

# Teatro Municipal de Faro, PT



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## STRUCTURAL ISOLATION

### CDM-ISO-SEB – CDM Simple Elastomer Bearings

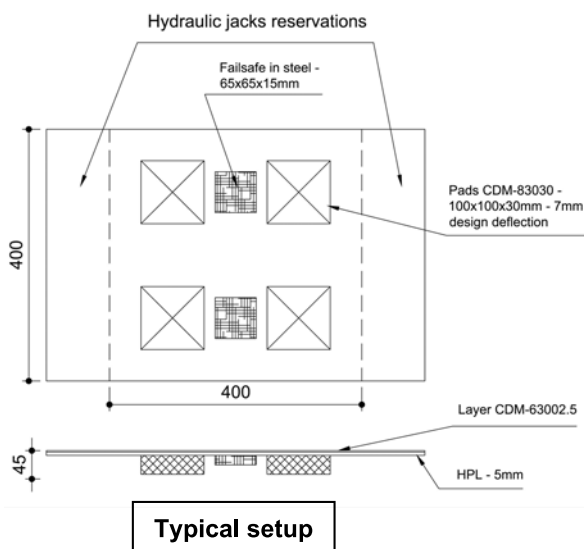
Architect:	G.B. Arquitectos
General contractor:	CME
Acoustic Consultant	H. Arau
Structural Engineer:	BETAR
Building mass:	approx. 140 MN
Installation	2004

During 2005 Faro will be the national cultural city. The new Theatre of Faro with its 800 seats auditorium, will be an important key for the success of this event.



The acoustical consultant, defined a solution with elastomer bearings having a natural frequency of 8-10 Hz, because of the proximity of the railway track and an important car traffic road.

A technical level at floor level -2 was reserved to install the isolation system. For taking up the lateral loads and vertical traction loads in certain columns & core walls during a probable seismic occurrence, specific devices were developed and installed.



#### Special points of attention:

- Possibility to inspect and replace the bearings (if necessary)
- Fail safe system based on steel bearings (important in case of fire for example)
- Hydraulic jacks reservations to allow for lifting up the structure
- Extra support space for the introduction of supplementary bearings (to better tune the system according to the final loads - if necessary)



## CASE STUDY – CDM-ISO-STRUCTURE