Bamboo Technology & Innovation
Germany since 1994

Assembly instructions aMbooo decking board

Dear ladies and gentlemen,

By buying our bamboo decking boards you have chosen a GS quality product, and here we would like to give you a few tips about their installation and care so you can enjoy them for a long time.

Please pay attention to the following instructions in order to manage a successful installation and while planning and executing your project be careful to observe local building regulations as well as known guidelines such as "Technical Rules 02 BDZ and Recommendations of Use for Decking Surfaces by the German Timber Trade Federation". In the case of static load surfaces such as balconies and elevated terraces any modified materials should only be used once they have been approved by a structural engineer. If a construction project diverges from the specifications set out in the installation instructions and technical rules, the construction must be approved by the manufacturer, otherwise all guarantees are null and void. All materials should be stored safely from the time of delivery up to and during installation in order to prevent any damage to the goods.

The decking boards are pre-oiled at the factory. Once the installation has been completed, the surface should be given initial treatment using the appropriate aMbooo Special Bamboo Care Oil to achieve optimal protection from weather incidence. If this initial care is not carried out it could be that under certain conditions the decking surface is not sufficiently protected from weather incidence and any eventual occurrences of material change may be more severe than normal. Please be careful to observe the recommended application quantity of aMbooo Special Bamboo Care Oil and to stir the container well before use. Too great a quantity causes a strong film build-up which may lead to drying issues and flaking. For this reason the care oil should always be applied in thin coats and any wet spots or oil excess cleaned up immediately.

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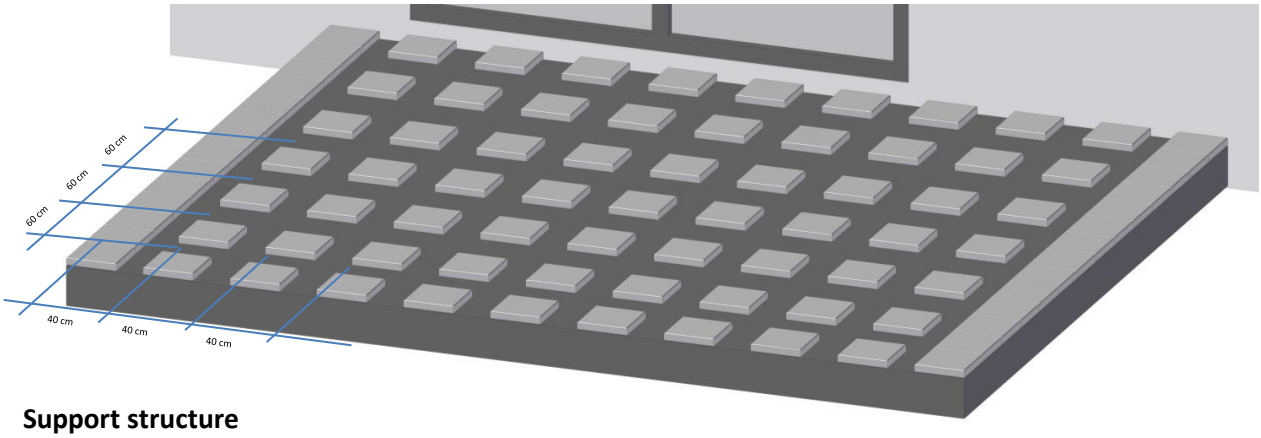
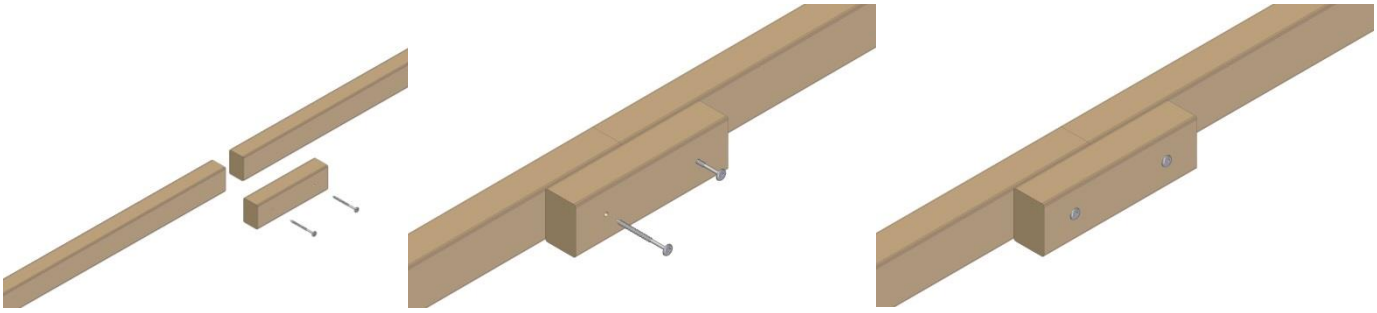
Substructure and Foundation

The substructure should consist of a sufficiently compacted ground mass permeable to water. The optimal solution is a layer of gravel fill with circa 5 cm of stone chippings. Stagnant water must be avoided. Following this, a vertical root control fabric should be put down. The substructure should reflect a 2% inclination running in the decking boards' longitudinal direction (i.e. a 2 cm height difference every 1 m). This substructure then receives the foundation comprising, for example, paving stones 25 cm x 25 cm. The outer rows can be completely covered, however the front side of the decking should provide the possibility for sufficient water drainage and ventilation. This extends the decking's useful life. The paving stones should have a maximum spacing of 40 cm in breadth and a maximum spacing of 60 cm in support structure beam direction from mid-paving stone to mid-paving stone when the support structure beams are placed upright and a maximum spacing of 40 cm in support structure beam direction when the support structure beams are placed flat.

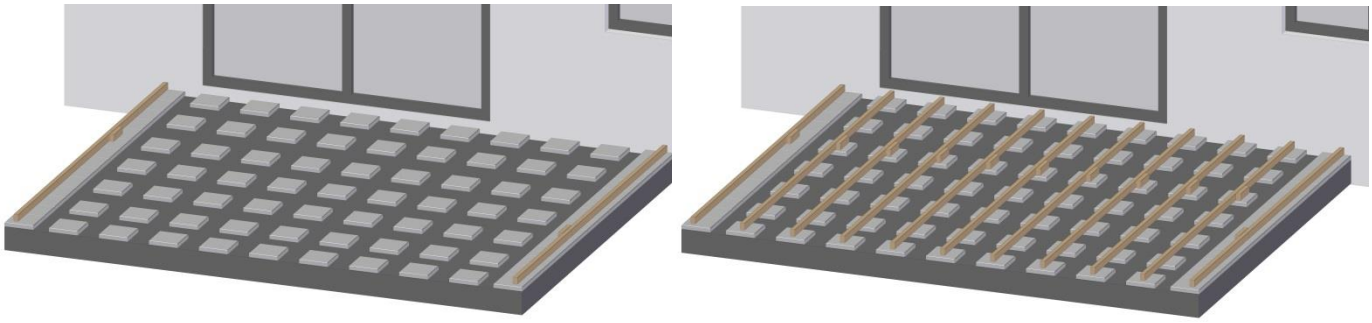


Support structure

In order to achieve the desired length for the necessary support structure one can join the original support beams' length 4 x 6 x 220 cm to the required extension length. For the joint, cut a circa 20 cm long connecting piece and bore at least two holes then screw fast both support structure beams to the connecting piece. Use screws of at least 4,5 x 70 mm. One can also screw the support. structure beams together offset one to the other. Extended support beam lengths must always be screwed firmly together.



The outer support beam should be mounted circa 6 cm within the outer edge of the paving stones. All other support structure beams should be placed in the middle of the paving stones and fixed in place with brackets. A spacing of at least circa 10 mm from house wall or other structures must be observed.



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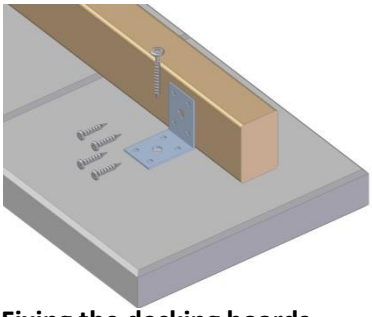
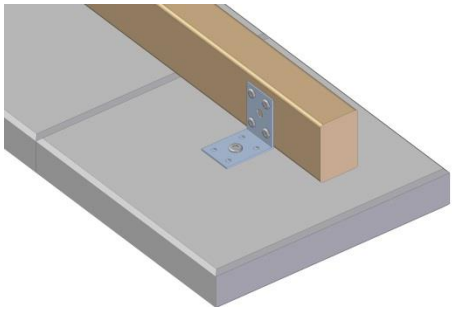
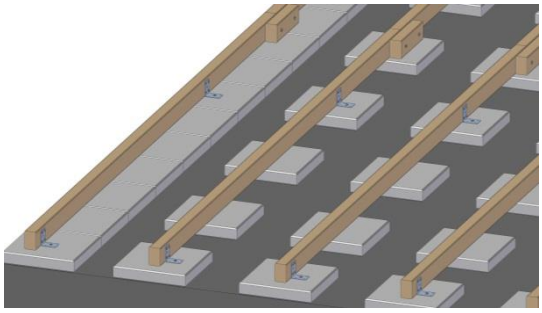
Fixing the support structure

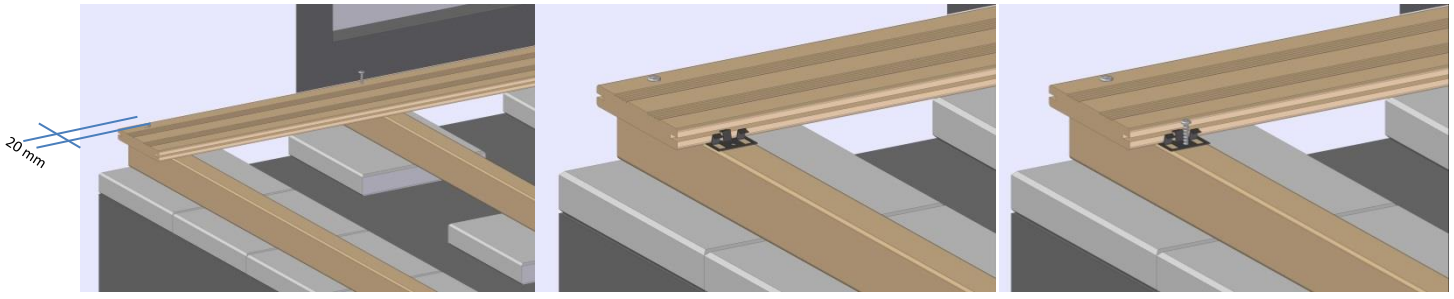
All support structure beams must be fixed to the paving stones at least three times (front-middle-rear) in order to attain a sufficiently torsion-resistant decking. For this one should use stainless-steel screws and metal brackets 35 x 50 x 50 mm. For roof decking or similar substructures one should additionally mount cross members/splices to attain the appropriate degree of torsion resistance. The installation clearance between support structure beams should be a maximum of circa 40 cm when laying the decking boards in parallel fashion. When boring screw holes one should be careful to always keep the screw holes 0,5 – 1 mm smaller than the size of the screws to be used. This is valid for all the following work steps. Screws should always be screwed and tightened in place in one go (i.e. without pause/withdrawal).

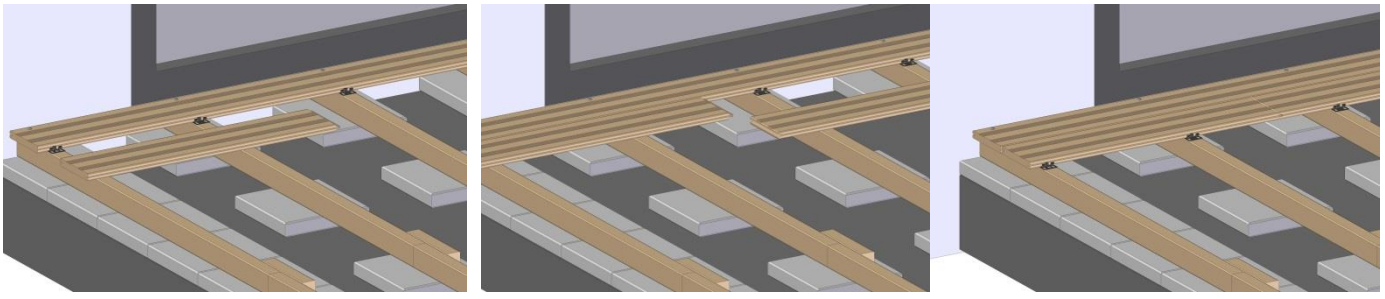
Fixing the decking boards

The first decking board should have a clearance of 20 mm from all adjacent structures. The lateral overhang to the support structure beam should be no greater than 30 mm. Bore screw holes in the decking boards at each joining point to the support structure and pre-screw the decking boards with V2A screws 4,5 x 50. Following this, place the clips with the screw hole to the front on each substructure element and screw each clip fast. The decking board spacing is defined by the clips.

When planning one can observe the following calculation:
25 boards 139 mm wide + joint 5 mm = 25 x 144 mm » 3600 mm decking depth
25 boards 140 mm wide + joint 5 mm = 25 x 145 mm » 3625 mm decking depth
18 boards 200 mm wide + joint 5 mm = 18 x 205 mm » 3690 mm decking depth
The length of the support structure is defined by the desired decking depth.



For the second row of decking boards cut the decking board in such a way that the board lies on at least two support beams. The same must be done for the last decking board on the other side of the decking. Insert the complete row of decking boards into the clips and screw the clips firmly to the support structure beams.



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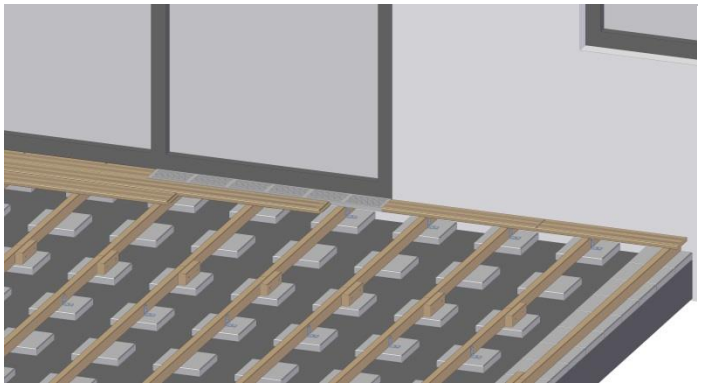
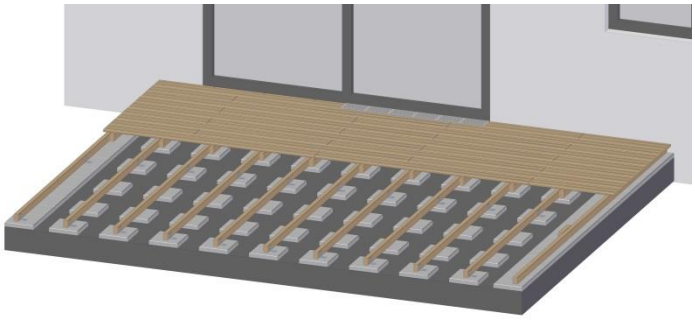
Tips for laying the decking boards

In the case of doors opening onto a decking one should check if it is necessary to install an extra rain gutter. This is necessary when the decking lies at the same level as the adjacent living space. According to present guidelines, the decking should lie at least 150 mm lower.

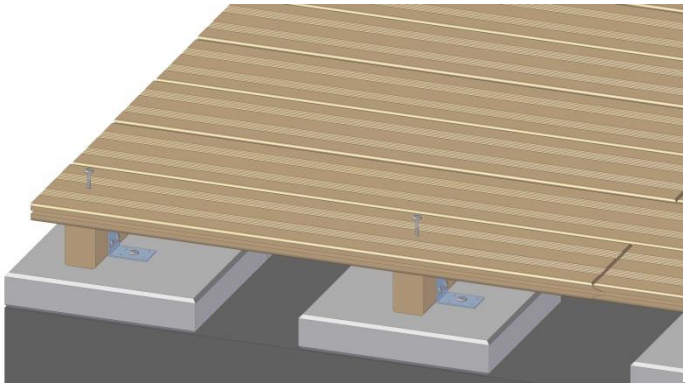
Lay the remaining boards as in the steps described above. It is possible to execute the butt joints in regular order or freely patterned. The important thing is that each decking board should lie on at least 2 support structure beams. Impact on the support structure beams should however be avoided.

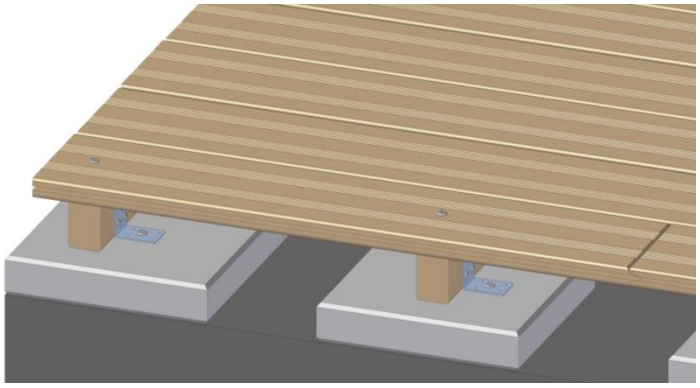




Fixing the last decking board

The last decking board is inserted into the clips of the previous row of decking boards and further to this visibly screwed fast to the support structure beams. The overlap to the support structure beams should be circa 30 mm. In this way the outer trim panels on the front edge of the decking can be fitted neatly. The trim panel is set back circa 10 mm. If desired it is possible to cut off the joining groove of the last decking board.





Installing trim panels

Cut circa 58 mm wide pieces from the decking boards and pre-screw the boards to the support beams. Then fix the decking boards to the support beams with V2A screws 4,5 x 50. Sufficient air circulation under the decking boards should always be assured in order to avoid damp accumulation and warping.