



Installation guide



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WΛW™

COMPOSITE DECKING

INSTALLATION GUIDE

SmartBoard deck fitting instructions

Read all of this manual before you begin laying the boards. Following the installation and maintenance instructions below will determine the longevity and warranty of your product. This notice provides general installation cases. For cases of use or implementation not provided in this document, the responsibility shall remain with the owner. WAW LTD reserves the right to refuse any claim in this case.

Principle

Decking boards should always be laid on linear elements called «joists» to which they are fastened. These joists must be stable and intended for an outside deck. The boards will not be joined across their width or at their ends. Expansion gaps must be accounted for when planning deck installation.

The deck itself (all the boards and joists) is laid on a level and stable base: concrete slab, timber or steel joists, polymer or cements blocks, to which it is attached.

Limits of use

SmartBoard planks are non-structural coverings for pedestrian use, with a limited elevation in regards to the finished floor and that can bear an evenly distributed heavy load for only a short period. Heavy loads for longer periods must be perpendicular to the boards' bearers (joists), sized accordingly. In conformity with the DTU 51.4, this product is not recommended for installations higher than 40 cm above the ground (walkway, balcony).

We do not recommend using it inside. Most specifically, composite products are not suitable for confined places that are exposed to strong variations of temperature, such as saunas.

We advise not to sunken or enclosed the deck. If necessary, always allow airflow by using larger gaps and air vents. As for layouts of pedestrian accesses (paths, walkways, etc.), lay planks perpendicular to the step, notably in public areas.

Although the materials that the planks are made of are waterproof, we recommend preventing water from getting underneath and stagnating when in contact with part of the installation. The installation should very little be exposed to sun. Exposure facing north or under shady trees promotes the growth of moss or mould that is likely to compromise the durability of the work. In this case, account for a maintenance periodicity accordingly.

Conditions prior to installation

1. The boards will reach the vicinity of the building site in their packaging 72 hours prior to installation to allow proper stabilisation. It is recommended that the boards not be stored in bright sunlight, even temporarily. You should not proceed with the installation if temperature is below zero.

2. Using joists requires a ventilation space between the boards and the bearer (usually ground level in regards to the bottom side of the board). This ventilation space must be open all around to allow sufficient air renewal. If no ventilation space is accounted for, the life expectancy of the installation will be reduced and the warranty of the product will be obsolete. Once laid, the boards must never be in direct contact with the ground (grass, dirt floor, screed...). Only use joists and materials that are recommended by the factory.

3. Variations in temperature and humidity lead to variations in the sizes of the boards, therefore sufficient gaps must be accounted for between the boards (sides and ends) at the edges of the deck, along the walls and near any fences, gates and trees, and around any equipment or structure included in the deck surface.

4. A proper installation will influence the life expectancy of the product as well as its factory warranty. Make certain you check the entire surface to be installed as well as each board when unpacking. Do not install boards that show clear defects or are non-compliant. Installing the boards implies that the client has agreed to the building site's conditions and to the product. We recommend resorting to an expert and having a team of at least two people to carry out the installation of the boards. The composite deck boards must not be used to build columns, shelves, joisting or any other load-bearing structure. In this case, the warranty is non-applicable.

Bases capable of bearing the joists

1. The substructure must be levelled and capable of bearing the loads involved in the decking process (please refer to DTU 51.4).

2. If installing over polymer or cement blocks, the bare floor must be stabilised, devoid of any plants and must maintain its bearing capacity in a uniform way over time (minimum bearing of 2 bars). If needed, a barrier can be laid over the bearer to prevent plants emergence. The bearer must remain clean, stable, devoid of bumps, with a 1 to 2% slope allowing a natural flow of rainwater. Aluminum or wood joists can be laid on studs provided that the distances between studs and the sections recommended by the DTU 51.4 are respected. The surface of the terrace should not be raised more than 40 cm from the surrounding soil surface.

3. It is preferable to use aluminium joists. Long-lasting solid timber joists can also be used. The gap between the joists will depend on the type of use of the terrace (see table below). The recommended spacing is 400mm.

4. The use of planking can be private or public. In France, a domestic decking must withstand a distributed load of 1.5 kN / m² and a concentrated (localized, point) load of 2 kN. In a public place likely to receive large crowds these values are respectively raised to 5 kN / m² for the distributed load and 5 kN for the concentrated load. The installation of significant localized loads is to be avoided unless these loads are positioned on additional joists and wedges allowing a transfer of their mass to the support slab.

5. The following table summarizes spacing requirements for joists (measured at the center line) for SmartBoard planks. The installation will always be carried out on 3 supports at least. Laying on 2 supports only is to be avoided.

Category of use according to NF EN 1991-1-1	Correspondence	Distributed load - Qk (daN / m ²)	Concentrated load - Qk (daN/m ²)	Joists spacing (cm)
A	Floor	150	200	40
C1	Premises with tables	250	300	30
C5	Premises that can receive large crowds	500	500	25

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Installation of aluminium joists (40x70 mm)

If the installation is over a cement slab, the aluminium joists can be directly installed over the bearer. However, using a wedge may be necessary to correct the defects in the local flatness of the slab and/or its slope. The end of the joists must be at least 5 mm far from any fixed obstacle as well as from the other joists when they are laid one after the other in length. Attaching is done by anchoring the middle part of the joist to the bearer.

Installation of solid wood joists (40x60 mm)

Solid wood joists must belong to the natural durability category 1 according to EN-335 or made compatible through a treatment process of the use category 4. They have to be systematically separated from the bearer using wedges made of steel or synthetic materials (no wooden wedges or joists placed directly on the floor). The end of the joist must be 6 mm away from any fixed obstacle, walls or the end of any other joist when they are laid one after the other lengthwise. It will be fastened to the bearer using screws and dowels that are 50 cm apart at the most making certain to place each only a few centimeters away from each joist end (100mm maximum).

Fixing the deck board onto the joists

Before installing the deck, make certain that all the boards have a uniform colour. Slight differences in the aspect may be noticed in the boards depending on availability (colour, polish) that contribute to the natural aspect of the deck. If needed, mix boards from different stocks to distribute the nuances over the entire area and lay them out in such a way that areas with different nuances are not laid out next to each other.

Do not cut the boards across the thickness or the width. They can only be cut lengthwise. Avoid bevel cutting for angles less than 45°.

Maintain 5mm gap between adjacent planks & between planks & skirting; increase at 10mm between the ends & for hot, humid, poor ventilated areas. Boards must be laid on a self draining surface & will be installed perpendicular to the joists. Use approved stainless steel deck screws. To prevent the material from splitting, use a countersunk to make screw holes. The planks must be fit over at least 3 joists, only with SmartBoard® 63mm screws at every joist point.

Each board's ends must imperatively be fastened to the joists as close as possible to the rim (minimum 30mm to prevent the material from splitting in case the screwing runs through the surface). They must not overhang the joists by more than 30 mm, whether it is at the border of the deck or at the junction between two consecutive boards.

Spacing between two ends of boards

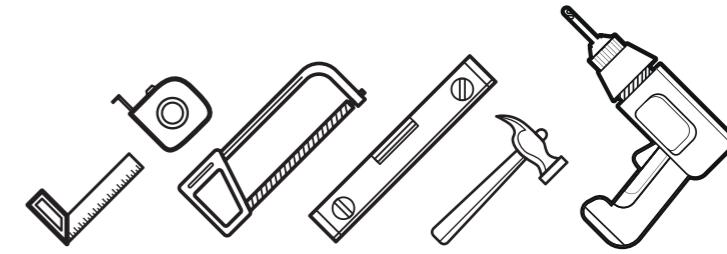
Boards longer than 3 ml : 5 ~ 10 mm

Fixing deck boards at 45°

If the boards must be fixed at 45° in regards to the joists, account for a maximum of 150mm of centre distance between the first three joists and the last three and a maximum of 300mm of centre distance for all the other joists. This rule applies for either timber/steel joist or composite joists.

Necessary tools

- Metre
- Square
- Saw
- Level
- Hammer
- Drill



Accessories

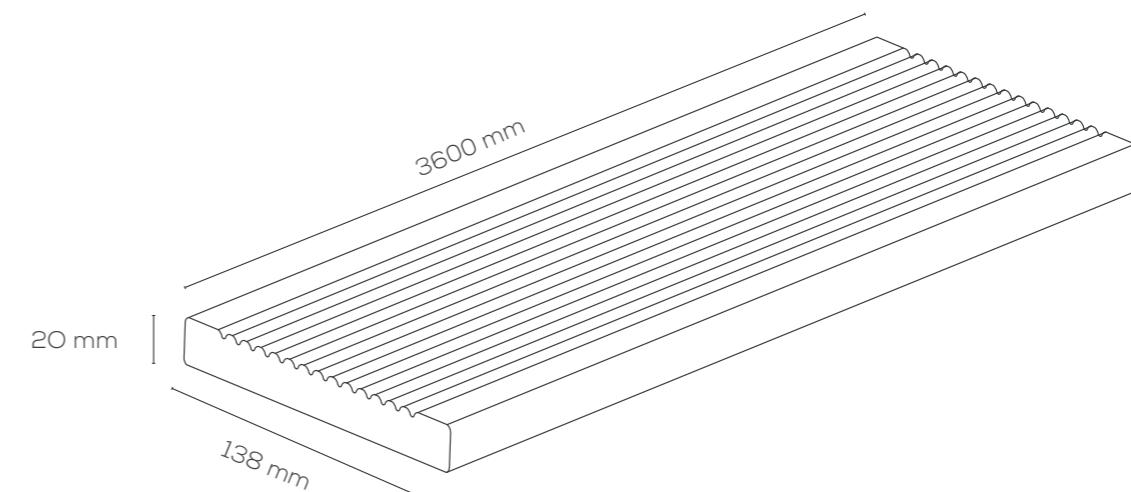


Torx #20
tip

63 mm Screw

Joists
(not provided)

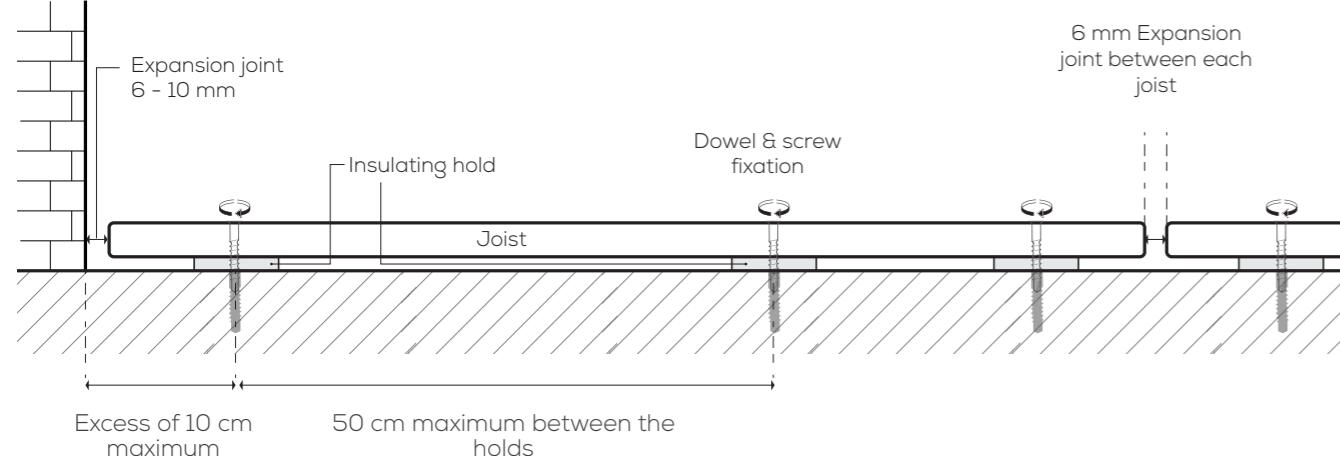
SmartBoard Plank



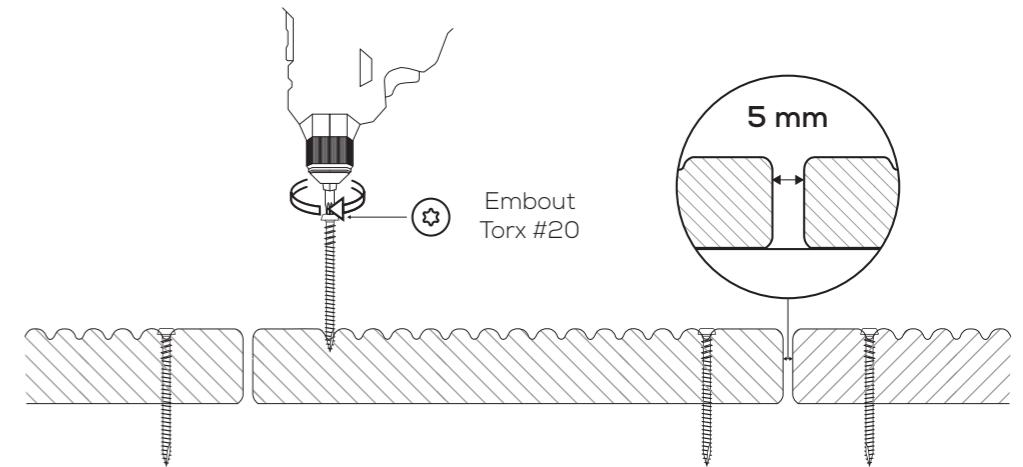
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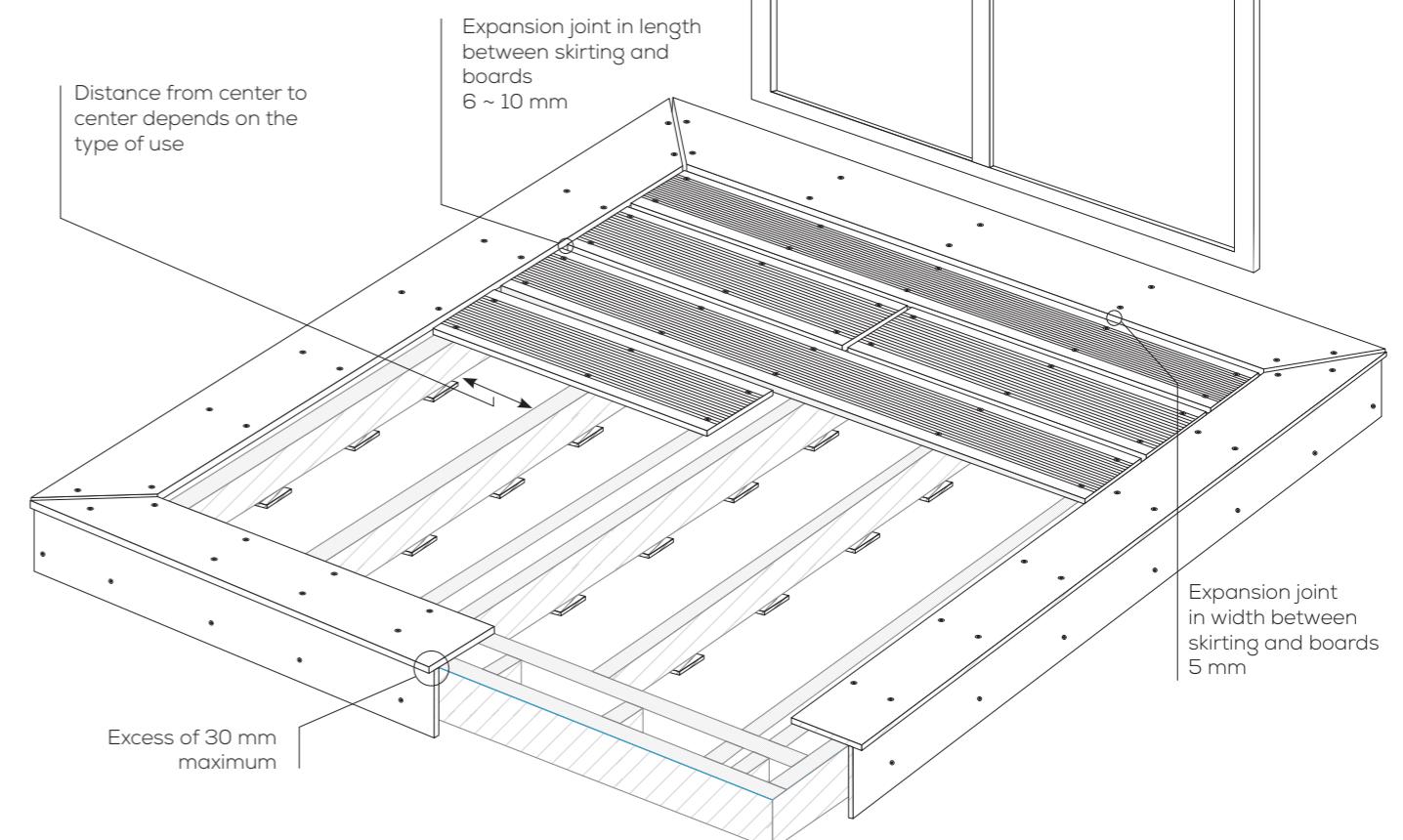
Installation of aluminium or wood joists



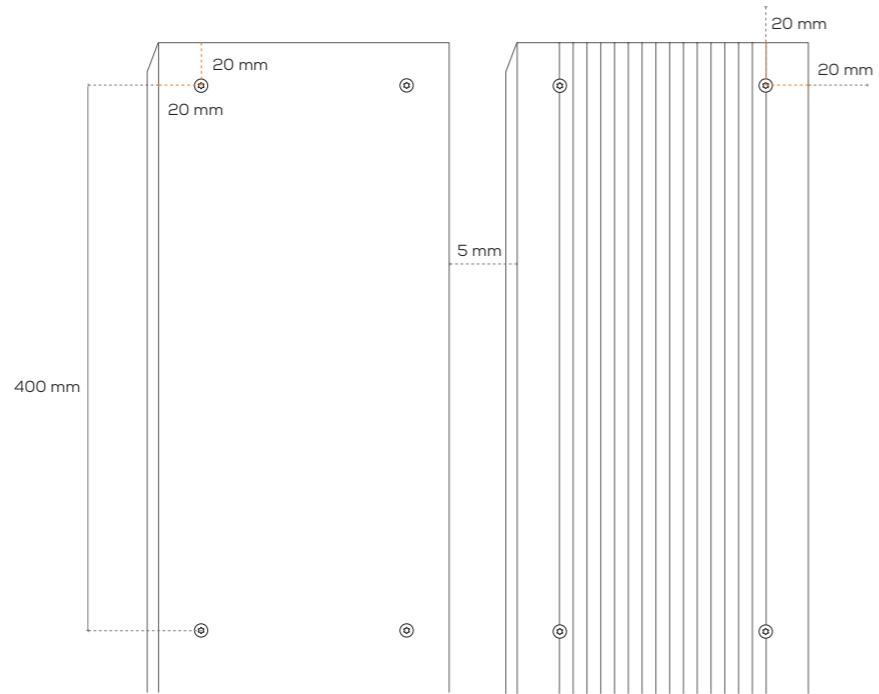
SmartBoard screws installation schema 2/2



Installation schema



SmartBoard screws installation schema 1/2



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Maintenance & Cleaning

SmartBoard is a low maintenance product, meaning that it does not require any maintenance and thus it is important to clean it immediately after installation followed by a regular and periodical cleaning.

Immediately after the installation, clean the entire surface thoroughly using a rigid non-metallic brush and water to eliminate any dust or construction residue. During this period, humidity stains and hallos may appear on the boards. These stains are normal and they will fade away with the weather as long as they are properly exposed to UVs and rain. Once the transition period is up, the boards colour will be close to the original colour and will stay that way. Although these humidity stains and hallos vanish naturally with the weather, it is still possible to eliminate them by cleaning the surface once or several times along the length of the boards with the appropriate product.

Regular maintenance includes sweeping. In order to prevent moss, algae or mould from developing on the surface, a thorough cleaning twice a year is recommended using a broom with non-metallic rigid brush to clean inside the grooves.

To prevent grime, hydrocarbons, grease and water stains on composite timber, use an appropriate cleaner, such as Starbrite Concentrate Cleaner for Composite Timber (Ref. 1432), or a similar product based on surface-active agents.

High pressure cleaning (max. 100 bar), possibly using a mild detergent, is authorised. Hold the water jet at least 30 cm away and at a 45° angle and clean across the grooves. Avoid circular jet movements.

After every cleaning, immediately drain all the rinsing water from the surface using a scraper.

SmartBoard mainly contains natural components thus variations in colour or texture are likely to appear over time. The variations in the shades mainly occur during the first 6 months following the outside installation after which the colour tends to stabilise, with a natural shade noticeably lighter due to the water that was absorbed by the timber fibres and the effect of the UVs.

Like any outside floor covering, the composite deck boards are likely to be perforated and scratched over time, which is part of the product's normal patina.

Deep scratches can be diminished or erased by using a metallic brush, sandpaper or steel wool. In this case, the aspect of the board's surface can locally be altered. Always brush in the same direction as the grooves. Eliminate any sanding dust after the treatment.

Do not let stains get infiltrated and embedded into the rough patches of the surface. It is preferable to eliminate them as soon as possible. Use water, a mild cleaning detergent, a non-metallic brush and a sponge.

Static Electricity

Under certain conditions, it is possible that static electricity is formed. The accumulation or the generation of static electricity corresponds to a natural phenomenon regarding several plastic products, such as carpeting, padding and clothes, which can occur on decks under certain environmental conditions. This phenomenon will naturally disappear. If that is not the case, you can use ACL Staticide MD Concentrate or a similar product while strictly observing the product's precautions of use.

Warranty

WAW LTD guarantees the buyer, for a period of twenty-five (25) years (residential use) and ten (10) years (commercial use, professional or private) as from the purchase date and according to normal conditions of use and regular maintenance, that the products made from the wood composite decking will not produce any splinters and will not be the subject of structural damage caused by fungi, xylophages' insects or termites.

Exclusions :

WAW LTD guarantee does not, under any circumstances, cover damage that is due to: Badly installed decking products and/or a failure to respect the guidelines or the maintenance instructions provided by us which the buyer acknowledges having fully read. The failure to respect the regulations decreed by the building codes in force or the recommendations of professional bodies (such as the FCBA guide). The use of our Decking products beyond normal use or for an application other than that intended by WAW LTD and recommended in the sales and technical documentation or that does not comply with local building regulations. The movement, distortion, collapse or subsidence of the ground or the support structure on which the WAW LTD products (decking, fencing panels, railings) are installed. In case of force majeure (flooding, tornado, earthquake, lightening, etc...), environmental problems or strings resulting from external substances that is visible despite regular product maintenance (atmospheric pollution, mold, dirt, fruit, rust, grease, etc...). Variations in color, texture or brushing from one plank to another as well as changes in color associated with exposure to natural UV rays. Inappropriate handling, unsuitable storage or treatment caused by the negligence of the buyer or a third party.

Limitations :

If a defect occurs during the period of guarantee, the buyer must inform WAW LTD in writing, describing the defect in question, photos and attaching proof of purchase. The problem will only be remedied after validation of the complaint by WAW LTD who will proceed as follows: replace the defective Decking products with identical Decking products. That may be slightly different in color, or Substitute them with our Decking or replacement product that WAW LTD considers to be of a comparable value and quality, or Reimburse the proportion of the purchase price paid by the buyer for the defective article. The choice of solution remains the exclusive right of WAW LTD. The guarantee will take into account the purchase date of the defective Decking products and their condition. Their actual value will be calculated according to the products' state of wear and tear. The costs incurred by the removal of defective Decking products or their replacement (shipment, delivery, removal or installation costs) are not covered by this guarantee.

WAW LTD reserves the right to suspend the availability of any of our Decking product at any time. No person or entity other than WAW LTD is authorized by WAW LTD to make statements (and WAW LTD shall not be bound by any statement of this kind) as regards the characteristics, performance or any installation recommendations regarding our SmartBoard products under conditions other than those contained in this warranty.



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WAW LTD reserves the right to amend technical specifications on the above mentioned product without prior notice, which therefore do not constitute a contractual document. Delivered products can slightly differ from these technical data. **WAW LTD** Guarantees the technical quality of the proposed article. Laying instructions are given as an indication, and do not involve the author's responsibility.

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