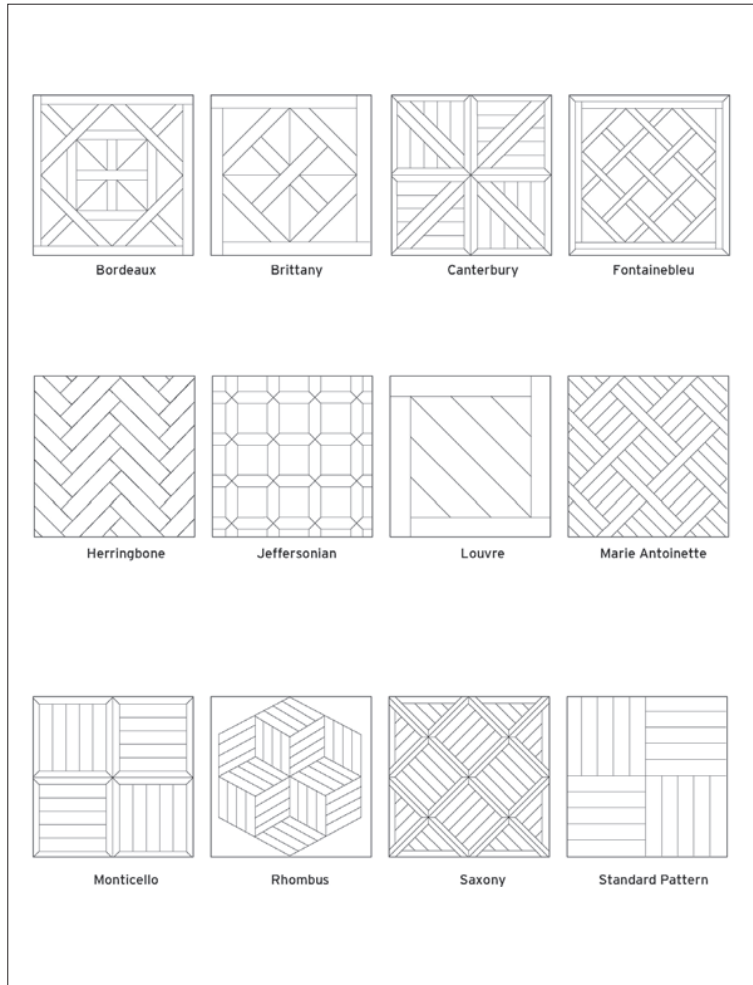


# INSTALLATION METHODS: Parquet

Parquet wood floors are a specific type of wood floor that has a geometric pattern.

## PART I Parquet Patterns

- A. Parquet patterns often take their names from famous people or places. The Monticello pattern, for example, is based on floors in Thomas Jefferson's home, and the Jeffersonian is a variation on that pattern. Others, such as Brittany, Bordeaux, and Canterbury, are named for places where they are thought to have originated.
- B. There are also geometric patterns like herringbone, chevron, rhombus, and standard block- pattern parquet. Custom parquet patterns can also be created.
- C. Parquet material thickness varies from 5/16" to 3/4" and may be solid or engineered. Parquet typically is made up of individual pieces, assembled into panels held together by wire, mesh, tape, or paperface (on the surface). Check with the manufacturer for specific installation instructions.
- D. When ordering parquet, base your measurements on the actual dimension of the pattern. The quantity of parquet tiles, blocks, or pieces necessary will be dictated by the jobsite layout, and the repetition of the pattern itself.



## PART II Substrate Requirements

Parquet wood flooring may be installed over many substrates, as long as they meet the minimum requirements as detailed in the applicable chapter. Inspect the substrate to ensure it meets all requirements for the flooring being installed, and the method in which it is being installed.

- A. Wood subfloors (refer to the Wood Subfloors chapter for more detailed information).
  1. Inspect the wood subfloor to ensure it meets all flooring and adhesive manufacturer requirements.
  2. Test the wood subfloor material for compatibility with any wood flooring adhesive being used. (Some types of wood flooring adhesives do not adhere to some high-performance OSB panels.)
  3. Check that the type and integrity of the wood subfloor is appropriate for the wood floor installation. This includes subfloor thickness and joist/floor truss spacing requirements, maximum vertical deflection requirements, and that it is sound and free from squeaks and noises.

4. Flatness: The standard for flatness with parquet installation methods on a wood subfloor is 3/16" in 10', or 1/8" in 6'.
  5. When testing for moisture, both the wood flooring and the wood subfloor should be evaluated and documented (refer to the Moisture Testing Wood chapter for testing information).
- B. Concrete subfloors (refer to the Concrete Subfloors chapter for more-detailed information)
1. Inspect the concrete subfloor to ensure it meets all adhesive and flooring manufacturer requirements.
  2. If any subfloor toppings such as self-levelers, skim-coatings, patches, trowelable underlayments, or floor-fills exist, ensure any sealers or adhesive products are compatible with these toppings.
  3. Flatness: The standard for flatness for a concrete subfloor with parquet glue-down installation methods is 3/16" in 10', or 1/8" in 6'.
  4. Moisture test the concrete subfloor in relation to the flooring being used. Refer to the Moisture Testing chapter for more information. When testing for moisture, both the wood flooring and the concrete subfloor should be evaluated.
- C. Solid board subfloors (refer to the Wood Subfloors chapter for more detailed information)
1. When gluing down parquet over solid board subfloors, installation of minimum 19/32 subfloor panels is required as an overlay to achieve a suitable substrate.
- D. Screeds/sleepers (refer to the Screeds/Sleepers chapter for more detailed information)
1. Full-spread glue-down and nail-assisted glue-down installation methods are appropriate over properly prepared screeds/sleepers embedded in concrete, or when screeds/sleepers have been overlaid with the appropriate wood panel subfloor.
- E. Radiant heat (refer to the Radiant Heat chapter for more detailed information)
1. When gluing parquet over any radiant heating system, refer to the Radiant Heat chapter for more information.
  2. Confirm the adhesive system being used is compatible with the radiant heating system.
  3. Reduce or turn off heat during installation of the flooring to avoid loss of open/working time, premature drying, and skinning-over of the adhesive. Check with the adhesive manufacturer for minimum/maximum subfloor temperature limitations during the installation.

## PART III Parquet Layout

- A. In general, when a wood floor is laid out in a repetitive pattern, such as with parquet, the pattern should be balanced within the space. When the parquet pattern is installed wall-to-wall in a room that is not symmetrical, or when the pattern flows from one room to another, the floor pattern may not be balanced in all rooms.
- B. With any parquet patterned floor, use the center-layout method to transfer and adjust your starting lines according to the most aesthetically or architecturally important elements in the rooms, taking into consideration doorways, fireplaces, cabinets, and transitions, as well as the dimensions of the pattern and the overall squareness of each room. (Refer to the Layout chapter for more-detailed information.)
- C. In order to properly layout the parquet pattern within the given space, the dimensions of the pattern should be taken into account.
- D. The layout includes finding the center of the pattern to help identify the best balance within the space. Base your working line measurements on these dimensions and the room characteristics where the flooring will be installed. Transfer lines as necessary to where the flooring installation will begin.
- E. Use the dimensions of the parquet pattern to snap chalk lines across the subfloor indicating where each run will lie. This will allow you to know where to apply adhesive during the installation as well as to maintain straight lines during install.
- F. Verify all measurements before proceeding with installation and application of adhesive.

## PART IV Parquet Tile Installation

- A. Expansion space should be a minimum of 1/2" around the perimeter and all vertical obstructions, unless otherwise directed by the flooring manufacturer.
- B. Parquet is often glued, but can also be blind-nailed (in a nail-assisted glue-down method) as long as the pattern continues to have an exposed side tongue for nailing.
  1. Nail-assisted glue-down:
    - a. With full-spread installations over wood subfloors, it is sometimes necessary or helpful to blind-nail the flooring into the wood substrate periodically.

- b. This method may be appropriate where flooring needs to be driven tight during the installation. There is no recommended nailing schedule for this method, as the fasteners are used strictly as a supplement to the glue-down method.
  - c. Be extremely cautious of the impact from the pneumatic nailer on the parquet tiles. The impact can force the parquet tiles out of their intended placement, knocking the pattern out of square.
- C. After both chalk lines (at 90 degrees to each other) have been snapped, start spreading the adhesive in the first laying area. Be careful not to spread adhesive beyond the chalk line or beyond your manageable work space.
- D. Immediately lay the parquet tiles in the newly spread adhesive, unless the adhesive requires flash time (check with the adhesive manufacturer).
1. Do not lay the floor tiles on dry or skinned-over adhesive. If the adhesive becomes dry, scrape it up and spread more.
  2. It is important to remember to stand or kneel on the subfloor during the installation to avoid shifting the installed parquet tiles.
- E. Proper placement of the first parquet tiles is the key to the entire installation.
1. Carefully place the first tile squarely in position at the point where the center lines cross. It is very important to lay the first few tiles perfectly on the chalk lines as this step will affect the entire installation. Do not use the edge of the tongue for aligning the tile on the chalk lines.



2. Place tiles firmly against the adjoining tiles and press into adhesive. Gently lock in the tongue and groove between the floor tiles when applicable.
3. Do not push, hammer, or force the tiles too strenuously as this could cause the tiles to move and misalign the squareness of the layout. Where you are able, set backer rails

along the chalk lines, providing a firm framework to apply force when engaging panels while not forcing the pattern out of square.

- F. After you have positioned several tiles along the working lines, begin stair-stepping the tiles into a progressive diagonal (or multilateral) pattern where two sides are always engaging two laid panels, progressing from the center outward until wall lines are reached. This ensures both a balanced install and the "squareness" of the installation.



- G. Tapping blocks and pull-bars may be used to drive tiles tight during installation. Be certain to only use tapping blocks or pull-bars that do not damage the flooring.
- H. Periodically lift tiles immediately after installation and at regular intervals to ensure proper coverage and adhesive transfer to the back of the tiles from subfloor is achieved.
- I. Spline/slip-tongue: Spline or slip-tongue is used to maintain T&G within the entire flooring system. Use spline/slip-tongue to adjoin tiles when applicable.
- J. Use quick-release tape, straps, or tensioners to maintain a tight floor when necessary, and as suggested by the adhesive manufacturer.
- K. If recommended by the adhesive manufacturer, roll the floor with the proper weighted roller.
- L. Clean all adhesive residue from the flooring surface using a proper adhesive remover as recommended by the adhesive and flooring manufacturer. Be sure to use the recommended cleaner to remove any residue that may have been left from the proper adhesive remover. Do not use a product or process that could damage the finished flooring.
- M. Allow the floor to set for at least 24 hours, or as otherwise directed by the adhesive manufacturer, before allowing foot traffic.
- N. Be sure the adhesive has had adequate time to dry and finish off-gassing before any topcoats of finish get applied to the floor.

## PART V Herringbone/ Chevron Installation

- A. **Glue-down installation:** Herringbone/chevron patterns are often glued down. Refer to the Glue-Down chapter for glue down information.
- B. **Nail-down installation:** Nail herringbone or chevron patterns using the appropriate nailing schedule for the flooring being installed as long as the pattern continues to have an exposed side tongue for nailing. Refer to the Nail-Down Installation chapter for nailing schedule information, and glue-assisted installation methods. (Be extremely cautious of the impact from the pneumatic nailer on the herringbone/chevron planks. The impact can force the planks out of their intended placement, knocking the pattern out of square.)
- C. **Nail-assisted glue-down:**

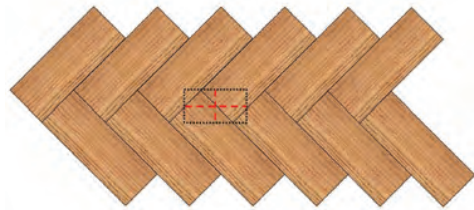


- 1. With full-spread installations over wood subfloors, it is sometimes necessary or helpful to blind-nail the flooring into the wood substrate periodically.
  - 2. This method may be appropriate where flooring needs to be driven tight during the installation. There is no recommended nailing schedule for this method, as the fasteners are strictly used as a supplement to the glue-down method.
- D. Herringbone direction should be installed in accordance with client preference. The distinct directional pattern may look best with the points in the direction of the longest dimension of the room, or toward a major focal point.
  - E. Herringbone-patterned floors can be ordered with 'left' and 'right' pieces because the pattern is directional. When looking at the face of the boards, they are a mirror image of each other. A universal form has grooves on both ends and slip-tongue or spline is used at each end connection.

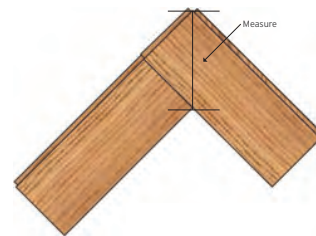
- F. When laying out the floor prior to installation, be sure to work from multiple bundles or packages to ensure variation.
- G. Laying out a herringbone pattern:



- 1. Using the center-layout method, measure the room for center and strike the main control, perpendicular, and diagonal reference lines, as detailed in the Layout chapter.
- 2. Find true center on the pattern to establish the working lines.



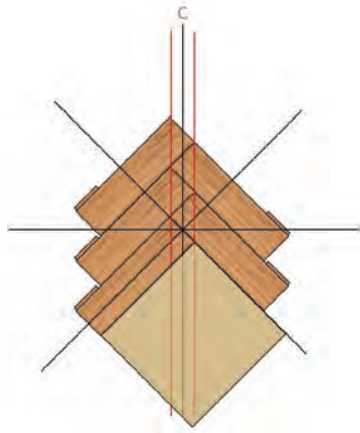
- a. To find center of a herringbone pattern:
  - i. Divide the diagonal measurement by four. This is the dimension used to establish the working lines A and B on both sides of the control line.



- ii. This measurement will vary according to the width of the flooring.
- b. To find center of a chevron pattern, measure the entire pattern width and divide by 2. The mitered point is center.



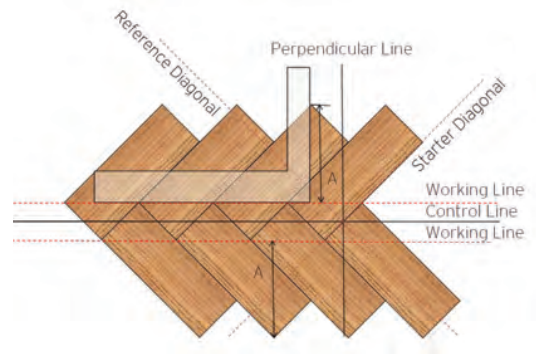
3. Strike two working lines alongside the main control line. Working lines for herringbone should fall through the corners of each alternating slat. Working lines for chevron patterns should fall on the opposite mitered end of each picket.
4. Transfer the diagonal lines to the working lines.
5. Dry-lay a small section and measure to confirm a balanced layout.
6. The floor pattern is installed along working lines.
7. Once the working lines are established, the installation can begin.
8. To keep the installation square, cut a square piece of plywood the size of the herringbone pattern and anchor it at the intersection of the working lines and diagonal lines.



H. Installing a herringbone pattern:

1. The starting point must have working lines and diagonal lines.
2. For direct glue, do not spread adhesive over working lines.
3. Start with the tongue facing toward the build direction.
4. Install pattern one row at a time.
5. Periodically check alignment and squareness using a carpenter's square at the head of the run as it progresses.

- I. To continue the pattern:
  1. Dry lay approximately eight boards
  2. Lay a framing square from the points on the working line to the outermost point.
  3. Record measurement A; this becomes your working line for the next course.



4. Once measurement A is established, the working lines can be repeated throughout the installation.

