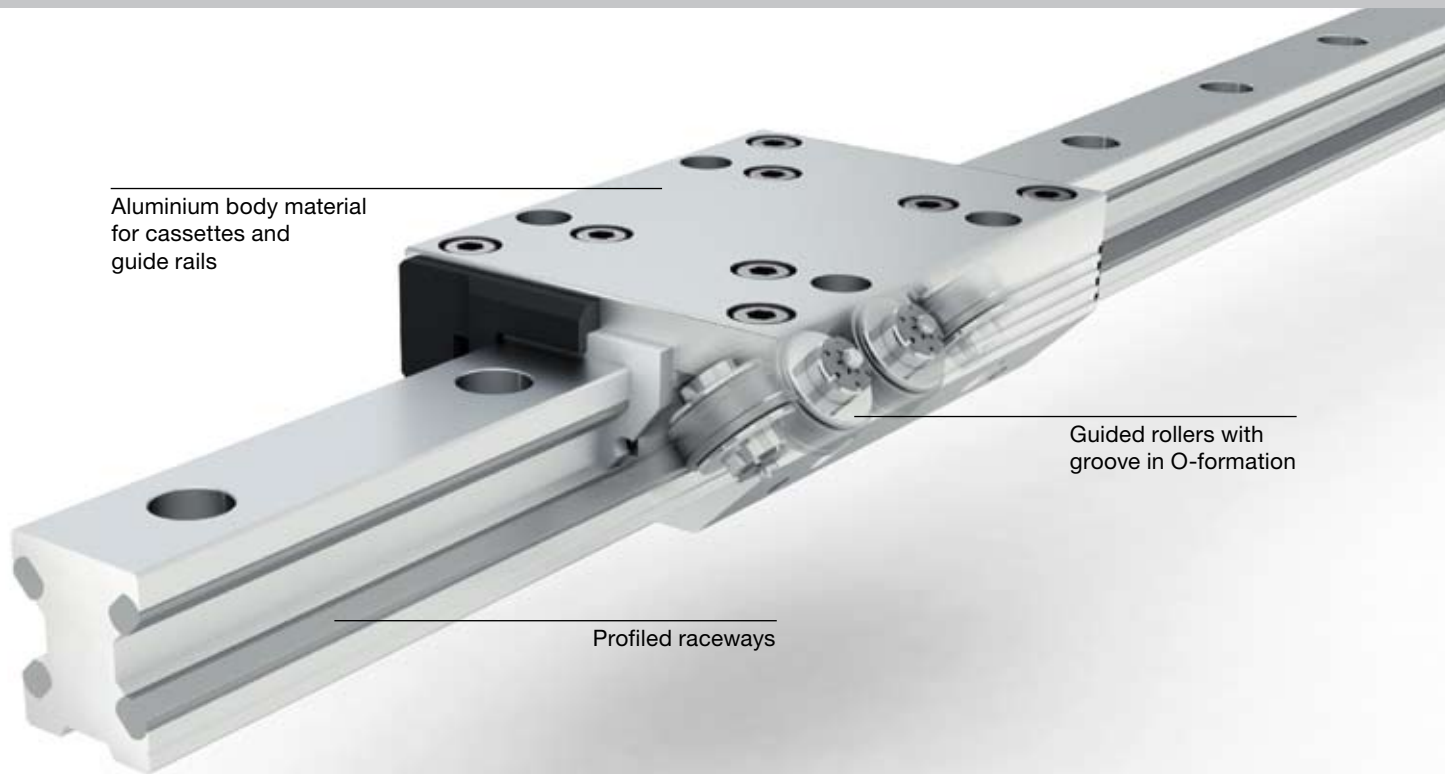


Franke Dynamic

Aluminium Roller Guide – Advantages and Characteristics

Type FDA – FDH



The Characteristics:

Cassettes and Roller Shoes

The cassette of the Franke Dynamic Aluminium Roller Guide has aluminium body material with needle or ball bearing rollers of steel or stainless steel. Special cover discs on the roller seal the bearing to the outside.

Eight rollers in O-formation guarantee an equally high load capacity from all directions. The rollers are equipped with a groove, which is adjusted to the profile of the raceway. Thanks to this patented system of guided rollers, the rollers are guided laterally and equally smooth and silent running is guaranteed.

The cassette plate has mounting holes in accordance with international standards. The slide resistance can be adjusted up and down individually using a setting screw on the side. Five standard sizes are available from size 12 to 45.

In the pair of single rails with roller shoes version there is no cassette plate. As a result, the guide width can be selected freely. The roller shoes are screwed directly to the mating structure and facilitate extremely compact assemblies.

Thread pieces for one-sided adjustability of the slide resistance are supplied and can be integrated.

The Advantages:

- Low weight thanks to aluminium body material
- Silent and easy running thanks to the patented **Guided Roller®**
- Maintenance-free and clean
- O-formation for equal loads from all directions
- High traverse speed and acceleration
- Numerous variations for almost any application
- Customer-specific solutions if series needed



Wipers

The bearings of the rollers are sealed and have lifetime lubrication. Thanks to the standard felt wiper, lasting protection of the guide system from soiling is guaranteed.

Metal wipers are included as accessories, which are particularly recommended for coarse dirt such as chippings or sawdust and keep the raceway clean (see accessories page 106).

Lubricant-free cassettes and roller shoes are available as type FDE. They are also suitable for hygienically sensitive sectors, for example the food industry or medical technology.

Guide Rails

The raceways of spring steel, non-corrosive or non-magnetic steel are integrated in the aluminium profile. The O-formation guarantees high load capacity from all directions. The profile of the rollers is adjusted to the raceway and guarantees permanently precise and smooth running.

The guide rails are available in one piece up to a length of four meters. They can be continuously coupled for longer strokes. we can supply rail profiles specially tailored to your design on request.

Franke precision raceways of spring steel, non-corrosive or non-magnetic steel can be integrated into a variety of aluminium profiles. We can supply your chosen profile complete with integrated raceways in series production.

We also offer specially hardened raceways for the heaviest loads.

Franke Dynamic

Aluminium Roller Guide – Numerous Possibilities

The Different Types:

Type FDA	Standard
Type FDB	Low cost
Type FDC	Non-corrosive
Type FDD	Non-magnetic
Type FDE	Lubricant-free
Type FDG	Non-corrosive low cost
Type FDH	High dynamic

We can also supply special cassettes in specific dimensions, heat-resistant versions and vacuum-fit for series production. Please call us.

Further Possibilities:

Design

For series production it is possible to adjust the shape and design of the cassettes, roller shoes and guide profiles to your individual application. You will get the perfect solution tailored to your requirements.

Adjustment options are:

- Shortened or extended roller shoes/cassettes
- Special shapes, e.g. for integration of drives
- Special profiles of guide rails according to your needs
- Individual bore shapes on the guide rails
- Fixing from underneath

Vacuum/High Temperature

We also offer special cassettes and roller shoes for applications in vacuums. They are designed with free borings and equipped with lubricants suited to high vacuums on request.

You can choose from a selection of special, heat-resistant cassettes and roller shoes for applications with radiant heat in the vicinity of heat sources.

Temperature ranges up to 200 °C are possible.





Complete Systems

The Franke Dynamic Aluminium Roller Guides are also used in our complete systems of linear axis, drive, motorisation and control. Franke Linear Modules and Linear Tables use the assets of Linear Systems to build-up complete moving units.

Toothed belt gear Linear Modules are available up to a stroke length of 7000 mm. The integrated Franke Dynamic Aluminium Roller Guide provides high dynamic movements and easy and silent running.

Clean Room

The Franke Dynamic Aluminium Roller Guide was appraised and evaluated at the Institut für Produktionstechnik und Automatisierung (IPA) at the Fraunhofer Gesellschaft (FhG) in Stuttgart with regard to its operation in rooms with high air purity rates.

It is extremely suitable for the listed loading conditions. The trends of the results (e.g. particle emissions on increase of the moved mass) allow us to state that a suitability for "Class 1000" is also achieved for higher loads.

The result: the Franke Dynamic Aluminium Roller Guide of type FDA is suitable for clean room-typical movement speeds for use in clean rooms with air purity classes "Class 1000".



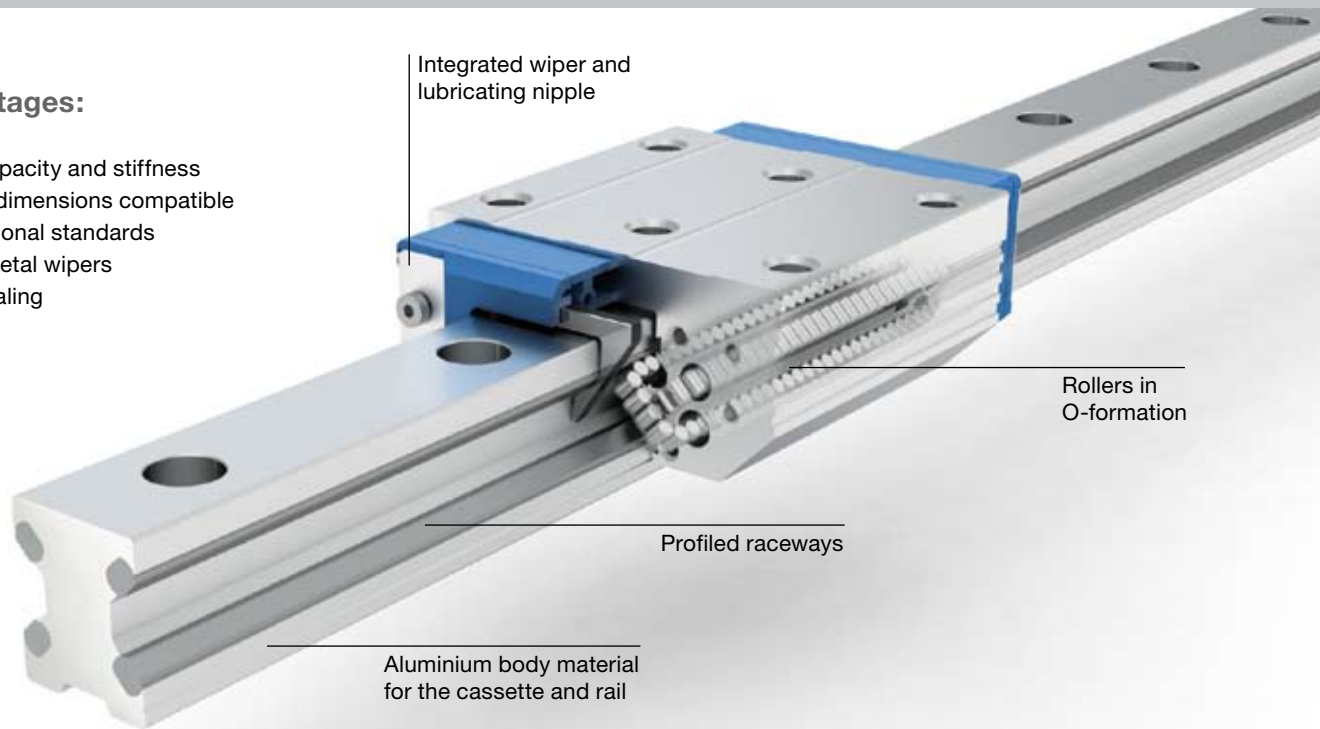
Franke Power

Aluminium Recirculating Roller Guide

Type FPA

The Advantages:

- High load capacity and stiffness
- Connecting dimensions compatible with international standards
- Integrated metal wipers
- All-round sealing



The Characteristics:

Cassette

The cassette of the Franke Power Aluminium Recirculating Roller Guide is made from special aluminium with fixing bores in accordance with international standards and, therefore, is interchangeable with products from many manufacturers. Wear-resistant plastic seals provide all-round sealing for the cassette. The additional frontal metal wipers are adjusted to the rail contour and protect the guide system from coarse impurities.

The recirculating rollers in 90°-formation guarantee even, high load capacity and loading from every direction. Each cassette has a lubrication nipple, which can be attached to one of the four front ends. A defined slide resistance ensures alignment on the guide rails. It is supplied with a preload class with light preload. The guides can be mounted on unprocessed surfaces without impairing the lifetime. The inner elasticity of the Recirculating Roller Guide is ensured by a system patented by Franke.

Guide Rails

Raceways of spring steel, non-corrosive or non-magnetic steel are integrated in the aluminium profile. High load capacity from all directions is guaranteed by the O-formation. The profile of the rollers is adjusted to the raceway and ensures precise and easy running permanently.

The guide rails can be supplied as one piece up to a length of four meters and can be coupled together endlessly for longer strokes. We can supply bore shapes specially tailored to your design on request.

FTH Drive

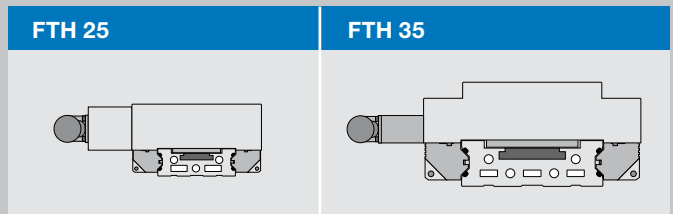
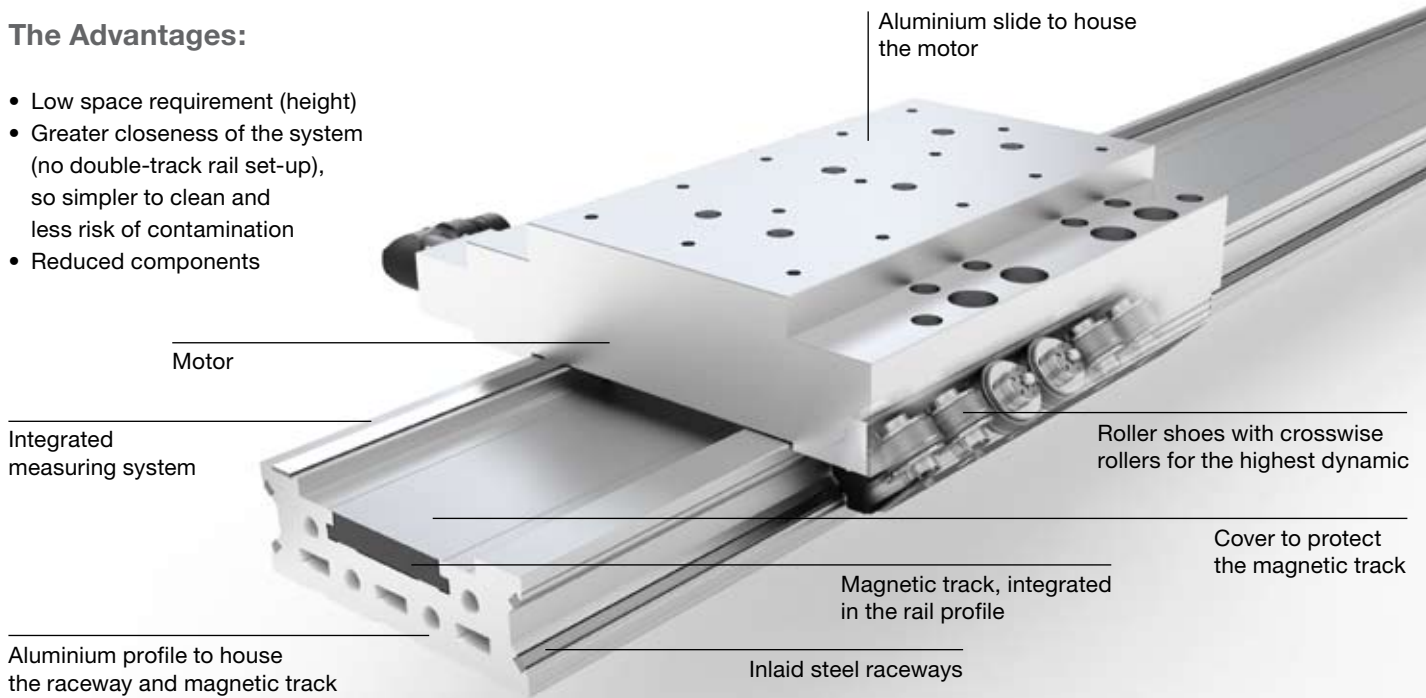
Aluminium Linear Motor Module

Type FTH



The Advantages:

- Low space requirement (height)
- Greater closeness of the system (no double-track rail set-up), so simpler to clean and less risk of contamination
- Reduced components



The Characteristics:

Roller Shoes and Guide Rails

Building on the proven Franke Aluminium Roller Guide, the Linear Motor Module FTH impresses with its low weight and compact dimensions. The roller shoes have been specially designed for high loads. The rail profile was designed so that the stator could be integrated. This saves height and weight. The modular design of the system enables numerous adjustments according to the individual use.

Multi-Module Systems

In addition to customer-specific mating and profile dimensions, several slides can be moved independently of one another per module. Complete multi-module systems using angles and adapter plates is also possible. We can supply the Linear Motor Module with all wiring and tailored to your desired control mode on request.

The Franke FTH Drive in comparison to conventional products

