TECNOTION®

direct drive in motion

Linear motors in digital cutting applications

Improve throughput, cutting quality and smoother operation

Linear motors are the best fit in digital cutting applications with a high force density and more accurate control. The high force density provides best-in-class acceleration and top speed to increase throughput and the accuracy improves cutting quality.

Digital cutting machines provide fast setup times between tasks, increased variety in design and the ability to handle a wide range of materials. Our linear motors especially iron core motors (high force density) deliver best acceleration and top speed which allows faster traversing speeds and faster short length cuts and curves. No need for coupling and transmission components provides more accurate control. In addition, it is possible to run multiple coil units on a single magnet track for multiple cutting heads (or beams) on one machine. Therefore, iron core linear motors are the best fit in digital cutting applications.

- Small footprint - less parts to design and assemble.
- Cost effective - especially for long track lengths with our fitting coil unit solutions
- No maintenance - operate contactless and virtually wear-free.
- High force density - increasing throughput.
- Low cogging - smooth motion and position.
- Multiple coil units can be placed in a single magnet track and move independently.

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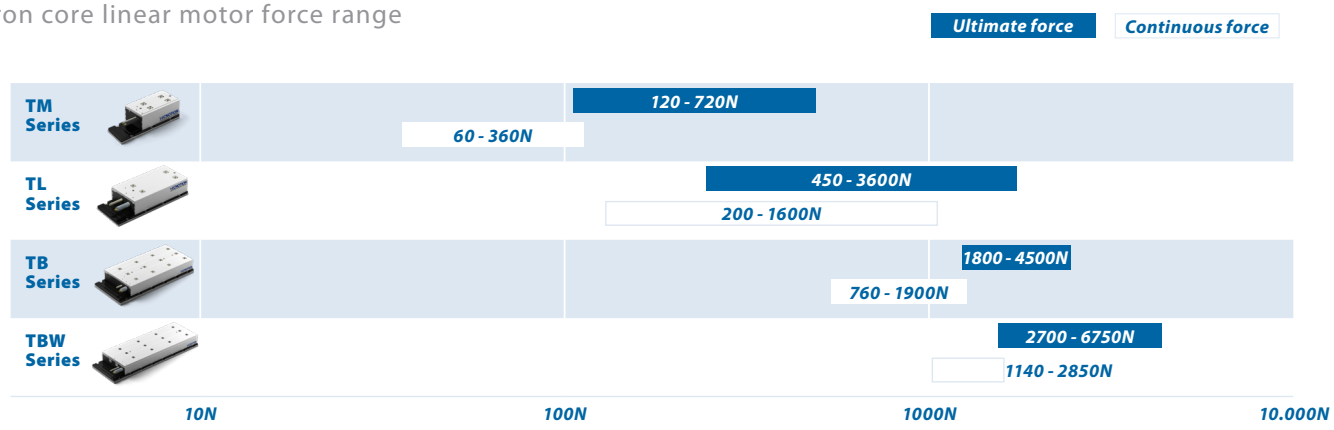
High force density - increasing throughput

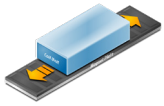
Iron core linear motor force range



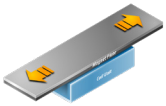
Approvals

Modular system - Multiple coil-units on one track for multiple cutting heads

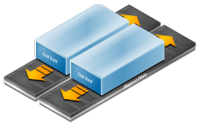
All motors can be used in various configurations:



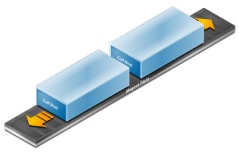
1. Single moving coil



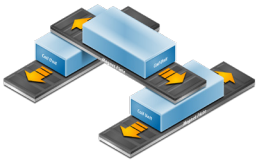
2. Moving magnet



3. Parallel coupled coil

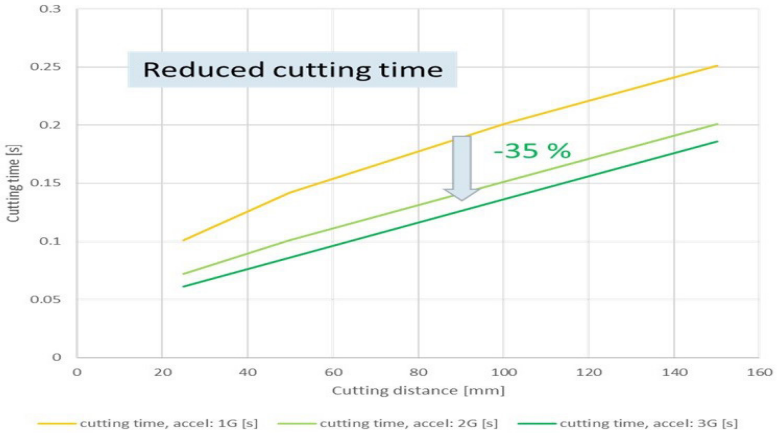


4. In-line on a single track



5. Crosstable or gantry

Higher acceleration - cutting time reduction with 1m/s top speed up to 35%



www.tecnotion.com/iron-core

version 1.0