

Linear Systems in Practice

The Franke principle of the guided roller guarantees easy and silent running, even at high speeds. These factors are essential for smooth production in many industries. Therefore, Franke Linear Systems are also used in the most diverse industrial sectors – for example in medical technology, the food industry, for machine and plant engineering or in the handling sector.

In Medical Technology: Dental X-Ray Equipment



Precise x-rays need the movement of the light unit to be completely vibration-free. Therefore, the roller guide used must have smooth and silent running. The Franke Dynamic Aluminium Roller Guide fulfils this demand perfectly.

The Features:

- The Franke Dynamic Aluminium Roller Guide has lifetime lubrication.
- Sealed rollers prevent the lubricant escaping.
- The guide's running is silent, smooth and even.
- Preloading the cassette ensures vibration-free movement of the secondary light.

In the Packing Industry: Bakery Machinery



A fast, clean and maintenance-free linear system is required in a packing machine for baking mixes. Two retractable axles must be able to run simultaneously on the longitudinal module. The high dynamic of the guide results in correspondingly high cycle times when packing.

The Features:

- The system of embedded raceways facilitates the use of light-weight, extruded aluminium profiles for the guide rails, the magnets of the stator are directly integrated; the motor rests in an aluminum housing.
- The direct drive facilitates fast positioning that is free from clearance.
- The guide achieves movement speeds of 6 m/s and acceleration of up to 100 m/s².
- Sealed rollers prevent the lubricant escaping.

In the Food Industry: Cheese Production



In cheese production the food-safe Franke Dynamic Aluminium Roller Guide provides the vertical movement of a gripper for wheels of cheese. In this application it is important that the roller guide is insensitive to whey and aggressive cleaning agents.

The Features:

- The guide is insensitive to moisture.
- Its running is easy and silent, the drive power is low.
- No maintenance and lubrication for the whole lifetime are guaranteed.
- An integrated wiper fulfils the specific hygiene requirements for food production.
- The product is available in a lubricant-free version on request.

In the Packing Industry: Bag Former/Filler



A bag forming, filling and sealing machine works at high speeds. It has stroke lengths of 1500 to 2100 mm, the average service performance is 30000 kilometers a year. The Franke Dynamic Aluminium Roller Guide used must be resistant to the aggressive environmental conditions, such as salt, sugar and splash water.

The Features:

- The Franke Dynamic Aluminium Roller Guide is in a position to realise speeds up to 10 m/s.
- Several guides can be coupled for any length of stroke desired.
- A good lifetime and service performance are achieved through central lubrication of the cassette.

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In Plant Engineering: Packaging Machines



The Franke Dynamic Aluminium Roller Guide is also used on packaging machinery for mattresses. In addition to cleanliness, the mobile function of the guide unit must be ensured, to avoid soiling the mattresses.

The Features:

- The Franke Dynamic Aluminium Roller Guide is maintenance-free and requires no relubrication.
- No lubricant can escape from the encapsulated rollers.
- The guide is available in a completely lubricant-free design on request.

In the Handling Sector: High Speed Camera Guiding



The Franke Dynamic Aluminium Roller Guide moves the high speed camera for a film printing machine. A results check is performed during the printing process by camera or video. As films of different widths are printed, the camera must be easy to position.

The Features:

- The Franke Dynamic Aluminium Roller Guide has smooth, even running.
- It weighs very little as the body material of the rail is aluminium.
- Special borings guarantee connection to the path measuring system.

In Machinery: Ring and Drum Coilers



The Franke Power Aluminium Recirculating Roller Guide is used for machines that process and pack coiled goods. It ensures that cables, hoses or steel ropes are coiled on rings or empty spools, measured to length and cut.

The Features:

- The Franke Power Aluminium Roller Guide has high load-capacity and stiffness.
- The cassettes are completely sealed and are also suitable for harsh conditions.
- Integrated metal wipers keep the raceways clean.

In Machinery: Handling System



Different processing centres are coupled together in this machine through large portals. Workpieces are processed with high acceleration. The Franke Robust Aluminium Recirculating Ball Guide is used in the transfer line. The recirculating ball system of type FRA10 and FRA13 harmonises perfectly with the substructure of aluminium profiles.

The Features:

- Transfer speeds of up to 3 m/s and accelerations of up to 30 m/s² are achieved.
- The Franke Robust Aluminium Recirculating Ball Guides used have a high lifetime, even in harsh and very dirty conditions.
- Tolerances and unevenness in the substructure can be equalised to a certain extent.