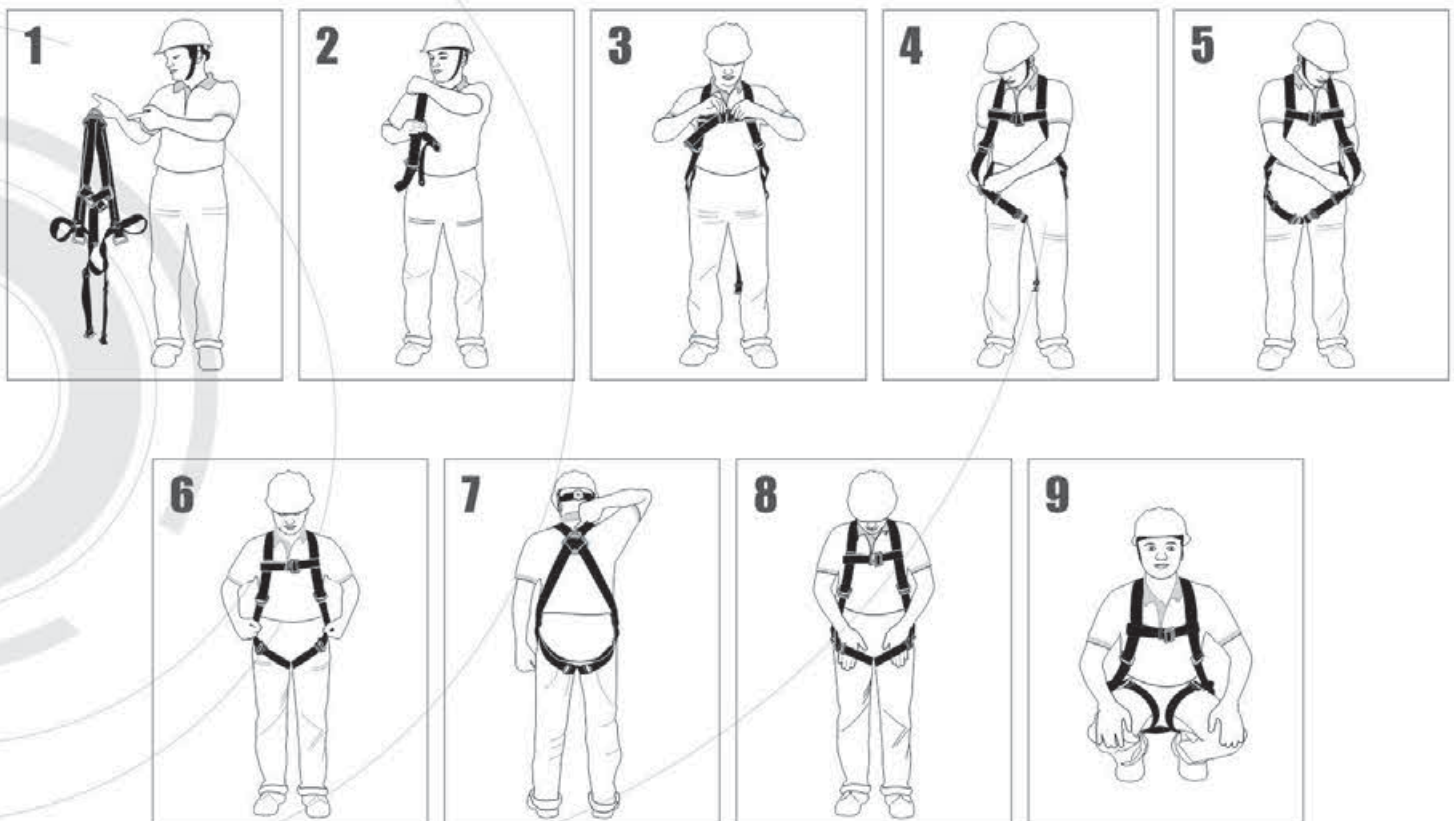


KARAM ADVANTAGE

All KARAM Harnesses are made of Dope-Dyed high tenacity Polyester Yarn, imparting increased resistance to UV colour degradation.

HOW TO WEAR A HARNESS

THE HARNESS CAN BE WORN FOLLOWING THESE SIMPLE STEPS-



Magna is the Premium Range of KARAM Harnesses and comes with the highest features of ergonomics, comfort and safety, quick connect automatic buckles, and a tangle-free design.



Distinctive Features of **KARAM®** MAGNA Range



- 1 ID Plate :** Dorsal Webbing Holding Cross Plate maintains the D-ring in place even after a fall.
- 2 Elastic Loops:** Specially designed to retain the excess strap while adjustment.
- 3 Shoulder Straps :** Fully padded Shoulder straps with knitted mesh pads for better comfort and air circulation.
- 4 Automatic Buckles :** Extremely easy to use with single-hand adjustment.
- 5 Lanyard Keepers :** Specially designed keepers on both sides for safely attaching the free connector end of forked lanyard.
- 6 Metal Components:** All hardware used are Black Powder Coated to provide the highest degree of corrosion protection packed with high aesthetic appeal.
- 7 Stitching Pattern:** Unique aesthetic stitch pattern for enhanced stitching strength with smart styling
- 8 Work Positioning Belt :** With knitted mesh pads for extra comfort. The belt is provided with holding loops for attaching tool bags etc.
- 9 Combination Buckles :** With a unique pull-up grip, these buckles are very easy to use & can be tightened/ loosened with one hand. They provide very comfortable adjustment, keeping the Harness snug fit to the body.
- 10 Thigh Straps :** The distinctively placed fully padded straps with automatic buckles for easy adjustment. The knitted mesh net used in the pads maintains proper air circulation.
- 11 Lateral D-Rings :** Specially designed to stand out, enabling easy attachment to work positioning Lanyard.



Ref. Magna - 1

- ▶ Attachment Elements - 2 Ideally Positioned Chest attachment textile loops and a Dorsal attachment D-Ring for Fall Arrest.
- ▶ Adaptability - Fully adjustable shoulder, chest strap & thigh-straps.
- ▶ Convenience - Shoulder straps have combination buckles & thigh straps are provided with automatic buckles for easy adjustment. Lanyard Keepers on shoulder straps have been provided for easy placement of free lanyards.
- ▶ Ergonomics - Specially cushioned mesh net has been used for better shock absorption & comfort of the user.
- ▶ Compliance - Conforms to EN 361:2002

Ref. Magna - 2

- ▶ Attachment Elements - 2 Ideally Positioned Chest attachment textile loops and a Dorsal attachment D-Ring for Fall Arrest. 2 lateral D-Rings for Work Positioning.
- ▶ Adaptability - Adjustable shoulder, thigh-straps and waist belt
- ▶ Convenience - Shoulder straps have combination buckles and thigh straps & waist strap are provided with automatic buckles for easy adjustment. 2 Tool holder loops at the back. Lanyard Keepers on shoulder straps have been provided for easy placement of free lanyards.
- ▶ Ergonomics - Ideally positioned sit-strap for extended comfort. Specially cushioned mesh net has been used for better shock absorption & comfort of the user.
- ▶ Compliance - Conforms to EN 361:2002 and EN 358:2000



Ref. Magna - 3

- ▶ Attachment Elements - 1 Dorsal & 1 Sternal D- Ring for Fall Arrest, 1 Ventral D- Ring at waist level in front for Rope Access & 2 lateral D-Rings at waist level on the sides for Work Positioning
- ▶ Adaptability - Adjustable shoulder, thigh-straps and waist belt
- ▶ Convenience - Shoulder straps and thigh straps are provided with automatic buckles & waist strap has combination buckles for easy adjustment. 2 Tool holder loops & an extra bigger handle at the back for keeping extra karabiners and accessories. Lanyard Keepers on shoulder straps have been provided for easy placement of free lanyards.
- ▶ Ergonomics - Ideally positioned elasticated straps for extended comfort. Specially cushioned mesh net has been used for better shock absorption & comfort of the user.
- ▶ Compliance - Conforms to EN 361:2002, EN 358:2000 & EN 813



KARAM introduces **SPECIAL-PURPOSE HARNESSES** designed for use in most challenging environment and application in the industry.



New!

NoSpark

Antistatic Full Body Harness

Ref. PN 22 (AS)

- ▶ This Harness has been designed to offer the perfect solution for safe work at height in explosive atmospheres. It is particularly suitable for petrochemical and mining environments.
- ▶ Compliance - Conforms to EN 361: Fall Arrest Harness
ATEX 94/9/CE, EN 13463-1(2001) and EN 13463-5(2006). Harness webbing also tested for surface resistance as per EN 1149-1: 2006
- ▶ Feature - The Anti-static material prevents the risk of an electrostatic discharge igniting the explosive atmosphere thus allowing the user to work in complete safety in these high risk environments.
- ▶ Comes with two front attachment textile loops in addition to the Forged Aluminium Dorsal D-Ring for Fall Arrest.
- ▶ Stainless Steel Buckles for excellent Corrosion Protection.



FLANIL

Flame Resistant Full Body Harness

Ref. PN 22 (FR)

- ▶ This harness has been specially designed for workers doing Welding Work at heights.
- ▶ The Webbing of the Harness can withstand flame of upto 700°F / 371°C without any damage or harm.
- ▶ The Harness is provided with adjustable shoulder & thigh straps, and comes with two front attachment textile loops in addition to the Dorsal D-ring for fall Arrest.
- ▶ This harness conforms to EN 361. The Webbing is also tested in accordance with ISO 15025 : 2005 and assessed in accordance with EN ISO 11612 : 2008.



New!



New!

Dienoc

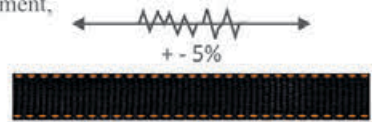
Dielectric Non Conductive Harness

Ref. PN 42 (DE)

- ▶ This Harness has been designed for workers working in conditions where there are possible electric hazards. Special Dielectric D-Rings and all metal adjustment buckles are equipped with insulated covers to make it completely electrically insulated.
- ▶ Consists of Non Conductive D-ring as Dorsal D-Ring attachment element for fall arrest along with two Non Conductive D-rings at waist level for work positioning. Also, equipped with two front textile loops for fall arrest.
- ▶ Shoulder straps are elasticated to provide flexibility to the user.
- ▶ Compliance - Conforms to EN 361:2002 and EN 358:2000



KARAM Elasto Range Constitutes special stretchable Harnesses designed for total wearer comfort. Designed for users who are looking for high comfort, the Elastic Webbing used in these Harnesses provides great freedom of movement, allowing the wearer to twist and flex freely during long hours of work.



Ref. PN 74

- Attachment Elements - A Sternal attachment D-Ring and a Dorsal attachment D-Ring for Fall Arrest.
- Adaptability - Adjustable Shoulder and Thigh Straps
- Convenience - Metal components made up of Stainless Steel for excellent corrosion protection.
- Ergonomics - Made of Elastic Webbing for more comfort.
- Compliance - Conforms to EN 361:2002



Ref. PN 94

- Attachment Elements - A Sternal attachment D-Ring and a Dorsal attachment D-Ring for Fall Arrest
- Adaptability - Adjustable Shoulder and Thigh Straps
- To be used for both Work Positioning and Fall Arrest purposes
- Convenience - Metal components made up of Stainless Steel for excellent corrosion protection
- Ergonomics - Made of Elastic webbing for more comfort.
- Compliance - Conforms to EN 361: 2002 & EN 358: 2000



Ref. No.	Material	Standard	Application	Attachment Point				Weight	Breaking Strength
				Dorsal	Sternal	Lateral	Ventral		
PN 74	Polyester	EN 361:2002	FA	✓	✓			1300 gms	25 kN
PN 94	Polyester	EN 361:2002 EN 358:2000	FA + WP	✓	✓	✓		1800 gms	25 kN

FA - Fall Arrest / WP - Work Positioning

KARAM Rhino Range of Full Body Harnesses comes in the catchy combination of Green and Black. Equipped with all the unique features that provide full comfort and ergonomics to the wearer, this range of Harnesses withstands the highest test of Safety standards as laid out in the European Norms, and is CE Certified.



Features of **KARAM®** RHINO Range



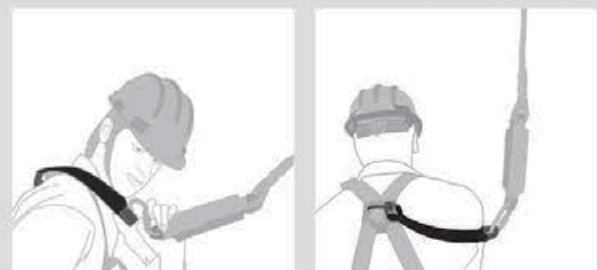
- 1 Web Keepers :** All End Straps equipped and unique plastic web keepers to give better grip while adjustment.
- 2 Label :** All labels and markings of the harness are enclosed within strong polyethylene tube to prevent the fading of printing due to sunlight and water thereby ensuring that the marking stays longer.
- 3 Dorsal Attachment Point:** Is for attachment to Fall Arrest, enables straight upright position in the event of a fall.
- 4 Adjustment Buckles:** All adjustment buckles provided with a unique "Pull Grip" to enable easy pull down with thumb and adjust all straps easily for a good fit.
- 5 Chest Strap:** In most of the models the chest strap is equipped with unique sliding chest strap plates to enable the user to bring chest strap in required position.
- 6 Marking A or A/2(two together):** Denotes attachment point for Fall Arrest.
- 7** All metal fittings come with yellow passivation which offers better corrosion resistance, capable of taking salt spray test of minimum 72 hours as against 50 hours requirement as per the EN Norms.
- 8** Fluorescent green colour of the webbing is conspicuous and makes it easier for safety officers to locate workers.



All textile loops of harness covered with strong textile reinforcement to reduce abrasion of the webbing when in contact with the metallic connectors.

EXTENSION BAND

Unique Optional Extension Band (made of 30cm Length webbing) on the Dorsal Attachment D-Ring may be provided on request.



This Extension Band allows the user to easily connect himself to the dorsal attachment D-Ring without any external help

⚠ IMPORTANT - It is advisable to use lanyard of length less than 1.5m if an Extension Band equipped Harness used.



Ref. PN 56

- Attachment Elements - 1 Dorsal and 1 Sternal D-Ring for Fall Arrest, 1 Ventral D-Ring at waist level for Rope Access work and 2 Lateral D-Rings for Work Positioning
- Adaptability - Adjustable shoulder, thigh-straps and waist belt
- Convenience - An ideal combination of Fall Arrest, Work Positioning, Rescue and Rope access applications.
- Ergonomics - Soft padding on shoulder, waist and leg straps for an extended comfort
- Compliance - Conforms to EN 361:2002, EN 358:2000 & EN 813

Also Available with Extension Band - Ref. PN 56 (E)



Ref. PN 57

- Attachment Elements - 1 Dorsal D-Ring for Fall Arrest, 1 Ventral D-Ring at waist level in front for Rope Access & 2 lateral D-Rings at waist level on the sides for Work Positioning
- Adaptability - Adjustable shoulder, thigh-straps and waist belt
- Convenience - An ideal combination of Fall Arrest, Work Positioning, Rescue and Rope Access applications
- Ergonomics - Soft padding on waist and leg straps for an extended comfort
- Compliance - Conforms to EN 361:2002, EN 358:2000 & EN 813

KARAM ADVANTAGE The karabiner at the front of Harness PN 57 enables the wearer to easily wear or remove the Harness by detaching the shoulder straps.

Also Available with Extension Band - Ref. PN 57 (E)



Easy Seat

Ref. IMP 004

Design: To be used as an accessory with Harness having a central D-ring at the waist level (ventral) to which the karabiner is attached.

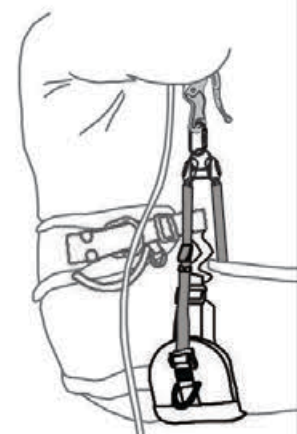
- Ergonomic & comfortable working chair.
- Aluminium reinforcement inside

WEBBING

Material	: Polyester
Width	: 44±1mm
Breaking Strength	: 23kN

METAL COMPONENTS

Material	: High strength steel
Plating	: Zinc plated
Finish	: Black powder coated
Weight	: 1280 gm ± 1





Ref. PN 51 (Sit Harness)

- ▶ Attachment Elements - 2 Lateral Metallic D-Rings for Work Positioning, 1 front ventral attachment (Metallic D-Ring) for rope access
- ▶ Adaptability - Adjustable thigh-straps and waist belt
- ▶ Convenience - Ideal for Work Positioning, Restraint System and Rope Access work
- ▶ Ergonomics - The waist belt and the leg straps are provided with a soft padding for best possible comfort
- ▶ Compliance - Conforms to EN 358:2000 and EN 813

Ref. PN 41 (01)

Incorporated with our Work Positioning Belt PN 01

Ref. PN 41 (02)

Incorporated with our Work Positioning Belt PN 02

Ref. PN 41 (03)

Incorporated with our Work Positioning Belt PN 03

- ▶ Attachment Elements - 1 Dorsal attachment D-Ring for Fall Arrest and 2 Lateral D-Rings for Work Positioning
- ▶ Adaptability - Adjustable shoulder, thigh-straps and waist belt; Sliding Plates for easy adjustment of Chest-Strap
- ▶ Convenience - Shoulder and thigh-straps differentiated by a dual colour scheme. Tool holder loops and rings at the back
- ▶ Ergonomics - Ideally positioned sit-strap for extended comfort
- ▶ Compliance - Conforms to EN 361:2002 and EN 358:2000

Also Available with Extension Band - Ref. PN 41 (01) (E)



Ref. PN 42 (01)

Incorporated with our Work Positioning Belt PN 01

Ref. PN 42 (02)

Incorporated with our Work Positioning Belt PN 02

Ref. PN 42 (03)

Incorporated with our Work Positioning Belt PN 03

- ▶ Attachment Elements - 2 Chest attachment textile loops and a Dorsal attachment D-Ring for Fall Arrest, 2 lateral D-Rings for Work Positioning
- ▶ Adaptability - Adjustable shoulder, thigh-straps and waist belt
- ▶ Convenience - Shoulder and thigh-straps differentiated by a dual colour scheme. Tool holder loops and rings at the back
- ▶ Ergonomics - Ideally positioned sit-strap for extended comfort
- ▶ Compliance - Conforms to EN 361:2002 and EN 358:2000

Also Available with Extension Band - Ref. PN 42 (01) (E)





Ref. PN 43 (01)

Incorporated with our Work Positioning Belt PN 01

Ref. PN 43 (02)

Incorporated with our Work Positioning Belt PN 02

Ref. PN 43 (03)

Incorporated with our Work Positioning Belt PN 03

- ▶ Attachment Elements - 2 Chest attachment D-Rings and a Dorsal attachment D-Ring for Fall Arrest. 2 Lateral D-Rings for Work Positioning
- ▶ Adaptability - Adjustable shoulder, thigh-straps and waist belt; Sliding Plates for easy adjustment of Chest-Strap.
- ▶ Convenience - Shoulder and thigh-straps differentiated by a dual colour scheme. Tool holder loops and rings at the back
- ▶ Ergonomics - Ideally positioned sit-strap for extended comfort
- ▶ Compliance - Conforms to EN 361:2002 and EN 358:2000

Also Available with Extension Band - Ref. PN 43 (01) (E)



Ref. PN 44 (01)

Incorporated with our Work Positioning Belt PN 01

Ref. PN 44 (02)

Incorporated with our Work Positioning Belt PN 02

Ref. PN 44 (03)

Incorporated with our Work Positioning Belt PN 03

- ▶ Attachment Elements - One Chest attachment D-Ring and a Dorsal attachment D-Ring for Fall Arrest. Two Lateral attachment D-Rings for Work Positioning
- ▶ Adaptability - Adjustable shoulder and thigh-straps
- ▶ Convenience - Shoulder and thigh-straps differentiated by a dual colour scheme
- ▶ Ergonomics - Ideally positioned sit-strap for extended comfort
- ▶ Compliance - Conforms to EN 361:2002 & EN 358:2000

Also Available with Extension Band - Ref. PN 44 (01) (E)



Ref. No.	Material	Standard	Application	Attachment Point				Weight	Breaking Strength
				Dorsal	Sternal	Lateral	Ventral		
PN 56	Polyester	EN 361:2002 EN 358:2000 EN 813:1997	FA + WP + RA	✓	✓	✓	✓	2000 gms	25 kN
PN 57	Polyester	EN 361:2002 EN 358:2000 EN 813:1997	FA + WP + RA	✓	✓	✓	✓	2440 gms	25 kN
PN 51	Polyester	EN 358:2000 EN 813:1997	WP + RA			✓	✓	1270 gms	25 kN
PN 41	Polyester	EN 361:2002 EN 358:2000	FA + WP	✓		✓		1720 gms	25 kN
PN 42	Polyester	EN 361:2002 EN 358:2000	FA + WP	✓	✓	✓		1780 gms	25 kN
PN 43	Polyester	EN 361:2002 EN 358:2000	FA + WP	✓	✓	✓		1780 gms	25 kN
PN 44	Polyester	EN 361:2002 EN 358:2000	FA + WP	✓	✓	✓		1800 gms	25 kN

FA - Fall Arrest / WP - Work Positioning / RA - Rope Access

Dorsal ● Sternal ● Lateral ● Belt ■ Ventral ●



Ref. PN 45 (01)

Incorporated with our Work Positioning Belt PN 01

Ref. PN 45 (02)

Incorporated with our Work Positioning Belt PN 02

Ref. PN 45 (03)

Incorporated with our Work Positioning Belt PN 03

- ▶ Attachment Elements - 1 Chest attachment D- Ring and a Dorsal attachment D-Ring for Fall Arrest; Two Lateral D-Rings for Work Positioning; Extension Rescue Strap with top D- Ring for Rescue.
- ▶ Adaptability - Adjustable thigh-straps and shoulder straps
- ▶ Convenience - Shoulder and thigh-straps differentiated by a dual colour scheme
- ▶ Ergonomics - Ideally positioned sit-strap for extended comfort
- ▶ Compliance - Conforms to EN 361:2002, EN 358:2000 & EN 1497

The Extension Rescue Strap incorporated on the shoulder strap of the Harness has a D-ring which can be used to connect to the Rescue Equipment, when in need. It allows easy rescue of the worker, and minimizes his discomfort while being rescued. The Extension Rescue Strap otherwise lies attached to the shoulder strap with the help of velcro binding, when not in use.

Also Available with Extension Band - Ref. PN 45 (01) (E)

Ref. PN 31 (01)

Incorporated with our Work Positioning Belt PN 01

Ref. PN 31 (02)

Incorporated with our Work Positioning Belt PN 02

Ref. PN 31 (03)

Incorporated with our Work Positioning Belt PN 03

- ▶ Attachment Elements - A Dorsal attachment D-Ring for Fall Arrest, 2 Lateral D-Rings for Work Positioning
- ▶ Adaptability - Adjustable thigh-straps and waist belt; Sliding Plates for easy adjustment of Chest-Strap
- ▶ Convenience - Shoulder and thigh-straps differentiated by a dual colour scheme. Tool holder loops and rings at the back
- ▶ Ergonomics - Ideally positioned sit-strap for extended comfort
- ▶ Compliance - Conforms to EN 361:2002 and EN 358:2000

Also Available with Extension Band - Ref. PN 31 (01) (E)



Ref. PN 32 (01)

Incorporated with our Work Positioning Belt PN 01

Ref. PN 32 (02)

Incorporated with our Work Positioning Belt PN 02

Ref. PN 32 (03)

Incorporated with our Work Positioning Belt PN 03

- ▶ Attachment Elements - 2 Chest attachment textile loops and a Dorsal attachment D- Ring for Fall Arrest. 2 Lateral D- Rings for Work Positioning
- ▶ Adaptability - Adjustable thigh-straps and waist belt
- ▶ Convenience - Shoulder and thigh-straps differentiated by a dual colour scheme. Tool holder loops and rings at the back
- ▶ Ergonomics - Ideally positioned sit-strap for extended comfort
- ▶ Compliance - Conforms to EN 361:2002 and EN 358:2000

Also Available with Extension Band - Ref. PN 32 (01) (E)





Ref. PN 21

- ▶ Attachment Elements - A Dorsal attachment D- Ring for Fall Arrest
- ▶ Adaptability - Adjustable shoulder and thigh-straps; Sliding Plates for easy adjustment of Chest-Strap
- ▶ Convenience - Shoulder and thigh-straps differentiated by a dual colour scheme
- ▶ Ergonomics - Ideally positioned sit-strap for extended comfort
- ▶ Compliance - Conforms to EN 361:2002

Also Available with Extension Band - Ref. PN 21 (E)



Ref. PN 22

- ▶ Attachment Elements - 2 Chest attachment textile loops and a Dorsal attachment D- Ring for Fall Arrest
- ▶ Adaptability - Adjustable shoulder and thigh-straps.
- ▶ Convenience - Shoulder and thigh-straps differentiated by a dual colour scheme
- ▶ Ergonomics - Ideally positioned sit-strap for extended comfort
- ▶ Compliance - Conforms to EN 361:2002

Also Available with Extension Band - Ref. PN 22 (E)



Ref. No.	Material	Standard	Application	Attachment Point				Weight	Breaking Strength
				Dorsal	Sternal	Lateral	Ventral		
PN 45	Polyester	EN 361:2002 EN 358:2000 EN 1497	FA + WP+R	✓	✓	✓		1900 gms	25 kN
PN 31	Polyester	EN 361:2002 EN 358:2000	FA + WP	✓		✓		1540 gms	25 kN
PN 32	Polyester	EN 361:2002 EN 358:2000	FA + WP	✓	✓	✓		1650 gms	25 kN
PN 21	Polyester	EN 361:2002	FA	✓				1100 gms	25 kN
PN 22	Polyester	EN 361:2002	FA	✓	✓			1200 gms	25 kN

FA - Fall Arrest / WP - Work Positioning / R-Rescue



Ref. PN 23

- ▶ Attachment Elements - 2 Chest attachment D- Rings and a Dorsal attachment D- Ring for Fall Arrest
- ▶ Adaptability - Adjustable shoulder and thigh-straps; Sliding Plates for easy adjustment of Chest-Strap
- ▶ Convenience - Shoulder and thigh-straps differentiated by a dual colour scheme
- ▶ Ergonomics - Ideally positioned sit-strap for extended comfort
- ▶ Compliance - Conforms to EN 361:2002

Also Available with Extension Band - Ref. PN 23 (E)



Ref. PN 24

- ▶ Attachment Elements - 1 Chest attachment D- Ring and a Dorsal attachment D- Ring for Fall Arrest
- ▶ Adaptability - Adjustable shoulder and thigh-straps.
- ▶ Convenience - Shoulder and thigh-straps differentiated by a dual colour scheme
- ▶ Ergonomics - Ideally positioned sit-strap for extended comfort
- ▶ Compliance - Conforms to EN 361:2002

Also Available with Extension Band - Ref. PN 24 (E)



Ref. PN 25

- ▶ Attachment Elements - 1 Sternal attachment D- Ring and a Dorsal attachment D-Ring for Fall Arrest; Extension Rescue strap with top D- Ring for Rescue
- ▶ Adaptability - Adjustable shoulder and thigh-straps
- ▶ Convenience - Shoulder and thigh-straps differentiated by a dual colour scheme
- ▶ Ergonomics - Ideally positioned sit-strap for extended comfort
- ▶ Compliance - Conforms to EN 361:2002 and EN 1497

The Extension Rescue Strap incorporated on the shoulder strap of the Harness has a D-ring which can be used to connect to the Rescue Equipment, when in need. It allows easy rescue of the worker, and minimizes his discomfort while being rescued. The Extension Rescue Strap otherwise lies attached to the shoulder strap with the help of velcro binding, when not in use.

Also Available with Extension Band - Ref. PN 25 (E)





Ref. PN 11

- ▶ Attachment Elements - A Dorsal Attachment D-Ring for Fall Arrest
- ▶ Adaptability - Adjustable thigh-straps; Sliding Plates for easy adjustment of Chest-Strap
- ▶ Convenience - Shoulder and thigh-straps differentiated by a dual colour scheme
- ▶ Ergonomics - Ideally positioned sit-strap for extended comfort
- ▶ Compliance - Conforms to EN 361:2002

Also Available with Extension Band - Ref. PN 11 (E)

Ref. PN 12

- ▶ Attachment Elements - 2 Chest attachment textile loops and a Dorsal attachment D-Ring for Fall Arrest
- ▶ Adaptability - Adjustable thigh-straps
- ▶ Convenience - Shoulder and thigh-straps differentiated by a dual colour scheme
- ▶ Ergonomics - Ideally positioned sit-strap for extended comfort
- ▶ Compliance - Conforms to EN 361:2002

Also Available with Extension Band - Ref. PN 12 (E)



Ref. No.	Material	Standard	Application	Attachment Point				Weight	Breaking Strength
				Dorsal	Sternal	Lateral	Ventral		
PN 23	Polyester	EN 361:2002	FA	✓	✓			1300 gms	25 kN
PN 24	Polyester	EN 361:2002	FA	✓	✓			1210 gms	25 kN
PN 25	Polyester	EN 361:2002 EN 1497	FA + R	✓	✓			1405 gms	25 kN
PN 11	Polyester	EN 361:2002	FA	✓				800 gms	25 kN
PN 12	Polyester	EN 361:2002	FA	✓				900 gms	25 kN

FA - Fall Arrest / R-Rescue



Ref. STS 01

Suspension Trauma Relief Strap

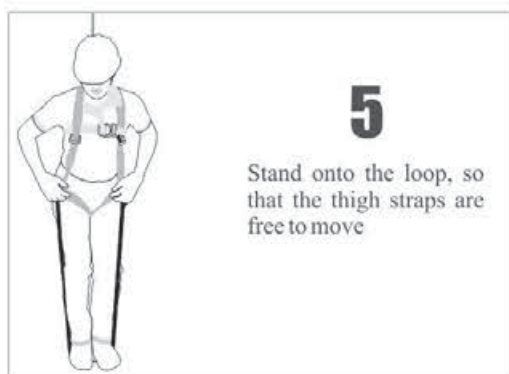
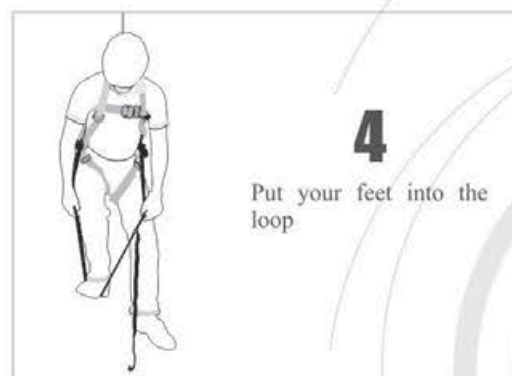
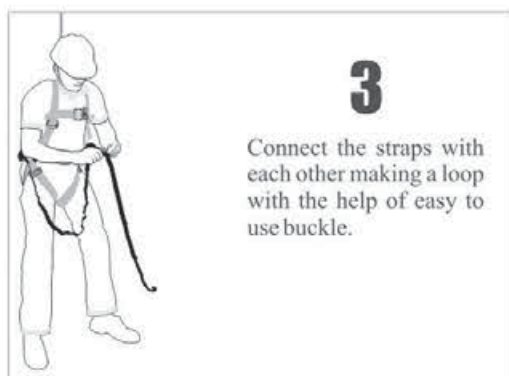
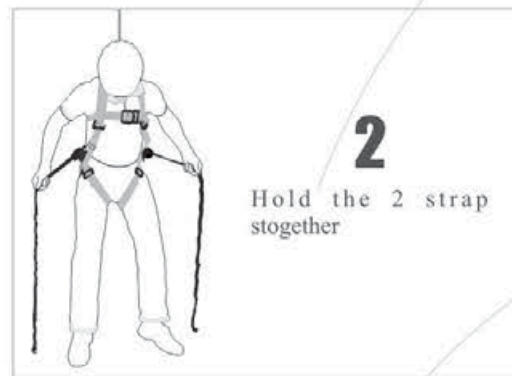
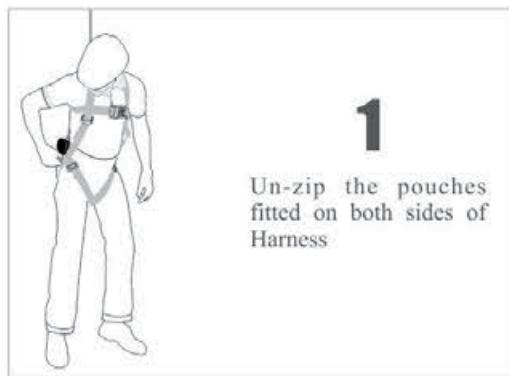
CARE BY KARAM EVEN AFTER A FALL!

Avoid the effects of Suspension Trauma with the use of KARAM Suspension Trauma Relief Straps.

- › Extremely effective; specially designed to help relieve the negative effects of Suspension Trauma.
- › Compact and Light-weight. Does not hamper the activity of worker while at work.
- › Allows the suspended worker to stand up in his harness to relieve pressure.
- › Easy to attach to the Harness with the help of the textile loop and velcro provided.
- › Easy deployment; operation is fool-proof.

KARAM provides Harnesses fitted with the Suspension Trauma Relief Straps on request.

STEPS TO USE



The KARAM range of Hooks and Connectors come with the following special features:

- ▶ Can be opened by minimum 2 deliberate consecutive manual actions.
- ▶ A range of double and triple locking connectors.
- ▶ Come with a minimum breaking strength of 23kN.
- ▶ Tested for both Gate Function and Gate Resistance.
- ▶ Tested for corrosim resistance for min 72 hours of salt spray testing.



HOOKS & CONNECTORS

TESTS CARRIED OUT ON ALL CONNECTORS



Proof Load Testing



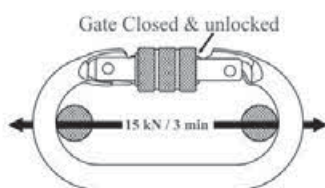
Hardness Testing



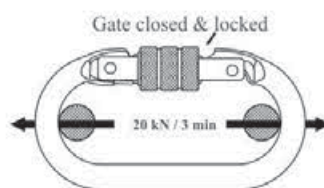
Salt-Spray Test



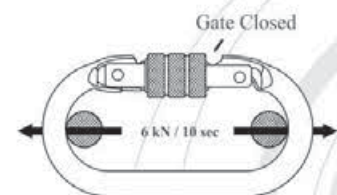
Static Load Testing



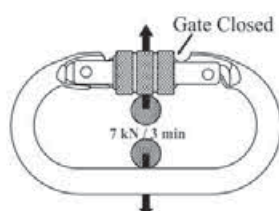
The Karabiner must not Break



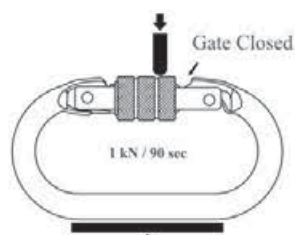
The Karabiner must not Break



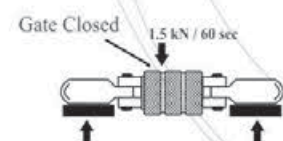
After the test, the gate shall open like new one.
(Gate Function)



The Karabiner must not Break
(Minor Axis)



After the test, the gate shall open like new one.
Gate Resistance (Gate Face)



After the test, the gate shall open like new one.
Gate Resistance (Gate Side)

KARAM provides an exhaustive range of Hooks and Connectors

made from Alloy Steel



Quarter Turn-locking Steel Karabiner Ref. PN 111

- ▶ Material: Alloy Steel
- ▶ Gate Opening: 16 mm
- ▶ Minimum Breaking Strength: 25 kN
- ▶ Tested as per EN 362:2004
- ▶ Finish Available: Silver/ golden Yellow Galvanized
- ▶ Net Weight: 160.5 gm
- ▶ Conformity: EN 362: 2004 Class B & Class M
- * see the box below



Steel Screw-locking Karabiner Ref. PN 112

- ▶ Material: Alloy Steel
- ▶ Gate Opening: 17 mm
- ▶ Minimum Breaking Strength: 25 kN
- ▶ Finish Available: Silver/ golden Yellow Galvanized
- ▶ Net Weight: 160.5 gm
- ▶ Conformity: EN 362: 2004 Class B & Class M
- * see the box below



Steel Quater Turn-locking Karabiner Ref. PN 113

- ▶ Material: Alloy Steel
- ▶ Gate Opening: 23 mm
- ▶ Minimum Breaking Strength: 25 kN
- ▶ Finish Available: Silver/ golden Yellow Galvanized.
- ▶ Net Weight: 236.0gm
- ▶ Conformity: EN 362: 2004 Class B
- * see the box below



* Also available with Captive Pin on request

This is an Additional Pin fitted to the Karabiner to prevent it from disengaging from the Lanyard. The code for the product is written as the Ref. No. of the product along with (C), for eg. PN 112 (C)



Steel Triple-Action Locking Karabiner Ref. PN 114

- ▶ Material: Alloy Steel
 - ▶ Gate Opening: 23 mm
 - ▶ Minimum Breaking Strength: 25 kN
 - ▶ Finish Available: Silver/ golden Yellow Galvanized. Shot-blasted on request.
 - ▶ Net Weight: 233.4gm
 - ▶ Conformity: EN 362: 2004 Class B
- * see the box below

New!



Steel Quarter Turn-locking Karabiner Ref. PN 115

- ▶ Material: Alloy Steel
 - ▶ Gate Opening: 23 mm
 - ▶ Minimum Breaking Strength: 25 kN
 - ▶ Finish Available: Silver/ golden Yellow Galvanized.
 - ▶ Net Weight: 210.0gm
 - ▶ Conformity: EN 362: 2004 Class B
- * see the box below



Steel Tower Hook Ref. PN 134

- ▶ Material: Alloy Steel
- ▶ Gate Opening: 50 mm
- ▶ Always comes fitted with a Captive Pin
- ▶ Minimum Breaking Strength: 23 kN
- ▶ Finish Available: Silver or golden Yellow Galvanized. Shot-blasted on request.
- ▶ Net Weight: 725 gm
- ▶ Conformity: EN 362: 2004 Class T



Steel Tower Hook Ref. PN 135

- ▶ Material: Alloy Steel
- ▶ Gate Opening: 55 mm
- ▶ Always comes fitted with a Captive Pin
- ▶ Minimum Breaking Strength: 23 kN
- ▶ Finish Available: Silver or golden Yellow Galvanized. Shot-blasted on request.
- ▶ Net Weight: 745 gm
- ▶ Conformity: EN 362: 2004 Class T



* Also available with Captive Pin on request

This is an Additional Pin fitted to the Karabiner to prevent it from disengaging from the Lanyard. The code for the product is written as the Ref. No. of the product along with (C), for eg. PN 115 (C)



Steel Snap Hook

Ref. PN 121

- ▶ Material: Alloy Steel
- ▶ Gate Opening: 17 mm
- ▶ Minimum Breaking Strength: 25 kN
- ▶ Finish Available: Silver/ golden Yellow Galvanized; Shot blasted on request
- ▶ Net Weight: 205.3 gm
- ▶ Conformity: EN 362: 2004 Class T
- ▶ Process : Stamped



Pole Strap Snap Hook

Ref. PN 150

- ▶ Material: Alloy Steel
- ▶ Gate Opening: 17 mm
- ▶ Minimum Breaking Strength: 25 kN
- ▶ Finish Available: Silver/ golden Yellow Galvanized; Shot blasted on request
- ▶ Net Weight: 259.0 gm
- ▶ Conformity: EN 362: 2004 Class T
- ▶ Process : Stamped



Steel Swivel Snap Hook

Ref. PN 122

- ▶ Material/ Composition: Alloy Steel
- ▶ Gate Opening: 11.5 mm
- ▶ Minimum Breaking Strength: 23 kN
- ▶ Finish Available: Silver/ golden Yellow Galvanized; Shot blasted on request
- ▶ Net Weight: 334.9 gm
- ▶ Conformity: EN 362: 2004 Class T
- ▶ Process : Forged



Steel Swivel Snap Hook with Load Indicator

Ref. PN 123

- ▶ Material: Alloy Steel
- ▶ Gate Opening: 11.5 mm
- ▶ Minimum Breaking Strength: 23 kN
- ▶ Finish Available: Silver/ golden Yellow Galvanized; Shot blasted on request
- ▶ Net Weight: 345.5 gm
- ▶ Conformity: EN 362: 2004 Class T
- ▶ The Load Indicator (shown in green colour) activates at a load of 270 to 320 kgf.
- ▶ Process : Forged



Steel Snap Hook

Ref. PN 124

- ▶ Material: Alloy Steel
- ▶ Gate Opening: 21 mm
- ▶ Minimum Breaking Strength: 23 kN
- ▶ Finish Available: Silver/ golden Yellow Galvanized; Shot blasted on request
- ▶ Net Weight: 274.0 gm
- ▶ Conformity: EN 362: 2004 Class T
- ▶ Process : Stamped



Steel Scaffold Hook

Ref. PN 131

- ▶ Material: Alloy Steel
- ▶ Gate Opening: 55 mm
- ▶ Minimum Breaking Strength: 23 kN
- ▶ Finish Available: Nickel Plated/ Silver or golden Yellow Galvanized. Shot-blasted on request.
- ▶ Net Weight: 473.0 gm
- ▶ Conformity: EN 362: 2004 Class T
- ▶ Process : Forged



Steel Tower Hook
Ref. PN 132

- ▶ Material: Alloy Steel
- ▶ Gate Opening: 80 mm
- ▶ Minimum Breaking Strength: 23 kN
- ▶ Finish Available: Silver or golden Yellow Galvanized. Shot-blasted on request.
- ▶ Net Weight: 850.5 gm
- ▶ Conformity: EN 362: 2004 Class T

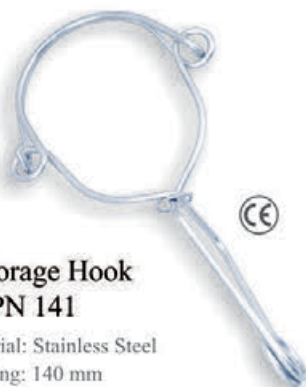


Steel Scaffold Hook
Ref. PN 133

- ▶ Material: Alloy Steel
- ▶ Gate Opening: 60 mm
- ▶ Minimum Breaking Strength: 23 kN
- ▶ Finish Available: Silver or golden Yellow Galvanized. Shot-blasted on request.
- ▶ Net Weight: 490.0 gm
- ▶ Conformity: EN 362: 2004 Class T
- ▶ Process: Stamped

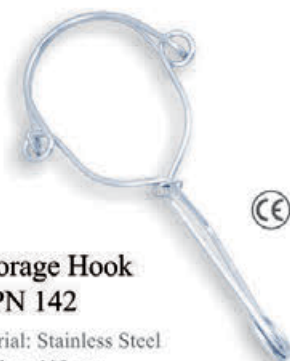
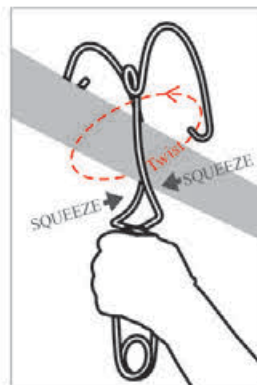
Anchorage Hooks

KARAM has a range of Anchorage Hooks made from stainless steel that are design to fit over or around large structural members, to provide secure anchorage for lanyards, lifelines and other connectors. They are fast and easy to install by slipping the large opening over the approved structure-like railings, small I-beams, angle iron etc.



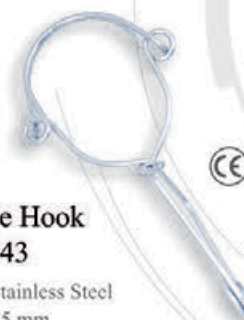
Anchorage Hook
Ref. PN 141

- ▶ Material: Stainless Steel
- ▶ Opening: 140 mm
- ▶ Minimum Breaking Strength: 23 kN
- ▶ Net Weight: 362.3 gm
- ▶ Conformity: EN 362: 2004 Class A



Anchorage Hook
Ref. PN 142

- ▶ Material: Stainless Steel
- ▶ Opening: 110 mm
- ▶ Minimum Breaking Strength: 23 kN
- ▶ Finish Available: Polished Stainless Steel
- ▶ Net Weight: 314.9 gm
- ▶ Conformity: EN 362: 2004 Class A



Anchorage Hook
Ref. PN 143

- ▶ Material: Stainless Steel
- ▶ Opening: 75 mm
- ▶ Minimum Breaking Strength: 23 kN
- ▶ Finish Available: Polished Stainless Steel
- ▶ Net Weight: 306.3 gm
- ▶ Conformity: EN 362: 2004 Class A

Where it is important to carry light-weight connectors at heights to provide the maximum comfort as well safety to the user, this range of Aluminium Connectors by KARAM fulfills all the required needs, Manufactured from high quality Aluminium alloy, these connectors come in highly engineered designs, conforming to all the clauses laid down in the EN norms.

KARAM provides an exhaustive range of
**made from Aluminium
Hooks & Connectors**



Aluminium Screw-locking Karabiner Ref. PN 116

- ▶ Material: Aluminium Alloy
- ▶ Gate Opening: 22.5 mm
- ▶ Minimum Breaking Strength: 23 kN
- ▶ Finish Available: Natural Silver/ Coloured
- ▶ Net Weight: 74.6 gm
- ▶ Conformity: EN 362: 2004 Class B

* see the box below

Aluminium Screw-locking Karabiner Ref. PN 116 F

- ▶ Material: Aluminium Alloy
- ▶ Gate Opening: 22.5 mm
- ▶ Minimum Breaking Strength: 23 kN
- ▶ Finish Available: Natural Silver/ Coloured
- ▶ Net Weight: 74.6 gm
- ▶ Conformity: EN 362: 2004 Class B

* see the box below



Aluminium Quarter Turn-locking Karabiner Ref. PN 117

- ▶ Material: Aluminium Alloy
- ▶ Gate Opening: 22 mm
- ▶ Minimum Breaking Strength: 23 kN
- ▶ Finish Available: Natural Silver/ Coloured
- ▶ Net Weight: 84.0 gm
- ▶ Conformity: EN 362: 2004 Class B

* see the box below

Aluminium Quarter Turn-locking Karabiner Ref. PN 117 F

- ▶ Material: Aluminium Alloy
- ▶ Gate Opening: 22 mm
- ▶ Minimum Breaking Strength: 23 kN
- ▶ Finish Available: Natural Silver/ Coloured
- ▶ Net Weight: 84.0 gm
- ▶ Conformity: EN 362: 2004 Class B

* see the box below



Aluminium Triple Action-locking Karabiner Ref. PN 118

- ▶ Material: Aluminium Alloy
- ▶ Gate Opening: 22 mm
- ▶ Minimum Breaking Strength: 23 kN
- ▶ Finish Available: Natural Silver/ Coloured
- ▶ Net Weight: 79.0 gm
- ▶ Conformity: EN 362: 2004 Class B

* see the box below

Aluminium Quarter Turn-locking Karabiner Ref. PN 118 F

- ▶ Material: Aluminium Alloy
- ▶ Gate Opening: 22 mm
- ▶ Minimum Breaking Strength: 23 kN
- ▶ Finish Available: Natural Silver/ Coloured
- ▶ Net Weight: 79.0 gm
- ▶ Conformity: EN 362: 2004 Class B

* see the box below



* Also available with Captive Pin on request

This is an Additional Pin fitted to the Karabiner to prevent it from disengaging from the Lanyard. The code for the product is written as the Ref. No. of the product along with (C), for eg. PN 116 (C), PN 116F (C)





Aluminium Screw-locking Snap Hook
Ref. PN 126

- ▶ Material/Composition: Aluminium Alloy
- ▶ Gate Opening: 24 mm
- ▶ Minimum Breaking Strength: 23 kN
- ▶ Finish Available: Natural Silver/ Coloured.
- ▶ Net Weight: 80 gm
- ▶ Conformity: EN 362: 2004 Class B



Aluminium Quarter Turn-locking Snap Hook
Ref. PN 127

- ▶ Material/Composition: Aluminium Alloy
- ▶ Gate Opening: 22.5 mm
- ▶ Minimum Breaking Strength: 23kN
- ▶ Finish Available: Natural Silver/ Coloured.
- ▶ Net Weight: 87.4 gm
- ▶ Conformity: EN 362: 2004 Class B



Triple Action Locking Aluminium Snap Hook
Ref. PN 128

- ▶ Material/Composition: Aluminium Alloy
- ▶ Gate Opening: 22.5 mm
- ▶ Minimum Breaking Strength: 23kN
- ▶ Finish Available: Natural silver/ Coloured.
- ▶ Net Weight: 87.0 gm
- ▶ Conformity: EN 362: 2004 Class B



Aluminium Snap Hook
Ref. PN 129

- ▶ Material/Composition: Aluminium Alloy
- ▶ Gate Opening: 18.5 mm
- ▶ Minimum Breaking Strength: 23 kN
- ▶ Finish Available: Natural Silver/ Coloured.
- ▶ Net Weight: 160.0 gm
- ▶ Conformity: EN 362: 2004 Class T
- ▶ Process: Stamped



Aluminium Rebar Hook
Ref. PN 136

- ▶ Material/ Composition: Aluminium Alloy
- ▶ Gate Opening: 60 mm
- ▶ Minimum Breaking Strength: 23 kN
- ▶ Finish Available: Natural Silver / Coloured
- ▶ Net Weight: 445.0 gm
- ▶ Conformity: EN 362: 2004 Class T



Aluminium Tower Hook
Ref. PN 139

- ▶ Material: Aluminium Alloy
- ▶ Gate Opening : 60 mm
- ▶ Minimum Breaking Strength: 23 kN
- ▶ Finish Available: Natural Silver/ Coloured
- ▶ Net Weight: 243.0 gm
- ▶ Conformity: EN 362: 2004 Class T

Depending upon the specific usage, lanyards are classified differently as follows:

Work Positioning Lanyards- used for work positioning

Restraint Lanyards- used for Restraint

Fall Arrest Lanyards- come incorporated with an energy absorber to reduce the impact of fall, and hence are used for fall arrest.

Forked Lanyards - KARAM also provides a range of forked lanyards that can be used to move up or down, or along the sides while remaining connected at all times.



LANYARDS

WORK POSITIONING LANYARDS

KARAM has a comprehensive and customized series of Work Positioning Lanyards. These Lanyards can be connected to the Lateral D-Rings on the Work Positioning Belts or Combination Harnesses and easily adjusted for their lengths to suit the application.

KARAM Work Positioning Lanyards are tested and CE certified as per EN 358:1999. Breaking Strength min 15kN.



Work Positioning Lanyard with Ring type Adjuster

Ref. PN 241

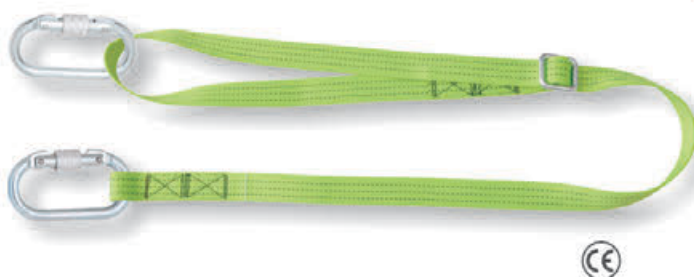
- › Made of 14mm dia polyamide 3-strand twisted rope.
- › Has a manual Ring-type adjuster of forged alloy steel
- › Maximum length of 2.0 m
- › Easy to connect Steel Karabiners PN 112 at both the ends for attachment
- › Conforms to EN 358:1999
- › Optional: Also available with a protective covering sleeve on request.



Work Positioning Lanyard with Grip Adjuster

Ref. PN 242

- › Made of 14mm dia polyamide 3-strand twisted rope.
- › Has a convenient Rope-grab adjuster for easy length adjustment.
- › Maximum length of 2.0 m
- › Easy to connect Steel Karabiners PN 112 at both the free ends for attachment.
- › Conforms to EN 358:1999
- › Optional: Also available with a protective covering sleeve on request.



Webbing Work Positioning Lanyard

Ref. PN 243

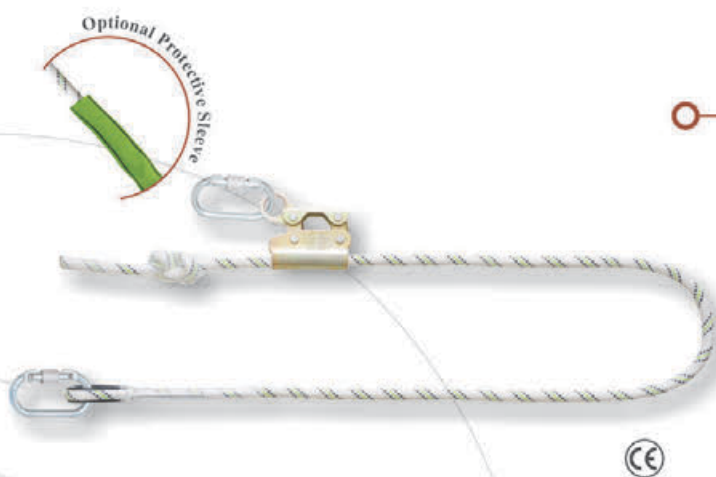
- › Made of 33mm wide polyester webbing.
- › Manual Ring type adjuster of forged alloy steel
- › Easy to connect Steel Karabiner PN 112 at both the ends for attachment
- › Maximum length of 2.0 m
- › Conforms to EN 358:1999



Work Positioning Lanyard with Ring Adjuster

Ref. PN 244

- › Made up of Kernmantle rope
- › Easy to connect Steel Karabiner PN 112 at both the ends for attachment
- › Manual Ring type adjuster made of forged alloy steel
- › Maximum length of 2.0 m
- › Conforms to EN 358:1999
- › Optional: Also available with a protective covering sleeve on request.



Work Positioning Lanyard with Grip Adjuster

Ref. PN 245

- › Made of Kernmantle rope
- › Has a convenient Rope-grab adjuster for easy length adjustment.
- › Maximum Length 2 m
- › Easy to connect Steel Karabiners PN 112 at both ends for attachment.
- › Conforms to EN 358:1999
- › Optional: Also available with a protective covering sleeve on request.



Work Positioning Lanyard with Grip Adjuster

Ref. PN 246

- › Made of 14 mm dia polyamide 3 strand twisted rope
- › Has a convenient Stainless Steel Rope Grab Adjuster for easy length adjustment.
- › Maximum Length 2.0 mtr
- › Easy to connect Steel Karabiners PN 112 at both ends for attachment
- › Optional: Also available with a protective covering sleeve on request.
- › Conforms to EN 358:1999

RESTRAINT TWISTED ROPE LANYARDS

are provided with the following features :-

- ▶ They are made up of 12mm dia Polyamide Twisted Rope.
- ▶ The spliced end is protected with a strong transparent covering sleeve. This not only protects the splicing, but also makes the splicing visible for easy inspection prior to use.
- ▶ The loops at the end are protected by an abrasion resistant thimble. This prevents the rope from being damaged by the metallic contact of the connector.
- ▶ The rope also has a coloured tracer strand which loses its colour in due course of time, to show that the Lanyard is now unfit for further use.

KARAM offers a wide range of Twisted Rope Lanyards, having different configuration of connectors on the ends.

They are available in lengths 1.0m, 1.5m, 1.8m, and 2.0m.



All Lanyards with different combinations of connectors mentioned below are individually certified as per **EN 354 : 2002**

REF. NO.	ATTACHMENTS	
PN 201	Both side loop	
PN 202	One side loop Other side Karabiner PN 112	
PN 203	Both side Karabiners PN 112	
PN 204	One side loop Other side Hook PN 121	
PN 205	Both side Hooks PN 121	
PN 206	One side loop Other side Hook PN 131 *	
PN 207	One side Karabiner PN 112 Other side Hook PN 121	
PN 208	One side Karabiner PN 112 Other side Hook PN 131 *	
PN 209	One side Hook PN 121 Other side Hook PN 131 *	



* Also available with Aluminium Hook PN 136 in place of Steel Hook PN 131. The Ref. No. of the lanyards will be PN 206(A), PN 208(A), PN 209(A)

RESTRAINT WEBBING LANYARDS (44 MM)

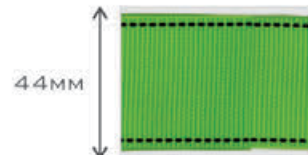
KARAM offers a wide range of Webbing Lanyards made from high tenacity polyester yarn, having different configuration of connectors on the ends.

- ▶ The Webbing Lanyards in this section are made up of 44 mm wide polyester webbing.
- ▶ The loops at the ends are protected by an abrasion resistant covering. This prevents the webbing from being damaged by the metallic contact of the connector.

All KARAM Lanyards are also supplied with any other hook on special request.

They are available in lengths 1.0m, 1.5m, 1.8m, and 2.0m.

All Lanyards with different combinations of connectors mentioned below are individually certified as per EN 354 : 2002



REF. NO.	ATTACHMENTS	
PN 221	Both side loop	
PN 222	One side loop Other side Karabiner PN 112	
PN 223	Both side Karabiners PN 112	
PN 224	One side loop Other side Hook PN 121	
PN 225	Both side Hooks PN 121	
PN 226	One side loop Other side Hook PN 131 *	
PN 227	One side Karabiner PN 112 Other side Hook PN 121	
PN 228	One side Karabiner PN 112 Other side Hook PN 131 *	
PN 229	One side Hook PN 121 Other side Hook PN 131 *	



* Also available with Aluminium Hook PN 136 in place of Steel Hook PN 131. The Ref. No. of the lanyards will be PN 226(A), PN 228(A), PN 229(A)

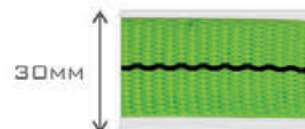
RESTRAINT WEBBING LANYARDS (30 MM)

KARAM offers a wide range of Webbing Lanyards made from high tenacity polyester yarn, having different configuration of connectors on the ends.

- ▶ The Webbing Lanyards in this section are made up of 30 mm wide polyester webbing.
- ▶ The loops at the ends are protected by an abrasion resistant covering. This prevents the webbing from being damaged by the metallic contact of the connector.

All KARAM Lanyards are also supplied with any other hook on special request.

They are available in lengths 1.0m, 1.5m, 1.8m, and 2.0m.



All Lanyards with different combinations of connectors mentioned below are individually certified as per EN 354 : 2002

REF. NO.	ATTACHMENTS	
PN 221(30)	Both side loop	
PN 222(30)	One side loop Other side Karabiner PN 112	
PN 223(30)	Both side Karabiners PN 112	
PN 224(30)	One side loop Other side Hook PN 121	
PN 225(30)	Both side Hooks PN 121	
PN 226(30)	One side loop Other side Hook PN 131 *	
PN 227(30)	One side Karabiner PN 112 Other side Hook PN 121	
PN 228(30)	One side Karabiner PN 112 Other side Hook PN 131 *	
PN 229(30)	One side Hook PN 121 Other side Hook PN 131 *	



* Also available with Aluminium Hook PN 136 in place of Steel Hook PN 131. The Ref. No. of the lanyards will be PN 226(30)(A), PN 228(30)(A), PN 229(30)(A)

RESTRAINT KERNMANTLE ROPE LANYARDS

This range of Lanyards is made from high quality Kernmantle rope having the following features-

- ▶ They are made up of Polyamide Kernmantle Rope
- ▶ They are cross stitched and are protected with a strong transparent covering sleeve. This not only protects the ends, but also makes the stitches visible for easy inspection prior to use.
- ▶ The loops at the end are protected by an abrasion resistant thimble. This prevents the rope from being damaged by the metallic contact of the connector.
- ▶ The rope also has a coloured tracer strand which loses its colour in due course of time, to show that the Lanyard is now unfit for further use.

KARAM offers a wide range of Kernmantle Rope Lanyards, having different configuration of connectors on the ends.

All KARAM Lanyards are also supplied with any other hook on special request.

They are available in lengths 1.0m, 1.5m, 1.8m, and 2.0m.

All Lanyards with different combinations of connectors mentioned below are individually certified as per EN 354 : 2002

REF. NO.	ATTACHMENTS	
PN 281	Both side loop	
PN 282	One side loop Other side Karabiner PN 112	
PN 283	Both side Karabiners PN 112	
PN 284	One side loop Other side Hook PN 121	
PN 285	Both side Hooks PN 121	
PN 286	One side loop Other side Hook PN 131 *	
PN 287	One side Karabiner PN 112 Other side Hook PN 121	
PN 288	One side Karabiner PN 112 Other side Hook PN 131 *	
PN 289	One side Hook PN 121 Other side Hook PN 131 *	



* Also available with Aluminium Hook PN 136 in place of Steel Hook PN 131. The Ref. No. of the lanyards will be PN 286(A), PN 288(A), PN 289(A)

ENERGY ABSORBER

The Energy Absorber Consists of a special white inner polyamide core absorbs the arresting forces in the event of a fall. The coloured webbing serves as a back up. The clear protective covering helps in easy and fast visual inspection.



Ref. PN 300



KARAM Energy Absorber PN 300 is made up of 44mm wide webbing and is shrink wrapped. It reduces the impact of fall to less than 6kN, and conforms to EN 355:2002



Ref. PN 400



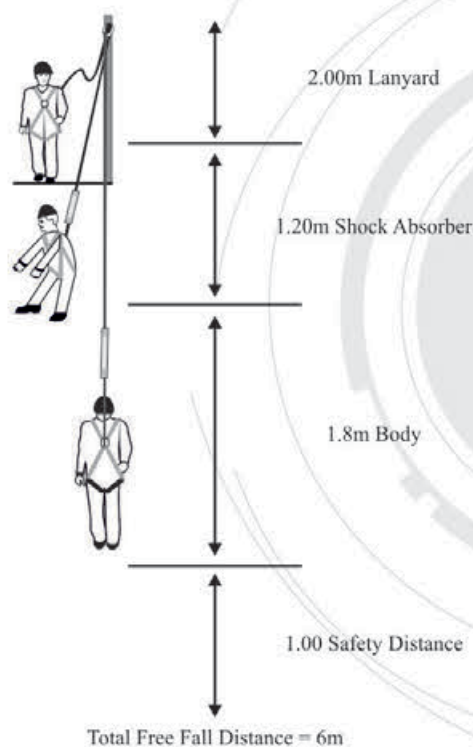
Now!

KARAM Energy Absorber PN 400 is made up of 35mm wide webbing and is shrink wrapped. It reduces the impact of fall to less than 6kN, and conforms to EN 355:2002

All KARAM Range of Fall Arrest lanyards can be provided with this Energy Absorber PN 400.

The energy absorber opens up to an additional length of about 110 cm, and hence the worker should always make sure that there is enough safe clear distance below his area of work.

(KARAM recommends a safe clear distance of 6m for a 2m Energy Absorbing Lanyard)



ENERGY ABSORBING TWISTED ROPE LANYARDS













- ▶ They are made up of Polyamide Twisted Rope.
- ▶ The spliced end is protected with a strong transparent covering sleeve. This not only protects the splicing, but also makes the splicing visible for easy inspection prior to use.
- ▶ The loops at the end are protected by an abrasion resistant thimble. This prevents the rope from being damaged by the metallic contact of the connector.
- ▶ The rope also has a coloured tracer strand which loses its colour in due course of time, to show that the Lanyard is now unfit for further use.

All KARAM Lanyards are also supplied with any other hook on special request.

They are available in lengths 1.0m, 1.5m, 1.8m, and 2.0m.



All Lanyards with different combinations of connectors mentioned below are individually certified as per EN 355 : 2002

Ref. No. if with Energy Absorber PN 300	Ref. No. if with Energy Absorber PN 400	ATTACHMENTS	
PN 301	PN 301(S)	Both side loop	
PN 302	PN 302(S)	One side loop Other side Karabiner PN 112	
PN 303	PN 303(S)	Both side Karabiners PN 112	
PN 304	PN 304(S)	One side loop Other side Hook PN 121	
PN 305	Not applicable	Both side Hooks PN 121	
PN 306	PN 306(S)	One side loop Other side Hook PN 131 *	
PN 307	PN 307(S)	One side Karabiner PN 112 Other side Hook PN 121	
PN 308	PN 308(S)	One side Karabiner PN 112 Other side Hook PN 131 *	
PN 309	Not applicable	One side Hook PN 121 Other side Hook PN 131 *	
PN 310	PN 310(S)	One side loop Other side Hook PN 141	
PN 311	PN 311(S)	One side Hook PN 112 Other side Hook PN 141	
PN 312	Not applicable	One side Hook PN 121 Other side Hook PN 141	



* Also available with Aluminium Hook PN 136 in place of Steel Hook PN 131. The Ref. No. of the lanyards will be PN 306(A) or PN 306(S)(A); PN 308(A) or PN 308(S)(A); PN 309(A)

ENERGY ABSORBING 44MM WEBBING LANYARDS

KARAM offers a wide range of Webbing Lanyards made from high tenacity polyester yarn, having different configuration of connectors on the ends.

- ▶ The Webbing Lanyards in this section are made up of 44 mm wide polyester webbing.
- ▶ The loops at the ends are protected by an abrasion resistant covering. This prevents the webbing from being damaged by the metallic contact of the connector.

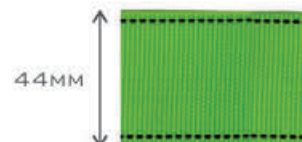
KARAM offers a wide range of Webbing Lanyards, having different configuration of connectors on the ends.

All KARAM Lanyards are also supplied with any other hook on special request.

They are available in lengths 1.0m, 1.5m, 1.8m, and 2.0m.



All Lanyards with different combinations of connectors mentioned below are individually certified as per EN 355 : 2002



Ref. No. if with Energy Absorber PN 300	Ref. No. if with Energy Absorber PN 400	ATTACHMENTS	
PN 321	PN 321(S)	Both side loop	
PN 322	PN 322(S)	One side loop Other side Karabiner PN 112	
PN 323	PN 323(S)	Both side Karabiners PN 112	
PN 324	PN 324(S)	One side loop Other side Hook PN 121	
PN 325	Not applicable	Both side Hooks PN 121	
PN 326	PN 326(S)	One side loop Other side Hook PN 131 *	
PN 327	PN 327(S)	One side Karabiner PN 112 Other side Hook PN 121	
PN 328	PN 328(S)	One side Karabiner PN 112 Other side Hook PN 131 *	
PN 329	Not applicable	One side Hook PN 121 Other side Hook PN 131 *	
PN 330	PN 330(S)	One side loop Other side Hook PN 141	
PN 331	PN 331(S)	One side Hook PN 112 Other side Hook PN 141	
PN 332	Not applicable	One side Hook PN 121 Other side Hook PN 141	



* Also available with Aluminium Hook PN 136 in place of Steel Hook PN 131. The Ref. No. of the lanyards will be PN 326(A) or PN 326(S)(A); PN 328(A) or PN 328(S)(A); PN 329(A)

ENERGY ABSORBING 30MM WEBBING LANYARDS

KARAM offers a wide range of Webbing Lanyards made from high tenacity polyester yarn, having different configuration of connectors on the ends.

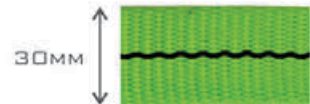
- ▶ The Webbing Lanyards in this section are made up of 30 mm wide polyester webbing.
- ▶ The loops at the ends are protected by an abrasion resistant covering. This prevents the webbing from being damaged by the metallic contact of the connector.

KARAM offers a wide range of Webbing Lanyards, having different configuration of connectors on the ends.

All KARAM Lanyards are also supplied with any other hook on special request.

They are available in lengths 1.0m, 1.5m, 1.8m, and 2.0m.

All Lanyards with different combinations of connectors mentioned below are individually certified as per **EN 355 : 2002**



Ref. No. if with Energy Absorber PN 300	Ref. No. if with Energy Absorber PN 400	ATTACHMENTS	
PN 321(30)	PN 321(30)(S)	Both side loop	
PN 322(30)	PN 322(30)(S)	One side loop Other side Karabiner PN 112	
PN 323(30)	PN 323(30)(S)	Both side Karabiners PN 112	
PN 324(30)	PN 324(30)(S)	One side loop Other side Hook PN 121	
PN 325(30)	Not applicable	Both side Hooks PN 121	
PN 326(30)	PN 326(30)(S)	One side loop Other side Hook PN 131 *	
PN 327(30)	PN 327(30)(S)	One side Karabiner PN 112 Other side Hook PN 121	
PN 328(30)	PN 328(30)(S)	One side Karabiner PN 112 Other side Hook PN 131 *	
PN 329(30)	Not applicable	One side Hook PN 121 Other side Hook PN 131 *	
PN 330(30)	PN 330(30)(S)	One side loop Other side Hook PN 141	
PN 331(30)	PN 331(30)(S)	One side Hook PN 112 Other side Hook PN 141	
PN 332(30)	Not applicable	One side Hook PN 121 Other side Hook PN 141	



* Also available with Aluminium Hook PN 136 in place of Steel Hook PN 131. The Ref. No. of the lanyards will be PN 326(30)(A) or PN 326(30)(S)(A); PN 328(30)(A) or PN 328(30)(S)(A); PN 329(30)(A)

ENERGY ABSORBING KERNMANTLE ROPE LANYARDS

This range of Lanyards is made from high quality Kernmantle Polymide rope having the following features-

- ▶ They are made up of Polyamide Kernmantle Rope
- ▶ They are cross stitched and are protected with a strong transparent covering sleeve. This not only protects the ends, but also makes the stitches visible for easy inspection prior to use.
- ▶ The loops at the end are protected by an abrasion resistant thimble. This prevents the rope from being damaged by the metallic contact of the connector.
- ▶ The rope also has a coloured tracer strand which loses its colour in due course of time, to show that the Lanyard is now unfit for further use.

KARAM offers a wide range of Kernmantle Rope Lanyards, having different configuration of connectors on the ends.

All KARAM Lanyards are also supplied with any other hook on special request.

They are available in lengths 1.0m, 1.5m, 1.8m, and 2.0m.



All Lanyards with different combinations of connectors mentioned below are individually certified as per EN 355 : 2002

Ref. No. if with Energy Absorber PN 300	Ref. No. if with Energy Absorber PN 400	ATTACHMENTS	
PN 381	PN 381(S)	Both side loop	
PN 382	PN 382(S)	One side loop Other side Karabiner PN 112	
PN 383	PN 383(S)	Both side Karabiners PN 112	
PN 384	PN 384(S)	One side loop Other side Hook PN 121	
PN 385	Not applicable	Both side Hooks PN 121	
PN 386	PN 386(S)	One side loop Other side Hook PN 131 *	
PN 387	PN 387(S)	One side Karabiner PN 112 Other side Hook PN 121	
PN 388	PN 388(S)	One side Karabiner PN 112 Other side Hook PN 131 *	
PN 389	Not applicable	One side Hook PN 121 Other side Hook PN 131 *	



* Also available with Aluminium Hook PN 136 in place of Steel Hook PN 131. The Ref. No. of the lanyards will be PN 386(A) or PN 386(S)(A); PN 388(A) or PN 388(S)(A); PN 389(A)

FORKED LANYARDS WITH ENERGY ABSORBER

KARAM Forked Lanyards come in Twisted Ropes, Kernmantle Ropes and also in 44mm & 30mm wide polyester webbing, and offer the facility to move in all directions while remaining safely anchored at all times.

Ref. PN 341

Made of	Length	Attachments	Conforms to
Kernmantle rope	1.5 m, 1.8 m, 2.0 m	PN 112 with Energy Absorber PN 300 at one end and two Steel Scaffold Hooks PN 131 at other ends	EN 355:2002 + VG 11/ PFE 63 (Additional Static Strength Test)

* see the box below

Ref. PN 351

Made of	Length	Attachments	Conforms to
12mm dia 3 strands Twisted polyamide rope	1.5 m, 1.8 m, 2.0 m	PN 112 with Energy Absorber PN 300 at one end and two Steel Scaffold Hooks PN 131 at other ends	EN 355:2002 + VG 11/ PFE 63 (Additional Static Strength Test)

* see the box below

Ref. PN 352

Made of	Length	Attachments	Conforms to
12 mm dia 3 strand polyamide twisted rope	1.5 m, 1.8 m, 2.0 m	PN 112 with Energy Absorber PN 300 at one end and two Steel Snap Hooks PN 121 at other ends	EN 355:2002 + VG 11/ PFE 63 (Additional Static Strength Test)



* Also available with Aluminium Hook PN 136 in place of Steel Hook PN 131. The Ref. No. of the lanyards will be PN 341(A); PN 351(A)



Ref. PN 361

Made of	Length	Attachments	Conforms to
44mm wide polyester webbing	1.5 m, 1.8 m, 2.0 m	PN 112 with Energy Absorber PN 300 at one end and two Steel Scaffold Hooks PN 131 at other ends	EN 355:2002 + VG 11/ PFE 63 (Additional Static Strength Test)

The Energy Absorber pack used is PN 300 (However PN 400 also available on request)

(Ref. PN 361 (S) when using PN 400 Energy Absorber pack)

* see the box below



Ref. PN 361(30)

Made of	Length	Attachments	Conforms to
30mm wide polyester webbing	1.5 m, 1.8 m, 2.0 m	PN 112 with Energy Absorber PN 300 at one end and two Steel Scaffold Hooks PN 131 at other ends	EN 355:2002 + VG 11/ PFE 63 (Additional Static Strength Test)

The Energy Absorber pack used is PN 300 (However PN 400 also available on request)

(Ref. PN 361(30) (S) when using PN 400 Energy Absorber pack)

* see the box below



*Also available with Aluminium Hook PN 136 in place of Steel Hook PN 131. The Ref. No. of the lanyards will be PN 361(A); PN 361(30)(A)



FORKED LANYARDS WITHOUT ENERGY ABSORBER

Forked Lanyard comes in twisted ropes Kernmantle rope & also in 44mm wide polyester webbing & offer the facility to move in all directions while remaining safely anchored at all times.

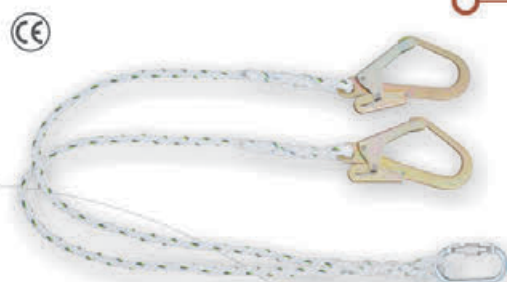
Ref. PN 231



Made of	Length	Attachments	Conforms to
Kernmantle rope	1.5 m, 1.8 m, 2.0 m	PN 112 at one end and two Steel Scaffold Hooks PN 131 at other ends	EN 354:2002

* see the box below

Ref. PN 251



Made of	Length	Attachments	Conforms to
12mm dia 3 strands Twisted polyamide rope	1.5 m, 1.8 m, 2.0 m	PN 112 at one end and two Steel Scaffold Hooks PN 131 at other ends	EN 354:2002

* see the box below

Ref. PN 261



Made of	Length	Attachments	Conforms to
44mm wide polyester webbing	1.5 m, 1.8 m, 2.0 m	PN 112 at one end and two Steel Scaffold Hooks PN 131 at other ends	EN 354:2002

* see the box below

Ref. PN 261(30)



Made of	Length	Attachments	Conforms to
30mm wide polyester webbing	1.5 m, 1.8 m, 2.0 m	PN 112 at one end and two Steel Scaffold Hooks PN 131 at other ends	EN 354:2002

* see the box below



* Also available with Aluminium Hook PN 136 in place of Steel Hook PN 131. The Ref. No. of the lanyards will be PN 231(A); PN 251(A); PN 261(A); PN 261(30)(A)

EXPANDABLE LANYARDS

These Lanyards are ideal for usage in conditions where there are chances for the user tripping over the Lanyard. The Elastic nature of the Lanyard reduces the actual effective length of the Lanyard thereby reducing trip hazards.

Ref. PN 291



Made of	Length	Conforms to
44mm wide Tubular webbing	Expandable length 2.0 m Relaxed Length 1.4 m	EN 354:2002

Attachments : Any type of connector (see page for connector) can be supplied as per request

Ref. PN 371



Made of	Length	Conforms to
44mm wide Tubular webbing	Expandable length 2.0 m Relaxed Length 1.4 m	EN 355:2002 + VG 11/ PFE 63 (Additional Static Strength Test)

Attachments : PN 112 with Energy Absorber PN 300 at one end and two Steel Scaffold Hooks PN 131 at other ends

* see the box below

Ref. PN 391



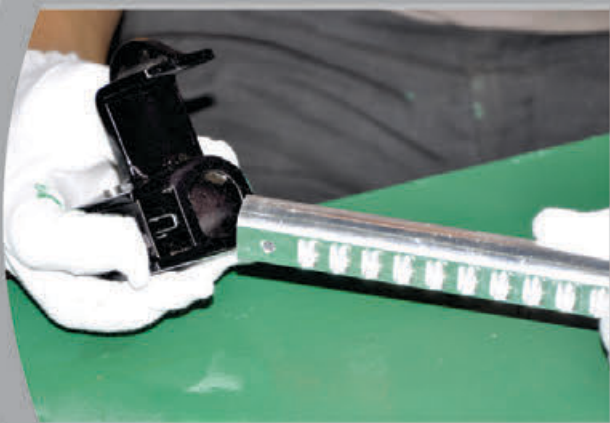
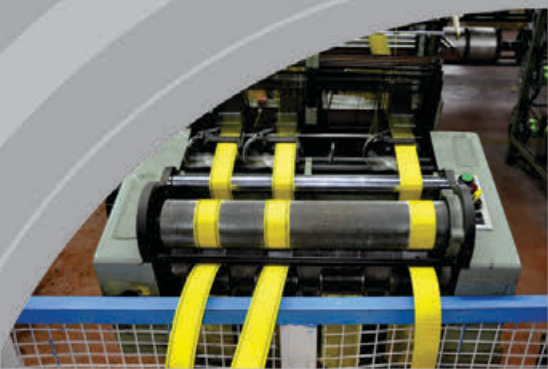
Made of	Length	Conforms to
44mm wide Tubular webbing	Expandable length 2.0 m Relaxed Length 1.4 m	EN 355:2002 (with combination certification)

Attachments : Any type of connector (see page for connector) can be supplied as per request



*Also available with Aluminium Hook PN 136 in place of Steel Hook PN 131. The Ref. No. of the lanyards will be PN 371(A)

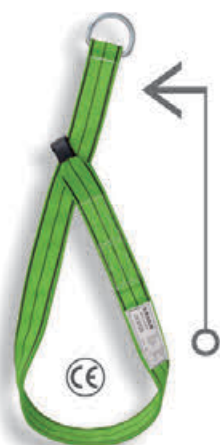
KARAM offers a range of webbing & wire rope sling anchorages and metallic anchors.



ANCHORAGES

ANCHORAGES WEBBING SLING

KARAM provides anchorage made of webbing slings of various configurations, the length of which can be altered as per requirement.



Anchorage Webbing Sling
Ref. PN 803

- ▶ Made up of 44mm wide Polyester Webbing
- ▶ Length : 1.2 m or as requested
- ▶ Having a D-Ring at one end and textile loop at the other end
- ▶ Strength : Min 15 kN for 3 minutes
- ▶ Conforms to EN 795:1996

Anchorage Webbing Sling
Ref. PN 804

- ▶ Made up of 44mm wide Polyester Webbing
- ▶ Length : 1.0 m, 1.5 m, 2.0 m, or as requested
- ▶ Having a D-Ring on both the ends
- ▶ Strength : Min 15 kN for 3 minutes
- ▶ Conforms to EN 795:1996

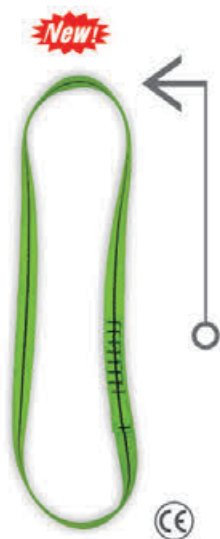


Concrete Anchor Strap
Ref. PN 805

- ▶ Made up of 44mm wide Polyester Webbing
- ▶ Length : 1.07 m, or as requested
- ▶ Having a D-Ring at one end and textile loop at the other end. Also provided with a polyester covering on the load-bearing webbing
- ▶ Strength : Min 15 kN for 3 minutes
- ▶ Conforms to EN 795:1996

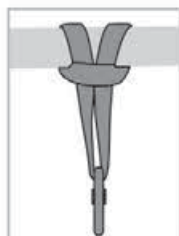
Concrete Anchor Strap
Ref. PN 806

- ▶ Made up of 44mm wide Polyester Webbing stitched with 70mm webbing on the back for extra protection.
- ▶ Length : 1.0 m, 1.5 m, 2.0 m, or as requested
- ▶ Having a small D-ring on one end & a bigger D-ring on the other.
- ▶ Strength : Min 15 kN for 3 minutes
- ▶ Conforms to EN 795:1996



Anchorage Webbing Sling
Ref. PN 807

- ▶ Made up of 25mm wide Polyester Webbing
- ▶ Length : 0.6m, 1.0 m, 1.5m or as requested
- ▶ Strength : Min 10 kN for 3 minutes
- ▶ Conforms to EN 795:1996



Anchorage Webbing Sling
Ref. PN 808

- ▶ Made up of 44mm wide Polyester Webbing
- ▶ Length : 0.5mtr or as requested
- ▶ Strength : Min 10 kN for 3 minutes
- ▶ Conforms to EN 795:1996



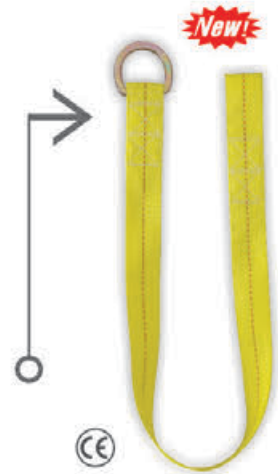


Anchorage Webbing Sling Ref. PN 809

- ▶ Made up of 50mm wide Polyester Webbing
- ▶ Length : 3ft, 4ft or special length available on request
- ▶ Strength : Min 15 kN for 3 minutes
- ▶ Conforms to EN 795:1996

Anchorage Webbing Sling Ref. PN 811

- ▶ Made up of 50mm wide Polyester Webbing
- ▶ Length : 3ft, 4ft or special length available on request
- ▶ Strength : Min 15 kN for 3 minutes
- ▶ Conforms to EN 795:1996



Anchorage Webbing Sling Ref. PN 812

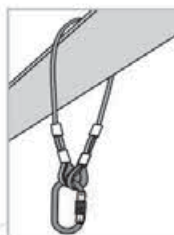
- ▶ Made up of 50mm wide Polyester Webbing
- ▶ Length : 3ft, 4ft, 6ft or special length available on request
- ▶ Strength : Min 15 kN for 3 minutes
- ▶ Conforms to EN 795:1996

ANCHORAGES WIRE ROPE SLING



Anchorage Steel Wire Rope Sling Ref. PN 813

- ▶ Made of PVC coated 8.0mm G. I. Wire Rope
- ▶ Available Length : 1.0mtr., 1.5mtr., 1.8mtr. & 2.0mtr or as requested
- ▶ Having Steel thimbles at both sides
- ▶ Strength : Min 15 kN for 3 minutes
- ▶ Conforms to EN 795:1996

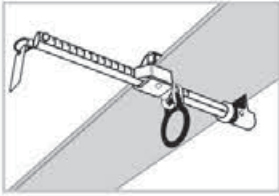


Anchorage S.S. Wire Rope Sling Ref. PN 814

- ▶ Made of 8.0mm S. S. Wire Rope
- ▶ Available Length : 1.0mtr., 1.5mtr., 1.8mtr. & 2.0mtr or as requested
- ▶ Having Steel thimbles at both sides
- ▶ Strength : Min 15 kN for 3 minutes
- ▶ Conforms to EN 795:1996



ANCHORS

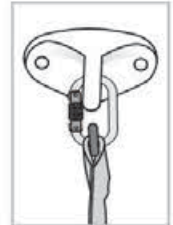


New!



Beam Anchor
Ref. SA 08

- ▶ Material: Aluminium & Brass.
- ▶ Net Weight: 1550gm \pm 10gm
- ▶ Conforms: EN 795 : 1996 Class B.

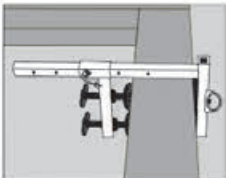
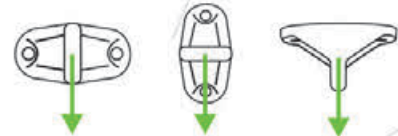


New!



Aluminium Point Anchorage
Ref. SA 09

- ▶ Material: Aluminium Alloy
- ▶ Finish: Powder Coating
- ▶ Net Weight: 308. gm
- ▶ Conforms: EN 795 : 1996 + A1 : 2000 Class A



New!



Parapet Anchor
Ref. SA 11

- ▶ Material: High strength steel galvanized to provide corrosion protection.
- ▶ Net Weight: 8.575 kg \pm 100 gm
- ▶ Conforms: EN 795 : 1996 Class B.



New!

Stainless Steel Point Anchor
Ref. SA 12

- ▶ Material: Stainless Steel.
- ▶ Net Weight: 300 gm \pm 10 gm
- ▶ Conforms: EN 795 : 1996 + A1 : 2000 Class A

TEMPORARY & PERMANENT VERTICAL ANCHORAGE LINE SYSTEMS (WITH GUIDED TYPE FALL ARRESTERS)



KARAM provides a vast range of temporary as well as permanent vertical anchorage line systems incorporated with guided-type fall arresters. These systems provide easy solution for anchorage for industries like Telecommunications, Wind Energy etc.



TEMPORARY & PERMANENT
VERTICAL ANCHORAGE LINE SYSTEMS
(WITH GUIDED TYPE FALL ARRESTERS)

GUIDED TYPE ROPE GRAB FALL ARRESTER ON TEXTILE ANCHORAGE LINE



Rope Grab Fall Arrester

Ref: PN 2000

The rope grab moves freely on the polyamide twisted rope anchorage line (14 mm-16 mm) attached at its eye with the user, while he moves up & down. The rope grab immediately 'Grabs' on to the anchorage line in the event of a fall, hence arresting the fall.



Features:

- ▶ Failsafe design ensures correct usage
- ▶ Arrests fall with very short fall distance
- ▶ Detachable-can be easily detached from the anchorage line.
- ▶ Has a double security locking system.
- ▶ Conforms to EN 353-2:2002

Product	Ref:	Specification	
	PN 2000 A	Fall Arrester with Karabiner	Steel Karabiner PN 112 as an attachment element
	PN 2000 B	Fall Arrester with Energy Absorber	Energy Absorber PN 300 and Steel Karabiner PN 112 as an attachment element
	PN 2000 C	Fall Arrester with Spacing Strap	Spacing Strap and hook PN 121 as an attachment element

KARAM ADVANTAGE

KARAM Rope grab is provided with a unique Gravity Locking System that prevents incorrect usage. It is also equipped with a double security opening system, and hence will not open unless a deliberate action is done to do so.



Automatic Locking



Locked position allows Manual Locking



Only KARAM Fall Arrester comes with the unique Anti-Gravity Locking System.



Twisted Rope Anchorage Line (to be used with KARAM Fall Arrester)

- ▶ Made of 3-Strand polyamide twisted rope of dia 14 mm
- ▶ One side loop; other side end stop knot (Also Available with Both Side Loops)
- ▶ Length
 - 10m Ref. Anchor PN 910
 - 20m Ref. Anchor PN 920
 - 30m Ref. Anchor PN 930
 - 40m Ref. Anchor PN 940
 - 50m Ref. Anchor PN 950
 - 100m Ref. Anchor PN 9100
 - 150m Ref. Anchor PN 9150
 - 200m Ref. Anchor PN 9200
- ▶ Longer lengths are also available on request

GUIDED TYPE ROPE GRAB FALL ARRESTER ON TEXTILE ANCHORAGE LINE

EN 353-2:2002



Guided Type Fall Arrestor On Flexible Anchorage Line

Ref. PN 2003

- ▶ This Fall Arrestor works on 12 mm dia Kernmantle polyamide rope anchorage line incorporated permanently on the anchorage line, and comes with an energy absorbing element
- ▶ The Anchorage line has one side connector PN 112 and the other side a knot
- ▶ The Anchorage line is available in lengths of 5m to 100m
- ▶ Conforms to EN 353-2:2002



Kernmantle Rope Anchorage Line (to be used with KARAM Fall Arrestor)

- ▶ Made of polyamide rope of dia 12 mm
- ▶ One side loop; other side end stop knot
(Also Available with Both Side Loops)
- ▶ Length
 - 10m Ref. Anchor PN 910 (K)
 - 20m Ref. Anchor PN 920 (K)
 - 30m Ref. Anchor PN 930 (K)
 - 40m Ref. Anchor PN 940 (K)
 - 50m Ref. Anchor PN 950 (K)
- ▶ Longer lengths are also available on request

EN 353-2:2002 **VERTICAL ANCHORAGE
LINE SYSTEM ON FLEXIBLE
STEEL CABLE LINE**

SYSTEM REF: PN 2001



Mounting Bracket
Ref. PN 7000 (01)



Rope Grab
Ref. RG 02



Wire Rope (Cable Wire)
Ref. PN 9XXXS



Shock Absorbing Lanyard
Ref. PN 2001 (02)



Intermediate
Ref. PN 2001 (04)



End Clamp
Ref. PN 2001 (03)



Set of 4 U-bolts and 2 Thimbles
Ref. PN 2001 (05)



Karabiner
Ref. PN 112

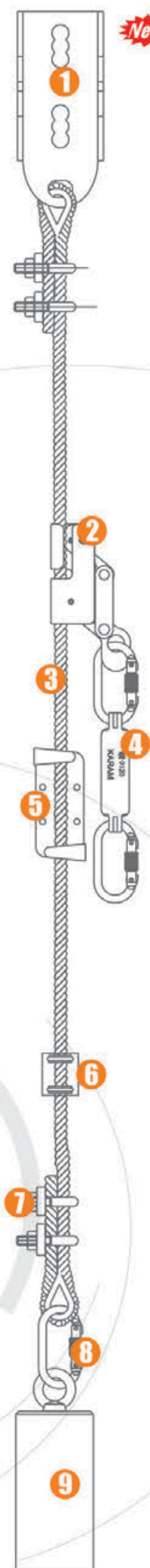


Dead Weight
Ref. PN 2001 (01)

EN 353-2:2002

SYSTEM REF: PN 2001

system specifications



Conforming to the Norm **EN 353-2:2002** this vertical Fall Arrest System is an integrated solution to arrest the fall of a user who has to constantly climb up & down a ladder. It consists of a vertical anchorage line **made of stainless steel wire rope** installed on a **ladder** using appropriate **mounting bracket** at the top.

A stainless steel **Rope Grab** moves up & down the anchorage line, accompanying the user who is connected to this rope grab with the **help of a small shock absorbing lanyard**.

To maintain the tension in the wire rope, a **Dead Weight** is connected to the **lower end**. Also, an end clamp provided at the end of the wire rope is fitted to the ladder-rung to maintain the anchorage line in

position. **Intermediates** are provided at regular intervals to prevent dislocation of the anchorage line from its mean position due to wind pressure or **mechanical movement**.

Significant features are:

- ▶ It is simple and easy to install, requiring minimum effort for installation.
- ▶ The **Rope Grab** comes with special **anti-gravity locking** system which enables it to be fitted always in the correct position.

Sr. No.	Name of Component	Ref. No. of Component	Description
1	Mounting Bracket	PN 7000 (01)	Material: Stainless Steel 304 Breaking Strength > 23 kN Complies with EN 795 Class A1
2	Rope Grab	RG-02	Material: Stainless Steel 304 Works on stainless steel wire rope.
3	Wire Rope (Cable Wire)	PN 9XXXS (Where XXX is the Length of the wire rope in meters)	Material: Stainless Steel 316 Diameter: 8mm Construction: 7x19
4	Shock Absorbing Lanyard	PN 2001 (02)	Comprises of shock absorbing pack with Karabiners PN 112 at both the ends. Length: 30 cm
5	Intermediate	PN 2001 (04)	Material: Stainless Steel 304 Recommended Installation- every 10 m
6	End Clamp	PN 2001 (03)	Maintains the cable at the bottom of the ladder to prevent the Counter Weight to beat on the ladder under effect of the wind. Material: Galvanized Steel
7	Set of U-Bolts & Thimbles	PN 2001 (05)	U- Bolts: Qty- 4 nos; Material: Stainless Steel 304 Thimbles: Qty- 2 nos; Material: Galvanized Steel
8	Karabiner	PN 112	Screw Locking Karabiner to connect the Dead weight to the Wire Rope
9	Dead Weight	PN 2001 (01)	To ensure appropriate tension on the wire rope. Material: Galvanized Steel Weight: 6 kg

EN 353-1:2002 **VERTICAL ANCHORAGE
LINE SYSTEM ON RIGID CABLE LINE**

SYSTEM REF: VERTEX PN 6000



Mounting Bracket
Ref. PN 7000 (01)



Cable Extremity
Ref. PN 7000 (03)



Wire Rope (Cable Wire)
Ref. PN 9XXXS



Rope Grab
Ref. RG-02



Shock Absorbing Lanyard
Ref. PN 2001 (02)



Intermediate
Ref. PN 2001 (04)



Set of 2 U-bolts and 1 Thimbles
Ref. PN 6000 (01)



Tensioner
Ref. PN 7000 (05)

EN 353-1:2002

SYSTEM REF: VERTEX PN 6000

system specifications



Conforming to the Norm **EN 353-1:2002** this vertical Fall Arrest system is an integrated solution to arrest the fall of a user who has to constantly *climb up & down a ladder*.

The Vertical Anchorage Line is *made of Stainless Steel wire rope* & is maintained in the *rigid position* by use of **2 mounting brackets**-one at the **top** & one at the **bottom**.

A stainless steel *Rope Grab moves up & down* the anchorage line accompanying the user who is connected to it with the *help of a small shock absorbing lanyard*.

To *maintain rigidity & tension* in the anchorage line, a *screw type mechanical tensioner* is provided at the end of the anchorage line at the bottom, connecting

it to the lower mounting bracket.

Intermediates are provided at regular intervals to prevent dislocation of the anchorage line from its mean position due to wind pressure or **mechanical movement**.

Connection of the wire rope at the 2 ends to the **Cable Extremity** and **tensioner**, making the installation easy & avoiding use of specialized machinery.

Sr. No.	Name of Component	Ref. No. of Component	Description
1	Mounting Bracket	PN 7000 (01)	Material: Stainless Steel 304 Breaking Strength > 23 kN Complies with EN 795 Class A1
2	Cable Extremity	PN 7000 (03)	Allows crimping of the cable wire at the desired length, and eliminates danger of any loose wire. Material: Stainless Steel 304 Feature: Swageless termination
3	Wire Rope (Cable Wire)	PN 9XXXX (Where XXX is the Length of the wire rope in meters)	Material: Stainless Steel 316 Diameter: 8mm Construction: 7x19
4	Rope Grab	RG-02	Material: Stainless Steel 304 Works on stainless steel wire rope.
5	Shock Absorbing Lanyard	PN 2001 (02)	Comprises of shock absorbing pack with Karabiners PN 112 at both the ends. Length: 30 cm
6	Intermediate	PN 2001 (04)	Material: Stainless Steel 304 Recommended Installation- every 10 m
7	Set of U-Bolts & Thimbles	PN 6000 (01)	U- Bolts: Qty- 2 nos; Material: Stainless Steel 304 Thimbles: Qty- 1 nos; Material: Galvanized Steel
8	Tensioner	PN 7000 (05)	Regulates tensioning of the cable. Material: Stainless Steel 304

SYSTEM REF: VERTEX PN 7000



Mounting Bracket
Ref. PN 7000 (01)



Shock Absorber
Ref. PN 7000 (02)



Cable Extremity
Ref. PN 7000 (03)



Wire Rope (Cable Wire)
Ref. PN 9XXXX



Rope Grab
Ref. RG-02



Connecting Lanyard
Ref. PN 7000 (07)



Intermediate
Ref. PN 2001 (04)



Set of 2 U-bolts and 1 Thimbles
Ref. PN 6000 (01)



Tensioner
Ref. PN 7000 (05)

EN 353-1:2002

SYSTEM REF: VERTEX PN 7000

system specifications

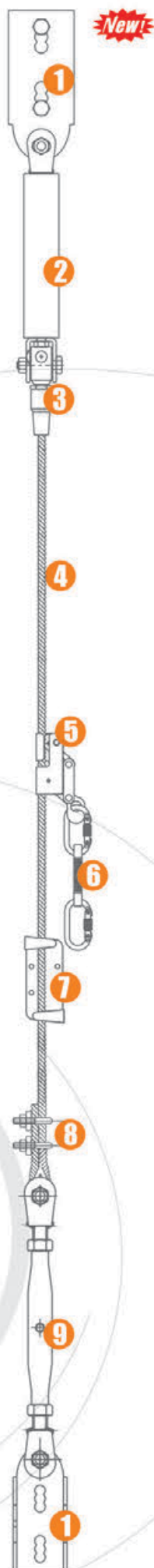
Conforming to the Norm **EN 353-1:2002** this vertical Fall Arrest system is an integrated solution to arrest the fall of a user who has to constantly climb up & down a ladder.

The unique feature of this system is a permanent installed **Stainless Steel Shock Absorber** at the top of the line which offers distinct advantages over the textile absorbers used in other lines in terms of **UV degradation** or **resistance to harsh climatic conditions**.

The Vertical Anchorage Line is **made of Stainless Steel wire rope** & is maintained in the **rigid position** by use of **2 mounting brackets**-one at the **top** & one at the **bottom**.

The **Stainless-steel Rope Grab** is **directly connected** to the user without any additional lanyard.

To **maintain the rigidity & high tension** in the anchorage line, a **screw type mechanical tensioner** is provided at the end of the anchorage line at the bottom, connecting it to the lower mounting bracket.



Sr. No.	Name of Component	Ref. No. of Component	Description
1	Mounting Bracket	PN 7000 (01)	Material: Stainless Steel 304 Breaking Strength > 23 kN Complies with EN 795 Class A1
2	Shock Absorber	PN 7000 (02)	Material: Stainless Steel 304 Limits the impact of force in the event of fall to less than 6 kN
3	Cable Extremity	PN 7000 (03)	Allows crimping of the cable wire at the desired length, and eliminates danger of any loose wire. Material: Stainless Steel 304 Feature: Swageless termination
4	Wire Rope (Cable Wire)	PN 9XXXX (Where XXX is the Length of the wire rope in meters)	Material: Stainless Steel 316 Diameter: 8mm Construction: 7x19
5	Rope Grab	RG-02	Material: Stainless Steel 304 Works on stainless steel wire rope.
6	Connecting Lanyard	PN 7000 (07)	Comprises of webbing lanyard with Karabiners PN 112 at both the ends. Length: 30 cm
7	Intermediate	PN 2001 (04)	Material: Stainless Steel 304 Recommended Installation- every 10 m
8	Set of U-Bolts & Thimbles	PN 6000 (01)	U- Bolts: Qty- 2 nos; Material: Stainless Steel 304 Thimbles: Qty- 1 nos; Material: Galvanized Steel
9	Tensioner	PN 7000 (05)	Regulates tensioning of the cable. Material: Stainless Steel 304

SYSTEM REF: VERTEX PN 8000



Alu. Extension
Ref. PN 8000 (02)



Alu. Rail
Intermediate
Ref. PN 5000 (01)



Vertical Trolley
Ref. PN 8000 (01)



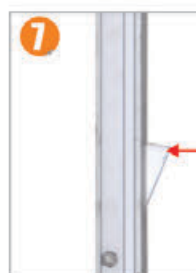
Karabiner
Ref. PN 111



Rung Clamp
Ref. PN 8000 (03)



Junction
Ref. PN 5000 (08)



Alu. Rail
Exterimity
Ref. PN 5000 (02)

Trolley Lock

EN 353-1:2002

SYSTEM REF: VERTEX PN 8000

system specifications

This Vertical fall Arrest Anchorage system (Conforming to **EN 353-1:2002**) is an integrated Fall Arrest solution **made of a Vertical Aluminium Alloy** Guide Rail over which glides a **Guided-Type Fall Arrest Trolley**. The line is constructed by attaching the Aluminium rail **Intermediates** of **length 3 mtrs.** in series using **Junction** to connect them to each other, and Rung Clamps to affix them to the ladder rungs. The **trolley moves up and down** on the line accompanying the user who is connected to it with an **Auto-locking Steel Karabiner**.

In the event of a fall, the **trolley** immediately **locks** over the Rail, thus arresting the fall. Also, while not in use, the **Uni-directional locking system** of the Trolley prevents it from sliding down on its own.

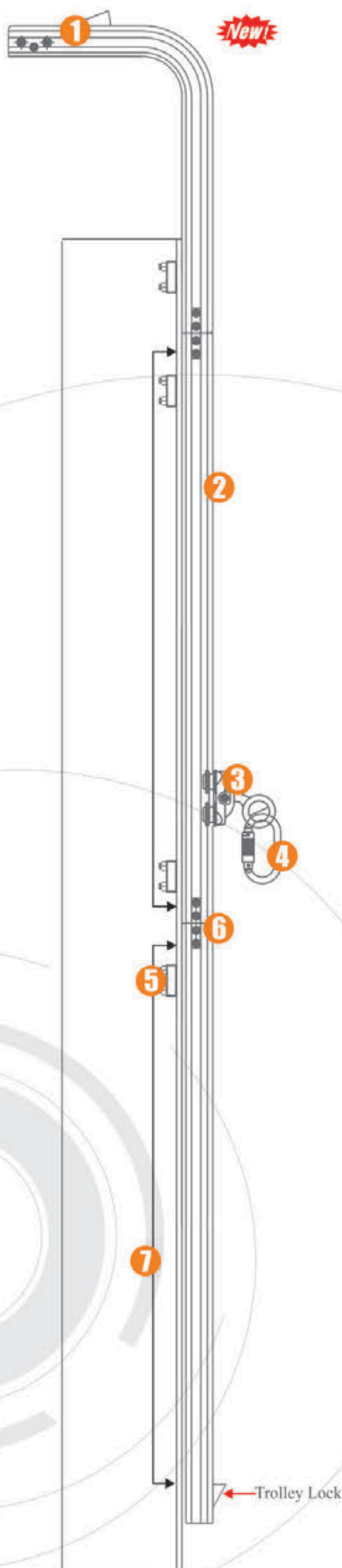
The Rail comes with an **Extension Arm** that **curves** at the **Ladder-end** over the working platform. This allows the climbers to be connected with the trolley

even at the Ladder termination, ensuring complete safety.

The bottom most section is the **Aluminium Rail Extremity** which is equipped at the **end** with a **lock** that prevents the trolley from moving out of the rail (see figure 7)

This system can be used on telecommunications towers, radio and TV masts, power supply and hydroelectric installations, wind power facilities, construction, chimney and industrial plants, buildings and facades, crane installations, shafts and manholes, aircraft hangars and for loading/unloading of trains and vehicles, petrochemical plants, on-shore and off-shore oil rigs, shipbuilding, and off-shore oil rigs, shipbuilding.

Sr. No.	Name of Component	Ref. No of Component	Description
1	Alu. Extension	PN 8000 (02)	Material: Extruded Aluminium Alloy Length: 1.5 meter.
2	Aluminium Rail Intermediate	PN 5000 (01)	Material Extruded Aluminium Alloy Length: 3 meter.
3	Vertical Trolley	PN 8000 (01)	Material: Stainless Steel (304) Trolley with Brass wheel which provide frictionless movement.
4	Karabiner	PN 111	Quarter Turn Auto-locking Steel Karabiner
5	Rung Clamp	PN 8000 (03)	Material: Stainless Steel 304 Help to clamp the system onto the underlying ladder
6	Junction	PN 5000 (08)	Used to connect two rails together. Material: Stainless Steel 304
7	Aluminium Rail Extremity	PN 5000 (02)	Material: Extruded Aluminium Alloy Length: 3m



SYSTEM REF: VERTEX PN 9000



Alu. Extension
Ref. PN 8000 (02)



Alu. Rail
Intermediate
Ref. PN 5000 (01)



Vertical Trolley
Ref. PN 8000 (01)



Karabiner
Ref. PN 111



Mounting Bracket
Ref. PN 5000 (06)



Junction
Ref. PN 5000 (08)



Alu. Rail
Exterimity
Ref. PN 5000 (02)

Trolley Lock



Ladder Rung Assembly
Ref. PN 9000 (01)

system specifications

This is a complete Fall protection Ladder System which consists of **Galvanized Steel Ladder Rungs** over which is fixed the Vertical **Anchorage Rail made of Aluminium Alloy**. This system is an ideal choice for use where there are no pre-fabricated ladders or climbing structures available for climbing and can be fitted over various structures using different types of fasteners.

The system conforms to **EN 353-1:2002**.

The **Rungs** of the **Ladder, made of Galvanized Steel**, are fitted at a suitable distance from the underlying structure/profile to allow **enough foot space**. The rungs also have a grooved surface that allows a **slip-free grip** while climbing.

The **Aluminium Anchorage Rail fitted** on to the **center of the Rungs** of the ladder is smooth and allows the Guided type **Fall-Arrest Trolley** to glide effortlessly over its length. This trolley **moves up and down** accompanying the user who is connected to it with the help of a **Auto-locking Karabiner**.

The **Trolley is made of Stainless Steel** and has **wheels made of Brass**, making the system

highly corrosion resistant and **extremely smooth** in working.

In the event of a fall, the **trolley immediately locks** over the Rail, thus arresting the fall. Also, while not in use, the **Uni-directional locking** system of the Trolley does not allow it to fall free down the Rail.

The system comes with an **Extension Arm** that **curves** at the **Ladder-end** over the **working platform**. This allows the climbers to be connected with the trolley even at the Ladder termination, ensuring complete safety.

The bottom most section is the **Aluminium Rail Extremity** which is equipped in the **end** with a **lock** that prevents the trolley from moving out of the rail (see figure 7)

This system can be used on telecommunications towers, radio and TV masts, power supply and hydroelectric installations, wind power facilities, construction, chimney and industrial plants, buildings and facades, crane installations, shafts and manholes, aircraft hangars and for loading/ unloading of trains and vehicles, petrochemical plants, on-shore and off-shore oil rigs, shipbuilding,.



Sr. No.	Name of Component	Ref. No of Component	Description
1	Alu. Extension	PN 8000 (02)	Material: Extruded Aluminium Alloy Length: 1.5 m
2	Aluminium Rail Intermediate	PN 5000 (01)	Material: Extruded Aluminium Alloy Length: 3m
3	Vertical Trolley	PN 8000 (01)	Material: Stainless Steel (304) Trolley with Brass wheels which provide frictionless movement.
4	Karabiner	PN 111	Quarter Turn Auto-locking Steel Karabiner
5	Mounting Bracket	PN 5000 (06)	Material: Stainless Steel 304 Help to mount the ladder on to the underlying structure.
6	Junction	PN 5000 (08)	Used to connect two rails together. Material: Stainless Steel 304
7	Aluminium Rail Extremity	PN 5000 (02)	Material: Extruded Aluminium Alloy Length: 3m
8	Ladder Rung Assembly	PN 9000 (01)	Ladder Rung Material: Galvanized Steel Fasteners: Qty. 2 Nos Material Galvanized Steel

KARAM provides a range of temporary (conforming to EN 795 class B) and permanent horizontal anchorage lines (Conforming to EN 795 Class C).



TEMPORARY & PERMANENT
ANCHORAGE LINE SYSTEMS

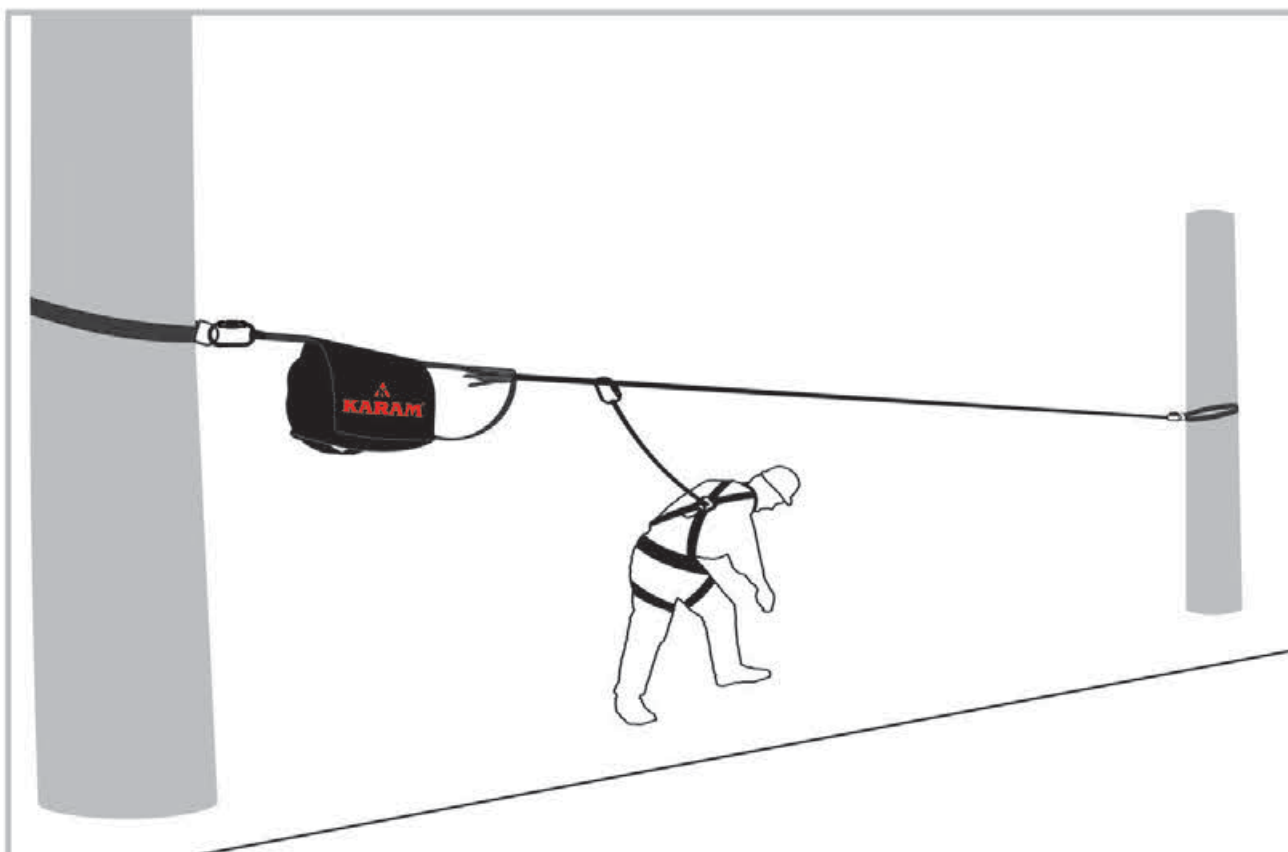
Temporary Horizontal Line **EN 795 Class B** PN 3000

KARAM introduces the HORIZON range of Horizontal Anchorage Lifeline, to provide a suitable and safe anchorage extending horizontally along a length.



- ▶ The Horizon- PN 3000 is a Horizontal Anchorage Life Line made up of 30 mm Polyester Webbing equipped with the **KARAM** Ratchet Tensioner that allows easy tensioning of the lifeline between two supports. Both the ends are provided with Auto Locking Steel Karabiners(Our Ref PN 113)
- ▶ The whole system is supplied in a bag , which is permanently attached to the assembly and also enables the user to easily carry the system with the help of the comfortable shoulder hanging straps provided in the bag.
- ▶ Once fitted, you can easily put back the extra webbing not deployed along the length, into the Bag
- ▶ Complies to EN 795 Class B
- ▶ Available Length- Total 20m, thus the user can use it for a length ranging from 5m to 20m
- ▶ Tasted & Certified for use by Two Users simultaneously.

Once the Lifeline is fitted, the user can easily attach the Lanyard of his Harness to the Lifeline using a Karabiner or the anchorage of Self retractable lanyard-PN 2002. This allows movement along the length while keeping the user secured and safe at all times.



SYSTEM REF: HORIZON PN 4000



Shock Absorber
Ref. PN 4000 (07)



Cable Extremity
Ref. PN 7000 (03)



Wire Rope
Ref. PN 9XXXX



Tensioner
Ref. PN 4000 (03)



Corner Piece
Ref. PN 4000 (06)



Carriage body
Ref. PN 4000 (08)



Intermediate
Ref. PN 4000 (10)



Universal Extremity Plate
Ref. PN 4000 (09)



Roof Top Anchor
Post Extremity
Ref. SA 07A



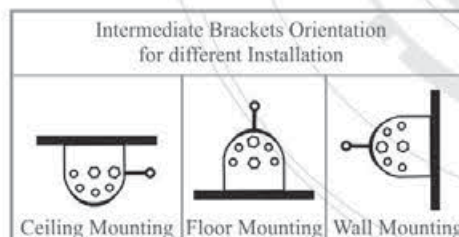
Roof Top Anchor
Post Intermediate
Ref. SA 07B



Roof Top Anchor
Post Extremity
Ref. SA 07C



Roof Top Anchor
Post Intermediate
Ref. SA 07D



EN 795 CLASS C

SYSTEM REF: HORIZON PN 4000

system specifications

Horizon PN 4000 provides permanent anchorage to a user who has to constantly move along a horizontal line.

It comprises of a **Stainless Steel Wire Rope (SS 316)** of **8 mm dia** running all along the horizontal track, and is installed at the ends using special **Universal Extremity Plates**. The **Intermediate brackets** hold the wire in position all along the length of the wire, and are **installed at intervals of every 10m**. The line is maintained in tension with the help of **Tensioner** at one end, while the other end has a **swageless termination** on to the **Universal Extremity plate**.

The **Stainless Steel Carriage Shuttle connects** the user to the line with the

help of a lanyard/ retractable block, and moves **smoothly** without interruption along the entire length of the Horizontal line and also through the Intermediate Brackets, thus ensuring **100% anchorage** of the user at all times.

The line also has a Shock Absorber at one end which **reduces the impact** offall both on the user as well as on the extremities.

The System versatile and can be installed on **Walls, Floors, Ceilings**, as well as on **Roof Tops**, using the same components by just altering the orientation of the Intermediate Brackets (See Figure).

KARAM provides special **Roof Posts**

for installation of the System on **Metal Roof-tops**, both **Pitched** and **Standing-Seam Roofs**. The special construction of these Roof-Posts allows **inbuilt shock-absorption** in the event of a fall.

Horizon PN 4000 has the unique distinction of being **certified by Sira** for **ATEX** to comply with use in potentially explosive atmosphere (as per Potentially Explosive Atmospheres **Directive 94/9/EC**), and **conforms to Norms EN 13463-1: 2009**, and **EN 13463-5: 2003**. The system is certified to be **Intrinsically Safe**, hence is an ideal choice for use in Industries like Petroleum/ Petro-Chemical Plants without fear of causing explosion due to any sparking.

Sr. No.	Name of Component	Ref. No of Component	Description
1	Shock Absorber	PN 4000 (07)	Material: Stainless Steel 304 Limits the impact of force in the event of fall to less than 6 kN
2	Cable Extremity	PN 7000 (03)	Allows crimping of the cable wire at the desired length, and eliminates danger of any loose wire. Material: Stainless Steel 304 Feature: Swageless termination
3	Wire Rope	PN 9XXXX (where XXX is the length of the wire rope in meters)	Material: Stainless Steel 316 Diameter: 8mm Construction: 7x19
4	Tensioner	PN 4000 (03)	Regulates tensioning of the cable. Material: Stainless Steel 304 Feature: Swageless termination of wire at the end.
5	Corner Piece	PN 4000 (06)	Material: Stainless Steel 304
6	Carriage body	PN 4000 (08)	Material: Stainless Steel 316 Feature: Friction Free movement
7	Intermediate Bracket	PN 4000 (10)	Material: Stainless Steel 304 Recommended Installation- every 10m
8	Universal Extremity Plate	PN 4000 (09)	Material: Stainless Steel 304
9	Roof Top Anchor post Extremity	SA 07A	Material: Stainless Steel 304 Roof top Anchor post Extremity for Installation on Metal Pitched Roof.
10	Roof Top Anchor post Intermediate	SA 07B	Material: Stainless Steel 304 Roof top Anchor post intermediate for Installation on Metal Pitched Roof.
11	Roof Top Anchor post Extremity	SA 07C	Material: Stainless Steel 304 Roof top Anchor post Extremity for Installation on Standing Seam Roof.
12	Roof Top Anchor post Intermediate	SA 07D	Material: Stainless Steel 304 Roof top Anchor post intermediate for Installation on Standing Seam Roof.

SYSTEM REF: HORIZON PN 5000



Alu. Rail Intermediate
Ref. PN 5000 (01)



Alu. Rail Exterimity
Ref. PN 5000 (02)



Mounting Nut
Ref. PN 5000 (03)



Wall Mounting Bracket
Flush Type
Ref. PN 5000 (04)



Wall Mounting Bracket
with Recess
Ref. PN 5000 (05)



Ceiling Mounting Bracket
Ref. PN 5000 (06)



Junction
Ref. PN 5000 (08)



Curved Alu. Rail
(Outer Wall Mounted)
Ref. PN 5000 (09A)



Curved Alu. Rail
(Inner Wall Mounted)
Ref. PN 5000 (09B)



Curved Alu. Rail
(Ceiling / Floors)
Ref. PN 5000 (10)

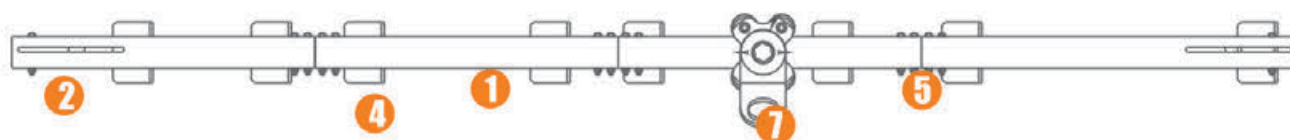


Trolley For Ceiling/floor
Ref. PN 5000 (13)



Trolley For Wall
Ref. PN 5000 (12)





SYSTEM REF: HORIZON PN 5000

system specifications



Wall Mounted Installation
(with Recess)



Wall Mounted Installation
(Flush Type)



Floor Mounted Installation



Ceiling Mounted Installation



**Different Installations using
Different types of Mounting Brackets**

This Anchorage Rail system **complies with EN 795** and is designed to provide safe anchorage for horizontal movement while working at height. The worker wears a Full Body Harness and uses a lanyard (or other connector compliant with EN 354/EN 355) to connect to the eye of the **Trolley**, which glides along the Aluminium Horizontal Rail. For **overhead applications** a Self retractable fall arrester can be used to provide the most effective means of fall protection.

The Aluminium Anchorage Rail can be **fitted on to floors, Wall** and on **Ceilings** using **special mounting brackets**. The **Wall-mounting brackets** can be **flushed**

along the surface of the **wall**; alternately special mounting brackets which allow a recess between the rail and the wall may be used so as not to interrupt underlying structures like pipes and wires.

The rail is available in straight as well as **curved** forms (for **corners** and **bends**). The specially **fixed junctions** between different lengths of the rail allow an **extremely smooth movement** of the **Trolley**.

This system can be used on Flat roofs or steep roofs, Working platforms on masts and buildings, Hangars, Shipyards, Cranes, Industrial plants etc.

Sr. No.	Name of component	Ref. No of Component	Description
1	Alu. Rail Intermediate	PN 5000 (01)	Material: Extruded Aluminium Alloy Length: 3 Meter.
2	Alu. Rail Extermity	PN 5000 (02)	Material: Extruded Aluminium Alloy Length: 3 Meter.
3	Mounting Nut	PN 5000 (03)	Material: Stainless Steel-304 to connect the rail to the mounting Bracket.
4A	Wall Mounting Bracket Flush Type	PN 5000 (04)	Material: Stainless Steel-304 (for Flush type wall Mounting)
4B	Wall Mounting Bracket with Recess	PN 5000 (05)	Material: Stainless Steel-304 (for wall Mounting with Recess)
4C	Ceiling Mounting Bracket	PN 5000 (06)	Material: Stainless Steel-304(for ceiling mounting)
5	Junction	PN 5000 (08)	Used to Connect Two rails together. Material: Stainless Steel-304
6A	Curved Alu. Rail (Outer Wall Mounted)	PN 5000 (9A)	Material: Extruded Aluminium Alloy
6B	Curved Alu. Rail (Inner Wall Mounted)	PN 5000 (9B)	Material: Extruded Aluminium Alloy
6C	Curved Alu. Rail (Ceiling/Floors)	PN 5000 (10)	Material: Extruded Aluminium Alloy
7A	Trolley For Ceiling/ Floor	PN 5000 (13)	Material: Stainless Steel (304) Trolley with Brass wheels which provide frictionless movement.
7B	Trolley for Wall	PN 5000 (12)	Material: Stainless Steel (304) Trolley with Brass wheels which provide frictionless movement.

NOTE



RETRACTABLE FALL ARRESTER BLOCKS



KARAM offers an exhaustive range of Retractable Fall Arrest Blocks made of different casings, of webbing & G1 wire ropes of varying lengths ; and Mini Blocks.



KARAM Presents a Wide Range of Retractable Fall Arrester Blocks having different casing, in GI wire Rope & Webbing and in various Length.



Mini Block

Ref: PN 2002

- ▶ Having a Retractable Webbing of width 47mm
- ▶ Maximum length : 2.5m
- ▶ Has a protective casing
- ▶ Incorporated with an Energy Absorber for shock absorption
- ▶ Supplied with 1 Steel Karabiner PN 112 at the Anchorage end, and Aluminium Karabiner PN 116 at the Harness end as attachment elements
- ▶ Conforms to EN 360:2002



Mini Block (Swivel)

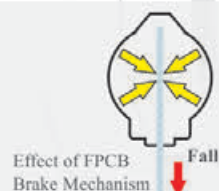
Ref: PN 2002 (SW)

- ▶ Having a Swivel arrangement at anchorage end with Fall Indicator
- ▶ Having a Retractable Webbing of width 47mm
- ▶ Maximum length: 2.5m
- ▶ Has a protective casing
- ▶ Incorporated with an Energy Absorber for shock absorption
- ▶ Supplied with Steel Karabiner PN 112 at the Anchorage as well as at the attachment end
- ▶ Conforms to EN 360:2002



FEATURES OF KARAM RETRACTABLE FALL ARRESTER BLOCKS

Mechanism	Unique Centrifugal Braking Mechanism.
Applications	Ideal For Vertical use in various hazardous conditions for personnel weighing upto 136 kgs.
Impact Force	Reduces Fall Arrest Force to less than 6 kN.
Harness-end Connector	Swivel Snap Hook with Load indicator PN 123 which indicates a warning line when a Fall has occurred.
Conformity	Tested and Certified. Conforms to EN 360:2002



PN 123

POLYMER CASING

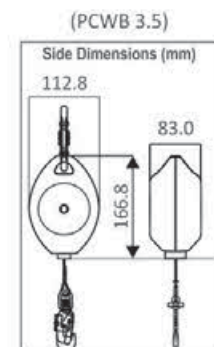
The Special polymer casing which houses the reel of the rope or webbing, is extremely robust and can withstand the harsh conditions faced in most industrial settings.



Retractable Block-Polymer Casing with Webbing Ref : PCWB 3.5

- ▶ Casing made up of high impact strength Polymer, to prevent breakage and is nearly indestructible.
- ▶ Comes in 25 mm width webbing.
- ▶ PN 112 at anchorage end and PN 123 at attachment end.
- ▶ PN 123 connector with load indicator.
- ▶ Conforms to EN 360:2002

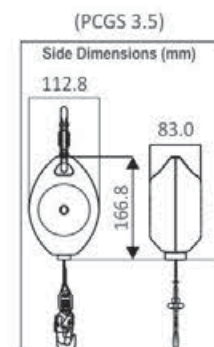
Model	Length of Webbing	Weight (Kg)
PCWB 3.5	3.5 mtr	1.6



Retractable Block-Polymer Casing with G.I. Wire Rope Ref : PCGS 3.5

- ▶ Casing made up of high impact strength Polymer, to prevent breakage and is nearly indestructible.
- ▶ Comes with Galvanized Steel Wire Rope of dia 4.5 mm
- ▶ PN 112 at anchorage end and PN 123 at attachment end.
- ▶ PN 123 connector with load indicator.
- ▶ Conforms to EN 360:2002

Model	Length of Wire Rope	Weight (Kg)
PCGS 3.5	3.5 mtr	2.2Kg



* Also available with the SS Wire Rope instead of GI. Respective references with SS Wire Rope shall be PCGS 3.5(SS)



Retractable Block Polymer Casing with 25 mm Wide Webbing

Ref: PCWB 05; PCWB 06; PCWB 7.5

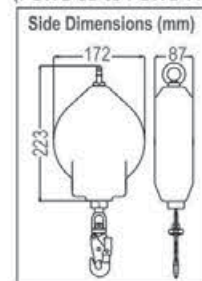
Unique Retractable Block also available in High-Tensity Webbing, which makes the Block lighter in weight and more handy in use. Best suited for use in areas of Electrical Hazards.

Anchorage Eye with swivel action. Prevents undue twist of rope while working or in the event of a Fall.

► **Conforms to EN 360:2002**

Model	Length of Webbing	Weight (Kg)
PCWB 05	5 mtr	3.25
PCWB 06	6 mtr	3.45
PCWB 7.5	7.5 mtr	3.70

(PCWB 05 to PCWB 7.5)



Retractable Block Polymer Casing with G.I. Wire Rope

Ref : PCGS 05; PCGS 06; PCGS 7.5; PCGS 10

Casing made up of high impact strength Polymer, to prevent breakage and is nearly indestructible.

Comes with Galvanized Steel Wire Rope of dia 4.5 mm

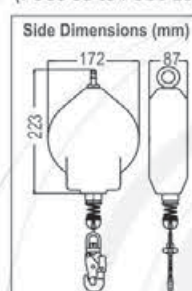
Anchorage Eye with swivel action. Prevents undue twist of rope while working or in the event of a Fall.

► **Conforms to EN 360:2002**

Model	Length of Wire Rope	Weight (Kg)
PCGS 05	5 mtr	3.9
PCGS 06	6 mtr	4.0
PCGS 7.5	7.5 mtr	4.4
NEW PCGS 10	10 mtr	4.6

* Also available with the SS Wire Rope instead of GI. Respective references with SS Wire Rope shall be PCGS 05(SS), PCGS 06(SS), PCGS 7.5(SS) & PCGS 10(SS)

(PCGS 05 to PCGS 10)





Retractable Block Polymer Casing with Webbing Ref : PCWB 10; PCWB 12

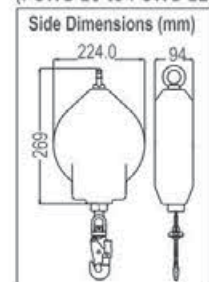
Unique Retractable Block also available in High-Tensity Webbing, which makes the Block lighter in weight and more handy in use. Best suited for use in areas of Electrical Hazards.

Anchorage Eye with swivel action. Prevents undue twist of rope while working or in the event of a Fall.

► Conforms to EN 360:2002

Model	Length of Webbing	Weight (Kg)
PCWB 10	10 mtr	5.75
PCWB 12	12 mtr	5.85

(PCWB 10 to PCWB 12)



Retractable Block Polymer Casing with G.I. Wire Rope Ref : PCGS 12; PCGS 15; PCGS 18; PCGS 20

Casing made up of high impact strength Polymer, to prevent breakage and is nearly indestructible.

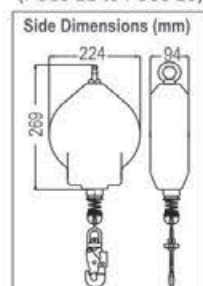
Comes with Galvanized Steel Wire Rope of dia 4.5 mm

Anchorage Eye with swivel action. Prevents undue twist of rope while working or in the event of a Fall.

► Conforms to EN 360:2002

Model	Length of Wire Rope	Weight (Kg)
PCGS 12	12 mtr	6.1
PCGS 15	15 mtr	6.4
NEW PCGS 18	18 mtr	6.7
NEW PCGS 20	20 mtr	6.9

(PCGS 12 to PCGS 20)



* Also available with the SS Wire Rope instead of GI. Respective references with SS Wire Rope shall be PCGS 12(SS), PCGS 15(SS), PCGS 18(SS) & PCGS 20(SS)



Retractable Block Polymer Casing with G.I. Wire Rope

Ref : PCGS 25; PCGS 30

Casing made up of high impact strength Polymer, to prevent breakage and is nearly indestructible.

Comes with Galvanized Steel Wire Rope of dia 4.5 mm

Anchorage Eye with swivel action. Prevents undue twist of rope while working or in the event of a Fall.

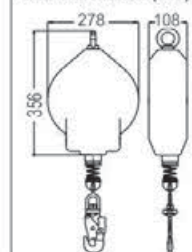
► Conforms to EN 360:2002

Model	Length of Wire Rope	Weight (Kg)
PCGS 25	25 mtr	12.2
PCGS 30	30 mtr	12.5

* Also available with the SS Wire Rope instead of GI. Respective references with SS Wire Rope shall be PCGS 25(SS) & PCGS 30(SS)

(PCGS 25 to PCGS 30)

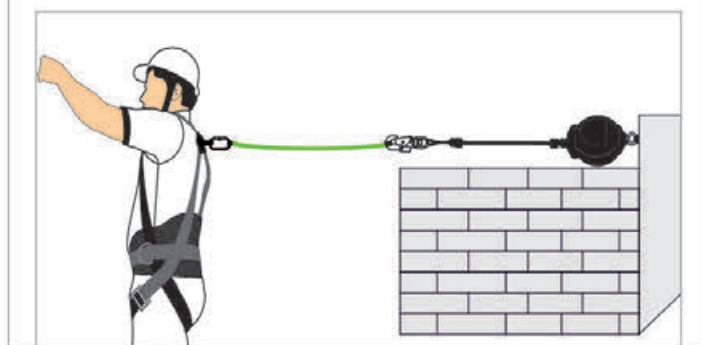
Side Dimensions (mm)



Horizontal use of the Block:- KARAM Retractable Block can also be used horizontally. For such a use, it is recommended to attach additional Webbing Lanyard. Ref. PN 221 of 1.5m.



Ref. PN 221



ALUMINIUM CASING



Retractable Block-Aluminium Casing with 25mm Wide Webbing

(ALWB 04 to ALWB 7.5)

Ref : ALWB 04; ALWB 05; ALWB 06; ALWB 7.5

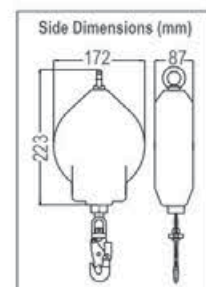
Casing made up of high weight and sturdy Aluminium Alloy

Comes with Webbing of 25 mm wide.

Anchorage Eye with swivel action. Prevents undue twist of rope while working or in the event of a Fall.

► Conforms to EN 360:2002

Model	Length of Webbing	Weight (Kg)
ALWB 04	4 mtr	3.30
ALWB 05	5 mtr	3.50
ALWB 06	6 mtr	3.60
ALWB 7.5	7.5 mtr	3.80



Retractable Block-Aluminium Casing G.I. Wire Rope

(ALGS 05 to ALGS 10)

Ref : ALGS 05; ALGS 06; ALGS 7.5; ALGS 10

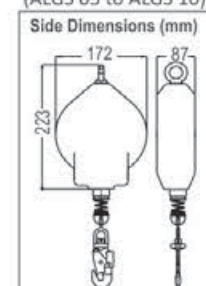
Casing made up of high weight and sturdy Aluminium Alloy

Comes with Galvanized Steel Wire Rope of dia 4.5 mm

Anchorage Eye with swivel action. Prevents undue twist of rope while working or in the event of a Fall.

► Conforms to EN 360:2002

Model	Length of Wire Rope	Weight (Kg)
ALGS 05	5 mtr	4.6
ALGS 06	6 mtr	4.7
ALGS 7.5	7.5 mtr	4.9
NEW ALGS 10	10 mtr	5.3



* Also available with the SS Wire Rope instead of GI. Respective references with SS Wire Rope shall be ALGS 05(SS), ALGS 06(SS), ALGS 7.5(SS) & ALGS 10(SS)



Retractable Block-Aluminium Casing with 25mm Wide Webbing

Ref: ALWB 10; ALWB 12

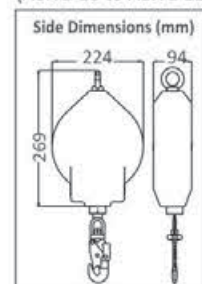
Casing made up of high weight and sturdy Aluminium Alloy
Comes with Webbing of 25 mm wide.

Anchorage Eye with swivel action. Prevents undue twist of rope while working or in the event of a Fall.

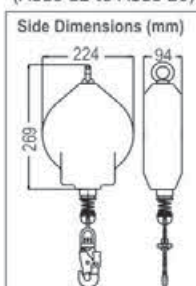
Conforms to EN 360:2002

Model	Length of Webbing	Weight (Kg)
ALWB 10	10 mtr	5.7
ALWB 12	12 mtr	5.8

(ALWB 10 to ALWB 12)



(ALGS 12 to ALGS 20)



Retractable Block-Aluminium Casing G.I. Wire Rope

Ref : ALGS 12; ALGS 15; ALGS 18; ALGS 20

Casing made up of high weight and sturdy Aluminium Alloy
Comes with Galvanized Steel Wire Rope of dia 4.5 mm

Anchorage Eye with swivel action. Prevents undue twist of rope while working or in the event of a Fall.

Conforms to EN 360:2002

Model	Length of Wire Rope	Weight (Kg)
ALGS 12	12 mtr	7.0
ALGS 15	15 mtr	7.4
ALGS 18	18 mtr	7.5
ALGS 20	20 mtr	7.6

* Also available with the SS Wire Rope instead of G.I.
Respective references with SS Wire Rope shall be ALGS 12(SS), ALGS 15(SS), ALGS 18(SS), ALGS 18(SS) & ALGS 20(SS)



Twin Retractable Fall Arrester Block

Ref: ALWB 2x2

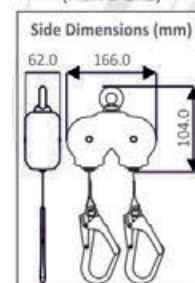
- Casing made up of aluminium alloy.
- Comes with a 25 mm polyester webbing.
- Include two Scaffold Hook PN 131 at anchorage end.
- Anchorage Eye with swivel action. Prevents undue twist of rope while working or in the event of a Fall.

USE : To be used wherever the user needs a greater freedom of movement and needs to pass obstacles while remaining secured permanently.

- Minimum breaking strength > 15kN
- Conforms to EN 360:2002

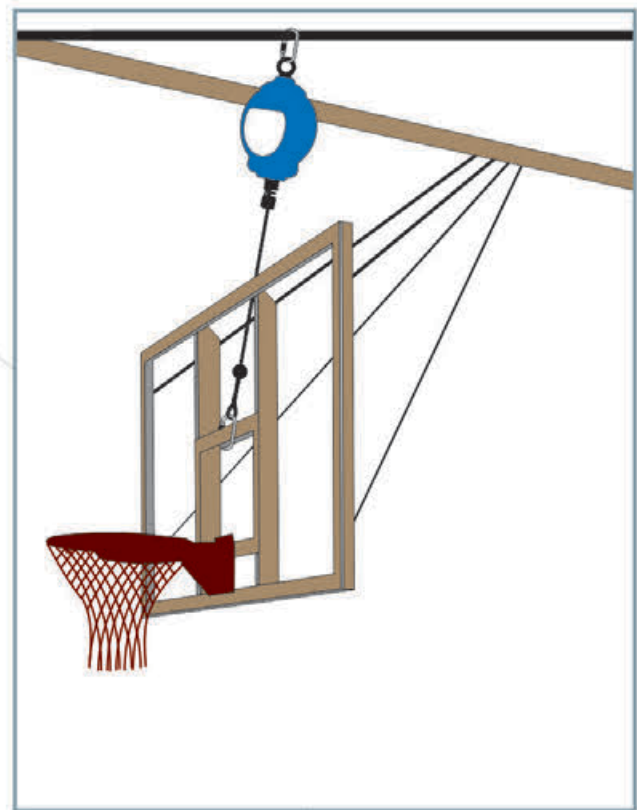
Model	Length of Webbing	Weight (Kg)
ALWB 2x2	2 mtr	2.63

(ALWB 2x2)



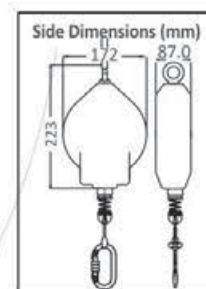
The Cable Load Arresters are used to stop the fall of a load (basketball hoop, ramp lighting for scenic, industrial machine,) for a short distance in case of:

- ▶ A break of chain or cable for hoisting the load,
- ▶ A failure of the retaining elements of the load.



- ▶ Load arrester design to stop the fall of a weight max 200 kg.
- ▶ Casing made up of high impact strength Polymer, to prevent breakage and is nearly indestructible.
- ▶ Galvanized Steel Wire Rope diam 4.8 mm
- ▶ Minimum breaking strength > 3 kN
- ▶ Conforms to : 2006/42/CE

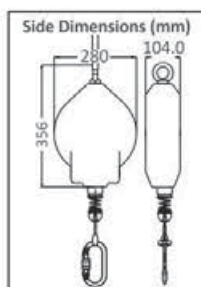
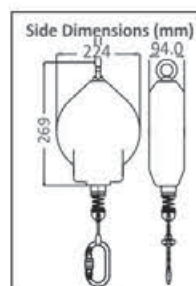
Ref.	Length	Weight	Load Capacity
LA0200-10	10 m	4.2 Kg	200Kgf





- ▶ Load arrester design to stop the fall of a weight max 300 kg.
- ▶ Casing made up of high impact strength Polymer, to prevent breakage and is nearly indestructible.
- ▶ Galvanized Steel Wire Rope diam 4.8 mm
- ▶ Minimum breaking strength > 4 kN
- ▶ Conforms to : 2006/42/CE

Ref.	Length	Weight	Load Capacity
LA0300-10	10 m	6.1 Kg	300Kgf
LA0300-15	15 m	6.5 Kg	



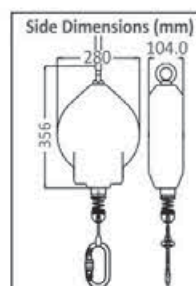
- ▶ Load arrester design to stop the fall of a weight max 400 kg.
- ▶ Casing made up of high impact strength Polymer, to prevent breakage and is nearly indestructible.
- ▶ Galvanized Steel Wire Rope diam 5.8 mm
- ▶ Minimum breaking strength > 6 kN
- ▶ Conforms to : 2006/42/CE

Ref.	Length	Weight	Load Capacity
LA0400-10	10 m	11.0 Kg	400Kgf
LA0400-15	15 m	11.5 Kg	
LA0400-20	20 m	12.0 Kg	



- ▶ Load arrester design to stop the fall of a weight max 500 kg.
- ▶ Casing made up of high impact strength Polymer, to prevent breakage and is nearly indestructible.
- ▶ Galvanized Steel Wire Rope diam 6.0mm
- ▶ Minimum breaking strength > 7 kN
- ▶ Conforms to : 2006/42/CE

Model	Length	Weight	Load Capacity
LA0500-10	10 m	11.5 Kg	500Kgf
LA0500-15	15 m	12.0 Kg	



A particularly challenging area of activity is when the worker is required to move into confined spaces. Not only is it required that descent into such a space is made smooth and safe, but incase the depth into such areas is large, it becomes almost equivalent to working at a height. Hence, to protect the worker from falling into deep and narrow confinement also becomes the focus of concern.



CONFINED SPACE ENTRY



Tripod

Ref. PN 800

- ▶ For access in confined spaces
- ▶ With two mounted pulleys at the head of the Tripod in the prolongation of the main leg for passing a cable
- ▶ Having two auxiliary eye bolts as attachment points.
- ▶ Aluminum alloy cast head, legs in aluminium.
- ▶ Steel support-shoes provided with rubber sole to increase friction and impart more stability.
- ▶ Strength of anchorage point greater than 10 kN
- ▶ Every Tripod is provided with inbuilt fixture for attaching our winch PN 801 (can be supplied without this fixture on special request).
- ▶ Every Tripod is provided with Tripod Bag Ref. No. PN 904



PN 800 (7ft.)

LENGTH	SPECIFICATION	COMPLIANCE
7 ft.	<ul style="list-style-type: none"> ▶ Fully adjustable telescopic legs, adjustable height from 1.15m to 2.15m ▶ Wheelbase (Footprint) : 1.5m Diameter ▶ Weight : 13 kg ▶ Maximum load capacity : 500 kg 	EN 795 CLASS B
10 ft.	<ul style="list-style-type: none"> ▶ Fully adjustable telescopic legs, adjustable height from 1.9m to 2.9m ▶ Wheelbase (Footprint) : 1.8m Diameter ▶ Weight : 15 kg ▶ Maximum load capacity : 500kg 	



PN 800 (10ft.)

Winch

Ref. PN 801



The KARAM Winch is used for raising or lowering personnel or material upto a capacity of 125 Kgs

- ▶ To be used for raising or lowering of personnel or material into confined spaces
- ▶ Equipped with bolting fixture for robust fitting on to the tripod PN 800
- ▶ Lifting Load capacity : 125 Kgs
- ▶ Length: 20.0 m
- ▶ Conforms to EN 1496:2006 (Class A)
- ▶ To be used with a Retractable Fall Arrestor when deployed for raising or lowering a person
- ▶ Can also be fitted to KARAM K-Pod PN 900

Tripod Bag
(Ref. PN 904)



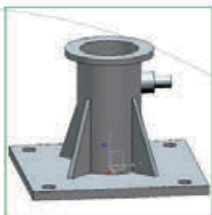
KARAM Cantilever K-Pod

Ref. PN 900

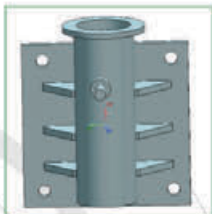
- KARAM introduces the new K-Pod which provides a safe and sure system for easy access to confined spaces. The K-Pod is an ideal choice to provide overhead anchorage which can be mounted on different bases and it conforms to EN 795 Class B.
- The K-Pod is made of highly corrosion resistant stainless steel, and can swivel a complete 360 degrees on its mounted base, hence providing a versatile reach and access.
- The unique feature is that the height of the Cantilever arm of the K-Pod is adjustable at 3 defined points, with upper height adjustment of 2.3m, middle arm adjustment of 1.9m, and lowered arm adjustment at 1.5m. This enables the use of the K-Pod even in those areas where the roof height is small.
- The K-Pod can be easily mounted on the floor as well as on the wall through special floor and wall mounting brackets which are made available as per need. The K-Pod can also be mounted on the floor of heavy vehicles, hence making it extremely versatile in use.
- KARAM Winch PN 801 can also be easily mounted on to the K-Pod with the help of stainless steel fasteners.



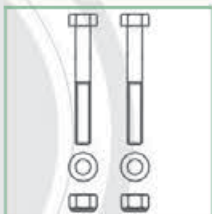
Accessories of KARAM K-POD :



Floor Mounting Bracket
Ref. PN 900(01)

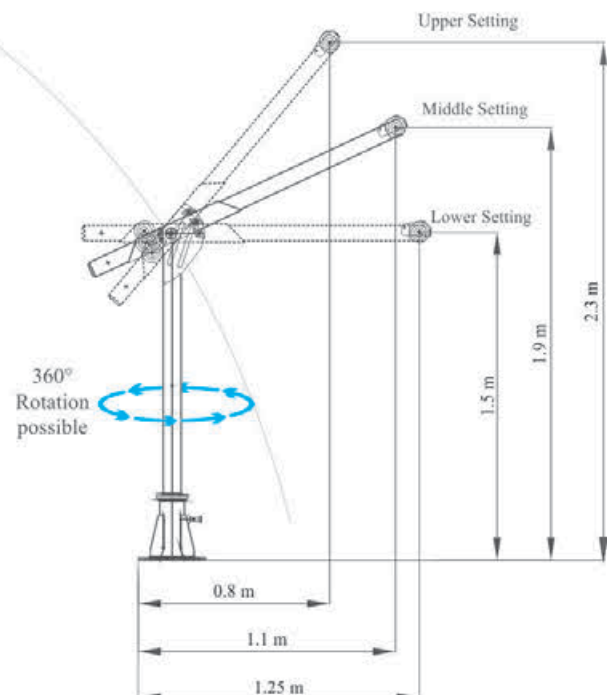
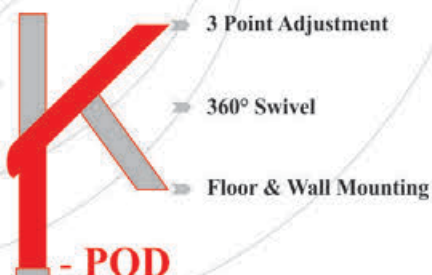


Wall Mounting Bracket
Ref. PN 900(02)



Stainless Steel Fasteners
for Winch Mounting
Ref. PN 900(03)

Features :

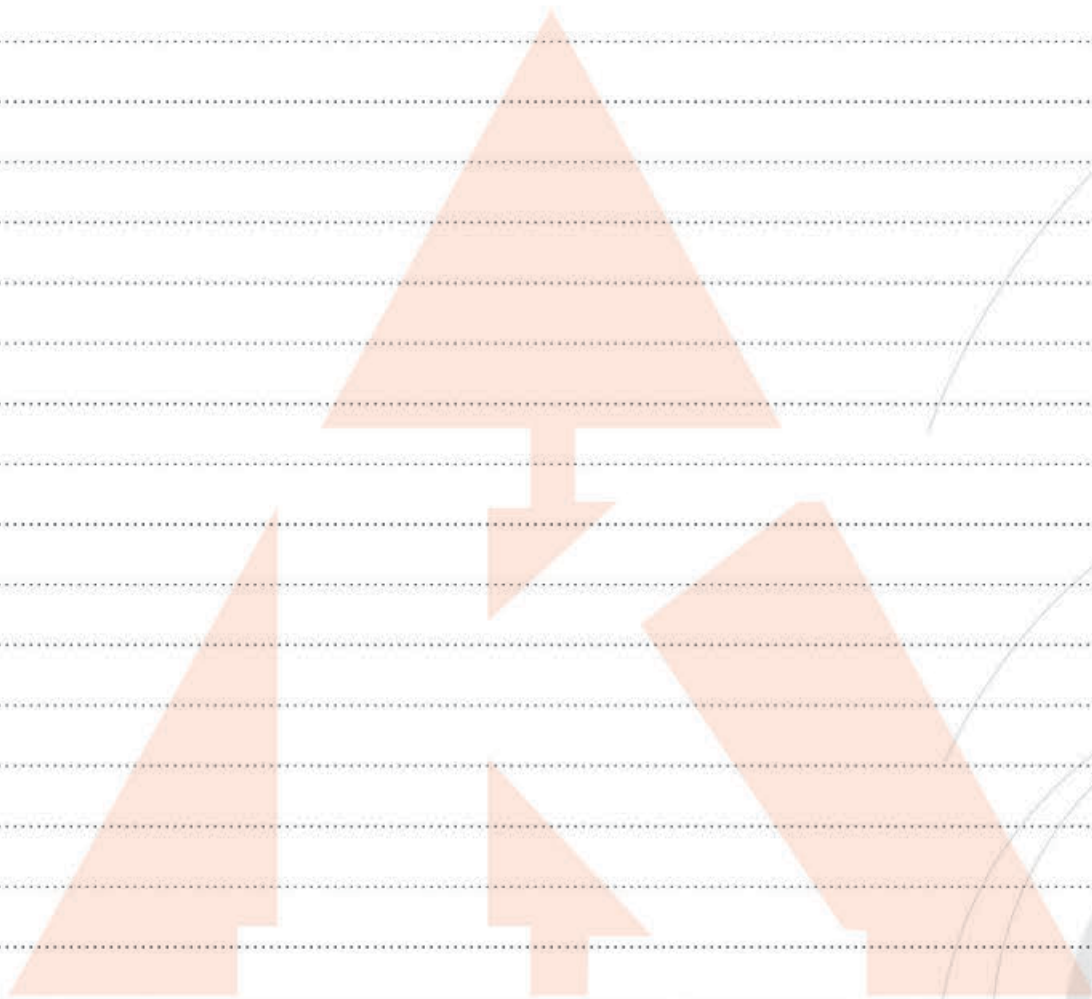


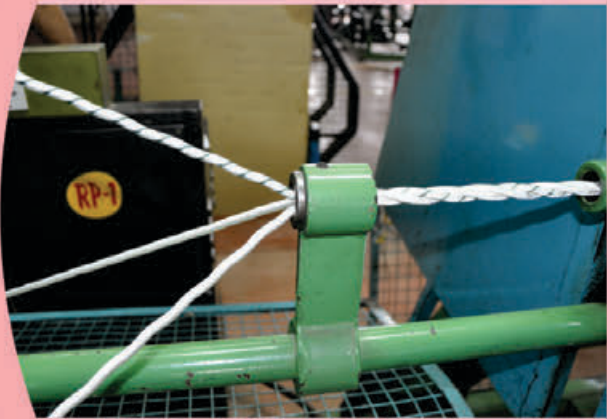
SETTING	DISTANCE FROM BAR	HEIGHT OF ARM
Upper	0.8 m	2.3 m
Middle	1.1 m	1.9 m
Lower	1.25 m	1.5 m



K-Pod mounted on floor of vehicle

NOTE





ROPE ACCESS & RESCUE

Rope Access



Grip Descender
Ref. PN 401

- ▶ Ideal for descent on a single rope.
- ▶ It is equipped with a unique Self Braking System which initiates the brake as soon as the handle is released, or clasped too tightly.
- ▶ Works on 10-11 mm diameter Kernmantle rope.
- ▶ Conforms to EN 341-Class A

Figure of 8
Ref. PN 431

- ▶ Made up of Aluminium alloy
- ▶ Inner dia Big - 52 mm, Small - 26 mm
- ▶ Height - 145 mm
- ▶ Minimum Breaking Load - 50 KN
- ▶ Anodized finish



New!



Adjustable Webbing foot loop
Ref. PN 402(A)

- ▶ Material : 44 mm Polyester Webbing
- ▶ Attached to the Ascending rope clamp for rope ascents
- ▶ Underfoot strap is abrasion-resistant and is slightly rigid to make it easier to step into
- ▶ Length easily adjusted with the Combination Buckles



Rope Clamp
Ref. PN 402 (R)
PN 402 (L)

- ▶ Made up of Aluminium alloy
- ▶ Height - 202 mm, Weight - 196 gms
- ▶ For use on single rope 9 to 11 mm
- ▶ Anodized finish.



Pulley



Single Anchorage Pulley
Ref. AP001

- ▶ Material- Alloy Steel
- ▶ Minimum Breaking Strength- 15 KN
- ▶ Finish- Silver or Golden Yellow Galvanized. Shot Blasted on request
- ▶ Net Weight- 412.0 gm
- ▶ Conforms to- ANSI Z 359.1 and EN 353:2002

Double Anchorage Pulley
Ref. AP002

- ▶ Material- Alloy Steel
- ▶ Minimum Breaking Strength- 15 KN
- ▶ Finish- Silver or Golden Yellow Galvanized. Shot Blasted on request
- ▶ Net Weight- 500.0 gm
- ▶ Conforms to- ANSI Z 359.1 and EN 353:2002



Single Aluminium Anchorage Pulley
Ref. AP 011

- ▶ Made up of Aluminium alloy
- ▶ For use on maximum 12 mm rope.
- ▶ Anodized finish
- ▶ Breaking load - 20 kN



Kernmantle Rope Semi Static

Made up of Polyamide.

Available in various lengths on request.

Maximum Roll Size : 300mts

Available in Dia of : 9mm, 10.5mm, 11mm



Dia	Length (in meters)		
	10m	20m	30m
9mm	PN 910K(90mm)	PN 920K(90mm)	PN 930K(90mm)
10.5mm	PN 910K(105mm)	PN 920K(105mm)	PN 930K(105mm)
11mm	PN 910K(110mm)	PN 920K(110mm)	PN 930K(110mm)

(Ref. No. in similar pattern for larger lengths)

Dia	Length (in meters)		
	10m	20m	30m
12mm	PN 910(120mm)	PN 920(120mm)	PN 930(120mm)
14mm	PN 910(140mm)	PN 920(140mm)	PN 930(140mm)
16mm	PN 910(160mm)	PN 920(160mm)	PN 930(160mm)

(Ref. No. in similar pattern for larger lengths)

Twisted Rope

Made up of Polyamide.

Available in various lengths on request.

Maximum Roll Size : 200mts

Available in Dia of : 12mm, 14mm, 16mm



Edge Protector

Ref: ARC02

- ▶ Category - Accessories
- ▶ Design - Angle Shaped EDGE Protector.
- ▶ Metallic Assembly - Stainless Steel.
Polished Stainless Steel
- ▶ System Strength - Not Applicable
- ▶ Weight - 570.0 gm +_5gm



Accessories

Pilot Chair

Ref. IMP005

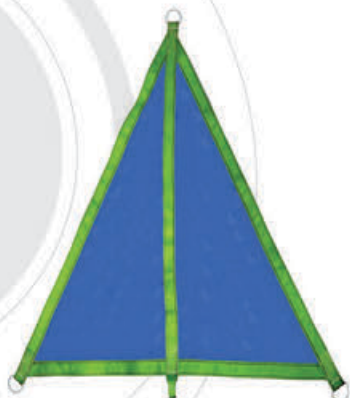
- ▶ Ergonomic and comfortable working chair
- ▶ For vertical ascent and descent
- ▶ Tested as per EN 1498
- ▶ Spreader Bar available as optional accessory



Evacuation Triangle

Ref. PN 852

- ▶ To be used for rescue of injured personnel
- ▶ Contains 3 metallic D-Rings at attachment elements



Spreader Bar

Ref. IMP005 (01)

- ▶ Is available as an optional Accessory to the Pilot Chair, Provided on request



KARAM® RESPAC RECOVERY STRETCHER

KARAM introduces Respac Recovery Stretcher for safe carrying of the wounded

The backpack able Karam Respac Recovery Stretcher has been configured as an extremely flexible rescue system useable in any context where patient transport is needed and particularly useful in morphologic and difficult climatic situations where a fast recovery is desired.



Respac Recovery Stretcher

Ref. PN403

Salient Features:

- ▶ Inert to all conditions, body fluids & blood
- ▶ Safe carrying of the wounded
- ▶ Easy to use and store
- ▶ Combination of optimum support and function
- ▶ Extremely flexible rescue system
- ▶ Its compatibility give it an edge in undiluted terrain, for the trans-portational purposes
- ▶ Highly durable
- ▶ Can be used both vertically as well as horizontally

MODEL NO. PN 403

Maximum load	200Kg
Weight of device	5.5Kg
Total weight with bag and belts	8Kg

Loading Surface

Length	8 ft.
Width	3 ft.
Material	Polyolefine
Hooks (Material)	Alloy Steel

Rope

Length	9 m
Diameter	Dia 10 mm

Lifting Belts

Length	Feet zone 6.7 ft./ Head zone 6.4 ft.
Width	Feet zone 5mm/Head zone 5mm
Maximum load belts	3000Kg
Maximum load Stitching	2000Kg

Handles

Material	Nylon
Number of handles on every longitudinal side	2



