

### Working at Height An Expert Guide

- Statistics Working at Height Regulations PPE Regulations Decision Tree Working at Height Considerations
- Training Collective Measures Working at Height Categories Work Restraint Personal Fall Protection
- Work Positioning Rescue Confined Spaces/ Vertical Access Head Protection Tool@rrest



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www.arco.co.uk/workingatheight



# arco

Arco is the UK's leading supplier of personal protective equipment, workwear and workplace safety products offering a world-class range of over 170,000 products.

As Experts in Safety we are widely recognised as a provider of specialist advice through our sales office network and this is further supported by our training and consultancy division. We reach our customers through an extensive product catalogue, interactive website, local Sales Offices and 41 strong Trade Counter network. We pride ourselves on providing customers with great availability, performance and price.

Founded in 1884 Arco has a heritage spanning four generations. With traditional family values at the heart of the business we pride ourselves on our core values; respect, hard work, enterprise and excellence in reputation. We fully subscribe to the ETI's Nine Principles Base code and have fully incorporated the internationally recognised code of labour practice into our own ethical policy. In 2007 Arco was the first distributor in our industry to become a member of the Ethical Trading Initiative (ETI) and in 2010 we became a member of Sedex, the Supplier Ethical Data Exchange. We continually support local communities and charities donating in excess of 1% of pre tax profits annually.

As we are members of the BSIF Registered Safety Suppliers Scheme you can be confident that we will supply safety equipment which is genuine and compliant with the relevant standards and regulations. The BSIF monitor and regulate members of the scheme by conducting regular standards audits



# **Our Service**

As part of our commitment to safety this Expert Guide is designed to provide guidance and advice on how to minimise the risks of working at height.

Working at height is identified as a place of work, where a person could be injured from falling, if suitable measures and protection are not in place.

Our aim is to help you conform with the Work at Height Regulations 2005, which states it is the duty of the employers, self employed and any person who controls the work to ensure that the correct provisions are in place before any working at height commences.

The regulations stipulate that anyone working at height must be competent to do so, if the person is in training they need to be supervised by an experienced person.

Arco can help aid in the correct selection and advice on our wide range of working at height products such as podiums, access platforms, work restraint, fall arrest and many more types of equipment, ensuring you are compliant with the Work at Height Regulations 2005 and the Personal Protective Equipment at Work Regulations 2002.

We understand the challenges involved with working at height, and strive to bring innovative lightweight, comfortable products to the market. Improving the safety and comfort of the wearer is at the forefront of everything we do.

All of Arco's working at height equipment conforms to all European standards and carries the CE mark, complying with the requirements of the Personal Protection Equipment Regulations 2002. The CE marking signifies that the protection satisfies certain essential requirements and in some cases will have been tested and certified by an independent body.

#### Arco Training and Consultancy

Arco Training and Consultancy is the specialist arm of Arco that is dedicated to helping customers achieve and maintain, full health, safety and environmental compliance.

Before any work at height commences, it is the employers duty to ensure that any person using working at height is trained and competent to do so. The person using the equipment must

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understand why they need it, when and how it should be used, repaired or replaced and if there are any limitations and also ensure the equipment is inspected before it is used.

When it comes to training we take time to understand the needs of your business and take time to develop bespoke courses so that our training delivers maximum benefit.

Arco Training and Consultancy, along with our partners provide specific training to support your needs in the following areas:

- Competent person training
- Equipment inspection
- Scaffolding/construction
- Confined space
- Rescue
- Tower crane
- Wind energy

#### Standards\* **EN 12841/C** Rope access systems: back-up devices EN 341 Descenders EN 353-1 Guided Type Fall Arresters Rigid Anchorage Line and Rails EN 353-2 Guided Type Fall Arresters Flexible Anchorage Line EN 354 Lanvarde

	Languluo
EN 355	Shock Absorbers
EN 358	Work Positioning Systems
EN 360	Retractable Type Fall Arresters
EN 361	Full Body Harness
EN 62	Connectors
EN 795(b)	Anchorage Devices – Class B
EN 813	Sit Harness
EN 363	Fall Arrest Systems

The positioning and suspension systems are not designed for fall arrest. A back-up fall arrest system must be used.

## **Falls from Height Statistics**



Falls from height are the single biggest cause of workplace deaths and one of the main causes of major injury within the workplace.

#### In 2011/12:

- · Falls from height were the most common cause of fatalities, accounting for almost a guarter of fatal injuries to workers (23%) (RIDDOR\*)
- Slips and trips were the most common cause of major injuries to employees, with falls from height the next most common (RIDDOR\*)
- Around 1.3 million working days were lost due to slips, trips and falls (LFS\*\*)

Injuries to employees and self-employed, 2011/12 (RIDDOR\* all enforcing authorities)

Injury	Falls from Height
Fatal	40
Major	3466
Over 3 days	4454
Total	7960

The construction industry continues to have the highest number of fatal fall injuries, with 25 fatalities in 2011/12.

The industries with the highest rates of employee falls in 2011/12 (RIDDOR\*) are:

#### **Total Fall Injuries**



Total Fall Injuries

Falls from height also demonstrate seasonal variations, more falls from height were reported in the spring and summer months of 2011/12.

The statistics highlight the importance of conforming to the Work at Height Regulations 2005, ensuring that the risk of a fall or personal injury is eliminated, through suitable measures and protection.

Source: Health and Safety Statistics for 2011/12 – www.hse.gov.uk/statistics/causinj/slips-trips-and-falls.pdf \*RIDDOR – Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 \*\* Labour Force Survey

### **HSE Refurbishment Campaign** 2 – 27th September 2013

Every year the HSE run a refurbishment initiative which is an intensive inspection campaign which focuses on the smaller contractors carrying out mainly refurbishment, repair and maintenance work. It provides the HSE with a chance to engage with these firms to help them understand what they need to do so they can put in place the measures needed to keep people safe.

Typically, every year approximately half of the fatalities in construction occur in the refurbishment sector and the HSE have found that it's often the smaller companies working on refurbishment and repair work who are failing to protect their workers through a lack of awareness, lack of training and poor control of the risks. In many cases straightforward, practical precautions are not considered and that means workers are put at risk when simple changes to working practices could make all the difference.

### **Paul Blanchard Testimonial**

On July 18th 2010, a well qualified and experienced builder suffered the devastating consequences of a fall from height.

### Here Paul Blanchard tells his story:

"As a successful self employed builder, I knew the importance of following health and safety regulations and endeavoured to put them into practice in my workplace - that is, up until the day of my accident.

I had been contracted to replace damaged roof panels and skylights on a local farmer's building. Feeling pressurised to start the job and confident I could progress the work alone, I made my way to the site early on a Sunday morning. I was tired, cold and preoccupied with my own thoughts and as a result, all my usual health and safety measures went out of the window. Wearing no personal protective equipment and without scaffolding, I should have known that tragedy would strike. Shortly after I climbed onto the lower barn roof, I slipped and fell no more than four metres through an exposed skylight opening and onto a railing.

I don't remember the fall, but doctors told me that I broke my back, 18 ribs, suffered severe head injuries and punctured a lung. I was in an induced coma for three months and in hospital for a total of six months. My momentary lapse in judgement that day has left me with no sense of smell, damaged hearing and paralysed from the chest down. Never being able to walk again, I have no chance at returning to my former trade and I am still coming to terms with the dramatic changes to my life, and the lives of my family. I realise now that I am lucky to survive, but I can't help but wish that I changed my actions that day."

Paul Blanchard's moving account is testament to the importance of following health and safety regulations, using collective measures and wearing protective garments at all times when working at height.

#### **During the HSE September 2013 campaign:**

- 2607 sites visited
- At 644 of these sites Enforcement Notices were issued. In total, 953 Notices were issued of which 539 were Prohibition Notices.
- 2607 sites were visited and at 1105 of those sites a material breach was identified which was serious enough for the inspector to put something in writing to the company and therefore fee for intervention applied at 42% of site visits. The HSE will make a charge if they find a breach of the Law and have to write to the duty holder as a consequence.

Source: Justine Lee, HM Inspector of Health and Safety, Construction Sector Safety Team.

# **Legislation – UK Work at Height Regulations 2005**

Falls from height account for the single biggest cause of workplace deaths and one of the main causes of major injury within the workplace.

Employers and the self-employed are duty bound by the Work at Height Regulations 2005 to eliminate or reduce the risks when working at height.

The Work at Height Regulations 2005 have created the Hierarchy of Risk Management to provide guidance on managing and selecting the correct equipment when working at height:

It is the duty holders responsibility to identify the work involved and plan the work to ensure the correct measures are in place. If the risk of a fall cannot be eliminated by collective protection measures, such as guard rails, scaffolding, cherry pickers or podium steps or by the use of a personal work restraint lanyard, then the distance and/or consequences of a fall should be mitigated by the use of nets or air bean bags etc. As a last resort, the use of correct PPE must be implemented.

#### Before any work at height commences, the following procedures need to be taken:

- Identify all the work involved, ensuring the work is accurately planned, supervised and carried out in as safe a way as is reasonably practicable.
- Assess all the risks and document the findings. The risk assessment should:
- 1. Identify the hazards
- 2. Decide who and how they may be harmed
- 3. Evaluate the risks and decide on the precautions
- 4. Review your findings and implement them
- 5. Assess the assessment and update if necessary
- Ensure those involved are trained and are competent, this includes the planning, supervision and the supply and maintenance of equipment.
- · Have procedures for the selection of correct equipment and ensure that the selected equipment is actually used.
- On every occasion, inspection of the place of work and equipment is required.
- It is a requirement that suitable and sufficient rescue arrangements are enforced before any work at height commences. This will include having sufficient equipment and personnel who are trained to carry out a rescue. The rescue plan must consider the foreseeable injuries and environment.

These regulations saw the removal of the 2m rule which no longer applies. If a person is deemed to be at risk of injury from a fall, whatever the height, adequate measures must be taken, even if this is less than 2m.



Source: HSE: The Work at Height Regulations 2005 (as amended) A brief Guide - http://www.hse.gov.uk/pubns/indq401.pdf

## **Legislation – Ireland** Safety, Health, Welfare at Work **Work at Height Regulations 2006**

It is the duty of the employer or selfemployed person to comply with the Work at Height Regulations where there is a risk of a fall liable to cause personal injury.

The employer or self-employed person must do everything that is reasonably practicable to prevent anyone falling a distance liable to cause personal injury.

The Regulations set out a simple hierarchy for managing work at a height:

- Avoid work at height where this is reasonably practicable;
- · Use work equipment or other measures to prevent falls where you cannot avoid working at height.
- Where you cannot eliminate the risk of a fall, use work equipment or other measures to minimise the distance and consequences of a fall.

The regulations state:

- Carry out risk assessments for work at height activities and make sure that all work is planned, organised and carried out by a competent person.
- Follow the General Principles of Prevention for managing risks from working at height - take steps to avoid, prevent or reduce risks.
- Choose the right work equipment and select collective measures to prevent falls (such as guard rails and working platforms) before other measures which may only reduce the distance and consequences of a fall (such as nets or airbags) or may only provide fall-arrest through personal protection equipment.
- All work at height is properly planned and organised.
- Appropriate work equipment is selected and used.
- People working at a height are competent.
- · Equipment used for work at height is properly inspected and maintained.
- Risks from fragile surfaces are properly controlled.
- Source: HSA: http://www.hsa.ie/eng/Publications\_and\_Forms/Publications/Retail/Gen\_Apps\_Work\_at\_Height.pdf HSA: http://www.hsa.ie/eng/Topics/Work\_at\_Height/



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## **Personal Protective Equipment at Work Regulations 2002**

The main requirement of the Personal Protective Equipment at Work Regulations 2002 is that personal protective equipment is to be supplied and used at work wherever there are risks to health and safety that cannot be adequately controlled in other ways.

It is imperative that anyone using personal fall protection equipment is aware of why they need it, when it should be used, maintained, repaired or replaced and if there are any limitations. Training is your duty as an employer and must be provided to demonstrate its use.



Source: Personal Protective Equipment at Work, A Brief Guide http://www.hse.gov.uk/pubns/indg174.pdf

#### **CE Marking**

All of Arco's working at height equipment conforms to all European standards and carries the CE mark, complying with the requirements of the Personal Protection Equipment Regulations 2002. All items of PPE designed to arrest, position and restrain against falls from height will feature the CE Mark.

Arco's range of personal fall protection is categorised as Cat III, complex design signifying that the equipment provides protection against serious hazards, with its design, manufacture and distribution.

The CE marking signifies that the protection satisfies certain essential requirements and in some cases will have been tested and certified by an independent body.

Technical and user instructions must also be supplied with the equipment.



#### **Inspection Record Book**

All the relevant details from the label need copying into a table in the inspection record book. The inspection book should be kept in a safe place and be available to all users. The table should be used to record all detailed recorded inspections at a frequency which is detailed through the risk assessment and manufacturers instructions but at least every 12 months. This then becomes the customers Certificate of Conformity.

ety Harness Type: al No: ty Harness Product Ref: e of Manufacture: e First Use:					
Record	of Visual	and Tacti	le Inspec	tion	
			Date		
Inspection					
Webbing General – not:					
cut, torn or nicked					
abraded					
heat damaged					
contaminated					
discoloured					
Stitch Patterns - not:					
broken or abraded					
pulled or loose					
Metal Fittings - not:					
corroded					
cracked or deformed					
mis-functioning					
Buckles:					
function correctly					
Not: correct or deformed					
Plastic Fittings:					
present					
not damaged					
Other:					
label present and legible					
cleaning carried out					
Inspected by:					
Next inspection due:					

# **Working at Height Considerations**

Step by step guide of the factors to consider before any work at height commences.



# **Fall Protection Systems**



Eurosafe Solutions offer expert advice in the specification and installation of cost effective fall protection systems for all aspects of working at height.

Drawing on their unparalleled levels of experience, qualified personnel and large product portfolio they are able to design and supply a comprehensive, bespoke solution to meet your requirements.

- Services include:-
- Risk assessment, advice and design
- Installation, testing and certification
- Collective and personal fall protection systems
- Access ladders and stairs
- Walkway systems Training
- Long term maintenance and inspection of all fall protection equipment

If you require more information on this product email: For all other product enquiries contact your local branch



# **Fragile Roofs**

Falls through fragile roofs and fragile roof lights cause death and serious injury. They account for almost a fifth of all the fatal accidents which result from a fall from height in the construction industry.

Deaths caused by falls through fragile surfaces occur mainly to those working in the building maintenance sector when carrying out small, short-term maintenance and cleaning jobs.

These accidents usually occur on roofs of factories, warehouses and farm buildings when roof repair work or cleaning is being carried out.

Fragile surfaces and materials will not safely support the weight of a person and any materials they may be carrying.

All roofs, once fixed, should be treated as fragile until a competent person has confirmed that they are non-fragile. In particular, the following are likely to be fragile:

- Fibre-cement sheets non-reinforced sheets irrespective of profile type;
- Rooflights particularly those in the roof plane that can be difficult to see in certain light conditions or when hidden by paint;
- Liner panels on built-up sheeted roofs;
- Metal sheets where corroded;
- Glass including wired glass;
- Chipboard or similar material where rotted;
- Others including wood wool slabs, slates and tiles

#### Before work starts:

- Develop a safe system of work by a competent person ensuring all the factors are considered and produce a risk assessment on this basis.
- Ensure the work is properly planned and everyone involved understands the risks and the work that is involved.
- Specify non-fragile assemblies for new and replacement roofs.

The law says that contractors and employers must manage the danger by avoiding work on or near fragile surfaces and controlling any remaining risk by use of stagings, guard rails, and fall arrest systems.

Those at risk must be told what the necessary safety precautions are and people carrying out the work have to be trained and instructed in the precautions required.

#### The hierarchy of steps to be taken to deal with the danger are:

- Avoidance: Plan and organise work to keep people away from fragile surfaces so far as possible, e.g. by working from below the surface on a mobile elevating work platform or other suitable platform.
- Control: Work on or near fragile surfaces requires a combination of stagings, guard rails, fall restraint, fall arrest and safety nets slung beneath and close to the roof.
- Communication: Warning notices must be fixed on the approach to any fragile surface. Those carrying out the work must be trained, competent and instructed in use of the precautions required.
- Co-operation: On business premises, contractors should work closely with the client and agree arrangements for managing the work.
- Rescue plan: It is a requirement that a suitable and sufficient rescue is planned before any work commences on a fragile roof.
- · The rescue plan must stipulate that all personnel involved are trained and competent to use the rescue equipment.
- Anchor points must be indentified where necessary.
- Limitations of the plan for adverse weather such as high winds.

#### **Precautions**

Effective precautions are required for all work on or near fragile surfaces, no matter how short the duration, whether the work concerns construction, maintenance, repair, cleaning or demolition.

#### What enforcement action might be taken by the HSE?

Working on fragile surfaces is extremely dangerous and the precautions are well established.

The law says you must organise and plan all roof work so it is carried out safely. If inspectors encounter failure to control risk, work will be prohibited and prosecution may follow.

For more information on the HSE Fragile Roof Campaign visit: HSE Working at Height Toolkit: http://www.hse.gov.uk/falls/wait/wait-tool.htm HSE Fragile Roof Sheet: Fragile Roof Sheet: http://www.hse.gov.uk/pubns/geis5.htm

Source: HSE: Fragile Roofs, Safe Working Practices 2012 - http://www.hse.gov.uk/pubns/geis5.htm HSE: Fragile Surfaces, What you need to do - http://www.hse.gov.uk/falls/casestudies/fragileroofs.htm HSE: Health and Safety in Roof Work 2012 - http://www.hse.gov.uk/pubns/priced/hsg33.pdf

# **Fall Proof Covers**

A walkway can provide access to the work area, but if the roof on one or both sides of the walkway is fragile, further protective measures are required.

Fall proof covers provide passive collective protection and eliminate the fall hazard completely, plus there is no need for training or specialist PPE to use the system, therefore removing the possibilities of user error.



WalkSafe® Fall-Proof Covers can be used adjacent to walkways, on flat or pitched fragile roofs, or up against northern lights; to prevent the operative falling through the fragile roof material. A red plank at the top, in addition to the appropriate signage, accentuates the fact that they are a safe product.



If you require more information on this product email: UK: workingatheight@arco.co.uk Ireland: services@arcosafety.ie For all other product enquiries contact your local branch

## Ladders

Employers are legally obliged to provide safe and proper access for their employees. This guide helps to identify the best ladder for your needs:

#### BS 2037:1994 Class 1

Heavy-duty ladders that have a Duty Rating of 130 kg. Their Maximum Static Vertical Load (Safe Working Load) is 175 kg (27.5 stones). If in doubt buy a Class 1 product.

#### EN 131

Light trade ladders and steps are designed for light-duty work such as decorating, window cleaning and unscheduled maintenance. They have a Maximum Static Vertical Load (safe working load) of 150 kg (23.5 stones).

#### EN 1004 (Category 3)

Mobile scaffold towers that are designed for loads up to 200 kg/m<sup>2</sup>

Remember - 'Safe Working Load' includes both the individual and their tools and equipment.



#### Aluminium EN 131 Extension Ladders

Commercial-duty double and triple-section extension ladders for frequent light-trade use.

- Large twist-proof D-shaped rung joint.
- Slip-resistant high-traction rungs.
- Non-slip feet.

150 kg work load capacity. Conforms to BS EN 131.

- **Ref:** 55D1325 Triple Section 6.0 metre Extended Height
- Ref: 55D1230 Double Section 5.25 metre Extended Height
- Ref: 55D1235 Double Section 6.25 metre Extended Height 55D1240 – Double Section 7.25 metre Extended Height
- Ref: 55D1240 Double Section 7.25 metre Extended Height 55D1245 – Double Section 8.25 metre Extended Height
- Ref: 55D1255 Double Section 10 metre Extended Height
- Ref: 55D1330 Triple Section 7.5 metre Extended Height
- Ref: 55D1335 Triple Section 9 metre Extended Height
- **Ref:** 55D1340 Triple Section 10 metre Extended Height



#### Ladder Stand Off

Provides clearance away from the wall, affording better access to windows, sills, soffits and guttering, as well as additional ladder stability.

- Provides safe clearance from area of work.
- Fits most popular brands of ladder.
- Easy to fit, no tools needed.

Ref: 55D9908

### **Don't forget** to order your safety signs, visit

#### http://www.arco.co.uk/browse/Signs



# **Collective Measures**

Collective measures involve equipment or systems which can protect more than one person. Examples which prevent a fall include a working platform fitted with a guard-rail, such as a mobile elevated work platform, scissor lifts, cradles, tower scaffolds or independent scaffolds.



#### D-marc Collective Demarcation Protection System

A simple, easy to install, barrier system for flat roofs which is wind tunnel tested to speeds in excess of 105 mph. The system can be used as collective protection to create a safe route or working area by restricting the worker to a minimum of 2m from the fall hazard.

- Easy installation: no fixings to the structure required.
- Wind tunnel tested to speeds of 105 mph ensures stability for the rooftop environment.
- Base weight 12.4 kg recycled rubber, aerodynamically designed and complete with carry handle.
- Upright stainless steel with integral chain connector hook, orange powder coated.
- 25m orange and black polypropylene chain, can be cut to length or joined together using split link.
- Starter kit contains: 9 uprights, 25m chain, 1 link, giving 24m demarcation protection.
- Additional items available separately.

Calculating requirements: the "route length" should be divided by 3 and add 1. Eg: 30m length requires 11 barrier uprights and bases.

Ref:	4D6300 – Starter Kit
Ref:	4D6200 – Base & Upright
Ref:	4D6100 – 25m Chain
Ref:	4D6000 – Connector Link



#### Single Bar Safety Gate

Over 15% of all labour accidents in Europe (based on figures published by Eurostat) are directly caused by people falling off a ladder or platform. Installing a security gate drastically increases worker safety and reduces maintenance costs.

- Durable/corrosion free, manufactured from polyurethane and stainless steel.
- Automatic gravity closing design, the gate has a horizontal swing, not a vertical drop.
- Maintenance free no springs or bearings to maintain.
- Easily cut to the correct size using a conventional wood saw.
- Ref: 5506901 Open Left 27 inch
- Ref: 5506902 Open Right 27 inch
- **Ref:** 5507001 Open Left 37 inch
- Ref: 5507002 Open Right 37 inch

# **Podiums**

#### Pinnacle<sup>™</sup> Midi Work Platform

Providing the user with a high handrail incorporating a clip on chain "gate" which completes the full surrounding guardrail system.

- Extra-wide working platform.
- Large, deep-serrated treads.
- High handrails to both sides and back.
- Clip-on/off chain for entry/exit.
- 2 rear wheels for effortless manoeuvrability.
- Folds for storage and transportation.

150 kg work load capacity



No. of Treads	Platform Height (m)	Closed Height (m)	Overall Width (m)	Weight (kg)	Code
3	0.71	1.83	0.73	15	55D9303
4	0.95	2.08	0.77	16	55D9304
5	1.18	2.34	0.83	18	55D9305

#### Summit<sup>™</sup> Telescopic Work Platform

An extremely safe and stable access platform ideally suited to use on site. Designed specifically to provide a safe variable height oneman working platform.

- Adjustable working heights up to 3.6 metres.
- Full guardrail allowing 360° working.
- Assembled in seconds.
- Large platform area with toe-boards.
- Wheels for easy transportation.
- Integral locking stabilisers.

150 kg work load capacity



No. of Treads	Platform Height (m)	Closed Height (m)	Overall Width (m)	Weight (kg)	Code
4-6	1.08 – 1.60	2.46	0.76	30	55D9846
5-7	1.60 – 2.15	3.02	0.76	34	55D9857

#### Pinnacle<sup>™</sup> Smart-Pod

Fully protected guardrail and gated hop-up that is ideal for quick jobs around site, whilst still remaining fully compliant with Working at Height legislation.

- Tough but lightweight scaffold-tube construction.
- Four locking castors.
- Fixed height platform.
- Platform size 60 cm x 54 cm.
- · Folds for ease of storage.

150 kg work load capacity

No. of Treads	Platform Height (m)	Overall Height (m)	Weight (kg)	Code
1	0.5	1.5	16	55D9701
2	0.75	1.75	21	55D9700

#### Pinnacle<sup>™</sup> Telescopic Podium Step

Tough scaffold-tube components provide on-site durability, whilst remaining light enough for single user operation.

- Fully enclosed work zone.
- · Constructed from tough aluminium tower components.
- Removable serrated anti-slip aluminium platform and treads.
- Folds for transport and fits through standard doors.
- Four lockable castors.
- Optional anti-surf base plate pack available; helps prevent 'surfing' when in use.

150 kg work load capacity

No. of Treads	Platform Height (m)	Overall Height (m)	Weight (kg)	Code
3 & 4	1.00 – 1.20	0.65	32	55D9702
Anti-Surf Pack				55D9924





# **Access Platforms**

#### **Zarges Telepod**

Innovative telescopic mobile platform system which is easy to transport, store and erect.

- Safer, more efficient and is a low-cost alternative to fixed podiums and other access equipment.
- · Podium erected in under 2 minutes.
- Telescopic mechanism allows three different adjustable platform heights.
- Folds down for ease of transportation and storage.
- Easily fits in the back of an estate car or van.
- Spacious platform (600 mm x 600 mm) offers comfortable work station.
- 360° fall protection due to lockable guardrails on all four sides.
- Suitable for working for longer periods (over 30 minutes).
- Entry to platform on both sides due to locking gates.
- Automatically extended stabilisers.
- Closed podium can be easily moved due to fold-away transport wheels and extending handrail.



Code	Platform	Max Working	Max Height	Weight
	Height (m)	Height (m)	Incl. Railing (m)	(kg)
55D9993	0.5	2.57/2.82/3.00	0.91	28.5

#### Zarges Teletower

Its unique patented telescopic operation means it is easy to transport, store and erect, and the Teletower saves time and money versus scaffolding and other mobile access towers.

- Can be used as a tower or a podium offering 7 working height options from 0.33 to 2 metres.
- Can be erected in under 3 minutes by one person.
- Folds down flat for easy transportation and fits easily into a small van or estate car.
- 5 position stabiliser legs with locking castors.
- Comprises of 3 parts; Teletower, platform and toe boards.

Conforms to EN 1004

	Code	Platform Height (m)	Max Working Height (m)	Max Height Incl. Railing (m)	Weight (kg)	
Aluminium	55D9991	0.3 – 2.0	4.0	2.95	59	
GRP	55D9992	0.3 – 2.0	4.0	2.95	61	

#### **Power Tower Nano**

The Power Tower is a simple, push around powered access platform, providing the operator simple, effortless up to 5.1 metres working height from a compact working footprint.

- Platform height 3.1 metres, 5.1 metres working height.
- Compact only 0.78 metres wide, passes easily through standard doorways.
- Platform size: 1.5 metres x 0.65 metres.
- Working footprint: 0.78 metres x 1.5 metres.
- Heavy-duty Auto-Lock castors provide a secure base.

250 kg safe working load (1 person).

55D8999





# **Scaffold Towers**

#### **Mobile Scaffold Towers Course**

This one-day course for eight delegates is aimed at personnel who will be responsible for assembling, dismantling, moving and inspecting mobile access towers.

Delegates attending this course receive a course content booklet and PASMA Code of Practice together with a PASMA certificate and photo card that is valid for 5 years.

**Course content:** Legislation, Regulations and Guidance affecting working at height with mobile access towers, PASMA Code of Practice; Product Standards EN 1004:2004,

assembling, altering and dismantling towers incorporating current best practice for fall protection, inspection of completed mobile access towers and completion of Tower Inspection Records; hazards affecting the use of mobile access towers and how to avoid.

Call Arco Training and Consultancy, Specialist Services now on +44 (0) 1482 347590 to book your course

Course 25F5300

#### **Contractor Tower**

Built for the professional tradesman and focused on their needs: quick assembly time, safety, durability and ergonomics. Manufactured from 50 mm thick ribbed aluminium tube to reduce slip and fitted with heavyduty splined spigots for maximum strength and ease of tower assembly.

- Fully compliant 3T or AGR options.
- Heavy-duty spigot for maximum strength.
- Quality components for durability and ease of assembly.
- Welded abuse-resistant joints.
- Robust brace hooks with dependable stainless steel springs.
- Large trapdoor opening for ease of access.
- Multi-start adjustable legs and castors.

750 kg work load capacity per structure.

**Through-the-Trapdoor (3T) option –** The unique rung spacing enables climbable access on either side of the tower reducing build time whilst still ensuring internal access Through-the-Trapdoor (3T) method.

Advanced Guard Rail (AGR) option – This design lends itself to quick easy assembly and provides collective fall prevention before the operator accesses the platform and cannot be removed before the operator descends from the platform.

Conforms to BS EN 1004.

Platform Height (m)	Overall Height (m)	Base Size (m)	Weight (kg)	ЗТ	AGR
2.3	3.5	0.70 x 2.00	153	55D7822	55D7832
3.2	4.4	0.70 x 2.00	168	55D7823	55D7833
4.2	5.4	0.70 x 2.00	175	55D7824	55D7834
5.2	6.4	0.70 x 2.00	189	55D7825	55D7835
6.0	7.2	0.70 x 2.00	201	55D7826	55D7836
8.0	9.2	0.70 x 2.00	234	55D7827	55D7837
10.0	11.2	1.35 x 2.00	276	55D7828	55D7838
12.0	13.2	1.35 x 2.00	349	55D7829	55D7839

#### **Summit Trade Tower**

The Summit<sup>™</sup> Trade Tower can be assembled quickly and safely thanks to its T-Grip system. The sturdy aluminium construction is 3T compliant and comes complete with locking castors and stabilisers where required.

- 3T (Through-the-Trapdoor) compliant.
- Ribbed 40 mm tube for improved grip.
- Anti-slip trapdoor decking.
- Locking castors.
- Climbable frames for ease of assembly.
- 5-year warranty.

200 kg work load capacity.

Conforms to BS EN 1004.

aht
Code
55D7842
55D7843
55D7844
55D7845
55D7846
-

#### **Minifold Low Level Maintenance Unit**

Lightweight and robust low-level maintenance unit with an easy fold system ideal for one person use.

- Optional extra guardrail pack available for those slightly higher jobs.
- Six optional platform levels.
- Complete with a non-slip platform board.
- Robust 50 mm tube construction.
- Four lockable castors.

150 kg work load capacity.

Conforms to BS EN 1004.

	Platform Height (m)	Overall Height (m)	Width (m)	Length (m)	Weight (kg)	Code
Minifold Base	0.20 to 1.70	1.80	0.70	1.50	29.20	55D7200
Minifold Guard	1.70	2.80	0.70	1.50	12.10	55D7201







# Working at Height **Product Categories**

The working at height equipment selected must be suitable for the job and environment. The below highlights the key working at height product categories:

#### 1. Work Restraint

Prevents the worker from reaching a point where a fall could occur. Restraint equipment cannot be used in a fall arrest situation.

#### The system consists of:

- Anchor Devices.
- · Work restraint belt or full body harness.
- Connecting devices restraint lanyard.

#### 2. Fall Arrest

The fall arrest system is there is a risk of falling from

#### The system consists of:

- Anchor devices.
- · Full body harness.
- Connecting devices.



#### 4. Work in Suspension / **Rope Acesss**

Is designed to lower and support a worker, allowing for a hands free position.

#### The system consists of:

- Anchorage point / Anchorage connector.
- Body wear 2 or 3 point full body harness.
- Intermediate attachment Static line with rope grab and static rope with ascenders and controlled descent devices.

As part of the working at height regulations a rescue plan must be included within a risk assessment. identifying the rescue procedure for all working



at height operations. The plan must be rehearsed regularly.

#### The system consists of:

 Specific rescue equipment as deemed necessary for the application.



Is designed to hold and support a worker in place, allowing for a hands free position.

#### The system consists of:

- Anchor devices.
- · Full body harness with positioning belt.
- Connecting devices work positioning lanyard.

A back up support is required incase the main support fails.



Predominantly used when a person needs to enter a confined space and may require retrieval from above.

#### The system consists of:

retrieval unit.

- Anchorage point tripod, davit arm.
- Body wear full body harness (2 or 3 anchorage points).
- Intermediate attachment retractable lifeline /
- On every occasion the working at height equipment must be inspected before it is used

# Work Restraint

A work restraint system must include a lanyard which must be adjusted, or set, to a fixed length to prevent the worker from reaching a point where a fall could occur.

#### **IKAR Temporary Horizontal Lifeline Kit 20m**

- Temporary horizontal anchorage line for work restraint and fall arrest.
- For use by two persons in a fall arrest application.
- Loops at both ends of the line, with connectors and anchorage slings.
- Adjusts to a maximum working length of 20m.
- Wear indicator built into the webbing for ease of inspection.

Delivery 2 days

Approved to EN 795, class C

4D5600 Ref:

#### **Titan Restraint Kit**

Economically easy-to-use restraint kit contains fully adjustable onepoint harness and 2m lanyard.

- Not suitable for fall arrest.
- Ideal solution for flat roof maintenance, MEWPS etc.
- Supplied in carry pack which protects the equipment when not in use.

4M0003 Ref:

#### **Arco Ladder Lanyard**

0.5m ladder lanyard, suitable for restraint or work positioning.

- Steel screwgate karabiner for attachment to harness front D-ring.
- Aluminium large double-action hook
- attachment to anchorage point. • Not suitable for fall arrest.

440003 Ref:





- 5. Rescue







### **Arco Restraint Belt with Adjustable Lanyard**

Restraint belt featuring comfort pad and 1.5m adjustable lanyard.

- Adjustable waist belt with quick-release buckle.
- Central D-ring attachment point.
- Lanyard length adjustable with a friction slider.
- Not suitable for fall arrest.

Ref: 4A0100

### Arco Adjustable **Restraint Lanyard**

1.5m adjustable restraint lanyard, suitable for restraint, work positioning or as a component in a fall arrest system.

- Steel screwgate karabiners.
- Lanyard length adjustable with a friction slider.

Ref: 437200





# Fall Arrest Considerations



by Honeywell

### Understand your fall factors to reduce the risks and understand the work hazards.

There are three fall factors in fall arrest that relate to the position of the anchorage point. They are used to determine the potential fall distance of a worker and so ensure that there is no risk of contact with the lower level in the event of a fall. When possible, the worker should always use an anchorage point at shoulder level or above (Factor 1 or 0). A higher anchorage point will reduce the fall distance and therefore significantly reduce the risk of injury on the body due to the impact forces of a fall.

#### **The Pendulum Effect**

When the lifeline is not anchored vertically over the workplace, the worker will pendulum in the event of a fall and may be injured by hitting the ground or an obstacle to the side. If it is not possible to use an anchorage point close to the work station, two anchorage points either side of the worker can be used to prevent any swing.

#### **Fall Clearance Calculations**

This is the distance a person will fall when connected to a fall arrest attachment point. It is related to the Fall Factors (see Fall Factor). Many situations can develop and it is ultimately the responsibility of the worker to ensure that there is a suitable fall clearance available. In order to calculate this, the worker must know the distances specified below, and it is also strongly recommended they attend a safety at height training course.

The calculation below gives the minimum vertical clearance required between the anchorage point of the lanyard and the lower level.

Length of lanyard

+ Fully activated energy absorber

+ Body height from feet to harness attachment

+ Additional safety clearance

#### Examples :

Calculations using the following length lanyards are as follows:

2m lanyard:

2m (lanyard length) + 1.75m (energy absorber) + 2m (body height) + 1m safety = 6.75m

#### 1.5m lanyard:

1.5m (lanyard length) + 1.5m (energy absorber) + 2m (body height) + 1m safety = 6m



# **Fall Factors**

Understand your fall factor to reduce the risks.

#### Always take into account:

- Working conditions & environment
- Risks to the safety of all those at the place where equipment is to be used

#### **Fall Factor 0**

Anchorage is overhead and the lanyard is taut between the anchorage point and the worker.

The fall clearance is reduced as shown.

#### Fall Factor 1

Anchor point is level or above the harness attachment point allowing a fall equivalent to the length of the lanyard before the energy absorber deploys to arrest the fall.

#### Fall Factor 2

Anchor point is at or below the feet of the worker allowing a fall equivalent to twice the length of the lanyard before the energy absorber deploys to arrest the fall.

#### Clearance

If in doubt: Fall Limiters Reduce Fall Clearance <3M

A fall limiter or self-retracting lifeline will stop a fall in centimetres and is therefore the ideal solution for low-level work where a shock-absorbing lanyard is unable to stop the worker from hitting an obstacle below.

Source: Miller<sup>®</sup> by Honeywell







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# **Fall Arrest**

### **Personal Fall Protection**

Personal fall protection should only be selected, where it is not reasonably practicable to conduct the work involved from a suitable surface or platform. It is necessary to conduct a risk assessment to understand the working environment and the associated risks, this will determine the correct fall arrest system to minimise the consequences of a fall.

Under the Personal Protective Equipment at Work Regulations 2002, it states when supplying PPE, it is the duty of the employer to provide training on the personal fall protection to ensure it is maintained in good working order and make sure the maintenance records are documented.

It is imperative anyone using personal fall protection understand why they need it, when and how it should be used, inspected, repaired or replaced and if there are any limitations.

There are three core components of a fall arrest system, all of these must be in place to provide maximum protection.

#### The system consists of:

- A Anchor devices
- B Full **b**ody harness
- C Connecting devices

The system will not work without all these elements and must be in place before work at height commences.

#### **Anchor devices:**

Joins the connecting device to the anchorage point or tie off point such as an I-beam, scaffolding or other structural point.

#### **Full body harnesses:**

Is the personal protective equipment that is worn by the worker. The harness must be selected based on the type of work involved and the environment.

The harness must enable the worker to work freely without any restrictions and provide protection to the worker if a fall does occur.

#### **Connecting devices:**

Connect the workers full body harness to the anchor device. Connecting devices consist of shock absorbing lanyards, self retracting lifeline, fall limiter and rope grabs.



## Harnesses

A fall arrest harness ensures the individual is protected if they were to fall from height and to hold the worker until they can be recovered.

### **Utilities and Wind Renewables**



#### Miller<sup>®</sup> Revolution **Offshore Harness**

Comfort harness featuring highly corrosion-resistant components for offshore and coastal environments, including wind energy and petrochemical.

- PVC-coated rear and side D rings.
- Stainless steel Pivotlink connections allowing for bending, squatting and climbing movements.
- Automatic buckles on legs, straps, belt and chest strap in anodised aluminium.
- Dualtech webbing with shape retention memory. Soft on the inside:
- durable, abrasion-resistant outer. Positioning belt.
- · Rear tool rings.
- · Self-contained label pack.

Ref: 4M0900



### **Miller<sup>®</sup> Revolution** Wind Harness

Comfort harness, ideal for working at height on onshore wind energy applications and utilities.

- Galvanised steel Pivotlink connections allowing for bending, squatting and climbing movements. • Automatic steel guick-connector buckle on legs and waist strap.
- Polyester webbing.
- · Positioning belt.
- · Rear tool rings.
- Self-contained label pack.
- Ref: 4M1000

#### Contact your local branch and speak to us about your requirements for Work in Suspension and Rope Access



### **Skylotec ARG 51 Formotion** Wind Safety Harness

Decades of experience have gone into the ARG 51 Formotion, making it an ideal industrial fall-arrest harness. It meets numerous international standards and can therefore be used worldwide.

- It is easy to put on, thanks to click fasteners.
- The central chest eyelet can be adjusted perfectly, can always be centred thanks to four different buckles, and sits close to the body. This increases the wearing comfort and reduces fall-back risk.
- The ring at the side allows the four straps to move independently of each other. This makes climbing and bending easier.
- The positioning rings on each side can be folded back, making the descent into narrow manholes easier.

**Contact your local branch** for more information

## Personal **Fall Protection**

DuraFlex stretch harnesses - the natural choice for greater mobility and extreme comfort.

#### **Feel the Difference**

Patented Miller® DuraFlex harnesses feature specially formulated elastomer webbing that stretches to provide:

#### **Greater Comfort**

Harness

• Size M/L.

Ref:

DuraFlex harnesses conform to the shape of the worker, stretching with every movement, so there is no bunching, binding or kinking.

Miller<sup>®</sup> DuraFlex 2 Point Safety

Elasticated webbing designed to stretch

· Soft webbing loops from anchorage.

Teflon<sup>®</sup> coated for increased durability.

and conform to wearer's body.

4M2200

#### Improved Safety

With its unsurpassed comfort, DuraFlex harnesses offer wider enduser acceptance. More importantly, a comfortable harness is more likely to be worn properly, enhancing compliance and safety in the workplace.

#### **Increased Productivity** Because DuraFlex harnesses are

elasticated, the worker has greater mobility with less fatigue. Also the bright lime-green colour is readily visible which makes it easy to see whether the harness is being worn.

### Miller<sup>®</sup> DuraFlex 1 Point

- Teflon® coated for increased durability. • Size M/L.

### **Safety Harness**

Elaticated webbing designed to stretch and conform to wearer's body.

- Ref:



### Miller<sup>®</sup> High-Visibility Vest Harness

Miller® DuraFlex one-point harness combined with a Teflon® treated vest.

- Extra shoulder padding and easy-fit front zipper.
- Multiple well-positioned pockets and lateral loops.
- · Multiple fit adjustments for a perfect fit.

Ref: 4M6005 - Medium/Large 4M6007 - Extra Large Ref:

### Miller<sup>®</sup> Backpack Kit 11

The number one-selling kit from Miller.

- High-performance multi-purpose backpack kit featuring a one-point DuraFlex stretchable harness with a 2m elasticated manyard shock-absorbing lanyard with a 63mm steel scaffold hook.
- Designed to stretch with the user and enhance comfort and productivity.



- Teflon<sup>®</sup> protective finish on both the DuraFlex patented webbing and the manyard outer jacket repels oil, grease and concrete dust, thus prolonging the service of the convenient and versatile kit.
- Stylish mobile phone holder and document pocket.

Ref: 4M5100 – 11 – 1 point Ref: 4M5200 - 11 - 2 point





#### **Scaffolder's Fall Arrest Pack**

Fully adjustable one-point fall arrest harness, complete with 1.75m energy-absorbing lanyard, large aluminium double-action hook and nylon storage bag.

- · Harness adjustable at shoulders, chest and leg loops.
- "Thru-the-Slot" buckle system.

Ref: 434000





4A0300

Ref:

#### **Arco Comfort 2-Point Safety Harness**

Economical fully adjustable two-point fall arrest harness.

 Harness adjustable at shoulders, chest and leg loops.

Arco 2-Point Economy

**Safety Harness** 

Ref:

• "Thru-the-Slot" buckle system. • Front and rear fall arrest attachment

4A0400

- D-rings.

Ref: 4A7000

D-rings.





- Rear fall arrest attachment D-ring.



**Increased Durability** 

Miller<sup>®</sup> Backpack Kits

holder and document pocket.

A range of high-performance kits

DuraFlex and Manyard webbing is

Teflon® treated. Teflon® repels water, oil, grease, dirt and concrete dust that may

cause degradation and erosion. Without

this contributes to extend the service life

supplied in convenient and stylish black

backpacks complete with mobile phone

changing the look, feel or breathability

**M**ILLER

by Honeywell







of the webbing.

4M2100



### arco





### **Arco 2-Point Safety Harness**

Fully adjustable two-point fall arrest

· Harness adjustable at shoulders,

- Quick-release buckle system.
- Front and rear fall arrest attachment

### Arco 1-Point Safety Harness

Fully adjustable one-point fall arrest harness.

- Harness adjustable at shoulders, chest and leg loops.
- "Thru-the-Slot" buckle system.
- Rear fall arrest attachment D-ring.

4A0200 Ref:



Fully adjustable two-point fall arrest harness featuring a comfort back pad.

 Back pad increases comfort levels, and helps with ease of donning. · Harness adjustable at shoulders,

- chest and leg loops.
- Quick-release buckle system.
- Front and rear fall arrest attachment



#### **Arco Arrester Safety** Harness with Jacket

Fully adjustable two-point fall arrest harness, complete with overhead rescue attachment and heavy-duty PVC waistcoat.

- "Thru-the-Slot" buckle system.
- Front and rear fall arrest attachment D-rings.
- Overhead attachment D-ring for confined space rescue.
- Heavy-duty PVC waistcoat aids donning and protects harness.

437000 Ref:

# **Blocks**

Retractable blocks (personal fall limiters) house a breaking system to limit the impact of the fall hazard. Arco's range of fall arrest blocks are available in a variety of materials and are suitable for a range of environments depending on the vertical or horizontal risk.

#### **IKAR Fall Arrest Webbing** in Aluminum Block

Sturdy, low-maintenance fall arrest block with a webbing lifeline in a heavy-duty aluminium housing.

- Small aluminium double-action hook on lifeline.
- Swivel-eye attachment point.
- Suitable for vertical, sloped and horizontal use.

Delivery 2 days

4D0100 - 2m Ref<sup>.</sup> 4D0200 - 3.5m Ref:

#### **IKAR Fall Arrest Steel Lifeline in Aluminium Block**

Sturdy, low-maintenance fall arrest block with a galvanised steel lifeline in a heavy-duty aluminium housing.

- Small steel double-action hook with a swivel-on lifeline.
- Fixed attachment point/carrying handle.
- Suitable for vertical, sloped and horizontal use.

Delivery 2 days

Ref: 4D1000 - 12m Ref: 4D1100 - 18m 4D1200 – 24m Ref:

#### Miller<sup>®</sup> Falcon Lifeline

Lightweight, robust, self-retracting lifeline which does not require annual factory re-certification, approved for horizontal applications.

- Nearly indestructible, high impact-resistant nylon housing.
- Quick-activating brake mechanism.
- Unique side cable for a smooth operation.
- 4M4800 6m Webbing Ref:
- Ref<sup>.</sup> 4M0020 - 10m Galvanised Steel
- 4M0021 15m Galvanised Steel Ref:
- 4M0022 20m Galvanised Steel Ref:



Sturdy, low-maintenance fall arrest block with a galvanised steel lifeline in a robust plastic housing.

- Small aluminium double-action hook on lifeline.
- Swivel-eye attachment point.
- Suitable for vertical, sloped and horizontal use.



#### Miller<sup>®</sup> Turbolite Retractable **Fall Arrester**

An affordable 2m webbing fall arrest block, offering a safe alternative to shock-absorbing lanyards.

- Requires less fall clearance than a traditional lanyard due to braking mechanism.
- · No annual factory re-certification required.
- Compact and lightweight, only 0.86kg

4M3500 Ref:

#### Miller<sup>®</sup> Scorpion Retractable Lifeline

An automatic webbing retractable lifeline which has passed the "edge" test, therefore one of very few products that can be used horizontally.

- construction
- Compact and lightweight.
- Quick-action brake system that arrests the fall within centimetres.
- Corrosion-resistant internal components and shock-resistant thermoplastic housing.
- 2.7m length.
- 4M0500 Ref:

### Lanyards

A lanyard is used to connect the workers harness to the anchorage point. Before any work at height commences, the type and length of lanyard should be reviewed based on fall factor and fall clearance.



#### Arco Adjustable Fall Arrest Webbing Lanyard

1.75m adjustable webbing energyabsorbing lanyard with tear-web energy absorber.

- 25mm-wide polyester webbing.
- Lanyard length-adjustable via a friction slider.
- 433601 Ref:

# Arco Scaffolders Fall Arrest

Lanyard

1.75m rope energy-absorbing lanyard with tear-web energy absorber.

- Ref: 4A0500
- Ref:

#### Miller<sup>®</sup> by Honeywell: the world's most innovative edge-tested systems

Developed by the industry leader, these innovative products incorporate years of specialist experience and are leading the way in technology development where edge-testing is concerned. New test methods for falls against hard edges are proposed in the framework of a revision of EN 355:2002 standard in both Europe and the USA.

#### Miller<sup>®</sup> Fall Arrest Horizontal Use Lanvard

A 12mm rope lanyard which has passed the "edge" test, therefore one of very few products that can be used where there is the risk of a fall over an edge.

- Edge-tested fall arrest lanyard is ideal for construction, utilities, telecoms, electricity, transport, etc.
- Top connector ScaffHook aluminium, bottom CS20 steel.
- · Various connector options and twin lanyard available.
- 4M0600 Ref:

#### **Miller® Sharp Edge Manyard**

A 2m elasticated lanyard which has passed the "edge" test.

- The black and green design indentifies the product as edge-tested.
- Teflon<sup>®</sup> treatment extends the service life by repelling oil, dirt and water.
- · Reduced risk of tripping or snagging when not in use due to elasticated webbing.
- Lightweight.
- Ref: 4M3400

Visit www.arco.co.uk / www.arcosafety.ie to see our full range of lanyards







Delivery 2 days Ref: Ref: Ref:

29 www.arco.co.uk

Horizontal usage makes this ideal for



• 11mm diameter kernmantle rope.

440301 – Webbing (25mm wide polyester webbing)



#### **Arco Fall Arrest Rope** Lanyard

1.75m rope fall arrest lanvard with a tear-web energy absorber.

11mm kernmantle rope.

Ref: 4A0700



# **Anchorage Connectors** & Karabiners

The selection of a reliable anchorage point is crucial when working at height to ensure the user has a safe fall arrest system in place. The type of anchorage point is dependent on the application. An anchorage should also be positioned directly overhead whenever possible to reduce fall clearance and avoid the pendulum effect which can cause a worker to swing as they fall, creating the potential for injury. Most importantly, an anchorage should be selected based on how a rescue would be performed.

#### **Steel Screwgate Karabiner** 17mm Gate

Steel screwgate 107mm x 56mm, gate 17mm.

Approved to EN 362.

Ref: 4D3400

### Large Steel Twist Lock **Karabiner For Block Handles**

230mm x 128mm, gate 54mm. Approved to EN 362.

Ref: 4D3700

### **Anchorage Sling 2m**

2m sling to form a temporary anchorage point.

1.0m effective working length.

Approved to EN 795.

4SS012 Ref:





Steel screwgate 124mm x 82mm, gate 28mm.

Approved to EN 362.

Ref: 4D3600

Large Steel Twistlock Scaff **Karabiner** 217mm x 126mm, gate 54mm.

Approved to EN 362.

Ref: 4D3500

#### **IKAR Beam** Anchorage Clamp

Adjustable beam clamp to form an anchorage point. Designed to adjust to a range of steel profiles: the fall protection equipment connecting to the steel attachment eye.

Minimum adjustment size – 84mm, maximum 265mm.

Maximum steel profile depth – 23mm.

Approved to EN 795.

4D3800 Ref:

Visit www.arco.co.uk / www.arcosafety.ie to see our full range of Anchorage **Connectors & Karabiners** 

# **Work Positioning**

Work positioning system enables the user to be held in a secure and hands free position while working at height, providing it is used with fall protection equipment as a back up.

#### Miller<sup>®</sup> Handzup System

A unique work positioning system that leaves the hands free and enables the operator to work in complete safety.

- Ergonomic design.
- Easy to use.
- · Quick, accurate and flexible adjustment: lanyard adjusted perfectly in seconds,
- Ultra strong polyamide braided rope.
- Tensioner made up of aluminium and ABS.
- 10m, 20m and 30m supplied without karabiners.

Ref:	4M6400 – 2m	Ref:	4M6403 – 20m
Ref:	4M6401 – 5m	Ref:	4M6404 – 30m
Ref:	4M6402 – 10m		

#### **IKAR Work Positioning Lanyard**

1.75m adjustable rope lanyard for restraint and work positioning

- 12mm diameter kernmantle rope.
- · Complete with tubular wear sleeve.
- · Length-adjustable with a stainless steel rope grab.
- Ideal for hands-free working.

440002 Ref:

#### **IKAR Work Positioning System**

Adjustable rope system for restraint and work positioning

- 12mm diameter kernmantle rope lanyard.
- · Various lanyard lengths available.
- 600mm attachment lanyard of 11mm diameter kernmantle rope for connection to the harness.
- · Working length-adjustable with a stainless steel rope grab.
- Small aluminium double-action hooks.

#### Delivery 2 days

Ref:	4D4500 – IKAR Work Positioning System 5m
Ref:	4D4600 – IKAR Work Positioning System 10m
Ref:	4D4700 – IKAR Work Positioning System 15m







## Rescue

It is a legal requirement from section 7 of the Working at Height Regulations 2005 and is also a requirement for BS:8437 ACOP, that suitable and sufficient rescue arrangements are in place before the work begins. Consideration should be given to how you will rescue an individual, do they have any foreseeable injuries and is there any specific hazards that the rescuer should be aware of.

Thought needs to be given to the type of rescue and all personnel involved must be trained and competent to use the equipment.



#### **IKAR Rescue Kits**

A controlled-descent rescue system with casualty lifting and remote reach capabilities; "no cut" rescue method.

- Casualty can be lifted or lowered.
- Rescue tackle bag contains: descent device with rescue lifting facility, 10mm kernmantle rope, 1m webbing anchorage sling, karabiner, extendable remote rescue pole and instruction card.

Components approved to relevant European Standards.

- Ref: 4D2600 20m
- **Ref:** 4D2700 40m
- Ref: 4D2800 50m
- **Ref:** 4D4800 Training 1/2 Day maximum 6 persons



#### **IKAR Gotcha Rescue Kit**

A pre-rigged rope pulley system to enable a casualty to be lifted and/or lowered to a point of safety.

The casualty does not need to be accessed directly due to the telescopic rescue pole.

- Steel quick-lock karabiners and 1m anchorage sling.
- 50m rope, giving a maximum working length of 16m.
- 11mm diameter kernmantle rope.

Components approved to relevant European Standards.

Ref: 440900 – 50m Ref: 4D4900 – Training 1/2 Day maximum 6 persons



#### Miller<sup>®</sup> Relief Step

Designed to alleviate the effects of suspension trauma by providing support and allowing movement of the legs whilst waiting for rescue after a fall.

- Easily deployed.
- Can be attached to any brand of harness.
- Short term solution to workers safety and comfort.
- Supplied in pairs.
- Ref: 4M0400



#### Miller<sup>®</sup> SafEscape ELITE Kit

Can be used for remote rescue and/or evacuation.

Kit includes: SafEscape ELITE rescue device/descender with rope, carrying/storage bag and retrieval lanyard/ rope grab.

- If unused does not require manufacturer re-certification for seven years.
- Can carry up to two people.

Approved to EN 341:2008, EN 1496.

Ref: 4M0008 – Kit Ref: 4D5100 – Operator Training 6 person Ref: 4D5200 – Operator Training 12 person



#### Skylotec Milan 2.0 Hub

The Milan 2.0Hub is additionally equipped with a lifting function.

This enables an accident victim to be lifted across a short distance, in order to release the victim's lanyards, after which the victim can then be safely lowered by rope (where the housing design improves handling for the accompanying rescue). The Super Static 9.0 static rope fulfils this requirement despite its diameter of only 9mm.

The packing size of the Milan 2.0 Hub is small compared to ropes which are 10.5mm in diameter. This is a major advantage, in particular, at great heights.

#### Contact your local branch for more information

# **Confined Spaces/ Vertical Access**

Vertical entry equipment facilitates the safe entry and exit of the confined space and the retrieval of casualties. The equipment must be used by competent people who are trained to use the items and are aware of the procedures and rescue plan for the work involved.

#### **IKAR Tripod Kits**

Kit containing aluminum rescue tripod, fall arrest retriever and mounting bracket.

• Tripod designed for rapid setup.

- Block retriever mechanism allows user to be lifted or lowered.
- Kits available with block lengths of 12m, 18m, 24m, 30m and 42m.

Approved to EN 360, EN 795 and EN1496.

#### Delivery 2 days

Ref:	4D4300 – 12m
Rof.	4D4400 - 18m
Dof:	4D2200 - 24m
nei:	4D2300 - 24111
Ret:	4D2400 - 30m
Ref:	4D2500 – 42m

#### **IKAR Fall Arrest Retrievers**

Fall arrest block with an integral recovery mechanism, steel rope lifeline in an aluminum housing.

- Low maintenance.
- Steel double-action hook.
- Can be used in conjunction with tripod to protect the user when ascending and descending a vertical shaft.
- Built-in recovery mechanism.

#### Delivery 2 days

Ref:	4D4100 – 12m
Ref:	4D4200 – 18m
Ref:	4D1800 – 24m
Ref:	4D1900 – 30m
Ref:	4D2000 – 42m

### with Chain Fall arrest block with an integral recovery

mechanism and steel rope lifeline in an aluminium housing.

**IKAR Fall Arrest Retriever** 

- · Low maintenance.
- Aluminium double-action hook. • Designed to be anchored above the place of work / entry.
- · Built-in recovery mechanism operated by the chain drive.

#### Delivery 2 days

4D2900 - 12m Ref: Ref: 4D7200 - 18m

#### **IKAR Aluminium Tripod**

Aluminium, height-adjustable rescue tripod designed for rapid setup.

- Maximum rated loads two persons or one person and one
- SWL 272kg for persons; 500kg
- Height-adjustable from
- Two attachment eyebolts on tripod head.
- Weight 19kg.
- Approved to EN 795.
- Delivery 2 days
- Ref: 4D1300

### **IKAR HAS Fall Arrest & Rescue Device**

Device specifically developed to offer fall protection and rescue in one, easy-to-use unit.

After an arrested fall the device will automatically lower the casualty at an approximate speed of 0.9m/second.

- Easy-to-use, low-maintenance design.
- Galvanised steel cable, shockproof aluminium housing.

#### Delivery 2 days

Ref: 4D7300 - 9m Ref: 4D3000 - 16m Ref: 4D3100 - 30m



#### **IKAR Tripod Mounting Bracket**

Mounting bracket for attaching an IKAR retriever device onto an IKAR aluminium rescue tripod.

Delivery 2 days

Ref: 4D1400- 12m to 30m Devices Ref: 4D1500 - 42m Device



### **Arco Arrester Safety Harness with Jacket**

Fully adjustable two-point fall arrest harness, complete with overhead rescue attachment and heavy-duty PVC waistcoat.

- "Thru-the-Slot" buckle system.
- · Front and rear fall arrest attachment D-rings.
- Overhead attachment D-ring for confined space rescue.
- Heavy-duty PVC waistcoat aids donning and protects harness.

Ref: 437000

















### **IKAR Kernmantle Safety Lifeline**

- 14mm kernmantle rope safety lifelines with sewn eye terminations at each end.
- Suitable for confined space use, for hauling and dragging.

Approved to EN 1891, type A.

Delivery 2 days

- Ref: 4D5400 10m
- Ref: 4D5500 20m
- Ref: 4D7000 15m
- Ref: 4D7100 25m

#### **IKAR Tripod Load Winch** with Bracket

Load winch for use with IKAR tripod.

- Complete with 20m x 5mm diameter galvanised steel rope to give an SWL of 250kg.
- Not suitable for man riding.

Delivery 2 days

Ref: 4D3200

#### **Arco Recovery Safety Harness**

Adjustable single-point fall arrest harness with overhead rescue attachment for working in and recovery from a confined space.

- Rear fall arrest 'D' ring.
- Overhead rescue attachment.

**Ref:** 436900







# **Head Protection**

It is compulsory to wear head protection if there is a risk of an injury to the head. Examples are falling objects or hitting the head against something. Suitable head protection should be provided and worn.

#### uvex Pheos Alpine Safety & Climbing Helmet

Multi-functional helmet for working at height and rescue operations. Approved to industrial and climbing helmet standards.

- Combination of industrial safety and the requirements of a climbing helmet.
- 4 point chin strap.
- 6 point textile suspension harness c/w sweatband.
- · High end surface finish: matt texture and glossy areas.
- Ratchet adjustment.
- Adapter system for earmuffs: 30mm slot.
- Head torches can be attached.
- · Clips for attaching accessories with elastic band e.g. wide vision goggles, LED climbing torch.

Ref: 4U4100 - White Ref: 4U4200 - Yellow



#### Vital ID Helmet Sticker

In Case of Emergency (ICE) system for accident victims gives the onsite medical team or attending ambulance staff instant access to the victims potential lifesaving information and enables emergency contacts to be quickly notified.



- An essential safety product for work sites with large worker numbers and frequent staff rotation / turn over.
- Made from 3M reflective material.
- 100% waterproof.
- · Fully secure with security flap to protect the workers information.
- Will not weaken nor damage safety helmets in any way.
- Window version clearly displays workers name.

Ref: 4I0100 – Without Window Ref: 4D9000 – With Window

#### **Centurion Concept Heightmaster**

Added security and comfort when working at height such as rigging, construction, tower climbing, energy and wind renewables.

- Reduced peak provides excellent upward visibility.
- Includes EPS (expanded polystyrene) liner for enhanced safety.
- Hydro-flock high-absorbancy sweatband.
- Compatible with Connect range of face and hearing accessories.
- Supplied in white as standard, other colours available to special order.
- Twist2Fit Ratchet size 53cm to 63cm.

Approved to EN 12492 (mountaineering helmet standard) Conforms to EN 50365 (electrical standard up to 1000V ac) Conforms to EN 397 (including optional lateral deformation test)

Ref: 4H9500



# **Tethered Tools**

Work safely by tethering tools. This prevents the risks of falling objects striking and injuring a person below or damaging valuable machinery.

#### The Working at Height Regulations – state:

"Every employer shall, where necessary to prevent injury to any person, take suitable and sufficient steps to prevent, so far as is reasonably practicable, the fall of any material or object".

Tool@rrest is the worlds only tested and certified range of tethered tools. Each tether is individually tested to 2000kg and yet is flexible enough to allow complete freedom of use. Tool@rrest lanyards, tool belts and accessories provides a complete solution for tool safety while working at height, and meets with employer and employee 'duty of care'. All Tool@rrest hand tools are guaranteed for life against mechanical or materials defects.





Tool@rrest<sup>®</sup> Tape Measure

**Ref:** 31TA145 – 5 metre (16 ft) Ref: 31TA146 - 8 metre (26 ft) Ref: 31TA147 - 10 metre (33 ft)

**Tool@rrest® Power Combi Pliers** 

Ref: 31TA082 - Black Ref: 31TA089 – Chrome



#### Squids<sup>®</sup> Wrist Lanyard

Ref: 31TA007 - Small/Medium Ref: 31TA009 – Large/Extra Large



Tool@rrest<sup>®</sup> Retractable **Tool Lanyard** Ref: 31TA141

### **Arsenal® Padded Tool Belt** 3 inch L XL Ref:

XL 5 inch L 31TA027 31TA028 31TA029 Ref:

### For Tool@rrest products visit www.arco.co.uk/toolarrest and order your Tethered Tools brochure

Hand Tools • Lanyards • Tie Hooks • Tool Belts & Tool Clips • Wraps & Pouches • Tool Organisers • Lift Buckets







XXL 31TA024 31TA025 31TA026 XXL







**Tool@rrest® Claw Hammer** 31TA101 Ref:



Lanvard

Ref: 31TA005 - Clamp Ref: 31TA008 – Buckle





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