

## **MAINTENANCE & ROOFWORK**



## **AND THE PROVISION OF WORK AT HEIGHT SAFETY SYSTEMS**

## **PROVISION OF SAFETY SYSTEMS FOR MAINTENANCE AND ROOFWORK**

*The “Health and Safety Executive” launched its “Roof Work” campaign in 1992 as a direct result of the average number of workers killed each year from roof related activities reaching 28. Latest HSE statistics for 2010/11 show that the number of workers fatally injured as a result of falling from height was 38, 13 of which were in construction. Figures for last year, 2009/10, were 39 fatalities, 25 of which were in construction. In addition to this, a total of 3,177 people suffered major injuries as a result of a fall from height, 1,028 of them occurring in the construction sector.*

These statistics unfortunately demonstrate that work at height, particularly roof related tasks, are clearly still extremely hazardous so it is important for companies to ensure that there are adequate means of protection for all work at height activities.

### **Assessing the Risks**

Companies have a duty to ensure the health and safety of not only their own employees but also contractors who carry out work on their behalf. This is particularly important when it comes to repair and maintenance work as often there will be a variety of contractors who require access to a roof area throughout the year.

The first step in ensuring safe access is to carry out a risk assessment. This will determine whether work can be changed to remove the risk and, if not, what measures need to be put in place in order to ensure work can be carried out safely. When assessing roof safety you must consider how frequently access is required. According to the HSE, accessing a roof just twice a year is in fact a frequent activity.

Looking at maintenance work in particular, roofs typically house a variety of plant and equipment, all positioned in different areas around the roof. For example, air conditioning plant, emergency lighting, fixed equipment used for window cleaning, flues and filters, electrical, gas and water services, soil pipes and gutters, security equipment and telecommunications. Access may also be required from one plant room to another or for general roof repairs and maintenance purposes. All this will need to be assessed and safe systems put in place to ensure the safety of maintenance workers accessing the area.

Once the risk assessment has been completed, the main priority must always be to provide a safe environment and prevent falls from height. The Work at Height Regulations provide a hierarchy of controls and suggested equipment solutions. Collective measures such as scaffolding, guardrails or safety nets are always a preferred option over personal measures which involve wearing PPE such as harnesses and clipping to an anchorage point or system.

### **Safety Systems**

Access to a roof can often be via a perimeter ladder. Physical forms of fall prevention such as edge protection should be provided on both sides as you step off the ladder onto the roof itself. If the work area/equipment is situated within 2m of the roof's edge, then guardrails should be provided to prevent access to the leading edge. When working up to 2m from the edge, a form of demarcation such as posts and chains can be used in order to clearly identify the area where the work is to be carried out. Unsuitable means of demarcation include bunting, painted lines or any means of demarcation that is not above the surface of the roof as these will be invisible at night and can become covered by snow, moss and algae.

Careful consideration must also be given to working on or near to fragile materials such as rooflights. With over a quarter of deaths being as a result of falls through fragile materials, these areas must be identified and entered into all health and safety documents so that those involved in work on the roof are aware of where the risks lie. Where possible a safe working platform should be provided along with safe access to the area where work is to be carried out. This may be in the form of guardrail to ensure those passing near to fragile material cannot fall through it or safety covers fitted to rooflights themselves. For larger areas, crawling boards or plastic walkways which can support the weight of a person would be suitable.

When infrequent access (less than once a year) is required beyond the safe area, equipment such as a Mobile Man Anchor can be used. This type of equipment is ideal for annual inspections and the odd emergency repair but should, whenever possible, only be used as fall restraint, preventing the user from reaching the leading edge.

When it comes to industrial clad roofs, particularly those with sheet asbestos on the roofs, fixing a system through the roof is not often possible. In these cases, portable structures such as a mobile valley frame enables safe maintenance of the roof, valleys, northern lights and box gutter details.

All roof safety systems are totally reliant on the worker using the equipment correctly. Before you allow anyone on the roof to carry out maintenance work, you must ensure that they have had the relevant information, instruction and training. If fall arrest or restraint systems are being used make sure that operatives know how to use them properly, including how to wear, adjust and inspect the harness. Always ask to see training records for those accessing the roof to check that they are competent to carry out the work.

### **Further information**

Work at height is covered by several areas of legislation, guidance documents and codes of practice, in particular:

- HSG 33 (Revised) Health and Safety in Roof Work
- Construction (Design & Management) Regulations 2007
- Work at Height Regulations 2005
- Management of Health and Safety at Work Regulations 1999
- Workplace (Health, Safety and Welfare) Regulations 1992
- BS8437:2005 Code of practice for selection, use and maintenance of personal fall protection systems and equipment for use in the workplace
- BS8454:2006 Code of practice for the delivery of training and education for work at height and rescue.