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## STRUCTURAL ENGINEERING / EARTHQUAKE ENGINEERING

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[\[PDF \(1520K\)\]](#) [\[References\]](#)**ULTIMATE STRENGTH OF T-SHAPED AND CROSS-SHAPED SOCKET JOINTS BETWEEN STEEL BEAM AND CONCRETE-FILLED STEEL TUBULAR COLUMN**Masato YAMADA<sup>1)</sup>, Atsushi HAYASHI<sup>1)</sup>, Shin-ichiro NOZAWA<sup>1)</sup> and Teruhiko YODA<sup>2)</sup>

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The authors have proposed an equation for estimating the ultimate strength of T-shaped socket joints. However, the effect of cyclic loading and external diaphragms, applicability to the cross-shaped joint and other issues must be verified. Therefore, the static loading tests by using the T-shaped joint specimens were carried out in order to investigate the effects of loading method and the diaphragm. Monotonic static loading tests by using the cross-shaped joint specimens were also carried out. The test results indicate that the loading method and the diaphragm affect the ultimate strength, and that the application of the proposed method to the cross-shaped joint is promising.

**Key Words:** concrete-filled steel tube, joint, ultimate strength, cyclic loading, diaphragm[\[PDF \(1520K\)\]](#) [\[References\]](#)Download Meta of Article [\[Help\]](#)[RIS](#)[BibTeX](#)

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