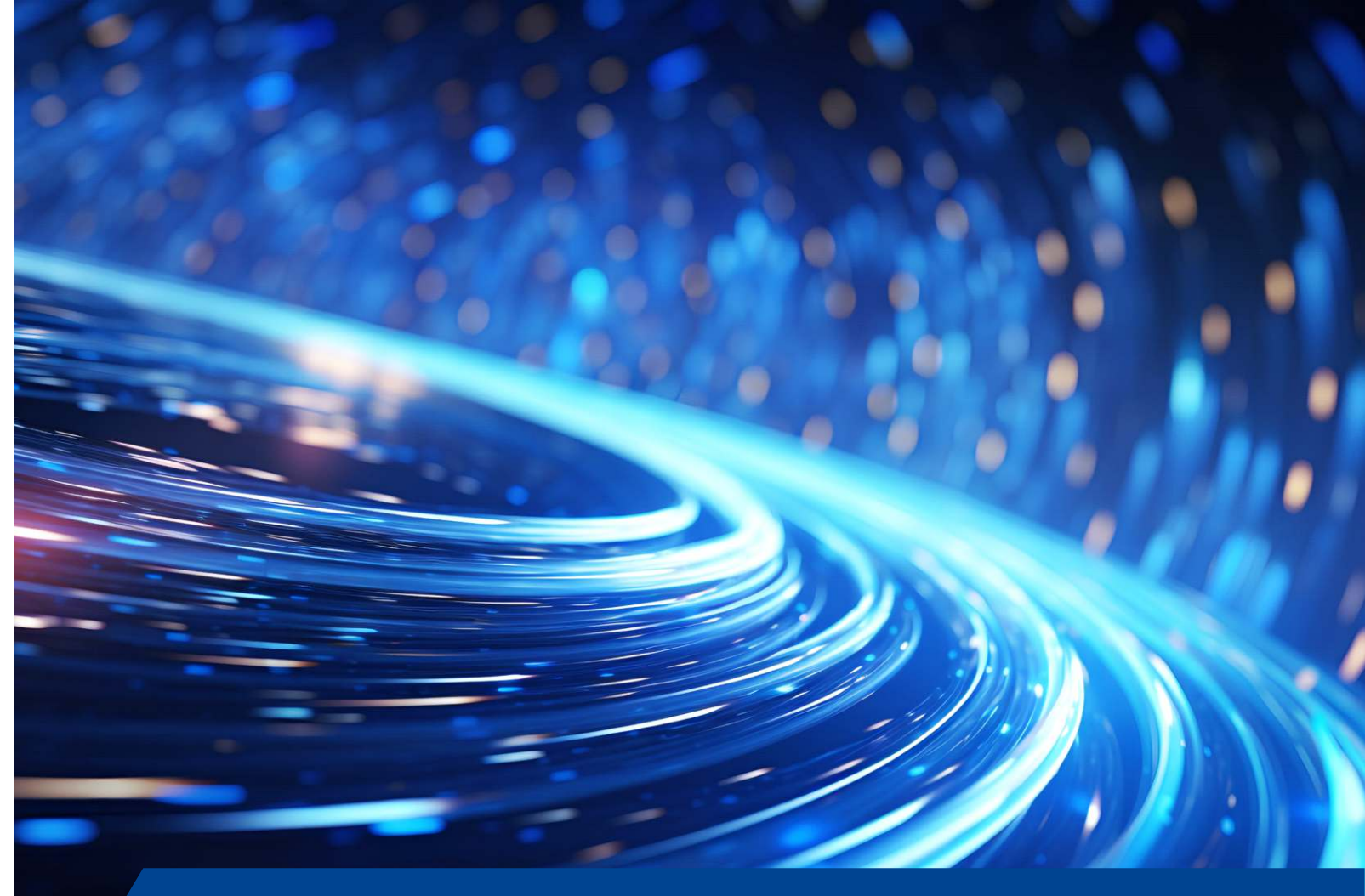




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Flexible Track System MAGLEV TRANSPORT LINE



www.ksfhs.com

CORPORATE CULTURE

VISION

To become prestigious
global smart
manufacturing enterprise

MISSION

To seek happiness
for employees
To create value for partners

VALUES

Customer orientation;
Perseverance;
Innovation;
Sharing value

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02 ■ Product Family

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HIGHLIGHTS OF FTS MAGLEV TRANSPORT LINE

Less Heat Generation, More Reliable

Attribute to copper coils, motor is with higher power density and less heat generation compared to PCB coils.

Ready Upon Startup, High-Speed Production

Real-time recognition of mover ID. Compared to RFID solutions, no one cycle of mover running is required before production.

Distributed Parallel Debugging to Accelerate Production

Parallel debugging with multi-terminal makes the commissioning on a long transport line more convenient, and greatly reduces equipment integration time. Ensuring dual safety through reliable software control permissions and robust mechanical limits

Defect Detection, Efficient Scheduling

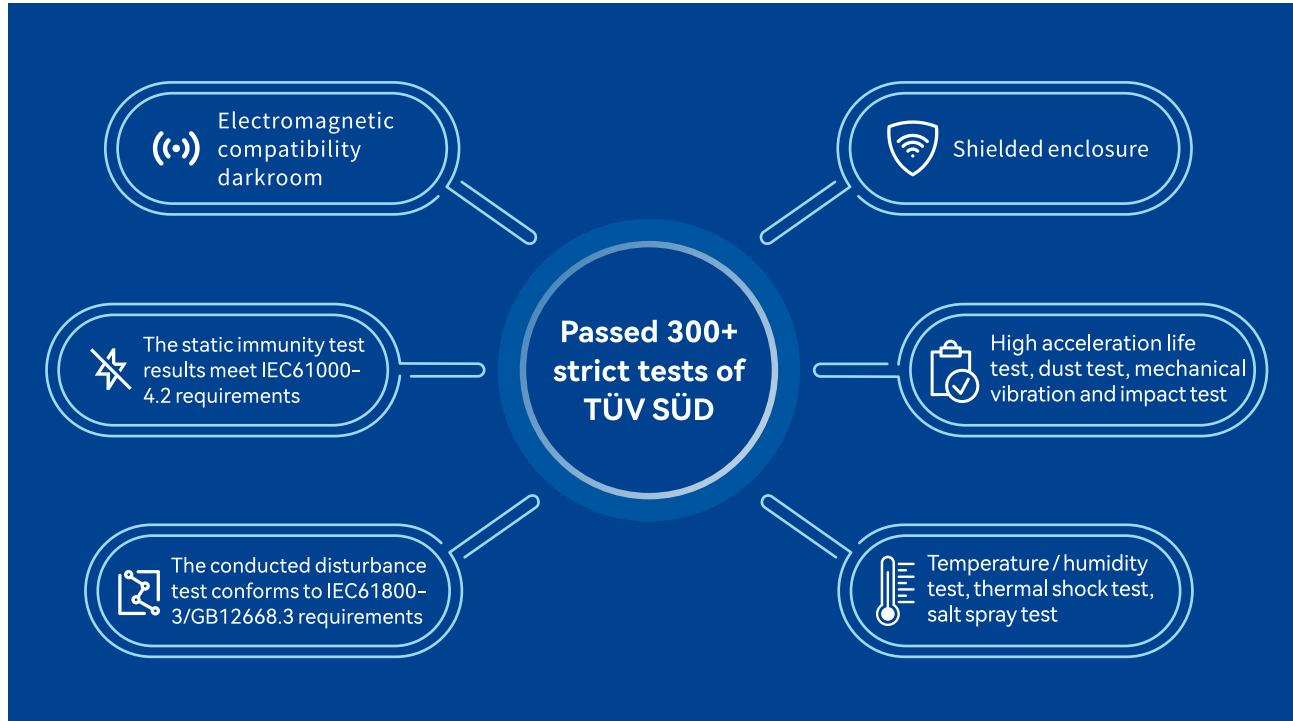
Defective products can be directly sent to the unloading station once detected. This can improve the production efficiency while saving the production cost.

Visual Scenario Creation, What You See Is What You Get

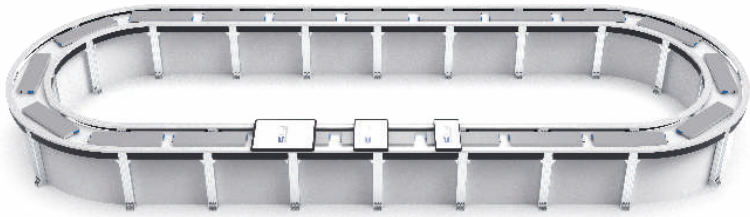
Supporting offline/online graphical scenario creation.

Smart Simulation Used for Anticipated Operation

Smart simulation system enhances the confidence on the physical system behavior and performance, and provides the data for the system optimization.



PRODUCT FAMILY



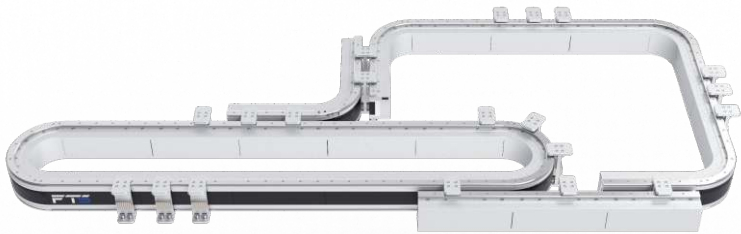
FTS-HT

- Max. load: 5,000kg
- Max. speed: $\geq 3.5\text{m/s}$
- Repetitive positioning accuracy: $\pm 0.1\text{mm}$
- Adjustable motor spacing
- Application Fields: Battery production, automotive assembly, and logistics



FTS-MT

- Max. load: 40kg
- Max. speed: $\geq 5\text{m/s}$
- Repetitive positioning accuracy: $\pm 10\mu\text{m}$
- Modular design, supporting ferry and circular lines
- Application Fields: Battery production, automotive electronics, 3C, medical devices, semiconductors (high flexibility, high tact)

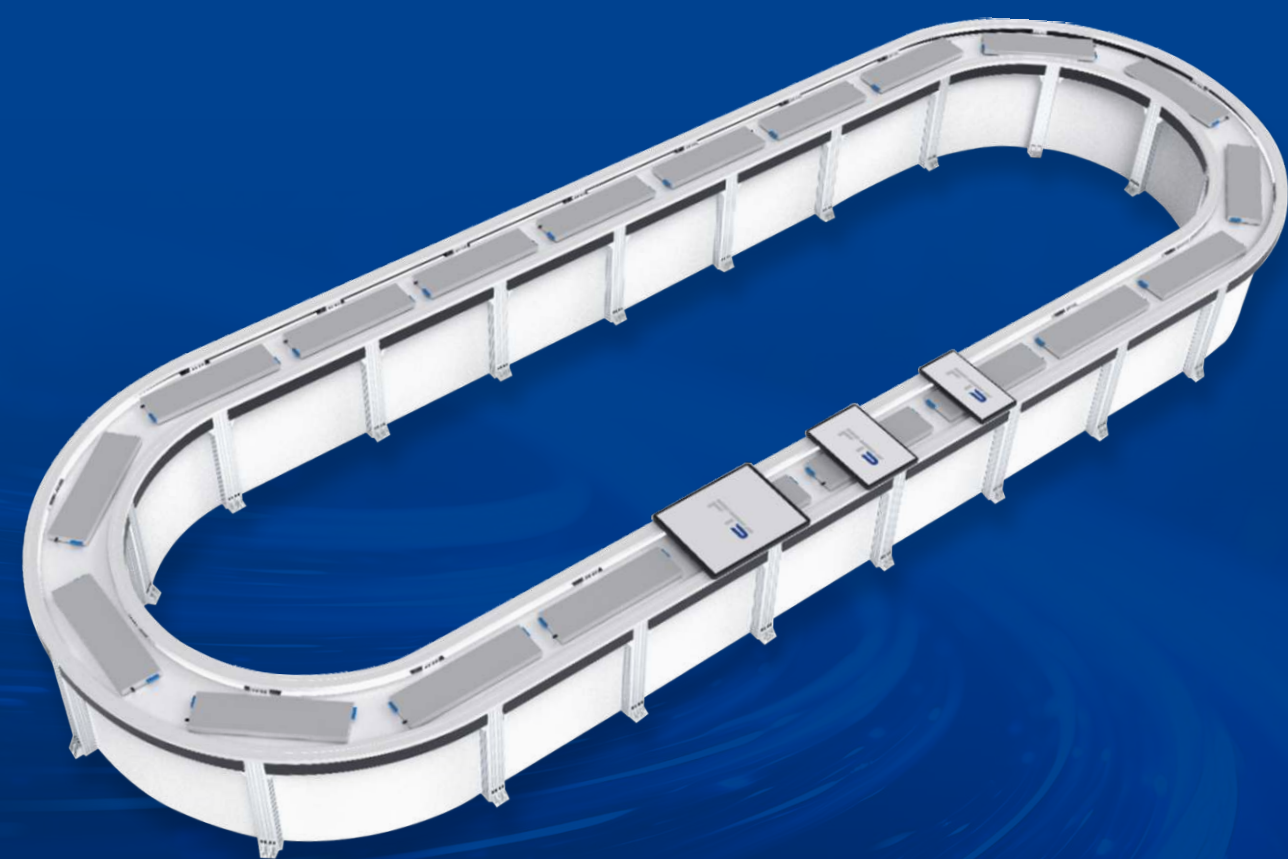


FTS-LT

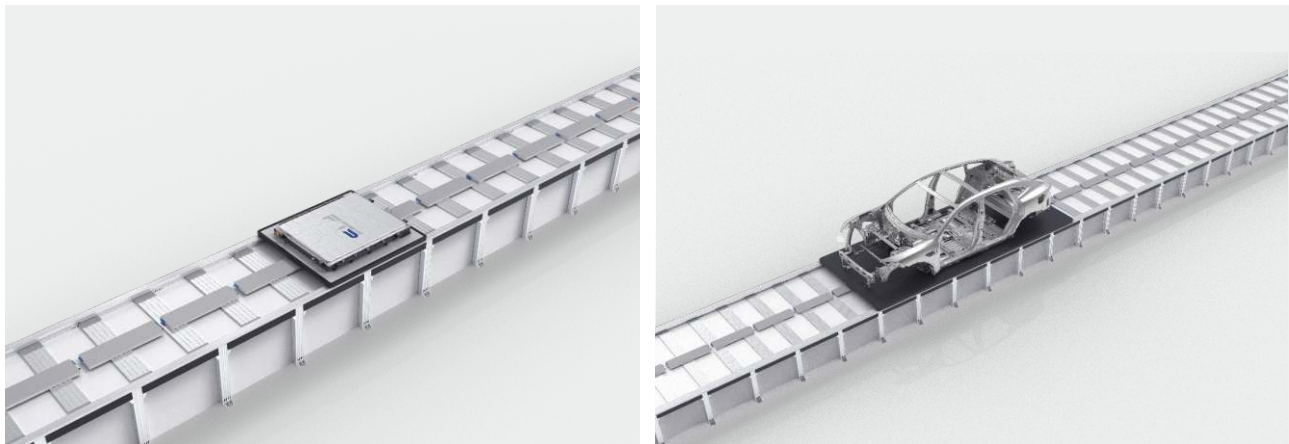
- Max. load: 10kg
- Max. speed: $\geq 5\text{m/s}$
- Repetitive positioning accuracy: $\pm 30\mu\text{m}$
- Flexible track layout, diverging / merging allowed
- Application Fields: lithium cells, automotive electronics, 3C, medical devices, semiconductors (high flexibility, high cycle time)

FTS HIGH THRUST SERIES

| | |
|----------------------------------|--|
| Modularization | Extensible magnetic shuttles adaptable to different application scenarios; Parallel connected coils supporting load from 1500kg to 5000kg |
| Layout | 480mm straight line section, supporting ferry and circular lines; Adjustable spacing between motor coils, high overall cost-effectiveness |
| Repetitive positioning accuracy | ±0.1 mm |
| Max. speed | ≥3.5m/s |
| Max. number of motors and movers | 255 motor modules and 255 movers |
| IP Level | IP65 |

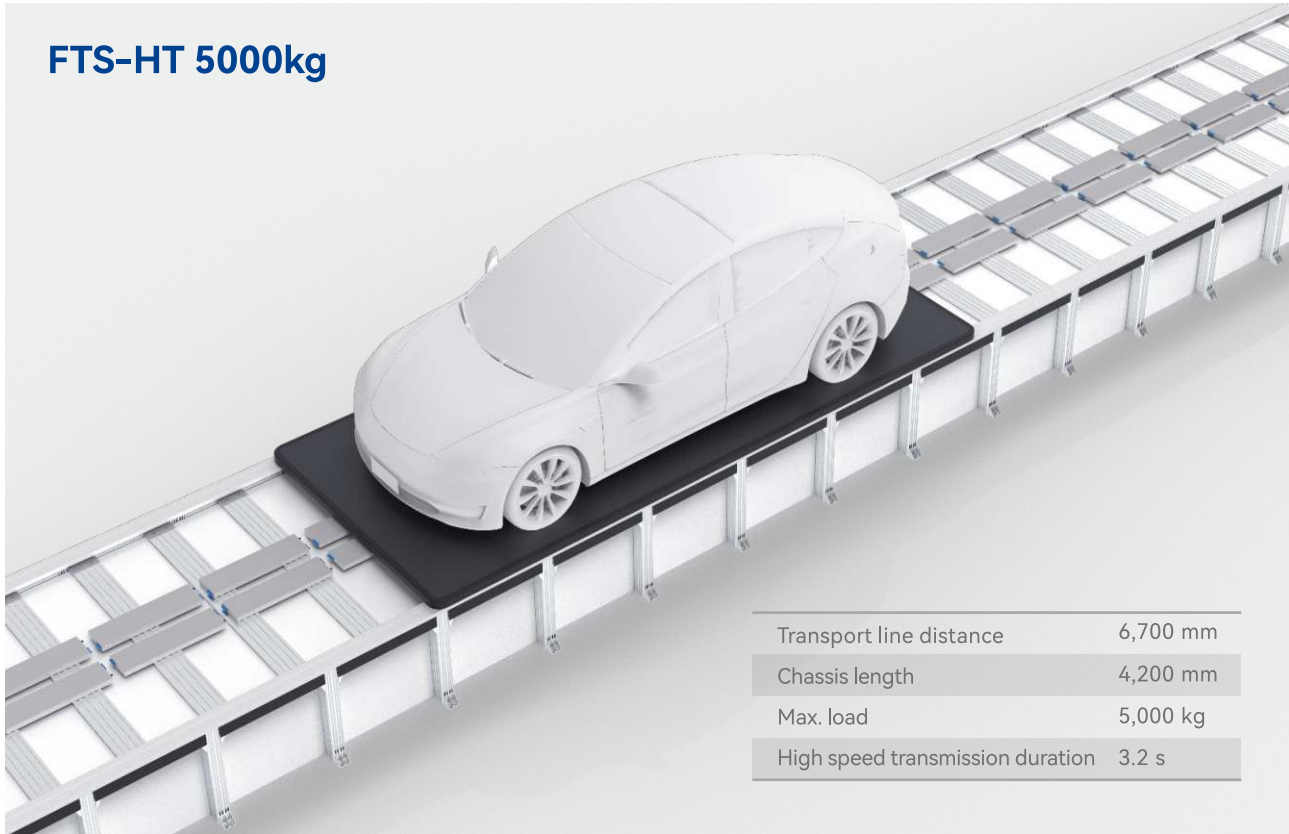


FTS-HT 100kg, 1500kg



| Continuous thrust (N) | | | | | | | |
|-----------------------|---------|-------|-------|-------|-------|------|------|
| Magnetic plate size | Air gap | | | | | | |
| | 4mm | 7mm | 10mm | 13mm | 16mm | 19mm | 22mm |
| 240mm | 571N | 483N | 408N | 345N | 292N | 246N | 208N |
| 480mm | 1142N | 965N | 816N | 690N | 583N | 493N | 417N |
| 720mm | 1713N | 1448N | 1224N | 1035N | 875N | 739N | 625N |
| 960mm | 2284N | 1931N | 1632N | 1380N | 1166N | 986N | 833N |

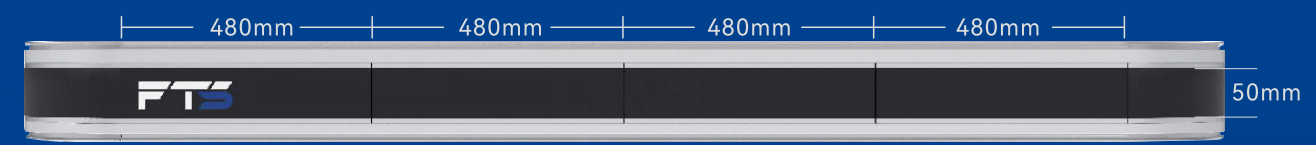
FTS-HT 5000kg



FTS MEDIUM THRUST SERIES

| | |
|----------------------------------|--|
| Modularization | Three types of coils correspond to three (maximum) loads |
| Layout | 480mm straight section, 90° arc section, supporting multiple layouts |
| Repetitive positioning accuracy | ±10um |
| Max. number of motors and movers | 255 motor modules and 255 movers |
| IP Level | IP65 |
| Installation type | Horizontal / vertical installation |

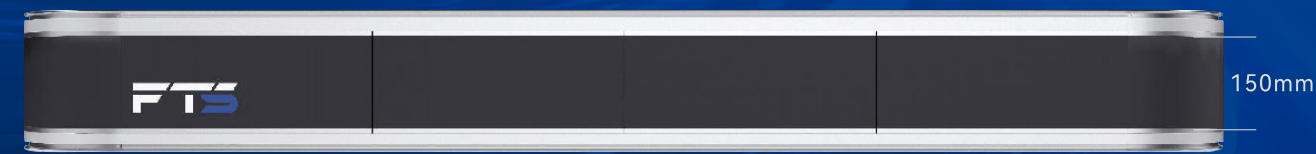
Max. Load 10kg



Max. Load 20kg



Max. Load 40kg



FTS-MT 10kg Circular Line



| Magnetic plate width | | | |
|----------------------|-------|------|-------|
| | 40mm | 80mm | 160mm |
| Continuous thrust | 46N | 92N | 184N |
| Max. speed | ≥5m/s | | |



FTS-MT 20kg Circular Line



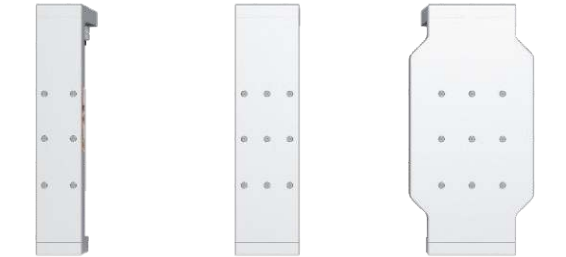
| Magnetic plate width | | | |
|----------------------|-------|------|-------|
| | 40mm | 80mm | 160mm |
| Continuous thrust | 84N | 168N | 336N |
| Max. speed | ≥4m/s | | |



FTS-MT 40kg Circular Line

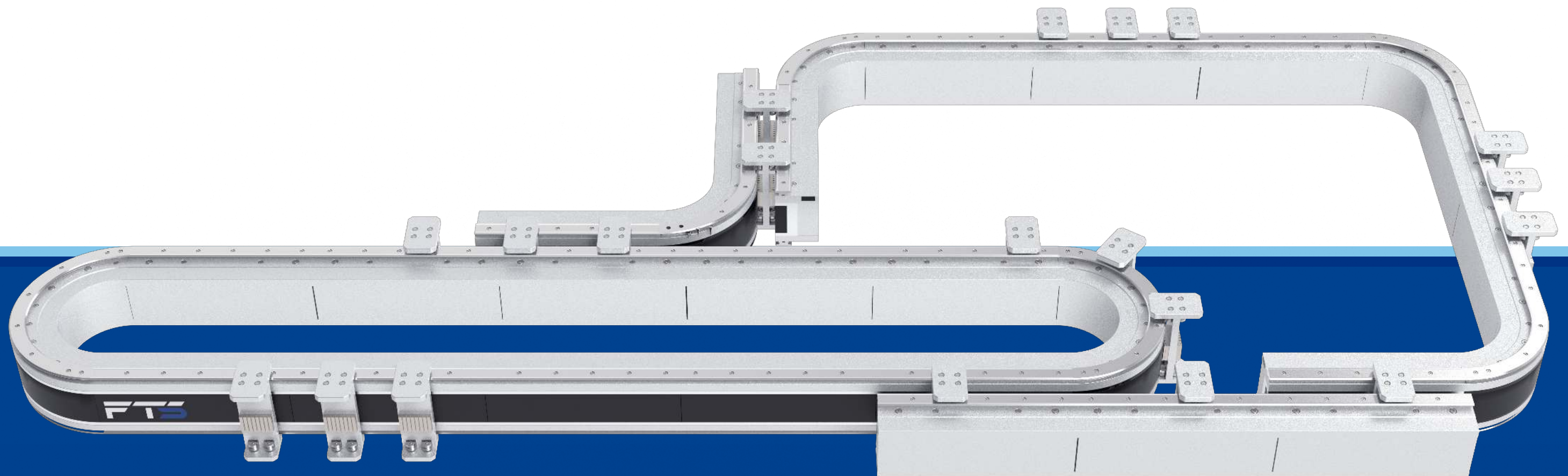


| Magnetic plate width | | | |
|----------------------|---------|------|-------|
| | 40mm | 80mm | 160mm |
| Continuous thrust | 126N | 252N | 504N |
| Max. speed | ≥2.5m/s | | |



FTS LIGHT THRUST DIVERGE SERIES

- Free diverging and merging
- Dual-side magnetic plate, electromagnetic switching without wear
- Modular design, easy layout creation of transport lines



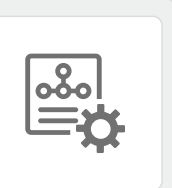

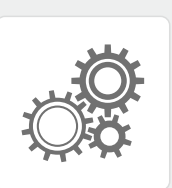
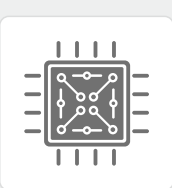
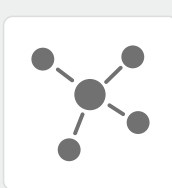
- Max. load: 10kg

- Max. speed: $\geq 5\text{m/s}$

FHS

Maglev R&D Center Introduction

The Maglev R&D Center specializes in multiple fields including system design, mechanical design, electronic and electrical design, industrial design, software development, control algorithms and project management. Complete system-level maglev transport solutions can be provided.



System Design

- System architecture design
- Dynamic modeling analysis
- Control algorithm
- System integration and testing
- DOE and MSA

Electronic Design

- Digital analog circuit design
- Power drive circuit design
- FPGA FW design
- High speed communication interface design
- Electromagnetic design

Machine Design

- Static and dynamic analysis
- Thermal analysis
- Industrial design
- Precision mechanical design

Software

- MBD development model
- RTOS
- High speed communication stack
- Drive layer and HAL layer design
- Path planning
- UX design

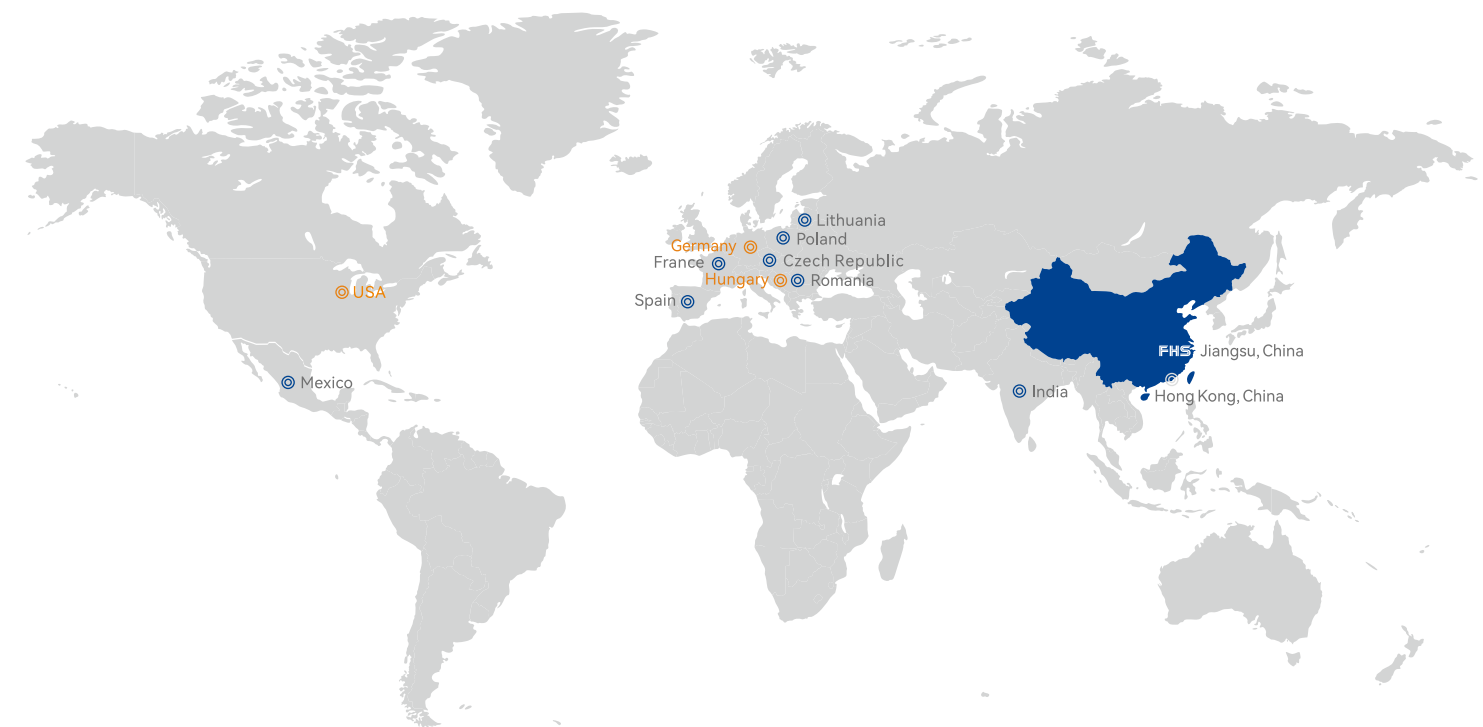
Product and Project Management

- Market analysis and product strategy
- V-model development
- Agile project management
- Configuration management



INDUSTRIAL APPLICATION

The maglev transport line is a new type of line characterized by high precision, high reliability and low maintenance, which has broad application prospects in industrial automation.




Lithium cell

Medical treatment

Fast-Moving Consumer Goods

3C electronics

Semiconductor



Packing

Automotive components

Automotive assembly

