



White Paper

Vibrating Feeders for Stockpiling and Reclaim

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The efficient and economical storage, movement and control of large tonnage coal handling installations unit train loading and unloading storage blending and reclaim systems depend on the proper application and design of vibrating feeders. Installation of vibrating feeders in over 250 power plants have proven the reliability and economical construction for these units

System designers must apply improved designs for controlling the flow of coal from storage including full consideration for dust control and pollution. Automated coal handling systems should include manpower and equipment maintenance requirements in evaluation of any layout. Overall operating costs in a coal handling system are passed on to the consumer in the price of energy. Minimizing the use of dozers and mobile equipment reduces the "fugitive" dust problems and improves the reliability of the system.

The expanding applications of vibratory feeders for controlling the flow of bulk materials, and their adaptation for processing requirements, have developed considerable interest in stockpiling and reclaim systems. The general design of these units consists of a material transporting trough, or platform, driven by a vibratory force system. The flexibility and variety of designs is limited only by the ingenuity of design engineers. The basic motion of the vibratory trough, or work member, is a controlled directional linear vibration which produces a tossing or hopping action of the material. Material travel speeds vary from 0 to

approximately 100 ft/min, depending on the combination of frequency amplitude and slope vibration angle.