



Dry Screening of Expanded & Unexpanded PERLITE

OBJECTIVE

Expanded perlite ore with 4-6# per cubic foot loose bulk density and unexpanded with a 60-80# per cubic foot loose bulk density, is successfully screened on various Derrick machinery.

Expanded perlite requires the Derrick model K48-126D-3SM high frequency screening machine. This design utilizes a high speed, low amplitude 3600 RPM vibrator for a 100-200 mesh dry separation. Vertical elliptical vibrating motion along with high open area screen surfaces in conjunction with four mesh backing wires produce efficient screening at the 100-200 mesh level.

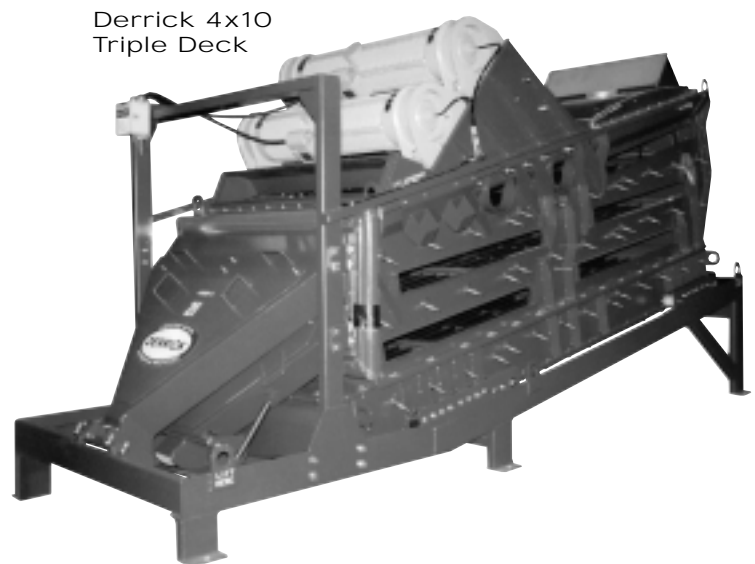
Unexpanded or crude perlite is screened at 4 mesh, 6 mesh, and 12 mesh using a nominal 4x10 Derrick triple deck screening machine. At a feed rate of 25 stph the +4 mesh product is recirculated to the crusher. The required 4x6 mesh and 6x12 mesh products have strict sieve tolerances.

High product yields are obtained with this machine design which utilizes two vibrators rotating in opposite directions essentially creating a linear vibrating action. This 1200 RPM straight line vibration provides superior material conveyance enabling the screen to operate at a lower angle than a conventional Derrick high frequency screening machine.

Only 109 inches of headroom is required for this machine design. Dust tight construction is required and screen cloth is installed via removable urethane side access doors on the live screen frame.



Derrick model
K48-126D-3SM
Single Deck



Derrick 4x10
Triple Deck

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