Floating Floor Mount Type CEFM

Jacking Case Housing, Rubber Element

APPLICATION

Used where an integral jacking mount system is required for support and acoustical isolation of floating concrete floors. The CEFM mount offers a cost-effective, high load capacity support system for floors in highly critical applications such as theatres, hospitals and studios, as well as for isolating high noise sources such as plant rooms in multistorey buildings.

FEATURES

- Capable of jacking floating floor from zero elevation
- Load capacity up to 500kg/mount
- Rugged cast iron housing
- Standard design is for 100mm thick floors. The housing can be fitted with a height extension unit for floors of greater thickness
- Positioning supports for reinforcing bars
- 6mm Static Deflection

OPTIONS

- Base flange holes for fastening to elevated form work if required
- Refer to Datasheet CEFM2 for higher capacity jack-up mounts for floors 150mm thick
- 80mm jacking bolt provides a lift height of 20-40mm
- 100mm jacking bolt provides a lift height of 40-60mm
- 120mm jacking bolt provides a lift height of 60-80mm
- Includes option for seismic restraint of the floor

DESIGN

The CEFM housing is designed to be embedded in the concrete floor slab, where integral positioning supports provide for ready location of the reinforcing bars. An M20 jacking bolt with hexagon socket head is supplied in a length to suit the application.

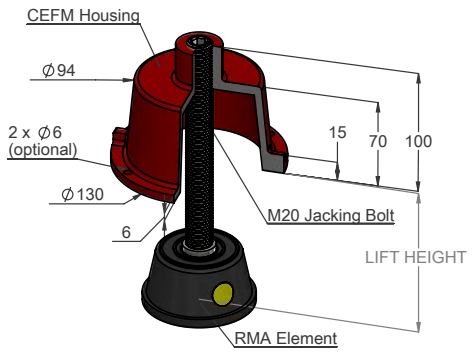
Internal lugs to position the active element on installation are incorporated so that the element is precisely centralised with the jacking bolt.

The use of a jacking type mount eliminates the need for plywood or form board overlays whilst ensuring that a positive air gap is achieved once jacked – no slurry ingress into the cavity can occur once the air gap is formed.

LIFT HEIGHT

Lift height is the separation distance between the bottom of the housing and the bottom of the RMA element. The upper limit is set by a minimum thread engagement in the housing, the lower limit by the necessity for the bolt head to be at or below the top of the housing when the floor is jacked.

The maximum lift height is 80mm, set by bending restraints on the bolt and housing.

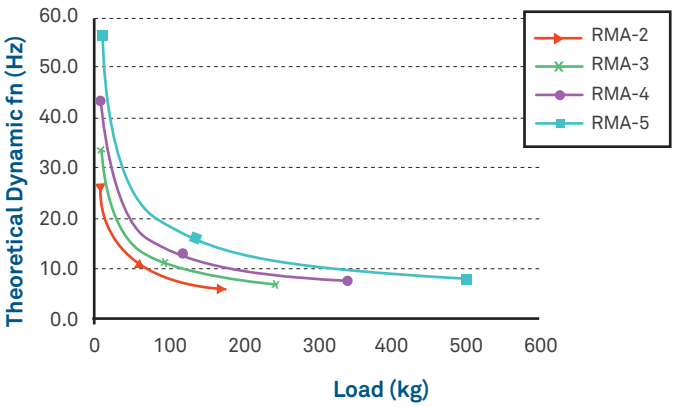


CEFM DIMENSIONS

CEFM PRODUCT GUIDE

Type	Max Load kg	Static Deflection mm	Colour Code	Height mm	Diameter mm
RMA-1	150	6	White	45	85
RMA-2	170		Yellow		
RMA-3	240		Red		
RMA-4	340		Green		
RMA-5	500		Grey		

Rubber Element Natural Frequency



MOUNT SELECTION

Due to the complexity of mount layouts, Embelton invites submission of proposed slab designs for comments and verification, along with details of loading and equipment locations if applicable.

ELEMENT CHARACTERISTICS

The active rubber element (type RMA) is manufactured from a high quality natural rubber blend giving excellent dynamic performance and low long term creep. All compounds used are tested to ASTM D2000 for original physical properties, ageing and compression set.

A thick steel plate is integrally moulded into the top of the element with a removable loading button to locate the jacking screw.

Rubber mounts differ from spring mounts in that the isolation efficiency is a function not only of deflection, but also of the rubber hardness (durometer). For effective assessment of theoretical isolation efficiency, the graph showing dynamic natural frequency against load should be used.

INSTALLATION

Installation procedures will depend upon the thickness of the floor slab.

Generally the top of the CEFM housing can be used as a screeding level for the floor, with external positioning lugs used to locate the reinforcing steel.

As the active element is captive within the housing, it cannot be removed or replaced. For this reason care must be taken to ensure that each housing has an element inside it prior to placing the reinforcement steel, and that the element is fitting snugly between the internal centralising lugs.

Check that the plastic snap-in cap provided is in place to prevent the jacking screw thread from filling up with concrete, and ensure that the housing has minimal gaps under the base flange which could allow entry of concrete slurry. It is best to seal the housing/floor interface if in doubt.

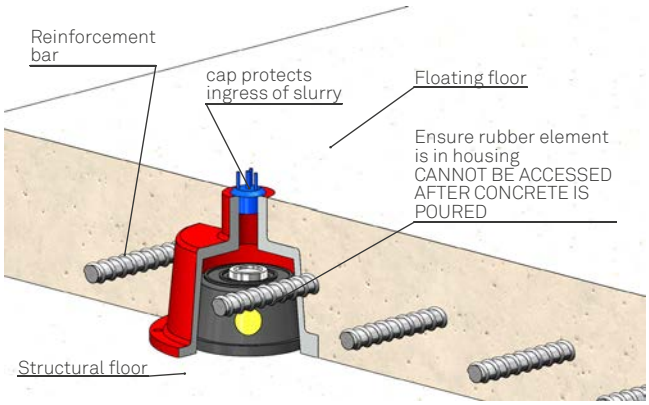
For floating floors which use a cavity infill material and corresponding form board overlay, holes can be provided in the base flange for attachment to the board.

For floating floors over 100mm thick, a height extension unit can be provided.

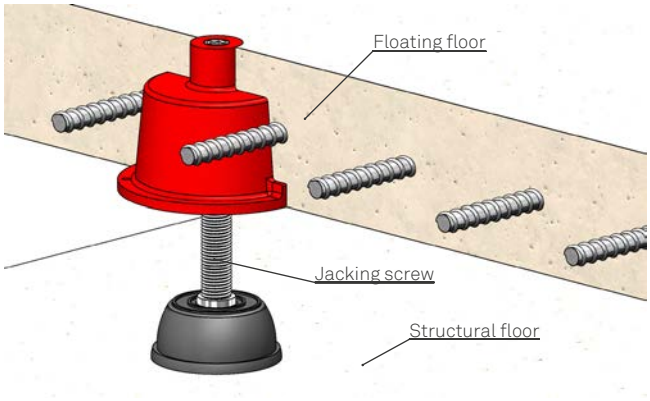
JACKING PROCEDURE

Full jacking instructions, including the recommended jacking sequence, are prepared specifically for each project where requested.

Please note: Jacking is usually done one screw turn at a time on all housings in rotation to minimise slab distortion and screw loads. Lubrication of the jacking screw is mandatory.



CEFM JACK-UP FLOATING FLOOR LOWERED



CEFM JACK-UP FLOATING FLOOR RAISED

TECHNICAL ASSISTANCE

All Embelton offices can provide detailed technical assistance on the use of this product in specific applications.

CONDITIONS OF SALE

These products are sold subject to the published Embelton General Conditions of Sale, copies of which may be inspected on request.

SPECIFICATION

Mounts for the floating floor slabs shall comprise a cast housing with M20 socket head jacking bolt and a rubber element moulded from prime materials, and be capable of 6mm static deflection at rated load. Mounts shall be able to lift the floor from zero elevation to design operating height and must have the facility to support reinforcing steel at height positions consistent with structural requirements. They will be type CEFM as supplied by Embelton.