

## TOTAL RESTRAINT SYSTEM

This fact sheet will help you to select and use a total restraint system (sometimes referred to as a travel restraint system) for working safely at height.

### WHAT ARE TOTAL RESTRAINT SYSTEMS?

A total restraint system is a full-body harness that is connected by an energy absorbing lanyard to a suitable anchorage point or horizontal lifeline. The system is set up to keep the worker from reaching the edge.

They are different from fall arrest systems, which protect only one worker at a time, and reduce the impact of a fall rather than prevent it (see below).

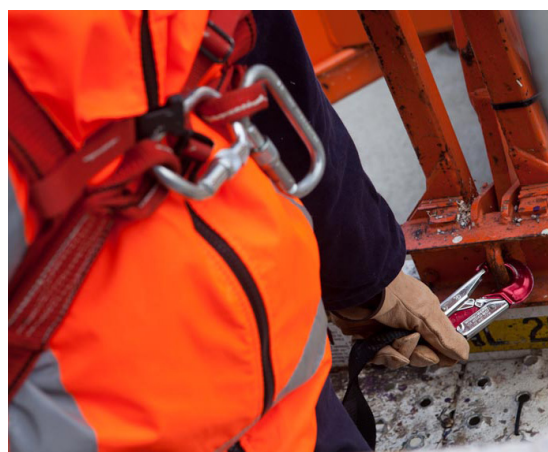
Edge protection is the preferred control for preventing falls from roofs on single-storey buildings. A total restraint system may be used when edge protection is not practicable.

### HOW DO I USE A TOTAL RESTRAINT SYSTEM?

Ensure the system is installed and used, or its installation and use is directly supervised, by a trained and competent person.

A competent person must install a temporary roof anchor that is used as an anchorage for a total restraint system. This must be done in accordance with the manufacturer's or designer's instructions.

The roof or other building component that an anchor is attached to must be checked by a competent person to verify that it is suitable for supporting the anchor. Workers must not work alone when using a total restraint system.



### WHAT DOES “TRAINED AND COMPETENT” MEAN?

A trained person knows:

- > how to correctly fit and attach the safety harnesses
- > the dangers of using incompatible components or equipment (eg harnesses and lanyards from different systems)
- > how to inspect, maintain, and store the equipment
- > how to correctly anchor, install, and use the total restraint system.

### HOW TO GET TRAINING?

The NZQA Unit Standard 23229 *Use a safety harness for personal fall prevention when working at height* is a recommended competency. Alternatively, you must be able to demonstrate equivalent knowledge and skills, or equivalent or a higher international qualification.

A recommended means of obtaining competence for workers who are involved in planning, installing, operating fall arrest systems and supervising staff is *NZQA Unit Standard 15757 – Use, install and disestablish proprietary fall arrest systems when working at height* or an equivalent or higher level of qualification. *NZQA Unit Standard 23229* is a prerequisite for achieving *NZQA Unit Standard 15757*.

#### **HOW IS A TOTAL RESTRAINT SYSTEM DIFFERENT FROM A FALL ARREST SYSTEM?**

A total restraint system **isolates** the worker from the fall by keeping them away from the edge<sup>1</sup>.

Fall arrest systems do not prevent the fall, they **minimise** the impact of the fall by slowing and arresting a worker's fall.

A fall arrest system is an assembly of interconnected components consisting of a harness which is connected to an anchorage point by a lanyard incorporating an energy absorber. They can be used where workers are required to carry out their work near an unprotected edge.

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

Most fall arrest systems require a minimum distance to deploy, making them inappropriate for low-level and single-storey work.

Fully assess other controls for managing the hazard of working at height before deciding to use a fall arrest system.

For further guidance on fall arrest systems, refer to *AS/NZS 1891.4 Industrial fall-arrest systems and devices – Selection, use and maintenance*, and *IRAANZ Industrial Rope Access in New Zealand Best Practice Guidelines*.

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**PUBLISHED: SEPTEMBER 2015. CURRENT UNTIL REVIEW IN 2017**

**This fact sheet is part of the *Working Safely at Height Toolkit* that supports the Best Practice Guidelines for Working at Height in New Zealand.**

- > Fact Sheet 1: Planning a safe approach to working at height
- > Fact Sheet 2: Selecting the right equipment for working safely at height
- > Fact Sheet 3: Short duration work at height

- > Fact Sheet 4: Edge protection
- > Fact Sheet 5: Temporary work platforms
- > **Fact Sheet 6: Total restraint system**

**For additional guidance on safe working at height see:**

- > Be Safe Working on Roofs
- > Safe Working with Ladders and Stepladders
- > Health and Safety In Contracting Situations

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<sup>1</sup> While a harness is classified as PPE, which is a minimisation control, a total restraint system is more desirable than other minimisation controls and can be considered isolation of the hazard.