

## Linear synchronous motors move the goods

Linear synchronous motors in the QuickStick system from **MagneMotion Inc.**, Devens, Mass. ([www.magnemotion.com](http://www.magnemotion.com)), use moving magnetic fields to power pallets carrying goods or moving components through production on a track. The pallets can carry loads as heavy as several tons up to 4 m/sec with up to 1 g of acceleration. The pallets themselves have no powered components, so there is no need for complicated electrical and control connections or cabling. All motor components, controls, and position sensors are built into the stationary motor segments in the track. (One Fortune 500 QuickStick customer estimates they reduced the number of control I/Os in their material-handling section by 80%.) Pallets can be equipped with a range of supports, including flanged or grooved guide wheels, and rollers on rails, depending on payload size, speed, weight, and number of pallets in the system.

Bidirectional systems of any size and complexity can be constructed by combining QuickStick modules. And each 1-m module handles five pallets, with some taking on five vehicles. Positioning accuracy ranges from 0.5 to 1 mm. The system has no traditional power-transmission parts, so maintenance is low.

MagneMotion is currently developing a version of QuickStick for moving loads of less than 2 kg. The new system, called MagneMover Lite, will use 60-mm carriers (or pucks) that slide on smooth pads. Production units will be available next year.

**Circle 402**

