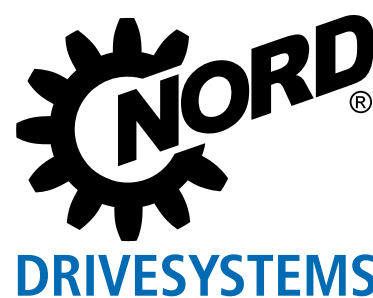




EN

**ELECTRONIC
DRIVE SYSTEMS
UP TO 200 HP**



NORD DRIVESYSTEMS Group

Headquarters and Technology Centre in Bargteheide, close to Hamburg



Innovative drive solutions for more than 100 branches of industry

Mechanical products

Gear units



Electrical products

Motors



Electronical products

Inverters, motors starters and field distribution systems



7 state-of-the-art production plants produce gear units, motors and inverters also for complete drive solutions from a single source.



Gear unit production



Motor production



Inverter production

Subsidiaries and sales partners in 98 countries on 5 continents provide local stocks, assembly, production, technical support and customer service.



The map image above is for information purpose and may not have been prepared or be suitable for legal purpose and we do not own any responsibility for correctness or authenticity of the same.

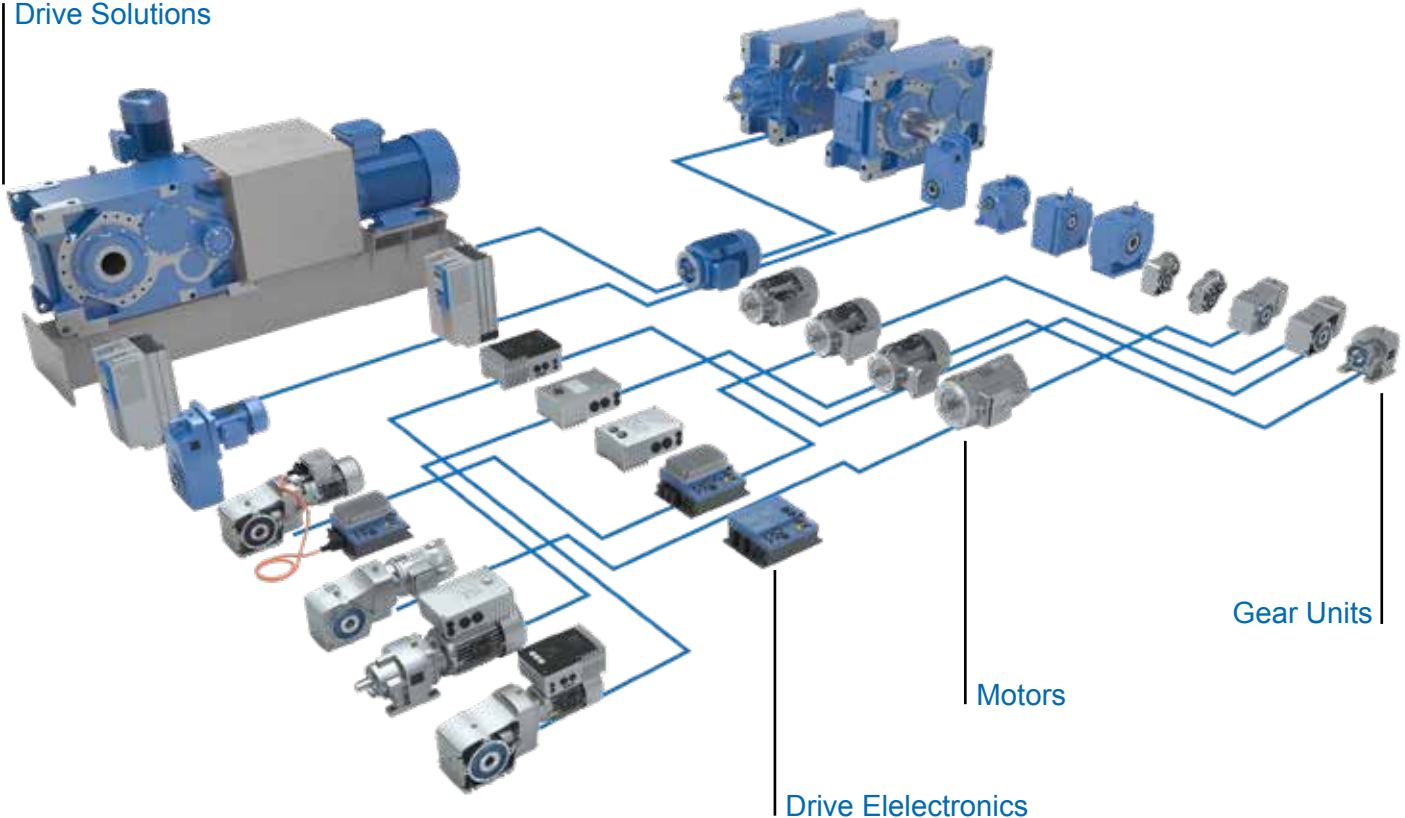
More than 3,600 employees throughout the world create customer oriented solutions.





NORD ELECTRONIC DRIVESYSTEMS has developed and produced electronic drive technologies at its factory in Aurich since 1984. With our extensive knowledge and large production capacity, we offer our customers optimum quality and short delivery times for variable frequency drives and motor starters as part of a comprehensive modular range of drive components.

Drive Solutions



ELECTRONIC DRIVE SOLUTIONS FROM NORD DRIVESYSTEMS

YOUR BEST CHOICE

For more than 50 years, we have provided our customers with extensive advice and support for the planning and implementation of complete drive solutions with electronic drive technology.

- NORD provides everything from a single source. All components such as gear units, motors and drive electronics are optimally matched.
- Modular system design ensures that individual components can be replaced quickly without replacing entire drive system.
- NORD provides local expert support throughout the world for the design, planning and integration of standard or customized drive technology.
- NORD supplies pre-assembled drive systems which are simple and easy to install and service.
- Satisfied customers from all over the world give you confidence in your decision to choose NORD.

VERSATILE – NORDAC *PRO*

SK 500E CONTROL CABINET VFDs up to 200 HP _____

FLEXIBLE – NORDAC *FLEX*

SK 200E DECENTRALIZED VFDs up to 30 HP _____

ECONOMICAL – NORDAC *BASE*

SK 180E DECENTRALIZED VFDs up to 3 HP _____

ACCESSIBLE – NORDAC *LINK*

VFDs AND MOTOR STARTERS SK 250E/SK 155E up to 10 HP _____

ECONOMICAL – NORDAC *START*

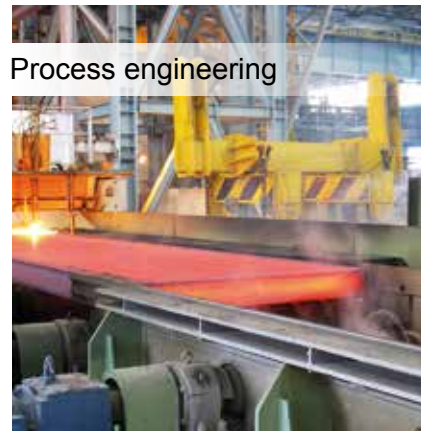
SK 135E MOTOR STARTERS up to 10 HP _____



VERSATILE: NORDAC *PRO* SK 500E: CONTROL CABINET VFDs



- Power range up to 200 HP
- Protection class IP20
- Control cabinet installation
- Alternative cooling concepts



DRIVE SYSTEMS FOR ALL APPLICATIONS

- High precision regulation with current vector control
- Open or closed loop operation
- 4-quadrant operation
- Functional safety e.g. STO and SS1
- Integrated positioning and synchronisation mode (POSICON)



FLEXIBLE: NORDAC FLEX

SK 200E: DECENTRALIZED VFDs

Pumps / Fans



Parcel distribution



Process engineering



Baggage handling technology



ATEX
compliant

- Power range up to 30 HP
- Protection class IP55, IP66
- Wall mounted or motor mounted
- Brake rectifier
- Plug-in EEPROM for easy parameter transfer

- Scalable functions with simple parameterization
- Internal brake rectifier for motor brake control
- Functional safety e.g. STO and SS1
- Integrated positioning and synchronization mode (POSICON)
- Integrated PLC functionality for basic logic functions near the drive unit



ECONOMICAL: NORDAC BASE SK 180E: DECENTRALIZED VFDs



- Power range up to 3 HP
- Protection class IP55, IP66, IP69K
- Wall mounted or motor mounted

ECONOMIC VARIABLE SPEED DRIVE UNIT

- High precision current vector control
- Energy-saving function for partial load operation
- Integrated PLC functionality for basic logic functions near the drive unit
- Built-in 24 VDC power supply for stand alone applications



ECONOMICAL: NORDAC START SK 135E: MOTOR STARTERS

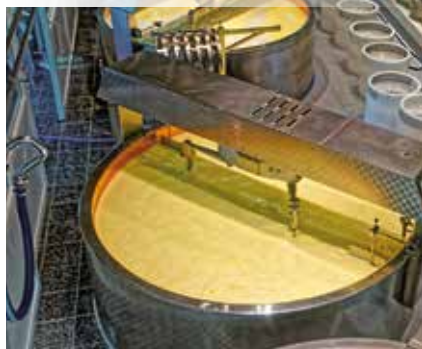
Material Handling



Belt conveyors



Agitators



Roller conveyors



nsd ^{turh}

ATEX
compliant

- Power range up to 10 HP
- Protection class IP55, IP66, IP69K
- Wall mounted or motor mounted
- Brake rectifier

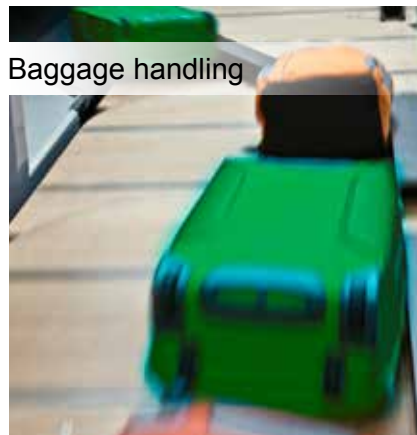
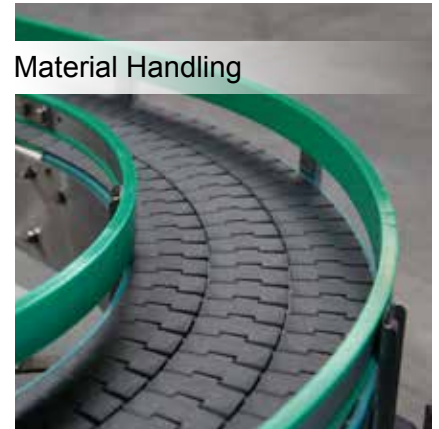
ECONOMIC FIXED SPEED DRIVE UNIT

- Wear-free fully electronic soft starting with reversing function
- Rapid commissioning via potentiometers
- Internal brake rectifier for motor brake control
- Internal motor overload protection



ACCESSIBLE: NORDAC LINK

SK 250E: VFD FIELD DISTRIBUTOR



- Power range up to 10 HP
- Protection class IP55, IP65
- Simple commissioning and operation

FLEXIBLE DRIVE FOR FIELD INSTALLATION



NORDAC LINK SK 250E FDS,
NORDBLOC.1 bevel gear unit SK 92372.1
and NORD IE4 motor

- All power and control I/Os in plug-in version for easy commissioning and maintenance
- Extensive options such as local operators and maintenance switch
- Integrated PLC functionality for basic logic functions near the drive unit
- Functionally compatible with modular NORDAC FLEX



ACCESSIBLE: NORDAC LINK SK 155E: MOTOR STARTER FIELD DISTRIBUTOR

Parcel distribution centres



Material Handling



Baggage handling



Intralogistics



- Power range up to 4 HP
- Protection class IP65
- Simple commissioning and operation

LOW-COST DRIVE FOR FIELD INSTALLATION

- All power and control I/Os in plug-in version for easy commissioning and maintenance
- Extensive options such as local operators and maintenance switch
- Internal brake rectifier for motor brake control
- Wear-free fully electronic soft starting with reversing function
- Functionally compatible with modular NORDAC START



ELECTRONIC DRIVE TECHNOLOGY FOR EVERY APPLICATION

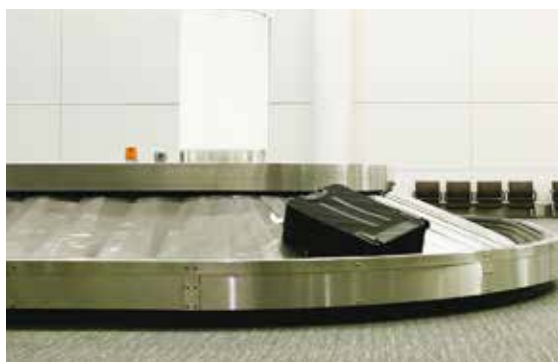
Food and Beverage



Requirements:

- Corrosion resistant and suitable for the food industry
- Easy to clean
- Harsh ambient conditions

Baggage Handling Airports



Requirements:

- Simple commissioning
- Maintenance-friendly
- Variant reduction and reduced spare part inventory

Intralogistics Parcel Distribution Center



Requirements:

- Direct integration of drive components into conveyors
- Simple integration into existing large-scale distribution centers
- High availability if servicing is required

Theater Technology



Requirements:

- Quiet drive system with minimal external noise
- Smooth, slow lifting of stage sets
- Compliance with extensive safety regulations and legal requirements

NORD application solution:

- "nsd tupH" the unique NORD surface treatment system (complies with FDA Title 21 CFR 175.300)
- Smooth surfaces (motor, gear unit and VFD) simplify frequent cleaning processes
- The entire drive solution is suitable for the extended temperature range (-25 °C to +50 °C / -13 °F to 122 °F)



NORD application solution:

- Complete pre-assembled and tested drive systems
- Easier maintenance and commissioning through plug connectors instead of fixed wiring
- Many applications can be standardized with the field distributor solutions



NORD application solution:

- Decentralized drive technology with motor-mounted frequency inverters
- Simple wiring with group power and communication fieldbus
- Plug-in EEPROM for easy parameter transfer for drive unit replacement



NORD application solution:

- Quiet operation with VFDs with high pulse frequencies and noise-reduced brakes
- Closed loop speed control for high precision speed regulation
- Integrated safety technology for safe control of movement and mechanical double brake



ELECTRONIC DRIVE TECHNOLOGY FOR EVERY APPLICATION

Lifting Equipment Construction Hoists



Requirements:

- Compact lifting systems for mobile use
- Sequence and positioning control in the elevator cab
- Facilities for safe start (load take-up) and long downward movement

Warehousing



Requirements:

- Rapid access to storage areas
- Operation of several aisles with a single storage control device
- Energy-efficient operation

Material Handling in the Cement Industry



Requirements:

- Positioning in the loading area
- Harsh ambient conditions
- Detection and elimination of mechanical blockages

Pump Operation



Requirements:

- Metering
- Continuous flow
- Installation in existing applications

NORD application solution:

- Compact VFDs for control cabinet installation
- Implementation of positioning control with POSICON and integrated PLC
- Safe overload capacity and powerful brake chopper and integrated motor brake management.



NORD application solution:

- Dynamic movement and precise positioning
- S-curve movement capability with torque control
- Integrated energy management.



NORD application solution:

- High precision positioning with POSICON and encoder feedback
- Tried and tested drive technology for a wide temperature range
- Integrated PLC in the frequency inverter can detect and eliminate blockages by reversing the drive.



NORD application solution:

- Integrated position control for accurate metering of product
- Closed loop control and PI process controller
- BUS communication and sensors



NORD DRIVESYSTEMS

THE DRIVE WITH INTEGRATED PLC



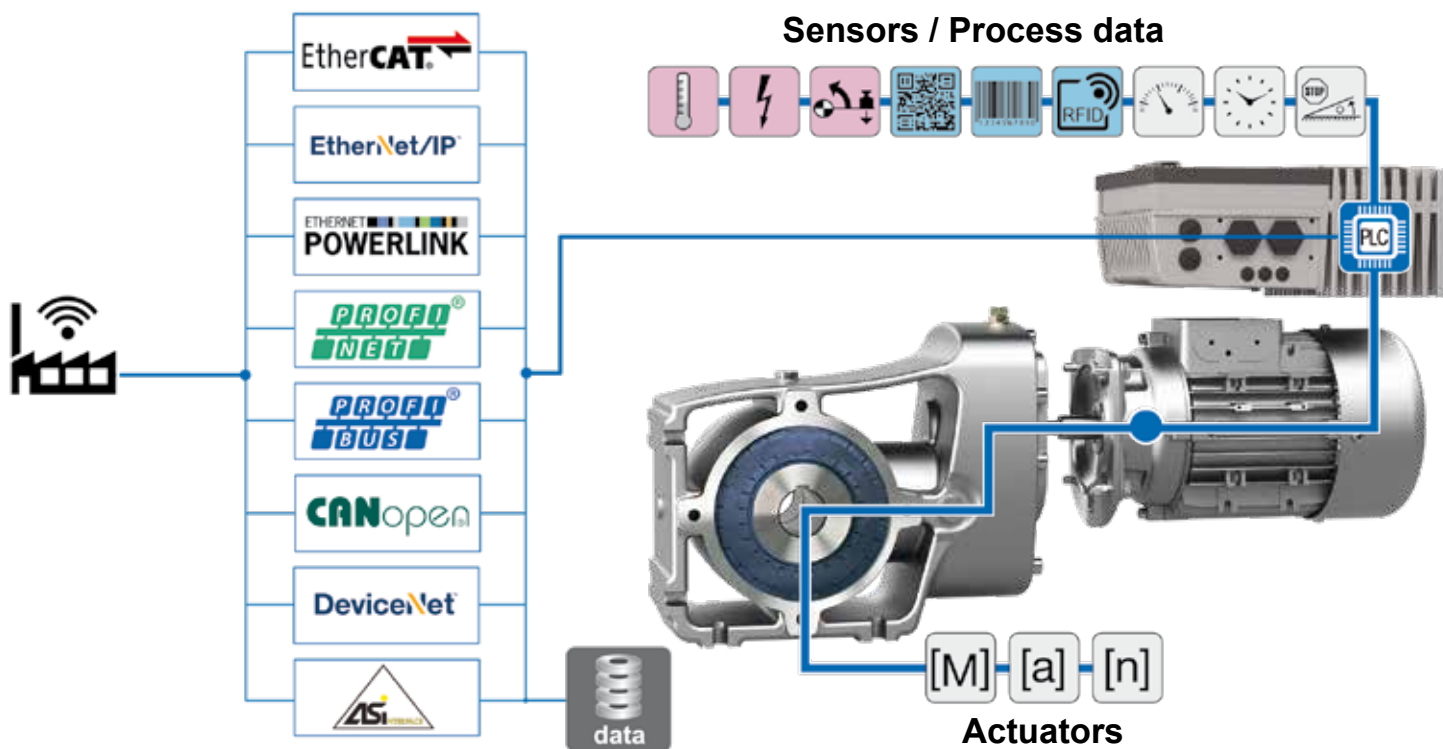
The integrated PLC turns the combination of a NORD frequency inverter and a motor/gear unit combination into a complete system solution.

The NORD system solution is extended with functions for IEC 61131-3 programming (Structured Text and Instruction List) by use of the freely available NORD CON software tool.

Thanks to the PLC integrated into the variable frequency drive

- Application-specific special functions near the drive unit can be efficiently programmed and parameterized in the same way as all other VFD functions.
- Direct access to the parameters as well as the analog and digital inputs and outputs of the frequency inverter for pre-processing of signals is possible.
- Complete implementation of sequence and movement control for positioning applications are possible without the use of a central control unit.

NORD DRIVE SOLUTIONS WITH INTEGRATED PLC ARE INDUSTRY 4.0 READY!



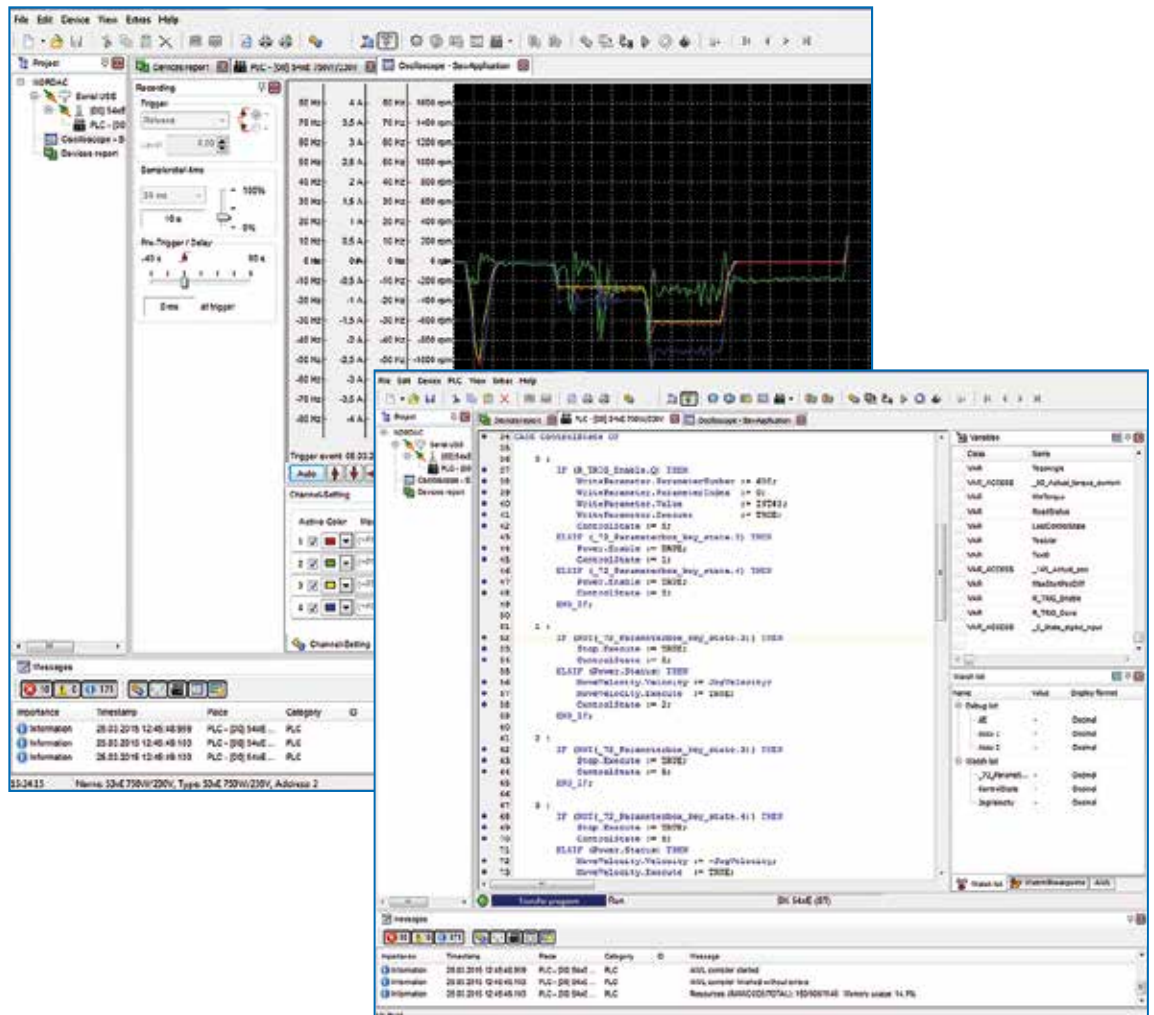
"NORD 4.0 READY" means that NORD drive units are networked, autonomous and scalable. The key to this is the VFD with its powerful processors and comprehensive equipment, interfaces and functions. These not only monitor themselves and the motor, but also their effect on the load situation within the plant segments and beyond.

NORD CON SOFTWARE TOOL

NORD CON is a software tool for:

- Parameterization
- Programming
- Diagnostics and Troubleshooting
- Control

This tool enables the offline engineering and testing of PLC programs independently from the inverter. NORD CON is available for all drive electronic products.



NORD CON PLC Editor and
Oscilloscope function

NORD DRIVESYSTEMS Group

Headquarters and Technology Center
in Bargteheide, near Hamburg

Innovative drive solutions

for countless applications in more than 100 industries

Mechanical gear products

Parallel shaft, helical in-line, bevel and worm gear units

Electrical products

High-performance motors (IE1, IE3 & IE4)

Electronic products

Centralized and decentralized VFDs
and motor starters

7 production locations with cutting edge technology

for all drive components

Subsidiaries and sales partners

in 98 countries on 5 continents

provide local inventory, assembly,
technical support and industry-leading customer service

More than 3,600 employees throughout the world

create customized, engineered solutions

Locate your NORD sales representative or authorized product distributor:

www.nord.com/locator

(US) NORD Gear Corporation (Headquarters North America)
800 NORD Drive, Waunakee, WI - USA, (888) 314-6673, info.us@nord.com

(CA) NORD Gear Limited
41 West Drive, Brampton, ON - Canada, (800) 668-4378, info.ca@nord.com

(MX) NORD DRIVE SYSTEMS SA de CV
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Members of the NORD DRIVESYSTEMS® Group

