



02 English  
Installation  
instructions

Douglas in  
decreasing  
lengths

Dinesen

# Dinesen installation instructions for Douglas floors in decreasing lengths

May 2007

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## Floors with fixed tongue and end groove

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Dimension in mm: 28 x 150 | 28 x 200 | 28 x 250 | 28 x 300 | 35 x 200 | 35 x 300

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## General notes

- The building must be dry and without construction humidity according to Dinesen humidity instructions.
- Concrete moisture must not exceed 85% RH.
- Air humidity between 35 and 65% RH is to be preferred and should during the winter not exceed 50% RH. A hygrometer is available from Dinesen.
- The temperature should be between 18-25°C.
- Use a minimum of 0.20 mm PE foil as vapour barrier. Monarflex (thick skin) from Icopal is recommendable.
- A deviation of maximum 2 mm measured across 2 meters of straightedge is permissible in the sub-structure.
- The distance between floor planks and walls, piping etc. must be 10-15mm. Remember to remove spacer blocks again.
- Never apply adhesive to the long sides of the planks.
- Knock the floor planks completely together, unless future humidity conditions imply that the planks will absorb moisture. Use a tapping block - 100 cm - and a heavy hammer to knock the planks entirely together.
- Mounting and sanding of plugs is best done when the entire floor has been installed.
- Cover the floor with thick flooring cardboard (500 g/m<sup>2</sup>) unless you start sanding and finishing immediately after installation.
- Keep the surface of the cardboard clean of nails, screws, and chocks etc., which may dent or damage the floor.
- Always sand the floors prior to finishing.

## Installation of Dinesen floors with fixed tongue and end groove

### Installation on joists - screwed from above or secretly.

1. On concrete floors, always remember to install a minimum of 0.20 mm PE foil vapour barrier with 20 cm taped overlay. Let the barrier run up the wall and cut off behind the skirting board.
2. Lay out the joists at suitable intervals depending on the thickness of the floor and load, however not more than:

	Houses etc.	Small shops	Conference rooms etc.
28 mm	86 cm	70 cm	60 cm
35 mm	120 cm	100 cm	80 cm

Lay the first and last row of joists 50-80 mm from the walls.

Lay the second row of joists no more than 50 cm from the first and last rows respectively.

For installation of new additional joists, do not exceed a distance of 75 cm.

3. Block up with wedges or plywood and soft pads with a distance from centre to centre of:

Width x height	Houses etc.	Small shops	Conference rooms etc.
40 x 39 laminated, L40	55 cm	48 cm	44 cm
40 x 63 laminated, L40	89 cm	78 cm	70 cm
45 x 45 sawed, K18	60 cm	52 cm	47 cm
45 x 70 sawed, K18	93 cm	81 cm	74 cm
45 x 95 sawed, K18	126 cm	110 cm	100 cm

Reduce the blocking-up interval with 10% at the tail bay. Fasten all wedges to joists.

4. Lay out the first row of planks with the tongue facing toward the centre of the room with a 10-15 mm interval to the wall. Use temporary spacer blocks. Use a string to check that the first row is straight.
5. Screw the planks secretly. Use a 4.2 x 65 mm Dinesen Floor screw, which is screwed into the upper-side of the tongue at an angle of 45°. Fasten the first and last plank with screws from above.
6. Apply adhesive to the end tongue, use a moisture repellent PVAC adhesive as for example Casco 3337. Apply adhesive to the upper-side of the tongue and the bottom-side of the groove. Excessive adhesive is dried off with a damp cloth. Never apply adhesive to the long sides of the planks.
7. The cut off piece from the first row is used as the beginning of row 2. It may become necessary to switch the planks around in order not to start the rows with too short planks.

8. Now lay out the next row according to the above instructions. Knock the planks completely together. Use a long tapping block, 100 cm, to spare the tongue of direct impact. Joints occurring in between joists are permissible – unsupported joints. However, unsupported joints may only occur once for every three planks in the same section. Avoid end joints close to each other in neighbouring planks. Fit the last row, ensuring a 10-15 mm distance to the wall.
9. Alternatively, screw and plug the planks from above. Use a 15 mm plug drill to drill a 10 mm hole 4-5 cm from each edge. Be careful to drill the holes precisely and without frays. Fasten the floors with a semi-treaded screw (28 mm: 5 x 60 mm - 35 mm: 5 x 60 mm). Vacuum the holes when the entire floor is installed. Glue the plugs carefully with moisture repellent PVAC adhesive as for example Casco 3337. Make sure the veins of the plugs follow the veins of the planks. Make sure to distribute the adhesive well. Excess plug is sanded off using a small belt sander.

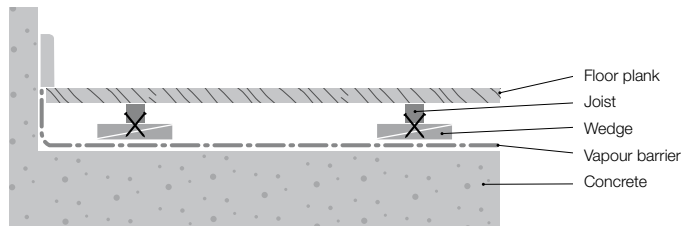


Figure 1: Longitudinal section

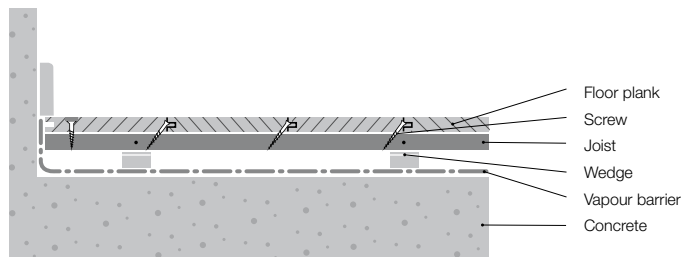


Figure 2: Cross section, secretly screwed, joists

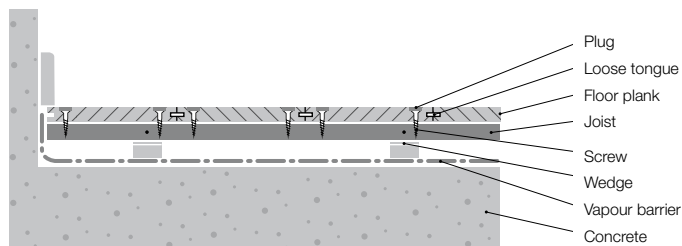


Figure 3: Cross section, screwed from above

#### Installation on tier of beams - screwed from above or secretly.

1. Check the straightness of the tier of beams prior to installation and straighten if necessary.
2. The distance from centre of beam to centre of beam should not exceed 86 cm for 28 mm floors and 120 cm for 35 mm floors. The second row of beams should be placed no more than 50 cm from the first and last row of beams, respectively.
3. If the intervals are too big, you may attach some 45 x 95 dry laths on both sides of the beams.
4. If there is a crawl way beneath the tier of beams, mount a 0.20 mm PE foil directly beneath the floor planks. Insulation and ventilation of the crawling space must be performed in accordance with local building codes.
5. The installation is performed in accordance with the instructions for installation on joists.

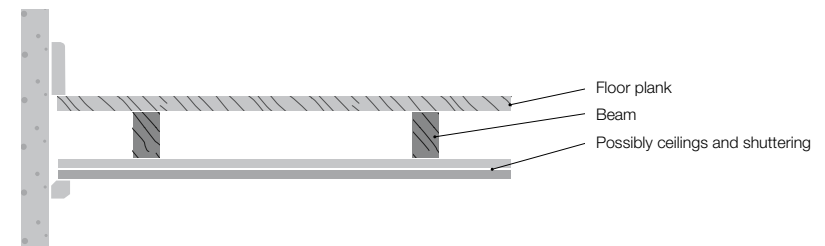


Figure 4: Longitudinal section

#### Installation on concrete - screwed from above or secretly.

1. Check the straightness of the concrete prior to installation and straighten if necessary.
2. Lay out Platon Stop on top of the dry concrete floor. Knobs facing downwards. Platon Stop must cover the entire floor to the walls. Tape joints with Platon Tape
3. Install the first row of planks with the tongue facing toward the centre of the room with a 10-15 mm interval to the wall. Use temporary spacer blocks. Use a string to check that the first row is straight
4. Screw the planks secretly. Use a 4.2 x 65 mm Dinesen Floor screw, which is screwed into the upper-side of the tongue at an angle of 45°. (28 mm: 4.2 x 55 mm - 35 mm: 4.2 x 65 mm). Pilot drill using a 3.5 concrete drill (for porous concrete we recommend a 3 mm drill). It is very important to push the planks firmly against the sub-structure before fastening with screws. Distance between screws: 70 - 90 cm. Fasten the first and last plank with screws from above.

5. Apply adhesive to the end tongue, use a moisture repellent PVAC adhesive as for example Casco 3337. Apply to the upper-side of the tongue and the bottom-side of the groove. Excessive adhesive is dried off with a damp cloth. Never apply adhesive to the long side of floor planks.
6. The cut off piece from the first row is used as the beginning of row 2. It may become necessary to switch the planks around in order not to start the rows with too short planks. Avoid end joints close to each other in neighbouring planks.
7. Now lay out the next row according to the above instructions. Knock the planks completely together. Use a long tapping block, 100 cm, to spare the tongue of direct impact. Fit the last row, ensuring a 10-15 mm distance to the wall.
8. Alternatively, screw and plug the planks from above. Use a 15 mm plug drill to drill a 10 mm hole 4-5 cm from each edge. Be careful to drill the holes precisely and without frays. Now use a 6 mm concrete drill to drill a 50 mm hole in the concrete. Vacuum the hole. Fasten the floors with a semi-treaded screw (28 mm: 5 x 50 mm - 35 mm: 5 x 60 mm) and a 6 x 35 mm dowel. Distance between plugs: 70 - 90 cm.

Note: In case of floor heating - be careful not to drill and screw into the heating coils.

9. Vacuum the holes again when the entire floor is installed.
10. Glue the plugs carefully with moisture repellent PVAC adhesive as for example Casco 3337. Make sure the veins of the plugs follow the veins of the planks. Make sure to distribute the adhesive well. Excess plug is sanded off using a small belt sander.

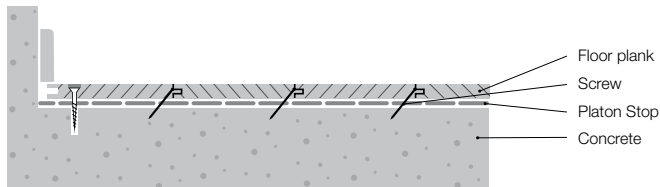


Figure 5: Cross section, screwed secretly

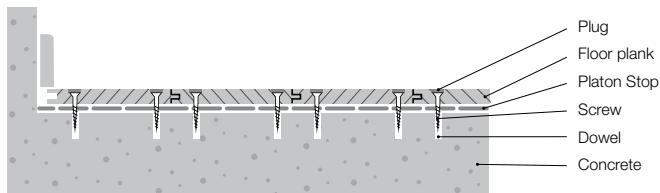


Figure 6: Cross section, screwed from above

#### Installation on chipboard - screwed from above or secretly.

1. Lay out a thick flooring cardboard (500 gr/m<sup>2</sup>) or similar sound absorbing material on 22 mm chipboard.
2. Install the first row of planks with a 10-15 mm distance to the wall. Use temporary spacer blocks. Use a string to check that the first row is straight.
3. Use a 15 mm plug drill to drill a 10 mm hole 4-5 cm from each edge. Be careful to drill the holes precisely and without frays. Fasten the floors with a 5 x 40 mm semi-treaded screw. Distance between plugs: 70 - 90 cm.
4. Apply adhesive to the end tongue, use a moisture repellent PVAC adhesive as for example Casco 3337. Apply to the upper-side of the tongue and the bottom-side of the groove. Excessive adhesive is dried off with a damp cloth. Never apply adhesive to the long side of floor planks.
5. Now install the next plank according to the above instructions. Knock the planks completely together. Fit the last row, ensuring a 10-15 mm distance to the wall.
6. Make sure to consider the knots of the wood so that the floor looks nice and harmonious when finished.
7. Vacuum the holes again when the entire floor is installed.
8. Glue the plugs carefully with moisture repellent PVAC adhesive as for example Casco 3337. Make sure the veins of the plugs follow the veins of the planks. Make sure to distribute the adhesive well. Excess plug is sanded off using a small belt sander.
9. Alternatively, screw the floor secretly. Use a 4.2 x 45 mm Dinesen Floor screw, which is screwed into the upper-side of the tongue at an angle of 45°. Distance between screws 70-90 cm. First and last planks are screwed from above.

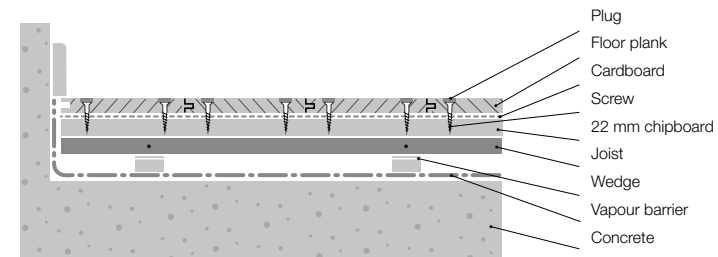


Figure 7: Cross section, screwed from above, joists

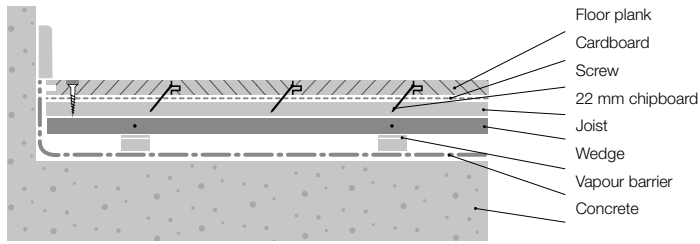


Figure 8: Cross section, secretly screwed, joists

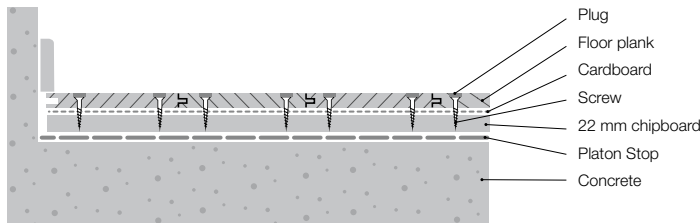


Figure 9: Cross section, screwed from above, floating

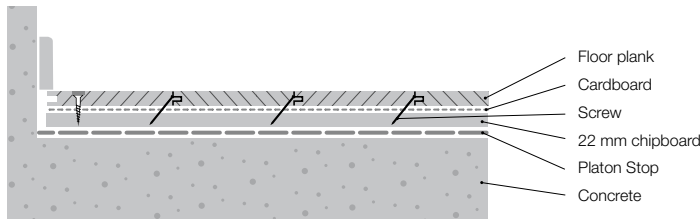


Figure 10: Cross section, secretly screwed, floating

## Check list

1. Never have the floors delivered before the house is closed, dry and warm, and the humidity levels are under control.
2. Carry the planks into the house upon delivery and never, under any circumstances, leave them outside for the night.
3. Normally, the planks can be installed immediately, but during the winter, they should be left in the room for 24-48 hours prior to installation.
4. Keep an eye on the temperature and humidity levels. If the planks are stored at a humidity level above 50% RH, they will absorb moisture and thus expand. This will eventually cause larger contraction cracks than would normally be expected.
5. Be absolutely sure that the concrete is dry. Measure the moisture level. Concrete moisture may destroy wooden floors. See Dinesen humidity instructions.
6. During installation, remember to consider colour and veins of the wood. The aim is to arrange the floor in a way so that the result is harmonious.
7. Sand all Dinesen floors prior to finishing.
8. An ordinary shuffle sander or rotary sander are not appropriate tools for sanding of large surface areas. Contact a professional floor expert or Dinesen Floors.
9. For floor heating - see Dinesen floor heating instructions.
10. Use only Dinesen products or products approved by Dinesen for finishing. And see Dinesen finishing instructions.
11. Dinesen's warranty does not apply to damages caused by construction humidity.
12. Dinesen does not accept complaints about the visual appearance of individual planks after installation.
13. Remember always to contact Dinesen Floors if you have questions about installation or finishing.

## Instructions

If you need further advice, please contact Dinesen Floors at +45 7455 2140, where you can also order and buy the Dinesen range of maintenance products for wooden floors.

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### Dinesen Instructions

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- 01 Dinesen installation instructions for Douglas floors in full lengths
- 02 Dinesen installation instructions for Douglas floors in decreasing lengths
- 03 Dinesen installation instructions for oak floors in decreasing lengths
- 04 Dinesen humidity instructions
- 05 Finishing and caring for Dinesen floors
- 06 Dinesen floors and floor heating

Dinesen's instructions are based on Danish building codes and regulations, reservations are therefore made for national code of practice. Note that guidance besides our own product is beyond our service. Reservations are made for printing errors.