

More Flexibility for Heavy-Duty Transport Systems with MOVITRANS®

Practical examples



Design transport lines flexibly with the MOVITRANS® contactless energy transfer system

Whether it's aluminum, concrete or paper – intralogistic transport of these goods presents great challenges to production facilities, not only because of the weight of the goods, but also because of their size. For trouble-free and economic transport flow of the goods, the type of energy supply to the transport system plays an especially important role.

With the MOVITRANS® contactless energy transfer system, SEW-EURODRIVE provides brand-new options to plant manufacturers and system operators of heavy-duty transport systems. These options have already been successfully implemented in practical applications.



Weight [t]	Load	22.0
	Vehicle	6.5
	Total	28.5
Traveling speed [m/min.]		16.0
Transmittable electrical power [kW]		4.5
Number of vehicles		1
Number of pick-ups/vehicle		3.0
Length of the travel section [m]		70.0

Practical example 1: Paper rolls

Task/application:

In a paper mill, paper rolls need to be transported from the paper plants to the coating plants. Six different stations must be interlinked with one another.

Previous solution:

A track-guided transfer vehicle that received its power supply from batteries. The availability of the vehicle was limited due to the battery charging cycles.

New solution:

The electrical equipment of the vehicle was modernized, and the batteries were replaced with the contactless energy supply system. No changes were made to the mechanics.

Advantages of the new solution using MOVITRANS®:

- Higher availability: no battery cycles involved
- Reduced maintenance



Weight [t]	Load	30.0
	Vehicle	3.0
	Total	33.0
Traveling speed [m/min.]		17.0
Transmittable electrical power [kW]		6.0
Number of vehicles		4
Number of pick-ups/vehicle		4
Length of the travel section [m]		550.0

Practical example 2: Aluminum foil rolls

Task/application:

In an aluminum production plant, coils must be transported between various plant areas.

Previous solution:

Before modernization, the coils were moved by gantry cranes installed on the ceiling, and forklifts.

New solution:

Autonomous transport vehicles now move the coils automatically to their destination on a rail system with turnable switches. Forklifts can cross the tracks at any point.

Advantages of the new solution using MOVITRANS®:

- Energy supply without charging cycles
- Tracks can be crossed by other vehicles
- Tracks can be laid out flexibly
- Gentle handling of transported material



Weight [t]	Load	30.0
	Vehicle	3.8
	Total	33.8
Traveling speed [m/min.]		30.0
Transmittable electrical power [kW]		3.0
Number of vehicles		40
Number of pick-ups/vehicle		2 lengthwise/ 2 crosswise
Length of the travel section [m]		> 3,500.0

Practical example 3: Large steel pipes

Task/application:

The production logistics in the steel pipe plant must transport the pipes to processing and test stations for the various work steps.

Previous solution:

Semi-automatic transport of the pipes to be processed was carried out using gantry cranes and separate conveyor systems to switch between the different crane tracks.

New solution:

Track-guided vehicles perform the transport logistics within the plant. They move on tracks which run perpendicular to one another and are able to move on the entire rail system.

Advantages of the new solution with MOVITRANS®:

- Fully automated transport of the pipes
- Extensive transport line network
- Free design of the track layout
- Floor conveyor vehicles can cross the tracks for the track-guided vehicles

Your benefits with MOVITRANS®:

- Great flexibility in designing the layout of the conveyor line
- No battery or cable drum is required, which means
 - uninterruptible inductive energy supply
 - uninterrupted transport cycles as no battery needs to be charged, inspected or replaced
- Maintenance-free and reliable due to
 - wear-free energy transfer
 - large mechanical tolerances
- High degree of system reliability due to
 - insulated cables
 - no contact surfaces on moving mechanical parts
- Greater profitability and productivity:
 - Increased system availability
 - Reduced maintenance cost
 - Minimized installation time

MOVITRANS® components for heavy-duty transport systems



Implementing innovative system concepts

Combining two major technical features of MOVITRANS® contactless energy transfer enables plant manufacturers and operators to implement innovative system concepts for heavy-duty transport systems:

1. Line cables are completely embedded in the floor
2. No charging cycles are required due to continuous energy supply

You find detailed information on the installation of line cables in the floor on the Internet at www.sew-eurodrive.com.



List of references:

- Cover photo: Papierfabrik Scheufelen GmbH & Co KG., Germany
Practical example 1: AS Antriebstechnik & Service GmbH, Germany
Practical example 2: Assan Aluminium A. S., Turkey
Practical example 3: Bergrohr GmbH Siegen, Germany

The illustrated application options for SEW-EURODRIVE products may be shown in simplified or generalized form. Whether a product is suitable for a specific application/operating condition must be evaluated in advance for each individual case based on the applicable operating instructions. You find the latest operating instructions in our databases at www.sew-eurodrive.com. Examples showing a specific use of the products are not checked for third party property rights. The customer shall be responsible for carrying out the relevant research.