

**Drives and controls for** 

# BAGGAGE HANDLING SYSTEMS



# **BAGGAGE HANDLING EXPERTISE** FROM SEW-EURODRIVE

Baggage sorters are true high-performance systems. They gently and accurately convey baggage at high speed to the right destination and are perfectly supported by our highly dynamic, intelligent, and efficient linear drives.



# **RELIABLE**

In baggage handling, system uptime = on-time delivery. Airports around the world rely on SEW-EURODRIVE because of our reputation for delivering products that have a long life of trouble-free operation.



# **EFFICIENT**

In decentralized installations, the above-average efficiency of our synchronous linear motors and economical mechatronic drives ensures a high level of productivity, and delivers energy savings of up to 50%.



# **EXACT POSITIONING**

Our precise control technology with software modules that are perfectly tailored to your application enable exact positioning of luggage on the conveyor.



# **LOW NOISE LEVEL**

Our drives have quiet, vibration-free motors – a huge bonus for both passengers and staff.



# **GLOBAL**

With locations in 53 countries, you can rely on our global production and product availability, with local service and support.



# DRIVES AND CONTROLS FOR BAGGAGE HANDLING SYSTEMS

SEW-EURODRIVE is well-versed with the requirements of the airport industry and we prove our expertise every day. At many international airports such as Frankfurt, London, Paris, Beijing, Hong Kong, and Sydney, our drives and controls play a crucial role in the smooth transport and logistics processes.

Features of drives and controls from SEW-EURODRIVE:

- IE3 / IE4 / IE5
- Low noise
- Low heat
- Variant reduction
- Fewer spares
- Standard interface connections
- Wear-free linear motors
- Exact positioning
- Accurate speed control
- Dynamic & powerful





# **MOVIGEAR®** Performance

Enhanced IE5 gear motor with builtin frequency inverter with integrated digital interface. Compact size and high overload capacity make it a perfect fit for dynamic conveyor applications.

- Exceeds IE5 & IES2 efficiency
- 40:1 or 2,000:1 turndown for system variant reduction
- 300% overload capacity
- Integrated Ethernet/IP protocol with DRL function for ring networks
- Onboard digital I/O



### Gearmotors

With our helical, helical-bevel, parallel-shaft, helical-worm and hypoid gearmotors, we offer a unique range in the industry.

Depending on the level of gear unit graduation, they can achieve torques of up to 50,000 Nm.



# **DRN.. Series AC Motors**

The ideal AC motor for any requirement: 2, 4, 6 and 8-pole motors, with power range of 0.09 kW to 375 kW and efficiency class IE3.



# CM3C.. Series Servomotor

This permanent magnet motor (PMM) is exceptionally small and space-saving with the option of mounting gear units to the motor, eliminating the need for adapters and couplings. Short-term overload capacity makes this mediuminertia servomotor particularly robust while the permanent magnet rotors deliver a very high level of efficiency.



## MOVIMOT® Performance

MOVIMOT Performance combines the highly dynamic CM3C.. series synchronous servomotor with the tried-and-tested decentralized frequency inverter to form a compact, efficient, and low-noise drive unit with high overload capacity. Compatible with all standard Ethernet-based infrastructures.



# MOVIMOT® Advanced

The ultimate in intelligent, flexible and cost-effective decentralized drive technology, MOVIMOT Advanced pairs an asynchronous motor with a frequency inverter to create a decentralized drive unit that can be combined with any standard gear unit. Compatible with all standard Ethernet-based infrastructures.



# MOVIMOT® Flexible Field Distributor

This decentralized inverter works with synchronous or asynchronous motors, and is compatible with all standard Ethernet-based infrastructures. Optional keypad for startup, parameterization, and diagnostics.

6 Case Study: Los Angeles International Airport

# CASE STUDY: MOVIGEAR DELIVERS 40% ENERGY SAVINGS AT LAX

# THE PROJECT

Terminal 4 in the Los Angeles International Airport needed a thorough upgrade to the baggage handling system (BHS) for both American Airlines and TSA operations. The highest priorities for this upgrade were complying with strict California energy standards and minimizing the load on the existing power station. Space constraints and flexibility for future expansion were also very important.

# THE SOLUTION FROM SEW-EURODRIVE

The existing system used typical motors that were oversized to handle large starting torque requirements. High starting current, low operating efficiency, and excess heat were the result.

To determine the most efficient solution, engineers from SEW-EURODRIVE and CAGE, Inc. sized each application from scratch. By taking advantage of

MOVIGEAR's unique 300% breakaway torque, they were able to reduce number of variants to optimize spare inventory and still cover a wide range of speeds. Nearly 450 MOVIGEAR mechatronic drives and DRC.. electronic motors were used in the new outbound installation. Both drives contain a permanent magnet IE4 motor. Their unique design delivers high starting torque while halving the full-load amps, requiring much less incoming power.

# THE RESULT

The new system is reliable, efficient and accurate. The new drives create less noise and radiate less heat due to their advanced electronics and their ultra-high operating efficiency. By reducing incoming power, excess heat, and extra cooling, the new system decreased energy consumption by nearly 40%. Furthermore, the system requires fewer unique spares for inventory and its flexible design can accommodate expansion for future growth.











- = 450 units
- = 40% less energy
- = less heat
- = less noise

Project partners:









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