



Artisan Home / Herringbone Installation Guide

PLEASE READ BEFORE INSTALLATION

INSTALLATION WARNING:

Installation conditions – including temperature, sun exposure and humidity – will affect this product's performance over time. For best results, room temperature and humidity of installation area must be kept consistent with normal, year-round living conditions for a minimum of one week prior to installation. All products require a specific temperature range of 60°F to 80°F with 35% to 55% relative humidity.

Installation outside of these recommended ranges or over a wet subfloor will likely cause movement in the flooring, including potential shrinkage, tip-raising, gapping between pieces, cupping and face-checking.

D&M strongly recommends glue-down to be the best method to install its engineered hardwood flooring and D&M's engineered hardwood flooring MUST be installed according to the National Wood Flooring Association's (NWFA) installation guidelines in order for the Limited Warranties to be valid. The most current publication of the NWFA guidelines is available to all NWFA members, and can be found at www.nwfa.org (800-422-4556)

INSTALLER'S / OWNERS RESPONSIBILITY

As a natural product, hardwood contains inherent variations in color, grain, appearance and other visual imperfections. D&M's Engineered Hardwood Flooring is manufactured in accordance with industry standards which permit a defect tolerance not to exceed 5%. These defects may be the result of manufacturing or naturally occurring characteristics of the material. It is recommended additional 5-10% to be added to the total square footage for cutting or grading allowance when calculating the quantity of flooring required. For diagonal flooring installs, please add additional 15% for cutting or grading allowance. It is the sole and joint responsibility of the installer and owner to conduct a quality inspection of all flooring materials prior to installation. All flooring materials should be examined for quality of manufacture, finish and color. If the product quality is deemed unacceptable, the flooring should not be used for installing. Flooring that has been installed will be deemed to have been inspected and accepted by the installer and owner. **It is the sole responsibility of the flooring installer to ensure the job site, subfloor, installation tolls and materials meet or exceed industry standards. D&M Flooring highly suggests using a NWFA certified flooring installer or consult the dealer you made your purchase**

from for an authorized installer. D&M Flooring voids all responsibility for any problems arising from incorrect or improper site preparations or installations procedures.

JOBSITE CONDITIONS & PRE-INSTALLATION PLANNING

General Information

- The building must be structurally completed and enclosed. All outside doors and windows must be in place and have latching mechanisms. All concrete, masonry, plastering, drywall and paint must be completed. Allow adequate drying time as to not raise moisture content within the building. All texturing and painting primer coats should be completed.
- HVAC systems must be fully operating at least 14 days prior to flooring installation. Maintain a consistent room temperature between 60-80°F and relative humidity between 35-55% is recommended and this should remain at this level all year round. This is to stabilize the building's interior environment, but also is essential when acclimating hardwood flooring to the job site. Wood is a hygroscopic material that expands and contracts depending on the relative humidity level of the environment. Flooring must be stored in a climate-controlled area, which is equal to the environment that will be installed 5-7 days prior to the installation. **DO NOT OPEN** the cartons until you are ready to install.
- Exterior grading, directing drainage away from the structure, as well as gutters and down-spouts should be completed. Floors may be installed on, above, or below grade level and are not recommended in full bathrooms.
- It is essential that basements and crawl spaces are well ventilated and dry. Crawl spaces must be minimum of 24" from the ground to underside of joists. A vapor barrier must be established in crawl spaces using 6-mil polyethylene film with joists overlapped and taped.
- During the final pre-installation inspection, Subfloor must be checked for moisture content using the appropriate metering device for the wood and concrete.
- Work out of several different cartons at the same time to obtain the best distribution of color, grain and shade mixture.
- Undercut door casings to avoid difficult scribe cuts, and remove all existing wall base, shoe molding, quarter round or doorway threshold. These items can be replaced after installation but should be replaced in such a way to allow at least 1/2" room for expansion. Please see NWFPA Installation Guideline for details.
- Hardwood flooring will expand and contract with changes in ambient temperature and humidity. Allow floor to expand and contract, during installation leave an 1/2" expansion space around the entire perimeter of the floor between the flooring and the walls. Also leave an 1/2" expansion space where the flooring will meet a vertical obstacle, such as stairs, pipes, door sills, tiles, cabinets, etc. In climates with extreme variations in humidity, it may be necessary to leave a larger expansion space.

Subfloor Preparation

The installer and owner are jointly and solely responsible for ensuring that the subfloor is suitable for the flooring application and properly prepared for installation.

Subfloor Conditions

- Clean, free of wax, paint, oil, plaster and debris. All previous or existing glues or adhesives must be removed completely before the start of installation. #3 1/2 grit open coat paper may need to be used to grind a concrete sub-floor. This will loosen any dirt, concrete or contaminates. Sweep or vacuum thoroughly.

- Flat to 3/16" per 8' radius or 1/8" per 6' radius. If a sub-floor prep work is required, "hills" should be sanded down and the "valleys" filled with an underlayment patch. Subfloor irregularities and undulations may cause any wood flooring installation to develop hollow spots between the flooring and sub-floor. These hollow spots are NOT the result of any wood flooring manufacturing defect and are NOT covered under warranty.
- Structurally sound and properly secured with nails or screws every 6" along joists to reduce the possibility of squeaking after installation. Nail or screw any loose areas that squeak or reveal movement and replace any damaged sub-floor or underlayment.
- Dry and should be covered, wall-to-wall, with 15lb asphalt saturated felt. Lap edges of this felt 4" when positioning it. Double the felt around heat ducts in the floor. It is essential that basements and crawl spaces are well ventilated and dry. Crawl spaces must be minimum of 24" from the ground to underside of joists. A vapor barrier must be established in crawl spaces using 6 mil polyethylene film with joists overlapped and taped. ALL sub-floors must be tested for moisture. See below for an appropriate moisture testing.

Acceptable sub-floors

- 5/8" minimum thickness, preferred 3/4", or thicker exterior plywood installed with long edges at right angle to floor joists and staggered so end joints in adjacent panels break over different joists.
- 1" x 4" to 6" wide, square edged, kiln dried coniferous lumber, laid diagonally over 16" on center wooden joists. The ends of all boards are to be cut parallel to the center of the joists for solid bearing.
- 3/4" inch minimum O.S.B. on 19.2" center floor joists system properly nailed. When joist space is greater than 19.2", flooring may exhibit minimum performance. Adequate and proper nailing as well as soundness of the sub-floor should be ascertained.
- Concrete sub-floors must be at least 60 days old, clean, level, sound and of sufficient compression strength (3000 lbs. P.S.I.) being sure that the surface is not slick. Any sections not leveled such as waviness, trowel marks, etc. are to be eliminated by grinding or the use of a leveling compound.
- Appropriate moisture test must be done prior to installation – Always document your readings.

Wood Subfloors

Plywood sub-floors must meet local building code requirements. They must be secure to the joists, free of squeaks and protruding fasteners. Check the moisture content of both sub-floor and hardwood flooring with a quality calibrated pin moisture. Wood sub-floor moisture must not exceed 12% moisture content, or 3% moisture content difference between hardwood flooring and sub-floor. If sub-floor moisture exceeds the amount aforementioned, the source of the moisture must be located and eliminated before installation.

Concrete Subfloors

Concrete subfloors must be fully cured, at least 60 days old, and should have minimum 6-mil poly-film between the concrete and ground. Lightweight concrete can hold more moisture and may take longer to dry out to an acceptable moisture content. A moisture barrier is required over all concrete subfloors. Installations over concrete require the use of a Calcium Chloride test per ASTM F 1869, or ASTM F2170 in-situ Relative Humidity test using probes inserted into holes drilled into the concrete. Test all areas where wood will be installed. The results of the Calcium Chloride test should not exceed 3 lbs per 24 hours per 1000 square feet and in-situ test results should not exceed 75% RH. Carefully record all testing results. These tests give a snapshot of moisture conditions at the time of the test, but do not reflect the permanent year-round condition of the substrate. If gluing down on concrete that is on or below grade, it is highly recommended to use a concrete

sealer approved by the manufacturer from the adhesive you have chosen, even if you believe the concrete is dry. A concrete slab on or below grade that measures dry today may become moist in the future and cause floor failure. D&M Flooring is not responsible for site related moisture issues.

IMPORTANT

- Artisan Home Herringbone planks can be installed in many different patterns as the planks are universal(not left and right) as they have one tongue and 3 grooves. Please note that some patterns will require false tongues to ensure a stable installation.
- Artisan Home Herringbone flooring must be installed using glue down method only.

GLUE-DOWN INSTALLATION GUIDELINES

Recommended Adhesive:

Bostik's Best, Greenforce, or Vapor-Lock
Dri-Tac Golden Bullet, or Supreme Green
Sika T-35
Titebond 771, or 811

Suggested Trowels:

Consult with adhesive manufactures to confirm the trowel size.

Glue Down Installation Instructions

- D&M strongly recommends glue-down to be the best way to install engineered flooring.
- Make sure properly test subfloor before installation, following subfloor preparation instructions previously aforementioned.
- Apply a moisture barrier to slab. Bostik, Dri-Tac, Sika or Titebond are recommended.
- A urethane-based adhesive should be used exclusively. Bostik, Dri-Tac, Sika or Titebond is recommended.
- An 1/2" expansion space should be left around the perimeter. Roll whole floor with an 150 lb. roller within 3-6 hours after installation. Finished areas should be covered with a breathable protective paper, NEVER PLASTIC, immediately after installation to prevent damage. Do not tape protective paper to the finished surface of the wood for extended periods of time.
- Clean wet adhesive from the surface of the floor frequently using the manufacturers recommended remover. Use clean towels, changing frequently to prevent haze and residue. Contact the adhesive manufacturer for adhesive removal remedies.
- Do not allow foot traffic on finished floor for 24 hours after installation is completed.

Step 1 - Setting The First Row (Refer to the diagram below)

It is important to be precise with a herringbone installation so ensuring the first row is correctly positioned and square is key. Herringbone installations should always be started at a center point and to avoid constant movement and repositioning during the installation it is easier to start from a fixed point. So an initial row should be laid and fully bonded, this row is then used to install the rest of the floor.

The following method makes use of a square template to help set the first row. The template can be made from piece of plywood with sides equal to or larger than the lengths of the planks. Make sure the square is true, the diagonals of the square are of equal length. Once correctly positioned and screwed to the subfloor, the square template will provide a solid start point making it easier to move the planks into position without gaps opening up.

1. Plan the direction of the herringbone pattern, usually this will follow the length of the room.
2. Find the center of the room and use a plumb line to mark out a center line. The apex of the first row of planks will run along this line.

Note: If the center line is used to align the square template then the row apex will be offset by the depth of the tongue which is approximately 5 mm. If total accuracy is required then first find the room's center line and then mark an offset guide line 5 mm to its right and use this line to place the square template.

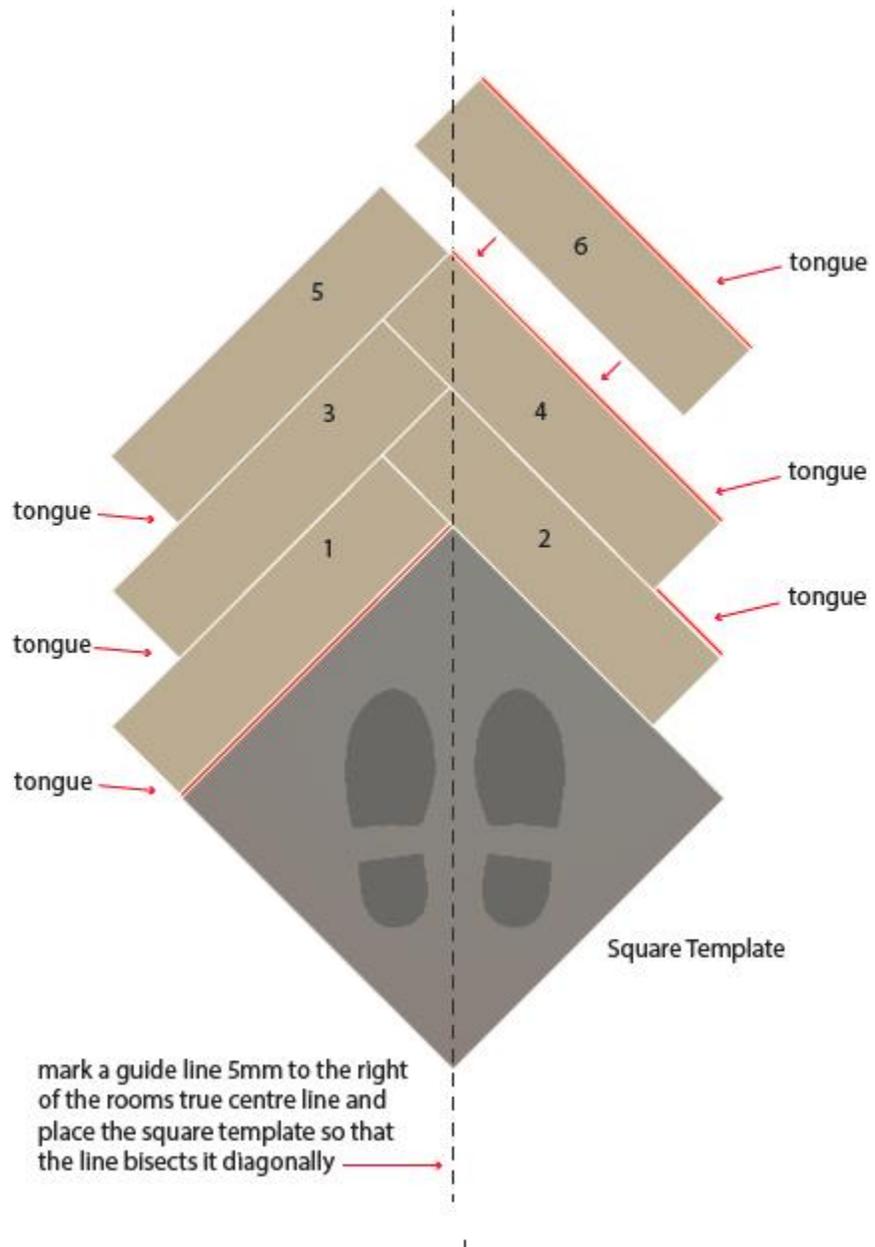
3. Starting close to the wall place the square template so that the offset guide line bisects square diagonally from opposite angles. Once positioned screw the template to the subfloor.
4. Working from this template will ensure the first row's apex follows the center line.
5. Standing on or behind the square template, apply adhesive with a Trowel to the area in front of the square.

Note: It is good practice to loose lay the first row to make sure you are happy with the orientation guide line and placement of the square template.

Tip: It is also important to mix the blocks to ensure an even distribution of grade, grain and color variation across the finished floor.

6. As per the diagram below, place plank 1, with tongue against the left hand side of the square template so that the leading header is in line with the right hand edge of the square template.
7. Place plank 2 with tongue facing away so that the grooved edge is pressed against both the header joint of plank 1 and the righthand side of the square template.
8. Repeat points 6 & 7 placing planks onto the bed of adhesive ensuring that they connect, the leading corner of the herringbone pattern should be positioned over the center line which is 5 mm left of the guide line. Tip: Use a hammer and tapping block to push the planks together, occasionally lift a block and check the adhesive has full coverage.
9. Once the first row has reached the opposite end of the room or the finish point, use a tapping block and hammer to make any adjustments while the adhesive is still wet and remove any adhesive which has not been covered.

Important Tip: Remove any adhesive spills from the face of the planks while it is wet with a damp cloth before the adhesive sets. Allow the adhesive to fully cure and this row will form a fixed point template for subsequent rows.



Step 2 - Complete the Installation (refer to the diagram below)

1. Working off the first row, loose lay the second row placing checking that that the apex of the second row is parallel to the center line.
2. Once you are happy to install, apply adhesive to the area adjacent to the first row.
3. Starting at the 'End Wall', install the first half of the second row in two halves. The first plank(19) should be placed so that the long grooved edge is pressed against the header joint from the last plank in the first row (18) and the header joint groove connects with the next section of exposed tongue the next plank(16) in the first row. Repeat this process with the first half the second row until the square template is reached.
4. Once the first half of the second row is in place there is no need to wait for the adhesive to set. The second half of the second row is installed. Beginning at the 'Start Wall' place the next plank(28) so that the long grooved edge is pressed against the header joint of the last plank(27) and the grooved header joint connect with the exposed tongue of the next plank(26)
5. Repeat this process to fill both sides of the first row cutting planks to fit the perimeter of the room so that adequate expansion gap is maintained which can then be covered by skirting or molding.
6. A border may be installed using a plunge saw to cut away the blocks to make the required space. A groove can then be machined into the cut edge so that planks can be joined.

