

Intelligent Drivesystems, Worldwide Services



GB

**Drive solutions for
intralogistics**

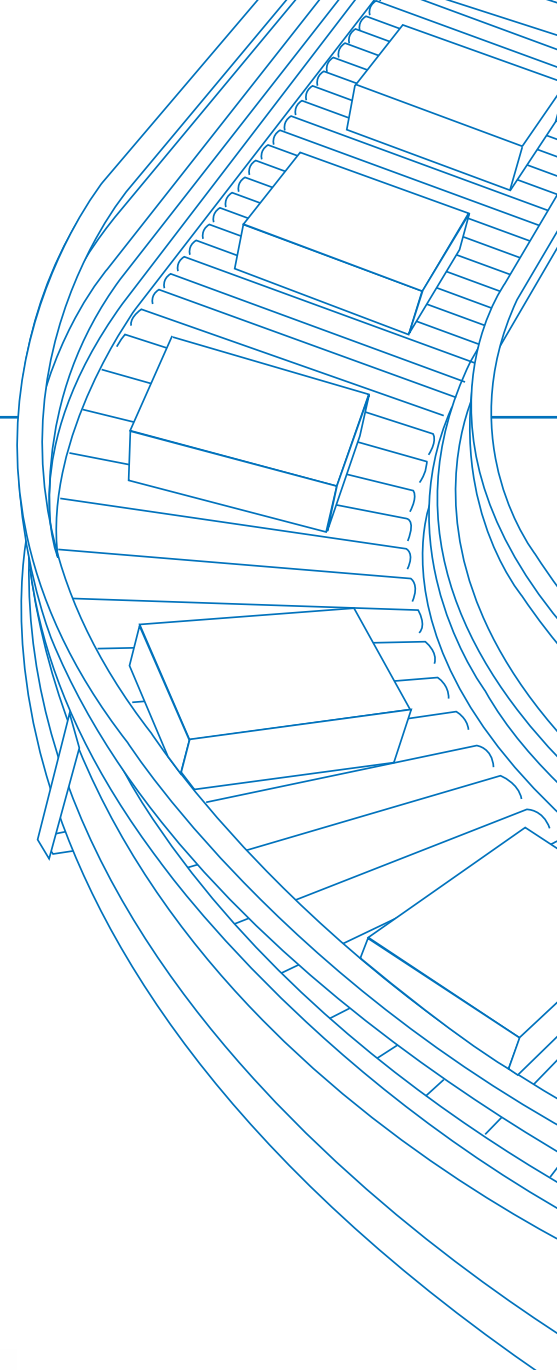
NORD
DRIVESYSTEMS

Partners in motion

Efficient drive solutions for intralogistics

The fact that drive technology accounts for almost two thirds of industrial electrical energy consumption in production plant and intralogistics creates a demand for drive products and services with high energy efficiency. Energy-efficient drive solutions from NORD offers great potentiality for savings in internal conveyor technology and goods handling in trade and industry.

For more than 45 years, NORD DRIVESYSTEMS has been prominent in almost every branch of industry where materials handling and conveying solutions are used for internal logistics. Our drive components and systems are essential wherever things need to be moved, because all movement needs drive - as efficiently and safely as possible. Because of this, we provide an entire spectrum of mechanical, electrical and electronic drive technology from a single source - from motors and gear units to centralised and decentralised control technology.



DRIVESYSTEMS



NORD DRIVESYSTEMS

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



NORD DRIVESYSTEMS provides efficient solutions for typical conveyor technology applications, for example:

- Conveying and transporting
- Raising and lowering
- Moving and positioning
- Pallet loading and sorting
- Turning and order picking



Movement in all directions

Safe and economical drive technology

Roller and belt conveyors

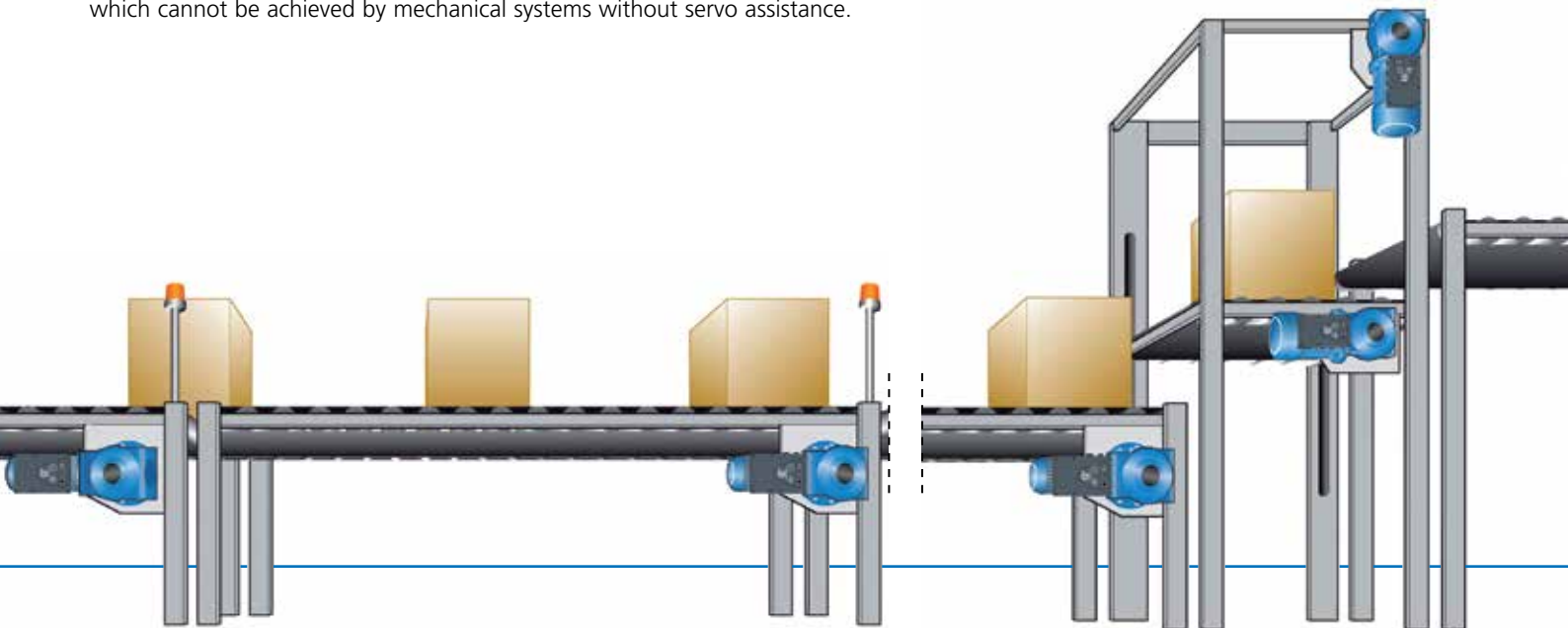
Conveyor systems, which often bridge large distances and are spread over large areas require a modular design for their machinery and systems. In many conveyor systems such as paternoster warehouses, in which energy can be saved without impairing function, operating costs are increasingly becoming the focus of attention for industrial users. Because of this, NORD DRIVESYSTEMS relies on exceptionally energy-efficient motors, almost loss-free gear units and drive electronics with energy-saving functions.

Moving, positioning and storage

Decentralised drive technology is particularly suitable for large scale materials handling plant such as roller tracks and conveyor systems. Right from the planning stage through to installation and commissioning, the efficient SK 200E frequency inverter offers an especially economical solution.

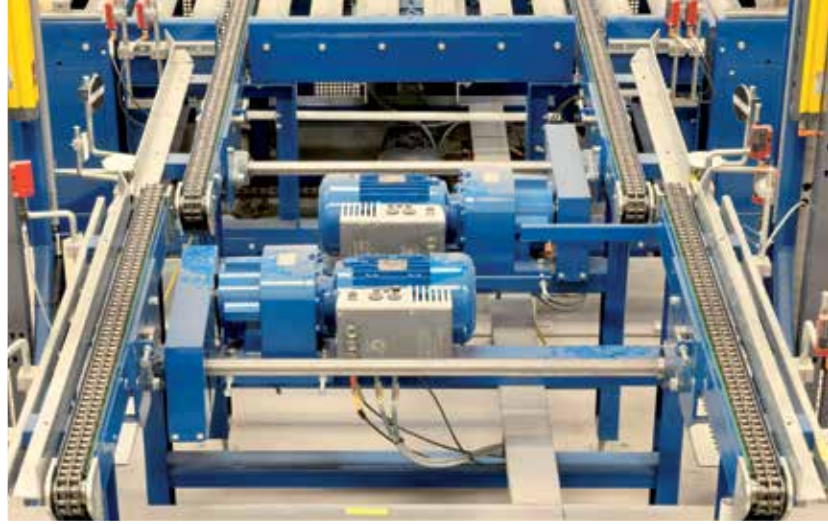
Pallet loading, sorting and order picking

In scenarios where for instance high speed pick-and-place functions are required for palleting robots, servo technology is the key to efficient automation solutions. The integration of the controller, motor and NORD gear unit realizes the ultimate dynamic characteristics and optimum quality and efficiency; which cannot be achieved by mechanical systems without servo assistance.



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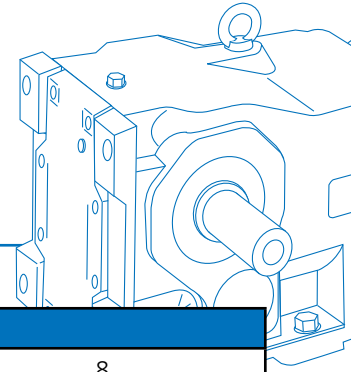
The selection of the right components for the optimization of internal processes is decisive for the efficiency and safety of your transportation systems. High quality products, innovative technology and the world-wide presence of NORD DRIVESYSTEMS guarantees a high level of customer satisfaction.



Top: NORD drive solutions in an automated warehouse.
Left: NORD drive solutions at Hamburg Airport.
Right: NORD drive solutions in a parcel centre



Efficient UNICASE drive units



NORDBLOC. 1 gear unit		
<ul style="list-style-type: none"> • Foot or flange mounted • Die-cast aluminium housing (5 sizes) • UNICASE • Industry standard dimensions 	Sizes	8
	kW	0.12 – 37
	Nm	55 – 3,300
	i	2.10 : 1 – 456.77 : 1



SI worm gear units		
<ul style="list-style-type: none"> • Modular • universal mounting • IEC versions 	Sizes	5
	kW	0.12 – 4,0
	Nm	21 – 427
	i	5.00 : 1 – 3,000.00 : 1



3-stage bevel gear units		
<ul style="list-style-type: none"> • Up to 95 % efficiency • Shaft, foot or flange mounted • Hollow or solid shaft • UNICASE 	Sizes	11
	kW	0.12 – 200
	Nm	180 – 50,000
	i	8.04 : 1 – 13,432.68 : 1

Efficiency-optimised motors

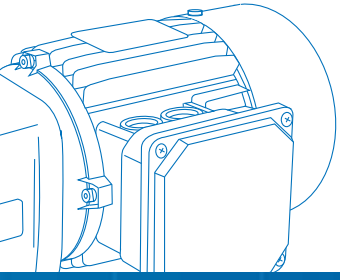


IE2/IE3 motors	
<p>NORD builds energy-saving three-phase motors both with and without brakes for the international market. Our own motor production facilities ensure that NORD is independent from supply bottlenecks and can guarantee short delivery times. This is a decisive benefit for our customers. The use of NORD energy-saving three-phase motors with considerably higher efficiencies allows you to reduce operating costs. NORD energy-saving three-phase motors, compliant with the US Energy Policy Act of 1992 (EPAAct), are also available.</p>	

You can find more information about NORD energy-saving motors and the new EU laws which came into force on 16.06.2011 under www.nord.com/IE2.



DRIVESYSTEMS



Washdown

- No recesses
- Smooth surfaces
- No assembly cover
- Large radii
- Inclined surfaces

Unique aluminium housing

- Lightweight with high strength
- Minimal use of materials
- Cool surface



nsd tupH
Sealed Surface Conversion System

- Excellent corrosion protection
- No coating

The UNICASE concept

A closed housing manufactured from a single block combines all the elements of the gear unit. NORD DRIVESYSTEMS is the only manufacturer which produces modular industrial gear units with output torques of up to 242,000 Nm in a one-piece UNICASE housing.

- A single housing which integrates all bearings
- Complete machining in one step
- High output torques
- High axial and radial loads
- Great reliability
- Long service life
- Quiet running



Light, powerful and washdown-proof: 2-stage bevel gear units in open and closed washdown versions are available with NSD tupH surfaces. NSD tupH provides optimum protection against acids and alkalis. The gear units are especially suitable for use on belt conveyors as well as lifting gear applications and warehouse systems.



Frequency inverter for control cabinet installation* and direct mounting on the motor**

SK200E decentralized frequency inverter

- Robust motor inverter with overload reserves
- Energy saving management
- Flexible and modular
- Economic AS interface on board
- Up to IP 66



SK 500E

With the SK 500E series of frequency inverters, NORD DRIVESYSTEMS offers intelligent and cost-effective drive solutions with scalable equipment options, which are all fully compatible with regard to motor performance range, supply voltage and sizes.



NORDBLOC.1 - Gear Units

- Lightweight
- Strong bearings
- Corrosion protection (Al)
- Easy to clean
- Quiet running

NORD IE2/IE3 motors

- High efficiency
- Wide Voltage range
- Low waste heat
- Large power reserves
- Long service life

*Central / **Decentralized



DRIVESYSTEMS



SK 200E		
<ul style="list-style-type: none"> • "Safe stop" as per EN 954-1 • Simple commissioning via integrated DIP switches and potentiometer possible • Energy-saving function • Device types suitable for all applications • Integrated "Posicon" positioning control • On board AS interface • Readout of sensors in the field • Actuator control • Maintenance-friendly thanks to plug connector options and plug-in memory units 	Sizes	4
	U(V)	1 - 110 ... 120 ±10 %
		1 - 200 ... 240 ±10 %
		3 - 200 ... 240 ±10 %
P(kW)	3 - 380 ... 500 -20 % / +10 %	
	P(kW)	0.25 - 22 KW










SK 500E		
<ul style="list-style-type: none"> • Compact design • Energy-saving function • Performance grading according to application (e.g. "Posicon" positioning control) • Plug-in modules for control and communication (field bus) • "Safe stop" as per EN 954-1 • Simple networking of drive units via internal bus (CANopen) 	Sizes	10
	U(V)	1 - 110 ... 120 ±10 %
		1/3 - 200 ... 240 ±10 %
		3 - 200 ... 240 ±10 %
P(kW)	3 - 380 ... 480 -20 % / +10 %	
	P(kW)	0.25 - 90 kW

Extensive range of accessories





Key switches, repair and maintenance switches, I/O field bus module extensions, brake resistors with high protection classes, control and parameterization units (multi-lingual), simple connection to PC or laptop using NORD CON software, plug options for signal cables.



Links to automation systems

Ethernet-based BUS systems

Brake technology	Encoder, feedback systems
<ul style="list-style-type: none"> • Electromagnetic spring-loaded brakes • Working or holding brakes • Double brake • IP66 brake • Rust protection • Dust protection • MIK air gap/wear monitoring 	<ul style="list-style-type: none"> • Incremental encoders TTL / HTL / sin-cos • Absolute encoders singleturn or multiturn, combined encoders • Sensor bearings • Inductive sensors
	



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 exceptional 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 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 industrialized 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





www.nord.com/locator

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