

Thank you for specifying Shou Sugi Ban® for your project.

A Guide to Installing Shou Sugi Ban

INTRODUCTION

As a premium product, we recommend installation by competent carpenters or cladding specialists.

Please note: This is a bespoke product, manufactured to your exacting requirements. The charring process enhances the durability of the timber, yet it requires careful handling during storage and installation. Please treat it with respect.

We manufactured your order to the exact dimensions requested, which should minimise the number of cuts that need to be made. However, we have supplied a tin of specialist finish to treat ends on-site when lengths are cut.

A quality inspection of the timbers was undertaken before delivery and we advise you to do the same before installation begins. Please keep separating membranes in place until installation.

This is a natural product and there will be variations in grain shape, knots, and tone, even along the same plank. This is perfectly normal.

It is not advisable to re-engineer or alter Shou Sugi Ban® timbers with chemical treatments or re-burning. If the timber is handled with care, there should be no reason to alter the timbers.

When storing timbers, please ensure the area is dry. Protect the wood from the elements and potential causes of damage, for example from knocks and scratches.

Please only use stainless steel fixings, and if surface fixing, we can supply colour-tipped screws to match your timbers.

SHOU SUGI BAN® - HANDLE WITH CARE

- **Ensure at least two people carry the** timber planks to keep them flat and stable. This avoids damage to the face which can occur when the planks bend, slip, are knocked or dropped.
- **Lift the timber planks**, do not slide the timber as this can damage the charring.
- **Never slam, drop or toss down** the timber as this will cause the carbon to chip off and the finish to become **fragile**.
- **Carefully remove the packaging** when the cladding has been delivered and **take extra care** when re-stacking. The timber is freshly charred to your specifications and needs air to fully cure. Until cured, it is fragile and waxy in texture, not wet.
- **Store exterior cladding outdoors** in a protected position, out of full sunlight and always cover with a waterproof sheet once restacked.
- If the charred cladding is for interior use, it should be **stored for 2-4 weeks** to season.

HOW TO INSTALL SHOU SUGI BAN®

Shou Sugi Ban® is suitable for internal and external cladding. We recommend installation on a batten frame, within a ventilated system to enable air to circulate behind the cladding boards. This removes rainwater and condensation and optimises the performance of insulation.

The installation system typically comprises insulation, membrane, battens, counter battens and cladding. The Architect or Structural Engineer will specify the materials used for each layer.

Insulation

Rigid insulation is most often specified.

Are you fixing your battens directly to the insulation? If so, it is advisable to attach a sheet of construction material, such as Sterling or Medite Tricoya Extreme® board, over the insulation. This provides a robust surface for fixing your battens.

Membrane

The next layer is a breathable or non-permeable membrane. UV membrane is recommended for open-jointed cladding.

Battens

In all cases, battens should be treated to UC3 with cut ends treated on-site. Please ensure the batons allow sufficient space behind the cladding for ventilation and drainage. Fixing is dependent on the desired direction of cladding boards.

- **Horizontal cladding** - fix 38x50mm batons at the recommended spacing of 450mm centres.
- **Vertical cladding** - fix 45x45mm a first layer of batons to run vertically at 600mm centres with fixings every 500mm. Then attach a layer of counter battens, running horizontally at 450mm centres, to vertical battens.
- **Diagonal cladding** or bespoke designs - the baton installation needs to be planned and approved by a cladding specialist.

Cladding

We manufactured your order to the exact dimensions requested, which should aid installation and minimise handling.

We recommend fixing the cladding at 450mm maximum centres.

Leave a min 2mm gap around each board to allow for expansion and contraction. A smaller gap of 1.5mm is acceptable when installing Accoya® or Kebony modified timbers, as they are more stable.

Mitred corners are less stable, so we advise using a corner detail or butt joint.

Only use stainless Steel fixings type 304 for general installation or 316 near coastal areas. We can supply painted heads to match the colour of the timber.

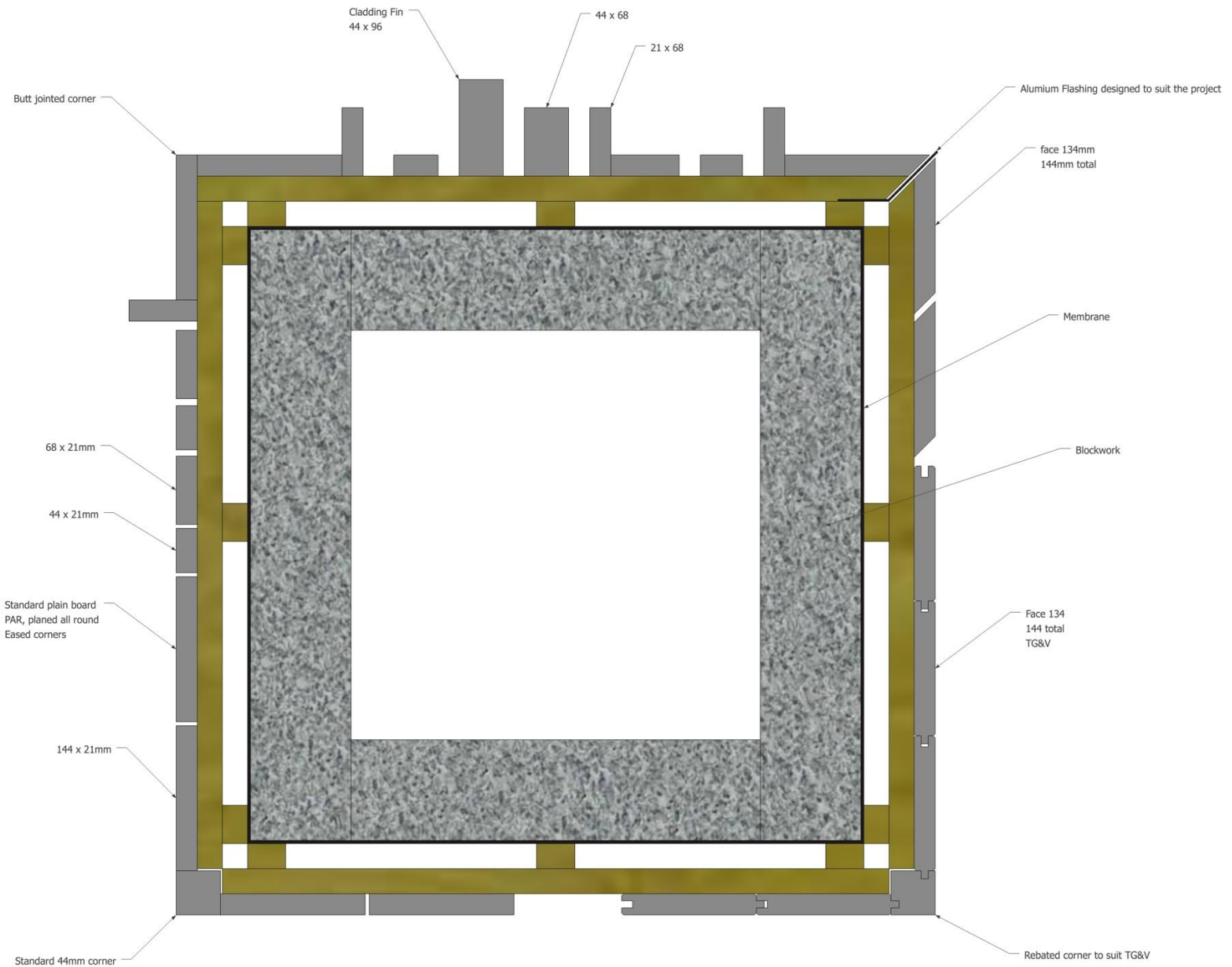
Position screws 25 - 50mm from the edges to minimise the risk of splitting of the boards.

The screws should drive into the batten 2½ times the thickness of the cladding board.

Allow 6mm to 10mm drainage gaps on corner profiles, ends and sides.

Make sure the lowest cladding plank sits 200-250mm above ground level to avoid damage caused by saturation in surface water. We suggest applying gravel below the cladding to aid drainage.

If you have any questions or queries, please don't hesitate to call us on
[01494 711800](tel:01494711800)



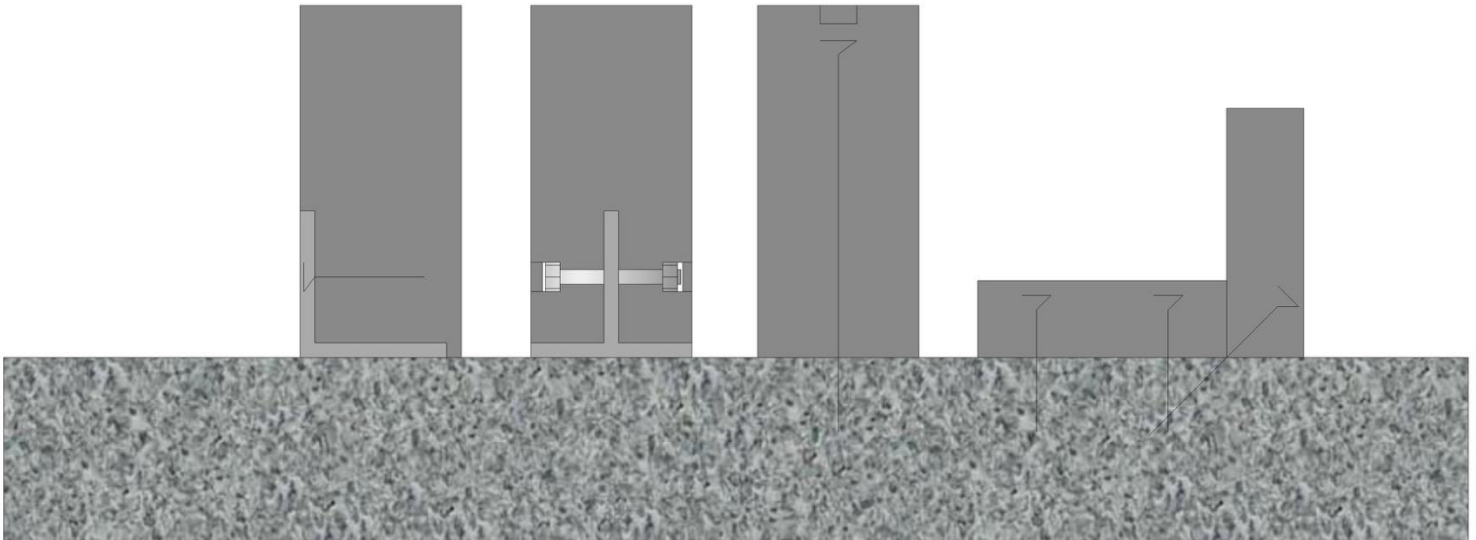
This illustration shows a variety of cladding applications, dimensions, profiles and gapping, including fins and protruding timber sections. It is intended as a guide.

The actual system used must be designed to the specific project requirements and be compliant with building standards and regulations. The strength of the entire system must always be checked by a licensed Structural Engineer.



Timber Fins

Several fin arrangements are used in construction. Be aware that it is not always appropriate to fix the fin without additional support. This is because simple fixings are not up to the task of maintaining the structure by restricting the movement of timber.



This illustration shows a selection of fin installation techniques. Here a steel section mounted to the building provides the primary structure, to which the cladding fin assembly can be fixed. This prevents excessive movement in the timber. Consult a Structural Engineer to provide the calculations for your design.

If the project requires a smaller fin detail, where 21 x 68-dimension material is used, then stainless fixings are usually appropriate. Accoya® and Kebony® are the most stable of all timber products and can normally be constructed with a small steel section for fixing. Cedar, Larch, Douglas Fir and Oak require larger steel sections to limit movement. Again, the solution used should be approved by a licensed Structural Engineer.

Exterior Solutions Ltd accepts no responsibility for damages caused by inappropriate storage, installation or treatments to our Shou Sugi Ban® timbers.