

Analytical Stress-Strain Curves for Grouted Concrete Masonry

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Abstract:

Two mathematical models are presented to represent the idealized stress-strain behavior of both confined and unconfined grouted concrete masonry in compression. The models are based on experimental data from recent prism tests, and account for varying types of confinement reinforcing. The “Acceptable Fit” model is a simple model suggested for use in design. The “Best Fit” model is more complex but more accurate, and is appropriate for use in computer analyses. The models are compared to existing mathematical models for masonry behavior available in the literature.

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