

Intelligent Drivesystems, Worldwide Services

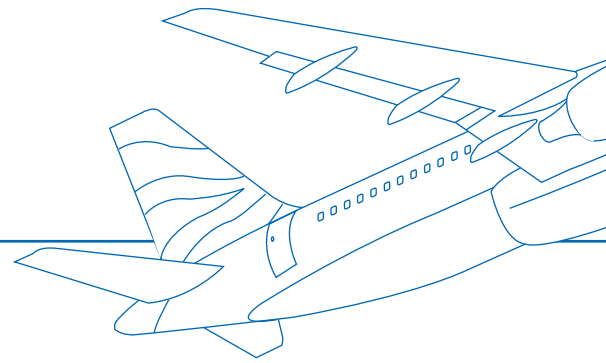


GB

# Drive Solutions for Airports

  
DRIVESYSTEMS

# Partners in Motion

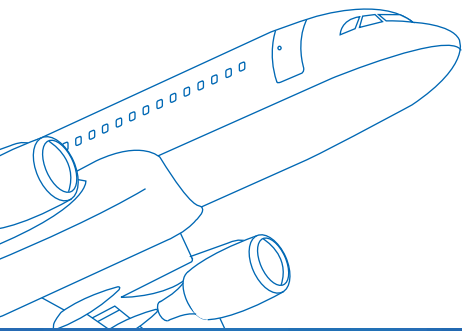


## For large and small

Whether for baggage handling, moving large hangar doors or perfectly positioning the passenger finger to the fuselage of an aircraft - NORD DRIVESYSTEMS provides the optimum drive solution for every application.

For more than 45 years, NORD DRIVESYSTEMS has been at home in almost every branch of industry, where conveyor solutions are used for internal transport logistics. Our drive components and systems are essential wherever things need to be moved, as every movement needs a drive system which is as efficient and reliable as possible. Because of this, we offer a complete range of mechanical, electrical and electronic drive technology from a single source, from motors and gear units to central and decentralised control technology.



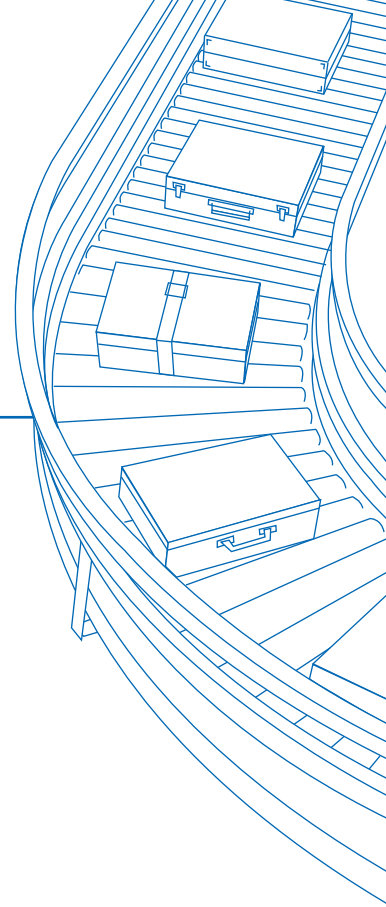


**NORD DRIVESYSTEMS:**

- Highest standards of technology and quality
- Comprehensive advice on systems and products
- High availability and fast service throughout the world



# Automatic baggage conveyor systems



NORD DRIVESYSTEMS also greets you here:

 \_\_\_\_\_ Airport Hamburg Expansion \_\_\_\_\_ 

 \_\_\_\_\_ Blue Danube Airport Linz \_\_\_\_\_ 

 \_\_\_\_\_ Stockholm Arlanda and Göteborg Landvetter Airport \_\_\_\_\_ 

 \_\_\_\_\_ Changi Airport Singapore, Terminal 2 \_\_\_\_\_ 

 \_\_\_\_\_ Melbourne Airport \_\_\_\_\_ 

 \_\_\_\_\_ O.R.Tambo International and King Shaka International Airport \_\_\_\_\_ 

 \_\_\_\_\_ Wuxi Airport, Hangzhou International and Jiangsu Airport \_\_\_\_\_ 

 \_\_\_\_\_ London Heathrow Airport and Birmingham International Airport \_\_\_\_\_ 

 \_\_\_\_\_ Istanbul Atatürk Airport \_\_\_\_\_ 

## Quick and reliable

From planning to delivery and assembly, as well as regular service and maintenance, airports all over the world rely on drive solutions from NORD DRIVESYSTEMS. The aim is for dependable, rapid and flexible handling of baggage transport, so that passengers do not need to wait for their baggage for longer than necessary.



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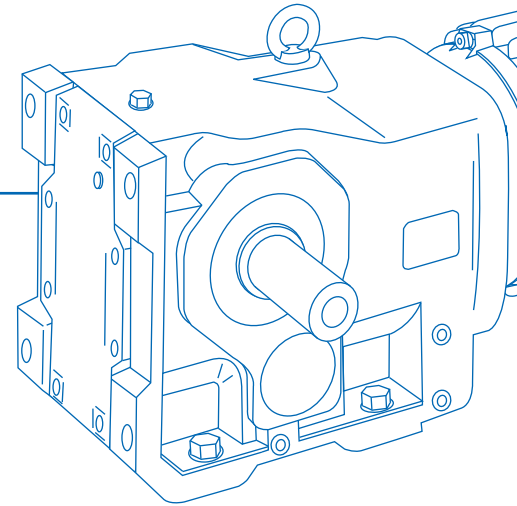
**In action around the clock**  
SK 0250 helical worm-gear units and SK 92372 bevel gear units in NORD Unicase housings are hard at work at Hamburg Airport.

**Smooth operation**

The baggage conveyor system at the terminal of Hamburg Airport is one of the most modern systems in international airports.



# Efficient drive units in UNICASE design



## NORDBLOC. 1 gear unit

- Foot or flange mounting
- Die-cast aluminium housing (5 sizes)
- UNICASE
- Dimensions according to industrial standards

Sizes	8
kW	0,12 – 37
Nm	55 – 3.300
i	2,10 : 1 – 456,77 : 1



## 2-stage bevel gear drive units

- Up to 97% efficiency
- Face-mounted, foot or flange mounted versions
- Hollow or solid shaft
- Alternative to worm gear motors
- UNICASE

Sizes	5
kW	0,12 – 9,2
Nm	45 – 650
i	3,85 : 1 – 72,31 : 1



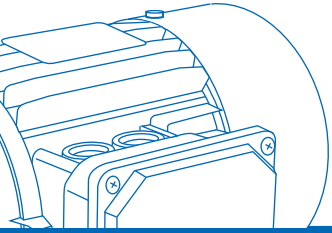
## Helical worm-gear units

- Face-mounted, foot or flange mounted versions
- Hollow or solid shaft
- UNICASE

Sizes	6
kW	0,12 – 15
Nm	46 – 3.090
i	4,40 : 1 – 7.095,12 : 1



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### The UNICASE concept

A closed housing, which encloses all the elements of the gear unit, is milled from a solid block of steel or aluminium. NORD is the only manufacturer which produces modular industrial gear units with an output torque of 242,000 Nm in a one-piece UNICASE housing.

- A single housing block in which all bearings are integrated
- Complete machining in one step
- High output torque capabilities
- High axial and radial loads
- Great reliability
- Long service life
- Quiet running

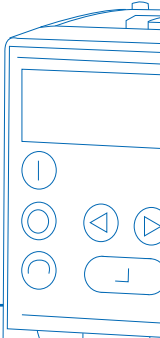


### NORD UNICASE design since 1981

In the 1980s, NORD DRIVESYSTEMS engineers developed the most important innovation in gear unit construction: the UNICASE concept, which unites all gear elements in a single closed housing. The innovative concept soon became established on the market and is now standard.






# Frequency inverters and accessories



SK 500E		
<ul style="list-style-type: none"> <li>• Compact design</li> <li>• Energy-saving function</li> <li>• Performance tailored to the application (e. g. "Posicon" positioning control)</li> <li>• Push-on modules for control and communication (field bus)</li> <li>• Ethernet based BUS systems</li> </ul>	Sizes	10
	U(V)	1 - 110 ... 120 ±10 % 1/3 - 200 ... 240 ±10 % 3 - 200 ... 240 ±10 % 3 - 380 ... 480 -20 % / +10 %
	P(kW)	0,25 – 90



SK 200E		
<ul style="list-style-type: none"> <li>• "Safe Stop" compliant with EN 954-1</li> <li>• Commissioning via integrated DIP switches and potentiometer possible</li> <li>• Energy-saving function</li> <li>• Ethernet based BUS systems</li> <li>• Performance tailored to the application</li> <li>• Decentralised modules in system network</li> <li>• Integrated "Posicon" positioning control</li> <li>• On-board version of AS interface</li> </ul>	Sizes	4
	U(V)	1 - 100 ... 120 ±10 % 1 - 200 ... 240 ±10 % 3 - 200 ... 240 ±10 % 3 - 380 ... 500 -20 % / +10 %
	P(kW)	0,25 – 22

Accessories		
<b>Technology Units</b> <ul style="list-style-type: none"> <li>• Mounted on the drive unit</li> <li>• Wall-mounted</li> <li>• I/O extension</li> <li>• 24 V mains unit</li> <li>• Potentiometer Box</li> <li>• Control units</li> </ul> 	<b>Control units</b> <ul style="list-style-type: none"> <li>• Parameterbox</li> <li>• SimpleBox</li> <li>• PotiAdapter</li> <li>• DIP switches</li> <li>• PC/laptop with NORD CON software</li> </ul> 	<b>Encoder, feedback systems</b> <ul style="list-style-type: none"> <li>• Encoders                             <ul style="list-style-type: none"> <li>- Incremental, TTL/HTL/sin-cos</li> <li>- Absolute, single or multi-turn</li> </ul> </li> <li>• Sensor bearing</li> <li>• Inductive sensors</li> </ul> 

You can find further details under [www.nord.com/IE2](http://www.nord.com/IE2)

New efficiency classes for low voltage three-phase motors (IE Code)			
IEC 60034-30	Europe (50 Hz)	USA (60 Hz)	National efficiency regulations (MEPS)
IE1 Standard Efficiency e. g. 80L/4	comparable with EFF2 / CEMEP	comparable with South American standards	Australia 2001, Brazil 2007, China 2008
IE2 High Efficiency e. g. 80LH/4	comparable with EFF1 / CEMEP	equivalent to NEMA Energy Efficiency / EPACT	USA/Canada 1997, Australia 2006, Brazil 2010, China 2011, Europe 2011
IE3 Premium Efficiency e. g. 80LP/4	Extrapolated from IE2 with 10 to 15% less losses	equivalent to NEMA Premium Efficiency	USA/Canada 2011, Europe 2015



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### SK 500E

With frequency inverters from the SK 500E series, NORD DRIVESYSTEMS provides intelligent, cost-effective drive solutions with graduated levels of equipment which are fully compatible with regard to their power range, connection voltage and size.

### SK 200E

SK 200E inverters are available with almost the same range of functions as the SK 500E models. The spectrum of applications ranges from simple drive functions to complex positioning control.



### Skilled use of energy

- Efficiency-optimised motors (IE1/IE2/IE3)
- Higher efficiency in DC network
- Automatic flux optimisation
- Energy-saving know-how: Increased efficiency in 87 Hz operation



### Possibilidades de automação



USS / RS485



### Diversos sistemas de Fieldbus



# Intelligent drive systems from a single source

NORD DRIVESYSTEMS drive solutions are based on the principle of the function pyramid: Motors, control units and gears are just as much components as our extensive range of system modules such as planning, project management, installation and service.

NORD DRIVESYSTEMS produces helical, parallel shaft, bevel gear and worm gear units and is the only manufacturer in the world which produces industrial gear units up to 242 kNm as UNICASE versions. The benefits for our customers include extreme reliability and sealing, safe handling of even the largest output torques, high axial and radial load bearing, quiet running and low maintenance and exceptionally long operating life. With its own gear and motor production facilities, NORD offers its customers complete, sophisticated system solutions with the very highest levels of economy and efficiency.





Left: NORD DRIVESYSTEMS headquarters in Bargteheide, from top: Production plant in Gadebusch, Glinde, Aurich (all in Germany) motor factory in San Giovanni, (Italy, production facility in Waunakee (USA), production in Suzhou (China)



### Always near you throughout the world

For globalisation, we rely on local roots. We have set up a network of assembly factories and service facilities in 35 of the most important industrialised countries, so that local planning advice, high availability of the required drive technology and rapid local service make NORD DRIVESYSTEMS a flexible and dependable partner for drive systems throughout the world.

- Close to customers thanks to 35 subsidiaries and more than 30 agencies throughout the world
- High availability and rapid service thanks to local presence
- Certification: ISO 9001, UL, CSA, GHOST-R, CCC and ATEX
- Everything from one source, from planning to commissioning
- You can find further up-to-the-minute data and facts about NORD DRIVESYSTEMS under [www.nord.com](http://www.nord.com)





[www.nord.com/locator](http://www.nord.com/locator)

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