

Understanding Chimneys, Brickwork Moisture & Water Saturation

Helpful information for homeowners: Chimneys are one of the most exposed parts of any property. Because of how they are built and where they are positioned, they behave very differently to modern walls and roofs. This information is provided to help homeowners understand how chimneys manage water and why moisture can sometimes be seen internally, even when repairs are in good condition.

How Chimneys Are Built

Most traditional chimneys are constructed from solid brick and mortar, often many decades old. Unlike modern cavity walls, chimneys:

- Have no cavity
- Have no damp-proof membrane
- Are designed to absorb and release moisture naturally

Brick and mortar are porous materials, meaning they can take in small amounts of water and then slowly dry out again. This is a normal and expected characteristic of traditional masonry.

What Happens During Prolonged Wet Weather: During periods of heavy or persistent rain — particularly in winter — a chimney can absorb moisture faster than it can release it. This is known as chimney saturation.

Factors that increase the likelihood of saturation include:

- Long periods of rainfall with little drying time
- Wind-driven rain hitting the chimney from multiple directions
- Cold temperatures slowing evaporation
- Older or more weathered brickwork

Once a chimney becomes saturated, moisture can be held within the structure for weeks or even months.

Why Moisture Can Appear Inside the Property: When a chimney is saturated, the moisture it has absorbed must eventually escape. This can happen:

- Through the external face as the weather improves.
- Or internally, following gravity and the easiest path out

When chimneys were originally built, they would have had consistent heat flowing through them (open fire etc.) which would improve the rate of water escaping externally. But now many chimneys are built for a different purpose which unfortunately exacerbates the saturation.

This internal moisture can appear as:

- Damp patches
- Staining
- Salts forming on internal walls

Importantly, this can happen after rainfall has stopped and even after repairs have been completed, which can make it appear as though there is an ongoing leak when there is not.

What Chimney Repairs Do: Chimney repairs such as:

Lead flashings

Full re-builds or Re-pointing

Chimney head or flaunching repairs ; Are designed to address known failure points and prevent direct water ingress where defects exist. When correctly installed, these repairs do exactly what they are intended to do — they stop water entering through joints, cracks, or failed details. However, these works do not make the chimney waterproof, and they cannot remove moisture already stored within the masonry.

Why Moisture Can Reappear Years Later

Even many years after repairs:

Exceptional weather conditions can cause renewed saturation

A chimney can absorb water simply due to its exposure and age

Internal signs of moisture may appear during unusually wet periods

This does not mean the previous repairs or re-build have failed. In many cases, inspections confirm that all repaired elements remain sound and intact.

Guarantees – What They Cover

Our guarantee covers:

The quality of workmanship

Materials supplied and installed by us

Failure directly related to the works carried out

Our guarantee does not cover:

Moisture held within the chimney structure

Natural drying-out processes of masonry

Weather-related saturation

Age-related porosity of brickwork

Condensation or flue-related moisture

Where an inspection confirms that our works remain in good condition, any moisture present is considered part of the natural behavior of traditional masonry, rather than a fault with the repair.

Can Chimneys Be Guaranteed to Stay Completely Dry?

Unfortunately, there is no way to guarantee that a traditional masonry chimney will remain completely dry without removing it or fundamentally altering its structure.

There are optional preventative measures, such as breathable water-repellent treatments or chimney cowls, which can help reduce water absorption. These can be discussed if appropriate, but they are enhancements rather than guaranteed solutions.

Our Approach

We aim to be open, fair, and professional always. If concerns arise, we are always happy to inspect and explain our findings clearly.

If our works are confirmed to be in sound condition, moisture caused by chimney saturation falls outside the scope of any workmanship guarantee.

We're Always Happy to Help

If you have questions or would like further advice, please feel free to contact us. Understanding how chimneys behave helps avoid unnecessary worry and ensures realistic expectations over the life of the property.

Brickwork Saturation Beyond Chimneys

While chimney stacks are particularly prone to moisture saturation due to their height and exposure, **brickwork saturation is not limited to chimneys alone**. Any external masonry can absorb water during prolonged or wind-driven rainfall, especially where walls are highly exposed, older in construction, or built using traditional solid brickwork without cavities or damp-proof membranes.

Common areas affected can include gable walls, parapets, dormer cheeks, party walls, and brickwork above rooflines. In these locations, moisture can be absorbed into the masonry during extended wet periods and later migrate internally, sometimes appearing as damp staining or patches well after rainfall has stopped. As with chimneys, this behaviour is a natural characteristic of porous brick and mortar rather than an indication of defective roofing or external works, provided those elements are found to be in sound condition.