

Working in Windy Conditions



Toolbox Talk

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Winds & Scaffolding

Carrying out any construction activity in high winds can make the task more hazardous, but windy conditions are of particular concern for scaffolding and work at height.

Handling scaffold components, particularly longer lengths of tube, boards or sheeting presents a risk not only to those involved in the activity but also to others in the area below, including other workers on site and even members of the public.



Additionally, partially constructed or inadequately tied scaffolds can present risks that can, with some forethought and pre-planning, be very easily prevented. For this reason, adequate risk assessment processes and adherence to industry guidance are vital.

UK Windstorms

Since 2015, there have been a total of 41 named storms to hit the UK, and each has had the potential to cause serious, if not devastating consequences.

In each storm, mean wind speeds averaged 39mph, though gusts exceeding 100mph were recorded. The Met Office describes the wind strength relative to observations such as 'falling trees or tiles and other items like garden furniture being blown around'. So clearly, these are weather systems with the potential to impact the activities of those working on the UK's many construction sites.

Stability of Scaffolding

Two primary industry guidance documents centre on the stability of scaffolds and these are:

- ❖ TG20:21 – 'A Comprehensive Guide to Good Practice for Tube and Fitting Scaffolding'
- ❖ TG4:19 – 'Anchorage Systems for Scaffolding', available for download via the [NASC website](#).

Each of these standards provides many different methods of ensuring scaffold stability. TG4 concentrates primarily on the use and installation of drilled masonry anchors, whereas Chapter 7 of TG20 provides details of many of the principles of ensuring scaffold stability and methods of doing so.

Although TG20:21 is aimed at tube and fitting scaffolds, the principles it contains can often be applied to systems scaffolds, but reference should also be made to the manufacturer's instructions.



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Scaffolds designed and erected in accordance with TG20:21 will withstand the very worst conditions brought about by the UK's weather systems.

Wind-Blown Materials

All too often – news channels refer to the fact that scaffolds have collapsed or overturned because of high winds, but this is rarely the root cause. It is far more likely that the wind has exposed inadequacies in the way the scaffold was anchored.

Risk Assessment

Many employers will cover weather conditions in their risk assessments, and this should identify an individual who is authorised to suspend work when weather conditions make the level of risk intolerable. Usually, it will be the Chargehand, Fireman or another designated individual.

This individual is best placed to make a safety-based decision as wind speeds can vary significantly in different parts of the same town and even in the same location. Wind speeds measured at ground level can be 50% greater, when at height! Risk Assessments should consider:

- Is the scaffolding structure stable?
- Are materials being handled that could be windblown?
- Is the work in an area with a wind tunnel or funnelling effect?
- How high off the ground is the workplace?
- Is the wind at a lower speed nearer to the ground?
- Can work be undertaken on the leeward side of the building?

Is there a Safe Level of Wind?

No!

There are no hard and fast rules as to when work at height should stop in windy conditions, but winds over 25mph can cause a loss of balance, so this level is a good indicator of when general work may become unsafe.

Some sites suspend all work at height when cranes are winded off, and as a rule of thumb, if the crane isn't working, scaffolders shouldn't be either!

They recommend that towers should be dismantled. However, there are no definitive levels for other types of scaffolding activity.

Storage of Materials

The storage and use of scaffold materials during high winds can also be problematic as the wind can pick up and move heavy objects such as scaffold boards and can cause leaning scaffold tubes to become dislodged.

For this reason, it may be necessary to secure unused materials to the structure and to make sure the runs of scaffold boards that aren't tied are secured using a light line or proprietary board securing clamps, such as those shown below taken from TG12.

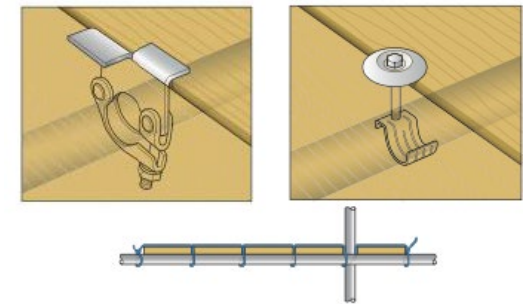


Image courtesy of NASC

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Feedback:

Briefing Acknowledgement

Name	Date	Signed