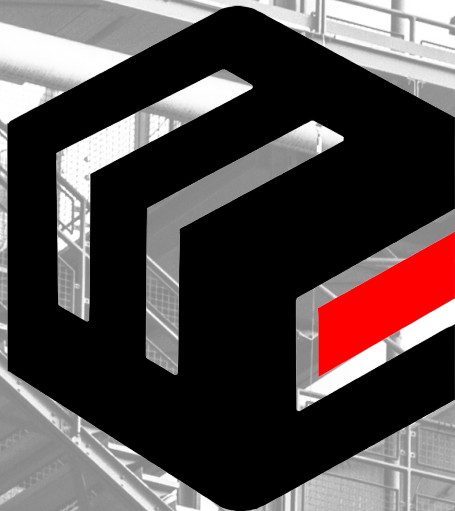


Fall Protection

Rescue Kits

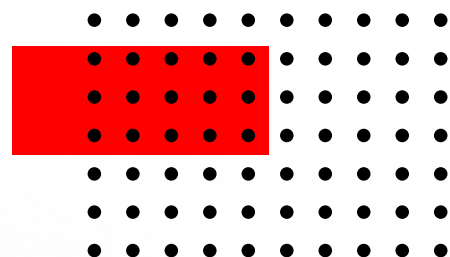


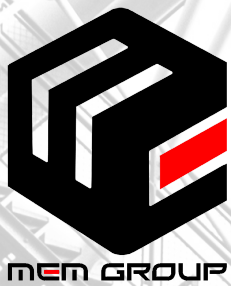
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Fall Protection

Useful terminology

Working at height

Working at height refers to frequently high-risk work that is undertaken in any place where, if the necessary safety precautions were not in place, a person could accidentally fall and suffer a personal injury.

A hierarchy of safety measures

A risk assessment would be undertaken to determine if the work can be avoided being done at height. However, if there is no other alternative and working at height needs to be carried out, a hierarchy of measures should then be followed to prevent falls from occurring. Some of these measures may include installation of a permanent or temporary handrail, provision of a properly constructed working platform complete with guardrails. If none of these are practicable or where the work is of short duration, suspension equipment could be used, or collective fall arrest equipment could be provided (for example safety nets) or individual fall arrest system could be provided (for example safety harnesses).

Fall arrest

Fall arrest refers to the act of stopping the downward free fall of a person who has accidentally fallen (while working at height) with the aid of some supporting equipment. A fall arrest system should offer significant freedom of movement for workers who are carrying out their assigned duties while also protecting them from serious falls when they are working at height.

A fall arrest system is one form of fall protection system that prevents a fall from causing serious harm or death. A safety harness and fall arrest lanyard, a retractable fall arrestor/lifeline or an installed vertical lifeline and mobile fall arrestor are all examples of fall arrest systems.

Restraint

Work restraint (when working at height) refers to the act of removing the risk of a person ever accessing a position where they may fall. In other words, restraint equipment physically limits the range of movement of the user of the equipment to completely eliminate the risk of a fall. An example of restraint equipment would be a belt or harness and a restraint lanyard.

Work positioning

Work positioning refers in general to the use of equipment (when working at height) to place or secure the user in a particular position to enable them to work efficiently. Examples of work positioning could include use of a work positioning lanyard attached to a safety harness or even being suspended on a rope (using rope access equipment). Importantly, using a work positioning system does not remove the need for (or take the place of) a fall arrest system. The two systems are often used simultaneously.

Rope access

Rope access (or industrial climbing) is a form of work positioning, which applies practical ropework for workers to access difficult-to-reach locations without the use of scaffolding, cradles or an aerial work platform. Rope access technicians descend, ascend, and traverse ropes for access and work while suspended by their harness. Sometimes a work seat (bosuns chair) may be used.

The support provided by the rope system is intended to eliminate the likelihood of a fall altogether, but a back-up fall arrest system is used in to cover the unlikely failure of the rope system as the primary means of support.

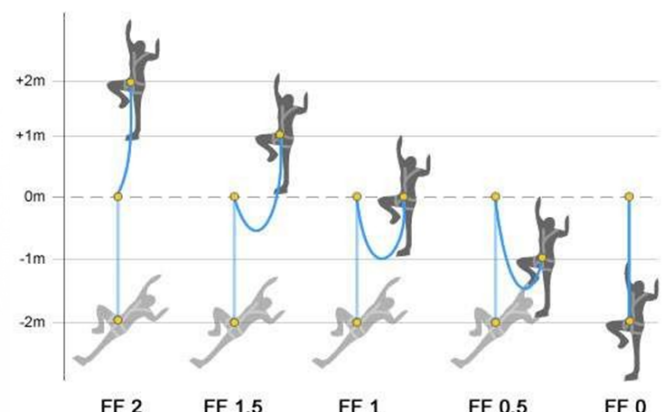
Fall factors

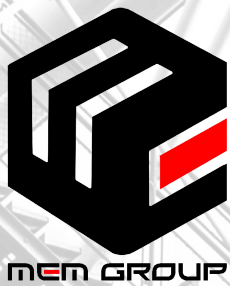
The 'fall factor' is a technical rope access term generally describing the severity of a fall.

The diagram here specifically applies to the use of a harness and fall arrest lanyard (as a fall arrest system).

The fall factor is dependent on the height of the initial anchor point relative to the position of the person who falls.

A fall with fall factor of 0 (using the highest possible attachment point) is inherently safer than a fall with fall factor of 2 (the lowest possible attachment point).





Fall Protection

Lifelines

Temporary Vertical Lifeline Kit (20m)



Application Fall arrest

System Portable vertical access system with a mobile fall arrestor connecting to harness, an anchored static rope feeds through the fall arrestor which locks in event of a fall

Contents

- a. Anchor sling 150cm
- b. Kernmantel static rope 11mm (20m to 50m rope length)
- c. Mobile fall arrestor (SR Locker)
- d. Twist-lock carabiners (2)
- e. Gear bag 50

Training Required training: Unit Standard ID: 229998 Explain and perform fall arrest techniques when working at heights

Be aware Requires a harness with frontal attachment point

Conforms to SANS 50362:2008 Connectors, SANS 50795:1996 Anchor devices, SANS 50353-2:2003 Guided type fall arrestors, SANS 51891:1998 Low stretch kernmantel ropes

Temporary Horizontal Lifeline Kit (20m)



Application Temporary anchor point

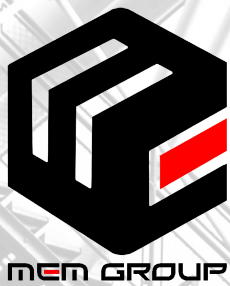
System Portable webbing lifeline with adjustable span (maximum span between two suitable anchor points is 20m), to secure a maximum of two users at any time while using a fall arrest lanyard, fall arrestor or vertical lifeline

Contents

- a. Anchor slings 150 (3)
- b. 2.5 ton bow shackle connectors (2)
- c. Twist-lock carabiner connector (1)
- d. Webbing lifeline (20m)
- e. Ratchet 50mm
- f. Gear bag 50

Training Required training: Unit Standard ID: 229998 Explain and perform fall arrest techniques when working at heights

Conforms to SANS 50795:1996 Anchor devices, SANS 50362:2008 Connectors



Fall Protection

Roofers Kit

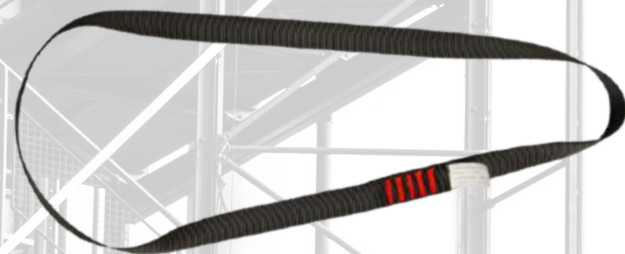
Roofers Kit (30m)



Application	Fall arrest (work at height from ladder or roof)
System	Portable vertical access system with a mobile fall arrestor connecting to harness, an anchored static rope feeds through the fall arrestor which locks in event of a fall
Contents	a. Anchor sling 150cm b. Kernmantel static rope 11mm (30m) c. Mobile fall arrestor (rope grab) d. Twist-lock carabiners (2) e. Rope edge protectors (2) f. Gear bag 50
Training	Required training: Unit Standard ID: 229998 Explain and perform fall arrest techniques when working at heights
Be aware	Requires a harness with frontal attachment point

Conforms to SANS 50362:2008 Connectors, SANS 50795:1996 Anchor devices, SANS 50353-2: 2003 Guided type fall arrestors, SANS 51891:1998 Low stretch kernmantel ropes

Open round & Anchor slings



10.01/Open Round Sling 60cm

Application	Open round webbing sling Set up as an anchor point for a fall arrest lanyard
Features	25mm tubular webbing Minimum breaking strength of 22kN

10.02/Open Round Sling 120cm

Application	Open round webbing sling Set up as an anchor point for a fall arrest lanyard
Features	25mm tubular webbing Minimum breaking strength of 22kN

Conforms to SANS 50566:1997 Slings

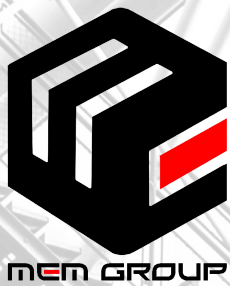
10.04/Anchor Sling 50cm

Application	Flat webbing sling Set up an anchor point on a structure
Features	45mm webbing Minimum breaking strength of 22kN Protective sleeve and steel dee ring at each end

10.03/Anchor Sling 150cm

Application	Flat webbing sling Set up an anchor point on a structure
Features	45mm webbing Minimum breaking strength of 22kN Protective sleeve and steel dee ring at each end

Conforms to SANS 50795:1996 Anchor devices



Fall Protection

Rescue Kit

Basic Rescue Kit (Pick Off Type)



Application Fall arrest rescue

System Portable vertical ascending and descending system, rescuer descends to the fall victim and lowers both to safety below

Contents

- a. Anchor sling 150cm
- b. Kernmantel static rope 11mm (50m to 150m rope length)
- c. Double locking descent device (Lory Smart)
- d. Jumar with tape ladder, e. Rescue knife
- f. Rescue link
- g. Twist-lock carabiner connectors (5)
- h. Gear bag 50

Training Required: Unit Standard ID: 229995 Install, use and perform basic rescues from fall arrest systems

Conforms to SANS 50362:2008 Connectors, SANS 50795:1996 Anchor devices, EN 341:2011 Descender devices for rescue, SANS 50353-2: 2003 Guided type fall arrestors and SANS 51891:1998 Low stretch kernmantel ropes

Remote Retrieval Rescue Kit



Application Remote fall arrest rescue

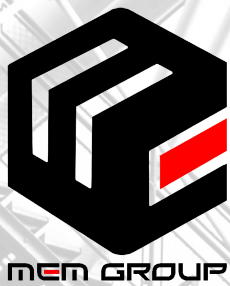
System Portable vertical ascending and descending system, with setup options for 3:1....4:1....or 5:1 pulley systems

Contents

- a. Anchor sling 150cm (2)
- b. Kernmantel static rope 11mm (10m to 600m rope length)
- c. Extension pole, Kong Frog and connector
- d. Rigging plate (medium), e. Lory Smart
- f. Double pulley (2) and single pulley (1)
- g. Jumar handle (2), h. Tape ladder
- i. Twist-lock carabiner connectors (8), j. Gear bag 100

Training Required: Unit Standard ID: 229995 Install, use and perform basic rescues from fall arrest systems

Conforms to SANS 50362:2008 Connectors, SANS 50795:1996 Anchor devices, EN 341:2011 Descender devices for rescue, SANS 50353-2: 2003 Guided type fall arrestors and SANS 51891:1998 Low stretch kernmantel ropes



Fall Protection

Rescue Kit

Auto Descender Kit (YIE003)



Application	Emergency self-rescue device
System	Controlled descent device where person self-rescuing safely descends at an automatically limited speed
Contents	a. Anchor sling 150cm b. Kernmantel static rope 11mm (30m rope length only) c. Auto descender device(YIE003) d. Twist-lock carabiner connector e. Gear bag 50
Limitations	Maximum descent height of 30m, maximum load of 150kg, descent speed of 0.8m/s to 1.5m/s depending on load
Training	Required: Unit Standard ID: 229998 Explain and perform fall arrest techniques when working at heights

Conforms to SANS 50362:2008 Connectors, SANS 50795:1996 Anchor devices, SANS 50353-2: 2003 Guided type fall arrestors and SANS 51891:1998 Low stretch kernmantel ropes

Disclaimer

Adequate training on correct use of this equipment must be provided to the user by a competent person before this equipment is issued for use. Simply reading the equipment user instructions does not suffice as adequate training. This equipment must not be used by a person with any medical condition that could affect their safety when using the equipment in normal or emergency use. It is recommended that at least every three months the fall arrest system (or component) or other equipment be inspected by a competent person. This equipment is intended to be used for 'fall arrest', 'work restraint' and/or 'rope access' as indicated. This equipment is not intended to be used for any other purpose other than indicated and may not be used outside of its limitations. This equipment becomes obsolete 5 years from manufacture date, regardless of the condition of the equipment. This equipment must be used strictly in accordance with the instructions given and without deviation. This equipment is used entirely outside of the manufacturers control and accordingly the manufacturer cannot be held liable for any loss, claim or liability arising from any failure of this equipment from any cause whatsoever.