APPLICATION BULLETIN

APPLICATION: Loading and Unloading Systems

INDUSTRY: Concrete Paver and Block Manufacturing

PRODUCT: Magnashear Electric Brake

Loading and Unloading Systems

Finger Car loads stacks of block into drying racks

Magnashear Brake Size 2 on Finger Car Trolley

Magnashear Brake Size 4 on Finger Car turntable

Finger Car

Magnashear Brake Size 6 on Elevator

Elevator

“Green” concrete block from block machine
LOADING & UNLOADING SYSTEM

WHERE THEY ARE USED: The automatic loader/unloader is found in brick, pavers, and concrete block plants to stack pallets of bricks, pavers and blocks before they are loaded into the dryers. Loading and unloading systems are made up of four major components which go by several different names: 1) loaders, elevators, stackers; 2) unloaders, delevators (down elevator), lowerators; 3) finger car, spade drive and 4) drying racks.

HOW THEY WORK: Pallets of “green” concrete pavers or block come from the block machine via the “front delivery conveyor”. After pallets are fed into the elevator, the elevator indexes one position upward. This cycle is repeated until the elevator is completely full. Once full, the finger car will come in and pick up the entire stack of pallets and load them into drying racks. Simultaneously at the other end of the dryer, the finger car will come in and pick up stacks of cured block off the drying rack and deposit them into the delevator, which unloads them into a takeaway conveyor for further processing, cubing and palletizing for shipping.

PROBLEMS SOLVED: An electric motor with a motor brake is used to index the elevator and delevator. The repetitive starts and stops of the elevator creates intense heat in both the electric motor and conventional dry brakes. Heat build up is the mortal enemy of both the motor and brake, causing frequent failures. Dust and dirt inherent to block production makes the problem even worse by settling into the brakes causing increased wear and plugging cooling vents. The Magnashear Brake will dissipate the heat faster – keeping the motor and brake running cooler. Being completely enclosed, the brake performance is not affected by the cement dust. The Magnashear Brake will eliminate the need for frequent maintenance to replace coils, friction materials and even motors. It shouldn’t be “standard” procedure to adjust or repair your brakes every couple months - they should last for YEARS!!

IMPORTANT FEATURES:

• Oil Shear Technology is designed to dissipate the heat better than conventional motor brakes for long service life with low maintenance in hostile environment.

• Smooth “cushioned” stops for handling fragile concrete product.

Upgrade your brakes today to reduce downtime and improve performance.