

Impressions Hardwood

¾" Solid Hardwood Flooring

Installation Instructions and Floor Care Guide

VERY IMPORTANT

Please read these instructions before proceeding with installation.

- Impressions Hardwood desires for you to have the best performing floor possible.
- For proper performance, it is your responsibility to handle and install this product in strict adherence to these installation instructions.
- Please read instructions in entirety before beginning installation.
- To ensure the full benefit of warranties, these instructions and maintenance procedures must be followed.
- Hardwood flooring is a beautiful product with natural variations in color, tone and grain. We cannot warrant against color variations within a floor nor variations between samples and the installed floor.
- Beautiful hardwood floors are a product of nature. This flooring is manufactured in accordance with accepted industry standards, which permit a defect tolerance not to exceed 5%. The defects may be manufacturing or natural.

PROPER HANDLING AND ACCLIMATION

- Never unload or transport flooring in rain, snow, or excessive moisture conditions.
- Do NOT store flooring where there is no climate control (no heat or A/C).
- Make sure job site conditions are right before delivering wood.
- Flooring should not be delivered until the building has been closed in with windows and doors in place and until cement work, plastering, and all other "wet" work is completed and dry. Concrete must be at least 60 days old. Open all boxes, remove flooring, cross stack or rack-out wood flooring to acclimate planks until moisture levels are within manufacturer's or NWFA guidelines. Handle and unload with care.
- Climate control at the job site must be maintained with the temperature between 60-75 degrees Fahrenheit and humidity within 35-55% before, during, and after installation. These conditions should be maintained at least 14 days prior to installation. Following installation, these conditions should be maintained at all times to ensure proper performance of the floor.
- Do NOT install until flooring is within minimum installation requirements for moisture content. Difference between subfloor and plank must not be more than 2% on plank and 4% on 2 1/4".

INSTALLER/OWNER RESPONSIBILITY

- It is the responsibility of the flooring installer and owner to conduct a quality inspection of all flooring prior to installation. All pieces of flooring should be examined for quality of manufacture, finish, and color. Flooring that has been installed will be deemed to have been inspected and accepted by the installer and owner. If the product quality is deemed unacceptable, it should not be installed.
- It is the responsibility of the installer to ensure that the job site, subfloor, and installation tools and materials meet or exceed industry standards.
- It is the responsibility of the installer/owner to make sure floor is properly acclimated to normal temperature and humidity conditions. Climate control at the job site must be maintained with the temperature between 60-75 degrees Fahrenheit and humidity within 35-55% before, during, and after installation. These conditions should be maintained at least 14 days prior to installation. Following installation, these conditions should be maintained at all times to ensure proper performance of the floor.
- Recognizing that wood floor dimensions will be slightly affected by varying levels of temperature and humidity within your building, care should be taken care to control them. To protect your investment and to ensure that your floors provide lasting satisfaction, we recommend the following:
- Heating season (Dry) - A humidifier is recommended to prevent excessive shrinkage in wood floors due to low humidity levels. Wood stoves and electric heat, in particular, tend to create very dry conditions.
- Non-heating season (Humid, Wet) - Proper humidity levels can be maintained by use of an air conditioner, dehumidifier, or by turning on your heating system periodically during the summer months. Avoid excessive exposure to water from tracking during periods of inclement weather. Do not obstruct in any way the expansion joint around the perimeter of your floor.
- Removal of existing flooring - there are risks related to removal of existing flooring, including, but not limited to exposure to lead paint and asbestos. Please take precautions to prevent exposure to these or other toxins that may be present.

TOOLS NEEDED FOR INSTALLATION

- Tape Measure
- Chalk line & chalk
- Hand saw
- Drill with 1/16" drill bit
- Hammer
- Nail Set
- Table saw, jig saw, or circular saw
- Moisture meter (wood, concrete or both)
- 3/4" "Blind" fastening machine

Note: Never hit the planks directly with a hammer. Always use a wooden block to protect the edges of the boards.



PRE-INSTALLATION PROCEDURES

JOB SITE EVALUATION

It is the responsibility of the installer to ensure that all factors that could possibly impact the performance of a hardwood floor are evaluated and addressed prior to installation.

- The building should be closed in with all outside doors and windows in place. All concrete, masonry, framing members, drywall, paint and other "wet" work should be dry.
- The wall coverings should be in place and the painting completed except for the final coat on the base molding. When possible, delay installation of base molding until flooring installation is complete.
- Exterior grading should be complete with surface drainage directing water away from the building. All gutters and downspouts should be in place.
- Solid flooring can only be installed on or above grade level.
- Do not install over radiant heat.
- Do not install in full bathrooms.
- Basements and crawl spaces must be dry and well ventilated.
- Crawl spaces must have no standing water and should have a vapor barrier installed in accordance with local building codes.
- Crawl space must be a minimum of 24" (600 mm) from the ground to underside of joists. A ground cover of 6-8 mil black polyethylene film is essential as a vapor barrier with joints lapped six inches and taped. The crawl space should have perimeter venting equal to a minimum of 1.5% of the crawl space square footage. These vents should be properly located to foster cross ventilation (see figure 1).
- Subfloor must be checked every 200 sq. ft for moisture content using the appropriate testing method.
- Subfloors must be clean, level, and structurally sound. Subfloor construction must meet or exceed all applicable standards of the construction and materials industry.
- Permanent air conditioning and heating systems should be in place and operational. The installation site should have a consistent room temperature of 60-75 degrees F and humidity of 35-55% for 14 days prior, during and until occupied, to allow for proper acclimation.

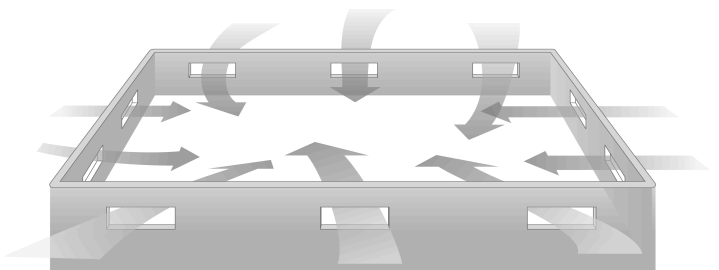


Figure 1

SUBFLOOR REQUIREMENTS

Subfloors must be:

CLEAN - Scrape, broom clean, and smooth. Free of wax, paint, oil, and/or debris.

LEVEL/FLAT - Must be flat within 1/8" in 8'. Sand high areas or joints. Low spots can be flattened using shims or layers of builder's felt between the wood and the subfloor during installation.

STRUCTURALLY SOUND - nail or screw any loose areas that squeak. Replace any water-damaged, swollen, or de-laminated subflooring or underlayments, as they are not properly able to hold fasteners. Avoid subfloor with excessive vertical movement unless they have been properly stiffened prior to the installation of the wood flooring.

DRY - Check moisture content of subfloor. Moisture content of wood subfloor must not exceed 13% on a wood moisture meter. Difference between subfloor and plank must not be more than 2%.

RECOMMENDED SUBFLOOR SURFACES:

- Preferred: 3/4" (19mm) CDX grade plywood; 3/4" (23/32") OSB PS2 rated underlayment.
- Minimum: 5/8" CDX grade plywood
- Existing solid wood flooring
- Screeds
- T&G wood subflooring
- Do NOT install over radiant heated subfloors.

NOTE: Aquabar "B", HWD 15 or 15# builders felt acts as a moisture retarder and may be used to reduce movement caused by changes in subfloor moisture, thereby reducing cupping and warping. (This is especially helpful over crawl spaces and basements) In addition, the use of these materials can give the flooring a more solid feeling, reduce sound transfer, prevent noise caused by minor irregularities and debris, and make it easier to slide the wood together across the surface of the subfloor. Kraft paper may be used to make installation easier but DOES NOT serve any other purpose.

WOOD SUBFLOORS & WOOD STRUCTURAL PANEL SUBFLOORS

Plywood: Must be minimum APA grade rated sheathing or CDX. Oriented Strand Board (OSB): Must be PS2 rated installed sealed side down. Do Not install over particleboard, waferboard, pressed wood or fiber board.

Make sure existing floor or subfloor is dry and well nailed or screwed down every 6" along each joist to avoid squeaking or popping before the floor is installed. Measure moisture content of both subfloor and wood flooring to determine proper moisture content with a reliable wood moisture meter. The wood subfloor must not exceed 13% moisture content as measured with a reliable wood moisture meter. The difference between the moisture content of the wood subfloor and the wood flooring must not exceed 2% on plank or 4% on 2 1/4". Optimum performance of hardwood floor covering products occurs when there is no horizontal or vertical movement of the subfloor. The MINIMUM subfloor recommendations described above are for 16" O/C joist spacing. The thicker, PREFERRED subfloor recommendations described above will allow 19.2" joist spacing if the joist manufacturer's recommended span is not exceeded. Spacing in excess of 19.2" O/C may not offer optimum results. Install flooring perpendicular to the floor joists when possible. Installations should not be made parallel to the floor joists or on joist spacing that exceeds 19.2" O/C unless the subfloor has been properly stiffened. Stiffening may require the addition of a second layer of subflooring material to bring the overall thickness to at least 1-1/8". All underlayment panels should be spaced 1/8" apart to insure adequate expansion space. T&G panels normally have built in expansion; DO NOT cut around the perimeter of T&G panels. Do not install over existing glue--down floors. Do not install over nailed floors that exceed 3-1/4" in width. Wide width floors must be overlaid with plywood. When installing over existing wood floors parallel with the flooring, it may be necessary to install an additional 1/4" layer of plywood to stabilize the flooring or install the wood floor at right angles.

CONCRETE SLABS

Solid flooring can be installed over concrete once the appropriate nailing surface has been installed. The concrete must be of high compressive strength. All concrete subfloors must be tested for moisture content.

Note: Test several areas, especially near exterior walls and walls containing plumbing.

- A 3% Phenolphthalein in Anhydrous alcohol solution. Chip the concrete at least 1/4" deep (do not apply directly to the concrete surface) and apply several drops of the solution to the chipped area. If any color change occurs, further testing is required.
- Calcium Chloride test. The maximum moisture transfer must not exceed 3 lbs/1000 square feet with this test.

Relative Humidity Testing (using in situ probes)

Perform 3 test for each 1000sf. RH should be below 75%. Readings over 75% may require additional moisture prevention steps prior to installation. See below.

MOISTURE BARRIER SYSTEM

If the above tests reveal unacceptable moisture levels, use a moisture vapor product such as Fortane MVS Ultra or comparable product before installation.

A "DRY" SLAB, AS DEFINED BY THESE TESTS CAN BE WET AT OTHER TIMES OF THE YEAR. THESE TESTS DO NOT GUARANTEE A DRY SLAB. ALL CONCRETE SLABS SHOULD HAVE A MINIMUM OF 6 MIL POLY FILM MOISTURE BARRIER BETWEEN THE GROUND AND THE CONCRETE.

Moisture Retardant System: If moisture is present, install 6-mil poly to the surface of the concrete BEFORE installing the subfloor. Several layers of laminated rosin paper or builders felt (tar paper) may also be used. All materials should have joints lapped 6". If you have any questions regarding installation or the handling of moisture problems, please contact the distributor/retailer from whom the goods were purchased.

Note: Moisture resistant barrier has been added to Hampton, Nantucket, and Piedmont series products. However, this is not a moisture proof barrier.

SUBFLOOR SYSTEMS

Bonded: Install a suitable moisture retardant followed by a plywood subfloor with a minimum thickness of 3/4". Allow 1/2" expansion space around all vertical objects and 1/8" between all flooring panels. The panel must be properly attached to the subfloor using a minimum of one fastener per square foot and more if necessary. Use pneumatic or powder actuated fasteners. Do not hand nail the subfloor with concrete nails. Install a moisture retardant barrier with joints lapped 6" and begin installation of flooring using 1-1/2" fasteners.

Floating: Install a suitable moisture retardant followed by a plywood subfloor with a minimum of 3/8". Allow 1/2" expansion space around all vertical objects and 1/8" between all flooring panels. Install a second layer of 3/8" plywood at a right angle to the previous panels, offsetting the joints 2'. Staple together with staples that will not penetrate the first layer of subfloor with a crown width of 3/8" or more. Install a moisture retardant barrier as above and begin installation of flooring.

RESILIENT TILE & RESILIENT SHEET VINYL

Make sure the vinyl or tile is well bonded to the subfloor. Do not install over more than one layer, which does not exceed 1/8" in thickness over suitable subfloor.

DOORWAY AND WALL PREPARATION

Undercut door casings. Remove any existing base, shoe mold or doorway thresholds. These items can be replaced after installation. All door casings should be notched out or undercut to avoid difficult scribe cuts.

INSTALLATION APPLICATIONS

Note: Minor squeaking of mechanically fastened floors is not abnormal due to structural movement caused by changes in environmental conditions. Following these instructions can minimize these factors, but offer no guarantee that the floor will not squeak.

GENERAL INFORMATION FOR FASTENING MACHINES:

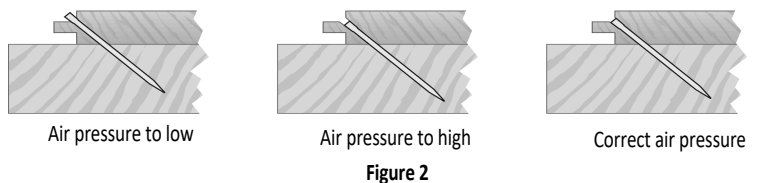
Avoid striking the edge of prefinished products with the fastener's mallet. Edge crushing can occur causing unsightly cracks and splinters. Use a block to hammer against if necessary. Faceplates should be covered with protective materials to prevent damage to the surface of the flooring.

GENERAL INFORMATION FOR MANUAL FASTENING MACHINES:

Improper adapter plate selection can cause severe edge damage. Ascertain that the proper adapter has been selected and properly installed for 3/4" flooring.

GENERAL INFORMATION FOR PNEUMATIC FASTENING MACHINES:

Improper pressure settings and failure to use proper adapters can cause severe damage to the flooring. The correct adapter and air pressure setting will properly set the fastener in the nail pocket. Low air pressures may fail to properly set the fastener and damage adjoining boards. Air pressures set too high may cause damage to the tongue which may dramatically reduce the holding power of the fastener causing loose, squeaky floors. Make certain that the compressor has a regulator in--line with the air hose for proper adjustment. Set pressure at 70- 75PSI to begin with and adjust until proper fastener setting occurs. (See Figure 2)



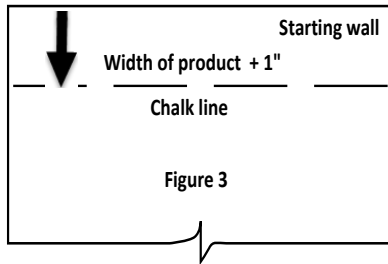
GENERAL INSTALLATION TIPS

- Acclimate wood flooring before installation to allow for wood to adjust to normal living conditions. Cross stack or rack-out wood to acclimate.
- Floor should be installed from several cartons at the same time to ensure good color and shade mixture.
- Be attentive to staggering the ends of the boards at least 6", when possible, in adjacent rows. This will help ensure a more favorable overall appearance of the floor.
- Large spans in areas of high humidity may require the addition of internal or field expansion. This can be accomplished by using spacers, such as small washers, every 10-20 rows inserted above the tongue and removed after several adjoining rows have been fastened.

GENERAL INSTALLATION GUIDELINES

STEP 1: ESTABLISH A STARTING POINT --- WALL TO WALL INSTALLATION

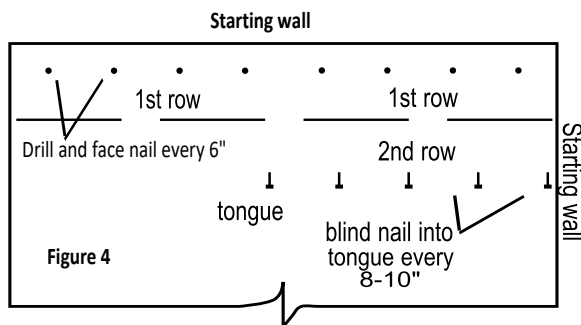
- Installation parallel to the longest wall is recommended for best visual effects, however, the floor should be installed perpendicular to the flooring joists unless subfloor has been reinforced to reduce subfloor sagging.
- If a moisture retardant material is to be used, such as Aquabar "B", HWD 15, or 15# builder's felt, install this material before proceeding, lapping joints 6" and stapling if necessary.
- Measure the width of the product being installed. For random or alternate width products, use the widest plank for the first row.
- Add 1" to allow for 3/4" expansion and the width of the tongue.
- Using this measurement, in at least two places, measure out equal distance from the starting wall and 12"-18" from the corners (see Figure 3) and snap a chalk line.



STEP 2: INSTALLING FIRST ROWS --- WALL TO WALL INSTALLATION

NOTE: Always end glue wide width (4" or more) planks with a good construction adhesive.

- Use the longest, straightest boards available for the first two rows. Align tongue of first row on chalk line. The groove should be facing the starting wall. Pre-drill the nail holes 1/2" from back (groove) edge, 1-2" from each end, and at 6" intervals at a 45 degree angle down through the nailing "pocket" on top of the tongue (see figure 4).
- Face-nail the groove side where pre-drilled. When complete, blind-nail at a 45---degree angle through the tongue of the first row. Fasten using 6 or 8d nails. Countersink nails to ensure flush engagement of groove. Avoid bruising the wood by using a nail set to drive the nails the last 1/4" into the tongue. Continue blind-nailing using this method with following rows until stapler or nailer can be used.
- End-joints of adjacent rows should be staggered a minimum of 6" to ensure a more favorable overall appearance.
- Beginning rows may be blind-nailed where clearance allows using a pneumatic finish nailer with 15 gauge, 1-1/2" (minimum) nails.



STEP 1 & 2: CENTER TO WALL INSTALLATION

- Snap a chalk line down the center of the room.
- Install a sacrificial row that extends the entire length of the room on the center line.
- Install three rows of flooring.
- Remove the sacrificial row and insert a slip tongue in the open groove.

STEP 3: RACKING THE FLOOR

- "Dry" lay materials to cover approximately 2/3 of the room. Begin dry laying approximately 6" from the edge of the previously installed rows. Avoid pulling boards too tightly together on the sides, as they must move freely when fastening begins.

- Mark the final board in each row and cut to proper length allowing for expansion. Visually inspect flooring, setting aside boards that need to have natural character flaws cut out. Use these boards for starting and finishing row after objectionable characteristics have been removed.

STEP 4: INSTALLING THE FLOOR

- Fasten a sacrificial board to the floor. Check for surface damage, air pressure setting, tongue damage, etc. before proceeding. Make all adjustments and corrections before installation begins. Once proper adjustments have been made, remove and destroy the board.

- Begin installation with several rows at a time, fastening each board with at least two fasteners, 8-10" apart and 4-6" from the ends (to avoid splitting or creating excessive overwood on the end joints). Tighten boards as necessary to reduce gaps before fastening.

STEP 4: INSTALLING THE FLOOR (continued)

- End-joints of adjacent rows should be staggered 6" when possible to ensure a more favorable overall appearance.
- The last 1-2 rows will need to be face-nailed where clearance does not permit blind nailing with stapler or brad nailer. Pre-drill and face-nail on the tongue side following the nailing pattern used for the first row.
- Rip final row to fit and face-nail. If the final row is less than 1" in width, it should first be glued to the previous UNINSTALLED row and the two joined units should be face-nailed as one.

STEP 5: COMPLETING THE JOB

- Clean floor with the recommended wood flooring cleaner.
- Re-install any transition pieces that may be needed, such as Reducer Strips, T-moldings, or Thresholds. The products are available pre-finished to coordinate with your flooring.
- Re-install all base and/or quarter round moldings. Nail moldings into the wall, not the floor.
- Inspect the floor, filling all minor gaps with the appropriate blended filler.
- If the floor is to be covered, use a breathable material such as cardboard. Do not cover with plastic or any other material acting as a vapor barrier.
- To prevent surface damage avoid rolling heavy appliances and furniture on the floor. Use plywood, hardboard, or appliance lifts if necessary.
- Leave warranty and floor care information with the owner.

ATTENTION INSTALLERS CAUTION: WOOD DUST Sawing, sanding and machining wood products can produce wood dust. Airborne wood dust can cause respiratory, eye, and skin irritation. The International Agency for Research on Cancer (ARC) has classified wood dust as a nasal carcinogen in humans.

Precautionary Measures: If power tools are used, they should be equipped with a dust collector. If high dust levels are encountered, use an appropriate NIOSH---designated dust mask. Avoid dust contact with eye and skin. First Aid Measures in case of Irritation: flush eyes or skin with water for at least 15 minutes. Material Safety Data Sheets are available at 866-722-4442 .

FLOOR CARE GUIDE

PREVENTATIVE MAINTENANCE

To ensure the full benefit of warranties and to extend the beauty of your new hardwood floor, we recommend the following preventative maintenance steps for your hardwood floor.

- Use floor mats at all entrances to help keep dirt and moisture from being tracked in. Area rugs are recommended in high traffic areas and at sinks. Mats and area rugs should be slip resistant with backing that will not discolor the floor.
- To help guard against scratches and dents, install felt floor protectors under furniture legs and equipment.
- Use soft rubber casters for rolling furniture.
- Remove high heels or shoes that need repair. Some types of high heel shoes can severely damage the surface of any floor covering.
- Maintain a healthy humidity at 35-55%. Certain regions within North America have extreme changes in humidity levels that can affect all wood floors. To maintain the humidity at the healthy range of 35-55%, it may require either a humidifier or a dehumidifier.

REGULAR MAINTENANCE

- Do not let sand, dirt and grit build up on your floors.
- Dust, sweep and vacuum floors regularly.
- For normal cleaning use the Impressions Hardwood cleaner or comparable product. Do NOT wet mop your hardwood floor.
- Do NOT use a steam cleaner or steam mop to clean hardwood.
- Never use wax, oil soap, or vinegars!