

CDM

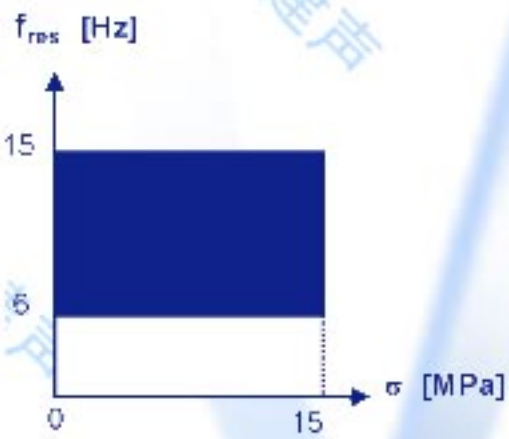
CDM-ISO-SEB



Simple Elastomer Bearings are used to isolate buildings where the required natural frequency is between 6Hz and 15Hz. The bearings consist of simple or composite elastomer pads, occasionally pre-glued to formwork panels.

The bearings can be manufactured to suit all types of standard construction, for example load bearing masonry, reinforced concrete frames, steel construction etc...

Fretted Elastomeric Bearing



Load bearing masonry strip, 11Hz



Reinforced concrete frame isolation bearings, 10Hz

Load-Frequency Range



CDM

CDM-ISO-CAS-BOX



CDM-ISO-CAS-BOX Pre-Compressed Elastomer Boxes are used to isolate buildings where the required natural frequency is 6Hz to 10Hz. They consist of elastomer pads inside reinforced steel boxes which are pre-compressed to a specified load.

The advantages of pre-compressed elastomers over simple elastomers are as follows:



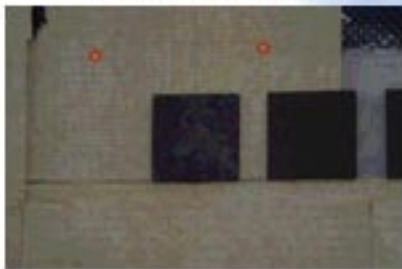
The elastomers are pre-compressed to a percentage of the overall supported mass (say 80%) therefore minimising deflection during construction (deflection only occurs after the precompression has been exceeded) - this is especially important when low frequency solutions are required as this results in high deflections

The boxes can be neutralised, replaced or inserted after construction. It is essential, however, that all boxes are accessible and this should be considered in the scheme design phase of the building.

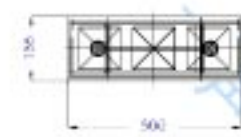
Precompression of the box



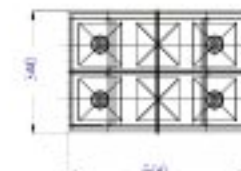
CDM-CAS box



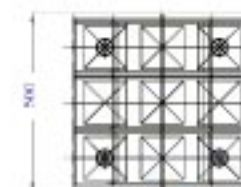
CDM-CR bearing



CDM-ISO-CAS-BOX/B3
Acoustic design Load = 240 kN
fres : 7-8 Hz



CDM-ISO-CAS-BOX/B6
Acoustic design Load = 480 kN
fres : 7-8 Hz



CDM-ISO-CAS-BOX/B9
Acoustic design Load = 720 kN
fres : 7-8 Hz



Festival Theatre is a one of the two halls inside the 'Palace of Arts' in the new Millennium City Centre of Budapest. It provides high quality environment for different kind of theatrical performances, including drama, traditional Hungarian folk dance and folk music. The acoustical measurements prior to the construction showed that measures were to be taken to isolate the low frequency vibrations, generated by the nearby railway, tramway, commuter train and road traffic. As a result, a resonance frequency of max. 10 Hz, and a prestressed solution with integrated fail-safe system was specified.

As part of the acoustical treatment of the complete compound, CDM-CR bearings were also provided for a resilient decoupling of the slurry wall and some structural walls.



Installation on site