ACOUSTIC FLOORING SYSTEMS
C30, CK30, C40 & C60

The versatile cradle and batten systems with unique, patented, recycled, rubber crumb cradles comply with Robust Detail FFT2. Widely used where Pre-Completion Testing is required and in conversion/refurbishment and new build projects, these systems can be levelled on site to eliminate variations in the structural floor surface and can accommodate services.

recycle

Fig A Plan view: Typical Cradle/Batten layout

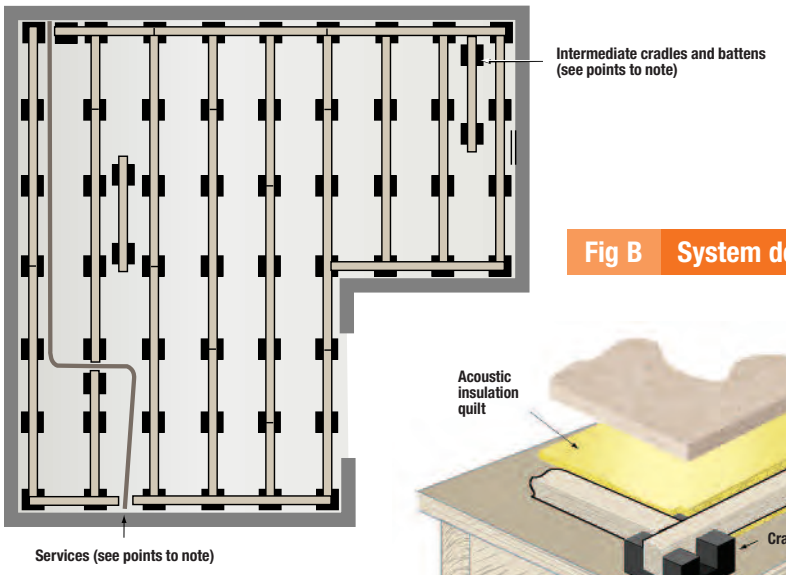


Fig B System detail illustration

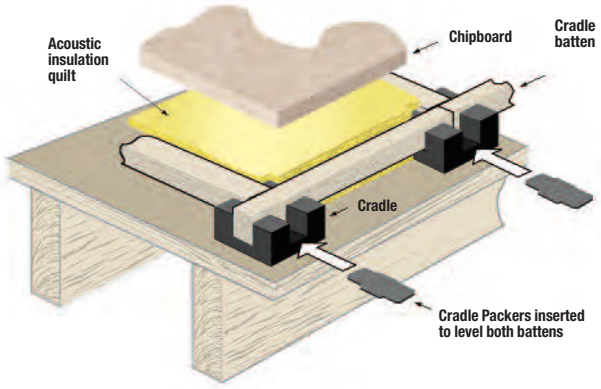
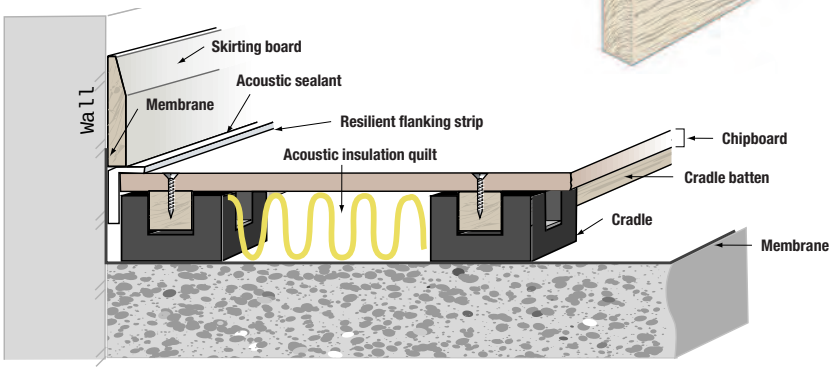


Fig C Section through floor

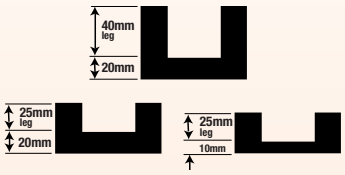


APPLICATIONS

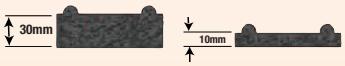
- New build
- Robust detail compliant
- Pre-completion testing
- Timber frame
- Floor levelling system
- Refurbishment / Change of use
- All concrete floors
- All timber floors
- Access for services
- Sports halls

COMPONENTS

SYSTEM	WEIGHT (kg/m²)
C30	25
CK30	20
C40	25
C60	25

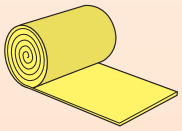


Cradles

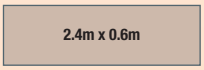


Cradle Base Packers

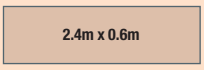
Cradle Battens



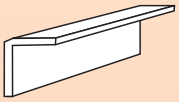
Acoustic Insulation Quilt
60mm, 80mm or 100mm thick



18mm or 22mm Chipboard



18mm or 22mm Plywood



Resilient Flanking Strip

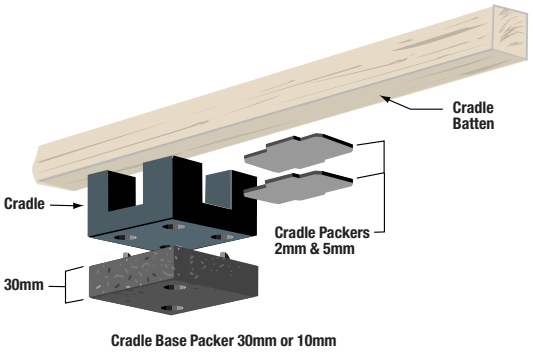
Screws and Glue

InstaCoustic®
THE SOUND SOLUTION
Tel: 0118 973 9560 Fax: 0118 973 9547
Email: sales@instacoustic.co.uk
www.instacoustic.co.uk
Insta House, Ivanhoe Road
Hogwood Business Park, Finchampstead
Wokingham, Berks RG40 4PZ

floating floor treatments

ACOUSTIC FLOORING SYSTEMS
C30, CK30, C40 & C60

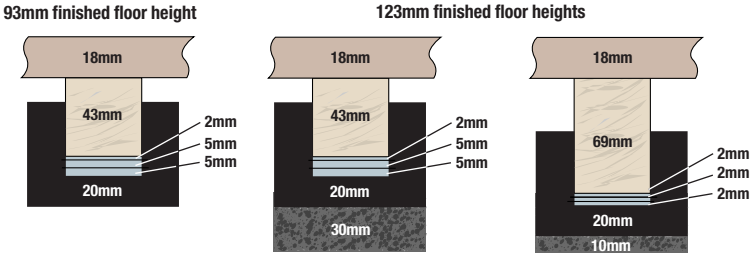
Multiple Cradle Base Packer assembly



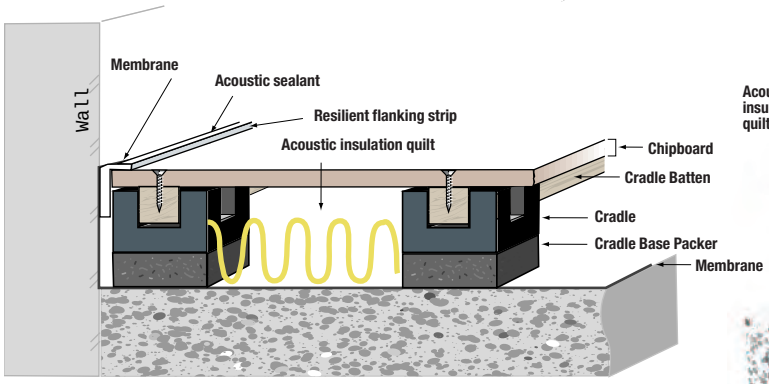
Increasing Floor Heights

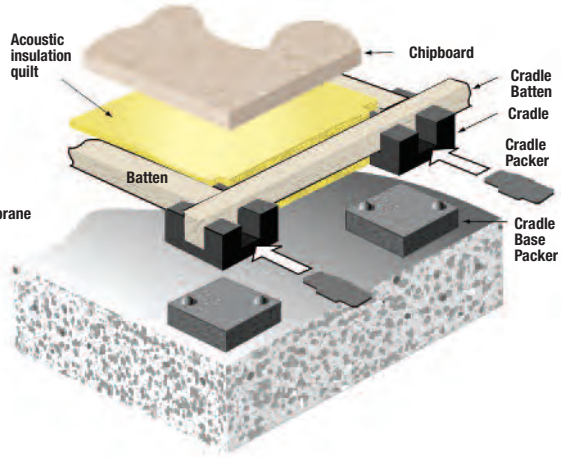
When increased finished floor heights are required, to cater for specific design criteria, deep services or very uneven sub-floors, cradle base packers or deep cradle battens are available, for rapid, cost-effective height adjustment. The cradle base packers may be used in multiples to achieve the desired finished floor height. Deeper battens are generally used in larger projects and where a consistent high void is required.

Examples:

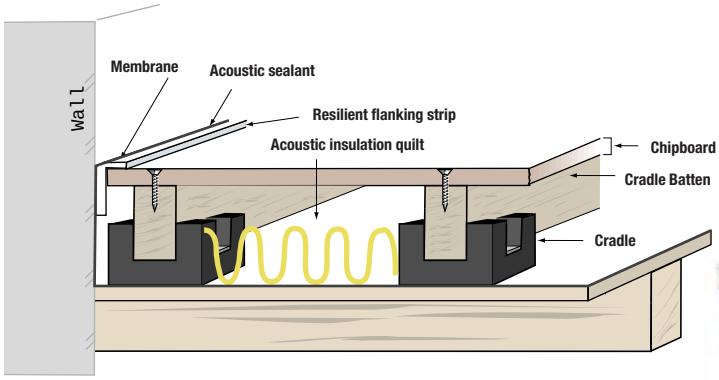


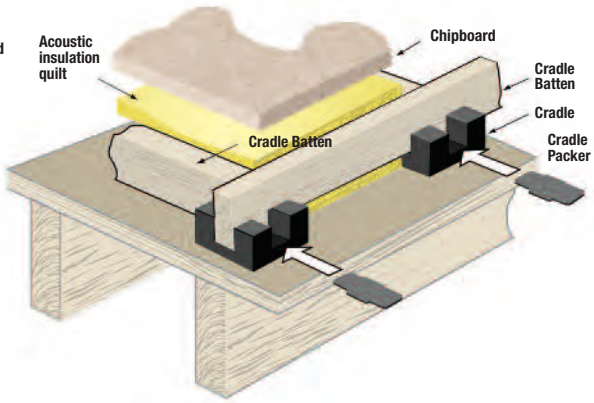
Interlocking Cradle Base Packer assembly for increased elevation



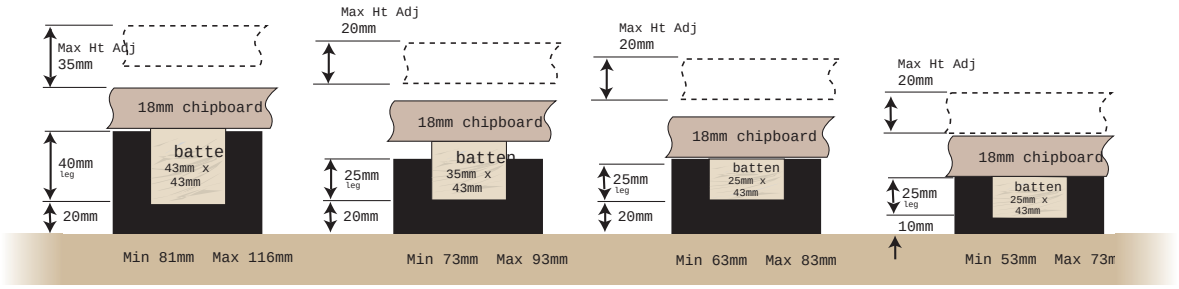


Deeper Cradle Battens for increased elevation





Finished floor heights



NOTE: CK30 uses 18mm or 22mm plywood. C60 uses 22mm chipboard

NOTE: Cradles can be packed to within 5mm of the top of the cradle to achieve maximum floor height adjustment.

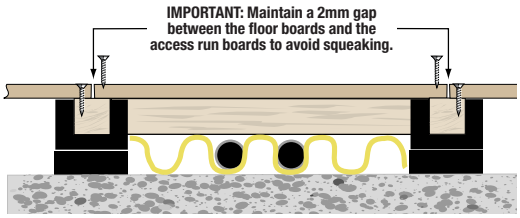
Cradle and batten spacing

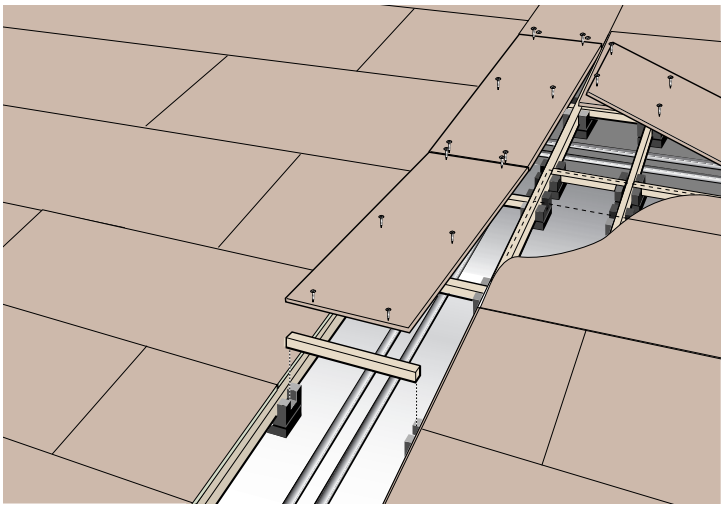
SYSTEM	BATTEN SIZE mm Width x Depth	CRADLE CENTRES mm	BATTEN CENTRES mm	CHIPBOARD mm	PLYWOOD mm
C30	43 x 43	600	300	18	
	43 x 35	450	300	18	
	43 x 25	300	300	18	
CK30	43 x 43	300	300		18 or 22
	43 x 35	300	300		18 or 22
	43 x 25	300	300		18 or 22
C40	43 x 43	600	400	18	
	43 x 35	450	400	18	
	43 x 25	300	400	18	
C60	43 x 43	600	600	22	
	43 x 35	450	600	22	
	43 x 25	300	600	22	

NOTE: The cradle and batten centres may be more closely spaced than specified but not exceeded.

Access runs

Access runs can easily be created by the introduction of removable boards cut to suit. Ensure that the access run boards and adjoining floor boards meet in the centre of a batten and that the access boards are supported by the introduction of cross-battens located with the cradles. Additional battens and cradles may be required to suit the position of the access runs.





floating floor treatments

INSTALLATION INSTRUCTIONS FOR

ACOUSTIC FLOORING SYSTEMS
C30, CK30, C40 & C60

The following instructions are issued as an aid to the correct installation procedures. Individual site conditions may necessitate variances to these standard instructions. Such cases should be referred to the InstaCoustic Technical Department for approval. All installation and working practices should be in accordance with relevant Codes of Practice, current British Standards and HSE Regulations applicable to the construction industry.

SITE PREPARATION

- IF A SCREED HAS BEEN APPLIED IT MUST BE FULLY CURED BEFORE BEGINNING THE INSTALLATION OF THE CRADLE AND BATTEN SYSTEM
- IF THERE IS A RISK OF MOISTURE LEVELS TO THE SUBFLOOR, IN EXCESS OF THE MINIMUM RECOMMENDATIONS BS8203 (i.e. 75% RH), IT IS RECOMMENDED THAT A VAPOUR BARRIER IS LAID BENEATH THE SYSTEM. ALL VAPOUR BARRIER AREAS SHOULD BE CHECKED BY THE CUSTOMER PRIOR TO THE SYSTEM BEING LAID
- BUILDING TO BE DRY AND WEATHERPROOF
- ALL FLOORING MATERIALS TO BE STORED IN SAFE DRY CONDITIONS
- MATERIALS SHOULD NOT BE STORED OR USED ON SITE WHEN THE MOISTURE CONTENT EXCEEDS 18%. MATERIALS SHOULD BE STORED ON SITE IN ACCORDANCE WITH BS5268
- INSTACOUSTIC ADHESIVE AND SEALANT SHOULD NOT BE SUBJECTED TO TEMPERATURES OF LESS THAN 5°C.
- FLOOR RECEIVING THE CRADLE AND BATTEN SYSTEM MUST BE
  - HARD
  - DRY
  - FREE OF ALL DEBRIS
  - REASONABLY SMOOTH – TAMPED FINISHES ARE ACCEPTABLE
- ALL BEAM AND BLOCK OR CONCRETE PLANK FLOORS SHOULD BE FULLY GROUTED

TEST CERTIFICATION AVAILABLE

STEP 1 DAMP PROOF MEMBRANE (OPTIONAL)

A damp proof membrane is recommended on ground floor slabs and new concrete bases above ground level. (See Points to Note and Site Preparation)

STEP 2 BATTEN CENTRES

Start, usually at the point furthest from the doorway (wall A), by measuring out the perimeter centres (Fig. 1). For example, for the C40 system, mark out every 400mm to give the batten centres. Mark out the perimeter centres on the opposite wall (wall C) and, using a chalk string line, ping or mark between the matching marked points (Fig. 2).

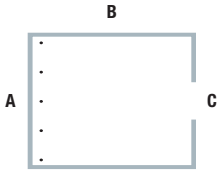


FIG. 1

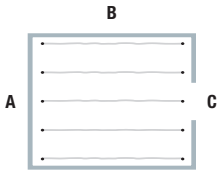


FIG. 2

STEP 3 CRADLE CENTRES

Measure out the cradle centres along the perimeter lines by walls B and D. The cradle centres vary according to which batten is being used. For example, for the C40 system with a 43mm deep batten the cradles will be at 600mm centres. Using this example, measure 600mm along both B and D perimeter chalk lines, starting from the same end (e.g. wall A) and mark or ping a chalk line between the corresponding points to create a grid (Fig. 3)

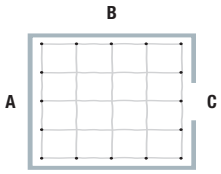


FIG. 3

STEP 4 CRADLE POSITIONING

Place the cradles around the perimeter on all the marked points, ensuring a 10mm gap is maintained between the wall and the cradle edge, and at each chalk line intersection (Fig. 4).

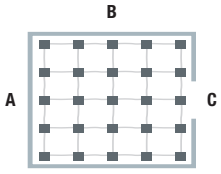


FIG. 4

STEP 5 FLOOR HEIGHT VARIATIONS

Using a laser levelling system, establish the highest datum point of the floor. Calculate the difference between the datum point and every cradle and write the figure, on the floor, next to each cradle (Fig. 5)

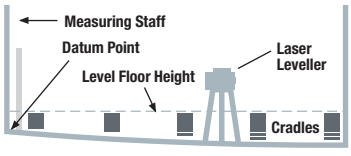


FIG. 5

STEP 6 HEIGHT ADJUSTMENT

Insert the appropriate quantity and combination of 2mm and 5mm cradle packers into each cradle equal to the noted height difference, e.g. 6mm = 3 x 2mm packers; 14mm = 2 x 5mm + 2 x 2mm packers. The cradle packers should be placed in line with the direction of the battens. When packing under the join of two or three battens make sure the packer is supporting all battens. Packers can be used to a maximum of 5mm below the top of the cradle leg. Additional height can be achieved by using 10mm and 30mm cradle base packers.

STEP 7 BATTEN PLACEMENT

Insert the cradle battens into the cradles. Start around the perimeter and then along the original marked ping lines. Cradle battens should be laid in a staggered formation and all battens must join within a cradle. (Fig. 6)

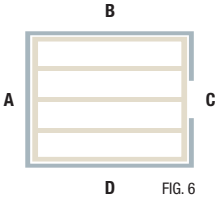


FIG. 6

STEP 8 ACOUSTIC INSULATION (OPTIONAL)

If required, the acoustic insulation should be laid between the cradle battens. (See points to note)

INSTALLATION INSTRUCTIONS FOR

ACOUSTIC FLOORING SYSTEMS
C30, CK30, C40 & C60

STEP 9 CHIPBOARD

- Apply InstaCoustic Adhesive Plus to the top of the cradle battens and lay the boards at 90° to the battens.
- As the boards are laid the Adhesive Plus should be applied to the tongue and groove edges of the boards.
- Boards should be laid in a staggered formation ensuring joins are a minimum of 150mm apart.
- Edges on the short side of the boards must join on a batten.
- The boards are screwed down using countersunk wood screws as in the screw fixing pattern, Fig. D below. Perimeter fixings on the long edge of the boards should not exceed 600mm. Fixing centres along the cradle battens should be at 300mm and 150mm from the long edge perimeter. Where boards join on the short edges they should be screwed down in two places both sides of the join.

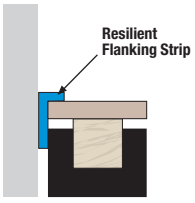


FIG. 7

STEP 10 RESILIENT FLANKING STRIP

- A 5-10mm gap between the edge of the chipboard and the perimeter wall must be maintained. After the chipboard has been laid throughout the room insert the Resilient Flanking Strip into the 5-10mm gap. Ensure that this flanking strip is continuous around the perimeter. Fig. 7

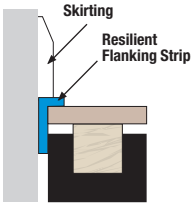
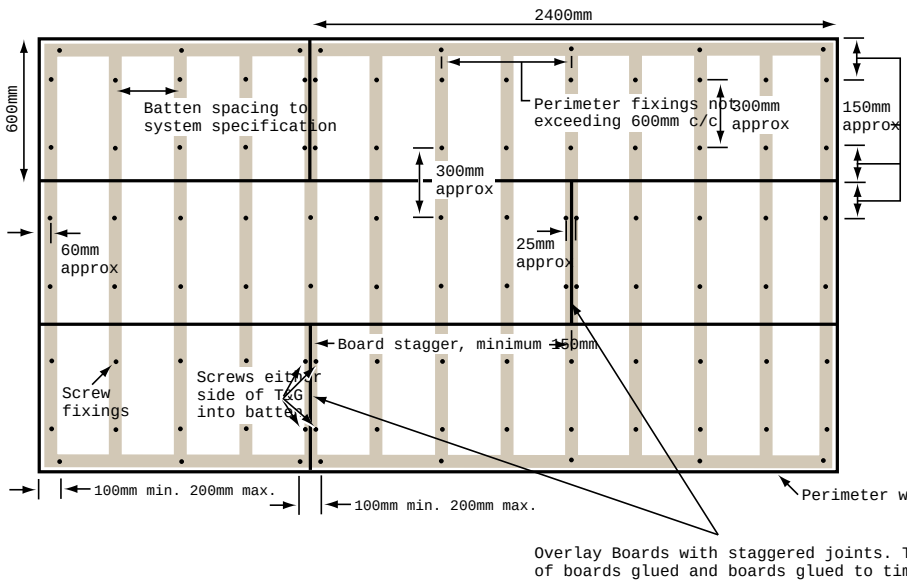


FIG. 8

STEP 11 SKIRTING BOARDS

- Once the boards have been laid fix the skirting boards directly on top of the Resilient Flanking Strip leaving no gaps. Cut away any surplus material. Fig. 8

Fig D Screw fixing pattern of Overlay Boards to Battens



Points to note

MEMBRANE (IF REQUIRED) A membrane, such as 1200 gauge polythene sheeting, should be installed over all ground floor slabs and new concrete bases above ground level. Joints shall be lapped a minimum of 150mm, and should be taped and sealed with waterproof adhesive tape, with edges upturned to the same height as the tongue & grooved overlay boards at all perimeter walls.

SERVICES If there is insufficient room to run services beneath the battens, services may be accommodated by cutting the battens, and passing the services between the cut battens (See Fig. A on page C.29). Support the cut batten, leaving 10mm-15mm clearance from the service, with additional cradles supporting the cut battens.

Never notch the battens. Services running at the perimeter of the room must be a minimum of 150mm from the perimeter, and should not be grouped any wider than the available space between the battens.

ACOUSTIC INSULATION Acoustic insulation is recommended with concrete planks and beam and block floors and will give an improved airborne noise performance from the system. It will also take account of any inadequacies in the sealing and grouting of the sub-floor.

INTERMEDIATE BOARD SUPPORT When the short ends of the boards do not join on a batten, they should be supported with intermediate cradles and battens, (see Fig. A). Where boards join without being tongued and grooved, such as in doorways, support the join with intermediate cradles and battens. Screw and glue the boards to the batten with a 2mm gap between the edges of the boards to avoid squeaking. Batten spacing may be adjusted to suit room sizes to minimise waste provided the maximum batten spacing is not exceeded.

ABNORMAL LOADING If the cradle and batten system is to be subjected to abnormal loading, it may require the use of hard and/or additional cradles. In such cases please refer to the InstaCoustic Technical Department for advice.

EXPANSION JOINTS Expansion joints may be required in long corridors, please refer to the InstaCoustic Technical Department for assistance.

CERAMIC TILES InstaCoustic cradle and batten systems are suitable for tiled floor finishes and have been tested by Norcros Adhesives Limited. A warranty is available subject to following the Norcros Adhesives specification. For further assistance please refer to the InstaCoustic Technical Department.

UNDERFLOOR HEATING Can be used in conjunction with the cradle and batten system. Consult InstaCoustic Technical Department.

REQUIRED TOOLING

- LASER LEVELLER
- CIRCULAR SAW
- JIGSAW
- HAND SAW
- PENCIL
- UTILITY KNIFE
- STRING LINE
- BATTERY DRILL
- COUNTERSINK BIT
- TAPE MEASURE