

## Investigating the Capacity of Cracking Torsion of Rectangular and Cylindrical RC Beams with Spiral and Normal Stirrups

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**Abstract :** In this paper, the capacity of cracking torsion on rectangular and cylindrical beams with spiral and normal stirrups in similar properties are investigated. Also, in the beams with spiral stirrups, stirrups are not wrapping and spiral stirrups similar to normal stirrups in ACI code. Therefore, models of above-mentioned beams have been numerically analyzed under various loads using ANSYS software. In this research, the behavior of rectangular reinforced concrete beams is compared with the cylindrical reinforced concrete beams. The capacity of cracking torsion of rectangular and cylindrical RC beams with spiral and normal stirrups are same. In the other words, the behavior of rectangular RC beams is similar to cylindrical beams.

**Keywords :** cracking torsion, RC beams, spiral stirrups, normal stirrups

**Conference Title :** ICCESE 2015 : International Conference on Civil, Environmental and Structural Engineering

**Conference Location :** Vancouver, Canada

**Conference Dates :** August 06-07, 2015