

Seismic Behavior of Partial Connected Beam-Column Joint of Circular Tubed Steel-Reinforced and Deformed bar High-Strength Concrete Columns

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Case Description

Expect to possess high capacity, high ductility and an extraordinary energy absorption capacity. Expect we can control shear failure under concentric loading high-strength concrete columns may be widely used in high-rise buildings and seismic regions (Figures 1 and 2) [1].

For this aim, a 3-D finite element model of circular tubed steel-reinforced and deformed bar with stirrup column columns using ABAQUS or ANSYS program will be developed and validated [3]. Three-dimensional finite element analysis of compressive behavior of circular tubed steel reinforced with deformed bar high-strength concrete columns by new confinement relationships [4].

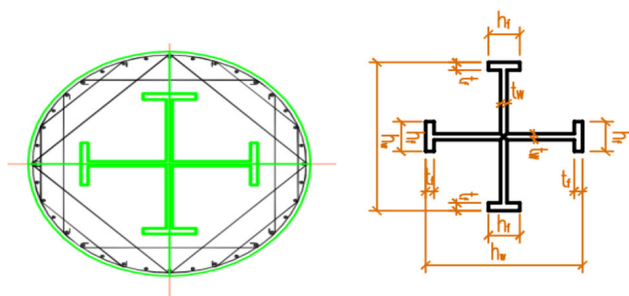


Figure 1. 3-D Finite element model of circular tubed steel-reinforced.

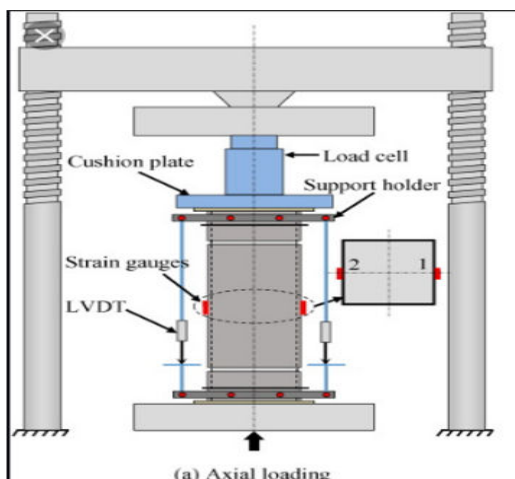


Figure 2. Deformed bar with stirrup columns.

References

1. Guan, Minsheng, Xinsen Zheng, Ying Wang and Qian Xiao, et al. "Seismic Performance of Innovative Adaptive-Slit Composite Structural Walls with Ultra-High Axial Compression Ratio." *Bull Earthquake Eng* (2022): 1-24.
2. Lees, Janet Marillyn. "Fibre-Reinforced Polymers in Reinforced and Prestressed Concrete Applications: Moving Forward." *Prog Struct Eng Mater* 3 (2001): 122-131.
3. Beirami Shahabi, Ali, Gholamreza Zamani Ahari and Majid Barghian. "Base Isolation Systems-A State of the Art Review According to their Mechanism." *J Rehabil Civ Eng* 8 (2020): 37-61.
4. Afefy, Hamdy M. "Seismic Retrofitting of Reinforced-Concrete Coupled Shear Walls: A review." *Pract Period Struct Des Constr* 25 (2020): 03120001.

How to cite this article: Kefelegn, Abraham. "Seismic Behavior of Partial Connected Beam-Column Joint of Circular Tubed Steel-Reinforced and Deformed bar High-Strength Concrete Columns." *J Steel Struct Constr* 9 (2023): 208.

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Received: 11 March, 2019, Manuscript No. JSSC-23-3208; Editor assigned: 14 March, 2019, Pre QC No. P-3208; Reviewed: 28 March, 2019, QC No. Q-3208; Revised: 13 September, 2023, Manuscript No. R-3208; Published: 11 October, 2023, DOI: 10.37421/2472-0437.2023.9.208