CELLULAR DECK DESIGN

Cellular and cellular acoustical decks may be designed for out-of-plane loads, shoring and diaphragm loads based on the published properties. Superimposed loads are based on the profile and gage of the fluted top section.

Cellular and cellular acoustical decks may be designed based on their fluted top sections ignoring the contribution of the bottom pan, in accordance with the guidelines below. Please contact your Vulcraft representative if more detailed information is required.

Cellular Roof Decks
- Out-of-Plane Loads: Cellular and cellular acoustical decks may be designed for out-of-plane loads based on fluted deck of the same gage and profile as the fluted top section of the cellular deck.
- Diaphragm Design: Diaphragm shear strength and stiffness for cellular and cellular acoustical decks may be based on fluted deck of the same profile as the fluted top section but with the gage of the bottom pan.

Cellular Composite Decks
- Unshored Clear Spans: Determination of maximum unshored clear spans of cellular and cellular acoustical decks may be based on fluted deck of the same gage and profile as the fluted top section of the cellular deck.

Cellular Composite Deck-Slabs
- Superimposed Loads: Superimposed loads for cellular composite and cellular acoustical composite decks with a given concrete type and thickness are based on composite deck of the same profile, gage and concrete as the fluted top section of the cellular deck.
- Diaphragm Design: Diaphragm shear strength and stiffness for cellular composite and cellular acoustical composite decks with a given concrete type and thickness may be based on fluted composite deck of the same profile as the fluted top section but with the gage of the bottom pan.

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