

INSTALLATION INSTRUCTIONS:

PROGRAMME II STAGE, *Fixed Resilient System*

NOTE: THIS MANUAL PROVIDES A FUNDAMENTAL REFERENCE GUIDE FOR THE INSTALLATION OF THE PROGRAMME II STAGE FLOOR SYSTEM. WHILE INFINITY WOOD FLOORS BELIEVES THAT FOLLOWING THESE INSTRUCTIONS WILL RESULT IN THE BEST INSTALLATION, IT MAKES NO WARRANTY OR REPRESENTATION OF ANY NATURE, TYPE, OR DESCRIPTION EXPRESSED, IMPLIED, OR PROVIDED BY LAW RESPECTING THE INSTALLATION PROCESS OR THE RESULTS ACHIEVED. ALTHOUGH VALUABLE INFORMATION IS PROVIDED IN THIS GUIDE, IT IS NOT INTENDED AS SUBSTITUTE FOR ON SITE TRAINING BY QUALIFIED AND EXPERIENCED PERSONNEL. ALL SPECIFICATIONS MUST BE FOLLOWED

Job Site Conditions

Before start of project, the steps outlined below must be taken to protect you, the flooring contractor, and to ensure a quality project.

- 1) The wood flooring and all of its components shall not be delivered or installed until all overhead and wet trades are complete. This includes but is not limited to electrical, masonry, painting, plaster, tile, marble, and terrazzo.
- 2) The building shall be fully enclosed and weather tight. Permanent windows and doors shall be installed; the H.V.A.C. system should be complete, operational, and conditioning air to be within specifications (55/75 degrees with humidity between 35/ 50 percent) or to conditions expected following installation and during occupancy.
- 3) Flooring contractor shall verify slab tolerance (+/-1/8" in 10' radius) and report to owner, general contractor, or architect in writing, any and all discrepancies. All high spots will need to be ground and low spots filled with approved leveling compound by the concrete contractor to meet the approval of flooring contractor.
- 4) Flooring contractor shall document working conditions on site both prior to and during installation. This document shall become part of any warranty and may affect fulfillment of said warranty. To include but not limited to ambient temperature, humidity, and moisture content of strip flooring. These readings should be taken a minimum of twice a day at several locations each time and more often when site conditions warrant.
- 5) The concrete substrate shall be deemed fully cured by industry standard embedded probe relative humidity (RH) testing. RH levels are required to be 85% or lower to proceed with a standard 6-mil polyethylene vapor retarder. Suitable heavy-duty vapor retarders shall be included to address RH levels above 85%. In all regards, the concrete surface vapor retarder is included only to address vapor remaining in a substantially cured and dry slab and is not included to address free moisture (i.e., hydrostatic pressure, ground water, poor drainage, water leaks). Flooring and subfloor materials should not be brought to the job site and stored over concrete with elevated RH levels. Polyethylene Film test, Calcium Chloride test or Electronic Moisture Meters can be used as pre-tests only and should not be used to determine if the concrete slab has reached acceptable levels for installation.

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- 6) Flooring must be stored on site in a dry well-ventilated area, not in direct contact with the concrete, while acclimating to site conditions. Moisture content of wood shall be consistent with the ambient conditions of the building as they will be maintained when occupied.
- 7) Concrete slab depressions shall be consistent with total height of sub floor and strip wood floor combined. Any and all discrepancies shall be addressed prior to material being delivered.

Programme II Stage Installation Tools Required

- Humidity meter
- 10" or 12' metal straight edge (for checking flatness)
- Marking paint (to mark slab if required)
- Dolly (for moving material)
- Shim material for floor
- Chalk line
- Vapor Retarder (Visqueen)
- Duct tape or adhesive for vapor retarder lap joints
- Concrete hammer drill
- 1/4" masonry bits
- 3# or 5# hammer
- Chop saw
- Table saw
- Jigsaw (with wood and metal blade)
- Air compressor & hoses
- Extension cords
- Pneumatic stapler & staples (for stapling sub floor)
- Pneumatic gun & fasteners (for attaching strip floor)
- Hand drive 6d or 8d coated finish nails or pneumatic gun and finish nails
- General carpentry tools
- Moisture meter (for checking sub floor and strip flooring)
- Expansion spacers (nylon line) if anticipating possible intermediate expansion
- Wide, fine bristle broom
- Sanding and finishing equipment

Programme II Stage Installation Instructions

- 1) Two to three weeks prior to materials being delivered to the project, the foreman should visit the site and verify conditions. This includes making a 5' grid and checking slab tolerances using a 10' straight edge, moving it perpendicular to the plotted grid in both directions to identify all areas requiring correction. (Note: The use of a transit or laser alone does not include measurements between the grid points.) If conditions are not satisfactory the general contractor should be informed to make appropriate corrections. Concrete moisture test should be taken at several spots in work area to determine average moisture content. Verify jobsite is on schedule and all requirements are going to be or have been met. This would include but is not limited to the building being fully enclosed, H.V.A.C. system working and conditioning air to manufacturer's specifications, overhead trades complete, wet trades complete, etc. Start project documentation; include moisture content of slab, humidity levels and any problems with job site.
- 2) When materials are delivered to site, make sure there is an adequate means to handle and place materials. The storage area should be in the work site. Storing materials in the four corners will save extra handling later. Allow enough time for materials to be acclimated to site conditions if required.
- 3) Begin installation by first having proper job documentation (temperature, humidity, moisture content, progress, and problems). Job documentation needs to be done every day, twice a day (minimum) throughout the duration of the project.
- 4) Sweep entire project using a sweeping compound to control dust if necessary. Drag metal straight edge over entire surface to confirm concrete flatness has been achieved if remedial work was required. Mark remaining low and high locations for further attention by the general contractor.
- 5) After confirming acceptable concrete RH level, install vapor retarder over entire floor running slightly up walls. Overlap all joints by 6" and seal with 2" duct tape or adhesive.
- 6) Provide solid blocking at doorways, and where heavy long-term loads are located.
- 7) Snap chalk line from front of stage perpendicular to the finished flooring direction for alignment of first sleeper row. Start first row and all odd numbered rows with full length sleeper with end spaced 1-1/2" from wall and aligned along chalk line. Continue aligning full sleepers end to end along chalk line with ends spaced 1/4". Attach each sleeper to concrete with anchors applied at two pre-drilled end locations and center location (three total) by drilling slab with 1/4" masonry bit. Drive anchor pin with washer attached until snug to steel channel.

Start second sleeper row and all even numbered rows with half-length (4') sleeper, spacing cut ends 1-1/2" from wall and attach to concrete in two pre-drilled anchor pockets. Space sleeper 16-1/8" on center from adjacent sleeper row and complete with full sleepers spaced 1/4" at ends and provide three anchors per sleeper as previously described. Note: Minimum 2' sleeper lengths remaining from finishing wall can be used to start sleeper rows

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to improve material yield provided that ends in adjacent rows are offset by minimum 16" and all plywood end joints are offset by minimum 12" from sleeper ends. Add additional support between channel and underside of sleeper if required when trimmed.

8) Subfloor Installation

Install 3/4" (23/32") plywood subfloor panels parallel to sleepers with long edges centered on sleeper rows. Lay in brick pattern with edges spaced 1/4" and offset end joints 48". Space plywood edges from sleeper ends by minimum 12" and provide 1-1/2" to 2" expansion voids at perimeter and all vertical obstructions. Attach subfloor at all supporting sleeper intersections with fasteners spaced 12" on center.

When including 1/4" hardboard surface:

Install added 1/2" (15/32") or 3/4" (23/32") plywood panels diagonally onto lower subfloor in a staggered brick pattern with end joints offset 48" and edges spaced 1/4". Provide 1-1/2" to 2" expansion voids at perimeter and all vertical obstructions. Attach to lower plywood subfloor layer with fasteners spaced 12" on center along all panel edges and throughout each panel.

9) Floor Surface Installation

Install tongue and groove flooring:

perpendicular to sleepers and plywood subfloor direction and attach with power nails or staples approximately 12" on center with all end joints properly driven tight.

Face nail with countersinking nailing gun or hammer driven 6d or 8d coated nails near walls and other vertical obstructions where the use of a flooring nail/staple gun is not possible. Pre-drill a slightly undersized hole in flooring to prevent splitting the boards if hammer driving fasteners and cover with suitable filler after countersinking.

Expansion joints may be required between flooring strips intermittently throughout the floor as determined by site and geographical conditions.

Provide 1-1/2" (40mm) to 2" (51mm) expansion void at all walls and permanent obstructions.

Install Hardboard Faced Laminate Panel Surface or Hardboard Panel Surface:

parallel to front of stage with panel ends offset by 48" in adjacent rows. Provide 3/32" spacing between all edges or adjust in relation to facilities anticipated environmental conditions. Align panels with 48" ends aligned over sleeper locations and offset all panels edges by minimum of 16" from plywood subfloor edges. Attach panels with screw heads driven flush with panel surface and spaced 6" on center within 1-1/2" of all panel edges and 12" on center throughout each panel.

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10) Finishing

Hardwood Flooring Surface: Inspect entire floor for defects and correct as required. Fill all small voids (do not fill spaces between flooring board side edges) with wood filler then machine sand entire hardwood flooring surface using coarse, medium and fine grit sandpaper to a smooth uniform surface free of drum drops and edger marks. Remove all sanding dust and lint from entire surface by vacuum or tack cloth.

Apply (2) coats of approved seal and (2) coats of approved finish per manufacturer's label instructions. Buff, clean and tack flooring surface between coats.

Hardboard Faced Laminate Panel Surface or Hardboard Panel Surface: Abrade, vacuum, and tack all dust and dirt from floor surface before applying first seal coat. Abrade and remove dust between additional coats per coating manufacturer's instructions.

- 11) General contractor or owner shall take steps to secure stage floor until finish is cured and flooring contractor allows foot traffic.
- 12) Install vent cove base to walls with adhesive or mechanical fasteners, using pre-molded outside corners as needed, and mitered inside corners. NOTE: When using adhesive take care not to block air cavities.
- 13) Install thresholds, transitions, and floor plates to adequately allow for expansion and contraction of the wood floor. Do not directly or indirectly attach in a manner that binds the wood floor to the concrete substrate.