TIMBER H&RVEST[®] INSTALLATION INSTRUCTIONS

INSTALLATION INSTRUCTIONS

- Please review the following instructions before starting the strip or plank installation.*
- Please inspect flooring material before installation. Warranties do not cover visible defects once they are installed.

It is the responsibility of the installer/supervisor/owner to ensure subfloor and job site conditions are environmentally and structurally acceptable for wood floor installation. Problems or failures related to deficiencies in subfloor or job site damage after installation will not be covered by wood flooring warranty.

SUGGESTED TOOLS AND ACCESSORIES:

Nailer or Stapler:

For installation over 3/4" wood type sub-floors installed over joist or truss systems a minimum **1 1/2**" or **2**" **long cleat**, or staple should be used. Use only nailers or staplers designed for installation of 3/4" hardwood floors. 3/4" thick plywood over concrete, 1 1/2" cleats or stapler should be used. See NWFA installation guideline for

details. High moisture areas or

Rooms larger than 20 ft. by 20 ft. 1/32 aluminum spacers may be needed for extra expansion as well as 3/4" at any vertical obstruction. i.e. walls. Flooring manufacturer recommends prefinished foot for manual and air nailers/ staplers. (See fig. 1)



HANDLING AND STORAGE:

- Flooring must be protected from adverse moisture conditions during the transportation as well as the storage of the material. The material must be stored at least 4" or more off the ground and stored in a dry area. This practice will prevent a significant change in the moisture content. Open the cartons and allow flooring to acclimate. Follow NWFA guideline for acclimation on job site! See general instructions below.
- Factory finished flooring should be installed as close to living conditions as possible!

SUBFLOOR:

- 5/8" minimum thickness, preferred 3/4" or thicker plywood installed with long edges at a right angle to the 16" on center floor joists and staggered so that the end joints in adjacent panels break over different joists. Nail at each bearing with 6d threaded or 8d common nails spaced 10" on center along intermediate joists.
- 1" x 4" to 6" wide, square edge, 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. Face nail each board solidly at every bearing on the joists with two nails (7d threaded or 8d common).
- 23/32" minimum O.S.B. on 19.2-inch maximum center floor joists with system properly nailed or minimum 7/8" subfloor with 24" on center floor joists or trusses.
- Baseboards should be installed so that their lower edge is slightly above the level of the finished floor, but not nailed into the finished floor.
- Basement and crawl spaces must be dry and ventilated when plank or strip flooring is to be installed over them. In crawl spaces a vapor barrier should be provided. Follow local building codes or black vapor barrier must be provided below subfloor on the ground. (6 mil. black)
 Black or Strip flooring is not to be installed below grade.
- Plank or Strip flooring is not to be installed below grade.
- All subfloors, new construction existing should be checked for moisture using a moisture meter. In general wood or plywood subfloors should not exceed 14% moisture content, or 4% moisture content difference between 2 1/4" wood flooring and subfloor, or 2% moisture content difference with plank floor. Check with your local distributor for your geographical variances.
- Subfloor should be flat or made to be flat to 3/16" in a 8 ft. radius.
- · Particle board of any thickness is NOT ALLOWED!

- Adequate and proper nailing as well as soundness of the subfloor should be ascertained. Foreign material shall be removed from the subfloor surface and swept clean.
- The clean subfloor shall be covered wall to wall with 15 lb. asphalt saturated felt, SVS under layment paper, Aquabar®B, or Moisture Mat (**NO ROSIN PAPER**). Lap the edges of this felt 4" when positioning it. Double the felt around heat ducts that may be in the floor.

GENERAL INSTALLATION INSTRUCTIONS

• Before installing the flooring, ascertain the conditions. Install the flooring after the sheetrock and tile and all brick work has thoroughly dried and all but the final woodwork and trim have been completed. The building interior shall have been dried and seasoned and a comfortable working temperature (at least 60°F) should exist during the material installation.

Acclimation of Wood Floors:

- New wood type subfloors should also be checked for moisture using a moisture meter. In general wood or plywood subfloors should not exceed 14% moisture content, or 4% moisture content difference between 2 1/4" wood flooring and subfloor, or 2% moisture content difference with plank floor. Check with your local distributor for your geographical variances.
- Remodeled or existing subfloors, Oak, acclimation time is 3 to 5 days in live in conditions with normal relative humidity and temperature. Other wood species may require a longer acclimation time.
- Always install from several boxes.
- Flooring should be laid at right angles to the floor joists and if possible in the direction of the longest dimension in the room.
- Begin laying the flooring in a room corner with the groove of the flooring facing the wall. Provide no less than 3/4" expansion space or what will be covered by the baseboard and trim specified for the job.
- End joints should be staggered to achieve the best appearance in the finished floor (Min. 6").
- Nailing should be scheduled with the first run and last run of flooring to be faced nailed then countersunk, face nails should be placed in face of wood in grain to match filler/putty. 2 1/4" wide material should be nailed or stapled every 8" to 10". Plank should be nailed or stapled every 6" to 8". Also nailing is required within 2" to 3" of the end joints.
- 3/4" plank and strip are pre-finished wood flooring products. Be sure to check nail gun faceplate to ensure it will not damage the surface finish. (See fig. 1)
- Both 3/4" plank and strip have a U.V. cured polyurethane finish.
- To avoid dimensional change and movement in hardwood flooring the Relative Humidity should be maintained year round at 35%-55% Relative Humidity. Temperature should be kept between 68°F-78°F year round.
- Exotic wood species require special attention as to acclimation, nailing and/or sanding.

NOTE:

- **Wood flooring not recommended for wet areas, full baths or shower rooms.
- **Do not sand any subfloor that may contain asbestos or lead.
- **Do not install over radiant heated floors.
- **Do not install any product with visible defects.
- **Do not use any type of tape on the hardwood finish surface. If a covering is needed after installation, the wood floor should be completely covered and covering taped to itself, not the finish of wood flooring.
- ** ALL crawl spaces must have 6mil. Black Polyethylene covering surface of crawlspace or follow local building codes.
- **On or above grade only.

Option: to reduce movement add a serpentine bead of high quality urethane adhesive to subfloor as well as mechanical fasteners. This will require the moisture inhibiting paper NOT to be used. (Example of adhesive- Liquid Nail or Lockedtite: urethane wood to wood adhesive.)

*For special applications such as glue to concrete call distributor or manufacturer. (No full spread applications)

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GLUE DOWN INSTRUCTIONS

ATTENTION

Inspect ALL materials carefully **BEFORE** installation. Warranties **DO NOT** cover materials that are installed with visible defects.

It is the responsibility of the installer/owner to determine if the job site and job site conditions are environmentally and structurally acceptable for wood floor installation. Flooring manufacturer declines any responsibility for wood floor failure resulting from or connected with subfloor, subsurface, job site damage or deficiencies after hardwood flooring has been installed.

GLUE DOWN INSTALLATION

ADHESIVE: High quality urethane adhesive is normally recommended. TOOLS: The required tools for installation of these products include a hammer, hand or power saw, chalk line, wood floor adhesive and recommended trowel. Recommended Trowel: Follow adhesive manufacturer's guidelines.

General Installation Instruction:

Time at which to install hardwood: Lay only after sheetrock and tile work are thoroughly dried and all but the final woodwork and trim have been completed. The building interior should have been dried and seasoned and comfortable working temperature (at least 60°F) should exist during installation.

Preparation of subfloor: Subfloor irregularities and undulation may cause any wood flooring installation to develop hollow spots between the flooring and subfloor. These hollow spots are NOT the result of any wood floor manufacturing defect and are NOT covered by the flooring manufacturer warranty.

As part of your subfloor preparation remove any existing base, shoe mold or doorway thresholds. These items can be replaced after installation, but should be replaced in such a way as to allow at least 1/4" room for expansion around the perimeter of the room. All door casings should be notched out of undercut to allow for 1/4" room expansion and to avoid difficult scribe cuts. This is easily done by placing a piece of the engineered product on the subfloor as a height guide for your handsaw or jamb saw.

Note: Normal expansion space around the room should be the same distance as the thickness of the hardwood flooring

Thoroughly clean subfloor:

Remove paint, wax, oil, plaster, "sheetrock mud" and other foreign materials, as well as obvious surface irregularities. #3-1/2 grit open coat paper may need to be used to grind a concrete subfloor. This will loosen any dirt, loose concrete or contaminates. Sweep or vacuum thoroughly. All previous or existing glues or adhesives must be removed before installing new hardwood floor. Concrete subfloors must be clean, flat, sound and sufficient compression strength (3000 lbs. P.S.I.) being sure that the surface is NOT slick.

Sections not flat due to waviness, trowel marks, etc. are to be flattened by grinding or the use of leveling compound. Especially along the walls, the subfloor flatness must be checked and if necessary, improved. Flatten to 3/16" in 10' radius. In addition to cement subfloors, these wood flooring products can be installed over dry, flat subfloors such as plywood. **NO PARTICLE BOARD.**

Time at which to install hardwood flooring: Lay only after sheetrock and tile work are thoroughly dried and all but the final woodwork and trim have been completed. The building interior should have been dried and seasoned and a comfortable working temperature (at least 60° F) and a relative humidity of 35-55% should exist during installation. If subfloor is concrete, check for dryness see below. If moisture is present, do not lay. All concrete subfloors on or below grade need to be tested.

Concrete subfloor Moisture Testing:

Electrical Impedance Test and Electrical Resistance Test (Concrete Moisture Meters) Follow Moisture Meter MFG Guidelines. If Meter shows possibility or excess moisture further testing is required. Calcium Chloride Test. See Below.

Relative Humidity Test (Standard test method for determining relative humidity on concrete floor slabs using Situ Probes. If test shows over 75% vapor retarder must be used or wait for further curing.

Calcium Chloride Test ASTM F-1869 Readings over 3 lbs and up to 7 lbs vapor retarder needed.



See NWFA installation guidelines chapter 3 Moisture Testing for full information of testing.

Check floor in several locations. Consult with your local flooring manufacturer distributor for graphical variances:

Note: Normally, expansion space around room should be the same distance as the thickness of the hardwood flooring.

 The use of Mixwax putty to cover small cracks or face nail holes should be considered normal in hardwood flooring installation.

Suggested Layout Working Line: For 3" material, snap a chalk line 30 1/4" from the wall on the door side of the room. This small area will be your working space and the last to be installed. Temporarily nail straight board on chalk line.



Note:

Caution: Proper humidity must be controlled between 35-55% for successful performance before, during and after installation.

Installing the floor:

- The floor should be installed from several cartons at the same time to ensure color and shade mix.
- · End joints should never be closer than 4 inches from each other.
- · Install tongue into groove.
- · Tongue and groove should be engaged by hand.
- · Lift a plank periodically to check adhesive transfer.
- · Remove nailed board and install remainder of flooring.
- · Install base and molding after floor installation.
- Clean adhesive off surface of wood with cleaner and soft cloth. (See adhesive manufacturer's recommendations.)

For Unfinished Products:

Do not start sanding product until adhesive has cured.



Concrete or plywood type subfloors

Radiant heat Subfloors —See below.

Concrete or Plywood: Radiant Heat (OAK ONLY)

- · Radiant Heat Subfloors on or above grade.
- The maximum temperature of subfloor under normal use should not exceed 80°F. (Check with heat system manufacturer.)

 For correct water temperature inside heating pipes, check with manufacturer's suggested guidelines.

• Heating pipes must be covered with 1 1/4" of concrete or minimum of 1/8" below bottom side of plywood subfloor.

• Before installation of hardwood flooring, heat system must be operated at normal living temperature for a minimum of 14 days. One to two days before the flooring is laid, switch off heating unit. (At time of installation, subfloor should be 64° to 68°F.)

- Room temperature should not vary more than 15°F season to season. Approved systems must not exceed 8 watts per square foot heating capacity.