

Kährs®

INSTALLATION GUIDE KÄHRS WOOD FLOORING FLOATING INSTALLATION

KÄHRS WOODLOC®5S
KÄHRS WOODLOC®5G

Kährs 15mm ORIGINAL Collection	5/8"
Kährs 7mm LIFE Collection	1/4"
Kährs 10mm LIFE Collection	3/8"
Kährs 13mm AVANTI Collection	1/2"



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Note: These directions are based on industry standards and best practices. Warranty coverage may be lost due to your failure to strictly follow all installation instructions and recommendations and/or the use of improper materials or tools. For complete warranty information visit www.kahrs.com or call 1-800-800-5247.

READ ALL INSTRUCTIONS CAREFULLY!
THANK YOU FOR CHOOSING KÄHR'S FLOORING!

Owner/Installer responsibility

The installer and customer must both ensure the product meets their expectations regarding appearance, quality, and grade prior to installation. The installer must use reasonable selectivity and set aside or cut off pieces with deficiencies, whatever the cause. Should an individual piece be doubtful as to grade, manufacture, or factory finish, the installer should not use the board.

Prior to installation of Kährs flooring, the installer must ensure that the jobsite and subfloor meet the requirements of these instructions. Floor failure resulting from unsatisfactory jobsite and/or subfloor conditions is not covered under warranty.

Any decision not to proceed must occur within the first 10% or 100 square feet of flooring installed, whichever is less. Once installed, any board is considered as having been accepted by the installer and owner, even if the owner is absent at the time of installation. Please see *Kährs Wood Floor Guarantee document* for more information.

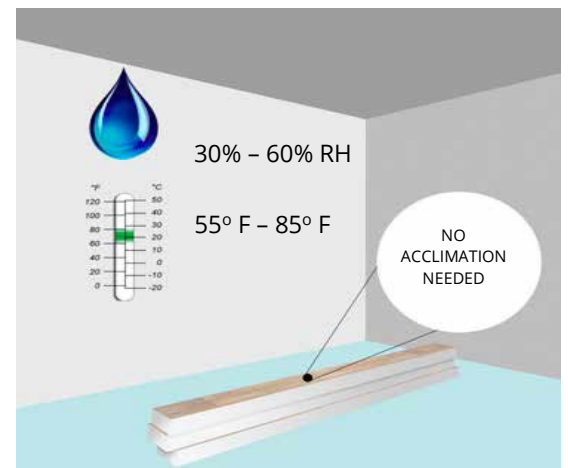
The owner must maintain the flooring in accordance with Kährs Wood Floor Care guidelines, including maintaining recommended Temperature and Relative Humidity levels year-round.

Always store the hardwood flooring in dry conditions and do not open the cartons until just before installation.

JOBSITE CONDITIONS

Interior Conditions

- Kährs products must be installed only in a climate-controlled environment, with doors and windows installed and an operational HVAC system.
- Acclimation is not necessary if the engineered flooring has been stored in a climate-protected environment, and if the jobsite is maintained within the manufacturer's recommended temperature and humidity range prior to and during installation.
If these conditions cannot be confirmed or maintained, acclimate the flooring in the installation space for a minimum of 24 hours.
- Wood flooring should be one of the last items installed for any new construction or remodel project. All work involving water or moisture should be completed before flooring installation.
- Relative Humidity at the job site must be, and remain, in the range of **30% - 60%**. Temperature setting must be, and remain, in normal operating range of **55°F - 85°F**. Test and record (photograph) RH readings in each area where Kährs products will be installed.
- *Warning* - humidity levels below 30% will likely cause movement in the flooring, including possible dry cupping, face checking and gapping between planks.



Exterior conditions

- Carefully inspect the outside surroundings for improper drainage and predictable or obvious sources of moisture. The yard should be graded (at least 6" in 10 ft.) to slope away from the foundation. Be sure that gutters and eaves sufficiently prevent rain from penetrating the foundation.
- Under the house: In homes with crawl space or pier-beam foundations, foundation vents must provide cross-ventilation with no dead air space. If excessive moisture exists underneath the house, you must lay a 6-mil black polyethylene moisture barrier on the ground in the crawl space below the installation area.
- Basement should be free of all moisture and be weather tight. Relative Humidity of basements should not be more than 10% higher than the upper floors.
- Exterior site/structure issues are NOT the responsibility of the flooring contractor/installer or Kährs.



SUBFLOOR REQUIREMENTS

Moisture and testing

The installer must confirm subfloor moisture conditions are suitable before installing any hardwood floor.

Wood subfloor moisture must read under **12%** and differential between boards and subfloor must be less than 4%.

Concrete subfloor must be fully cured and at least 60 days old. Evaluate several areas, especially near exterior walls and walls containing plumbing. Document and keep all results.

Acceptable test methods for concrete subfloor moisture content include:

- TRAMEX Concrete Moisture Encounter Meter: Moisture readings should not exceed **4.5** on the upper scale. Concrete Moisture Meters give qualitative reading results-not quantitative ones. These results are a quick way to determine if further testing is needed.

Note: The following tests are required in residential/commercial applications. Either or both tests are acceptable.

- Calcium Chloride Test (ASTM F 1869): The maximum moisture transfer must not exceed **3 lbs./1000 ft²** in 24 hrs. (2lbs./1000 ft² for Radiant Heat installations).
- **RH** Levels in Concrete Using In-situ Probes (ASTM F 2170) should not exceed **75%**.

Preparation and specifications

A floor can only be as good as the subfloor allows. All subfloors must be **clean, structurally sound, dry, and flat**. Address any movement, delamination, squeaks/noise, water damage, physical damage, etc. prior to installation. Use a vacuum cleaner to remove any debris and dirt.

Subfloor flatness is different from 'level'. Level is typically not necessary, but it is extremely important to level the subfloor to achieve the **flatness** of an 1/8" in an 8' radius. Check this by using the edge of a Kährs plank to find any high or low spots. Sand or grind high areas or joints. Fill low areas with a latex additive cementitious leveling compound of 3,000-PSI minimum compressive strength patch and underlayment. For more information on how to correct subfloor flatness, see *NWFA Installation Guidelines*.

Note: Subfloor deflection and movement are the main cause of squeaking floors. If subfloor deflection exists measures must be taken to correct. Check NWFA guidelines for joist spacing and plywood thickness.

All Kährs wood products installed over wood subfloors, lightweight or standard density concrete subfloors, or other existing floors with the float-in method must have Kährs ECO+, COMBO or QuietStride underlayment. QuietStride does not come with vapor barrier built-in, add 6mil polyethylene film for installations over concrete slab.

Ceramic tile, resilient tile and sheet vinyl must be well-bonded to the subfloor, in good condition, clean and flat.

Kährs floor should never be installed over an existing floating floor, over a carpet pad, or directly on joists or sleepers.

Please refer to '*NWFA Wood Flooring Installation Guide*' for more information on subfloor types and recommendations.

For installations over sub-floors with Radiant Heat, please refer to '**Kährs Radiant Heat Special instructions**' guide at www.kahrs.com

WARNING! INSTALLERS

WARNING: Drilling, sawing, sanding or machining wood products can expose you to wood dust, a substance known to the State of California to cause cancer. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection. For more information go to www.P65Warnings.ca.gov/wood.

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: In case of irritation, flush eyes or skin with water for at least 15 minutes.



UNDERLAYMENTS

Kährs ECO+ Underlayment with Vapor Bloc

Install Kährs ECO+ underlayment with the film side up and in the same direction that the flooring is to be installed. ECO+ is an approved underlayment for Radiant Heat applications.

- Be sure the sub-floor is clean and dry.
- Roll out one section of the Eco+ with Vapor Bloc parallel to the wall and in the same direction as you plan to install the wood flooring. The product will roll out with the Vapor Bloc film up and the foam side down to the sub-floor.
- Next install the wood planks atop the underlayment in accordance with the specific installation instructions for that product. Be sure that you can still see the edge of the underlayment so that you can properly line up the next roll.
- Install the next section of underlayment, butting the foam underlayment seams together. Remove the release film and press the overlapping Vapor Bloc film into the pre-applied adhesive, making certain the film is securely bonded to the adjacent section of underlayment. Repeat the above steps until the installation is complete.

Kährs QuietStride 2.0

When installing over a concrete subfloor, a Class I impermeable vapor retarder is always recommended under the QuietStride acoustic underlayment.

QuietStride with 6 mil polyethylene plastic is approved for float-in Radiant Heat applications.

- First install 6 mil polyethylene plastic loose-laid, seams overlapped 8". Run plastic up the wall 2" (trim excess after installation, before installing trim). Loose-lay QuietStride on top of plastic, wall to wall, and all seams together.
- No vapor retarder is necessary when installing over a conditioned basement or other space maintained at the same temperature and humidity as the space where Kährs flooring is being installed.

Kährs COMBO-System Underlayment

Combo-System Underlayment is also approved for Radiant Heat applications.

The width of a row of Combo-System Underlayment is comprised of 40" of underlayment plus an 8" overlap flap. The overlap flap guards the flooring from moisture at the seams, where the rows of underlayment are laid side by side. The overlap flap has a peel and stick strip to aid the installation process.

- Layout 1st row of underlayment (logo side down, blue side up) with the overlap flap facing the starting wall. Allow the underlayment to wrap up the wall, on the ends, approx. 2".
- Reach under and grab the overlap flap and pull it up so it lies against the starting wall. Trim this overlap flap back to leave approx. 2" of plastic up the wall.
- Lay 2nd row of underlayment flush to first. Make sure the overlap flap is next to 1st row, and the ends wrap up the walls. (If flooring installation has already begun, make sure to stop the flooring approx. 8 inches from the side of the underlayment to allow for the installation of the overlap flap.)
- Again, reach under and grab the overlap flap. Pull the flap up and fold it back to expose the peel and stick strip. Remove the white protective cover from the adhesive strip. Lay overlap flap across the 1st row of underlayment and press into place. Do NOT overlap underlayment. Overlap flap only.
- Cover the entire floor area and run the underlayment up the perimeter walls approximately 2". This provides a secure enclosure for the flooring. After the floor is installed and before the installation of the baseboards, the excess underlayment should be trimmed to the height of the floor surface.

Important: Kährs does not guarantee the performance of any non-Kährs branded underlayment.



INSTALLATION PREPARATION

For subfloor and environmental specifications see **Jobsite Conditions / Subfloor Requirements** section or visit www.kahrs.com

- Do not open packages until you are ready to begin installation! Kährs flooring is sealed at the factory with an average of 7% moisture content.
- Inspect each board as you begin to install.
It is the installer's responsibility to be aware of the grade, Relative Humidity of the room, and Moisture Content of the subfloor. You should check that each plank is free of damage or manufacturing defects. If faulty products are discovered regarding, for example, appearance or other design elements that do not correspond to what is described in the product sheet, it is important that a complaint is made before you install the floor. Defective products should be placed aside for later replacement. Boards with obvious faults that are detectable before installation must not be used.

When a floorboard has been laid, regardless of whether you lay it yourself or hire a floor installer, you as a buyer are also considered to have approved it.

- When possible, preselect and set aside boards that blend best with all horizontally mounted moldings (reducer/stair nose etc.) This will ensure a uniform final appearance. Install these boards adjoining the moldings.
- Always install the floor from several cartons at the same time to ensure good color and shade mixture.
- Cut door jambs after subfloor leveling is completed.
- Do not use rubber mallets or hammers on the finished edge of the floors.
- Kährs Flooring is approved for installations in ½ bathrooms only (no bathrooms including showers or bathtubs).

Layout - Expansion - MAX Width

- Never attach any permanent object through the flooring, affixing it to the subfloor. Kitchen cabinets with heavy countertops should never be installed on top of the floating wood. A floating floor must be free to expand and contract in all directions. Installation of cabinets on top of a floating floor does not invalidate Kährs Guarantee, but if such floor requires repair under warranty, Kährs will not be responsible for removing/replacing the cabinets.
- When installing floors with Woodloc®, it is easier if the installation is started at the long side that has the most doors. If there are doors on the short sides of the room, it is also easiest to start a new row of boards from that side. The boards can be laid both from the left and right and backwards. If the floor width and length exceed the specified maximum dimensions, the floor must be divided by an expansion joint.
- We recommend installing planks in the longitudinal direction of the room, as the boards expand and contract less in length than in width. In long and narrow spaces, such as **hallways**, the planks should also be laid **lengthwise** to help the floor remain stable and lie flat against the subfloor.

- A 'connected area' is defined as all floor sections that are installed without a physical break or separation. Careful planning is essential to ensure that the **maximum floor width and length** do not exceed the allowable dimensions specified in the table on the right.

Kährs requires the use of T-molding only when the connected floor area exceeds the maximum dimensions listed. This is necessary to ensure the long-term performance and stability of the floor.

Product	Type of joint	Max Width	Max Length
ORIGINAL 15 mm flooring	Woodloc 5S	80 feet	160 feet
AVANTI 13-15 mm flooring	Woodloc 5G	50 feet	80 feet
LIFE HDF-CORE 7-10 mm flooring	Woodloc 5G	50 feet	80 feet

- For more complex room layouts, it may be advisable to consult with a professional floor installer or contact Kährs directly to review the specific conditions. In cases where sufficient expansion space cannot be provided, or for very large areas, a glued-down installation method may be a more suitable option.

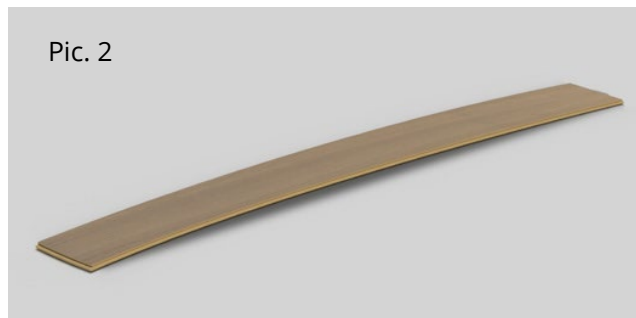
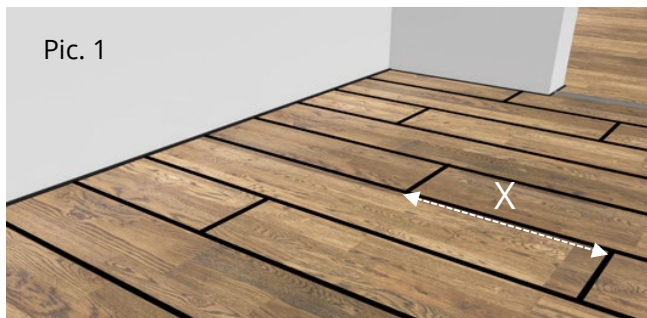
- Natural seasonal variations cause a certain amount of movement (expansion and contraction) in wood floors. Therefore, the floors must never be installed close to adjacent walls or other fixed building parts. A movement joint according to the table below must therefore be left around all sides of the continuous floor surface. This expansion space must be left around all walls, doors, and all vertical obstructions. The floor must be able to expand at all walls, thresholds, door frames, heat pipes, columns, stairs, tiled or other hard surface floors. It is important to ensure that even the climate-induced shrinkage in winter is covered by the molding.

Minimum expansion requirement is 1/2" and increasing by 1/16" of expansion space for every 3' of Connected Area Width or 9' of connected area Length.

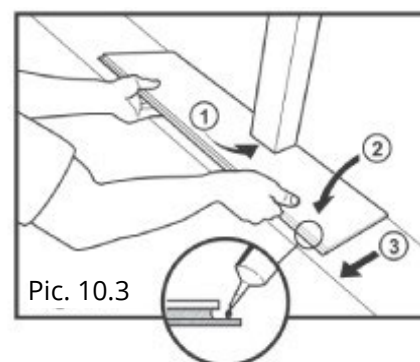
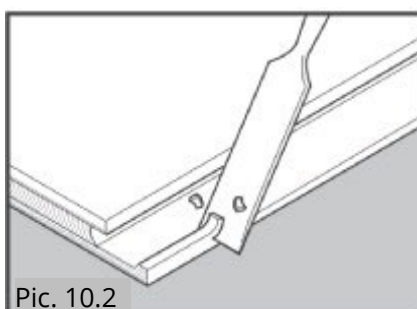
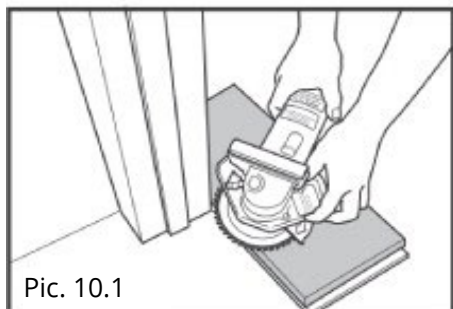
See the chart below:

Required Expansion Reference Chart			
Connected Area WIDTH	Required Expansion Space*	Connected Area LENGTH	Required Expansion Space*
Up to 25'	1/2"	Up to 80'	1/2"
25' to 50'	1/2" - 7/8"	80' to 120'	1/2" - 3/4"
50' to 80'	7/8" - 1 1/2"	120' to 160'	3/4" - 1"

- A proper staggering of the end joints in adjacent rows must be present to keep the floor flat during climate variations. A minimum of one end joint is required in every row, regardless of width (e.g., hallways). Stagger the end joints randomly, at a minimum of X=18" for 15mm floors, X=12" for 13mm/LIFE floors (Pic. 1)
- We aim to manufacture boards that are slightly convex lengthwise to make the floor easy to install (Pic. 2)

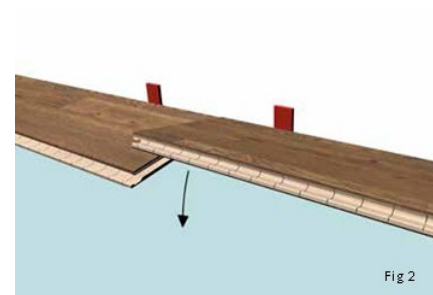
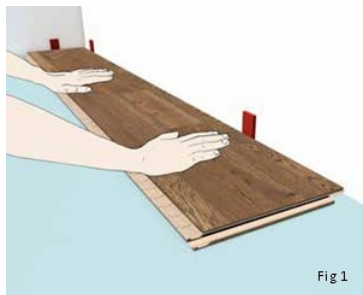


- Packages may contain start and stop boards. These boards have no joints on one short side and are used as the first and last board in a row, respectively.
- If door jambs need to be cut, use a piece of board and piece of underlayment to obtain correct height (Pic.10.1).
- Adhesive should not normally be used on boards with Woodloc® joints. However, in connection with door jambs or radiators, installation is sometimes easier if 1/3 of the locking edge (lip) is planned off and adhesive is applied to the horizontal underlip (see picture 3). If boards cannot be easily angled under door frame or similar, cut away locking edge as shown in Pic. 10.2, then apply Landobond Adhesive (or any adhesive designed to glue T&G) and install board as shown in Pic. 10.3



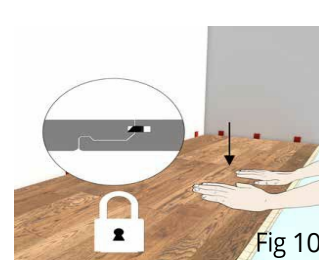
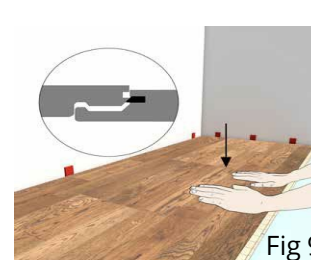
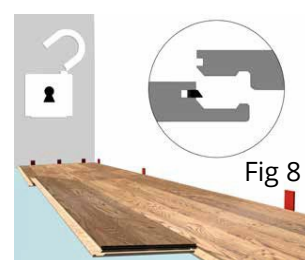
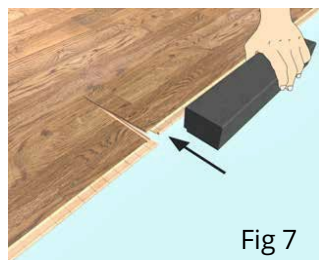
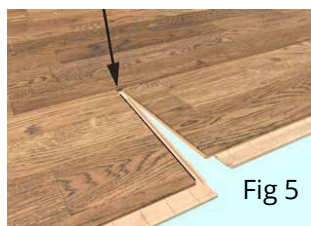
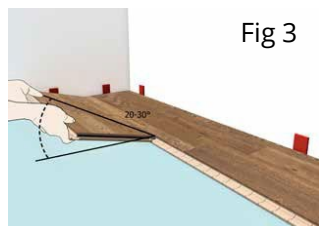
INSTALLATION TECHNIQUES AND TIPS

Kährs Woodloc 5G employs a locking pin to engage the short end of boards. Start in the corner and lay the first board with tongue side toward walls with tongue cut off. (Fig 1). Hold the second board against first board at approximately a 20° - 30° angle. Lay second board flat. Once in place, press firmly until an audible click is heard. This will ensure the boards are locked together. Proper expansion space can be achieved by pulling the floor away from the wall once the first three rows have been installed. Place wedges to restrain movement and maintain expansion gap. For proper expansion refer to the calculation worksheet.



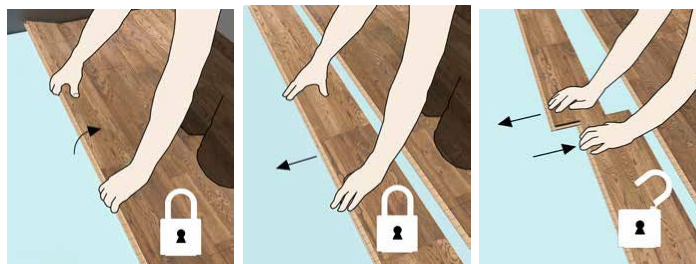
Once the complete row is installed as described above, the cut off piece at the end of the row can be used as a starter board for the next row, providing joints in the adjacent row are staggered a minimum of 25% of the length of the board. Example: 8' board = 24", 6' board = 18", 4' board 12". Starter boards should be a minimum of 12". (See Layout section)

The boards must be inserted into the long joint first at approximately a 20° to 30° angle and then moved flush with the short joint of the previously installed board. Once the board is firmly placed against the short joint of the existing board, tap in the long joint with a knocking block to ensure that it is fully engaged, and press it into place. It is important to press down on the board until you hear the audible 'click'. Continue installing the boards in the same manner paying attention to the end joint staggers.



Disengaging Boards

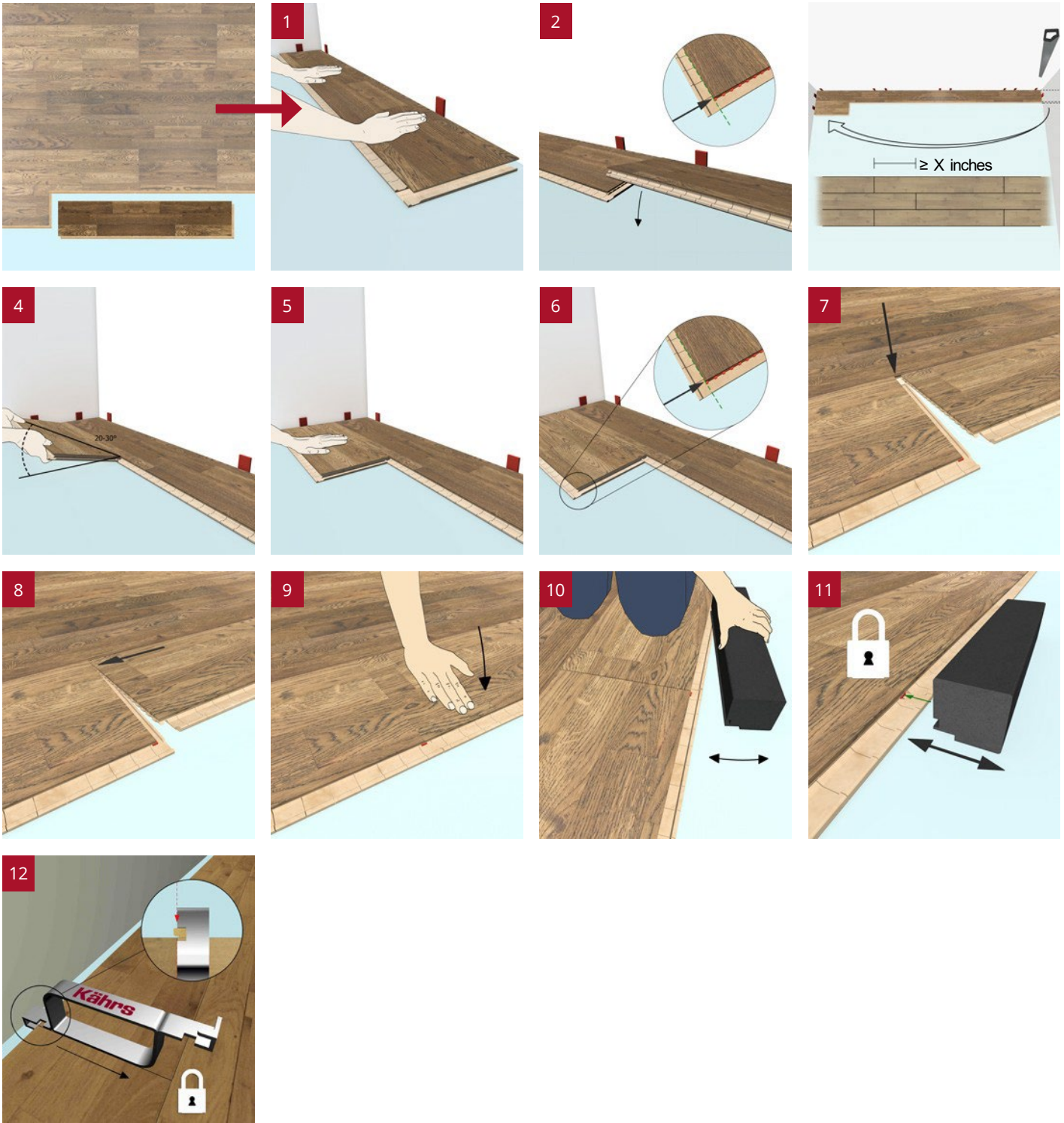
Boards can be laid in all directions if necessary. Woodloc® 5G dismantles easily. This enables easier planning for difficult installation areas. To disengage locked boards, first detach the entire row and place it on flat surface. Push or tap in opposite directions until boards unlock.



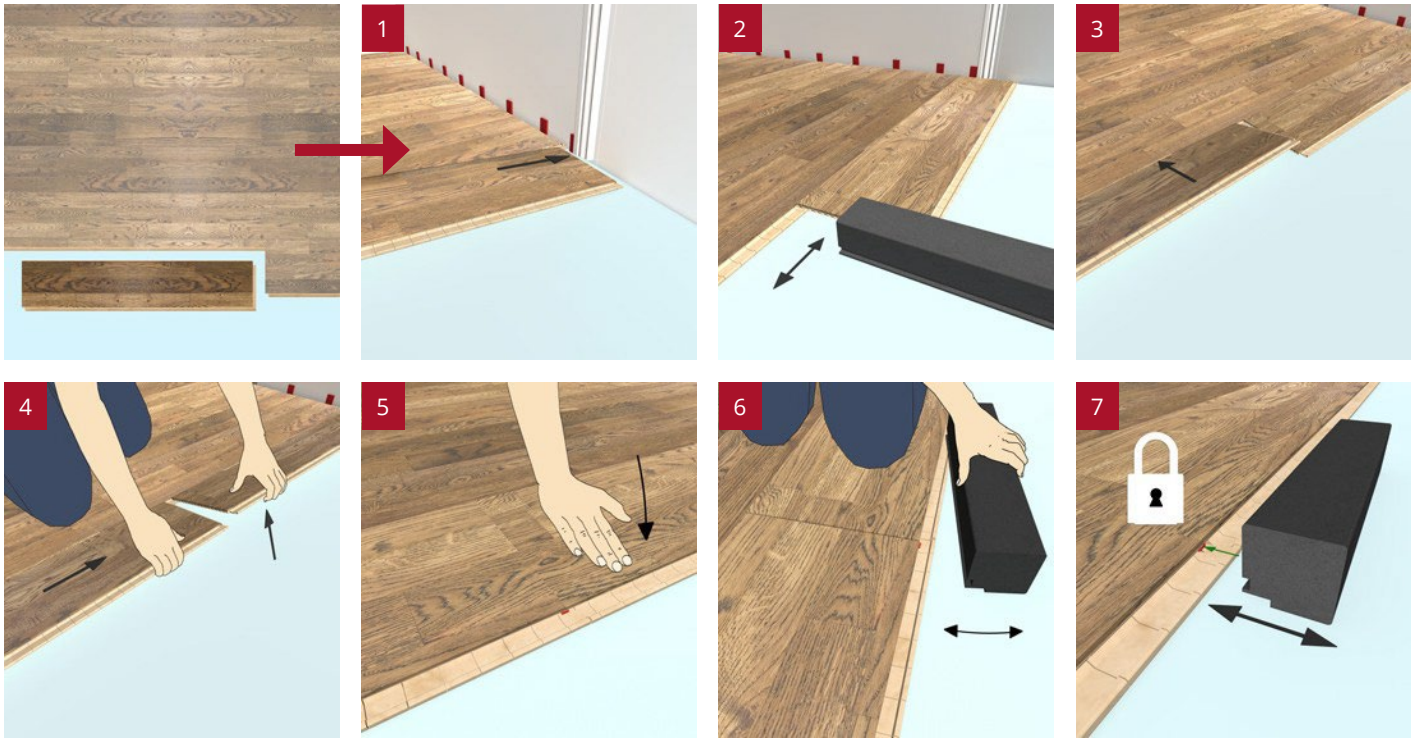
INSTALLATION

Woodloc 5S

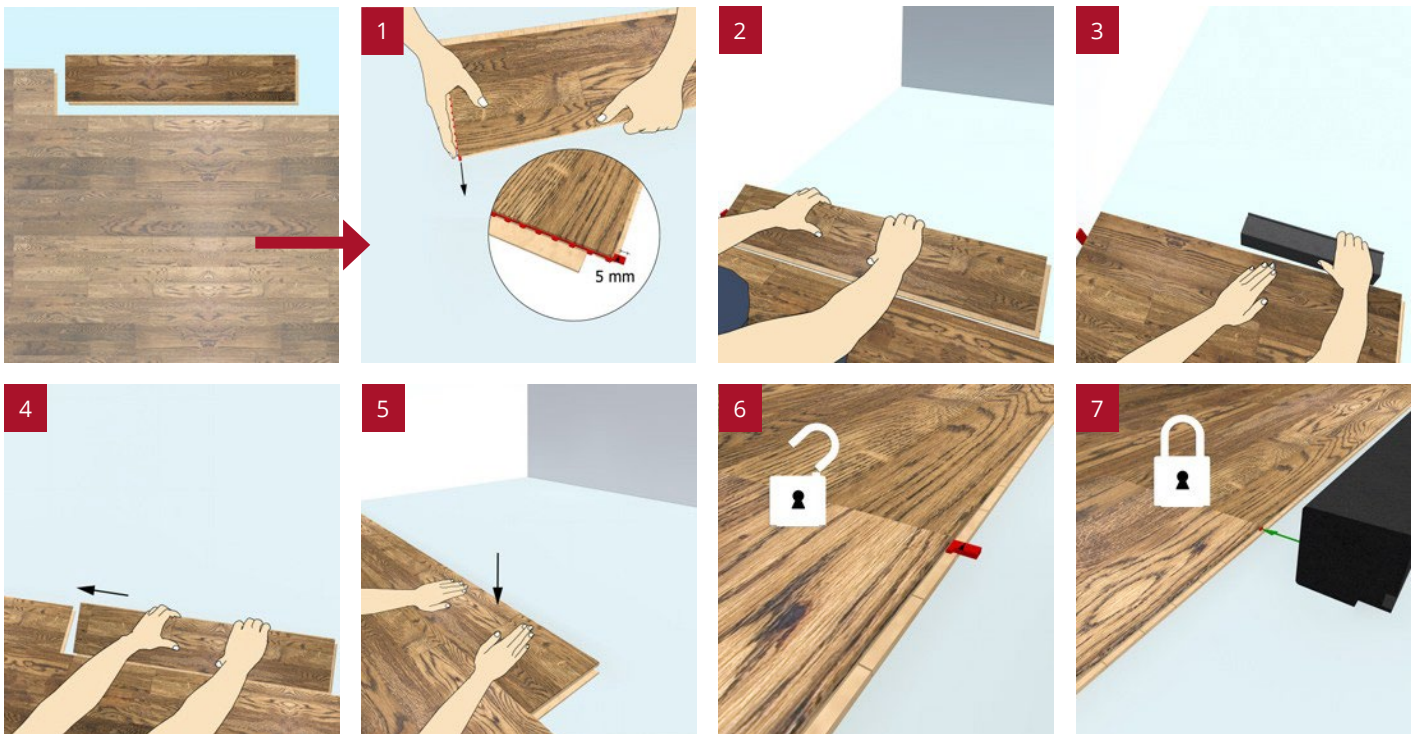
Regular Installation



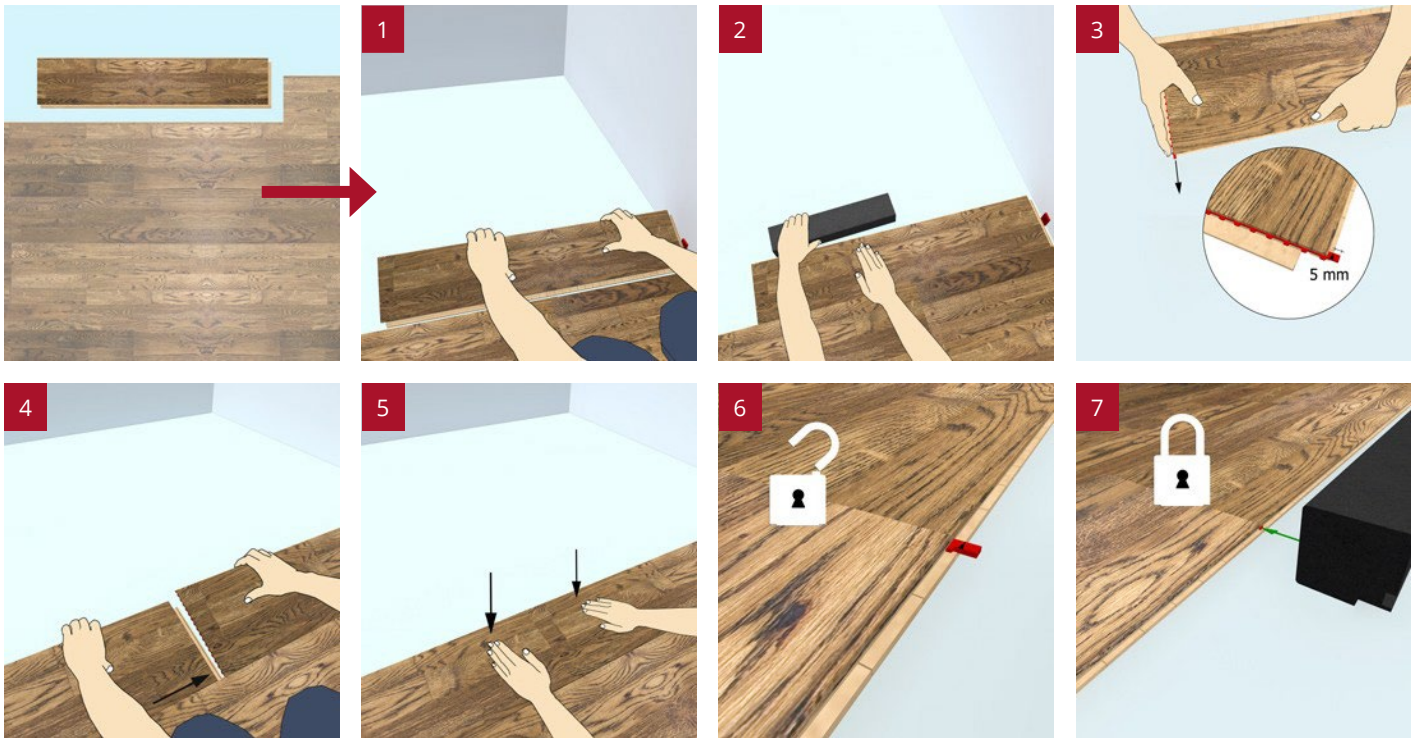
Normal Installation, Reversed Row Direction.



Backward Installation

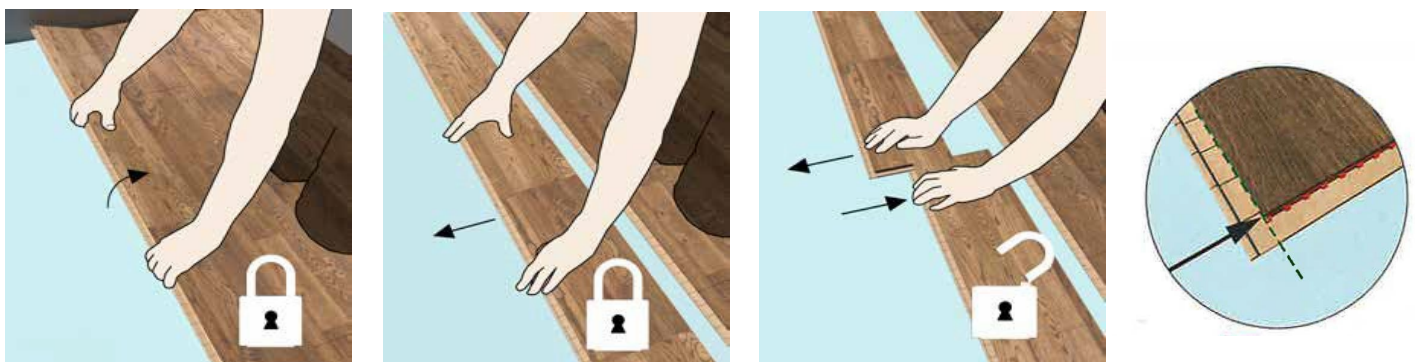


Backward Installation, Reversed Row Direction



Disengaging Boards

Boards can be laid in all directions if necessary. Woodloc® 5S dismantles easily. This enables easier planning for difficult installation areas. To disengage locked boards, first detach the entire row and place it on flat surface. Push or tap in opposite directions until boards unlock. Move the pin back to its original position (flush with the wear layer on the groove side).





AFTER INSTALLATION

Remove expansion spacers and reinstall base and/or quarter round moldings to cover the expansion gap.

Use a soft brush vacuum attachment or soft broom to remove dust and dirt regularly during installation and upon completion. When installation is complete, vacuum the floor and clean it with Kährs Cleaner and a microfiber mop or cloth. NEVER wet mop floor.

See *Kährs Floor Care Guide & Lifetime Guarantee* for full details (available at www.kahrs.com).

Please visit www.kahrsstore.com for maintenance supplies.

Note: Oil Finish Floors must be oiled with Kährs Satin Oil immediately after installation and prior to use.

Instructions for the board replacement can be found at www.kahrs.com

Vacuum or clean floor regularly using dry dust mop or cloth, use Kährs Wood Floor Cleaner as needed. Do not use oil soap or water-emulsion, self-polishing waxes or water mixed with vinegar. NEVER wet mop floor. Place Floor Protectors on furniture legs to prevent damage.

See *Kährs Floor Care Guide & Lifetime Guarantee* for full details (available at www.kahrs.com).

Relative Humidity in the room

Maintain Relative Humidity (RH) within the **30–60% range** to prevent climate-related damage and movement in the wood floor, such as cracks, gaps, noise, or cupping. In summer, dehumidification may be necessary, while in winter it may be required to increase indoor humidity. Exposure to RH levels that are too high or too low can cause permanent deformation of the flooring. Even in unoccupied spaces, it is essential to maintain proper temperature and humidity. This is particularly important during new construction or major renovation projects.

Damage caused by failing to maintain the proper humidity levels is not manufacturing related and will void the floor's warranty.

It is not only wood floors that thrive best, but also, we humans get better indoor air with a relative humidity inside this range.

Adhesive Tape on Kährs Floors:

The use of adhesive tape on any Kährs floor for any reason is not recommended and is not covered in our warranty. After installation, if a protective cover over the floor is needed, cover the floor completely. Do not use plastic. Any protective covering should be taped, using a low-adhesion tape, to base or shoe moldings. When taping paper or sheets together, tape them to each other, not to the floor. NEVER apply tape to the finished flooring. Do not allow the floor covering to sit on the installed floor for an extended period.

Additional Finishing Coating:

For additional wear protection, a waterborne urethane finish is compatible with Kährs factory finishes. Contact Arboritec or Bona Kemi USA, Inc. for recommended products, applications, and warranty information. Follow manufacturer's instructions for re-coating a pre-finished wood floor. Kährs does not guarantee the performance and/or durability of these products.

Color change

Wood is a natural material that gradually matures to its natural color, this change occurs fastest at first. To avoid an uneven color change, carpets should not be laid on the floor during the first months after installation of the parquet floor.



NOTES

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