

# TECNOTION<sup>®</sup>

## THE LINEAR MOTOR COMPANY

*Moving Magnet Linear Motor Series*

## REVOLUTION OF LINEAR MOTORS.

We are proud to unveil the industry's first standardized linear motor that can move along a curved track, after years in development and extensive prototyping with large OEMs.

Meet the MM-Series linear motors. An inverted linear motor utilizing a fixed coil track and magnetic movers, the MM-Series breaks a long standing barrier of linear motion by allowing the movers to follow a curved track. The movers can be controlled individually or in groups and can move completely independent of each other.

The design is completely modular, with components that can be mixed and matched to suit the needs of your application. With no parts touching each other and fixed cabling, the system is also completely maintenance free.

It's reliable, cost-effective, flexible and accurate. Its application possibilities are virtually endless. The revolution has arrived and the only limit is your imagination.

- The first linear motor that can move along a curved track.
- Fixed coil track and magnetic movers, which can be controlled individually and independent of each other.
- Modular design which can be adapted to fit any application.
- Suited for both open and closed tracks.
- Freedom of control: connect it exactly to your needs.
- Available in three sizes.
- Peak forces of up to 480N.
- Continuous forces of up to 230N.
- Completely maintenance free: no wear and tear.
- Compact design: reduce the footprint of your applications.

Available in three sizes:  
MM-M, MM-L, MM-B

#### Exceptional Build Quality

The MM-Series features the same exceptional build quality our customers have come to expect from our products. Proprietary coils, armature, and a rugged cast resin exterior, all designed and manufactured in-house, ensure each motor performs identically. Whether you order one or one hundred.

#### Magnetic Mover

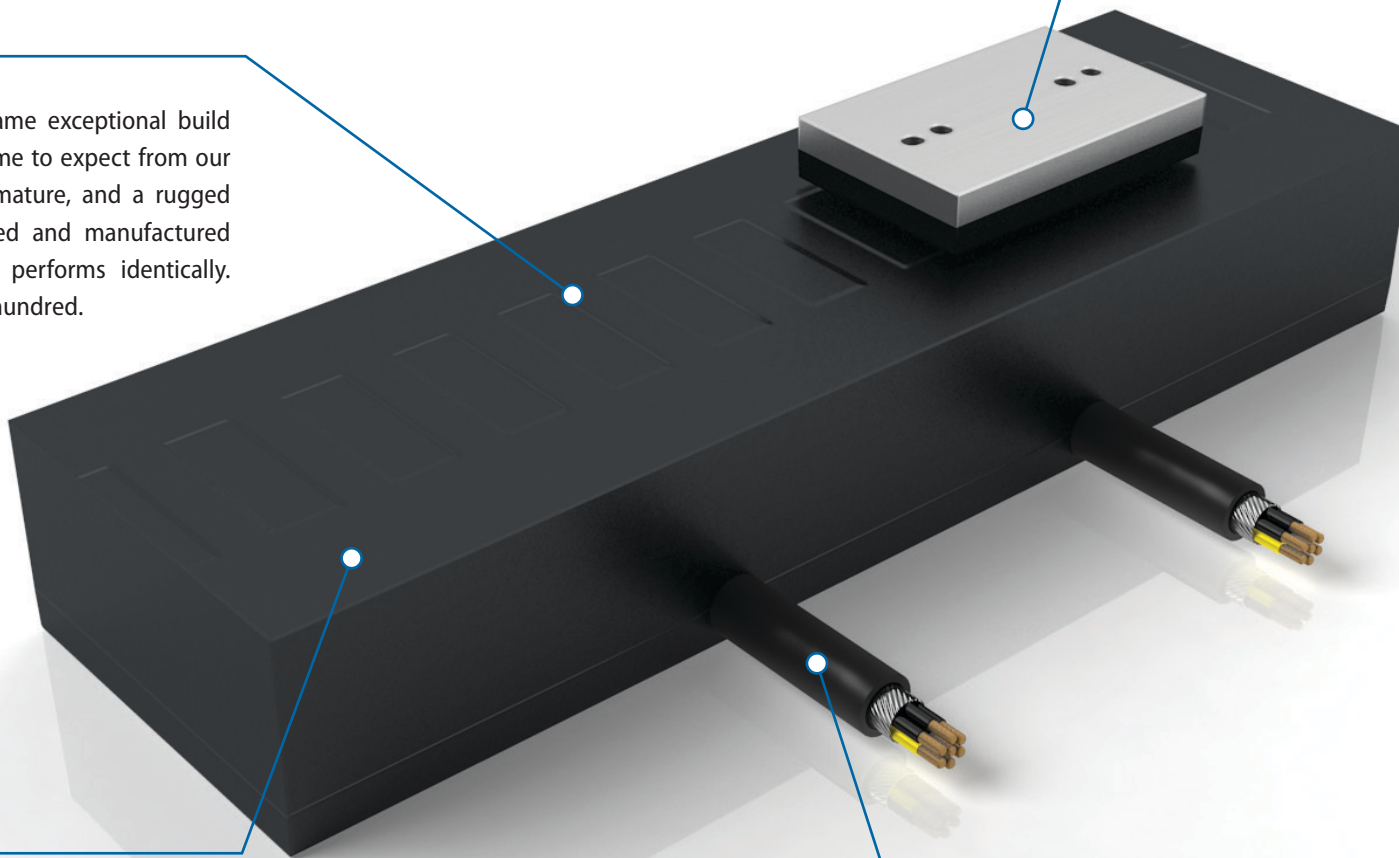
Multiple types of movers can be used on the coil track, each with their own distinct characteristics. These movers can be controlled individually or together and can even move in opposite directions of each other. All at the same time.

#### Coil Track

The heart of the MM-Series is the modular coil track. No longer are you limited to movement in a straight line: this motor can actually move along a curve. Using our modular components you can create anything from a simple oval to complex tracks with multiple curves.

#### Flexibility

Each coil can be connected individually. This means you can configure your coil track exactly the way you want it. Whether you want to control one coil at a time or use multiple phases, the MM-Series can be adapted to suit each and every application. Don't let its perceived simplicity mislead you either: in the right hands it's this flexibility that paves the way to increasingly complex fields of application.





## MM-SERIES BASIC CONCEPTS

### Curved and endless tracks

DMM systems are no longer limited to movement in a straight line. The magnetic movers can be positioned along a curved track, with absolutely no loss in performance. Applications can be designed using straight tracks, S-tracks or even endless "racetrack" configurations. Not only does this reduce footprint and volume, it also maximizes efficiency of material transport. Since the entire path is available for use, completely new application concepts become possible.

### Independent movers

Each magnetic mover that runs along the track can be controlled independently by powering coils individually or in groups. The design of the MM-series provides you with maximum flexibility in the way you control each mover.

### Unlimited design possibilities

There is no limit to the number of magnetic movers and coil tracks you can use together: the system is modular and can be completely adapted to the requirements of your application. The only limit is your imagination and the available computing power of your controller.

### Dynamic Moving Magnet Technology

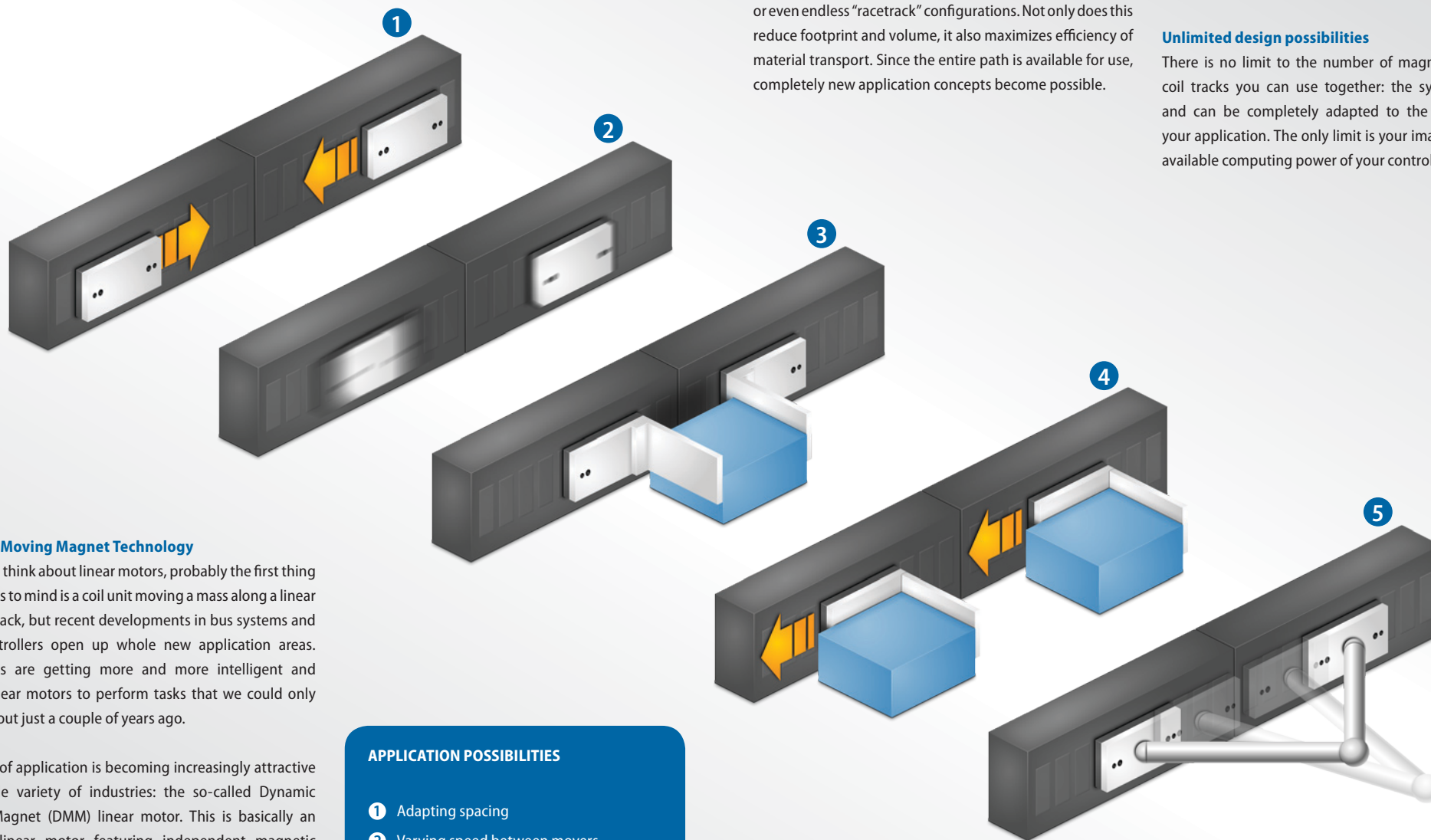
When you think about linear motors, probably the first thing that comes to mind is a coil unit moving a mass along a linear magnet track, but recent developments in bus systems and logic controllers open up whole new application areas. Controllers are getting more and more intelligent and enable linear motors to perform tasks that we could only dream about just a couple of years ago.

One type of application is becoming increasingly attractive for a wide variety of industries: the so-called Dynamic Moving Magnet (DMM) linear motor. This is basically an inverted linear motor featuring independent magnetic movers that move along a modular coil track.

Combined with position sensors and a controller, DMM technology opens up whole new fields of application with incredible functionality.

### APPLICATION POSSIBILITIES

- 1 Adapting spacing
- 2 Varying speed between movers
- 3 Exerting clamping forces
- 4 Pushing materials
- 5 Using kinematics to manipulate materials



This leaflet is offered to you by:

**Tecnotion BV**

Twentepoort West 15  
7609 RD Almelo  
The Netherlands

Tel. +31 (0)546 536 300  
Fax +31 (0)546 536 380  
[sales@tecnotion.com](mailto:sales@tecnotion.com)