

# Drive Solutions for the Beverage Industry

Complete drive systems from a single source



**DRIVESYSTEMS**

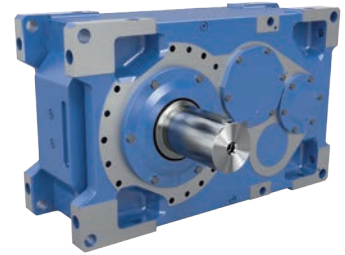
Our Solution. Your Success.

# Complete Drive Solutions from a Single Source



## NORD Delivers

NORD offers first-class customer service and support along with full-featured drive solutions that can tackle the toughest requirements. All components are carefully selected and precisely configured to meet your exact specifications. In the rare case that standard components won't meet your needs, our in-house engineering team will work with you to design custom components or a complete customized system.



## Reduce Lead Times and Decrease Inventory

- ▶ Fastest lead times in the industry with NO expedite fees
- ▶ Over 20,000,000 standard configurations to reduce or eliminate the need for custom components
- ▶ Modular drives, motors, and electronic controls minimize inventory of replacement units and parts



## Global Product Designs, Standards, and Support

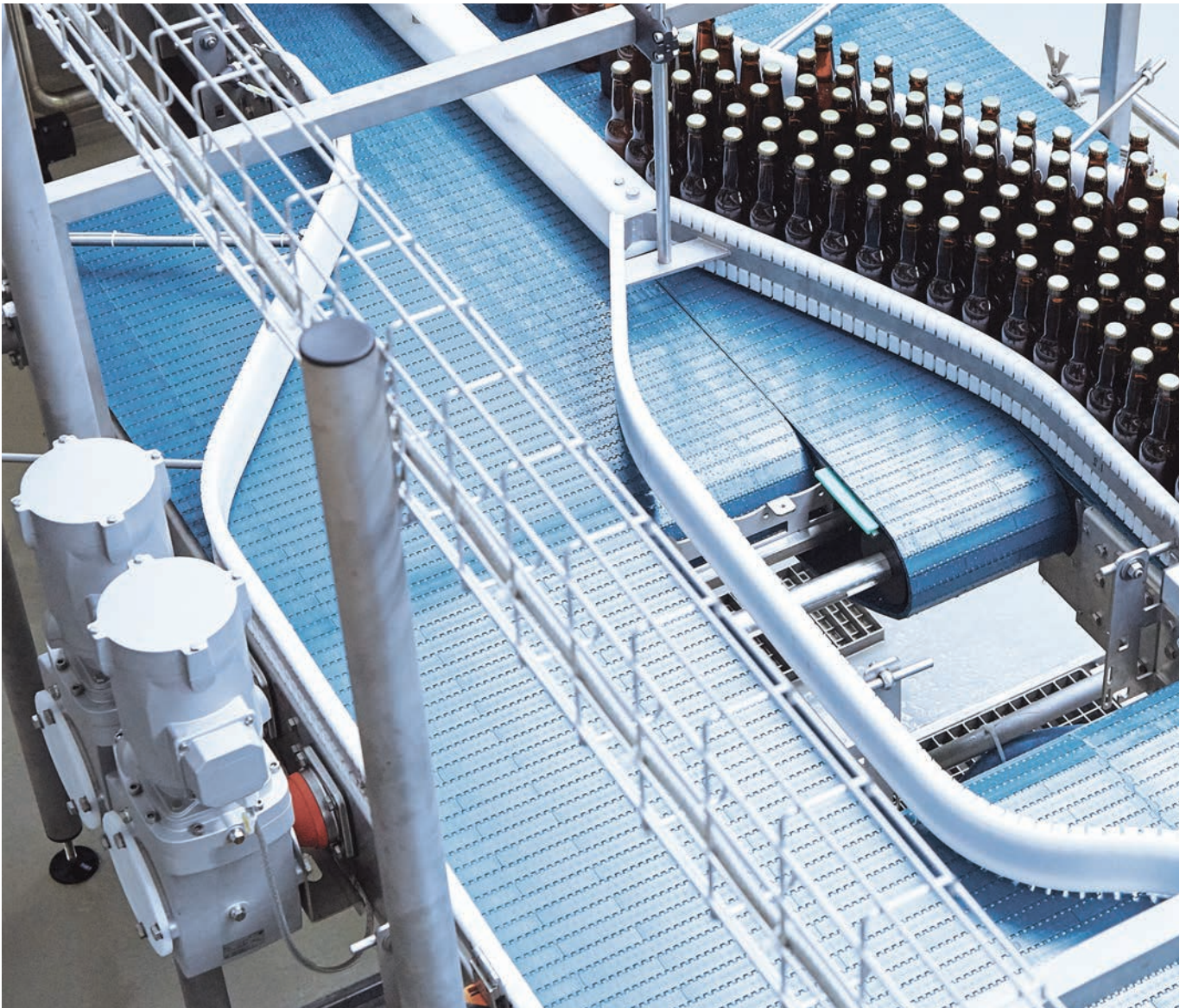
- ▶ Innovative, industry-standard products to support a wide range of applications
- ▶ Global sales and support network
- ▶ Dedicated mechanical and electrical application engineers ready to assist you
- ▶ Online resources available to you any time
- ▶ 24/7/365 emergency breakdown service



## Increase Efficiency and Reduce Operation Costs

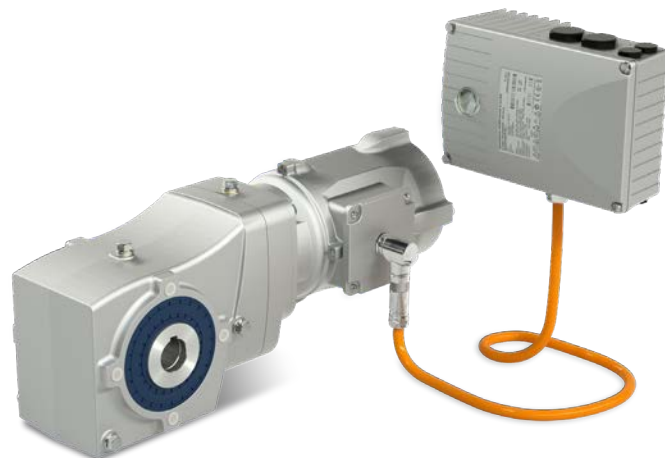
- ▶ myNORD online tools for fast selection, configuration, ordering, and tracking of your drive units
- ▶ Drive systems that are perfectly matched to your application for optimum performance and energy efficiency
- ▶ Program personalization, such as weekly shipment schedules and custom nameplates
- ▶ Partner with a company that is easy to do business with and wants to see you succeed!





### Integrated Solutions for the Special Requirements of the Beverage Industry

- ▶ Simple commissioning
- ▶ Easy maintenance and safe, reliable operation
- ▶ Lower total cost of ownership
- ▶ Modular design
- ▶ Energy savings
- ▶ Project and product support
- ▶ Global NORD network



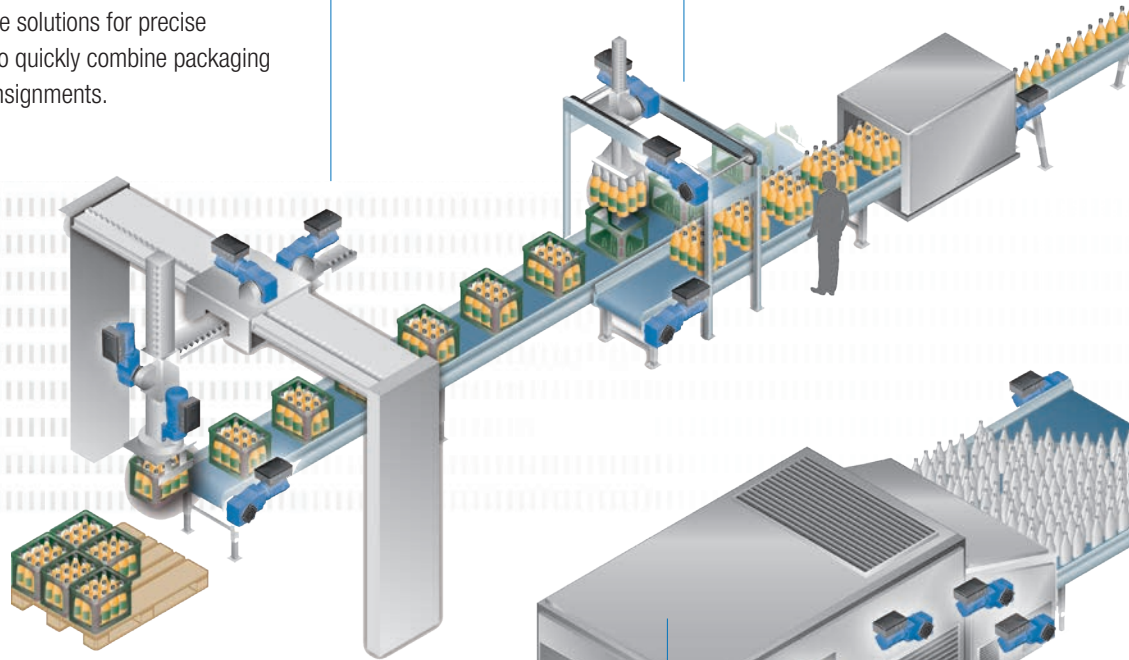
# Drive Solutions for the Beverage Industry

## Packaging

Packaging machines require a large number of directional movements to gently pack individual products into cartons or to combine beverage crates into packaging units. NORD integrated gear units can be programmed to accommodate these precise actions.

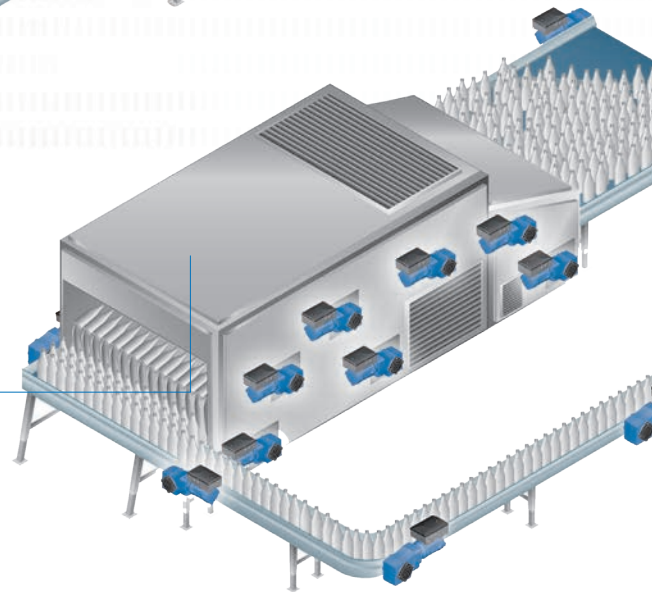
## Palletizing

NORD provides dynamic drive solutions for precise positioning on several axes to quickly combine packaging units into larger dispatch consignments.



## Cleaning

Drive units used in bottle and container cleaning machines have to be resistant to moisture and cleaning agents. NORD's washdown gear units stand up to the harshest environments and are extremely easy to clean.



NORD DRIVESYSTEMS is one of the world's leading drive technology manufacturers. Our industry-specific, innovative drive solutions are used throughout the world for a wide variety of applications in the beverage industry.

We know your business, precisely understand your requirements, and strive for long-term collaboration with our customers and partners. You can be confident that we will do everything that we can to reinforce the reputation of your brand.

## Labeling

Labeling machines require smooth, even guidance to ensure containers are labeled properly. Gear units from NORD can be configured to execute these precise movements and are scalable for a variety of processes.

## Bottling and Capping

NORD solutions give automatic bottling and capping machines the high precision, high speed positioning they need to bottle and cap beverage products quickly and hygienically.

## Unpacking

With the aid of NORD's dynamic gear units, cartons and pallets can be unpacked automatically and empty bottles can be quickly fed into further processing stages.

## Conveying

NORD gear units can be individually controlled by conveyor section. The speed of each section can be intelligently managed for smooth operation and prevention of blockages that can cause costly downtime.

### NORD DRIVESYSTEMS Provides:

- ▶ Extensive knowledge of applications and technical support
- ▶ Complete drive solutions from a single source
- ▶ Strong global presence and service
- ▶ Thousands of installed drives in the food and beverage industry
- ▶ Wide range of products with high quality standards
- ▶ Great reliability, economy, and service life
- ▶ Recognized product quality compliant with international standards

# Drive Solutions for the Beverage Industry

## From Start to Finish

NORD DRIVESYSTEMS develops and produces scalable drive solutions for all segments of the beverage industry. From production and processing to bottling and packaging.

### Water, juice, milk products, wine, beer, or spirits

- ▶ Shredding and pressing
- ▶ Washing and rinsing
- ▶ Sterilizing
- ▶ Bottling
- ▶ Closing and sealing
- ▶ Labeling
- ▶ Palletizing

### Conveyors and handling machinery

- ▶ Palletizing machines
- ▶ Conveyor systems
- ▶ Belt gap adjusters
- ▶ Deflectors
- ▶ Storage, table, container packaging, mat, bottle neck guidance, and container conveyors



### Unpacking and Palletizing

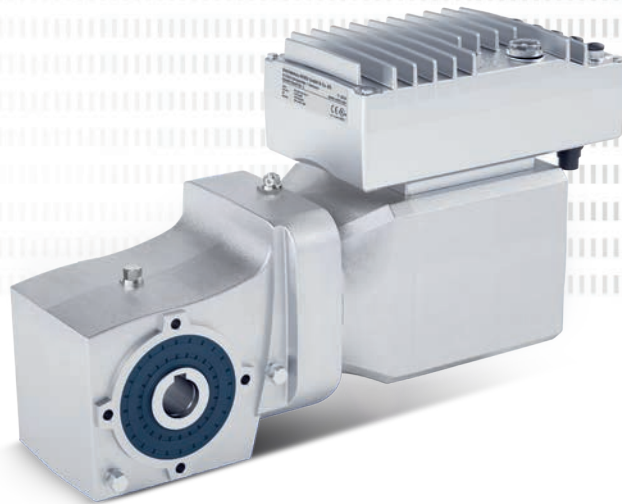
Palletizers and packaging machines require dynamic solutions and precise, simultaneous positioning on multiple axes. NORD supplies asynchronous and synchronous motors combined with wall or motor-mounted VFDs and closed-loop operation.

- ▶ IE4 or IE5+ motor efficiency
- ▶ Servo mode control systems with integrated encoders for precise positioning
- ▶ Smooth housings for gear units, motors, and VFDs
- ▶ Suitable for wash-down

### Cleaning

Cleaning and rinsing are two of the most important processes in the beverage industry. NORD products are powerful, efficient, and reliably fulfill all application requirements. They are also inherently resistant to most commonly used cleaning agents.

- ▶ Resistant to acids and alkalis (wide pH range)
- ▶ Fanless motors prevent the spread of bacteria
- ▶ Energy-efficient



### Conveying

NORD supplies a wide range of high efficiency drive solutions that are highly configurable and capable of meeting the requirements of conveying applications.

- ▶ Encoders for precise positioning
- ▶ Energy-saving VFDs for control cabinet, wall, or motor mounting
- ▶ Soft start and STO function



### Bottling and Capping

NORD supplies highly configurable gear units for bottling and capping machines.

- ▶ Absolute and incremental encoders
- ▶ Plug-and-Play connection technology
- ▶ Low backlash gear units and closed-loop high-efficiency IE5+/IE4 synchronous motor technology



### Packaging

NORD supplies systems with very low energy consumption for both intermittent and continuous operation.

- ▶ Compact size
- ▶ Plug-and-Play connections
- ▶ Operation with decentralized or wall-mounted VFDs
- ▶ Encoders for precise positioning

# Drive Solutions for the Beverage Industry

Efficient, Safe, and Proven Drive Solutions from a Single Source



Foam Cleaning in Bottling Plant

## Efficient

NORD drive solutions are environmentally friendly and fulfill all current national and international energy saving standards.

- ▶ Lightweight aluminum construction
- ▶ NORD motors for all requirements, including IE3, IE4, and IE5+
- ▶ Intelligent NORD variable frequency drives with energy saving flux reduction for optimal operation under partial load or low speeds.

## Reliable

All NORD mechatronic components are produced in our own factories, which means unsurpassed reliability, long operating times, long service life, and low total operating costs. Countless options can be configured for all requirements of the food and beverage industry.

- ▶ Temperature sensors to protect against overheating
- ▶ Protection class IP66 or IP69K
- ▶ Stainless steel shafts and accessories; metal fan blades; fanless designs
- ▶ Moisture protection: rust protection (dust and rust); multi-layer coatings

## Tried and Tested

Demanding environments are common in the food and beverage industry. NORD specialized solutions for these environments have proven themselves throughout the world.

- ▶ Explosion protected motors (ATEX, NEC) for Zone 1/21 and Zone 2/22 explosion hazard areas
- ▶ NORD offers a variety of gearbox and motor protection options like condensation drain holes, space heaters, resin sealed terminal boxes, and motor drip covers

## Transportable Wine Pump with Variable Frequency Drive SK 200E



- ✓ No need for shielded power cable
- ✓ Fast commissioning
- ✓ Ready-to-use motor VFD unit
- ✓ Reduction in design time
- ✓ No special cable routing
- ✓ No integration into cabinet necessary
- ✓ Local machine control





# Drive Solutions for the Beverage Industry

## DuoDrive Integrated Gear Unit and Motor (Catalog G5010)



- ✓ Integrated gear unit and motor
- ✓ System efficiency up to 92%
- ✓ Simple plug-and-play commissioning
- ✓ High power density

Sizes: 2  
Power: 0.50 – 4.00 hp  
Torque: 230 – 2,186 lb-in  
Ratio: 3.24:1 – 18.1:1

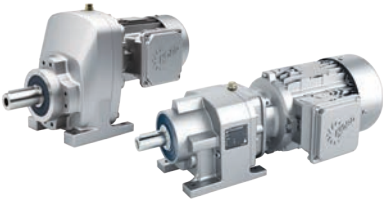
## NORDBLOC.1® 2-Stage Helical Bevel Gear Units (Catalog G1000)



- ✓ Foot, flange, or shaft mounted
- ✓ Hollow or solid shaft
- ✓ Aluminum housing
- ✓ Compact design

Sizes: 6  
Power: 0.16 – 10 hp  
Torque: 443 – 5,842 lb-in  
Ratio: 3.03:1 – 70:1

## NORDBLOC.1® Helical Inline Gear Units (Catalog G1000)



- ✓ Foot or flange-mounted
- ✓ Die-cast iron or aluminum housing
- ✓ UNICASE housing
- ✓ Available in single, double, or triple reduction

Sizes: 16  
Power: 0.16 – 50 hp  
Torque: 266 – 29,207 lb-in  
Ratio: 1.07:1 – 456.77:1

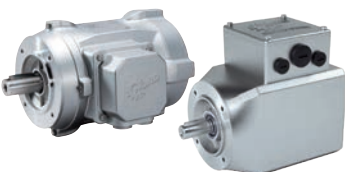
## UNIVERSAL SMI Worm Gear Units (Catalog G1000)



- ✓ Smooth surface aluminum housing
- ✓ Universal mounting design
- ✓ Life-long lubrication
- ✓ NEMA, IEC, or direct motor mount options

Sizes: 5  
Power: 0.16 – 5.00 hp  
Torque: 186 – 3,780 lb-in  
Ratio: 5.00:1 – 3,000.00:1

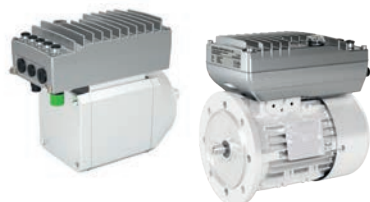
## Smooth Surface Motors (Catalog M7000, M5000)



- ✓ Wash-down design
- ✓ Various motor protection options
- ✓ IP66 or IP69K protection
- ✓ Inverter/vector duty

Sizes: 71 – 100  
Performance: 0.16 – 1.50 hp

### NORDAC® *ON/ON+* SK 300P Variable Frequency Drives (Catalog E3000)



- ✓ Wall or motor mounted
- ✓ Ethernet communication
- ✓ Compact design
- ✓ Plug-and-Play solution

NORDAC *ON*  
 Sizes: 3  
 Voltage: 3~ 400V  
 Power: 0.50 – 3 hp

### NORDAC® *START* SK 135E Motor Starters (Catalog E3000)



- ✓ Integrated electronic brake rectifier
- ✓ Consistent parameter structure
- ✓ Reversing starter with soft start function

Sizes: 2  
 Voltage: 3~ 200 – 240 V, 3~ 380 – 500 V  
 Power: 0.16 – 4 hp resp. up to 10 hp

### NORDAC® *BASE* SK 180E Variable Frequency Drives (Catalog E3000)



- ✓ Stand-alone operation
- ✓ 4 parameter sets
- ✓ Sensorless current vector control (ISD control)
- ✓ Integrated PLC

Sizes: 2  
 Voltage: 1~ 110 – 120 V, 1~ 200 – 240 V, 3~ 200 – 240 V, 3~ 380 – 500 V  
 Power: 0.33 – 3 hp

### NORDAC® *FLEX* SK 200E Variable Frequency Drives (Catalog E3000)



- ✓ Plug-in storage module (EEPROM)
- ✓ Integrated POSICON positioning control
- ✓ Integrated PLC
- ✓ Functional safety options

Sizes: 4  
 Voltage: 1~ 110 – 120 V, 1~ 200 – 240 V, 3~ 200 – 240 V, 3~ 380 – 500 V  
 Power range: 0.33 – 30 hp

### NORDAC® *PRO* SK 500P Variable Frequency Drives (Catalog E3000)

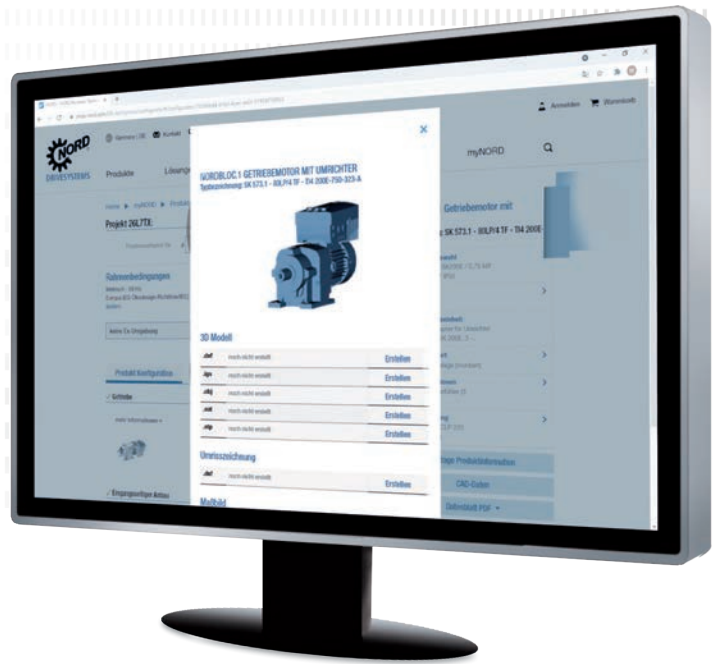


- ✓ Precise current vector control with high overload reserves for operating asynchronous and synchronous motors
- ✓ Universal interface for real time Ethernet
- ✓ Integrated PLC for drive-related functions even in the basic device

Size: 5  
 Voltage: 1~ 200 – 240 V, 3~ 380 – 480 V  
 Power: 0.33 – 30 hp

# Ordering is Easy With myNORD Online Tools!

- ▶ Obtain drawing files direct from quote configuration
- ▶ Effortlessly select & configure customized drive solutions
- ▶ Create quotes with account-specific net pricing
- ▶ Order-specific documentation
- ▶ 24/7/365 order tracking
- ▶ Select and order spare parts



Register now at [myNORD.com](http://myNORD.com)!



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