

Resonance Conveyor Two-Mass-System

JOEST dual-mass resonance conveyors are used for transporting bulk material and general cargo over long conveying distances. An oscillating system consisting of a trough unit, counter-vibrating frame and working springs is excited at very low frequencies by an eccentric slider-crank drive.

The heavy counter-vibrating mass is transferred to the foundation via soft insulating springs, and the system requires only very little drive power. Since the dynamic restoring forces of the working springs in the dual-mass system are largely supported by the counterweights, only very low residual dynamic forces are transmitted into the foundation.

With this system, large oscillation amplitudes are possible, enabling high flow rates. The maximum technically feasible overall length is limited to about 20 m, as otherwise the desired linear vibration is counteracted by unwanted natural bending oscillations.

For longer working lengths, mass-compensated "FSM" resonance channels are preferable. In these machines, the conveyor trough is bolted to a support frame and is interchangeable. The slider-crank drive contains standard housing bearings, a three-phase standard motor (foot type) and a V-belt drive.





APPLICATIONS

- Green Sand Molding Process
- No-Bake Sand Molding Process
- Lost Foam Process
- Used Core Sand Transport/Reclamation Systems

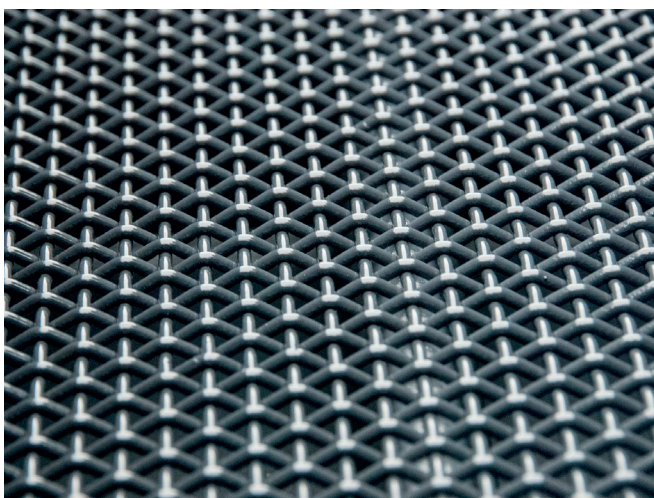


OPTIONS

- Wear lining
- Under-trough heating to prevent caking
- Screen decks for residue screening
- Trough covers (oscillating or static)
- Low-noise sandwich configuration

TECHNICAL DATA

- Dimensions and design features are tailored to the customer's specific requirements.



ADVANTAGES

- ✓ Low energy consumption
- ✓ High flow rates
- ✓ Low transmission of dynamic forces into the foundation
- ✓ Heavy-duty steel construction without concrete components