



FlutterX Installation Suggestions

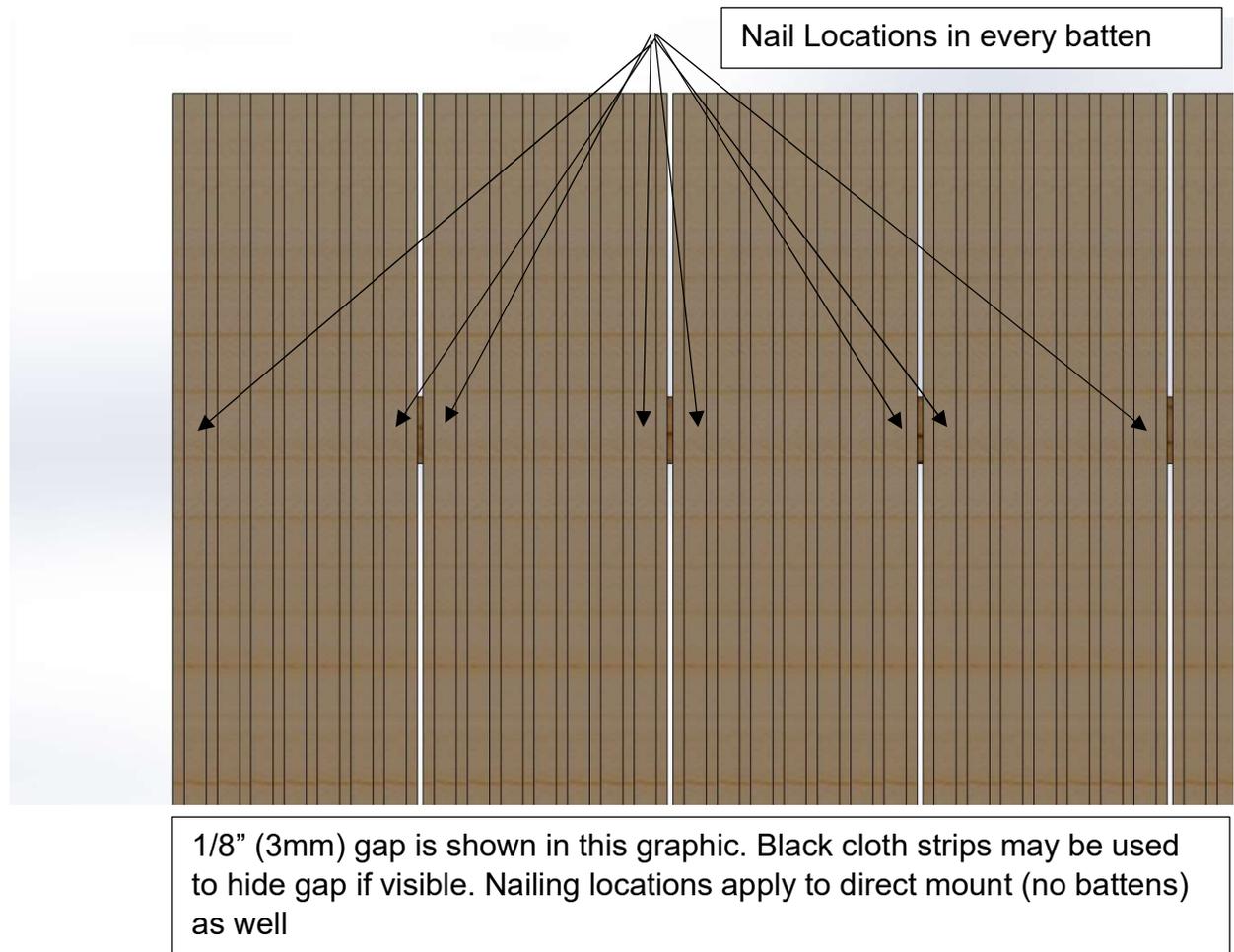
Preface: This installation methodology is intended to be advisory only. Most contractors will have dealt with plank installations at various times and may have their own methods for doing so. However, certain elements should be taken into consideration when installing FlutterX. These suggestions are provided for consideration.

1. FlutterX is an acoustic product. Specifically, it is a quadratic residue diffuser designed to break up sound waves as they travel across the surface. Because it contains significant grooving in the wood, it is subject to movement both vertically and horizontally, especially in environments where the temperature and humidity may not be stable. It should not be installed until the room is within the parameters as defined by AWI standards i.e. 35%-55% humidity and 55°-75° temperature.
2. The mounting of the planks is very important due to their structure. In most cases, it is suggested that the planks be mounted to walls with a plywood layer underneath the drywall layer. With this method, planks can be nailed anywhere required and the surface will hold. Nailing directly to standard drywall structures is not recommended inasmuch as drywall will not hold nails where there are no studs.
3. Alternatively, if mounting to a block or brick wall, the installation should include $\frac{3}{4}$ " to 1" thick battens mounted perpendicular to the planks every 16" on center. The planks may then be glued (optional) and nailed to the battens for a secure mounting. Nailing needs to be on both sides of the plank, typically $\frac{1}{2}$ " in from the sides of the plank. 18 or 21 gauge nails are recommended to reduce the visibility of the nails. It should be noted that unless otherwise specified, the backs of the planks are not finished. This is to ensure that the glue sticks to the wood.
4. It is recommended that a $\frac{1}{8}$ " (3mm) gap be left between planks to allow for natural expansion and contraction of the wood over time. Certain climates may cause excess expansion and contraction if T&H are not judiciously controlled. This gap will alleviate the potential for future problems.
5. Some acousticians will ask for the above gap and insulation behind the FlutterX as a low frequency absorption technique. In this case, the installation must



include the previously mentioned battens (1" deep) with 1" 6Lb. insulation included in the spaces between the battens.

The graphics below show how this should be done:

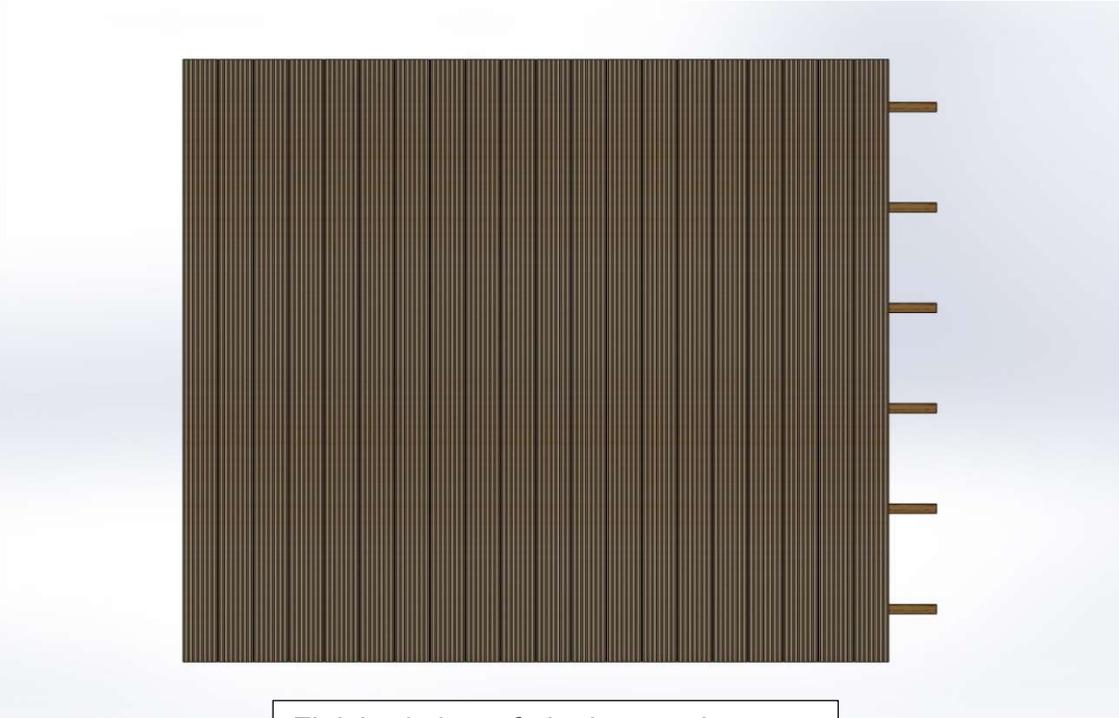


NOTE: Nailing method should be followed to ensure that the planks are mounted securely and that the potential for warping is not an issue. If mounting directly to a wall it is suggested that each planks receive a thin line (vertically) of construction adhesive (Liquid Nails or similar product) to ensure the planks remain secure over time.

Planks may be ordered with finished backs if required by the contractor. However, if properly glued, the bare surface is preferable to finished.



ISO view of battens with single plank mounted. Battens must be securely mounted to back surface.



Finished view of planks over battens