

**DETAILED FIXING INSTRUCTIONS FOR THE DANSKIN REFLEX BATTEN ON A CONCRETE FLOOR*****Introduction***

Danskin Reflex Bearers are designed for installation on generally even sub-floors. The surfaces of screeds, concrete sub-floors or units must be sufficiently level to meet the relevant BS Codes of Practice and Building Regulations. Concrete ground level supported floors must have a damp proof membrane and screed complying with the appropriate Codes of Practice and Building Regulations.

***Storage***

All components should be kept inside, under cover and in dry conditions at all times. Materials should be located into the environment in which they are to be fixed at least 24 hours prior to fixing. Do not place large quantities of material such as chipboard or plasterboard on top of laid flooring as this extreme loading can damage the resilient layers.

***Preparation***

The building must be weatherproof and wet trades completely dried out before commencing installation of the flooring system. Isolated high points, mortar spillages and other debris should be removed from the area. All joints and air paths between concrete units and at perimeter walls must be grouted. Any flooring components exposed to wet conditions such as ingress of rain or plumbing leaks should be discarded and replaced.

***Fire***

It is presupposed that the structural floor on which Park Bearers are laid achieves all necessary fire protection.

***Dryness of Concrete***

Excessive moisture from cast in situ slabs and screeds which have not dried out can have adverse effects on flooring materials and timber components. BS 8201 states that "it is reasonable to recommend that the concrete be considered dry when the relative humidity falls to 75% or less" (when tested by use of a hygrometer). Where the dryness of concrete can not be guaranteed it is recommended that a vapour barrier is installed (minimum 1000 gauge).

***Services***

The provision of access to services is most successful if the location of services is detailed at an early stage. Services should be kept at least 150mm away from walls to allow space for perimeter support bearers. It is recommended to allow at least 10mm above the height of the services to allow for clearance and deflection of the resilient layer.

***Design Recommendations******(a) Partitions***

Partitions should normally be erected from the sub-floor and not on top of the floating floor. Where lightweight timber or metal stud non loadbearing partitions are built from the top of the floating floor a double row of Reflex Bearers should be placed beneath the partitions.

***(b) Access Panels***

Providing they are preplanned, the provision of access panels is simple. Panels should be square edged and supported along all edges by Reflex Bearers. Access panels should be screwed down.

***(c) Areas of Heavy Loading***

In areas where heavy loadings are anticipated, such as kitchens and bathrooms, Reflex Bearers should be reduced to 300mm centres to provide additional support. On areas of concentrated loads such as beneath baths, shower trays, W.C.'s and kitchen appliances Danskin high load battens can be supplied if necessary to provide additional support. These have a rigid foam layer 13mm thick on the underside. High load battens should only be used for isolated support and not laid in general areas as they do not provide equivalent acoustic insulation.

***(d) Storage Heaters***

Storage heaters are considered to be an extraordinary loading and may require support direct from the subfloor, independent of the flooring system. Danskin's Sales Department are available to provide advice where required.

***(e) Intermediate Expansion Gaps in Flooring***

The need for intermediate expansion gaps between sheets of chipboard must be considered where there are uninterrupted runs of flooring more than 5 metres in length. Expansion provision should be calculated at a rate of 2mm per metre run.

***(f) Communal Areas in Flats***

BS6399-1: 1996 imposes more onerous load bearing requirements for communal areas in certain designs of flatted developments. Concentrated load requirements over the long term can be as high as 4.5 kN while the maximum capacity of 22mm chipboard at reduced centres is only 2.7 kN. If it is intended to lay the Danskin Reflex Bearers in communal areas in flats such as common corridors, hallways, stairs and landings it is essential to contact Danskin for specific advice regarding the floor boarding and component centres.

***(g) Ceramic Tiles***

In accordance with BS5268 base floors require to be stiff to carry ceramic tiles. However, acoustic floors are designed to deflect vertically in order to absorb impact sound. Contact Danskin's sales department for advice on measures to minimise the risk of cracking.

***(h) Perimeter Bearers***

On concrete floors it is preferred that Danskin High Load bearers are placed around the perimeter in every room.

## **INSTALLATION PROCEDURES – CONCRETE FLOORS**

### **1) *Perimeter Bearers***

Lay Danskin High Load bearers around the perimeter of the room fibre side down - approximately 50mm from the wall.

### **2) *Laying Bearers***

Mark the desired location of any non loadbearing partitions and High Load bearers before starting to lay Reflex bearers. Lay Reflex bearers fibre side down leaving a small gap between bearer ends. Start each alternate row of Danskin Reflex bearers with a cut length so that joints are staggered. Where services run across bearers – do not notch. Cut bearers and place approximately 25mm either side of the pipe.

Place High Load bearers directly below isolated heavy loads such as bathroom and kitchen furniture and appliances. Do not overuse as they have lower acoustic performance than Reflex Bearers.

### **3) *Thresholds and Partitions***

Place a Danskin High Load Bearer across each doorway to provide extra support. Ensure that a gap is left between the bottom of doorframes and the top of chipboard flooring.

Place a double row of Reflex Bearers under the line of any lightweight non loadbearing partitions which are built on top of the floating floor.

### **4) *Acoustic Quilt***

Where specified cut Acoustic Quilt into strips and place between ( not below ) bearers.

### **5) *Chipboard Flooring***

18mm thick chipboard should be used where bearers are at 400mm centres and normal domestic loading is anticipated (UDL 1.5kN/m<sup>2</sup> , Concentrated Load 1.4kN ). Where bearers are at 600mm centres 22mm thick chipboard should be used. Leaving a clear 10mm gap at the perimeter lay the chipboard in a brick bonded method. Short edges of chipboard should always rest above a Danskin Reflex Bearer.

Next fix the chipboard using annular ring shank nails or screws with four fixings across the face , two about 25mm from each edge and two equidistant in between. The fixings should be a minimum of 2.5 times the thickness of the board and longer if plank is in use. Care should be taken to ensure that the fibre on the bottom of the bearer is not pierced. All tongue and grooved joints must be glued continuously with adhesive otherwise any movement will lead to squeaking. Spot gluing is not sufficient to prevent squeaking. All joints must be tightly butted and excess glue removed with a damp cloth. Ensure that gaps where services come through the flooring are sealed with acoustic sealant to prevent airborne sound leakage.

### **6) *Danskin Flanking Strip***

Position the Danskin Flanking Strip in the perimeter gap adjacent to the perimeter wall. The preformed `L` shape will prevent it from falling down the gap.

### **7) *Trim Flanking Strip***

Fix the skirting board , lightly trapping the strip between the bottom of the skirting board and the flooring. Remove any excess flanking strip with a sharp knife. It is essential to isolate the skirting from the floor to prevent impact sound flanking transmission.

*Every care has been taken to ensure that all descriptions and specifications are correct at the date of publication. The policy of J Danskin & Co Ltd. Is one of continuous improvement and product development and the right is reserved to alter product specifications and installation procedures without notice.*