



YOUR STARTER GUIDE FOR **WORKING AT HEIGHT** IN NEW ZEALAND

Understanding your responsibilities under the Health & Safety at Work Act 2015 and working to good practice in New Zealand.

ZERO HEIGHT SAFETY





OUR MISSION IS TO MAKE IT EFFORTLESS FOR YOU TO BE SAFE AND STAY PROTECTED WHEN WORKING AT HEIGHT.

We are New Zealand's largest supplier of height safety equipment and fall protection solutions, with a dedicated focus on 'creating a zero harm environment for the fall protection industry'.

We provide peace of mind for those that design buildings, manage buildings, business owners and employers by ensuring that workers can comfortably and efficiently do their job without compromising safety. PBI actively engage with architects, designers, specifiers, property managers, quantity surveyors, building owners and business owners to provide a complete compliant safety solution.

zeroheightsafety.com

Disclaimer

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A combination of **law, good practice guidance & product standards** are required to safely carry out work at height.

Health and Safety at Work Act 2015

New Zealand underwent its most significant workplace health and safety reforms in 20 year. This section provides a general overview of the Act and your responsibilities.

Pg 4

Working to good practice

Provides practical guidance to employers, contractors, employees and all others engaged in work associated with working at height.

Pg 12

Every year 52 people die on the job, hundreds more are seriously injured, and 600-900 die from work-related diseases.



On 4 April 2016, the Health and Safety at Work Act (HSWA) came into force bringing new responsibilities for managing work-related risks that could cause serious injury.

The new law is part of a reform package aimed at reducing the number of serious work related injuries and deaths in New Zealand by at least 25 percent by 2020.

<https://worksafe.govt.nz/>

Understanding our responsibility under the Health & Safety at Work Act 2015 (HSWA)

We are all required to cooperate and coordinate how we manage risks collectively.

Your responsibilities will match what you can reasonably influence and manage. A duty imposed under the HSWA requires the person to eliminate risks to health and safety, **so far as reasonably practicable**.

For example, at a large building site, cooperation and coordination will be needed between the construction firm, the principal contractor, electricians, carpenters, and bricklayers. Each has a responsibility for the health and safety of workers on site as well as others e.g. visitors. Together they will make sensible arrangements that reflect who has the most influence over which area of work.



What does 'so far as reasonably practicable' mean?

Something is '**practicable**' if it is possible or capable of being done. '**Reasonably**' doesn't mean doing everything humanly possible to manage a risk. It means doing what other businesses would reasonably do in the same situation.

What every business needs to understand is:

- How likely are any hazards or risks to occur?
- How severe could the harm that might result from the hazard or risk be?
- What a person knows or ought to reasonably know about the risk and the ways of eliminating or minimising it (eg by removing the source of the risk or using control measures such as isolation or physical controls to minimise it).
- What measures exist to eliminate or minimise the risk (control measures)?
- How available and suitable is the control measure(s)?
- What is the cost of eliminating or minimising the risk? Is the cost grossly disproportionate to the risk?

Most businesses, whether large corporates, sole traders or self employed are classed as PCBU's and have the primary duty of care to ensure health and safety.

They must also provide effective, on-going ways for you to make suggestions and raise ideas on improving health and safety.

<https://worksafe.govt.nz/>

What role do I have?

All workers need to take reasonable care for their own health and safety and that of others.

PCBU

A PCBU (Person Conducting Business or Undertaking) usually refers to a business entity (rather than an individual person) and must ensure the health and safety of its workers it influences or directs. This is called the 'primary duty of care'.

Officer

A person is an officer if they have a position that allows them to exercise significant influence over the management of a business. The role of an officer is to exercise due diligence, ensuring the business meets its health and safety obligations under HSWA.

Worker

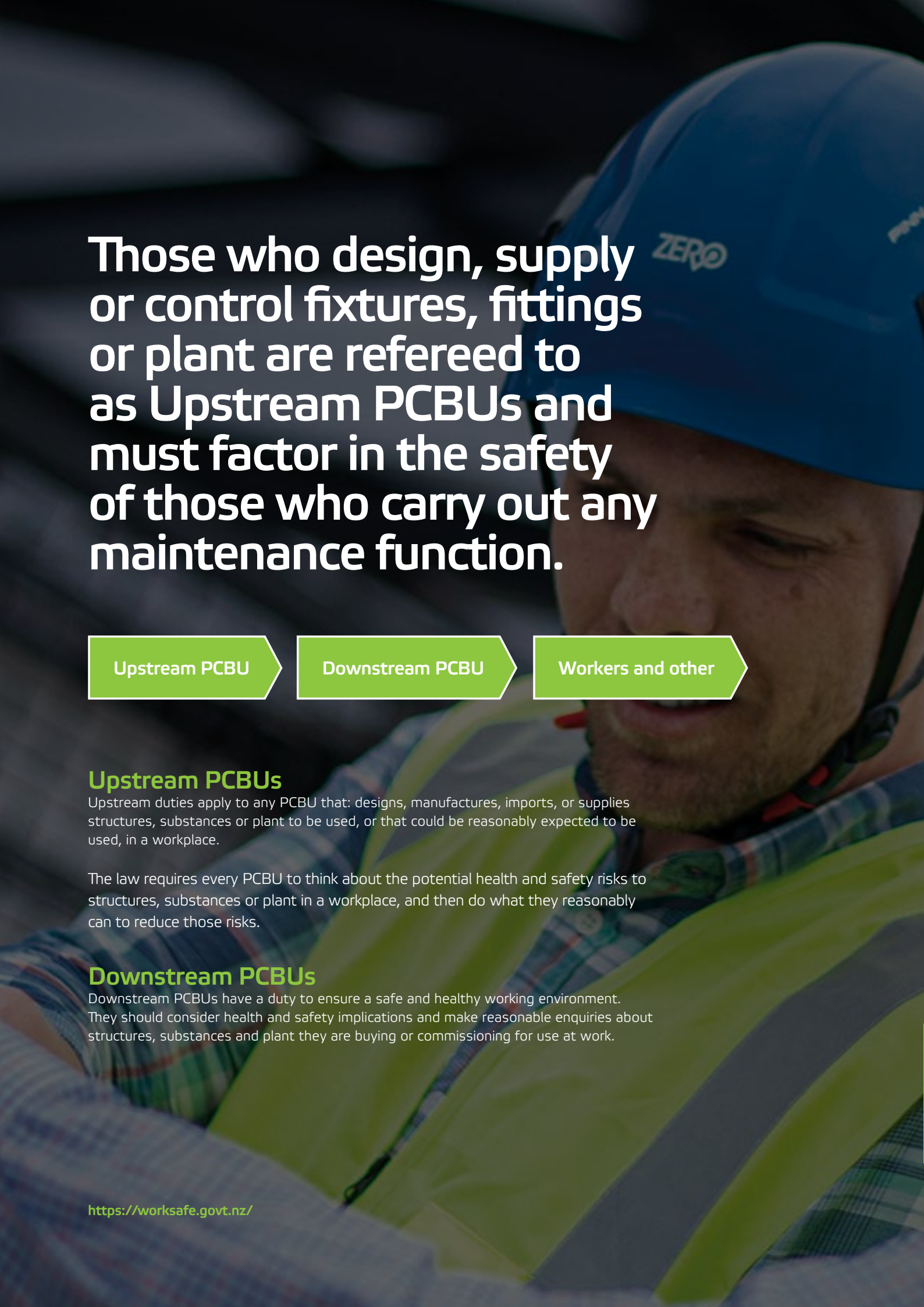
A worker is an individual who carries out work in any capacity for a business or undertaking. Workers must follow any reasonable health and safety instructions given to them by the business and take reasonable care of their own health and safety.

When two or more businesses operate together, they must work together to fulfill their **primary duties of care**. A business cannot contract out its duties. However, reasonable arrangements can be made with the other businesses to fulfill its duty, taking into account the level of influence or control each has over the overlapping work.



What is the primary duty of care?

A PCBU has the 'primary duty of care' – the primary responsibility for people's health and safety at work. It must ensure, so far as is reasonably practicable, the health and safety of its workers, any other workers it influences or directs, visitors or any other people who could be put at risk by its work.



Those who design, supply or control fixtures, fittings or plant are refereed to as Upstream PCBUs and must factor in the safety of those who carry out any maintenance function.

Upstream PCBU

Downstream PCBU

Workers and other

Upstream PCBUs

Upstream duties apply to any PCBU that: designs, manufactures, imports, or supplies structures, substances or plant to be used, or that could be reasonably expected to be used, in a workplace.

The law requires every PCBU to think about the potential health and safety risks to structures, substances or plant in a workplace, and then do what they reasonably can to reduce those risks.

Downstream PCBUs

Downstream PCBUs have a duty to ensure a safe and healthy working environment. They should consider health and safety implications and make reasonable enquiries about structures, substances and plant they are buying or commissioning for use at work.

Designers are in a strong position to make work healthy and safe from the start of the design process.

Designers must eliminate health and safety risks arising from work so far as is reasonably practicable. If it's not practicable to eliminate, they must minimise risks, so far as is reasonably practicable. Designers should take a systematic approach when identifying and managing work risks that are within their ability to influence or control.

<https://worksafe.govt.nz/topic-and-industry/health-and-safety-by-design/health-and-safety-by-design-gpg/>

Managing and controlling a workplace

A PCBU who manages or controls a workplace must, so far as is reasonably practicable, provide safe plant or structures and maintain them in good condition. This includes providing adequate facilities, information, training and instructions for the welfare of workers who carry out work for the business or undertaking. This including ensuring access to those facilities.

<https://worksafe.govt.nz/>



A 'workplace' is any place where a worker goes or where work is being carried out.

If a builder is making repairs to a commercial property. This property is only classed as the builder's workplace while the builder is working there.

Under the HSWA you must notify WorkSafe when a notifiable injury or incident occurs.

You are required to:

- Notify WorkSafe as soon as possible when a notifiable event occurs.
- Preserve the site of the incident until a WorkSafe inspector arrives, or you are otherwise directed by the regulator or the Police.
- Keep records of all notifiable events.
- Notifications must be done by phone or in writing.



Phone: 0800 030 040 (24/7)

Online forms www.worksafe.govt.nz/forms

The Act significantly increases the category of offenses.

A three-tiered hierarchy for breaches of the HSWA has been introduced, along with a range of other offending provisions. The HSWA then imposes across all three tiers a six-fold increase in fines. Imprisonment is reserved for the most serious offenses.

Recklessness	
Reckless conduct in respect of duty that exposes an individual to a risk of death or serious injury or illness.	
An individual who is not a PCBU (e.g. a worker or other person at the workplace)	Five years in prison or \$300,000 fine, or both
Officer of a PCBU or an individual who is a PCBU (e.g. self-employed)	Five years in prison or \$600,000 fine, or both
Anyone else (e.g. an organisation that is a PCBU)	\$3 million fine

Risk of death or serious injury or illness	
Failure to comply with a duty that exposes an individual to a risk of serious injury, serious illness or death.	
An individual who is not a PCBU (e.g. a worker or other person at the workplace)	\$150,000 fine
Officer of a PCBU or an individual who is a PCBU (e.g. self-employed)	\$300,000 fine
Anyone else (e.g. an organisation that is a PCBU)	\$1.5 million fine

Failure to comply with a duty	
An individual who is not a PCBU (e.g. a worker or other person at the workplace)	Five years in prison or \$300,000 fine, or both
Officer of a PCBU or an individual who is a PCBU (e.g. self-employed)	\$100,000 fine
Anyone else (e.g. an organisation that is a PCBU)	\$500,000 fine

More than 50 percent of falls are from less than three metres.

Short duration work at height shall be treated the same way as any other activity at height.

When does a fall constitute a fall?

The old 'three metre rule' no longer exists. Where a person could be injured if they fell from one level to another. This can be above or below ground level.

Anywhere where the potential of a fall exists you shall consider if the job can be done without exposing persons to the hazard **eliminate** or take steps to **minimise** the likelihood of any harm. If you've identified and assessed a hazard as significant, it must be controlled using the hierarchy of controls.

Eliminate

Where possible, risks must be eliminated so far as is reasonably practicable. Eliminating the potential of a fall can be achieved through safer design, using alternative construction methods and using specific tools and equipment.

Minimise

If elimination is not practicable, then steps should be taken to minimise the likelihood of any harm, resulting from falling. This means considering the use of work positioning systems or restraint and fall arrest system.

A significant hazard should be eliminated. If that is not practicable, controls should be put in place to minimise the hazard. If it is not a significant hazard the employer must still take all practicable steps to ensure the equipment is safe for employees to use.

We must eliminate health and safety risks arising from work so far as is reasonably practicable. If it's not practicable to eliminate, we must minimise risks, so far as is reasonably practicable.

Identify the hazards

Identify any hazards of working at height where someone could fall.

Assess the risk

Decide if the identified hazards are significant. How badly harmed someone would be if they fell and how likely a fall could be?

Implement control measures

A combination of controls may need to be used to control the hazard. However, eliminating the hazard is the best option.



Managing your control measures

Each work site has different risks. Start by identifying and understanding what the risks are when working at height.

It then involves doing what is reasonable, what is practicable and what you are able to do to eliminate, or where they can't be eliminated, minimise those risks.

1

Create a Site Specific Safety Plan (SSSP)

The SSSP is an agreement between businesses working on a specific site that determines how health and safety will be managed.

www.sitesafe.org.nz/products-and-services/sssp/

2

Complete a Task Analysis (TA) and Safe Work Method Statement (SWMS)

As part of a SSSP you are required to complete a TA and SWMS for identifying any notifiable events.

www.sitesafe.org.nz/products-and-services/sssp/

3

Carry out a Site Safety Briefing

Toolbox Meeting each day to record daily responsibilities associated with your safety plan.

www.sitesafe.org.nz/guides--resources/toolbox-talks/

4

Notify WorkSafe of particularly hazardous work

If a specific site has a risk of falling 5 meters or more, employers, as well as the person who controls a place of work shall provide at least 24 hours notice to WorkSafe.

forms.worksafe.govt.nz/hazardous-work-notification

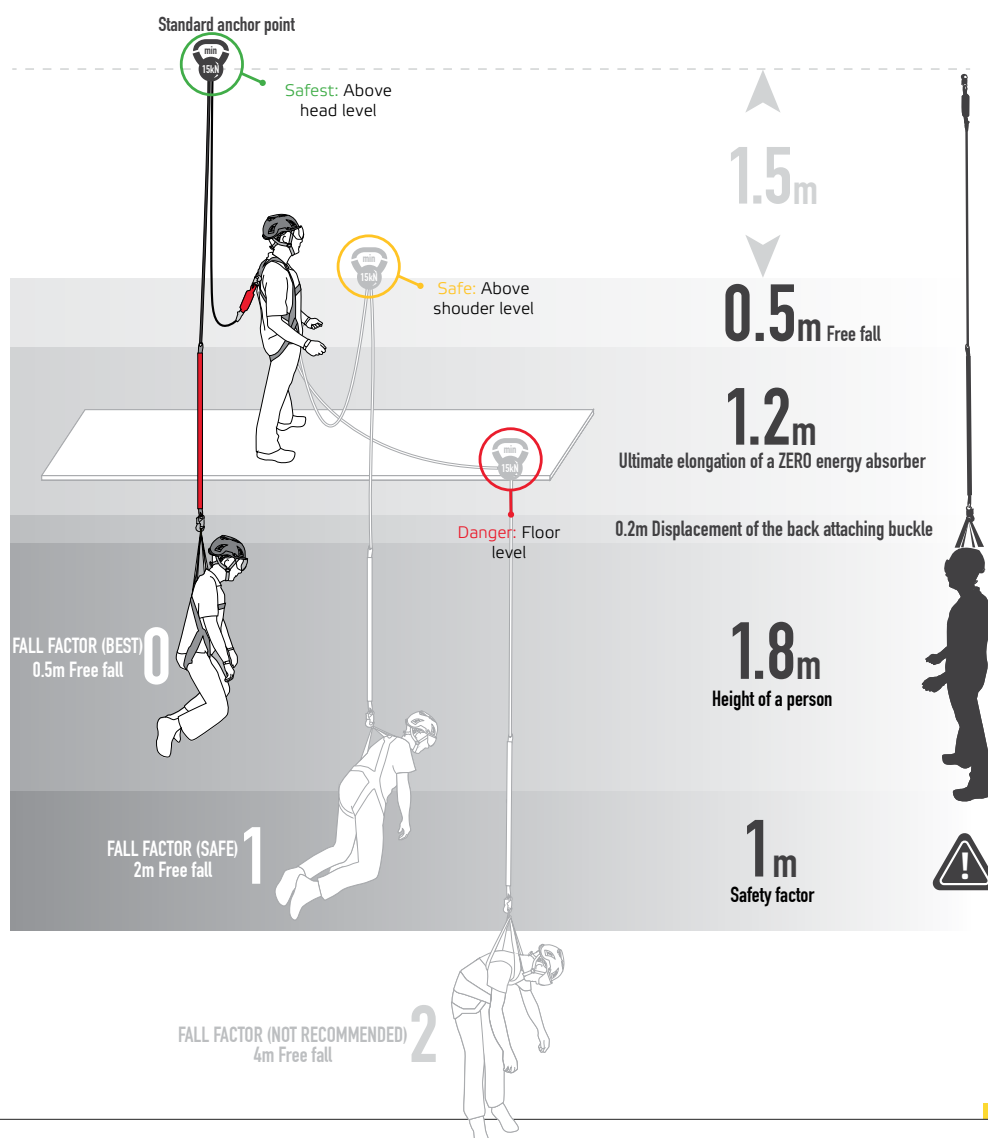
When a fall arrest system is being used, the potential free-fall distance should be less than two metres.

Fall factor & fall distance

When setting up a fall arrest system, fall factors and fall distances are critical factors to be considered.

The principle behind fall factors is the basic physics of gravity and energy. Energy is Mass multiplied by velocity.

The lower the anchor in relation to the human body, the greater the fall distance will be. By minimising the height of the fall, the speed will be reduced (velocity) at the point when the arrest event starts. Check there is sufficient distance between the work surface and any surface below to enable the system, including the action of any shock absorber, to deploy fully, without the worker hitting the below surface.



We are all required to inspect our own height safety equipment before and after each use.

3 monthly inspection

Fall arrest devices (type 1)
Ropes & adjusters/fall arrest devices (linostop, positioning devices)

6 monthly inspection

Harnesses
Lanyards with shock absorbers
Retractable webbing lanyards
All ropes, finished & cut lengths
Shock absorbers
Webbing sling anchors, temporary static lines
Work positioning lanyards

12 monthly inspection

Permanently installed systems
Tripods, pulleys, hardware
Self retracting lifelines/inertia blocks (type 2 & 3)



All items of equipment which are in regular use shall be subjected to periodic formal inspection (test and tagging) and where applicable, servicing in accordance with the manufacturer's instructions and requirements of AS/NZS 1891.4:2009. Where an operator is not competent to carry out this inspection, the inspection shall be carried out by an operator who is competent or a height safety supervisor.

The inspection shall be carried out in accordance with manufacturer's instructions. Some manufacturer's will only warrant a system/product that has been inspected or repaired by an accredited installer/service agent..

Choosing the best restraint technique

The best method of hazard control is eliminating the potential of a fall.

Work positioning

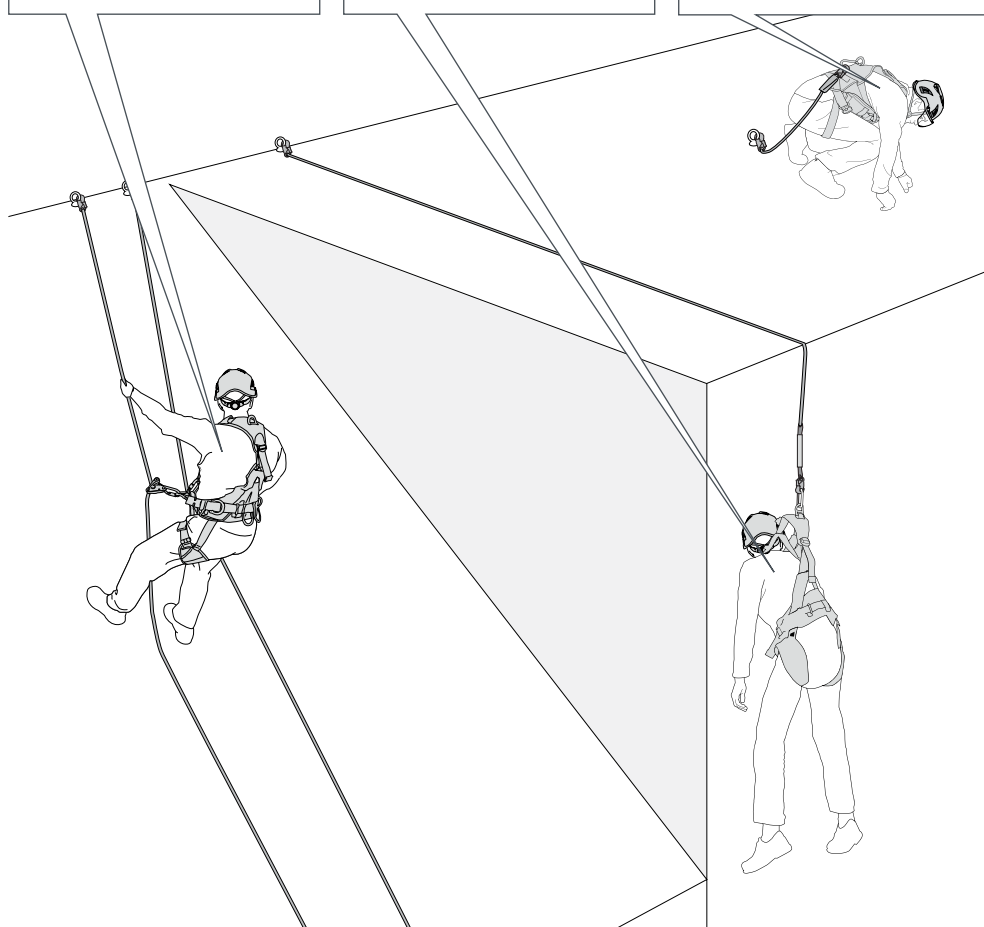
Work positioning systems enable a person to work supported in a harness under tension in a way that a fall is prevented.

Fall arrest (Free fall)

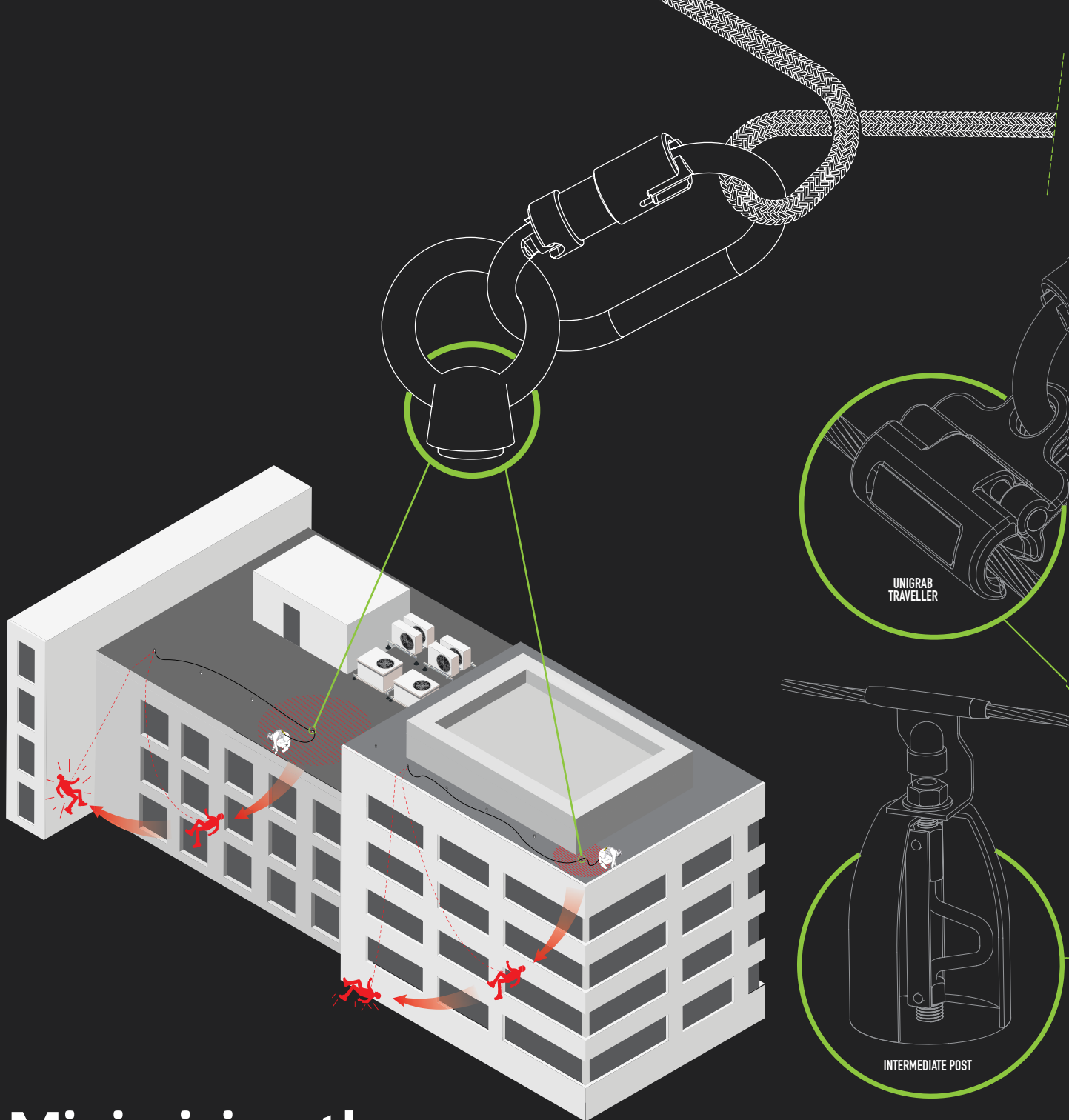
Any fall, or part of a fall in excess of 600mm; either vertically or on a slope, on which it is not possible to walk without the assistance of a handrail or line.

Restraint technique

Preventing the possibility of a fall by removing the risk is preferable when working at heights. The worker can not physically reach the edge with the correct PPE.

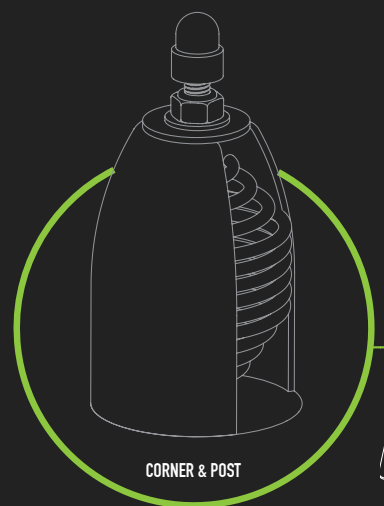


Decide if the identified hazards are significant, how badly harmed would they be if they fell and how likely a fall could be?



Minimising the potential fall distance

The pendulum effect is a potential hazard resulting from lateral movement or swing during a slip or fall. Appropriate positioning of single anchorage, diversionary anchors or the horizontal lifelines can reduce the risk of a pendulum effect in the event of a fall.

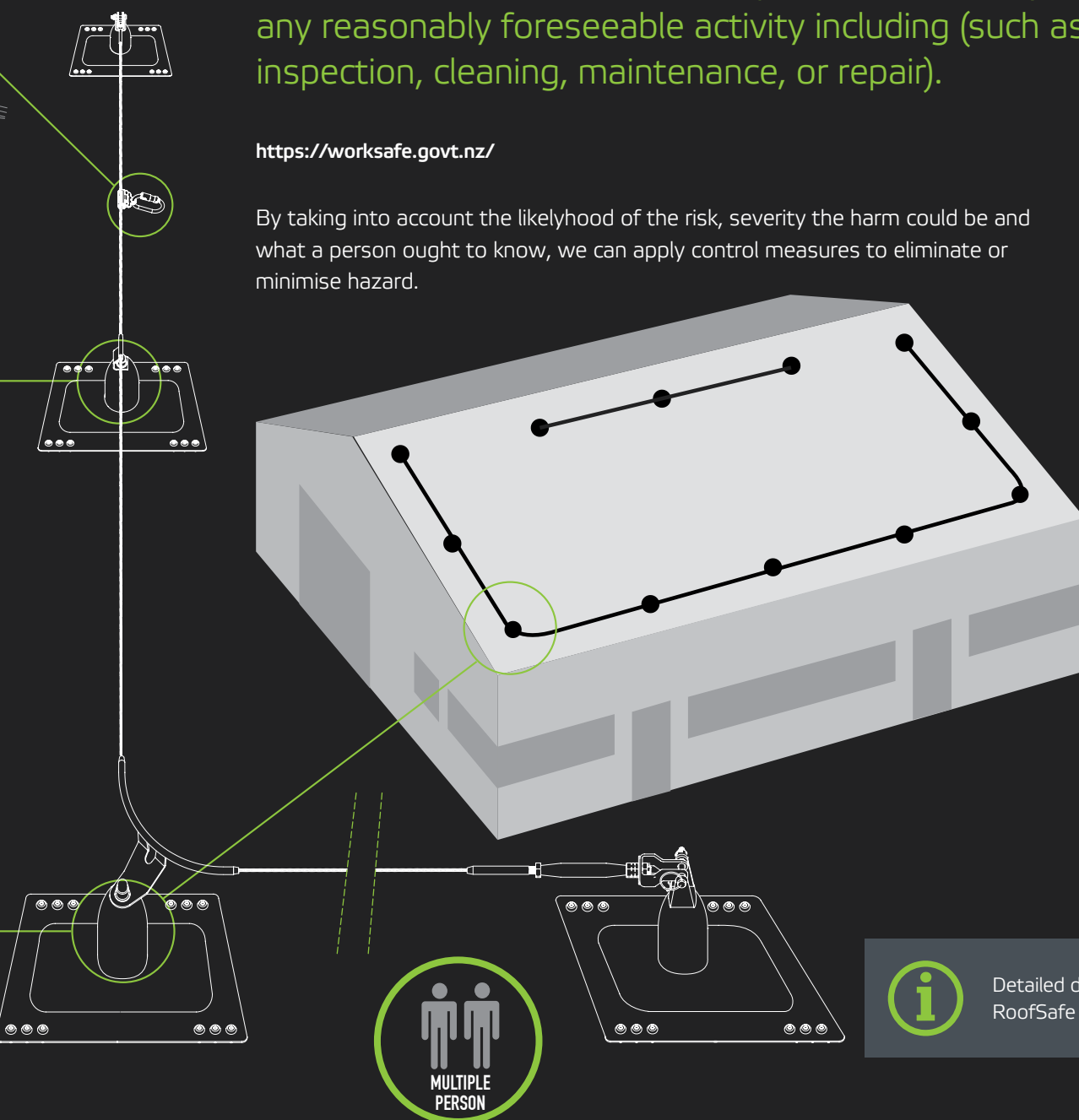


All fall protection systems must, at a minimum, be capable of fall arrest if mis-used.

The HSWA tells us that a designer of a fall protection must, so far as reasonably practicable, ensure that the structure is without risks to the persons who carry out any reasonably foreseeable activity including (such as inspection, cleaning, maintenance, or repair).

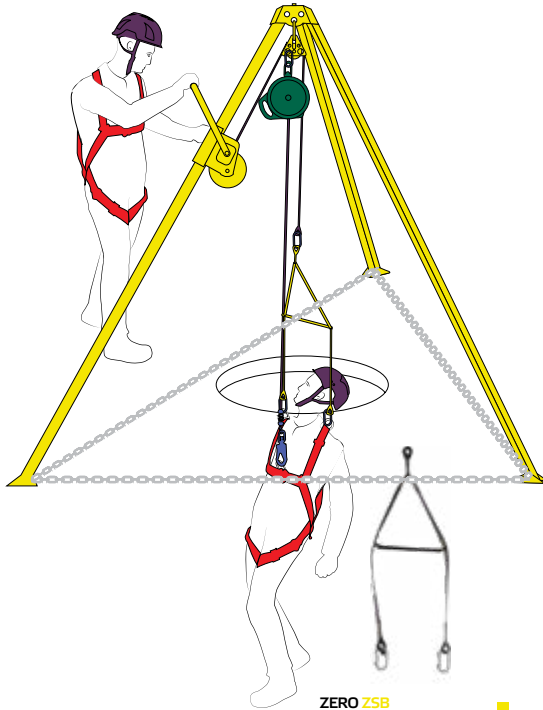
<https://worksafe.govt.nz/>

By taking into account the likelihood of the risk, severity the harm could be and what a person ought to know, we can apply control measures to eliminate or minimise hazard.



Detailed drawing of a 3M
RoofSafe Cable Fall Arrest System.

Confined space



ZERO TM-9
Aluminium Tripod
229cm



ZERO CW-240/15
Retractable Inertia Reel



ZERO ZPS-01 Pinnacle
Multi-Impact Helmet



ZERO RUP-502/20
Rescue Lifting Winch



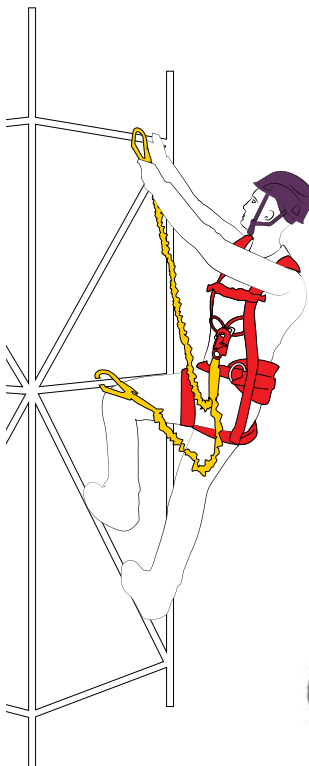
ZERO Z-35/R
Tradesman & Rescue Harness



ZERO MH-3
Manta Extreme
Multi-role Helmet

ZERO ZSB
Spreader Bar

Scaffolding & pylons



ZERO PLUS Z+52
Construction Harness

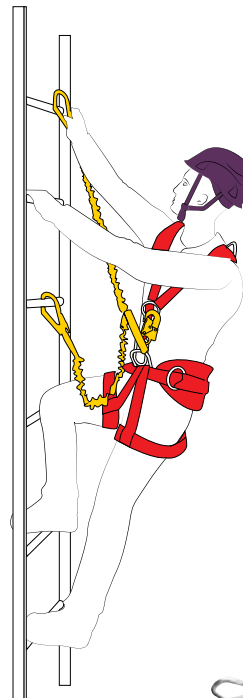


ZERO ZPE-01 Pinnacle
Multi-Impact Helmet



ZERO ABM-2T5E
Twin Elasticated
Lanyard

Vertical fixed ladder



ZERO PLUS Z+71R
Work Rescue Harness

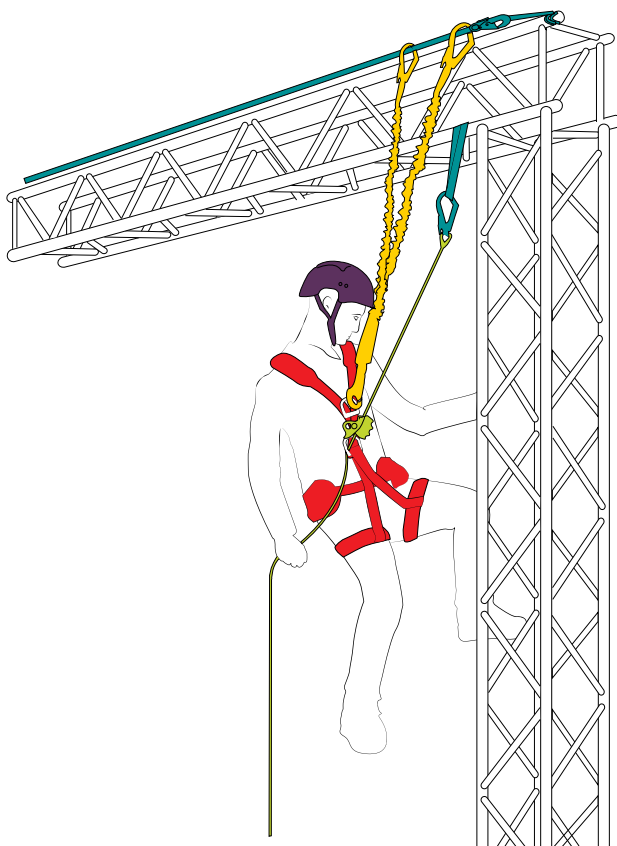


APEX APX-05
Multi-Impact Helmet



ZERO BW-260/1.5
Twin Elasticated
Limited Lanyard

Technical rigging



ZERO PLUS Z+90
Abseil Harness



ZERO MH-3
Manta Extreme
Multi-role Helmet



ZERO ABM-2T5E
Twin Elasticated
Lanyard



ZERO ZE-320/20
Temporary Static
Lifeline

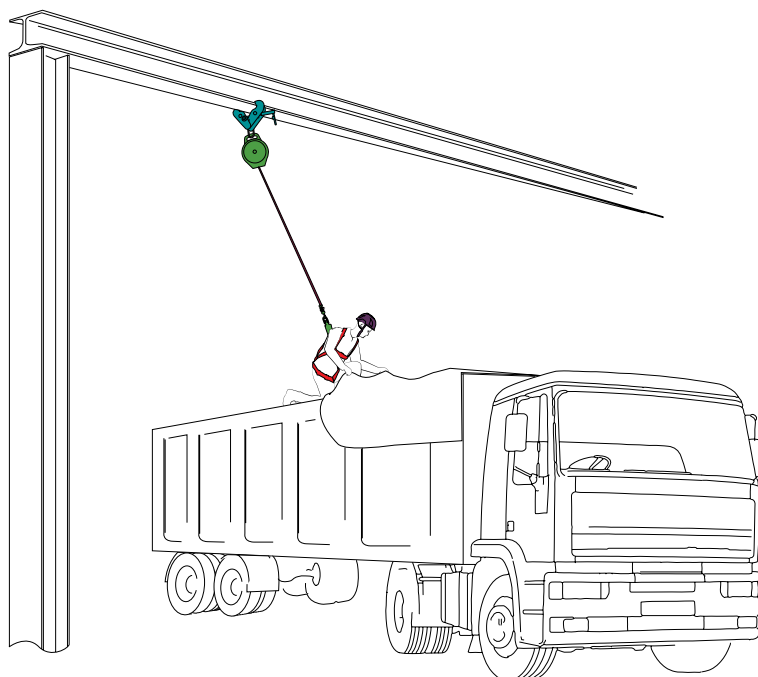


ZERO AF-130
PROT 3 Rope
Adjustable Work
Positioning Device



ZERO ZS-120
Anchor Webbing Sling

Loading dock and plant servicing



ZERO Z-30
Utility Harness



APEX APX-05
Multi-Impact Helmet

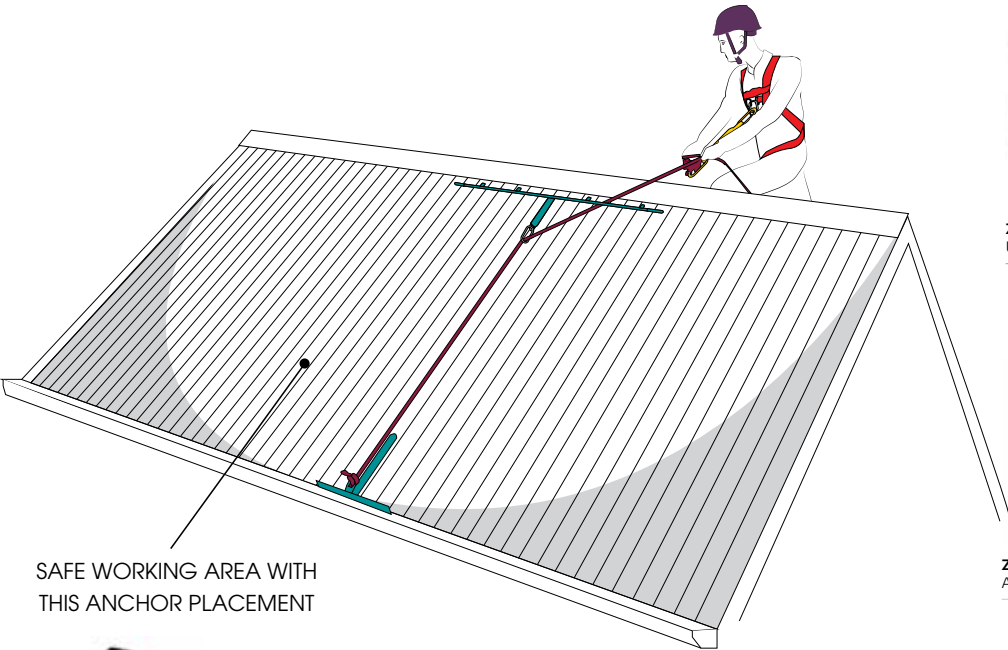


ZERO ST-020
Rail/Beam Anchor
Clamp



ZERO CR-300/18
Heavy Duty
Retractable Inertia Reel

Metal roof anchor & access



SAFE WORKING AREA WITH THIS ANCHOR PLACEMENT



ZERO Z-30
Utility Harness



ZERO ZC-190
Armour Work Helmet



ZERO TPLK
TEMPLINK Flexible Anchor



ZERO ABM
Shock Absorber Pack



ZERO TACTIX
12mm Rope

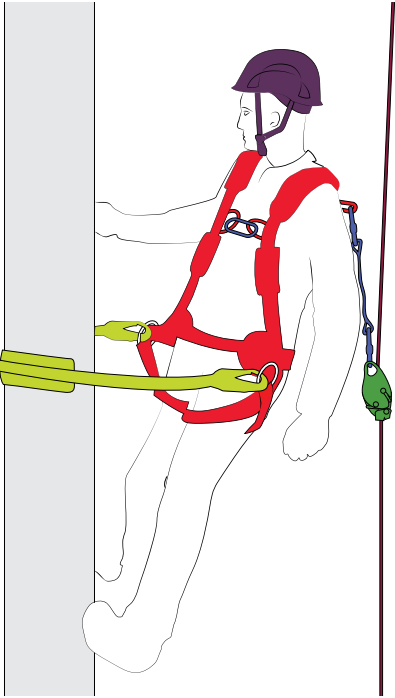


ZERO AZ-200
Roof Anchor to Go



ZERO AC-040
Guided Rope Fall Arrester

Linesman & rigger



ZERO ZF-725
Webbing Adjustable Pole Strap



ZERO PLUS Z+87R
Isotower harness



ZERO ZPE-01 Pinnacle
Multi-Impact Helmet



ZERO KERNMANTLE
Tactix Rope



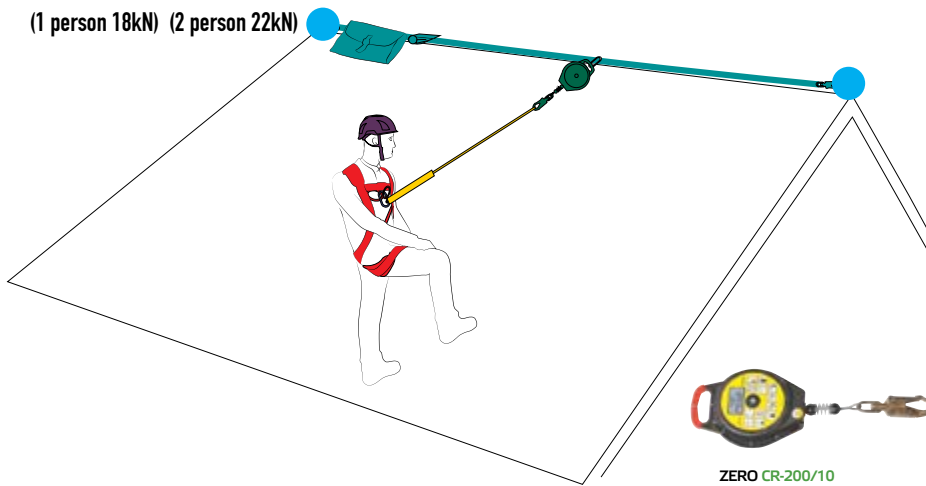
ZERO PJ501
Screwgate Oval Carabiner



ZERO YAG-004
Auto Rope Grab Device

Static line roof with retractable

(1 person 18kN) (2 person 22kN)



ZERO Z+32
PLUS Tradesman
Harness



APEX APX-05
Multi-Impact Helmet



ZERO CR-200/10
Retractable Inertia Reel

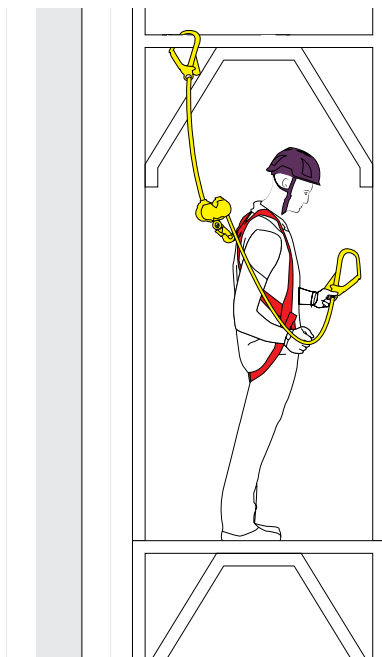


ZERO AZ-800
Wire Lanyard with
Shock Absorber



ZERO ZE-320/20
Temporary Static
Lifeline

Scaffolding



ZERO Z-30
Utility Harness

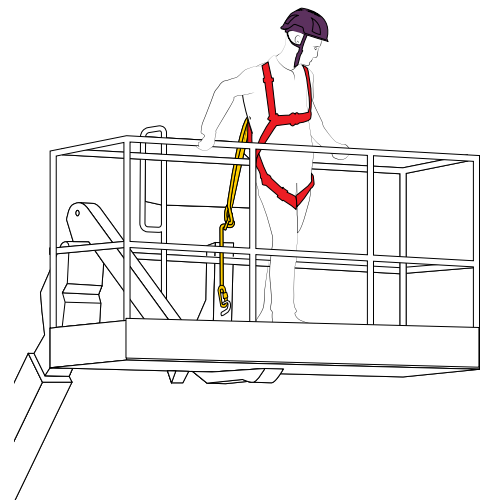


ZERO ZPS-01 Pinnacle
Multi-Impact Helmet



ZERO CR-02X
Twin Retractable
Personal Lanyard

Elevated work platform



ZERO ABM-TX3
Single Adjustable
Webbing Lanyard with
Snaphooks



ZERO ZPS-01 Pinnacle
Multi-Impact Helmet



ZERO Z-30
Utility Harness

All harness work requires training and competence.

Only trained and competent personnel can install and use harness systems on-site.

Are you trained and competent?

To start your journey to become competent, when working at height, you will be required to gain knowledge and experience in the use of a safety harness system.

NZQA Unit Standard 23229

Use of safety harness systems when working at height’.

Workers who work at height are recommended to complete NZQA Unit Standard 23229 .

NZQA Unit standard 15757

Use, install and disestablish temporary proprietary height safety systems when working at height.

A recommended means of obtaining competence for workers who are involved in planning, installing, or operating fall arrest systems and supervising staff is to achieve NZQA Unit standard 15757.

Meeting AS/NZS Standards

New Zealand’s Standards AS/NZS 1891.4:2009 give specific descriptions of competency required for the various roles of work at height. Safety Officers should acquaint themselves with the prerequisites.



A competent person is any person who has:

- (a) the relevant knowledge, experience, and skill to carry out the task required; and
- (b) either
 - (i) a relevant qualification evidencing the person’s possession of that knowledge, experience, and skill; or
 - (ii) if the person is an employee, a certificate issued by the person’s employer evidencing the person’s possession of that knowledge, experience, and skill.

**ZERO partner with
Vertical Horizonz;
the specialists in
practical, high quality,
health and workplace
safety training.**

VERTICAL HORIZONZ



Safety.Certainty | New Zealand
STRUCTURED TRAINING SPECIALISTS

A rescue plan is just as important as your PPE

Where there is a risk of a fall, there is a requirement for on-site rescue capability. We are required to do what is reasonably practicable when applying control measures for a rescue or recovery situation. The greater the risk of unconscious suspension or injury in a harness, the greater the need for an appropriate rescue response.

Planning a rescue

A rescue plan should be developed before installing a fall arrest system. It is critical that a suspended worker can be promptly rescued. A pre-rigged retrieval system is a good way of ensuring prompt rescue.



A rescue plan should consider:

- > The rescue method, i.e. use of a crane or elevating work platform.
- > Available equipment.
- > Responsibilities and training.
- > Communication.
- > Medical requirements.
- > Involving an emergency service.

ZERO®





Premium head protection with Koroyd integration & hybrid safety standards

True innovation for advanced head protection to meet the most stringent industry demands of the future. The ZERO® Pinnacle ZERTEC helmet has integrated Koroyd technology for maximum energy absorption.

With superior reduction of energy from impacts sustained (EN12492) when working at heights, at industrial workplaces and by mechanical devices; ZERTEC responds to the requirements for premium head protection that may reduce the risk of head and brain injuries.

Certified to hybrid industrial & mountaineering standards for advanced head protection, (EN12492 & EN397) with an ABS advanced Thermo Material shell exterior.

The ZERO® Pinnacle range is easy to accessorize with easy to fit hearing protection, direct fitting protective visors and lamp connection systems.



PINNACLE
ZERTEC
ADVANCED HELMET TECHNOLOGY



When fall arrest systems are used an appropriate safety helmet shall be worn to protect the worker from head injury during an uncontrolled fall.

A fall arrest system is an assembly of interconnected components consisting of a harness which is connected to an anchorage point by means of a lanyard incorporating an energy absorber.

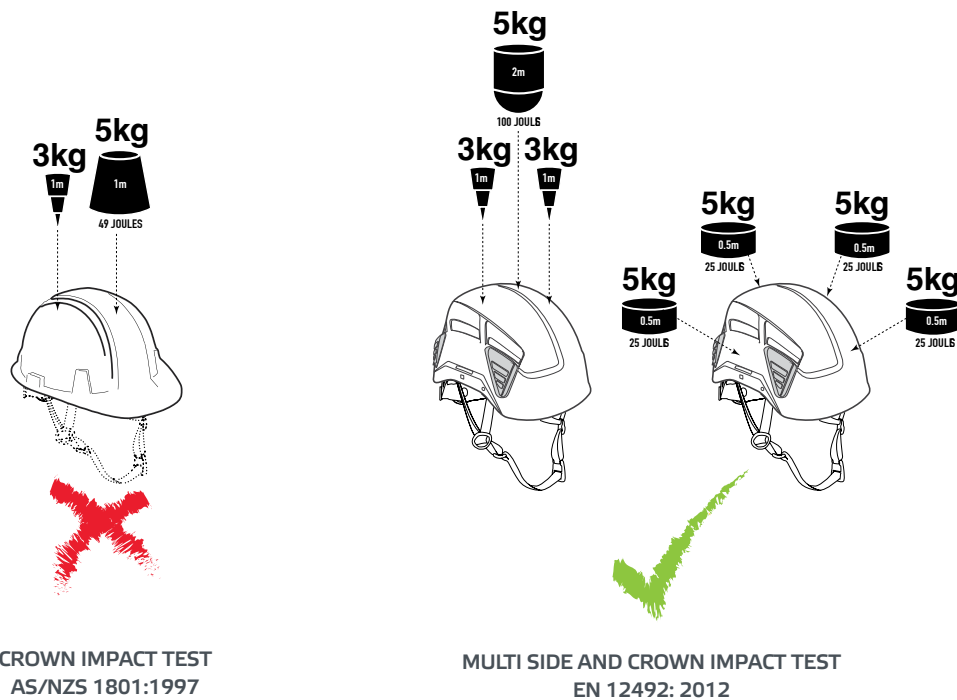
Best practice guidelines for working at height in New Zealand

<https://worksafe.govt.nz/publications-and-resources>

Are you wearing the right helmet?

Industrial hard hats are only designed to protect the head from falling objects. For work at height, it is essential that in the event of an uncontrolled fall the helmet is retained on the head and can withstand multiple point impacts. AS/NZS 1801:1997 does not meet these requirements.

The EN12492 standard is designed around the user being the falling object. Therefore the helmet is multiple impact rated and has a non-releasing chinstrap insuring the helmet stays on the head in the event of a fall.



Slips, trips & falls

Slips, trips and falls are one of the most common cause of injuries for workers and injuries can happen in a number of ways. You must always eliminate the risk where you're reasonably able to. Where you're not reasonably able to, then you need to consider what you can do to minimise the risk.



A DESIGN ETHOS TO CREATE A ZERO HARM ENVIRONMENT

Our equipment is the result of extensive global research, innovation and a design ethos to create a zero harm environment for the safety industry.

Our safety equipment is fast becoming known for advanced protection and best performance whilst representing outstanding value.

Always attentive to the needs of the industry, we are constantly developing new, innovative and ergonomic products that combine user comfort, precision engineering and strictest safety codes.



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