



## Log Cabin Base Preparation

The successful installation of your log cabin and indeed the longevity of your cabin, will largely be dictated by the base on which the cabin sits.

When a shed is built, usually the floor goes down first, and then the walls are built on top of it, distributing the load across the entire floor. However, when a cabin is built the walls are built first (sitting on top of the floor joists), followed by the roof and the floor is laid last. The floor boards are nailed in place to each floor bearer but aren't load bearing, the cabin walls bear the entire load of the cabin. The weight is concentrated around the perimeter of the cabin; so the base should be laid with this in mind.

Particular care must be taken when constructing a base to ensure the edges are capable of supporting upwards of 2 - 3 tonne in weight; the edges should be strong and sturdy, and not chipped or crumbling.

If a concrete base is being constructed, the wet concrete should be compacted tightly against the shuttering to ensure there are no gaps or large pockets of hardcore, and you should ensure that the cement has seeped in between the hardcore to provide a strong bond.

## Log Cabin Base Materials And Footprint

Your base may be constructed by forming a concrete slab, either with "ready-mix" concrete or by mixing the concrete yourself. The poured concrete must sit on a good layer of compacted hard-core, and the concrete must be poured to a minimum depth of 100mm.

We suggest that if a concrete slab is poured, a damp proof membrane is positioned under the concrete. A layer of sand will need to cover the hard-core to prevent any puncturing of the damp proof membrane when the concrete is poured. This will prevent damp soaking up into the slab and potentially into the bearers of the cabin. Further to this, we strongly suggest a concrete base is formed so that its size extends to the outer face of the walls.

Alternatively concrete slabs may be used. Preparation for a slab base must include a good layer of compacted hard-core, a dressing of sharp sand over this, and the slabs must be cemented in place using either a wet or dry mix. **If in any doubt consult a suitably qualified tradesperson.**

Whatever system is employed, **it is CRITICAL the base does not run out of level by more than 10mm end to end, is square, and solid, with no possibility of slump or movement.** Therefore it is important the ground is also properly prepared prior to base installation by levelling and removal of all loose soil and replacing with a compacted layer of hard-core. Timber frame bases are ideal if the ground falls away in any one direction as they can easily be raised using timber uprights concreted into the ground in the required locations.



Concrete base running out of level by more than 10mm.



Base substrate not a solid material making the base unable to support heavy structures.



Slab base has a water run-off allowance making the base run out of level by more than 10mm.



Slab base running out of level by more than 10mm.



Slab base perfectly level across both the width and depth.



Slab base perfectly level across both the width and depth.



Concrete base not running out of level by more than 10mm in both the width and depth.

## Suggested Cabin Base Size

Cheviot/Charentes	4m x 5.5m
Mendip/Sancerre	4m x 5m
Harlech/Augusta	5.2m x 5m
Abberley/Alsace	3m x 4m
Chiltern/Ventoux	3m x 4m
Alderley/Virginia	3m x 4m
Melbury/Romanee	3m x 4m
Wrekin/Malborough	3.5 x 4.8m
Pickering/Seddon	2.8m x 4m
Ripon/Renwick	2.8m x 4m
Nevis/Rutherglen	4m x 4m
Buxton/Aquitaine	3m x 4m
Malvern/Southern	3.6m x 3.6m
Wenlock/Adelaide	3m x 3m
Bradnor VBRA282222/Auvergne	2.21m x 2.21m
Bradnor VBRA283025/Auvergne	2.5m x 3m
Harwood/Provence	2m x 3m
Woodbury/Valencia	4m x 7m
Kimbrely	3.5m x 4.8m

# The Importance Of A Level Base

All of our log cabins have been manufactured with the use of cutting edge technology, utilising high precision engineering machinery to mill the timber. The logs are designed to interlock perfectly to prevent water and wind ingress. Due to the way the logs are stacked on top of each other and interlock there is little, if any room, for tolerance. The cabin can cope perfectly well withstanding any vertical force, but will not cope trying to withstand lateral forces if the base isn't level.

For instance, a builder constructing a patio will factor in a slope to help with water run-off. If a cabin is subsequently built on this patio it will be subjected to the lateral forces of gravity pushing it in the direction of the slope. This will make it difficult to install the cabin, causing the logs to buckle and warp and the roof to twist.

It is therefore imperative that any base is **completely level** from edge to edge and corner to corner, if it slopes by any more than 10mm between these points then the following problems can be encountered:

- The logs will not interlock as they will twist and warp.
- There will be a noticeable gap between the top logs and the roof caused by the cabin twisting towards the direction of the slope.
- The doors and windows will not sit flush and square in their apertures, preventing them from opening and closing properly.
- The floor and roof boards will not sit square to the cabin walls; this will be very noticeable to the naked eye.
- As the cabin expands and contracts throughout the seasons, the logs will inevitably split and crack, the warping and twisting will be more pronounced and gaps will appear between the logs and joints causing water and wind ingress. This will gradually become worse as each season passes.

**If you require any further information on installing a base for you cabin please contact our technical team on 0333 777 7089.**

