

## Junckers 20.5 mm Batten System

C 1.0	General Information
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C 5.2	Specifier's Information
C 5.2.1	Laying Instruction

### Before and during laying the floor

The building must be weather tight. The heating system must be installed and tested and during the heating season should be in operation. Cast concrete elements, screeding and other wet trades, which contribute moisture to the building, e.g. tiling, plastering and priming of paintwork, must also be completed.

The relative humidity in the building must be between 35 - 65% RH (UK) and the temperature approx. 20° C. The residual moisture contained in the concrete or screed must not exceed 90% RH (UK: Concrete moisture max. 75% RH acc. to BS 8201, when checked by measurement). In wooden based subfloors the moisture content should not exceed 12%. Moisture content in joists and battens max. 14 %.

Solid wide boards should always be laid immediately on their arrival at the building. The packing on the bundles must not be removed until just prior to laying the floor, i.e. no acclimatising of the wide boards on site must take place.

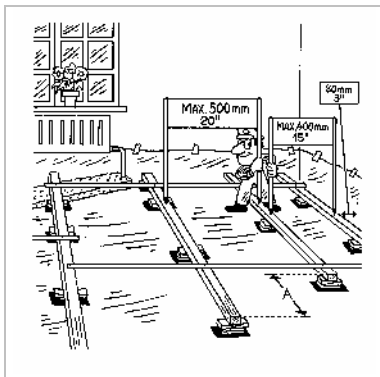
NB: Read these laying instructions carefully before laying begins. In case of doubt please contact your Junckers distributor before installing the floor.



### 1. Laying on Battens

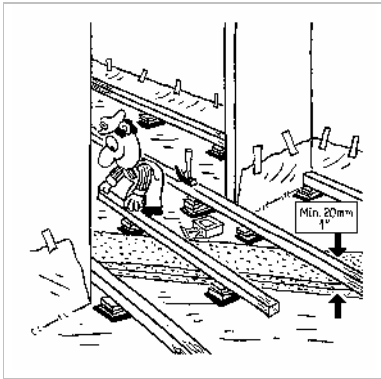
Minimum 0.20 mm polythene membrane is laid on all concrete or screeded bases. Overlapping 200 mm at all joints. It must be placed under heating pipes and turned well up at walls, etc.

NB: If the residual moisture is above 75% RH, all overlaps must be taped using 50 mm wide tape.



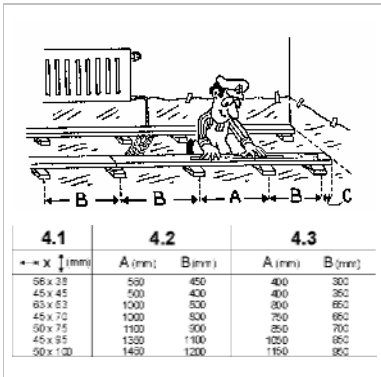
2. Battens must be dry, straight and without bowing or twisting. Battens must be spaced at correct intervals. The batten centres are determined according to the use of the floor and the expected loads. The batten centres for residential buildings are max. 500 mm.

Batten end joints must be staggered (A) minimum 600 mm from the neighbouring row and must only be in a line if well connected together. Distance from batten ends to walls must be minimum 10 mm. In commercial buildings the batten centres must be reduced according to the stipulated load class, → C 1.0 - Load classes.



3. If laying through doorways or similar always use at least 3 battens projecting through doorways.

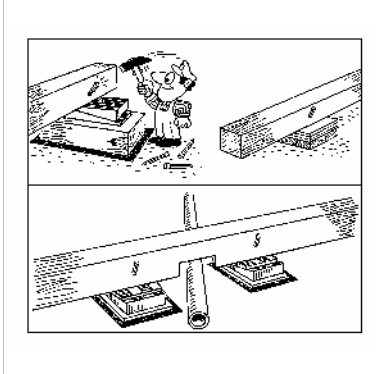
Hot as well as cold water pipes must be insulated with min. 20 mm insulation or similar.



4. Battens are levelled to a flatness tolerance of 2 mm under a 1.5 m straight edge (UK: 3 mm under a 2 m straight edge). Centre distance between packing material according to batten dimensions and the use of the floor (Fig. 4.1). Use table 4.2 for residential areas and table 4.3 for commercial areas.

Centre distance (A) is used in middle batten areas and centre distance (B) at batten end joints, saw cuts and at batten ends. Batten end joints must be supported by unbroken packing material.

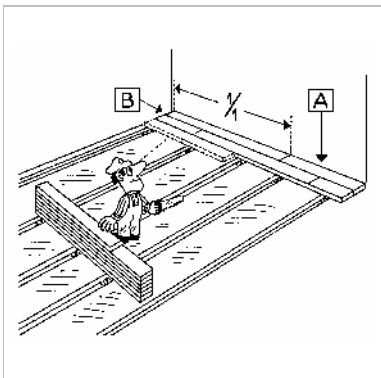
At walls, etc. the distance (C) from batten ends to the centre of the first packing must be maximum 80 mm.



5. Packing material must be dimensionally stable. All packing materials must be securely fixed to the battens.

If a suitable fibreboard material is used for step sound reduction it must be glued under load distributing plywood packing. Nails for fixing of packing material must not reach down into the fibreboard or touch the concrete base.

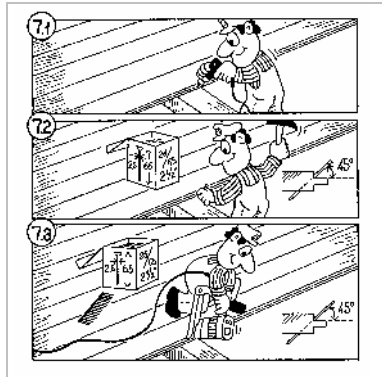
At notches in battens, additional packing must be used as close as possible to each side of the cut.



6. Lay the wide boards in a random joint pattern. Expansion gaps to walls and fixed installations must be 1.5 mm per running metre of floor width on each side (A), and 1.0 mm per running metre of floor length at each end (B), all with a minimum size of 15 mm.

Board end joints may occur in between battens but no more than for every third board. Cut the last row of boards to form the correct size of expansion gaps at the walls (A and B).

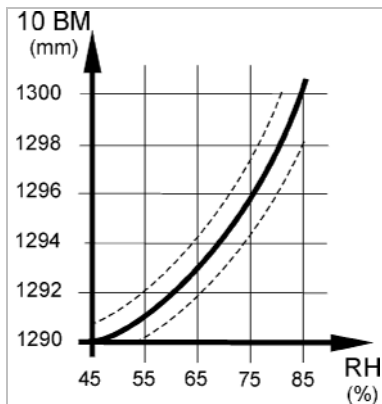
For floors over 12 m wide it is recommended to start from the centre using a loose tongue to join the central boards together.



7. The wide boards are laid according to the 10-board rule (see item 8) which is subject to continuous control. For ship's decking with neoprene always use a 10-board measurement of 1298-9 mm which slightly compresses the neoprene strip during installation.

The wide boards are secret nailed to the battens at a 45° angle. Use 2.5 x 65 mm T-shaped machine nails (Fig. 7.3) or 2.8 x 65 mm lost-head nails (Fig. 7.2). If nailing by hand predrill with a 2 - 2.5 mm drill. Do not nail any closer than 50 mm from a board.

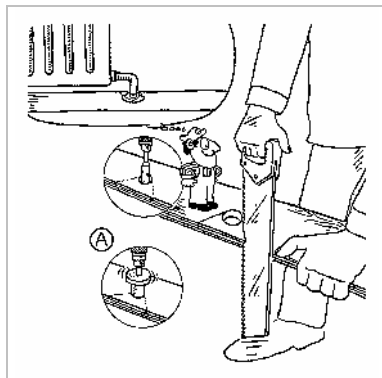
Alternatively the boards can be face-nailed down with 2.8 x 65 mm lost-head nails with one nail in each board, into each batten/joist.



8. To avoid as far as possible stress or moisture deformation in the floor due to fluctuations in the climatic conditions in the building the boards must be laid according to the 10-board rule which indicates the width of 10 boards when laid. This must be checked continuously during installation. This is a measurement across 10 boards and is based on the expected maximum relative humidity of the building when in use.

The figure illustrates the 10-board rule in relation to the relative humidity. E.g. an expected relative humidity of max. 65% RH will normally require a 10-board measurement of approx. 1293 mm.

In case of doubt please contact Junckers Technical Service.

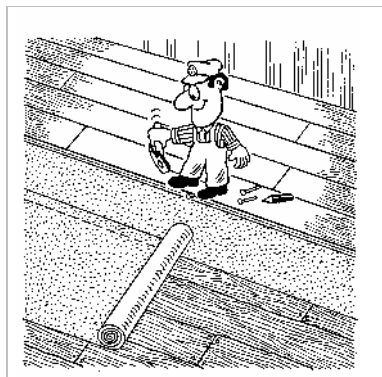


9. Around pipes, drill a hole in the board to accommodate the pipe. The space around the pipe must be the same as the expansion gap at the wall. A tapered wedge is cut out, so that it can be glued in place.

This gap can be covered by a Junckers radiator pipe cover.

At door frames and architraves, cut the base of the frame and architrave to allow the floor to fit underneath.

At the threshold the expansion gap can be covered by a Junckers threshold strip or if levels reduce, fit a Junckers ramp.



### 10. Laying on existing Wooden Floors

The boards can be nailed to a subfloor such as plywood, existing floorboards etc. (caution with chipboard) The subfloor must be sufficiently rigid, flat, level and dry (Fig. 1).

To avoid creaking, fasten the wooden subfloor securely and use floor felt, 500 g/m<sup>2</sup>, as an intermediate layer. Preferably nailing must be done in a line across existing battens/joists. Alternatively nail centres maximum 450 mm.

Do not nail any closer than 50 mm from a board end.

See also instructions in Fig. 6, 7 and 8.