



SEPARATING PEOPLE FROM HAZARDS

# Rooftop Safety Audit







## How do We Assess a Risk on Your Rooftop?

As fall protection experts we perform a critical analysis on your rooftop to identify the hazards where your workers are exposed to the greatest risk. This ensures that the most dangerous areas are protected immediately with state-of-the-art systems and OH&S compliant solutions.

To do this we assess risks based on two factors:

- 1. Severity of Injury:** In fall protection assessment, the severity of a fall must always be assumed as life-threatening.
- 2. Likelihood of an Accident Occurring:** The greatest predictor for the likelihood of an accident occurring is to review the **frequency** of exposure to the hazard.

Therefore, we prioritize our approach based on the critical danger exposure and how **frequently** each hazard is accessed by your workers. Outlined here is our basic approach. Your roof must be reviewed with one of our Kee Safety professionals as each site is unique and your specific roof may require variable solutions.

## 1 Access Points

Access points are the most frequented hazard on any roof. Your workers are exposed to this risk twice every time they enter and exit to perform tasks. For example, if your worker is required to access the roof 8 times per year, they are exposed to the access hazard 16 times. OH&S requires that all ladders and hatches be secured with a self-closing gate and safety-compliant railing.

## 2 Rooftop Openings

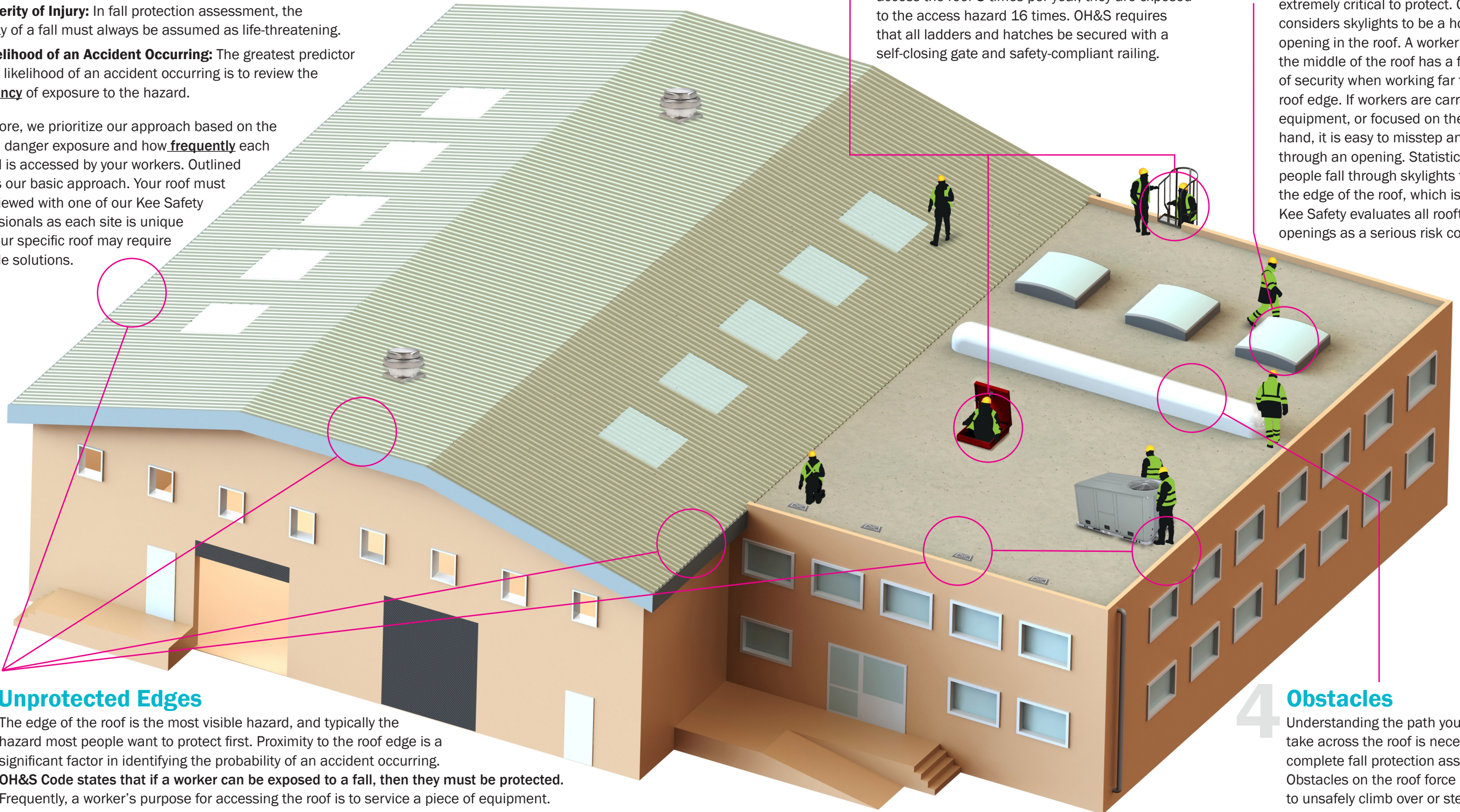
Openings are often overlooked, but extremely critical to protect. OH&S considers skylights to be a hole or an opening in the roof. A worker traversing the middle of the roof has a false sense of security when working far from the roof edge. If workers are carrying equipment, or focused on the job at hand, it is easy to misstep and fall through an opening. Statistically, more people fall through skylights than over the edge of the roof, which is why Kee Safety evaluates all rooftop openings as a serious risk concern.

## 3 Unprotected Edges

The edge of the roof is the most visible hazard, and typically the hazard most people want to protect first. Proximity to the roof edge is a significant factor in identifying the probability of an accident occurring. **OH&S Code states that if a worker can be exposed to a fall, then they must be protected.** Frequently, a worker's purpose for accessing the roof is to service a piece of equipment. Is the equipment too close to an unprotected edge?

## 4 Obstacles

Understanding the path your workers take across the roof is necessary for a complete fall protection assessment. Obstacles on the roof force workers to unsafely climb over or step around the obstruction, often placing workers at risk by walking too close to the roof edge.







# Rooftop Fall Protection: An Integrated Solution

When access to the entire roof is required, the safest, most comprehensive solution is a perimeter railing system that surrounds and protects all roof edges.

## Kee Walk®

On a standing seam metal roof, or metal profile roof, a level walkway system provides a safe, anti-slip and level surface to avoid tripping over the seams, crowns and valleys.

## Kee Walk® with Guardrail

Kee Walk with integrated guardrail provides sturdy handrail support securely attached to non-slip treads for dependable foot traction and balance where roof surfaces are uneven or slippery.

## Kee Cover®

Skylights are considered a hole in the roof - an OH&S safety hazard. The unique construction and mounting design allow the Kee Cover skylight screen to be attached without penetration, maintaining the integrity of the roof and the skylight.

## Kee Guard® for Metal Roofs

Dependable railing for all metal roof types provides non-penetrating safety at the highest level.

## Kee Hatch®

A safety access and railing system designed for secure egress/ingress through a dedicated roof hatch. Railing protection supports safety when the hatch is open. Self-closing gate protects workers when entering and exiting the rooftop.

## Kee Gate®

Provides permanent protection for any openings, ladder/stair access points, roof hatches and restricted areas, where access for roof maintenance is required.

## Kee Step®

When obstacles exist on the rooftop (piping, ventilation systems, partitions between buildings or level changes), Kee Step can be custom designed to provide safe access over those hazards.

## Kee Dome®

A free-standing, modular solution deployed around skylights, roof lights and dome lights, allowing access to rooftops without the hazard of falling through glazed areas.

## Kee Line®

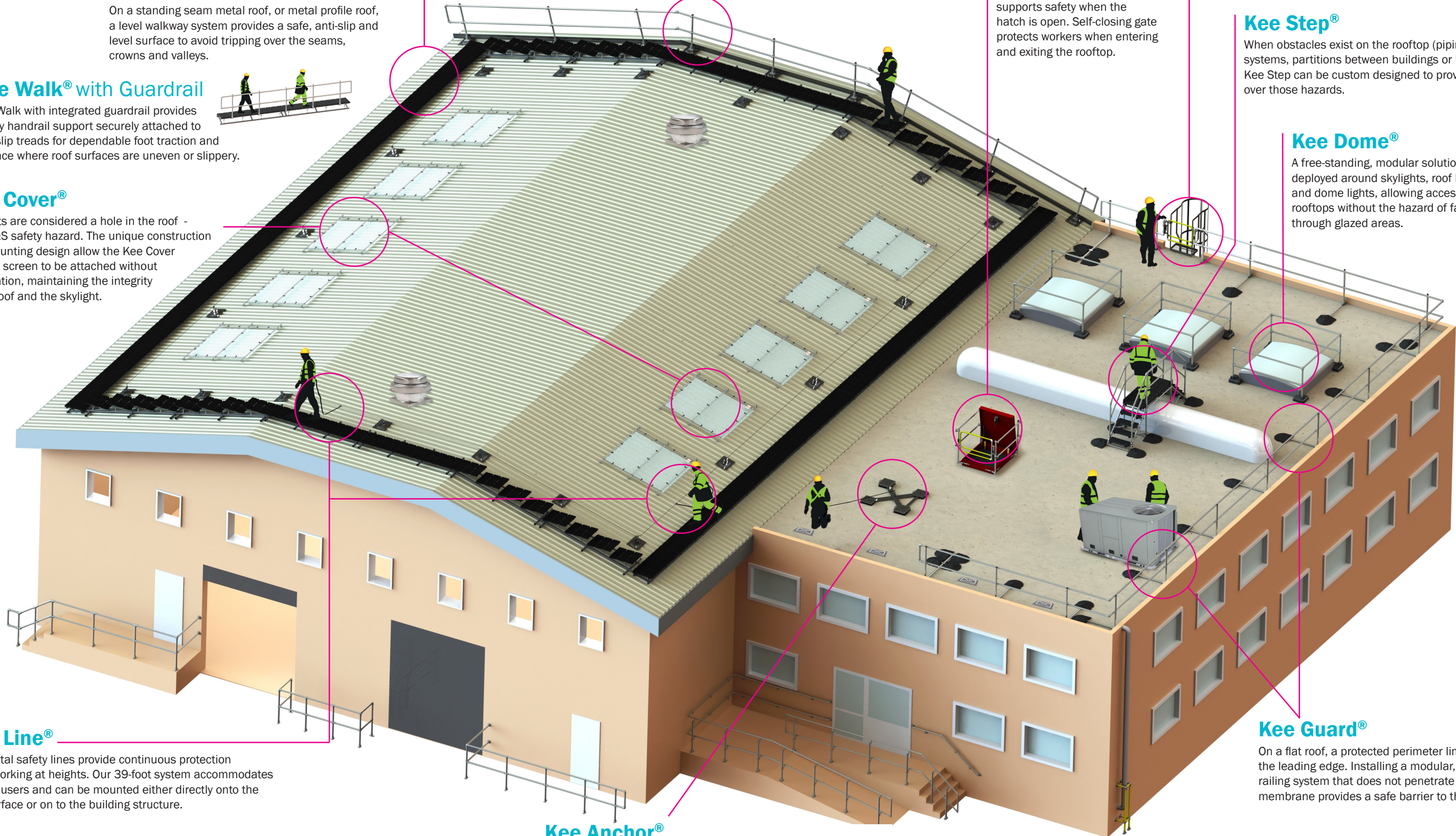
Horizontal safety lines provide continuous protection when working at heights. Our 39-foot system accommodates up to 3 users and can be mounted either directly onto the roof surface or on to the building structure.

## Kee Anchor®

A modular, dead-weight anchor fall prevention system, used with personal fall protection equipment, allows for safe freedom of movement around the roof space.

## Kee Guard®

On a flat roof, a protected perimeter limits access to the leading edge. Installing a modular, free-standing railing system that does not penetrate the roof membrane provides a safe barrier to the roof edge.



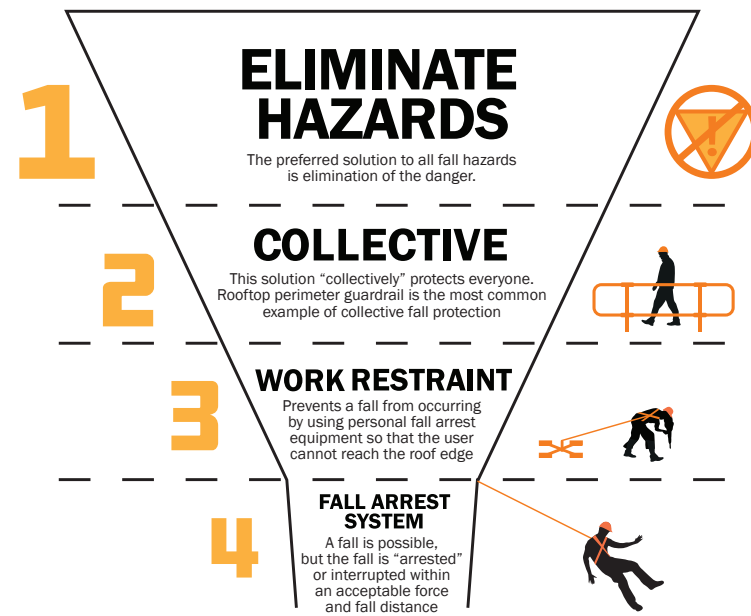
Training may be required for different safety systems. A railing system requires no specialized training; however, a horizontal lifeline system requires that users be properly trained to comply with OH&S and regional regulations.





# Hierarchy of Fall Protection

It's About the Partnership: Depend on Kee Safety to Reduce Risk



Collective Systems require no additional training to use. Work Restraint and Fall Arrest Systems both require a high level of user competency, training and additional inspection to be used effectively.

You have a trusted partner in the field. Our experts walk the roof with you to assess the hazards, and discuss the best combination of products and systems to mitigate the risk of injury to your workers.

Kee Safety, Ltd. uses the Hierarchy of Fall Protection to guide you in this process. Originated by Canadian OH&S regulations, the goal is to expertly evaluate, provide a comprehensive plan, and install a rooftop solution to successfully and safely separate people from hazards.

## Benefits of a Rooftop Safety Audit with Kee Safety

- We provide you with a detailed action plan, prioritizing the areas deemed as "critical"
- Our experts create a customized solution that fits the exact needs of your facility
- Kee Safety fully documents your fall protection requirements for presentation to your peers, upper management, or budget approval board
  - Organizes your budget requests
  - Presents a coordinated plan to inspectors
- Only Kee Safety offers a solution-designed proposal using products that:
  - Will not puncture your roof, cause roof leaks, or void your roof warranty
  - Are third-party tested to meet all Provincial Standards and Territorial Codes
  - Are extremely long-lasting (20-30 year life expectancy)
  - Many products can be easily installed by your crew or local contractor



## Installation

You can rely on Kee Safety and our worldwide network of certified installers to ensure compliance with all major standards and regulatory requirements. Our dedicated technical service team can provide a turn-key solution including on-site analysis, professional installation, advise on project costs and manage deadlines.



## Keep Safety: Your Fall Protection Experts



Kee Safety is the leading expert and global manufacturer of safety and fall protection systems. We are fully committed to Separating People from Hazards.

Established in Canada in 1956, Kee Safety, Ltd. has a proud history of supplying fall protection equipment that exceeds safety standards, providing world-class customer service, and leading the industry in new product development.

## Canadian Centre for Occupational Health and Safety



### When is Fall Protection Required?

[https://www.ccohs.ca/oshanswers/hsprograms/fall%20protection\\_legislation.html](https://www.ccohs.ca/oshanswers/hsprograms/fall%20protection_legislation.html)

Most jurisdictions require the use of specific fall protection measures before, or in addition to, personal protective equipment (PPE). These measures generally include the use of some of the following:

- fixed barriers (e.g., handrails, guardrails)
- surface opening protection (e.g., covers, guardrails, etc.)
- warning barriers/control zones
- fall or travel restraint systems (i.e., a system to prevent a worker from falling from a work position, or from travelling to an unguarded edge from which the worker could fall)
- fall containment system (e.g., safety nets)
- fall arrest systems (i.e., a system that will stop a worker's fall before the worker hits the surface below)

Occupational health and safety laws generally require action when a worker has the potential to fall about 3 metres (10 feet). In most cases, fall protection is required when:

- other means of fall protection are not available or possible, such as guardrails
- working at a height of 3 metres or more (permanent and/or temporary work areas)
- working at a height of less than 3 metres when the surface below could cause a greater injury than just the fall
- a worker may fall through an opening in the work surface
- it is determined that fall protection is necessary

### What are the sources of legislation regarding fall protection?

**Federal [Canada]** Canada Occupational Safety and Health Regulations, SOR/86-304, Sections 12.01 to 12.09

**Alberta** Occupational Health and Safety Code, 191/2021 Part 9, Fall Protection Sections 138 - 161

**British Columbia** Occupational Health and Safety Regulations, B.C. Reg. 296/97 Part 11, Fall Protection, Sections 11.1 to 11.10

**Manitoba** Workplace Safety and Health Regulation, Man. Reg. 217/2006 Part 14, Fall Protection, Sections 14.1 to 14.29

**New Brunswick** General Regulation -N.B. Reg. 91-191 Part VII, Protective Equipment, Sections 49 - 51

**Newfoundland and Labrador** Occupational Health and Safety Regulations, 2012, N.L.R. 5/12 Part X, Fall Protection, Sections 138 to 146

**Northwest Territories** Occupational Health and Safety Regulations, R-039-2015 Part 7, Personal Protective Equipment, Sections 103 to 109 and Part 9 Safeguards, storage, warning signs and signals, Sections 118 to 124

**Nova Scotia** Workplace Health and Safety Regulations, N.S. Reg. 52/2013 Part 21, Fall Protection, Sections 21.1 to 21.4

**Nunavut** Occupational Health and Safety Regulations. R-039-2015, Part 7 Sections 104 to 109, and Part 9, Sections 118 to 122

**Ontario** Construction Projects, O. Reg. 213/91 Sections 26 - 26.9 and Industrial Establishments, R.R.O. 1990, Reg. 851 Section 85

**Prince Edward Island** Fall Protection Regulations, EC2004-633

**Quebec** Regulation respecting occupational health and safety, O.C. 885-2001 Division XXX, Means and Equipment for Individual and Group Protection Sections 347 - 354.1 And Safety Code for the construction industry R.R.Q. 1981, c. S-2.1, r. 6 Division II, General Provisions Sections 2.9.1 to 2.9.3, Safety measures

**Saskatchewan** Occupational Health and Safety Regulations, 2020 Sections 9-2 - 9-5

**Yukon** Occupational Health and Safety Regulation, O.I.C. 2006/178 Protective Equipment and Clothing - Fall Arrest Sections 1.37 to 1.43

### Find more information from CCOHS about fall protection and working at heights:

[https://www.ccohs.ca/oshanswers/hsprograms/fall%20protection\\_legislation.html](https://www.ccohs.ca/oshanswers/hsprograms/fall%20protection_legislation.html)

• Fall Protection - Fall Protection Plan (General): [https://www.ccohs.ca/oshanswers/hsprograms/fall%20protection\\_general.html](https://www.ccohs.ca/oshanswers/hsprograms/fall%20protection_general.html)

• Fall Protection - Travel Restraint System: [https://www.ccohs.ca/oshanswers/prevention/ppe/travel\\_restraint.html](https://www.ccohs.ca/oshanswers/prevention/ppe/travel_restraint.html)

• Body Belts, Harnesses and Lanyards: <https://www.ccohs.ca/oshanswers/prevention/ppe/belts.html>

• Fall Protection - Guardrails: [https://www.ccohs.ca/oshanswers/hsprograms/fall%20protection\\_guardrails.html](https://www.ccohs.ca/oshanswers/hsprograms/fall%20protection_guardrails.html)





**Please contact one of our qualified Fall Protection Experts to schedule a rooftop safety assessment today!**



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