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Unloading & Unpacking Instructions



1: UNLOAD/TRANSPORTATION/STORAGE

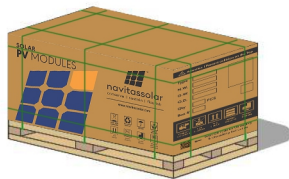
Please make sure to have sufficient safe clear distance during forklift operation to prevent people from standing or passing on both sides.

When unloading using a forklift, particular care should be taken to control the travel speed and prevent tilting during cornering.

In any circumstances, for vertical landscape packages, it shall not be stacked more than two layers; for vertical portrait packages, stacking is not allowed.

The working ground needs to ensure that the packaging box can be placed horizontally and steadily to avoid tipping.

Example for vertical landscape package and vertical portrait package is shown as follows:



Vertical landscape package
(short-side vertically placed)



Vertical portrait package
(long-side vertically placed)



UNLOADING

Upon arrival of the modules, please check that the packaging box is in good condition, and check whether the module type serial number and quantity on the outer packaging are consistent with the delivery order, if anything is wrong, please contact Navitas Solar logistics and sales staff immediately.

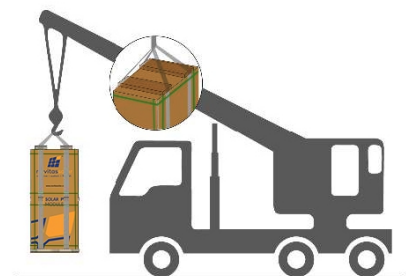
1. Unloading with a crane

Unloading with a crane should be avoided and should only be done in case other options are not available. When crane is used to unload the modules, please choose and use specialized tooling according to the weight and size of the module. Please adjust the position of the sling to keep the modules steady. To ensure the safety of the module, wooden sticks, boards or other fixtures of the same width as the outer packing cases should be used on the upper part of the box to prevent the sling from squeezing the pallet and damaging the modules. When placing the modules, do not lower the packing box too quickly and put it on a flat ground. Photos and videos of the unloading process to be submitted for verification during warranty registration.



Do NOT lift up more than ONE pallet of modules at once.

Do not unload modules under the weather conditions of wind more than 6 class (in Beaufort scale), heavy rain or heavy snow.



2. Unloading with a forklift

When using a forklift to unload the modules, please choose a suitable forklift according to weight.

The forkprong should go into the pallet at least 3/4 of the pallet depth during unloading (the forkprong length $H \geq 3/4$ of pallet length).

In order to ensure better stability during forklift transport, the forkprong width (W) should be adjusted to the maximum position without any interference.

Please drive slowly and do not allow forks to hit the cartons or pallets. It is recommended to operate the forklift from the short side of the pallet and not touch the glass side. If the operation must be carried out on the glass side, please place buffer protection material (in yellow) in advance to prevent the inside modules being damaged due to the external force.

It is recommended to extend the height or width of the forklift backrest to prevent directing touch with the module glass.



Since the packing box will block the sight of the forklift driver, it is recommended to drive backwards during the forklift, and arrange for special supervision and command to prevent bumping into people or items causing personal injury or damage to the modules.

At the project site, the forklift should be driven at a controlled speed of ≤ 5 km/h in straight, and ≤ 3 km/h for turning.

The loading dock should be as the same height as the underside of the carrier.

Please also pay attention to the following precautions when unloading (taking vertical portrait packages as an example).



Prevent collision on the top when unloading from the container.



Recommend to secure the module package to the forklift with a belt, transport horizontally with no person standing on either side.



Control the speed to prevent tipping.



No collision on the module glass.



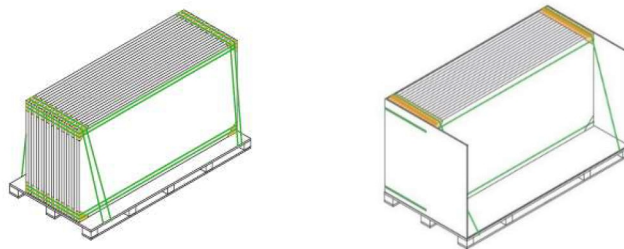
No tilting storage.

SECONDARY TRANSPORTATION

The packaged modules can be transported by land, sea or air. During transportation, make sure that the package is fixed with packing belts securely on the shipping platform without any movement.

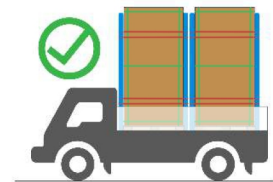
If the unpacked modules need to be transported to other places, it is recommended to pack the single module together in a package to the maximum number allowed, and fixed with inner packing belts (2100N force recommended). Finally, cover it with the packaging carton box and fix it with the same number of packing belts as before.

If the number of modules need to be packed is less than the maximum number allowed in a package, the modules need to be fixed and secured to the center of the pallet for utility packaging (the following figure to the left) or on the side for distribution packaging (the following figure to the right), and fixed with inner packing belts (2100N force recommended). Finally, cover it with the packaging carton box and fix it with the same number of packing belts as before. Do not put the unfulfilled package on the lower layer when transported.



Please use appropriate means of transport to transport the modules. Do not use pedicab to transport or handle the modules.

Secondary transport is not allowed for the monofacial modules that are packaged horizontally.



There is no stacking of pallets allowed (for both vertical landscape and vertical portrait packages), when transporting with small trucks. Please fix the package to the vehicle using e.g. ropes and control the driving speed according to the road conditions.

When using box trucker and flatbed trucker transport the modules, the module packages should be placed close to each other without any gap. The empty space needs to be filled to prevent the package moving backwards to the rear of the truck. Additionally, the package needs to be fixed using e.g. ropes to the vehicle when transporting with the flatbed trucker.

Do not allow pallets to exceed the loading area of the transport vehicle.

STORAGE

Modules should be stored in a dry and ventilated environment on a flat ground, to avoid damage or dumping of the modules due to ground deformation or collapse.

Storage requirements: relative humidity < 85% and temperature range of -40°C to 50°C.



Do not remove the original package and keep the wrapping film and carton box in a good condition, if the modules require long-distance transport or long-term storage.

For long-term storage, it is recommended to store the modules in a standard warehouse with regular inspection, and under confirming of your personal safety, reinforce the package in a timely manner if any anomalies are found.



The warehouse shelves should have sufficient carrying capacity and storage space, regular inspection is required to ensure the storage safety.

If you need to store the modules in the project site, do not choose soft ground and the ground that is easy to collapse. Should choose a hard ground or a higher ground with flat surface to ensure the module packages not collapsing and tilting for long-term storage.

In rainy weather, please fully cover the modules and pallets with a rain protection and take moisture proof measures on pallets and cartons to prevent collapse and moisture ingress. Under sun or wind, remove the rain cloth to allow the package to dry as soon as possible, prevent package collapse caused by the rain.

Do not allow the pallets to soak in rain water leading to mold and decay. The ground drainage measures should be done first to prevent a large amount of water accumulation on the ground after rain, causing the ground to soften, sink, etc.

Do not allow unauthorized persons to access the module storage area.

Do not leave modules unsupported or unsecured.

The modules should be centrally stored with pallet spacing within 10 cm.



2: UNPACKING INTRODUCTION

2.1 UNPACKING SAFETY

Before unpacking, please check the product type, power bins, serial number and relevant suggestions on the A4 paper of the packaging box, and read the unpacking instructions carefully. Custom unpacking methods are prohibited.

Before unpacking, please make sure that the packaging box is in good condition, it is recommended to use art knife to remove the packing belt and wrapping film. Violent removal is prohibited to avoid scratching the modules in the box.

Please check that the serial number of modules in the box and the barcode information on the module frame are consistent with the information on the A4 paper on the packaging box.

Please follow the recommended unpacking steps to unpack the modules. When unpacking, it must be operated by two or more people at the same time. Always wear insulating gloves when handling the modules.

If all the modules are not taken out after unpacking, the remaining modules shall be placed horizontally and repackaged to prevent them from tipping. When packaging, please note that the glass side of the bottom module should face up, the glass side of the middle modules should face down, and the glass side of the top module should face up. Stacks of modules should contain no more than 16 modules, and the frames should be aligned.

For matters regarding the unpacking stand supporter, please contact Navitas Solar sales.



In windy weather, it is recommended not to carry the modules, and the unpacked modules should be properly secured.

Do not unpack the modules outside under rain and snow conditions.

Do not carry the module by one person to prevent the module from slipping and hitting other modules, causing scratches, cracks, or deformation on the modules.

Do not lift modules by their cables or junction box.

Before removing the inner packing belts, please take measures to protect the modules from dumping.

The vertical portrait packages have a high center of gravity and are prohibited from unpacking on non-horizontal or soft grounds to avoid personal injury or even death.

If unpacking the vertical portrait packages on non-horizontal ground, anti-tilting measures should be taken as shown in the figure to the right.

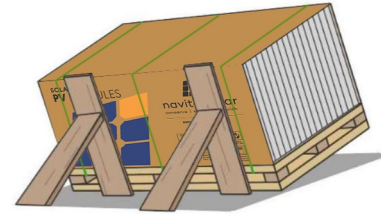
Do not stand on the back of the stand supporter, if unpacking the modules packed with vertical portrait packaging method.

Do not stand on the pallet during unpacking, please carry the modules from sides of the pallet.

Do not move the stand supporter during unpacking to prevent the modules being tilted.

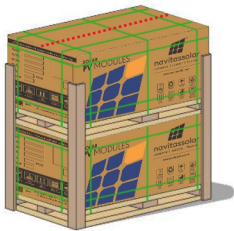
Do not lean the module on any instable objects, such as poles or mounting columns.

Do not support the back of the modules directly with materials such as wooden strips.



2.1 UNPACKING SAFETY

Method A: Unpacking from one side for Navisol & Bonito series modules with vertical landscape package.



1) Place the carton box on a flat ground, then cut the packing belts. Start from step 3 if there are no plywood or edge board attached.



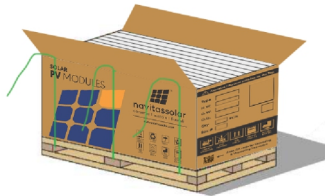
2) Remove the attached plywood or edge board.



3) Prepare for unpacking (do not stack the module), unpacking instruction can be seen on the packing box.



4) Cut all the vertical packing of the box and open the top flaps of the box to explore the modules.

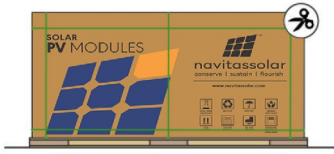


5) Cut the inner packing straps holding the modules directly to free the modules.

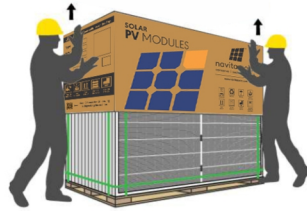


6) Take out the modules in turn and carry the module by two people.

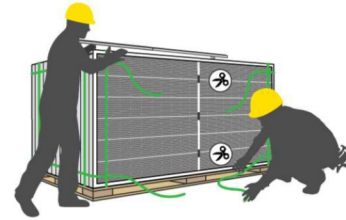
Method B: Unpacking for Navisol & Bonito series modules with vertical landscape package.



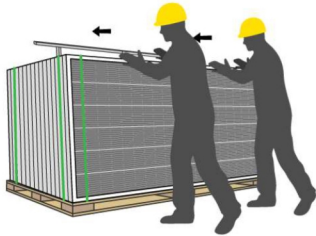
1) Remove the wrapping film and packing belts.



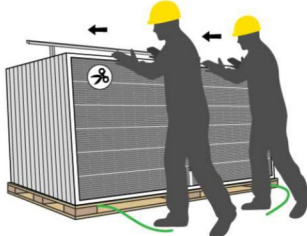
2) Lift the entire carton slowly.



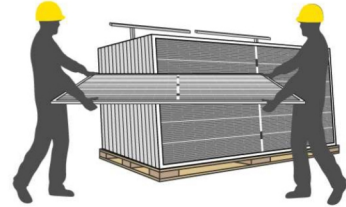
3) Cut off all the horizontal packing belts.



4) When there are 1-2 vertical packing belts remaining, push the module gently to tilt toward the stand supporter.



5) Cut off the remaining packing belts.

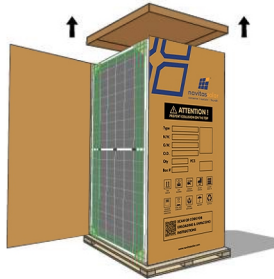


6) Take out the modules in order.

Method C: For Bonito series modules with vertical portrait package.



1) Remove the wrapping film and packing belts.



2) Remove the top cover and sealing tape.



3) Remove the carton box.



4) Place the stand supporter from the glass side.



5) Cut off all the horizontal packing belts.



6) When there are 1-2 vertical packing belts remaining, push the module gently to tilt toward the stand supporter.



7) Cut off the remaining packing belts so that the modules rest on the stand supporter.



8) Take out the modules in order.



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