SCALING LAWS AS APPLIED TO IMPACT TESTING OF REINFORCED CONCRETE STRUCTURES

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The applicability of scaling laws reinforced concrete structures subject to impact is discussed.
Two different scale model sizes were considered for investigation, representing 1/5th full and 1/25th full size.
The structures were subjected to impact loading from hard and soft (non deformable and deformable) missiles.
The paper discusses the method of construction of the models and concludes that close control is required to achieve scaling of the constituent materials.

The deflection response of the structures to impact is compared, and shows that small scale models give results with a high degree of correspondence to the results from large scale models when correctly scaled.