

Intelligent Drivesystems

Innovation Beyond the Ordinary



18008




DRIVESYSTEMS



Spanning the globe To serve you

Since 1965, NORD has become well established in the power transmission industry and grown to global proportions on the strength of product performance, superior customer service, and intelligent drive solutions. NORD is constantly improving and expanding its products to meet a never-ending variety of industrial challenges.

NORD designs and manufactures drive systems engineered for adaptability. NORD's innovative drive solutions are specified and utilized for a range of applications in nearly every industry throughout the world.

NORD Drivesystems' product portfolio is extensive and continuously evolving in order to meet the needs of today's fast-changing markets. NORD's range of drive equipment includes: helical in-line, helical shaft-mount, helical-bevel, helical-worm and worm gear units with torques from 90 lb-in to 2,200,000 lb-in, readily available AC motors and from 1/6 HP to 250 HP, variable frequency drives up to 250 HP, and mechanical variable speed drives.

But NORD does far more than manufacture the world's finest drive components. We provide our customers with optimum drive configurations for their specific purposes, providing each and every one with truly complete and efficient systems at a price/quality ratio unmatched in today's competitive markets.

NORD makes its wide product range easily available through a global network that includes representation in over 60 countries. By providing all of our customers with prompt delivery, and expert support services, we are firmly committed to exceeding customer expectations and being responsive to the ideas and specifications of every customer, anywhere in the world.



NORD Gear is represented globally in over 60 countries. Our products are readily available to any industrialized nation in the world.



Local Support From a Global Network

With factories in 30 countries, and representation in 60 countries, NORD products and parts are available in every industrialized nation in the world. That allows us to deliver your product promptly and efficiently as well as economically to you anywhere throughout the globe.

Increased North American Presence

NORD covers North America with over 40 sales offices and 500 distributor branches. Operating manufacturing and assembly facilities in Waunakee, WI, Charlotte, NC, Corona, CA, Brampton, ON, and Monterrey, Mexico, resulting in an ever increasing capacity in the United States, Canada and Mexico, to provide our customers with the shortest lead times in the industry.

Many Locations, One Team

Cooperation is the key to seamless delivery, service, and support. At NORD there is an intensive exchange of information between our engineers, international customers, assembly, and customer service groups. It is this cooperation and sharing of information that makes NORD your reliable worldwide partner.

Global Availability

From Shanghai to Charlotte, and all points in-between, NORD reaches customers around the world. Deliveries, service, and product support are close at hand, regardless of your location.



Short, On-Time Delivery

As a NORD customer, you can rest assured that your order will be delivered on time. Because NORD has both decentralized assembly and manufacturing operations and a linked global network, we offer our customers:

- fast, reliable responses
- greater product versatility
- shorter lead times
- timely shipping
- rapid delivery

Innovation Beyond the Ordinary

At NORD Gear we are continually thinking of new practices to overcome common problems in the power transmission industry. Either with improved manufacturing and automation methods or simply well thought solutions to your everyday difficulties, we are always thinking beyond the ordinary.

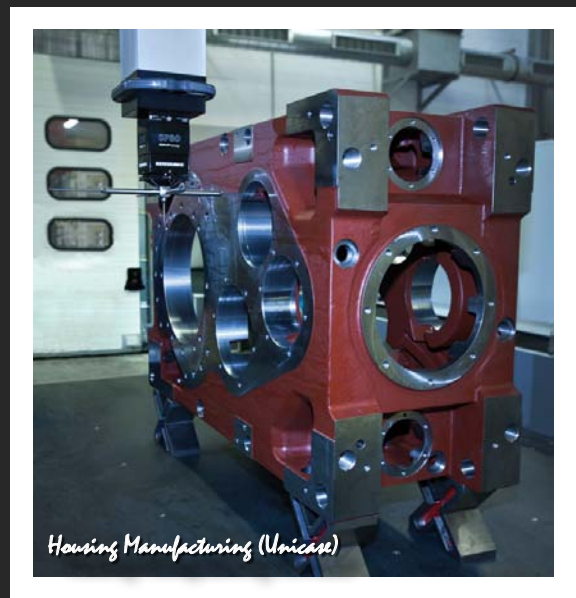
Standard Features

UNICASE™ Design

NORD heavy-duty, one-piece housings are precisely machined to meticulous standards. Internal reinforcements increase the strength and rigidity of the housing. All bearings and seal seats are contained within the casting, eliminating splits or bolt-on carriers that can weaken the housing and allow oil leakage. Bores and mounting faces are machined in one step, producing precise tolerances that ensure accurate positioning of gear teeth, bearings and seals, which leads to longer life for all components.


Benefits

- Leak-free design
- Quiet operation
- High output torque capabilities
- Extended lubrication life
- Longer gear and bearing life
- Superior dependability,
low maintenance and longer life





Our development engineers design products with years of proven expertise. Careful planning, innovative designs, verification testing and ongoing research over the entire development process ensures that NORD delivers the most reliable and high quality products available in today's market.



High quality helical and bevel gears are manufactured to the latest global design standards. Gears are manufactured from high strength steel drop forgings, the teeth are case hardened to a typical hardness of 60 Rc and hard finishing is completed by grinding the high speed gear sets, skive hobbing the low speed sets, or lapping the bevel gear sets in matched pairs.

High Quality Manufacturing For Long Life

NORD is committed to delivering quality products and services at every stage of the process. Through our continuous efforts to monitor and improve our design, manufacturing and quality processes, NORD is able to produce reliable maintenance free products that have a long shelf life. Our quality assurance team and processes ensure that we will consistently meet or exceed our customers' expectations. We achieve this by implementing and measuring our quality performance both internally and throughout our supplier base. As an ISO 9001 certified company, NORD has been recognized for our commitment to quality standards and continuous improvement.

Standard Features

High-Quality Gearing

High quality gearing is essential to decreased noise, low maintenance and high durability. We take pride in our gearing production since it equates to increased gear box life and higher torque and load capacities for you, our customers.



Benefits

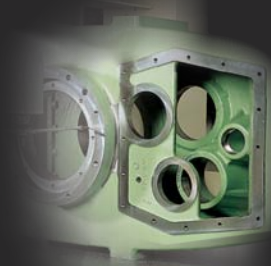
- Designed and manufactured up to AGMA CLASS 13
- Case-Hardened Steel
- Exceptional Hardness: 60 Rc
- High-speed gears are ground; low speed gears are skive hobbled
- 275% momentary overload capacity

High-Strength Gear Cases

NORD housings are designed for maximum torque delivery. NORD uses state of the art FEM (Finite Element Modeling) to allow optimal structural design to maximize the strength and rigidity of internal components.

Benefits

- Thick housing wall cross-sections
- Torsionally stiff
- Maintains shaft alignment
- Primer sealed interior walls assure casting integrity and longer service life



Protective Features To Eliminate Damage

All of our motors and speed reducers are constructed to provide a high level of protection against wet and severe environments. NORD products are sealed against moisture ingress and use corrosion and water resistant components. NORD has made many standard motor and gear unit enhancements to provide improved protection at no additional cost. NORD designs all gearmotors, speed reducers and motors for installation in harsh industrial, commercial and municipal environments.

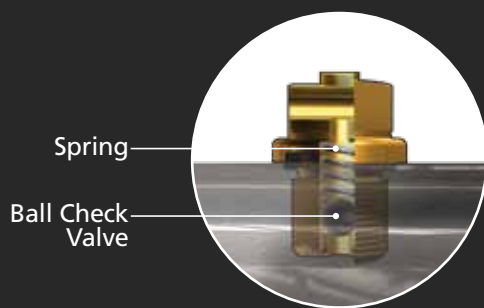
Protective Features

Autovent™

The AUTOVENT™ helps prevent bearing and gear damage by behaving like a check valve to block the entry of foreign material (water, dust, corrosives, etc.). The breather opens at 2-3 psi during operation and closes tightly as the gearbox cools. This option is perfect for humid conditions and wash down environments, helping maintain proper oil cleanliness and reducing foaming and oxidation.

Benefits

- Cleaner gearbox oil
- Extended lubrication life
- Longer-lasting seals, gears, and bearings



Factory Oil Filled Units

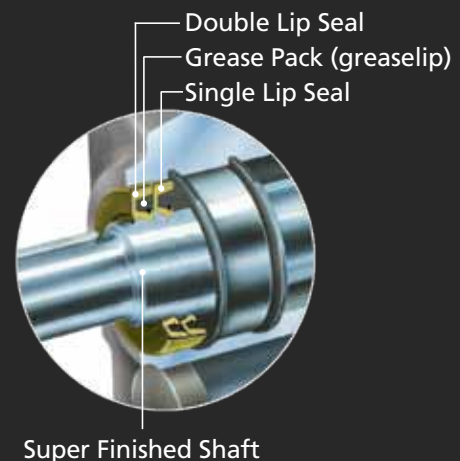
NORD factory-filled gear units allow for easy commissioning of the gear unit and prevent damage caused by dry start-ups. Each unit is filled with a quality gear lubricant that is industrially accepted. This option eliminates the need to fill the unit on site and ensures the proper oil grade and fill level.


Quadrilip™ Sealing

The QUADRILIP™ system has four components for sealing lubricant inside, and contaminants outside, the speed reducer. The system includes a double lip seal, single lip seal and grease pack barrier (grease lip). Furthermore, the shaft seal area is used to eliminate lead marks, ensure a proper seal and to keep foreign material from entering the gear unit.


Benefits

- Superior protection against leaks
- Long seal life
- Improved protection against contaminants
- Improved speed reducer life
- Reduced maintenance requirements & costs

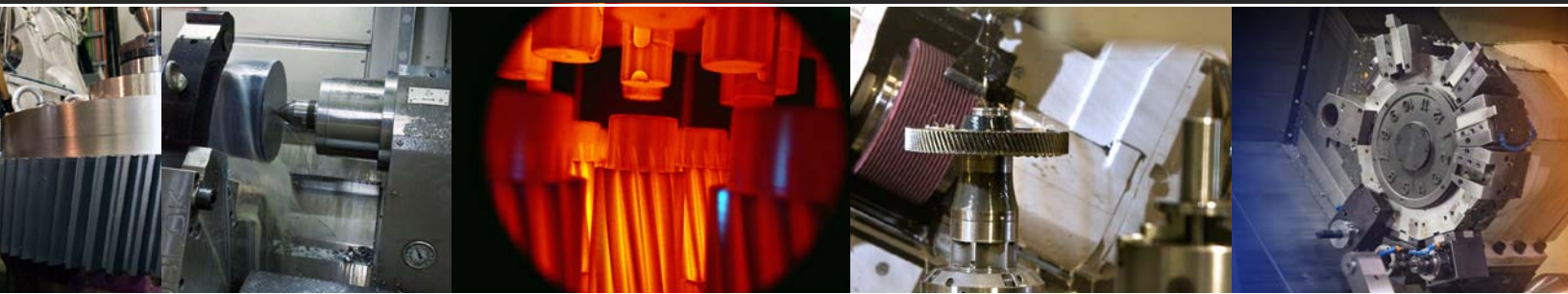




A variety of protective features and options are available to help NORD gear units and motors withstand even the harshest environments.



NORD continuously invests in new equipment and state-of-the-art technology to ensure we provide our customers with the highest quality, reliability and value found in the market place today.



Manufacturing Technology

NORD Gear continually invests in the latest research, manufacturing and automation technology. This ensures our ability to provide you with the utmost quality at an affordable price. Not only do we invest in our North American facilities, we invest in our factories throughout the world. We continually try to improve our practices everywhere in order to provide our customers with the most superior product available.



Single Set-up Housing Machining



Gear Quality Inspection



Automated Gear Manufacturing

Surface Protection In a Variety of Methods

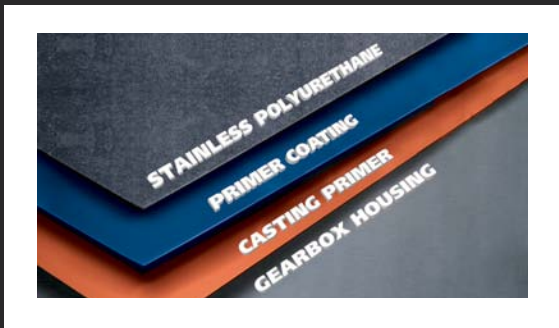
NORD's two-component paint resin is a step above the rest. Our protective finish offers excellent adhesion and dries to form a tough, abrasion resistant shell that increases impact resistance by more than 40%. The high-quality resin withstands exposure to acids, alkalis, solvents and oil-based products. The addition of 316 stainless steel metal flakes to the standard finish provides enhanced chemical resistance.

NORD's standard paint is approved for use in USDA inspected facilities and is designed to handle harsh chemicals and washdowns. Our paint is often found in areas like food and beverage plants, saltwater environments, chemical processing plants and pharmaceutical manufacturing.

Protective Coatings

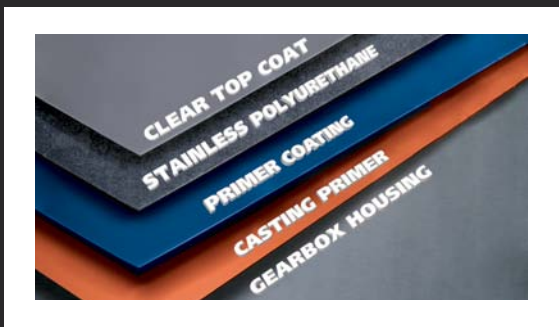
nsco

Improved corrosion protection for wet and outdoor environments starts by applying a primer undercoat over the primed cast-iron or base aluminum materials. The finish is then completed with our exceptional strength stainless steel polyurethane top coat.



nsco

For more demanding environments our multi-layer corrosion protection starts with a primer undercoat over the base material and then adding our stainless steel polyurethane coating and a high-gloss topcoat.




Surface Conversion

nsco^{tuph}



The NEW NSD^{tuph} Sealed Surface Conversion System offers a cost effective weight saving alternative to stainless steel reducers. Through a revolutionary process, the aluminum alloy reducer housing and components are electrically catalyzed resulting in a molecular surface conversion. NSD^{tuph} is exceptionally chemical, corrosion and abrasion resistant. The converted surface becomes very scratch resistant as it becomes 6-7 times harder than the original aluminum alloy as a result of this process.

NSD^{tuph} is available on many NORD products. The NSD^{tuph} package includes stainless steel reducer assembly hardware. Options include stainless steel reducer shafting, smooth-bodied stainless steel motors, and food grade lubricants. NSD^{tuph} is the ideal package for harsh environments involving chemicals or wash-downs and other areas where sanitation and cleanliness are the highest priority.



NORD products are offered with a variety of surface protection methods. This allows you the ability to protect your investment in almost any environment or application.



NORD motors are available in all efficiency classes and comply with worldwide standards. Our modular gearmotor and c-face reducer options ensure that we can provide the proper motor for the application.

Energy Efficiency Equals Cost Savings

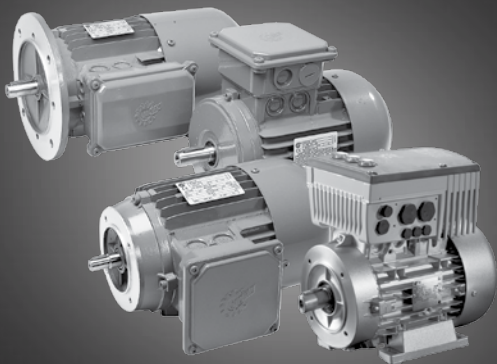
With the continual increase in energy cost, it is almost impossible to ignore the cost savings you will receive with our energy efficient drive systems. These savings are easily calculated by the energy supplied into your application compared to the amount of useful energy that is generated to power your loads.

In almost every drive application some energy is lost in the form of heat as it passes through the components of a drive system. Our product designs minimize efficiency loss through the use of high quality gearing paired with superior surface finish, low-friction seals and bearings, as well as industry recognized gear lubricants. All serve to minimize friction and maximize the power efficiency of our product lines. NORD motors are designed with the highest quality materials in order to reduce internal losses, reduce temperature rise and produce optimal efficiency with longer life and lower operating costs.

Standard Features

High Performance motors and Brakemotors

NORD motors are designed to run cool for longer service life. Low rotor inertia and high starting torque allow peak performance in the most difficult applications for inverter and vector duty per NEMA MG 1-1998 Section 31.4.4.2 voltage spikes. Our motors are internationally accepted, conforming to North American NEMA MG 1 and international IEC electrical specifications. High performance options include brakes, encoders, and forced cooling fans.



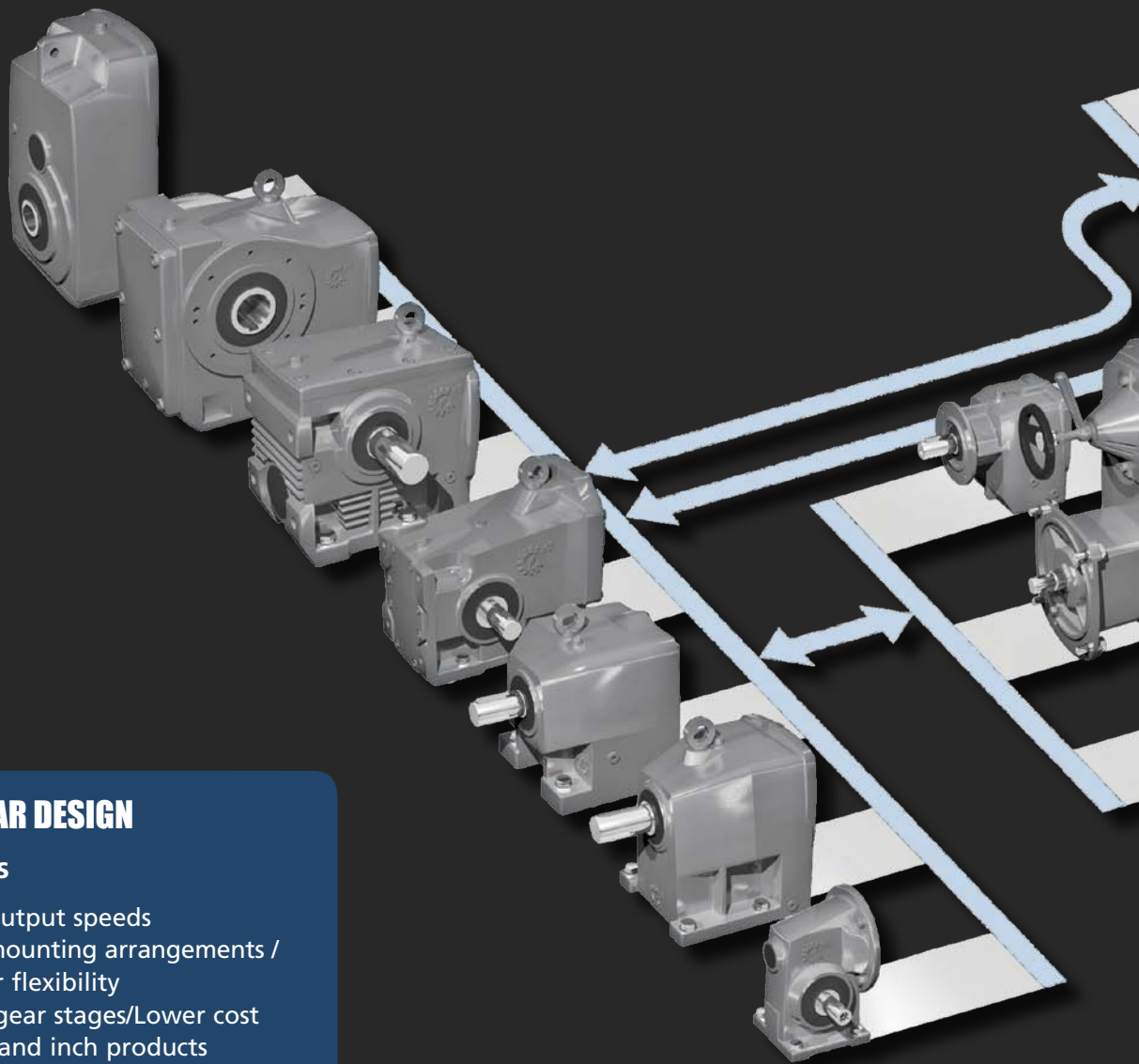
Energy Efficiency

Lowering your operating costs is one of our greatest goals! NORD research and development focuses on energy efficiency. With gearboxes, motors, and frequency inverters all designed for lower energy consumption, our fully diverse line of in-line or right-angle units and motors have been developed to suit your every need.



Modular Design for Unlimited Versatility

More than 20,000,000 combinations of totally unique gearmotors and speed reducers are available – assembled in-line or right-angle, mounted by foot or flange, featuring solid or hollow shafts with either metric or inch shaft extensions – to give you complete freedom to specify a drive solution that's perfect for you.

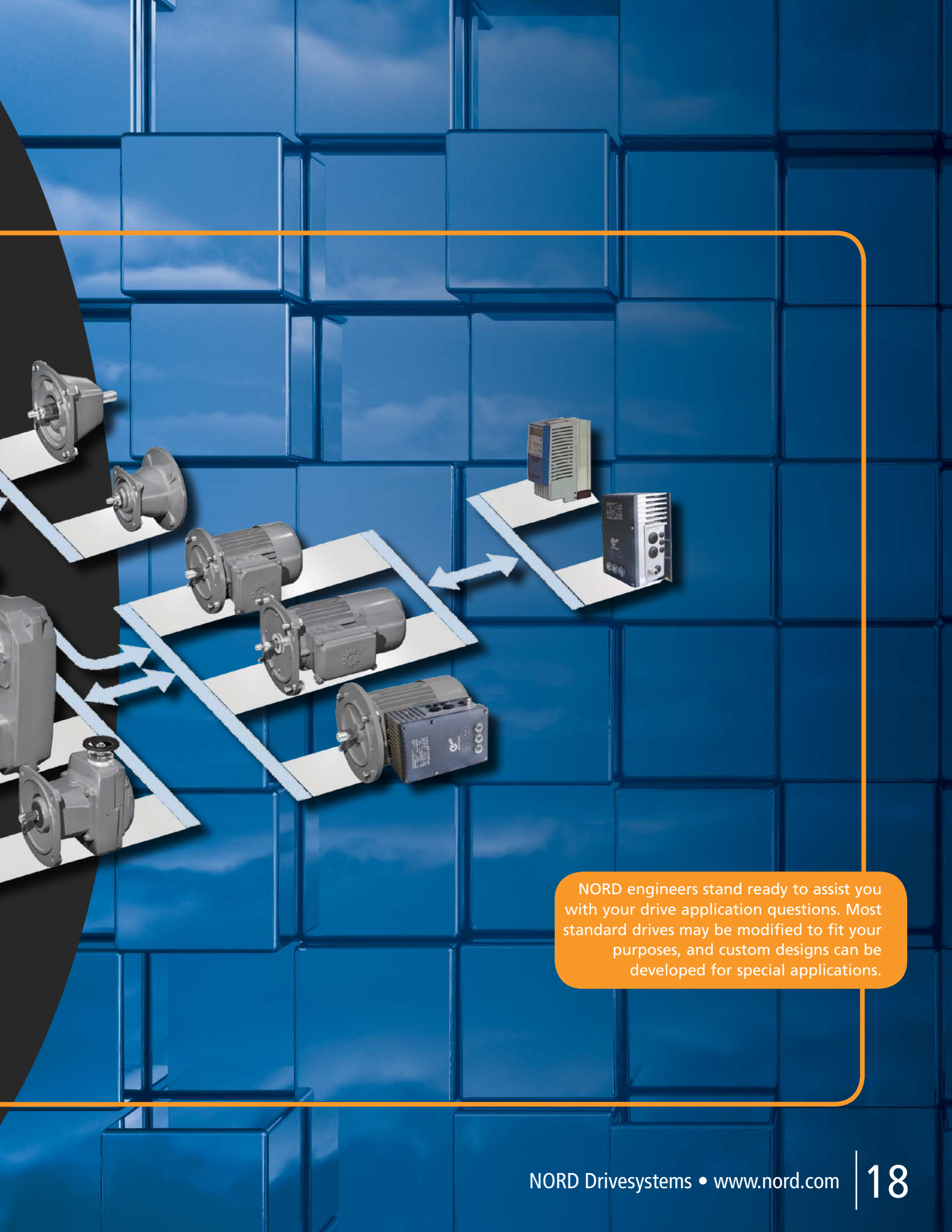


MODULAR DESIGN

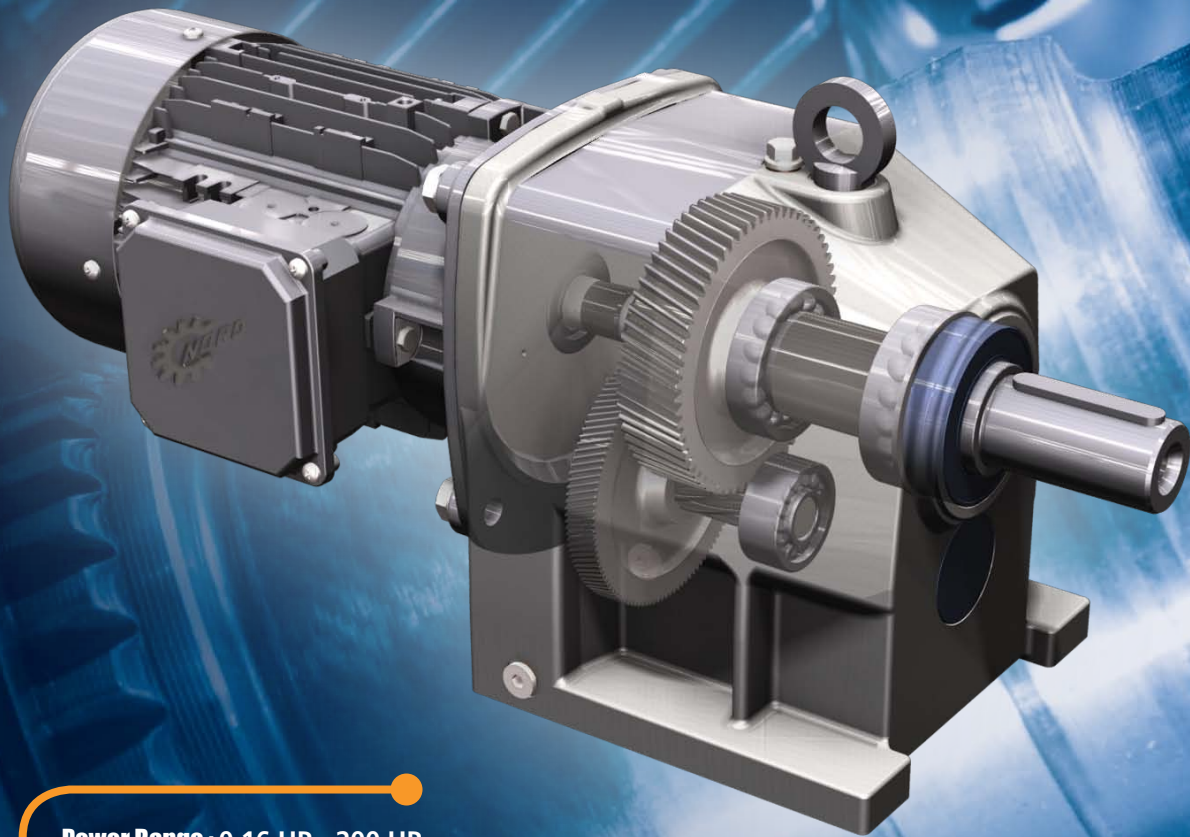
Benefits

- More output speeds
- More mounting arrangements / Greater flexibility
- Fewer gear stages/Lower cost
- Metric and inch products





NORD engineers stand ready to assist you with your drive application questions. Most standard drives may be modified to fit your purposes, and custom designs can be developed for special applications.



Power Range : 0.16 HP - 200 HP

Torque Capacity : Up to 205,000 lb-in

Ratio Range : 1.82:1 - 300,000:1

Output Speed : < 0.1 rpm - 960 rpm

Efficiency : Up to 98% Efficient





Helical In-Line

NORD Helical In-Line reducers and gearmotors feature the torsionally rigid UNICASE® cast iron housing. This principle integrates internally ribbed construction features with bearing seats and mounting faces that are precisely machined in one set-up. This ensures precise shaft and gear alignment, high load bearing capacity, minimal vibration, decreased noise levels and a longer operating life.

Helical in-line gear units feature closely stepped speed reduction ratios, infinite-life gears, high permissible radial forces and minimum backlash in a space saving design. A flexible modular design allows for a variety of input, output and mounting configurations.



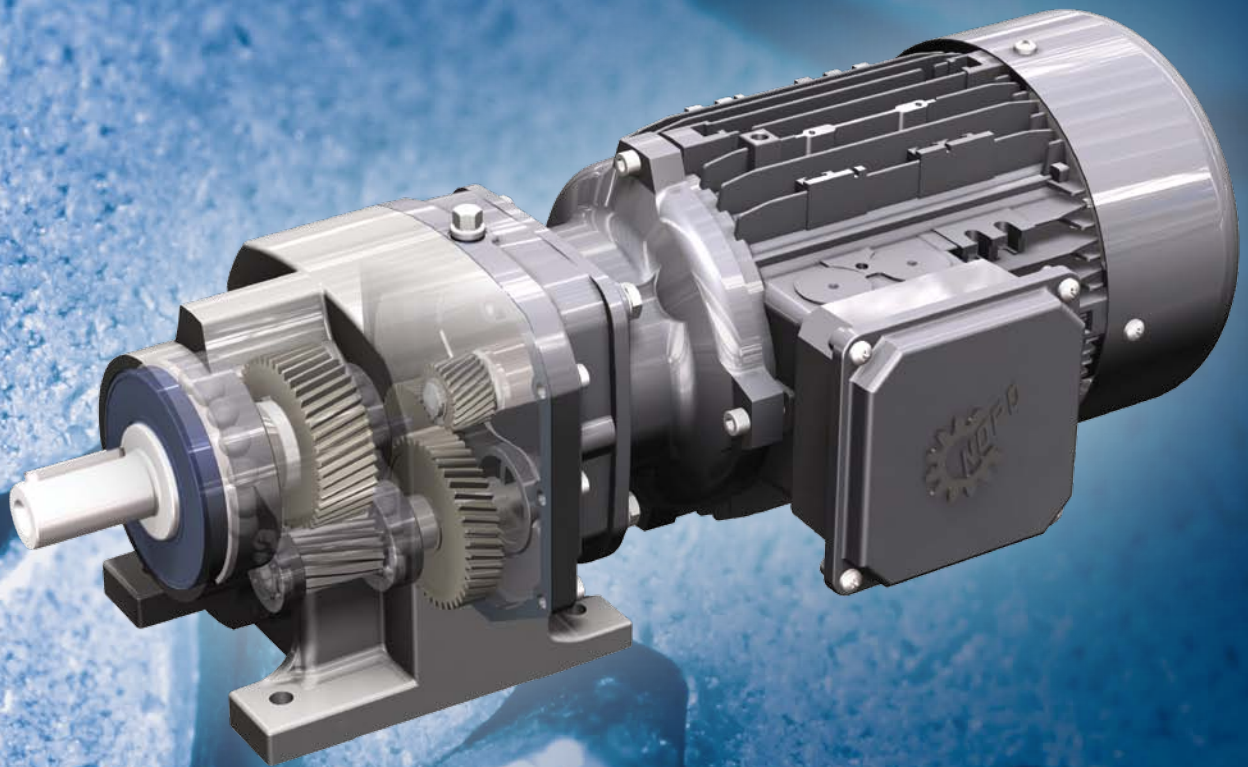
NORDBLOC.1 Helical In-Line

NORDBLOC.1 Helical In-Line reducers and gearmotors are designed with an innovative bearing system. The output bearing is greatly oversized and staggered in order to provide a number of important advantages. This results in an increased bearing capacity that allows for exceptional overhung load capabilities, higher load ratings and a longer service life.

NORDBLOC.1 reducers were designed with the latest FEM (Finite Element Modeling) technology. This technology is used to optimize structural design and maximize the strength & rigidity of the gear box and its components. Pair this with NORD's UNICASE® design and you have the strongest housings available in the industry.

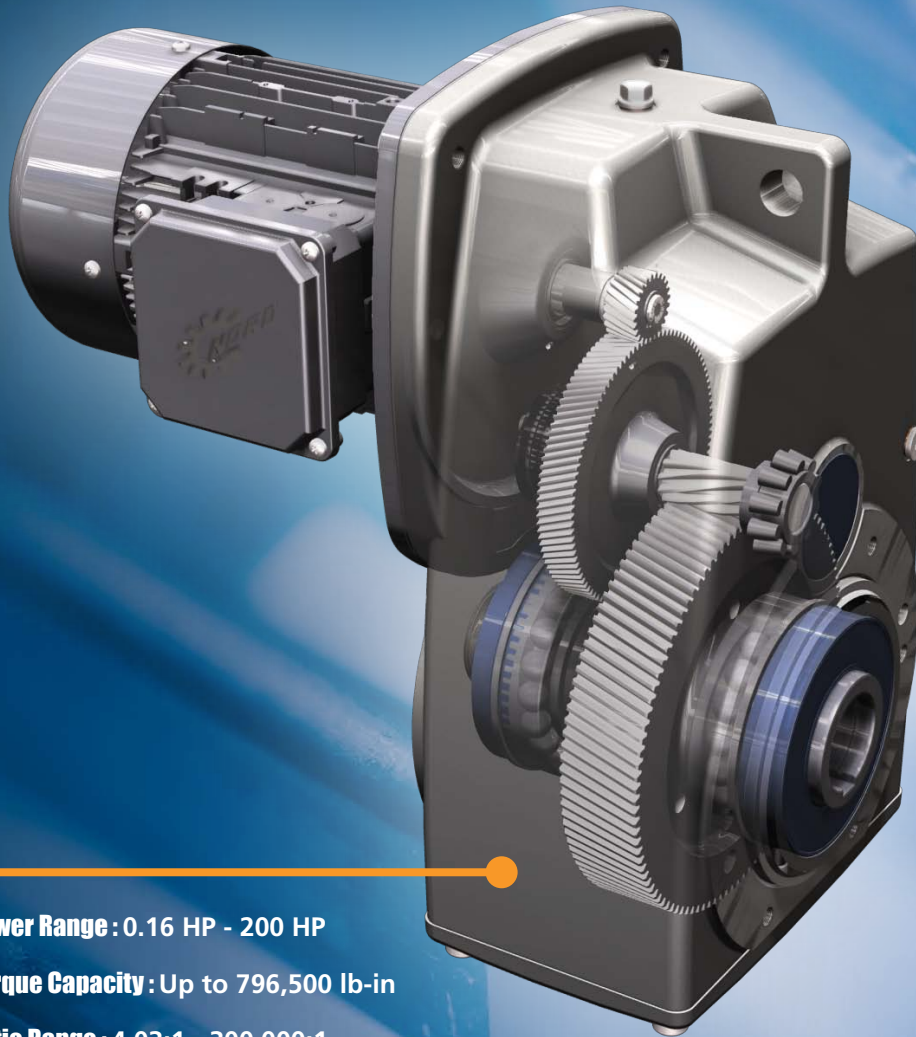
The NORDBLOC.1® is offered as a foot, shaft or flange-mounted unit. Modular design allows many input options including an integral motor, NEMA or IEC adapter, or a solid input shaft. NORDBLOC.1® gear units easily replace most European designs by matching critical mounting dimensions.

The five smallest NORDBLOC.1® sizes are die-cast from a high strength aluminum alloy that offers extremely smooth surfaces that are corrosion resistant and therefore do not require paint. The largest three sizes are made from a high grade cast iron in order to provide a robust and high-strength product. NORDBLOC.1® are optionally available with a variety of protective paint options and the aluminum alloy housings are ideal candidates for our NSD^{tuPH} surface conversion.



Power Range : 0.16 HP - 50 HP
Torque Capacity : Up to 29,205 lb-in
Ratio Range : 2.10:1 - 456.77:1
Output Speed : 3.8 rpm - 830 rpm
Efficiency : Up to 97% Efficient





Power Range: 0.16 HP - 200 HP

Torque Capacity: Up to 796,500 lb-in

Ratio Range: 4.03:1 - 300,000:1

Output Speed: 0.1 rpm - 430 rpm

Efficiency: Up to 97% Efficient





Shaft Mount Clincher™

The Clincher™ Parallel Shaft gear units have an offset between the input and output shaft resulting in a shorter or flatter design in comparison with other gear units. The Clincher™ Parallel Shaft reducers and gearmotors feature a torsionally rigid UNICASE® housing. The Clincher™ gear units are available as foot, shaft or flange-mounted products. Modular design allows many input options including an integral motor, NEMA or IEC adapter, or a solid input shaft.

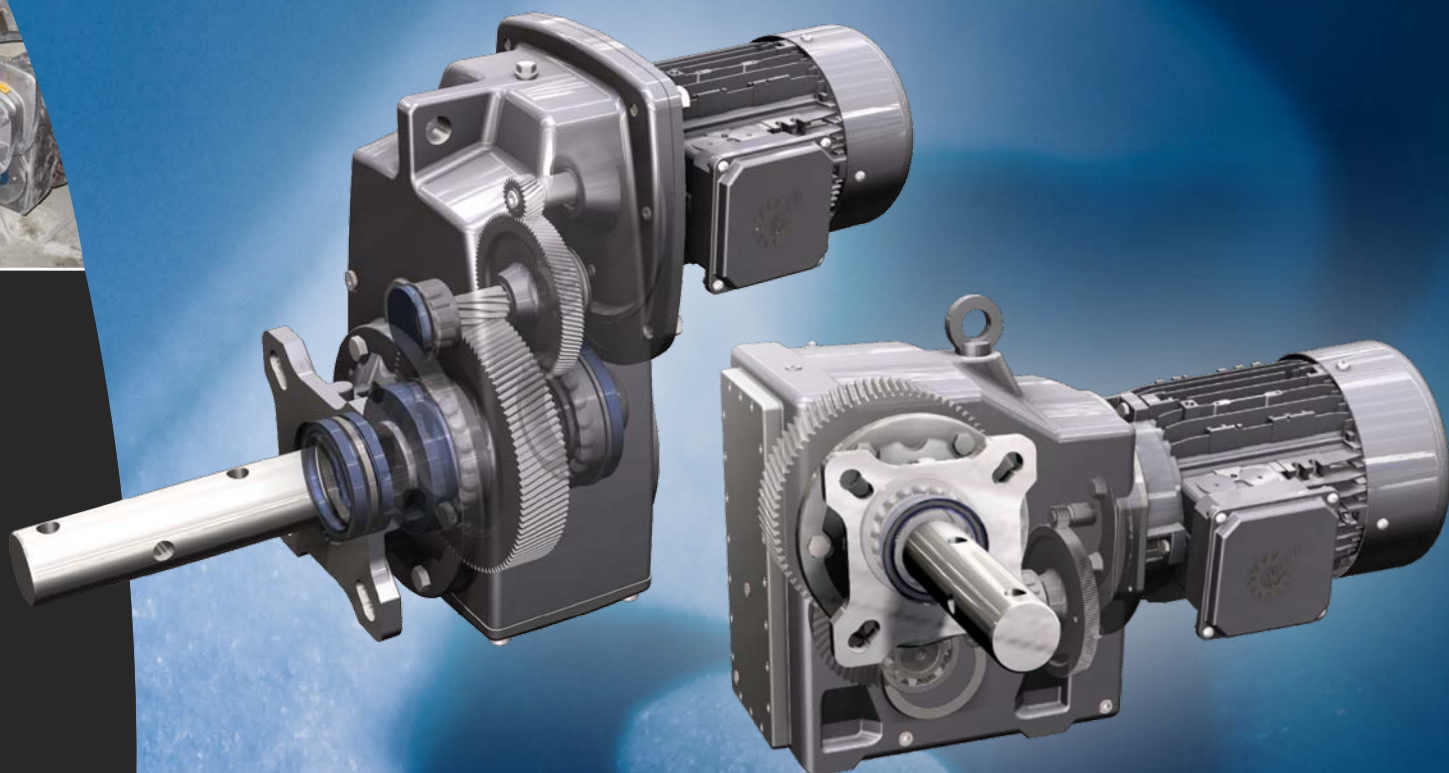
The Clincher™ Parallel Shaft gear units are also offered in a spread bearing/flange-mount (B5) design and are commonly specified on agitators, mixers, overhead conveyors and shredders. The lower bearing is an oversized, double row, re-greaseable spherical bearing designed to absorb high load conditions and provide longer service life. Clincher units include options for an oil-safe dry cavity or drywell design. The oil safe dry cavity contains any unlikely seal leaks from the reducer sump and is fitted with a site tube indicator or optional oil proximity switch to warn you if a leak occurs. The drywell design prevents oil leakage through the output flange by providing a physical barrier to separate the oil sump from the rotating equipment.



Clincher™ & Helical Bevel SCP Screw Conveyor Drive

The NORD Screw Conveyor Package offers a compact and cost effective alternative to traditional screw conveyor drives. Closely stepped speed reduction ratios combined with a directly coupled gearmotor or NEMA C-face input design eliminates the need for top motor mounts, pulleys, belts or guards. Minimizing parts and eliminating the belted input systems provides for easier system maintenance, increased reliability, and superior drive performance. NORD screw conveyor drive options feature a UNICASE® reducer housing, Quadrilip™ reducer shaft sealing and optional high capacity output bearings with CEMA standard flange mounting and CEMA drive shafts ranging from 1-1/2" to 3-7/16".

The Screw Conveyor Package (SCP) design is available for both CLINCHER™ Parallel Shaft gear units and Helical-Bevel Right Angle gear units. The CEMA flange assembly offers superior protection against unwanted debris with its dual Viton™ gap seals (0.03" gap) on either side of the grease impregnated felt packing seal. Drive shaft material evacuation ports in the flange help protect the drive system from debris. A slight lead taper on the reducer shaft provides for easy mounting and removal, allowing for some screw pipe misalignment and reduced bearing loads.



CLINCHER™ SCP UNIT

Torque Capacity: Up to 53,100 lb-in

Power Range: 0.16 HP - 60 HP

Ratio Range: 4.32:1 - 1,585.08:1

Output Speed: 1.0 rpm - 405 rpm

Efficiency: Up to 97% Efficient

CEMA Drive Shaft Sizes for CLINCHER™ & Helical - Bevel : 1-1/2", 2", 2-7/16", 3", 3-7/16"

HELICAL-BEVEL SCP UNIT

Torque Capacity: Up to 42,480 lb-in

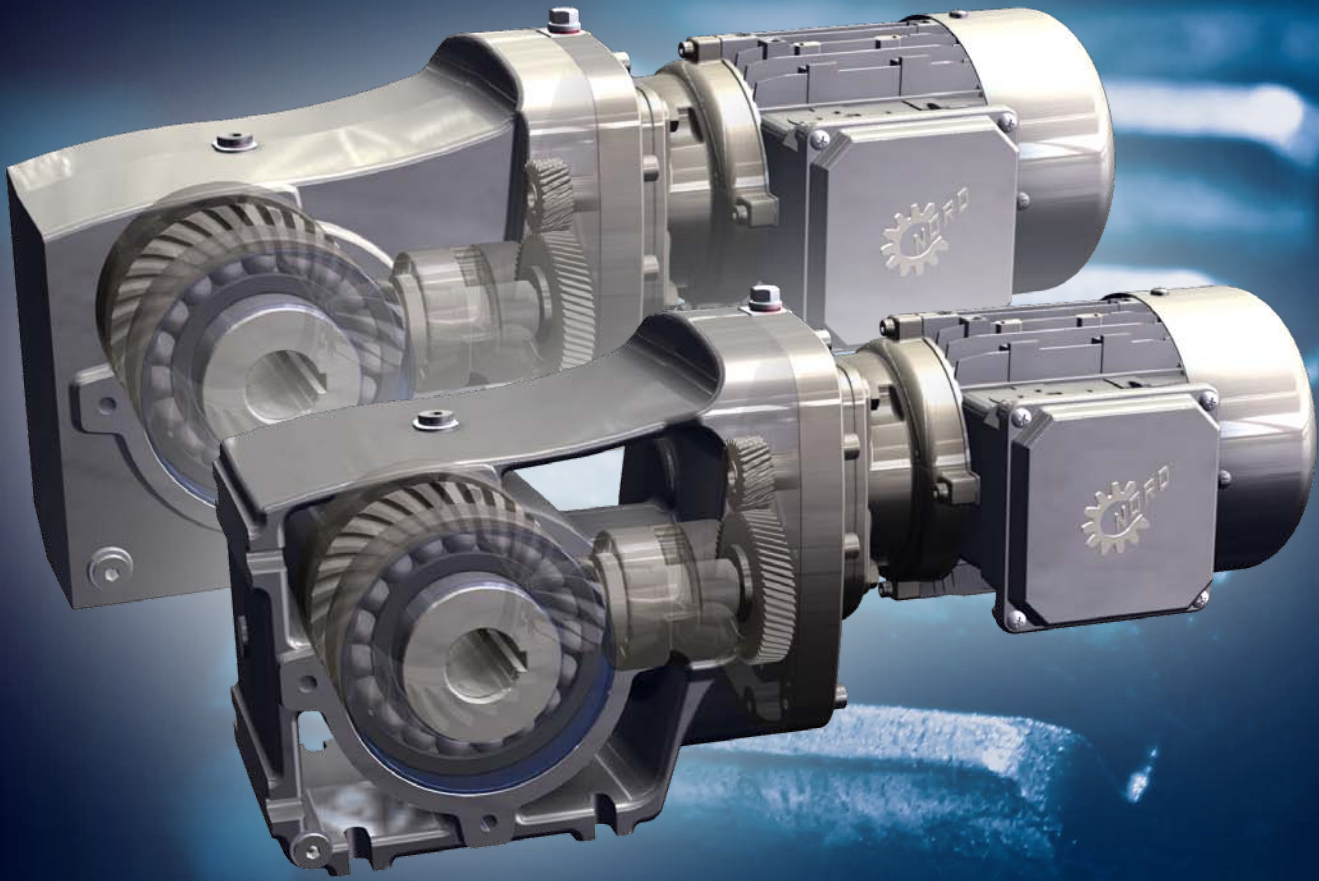
Power Range: 0.16 HP - 30 HP

Ratio Range: 8.09:1 - 4,246.38:1

Output Speed: 0.41 rpm - 216 rpm

Efficiency: Up to 95% Efficient





Torque Capacity : 797-5,841 lb-in

Power Range : 0.16 HP - 12.0 HP

Ratio Range : 3.58:1 - 70:1

Output Speed : 25 rpm - 490 rpm

Efficiency : Up to 97% Efficient





2-Stage Right Angle Helical-Bevel

NORD 2-Stage Right-Angle Helical-Bevel reducers are manufactured from aluminum alloy using the latest in FEM (Finite Element Modeling) technology. The UNICASE® housing needs no assembly covers or screws. Manufacturing precision ensures accurate alignment of all bearing seats, internal shafts and gears. Modular design, with oversized output bearings, helps to simplify assembly, assure serviceability, ensure fast delivery, meanwhile providing generous bore capacity and high radial load ratings. Flexible design allows for a variety of input configurations, output and mounting options. The SK 92.1 and SK 93.1 units include identical ratings and ratios with varied housing designs.

The SK 92.1 Series bevel gear units feature a housing designed for foot or flange mounting. Large open surface areas help dissipate heat, lower internal operating temperatures, and provide a light weight and high strength housing that is easy to handle. The external surfaces are connected with large radii and generous mold release slopes. This eliminates hidden pockets for material build-up in order to provide easy wipedown and exceptional drainage.

The SK 93.1 Series bevel gear units feature a smooth solid cast housing. This housing can be flange mounted or provided with optionally drilled and tapped holes to allow for foot mounting. There are no large openings or hidden pockets in the SK 93.1 housing for an easy to clean unit. The SK 93.1 Series can also be applied with our NSD^{tupH} option.

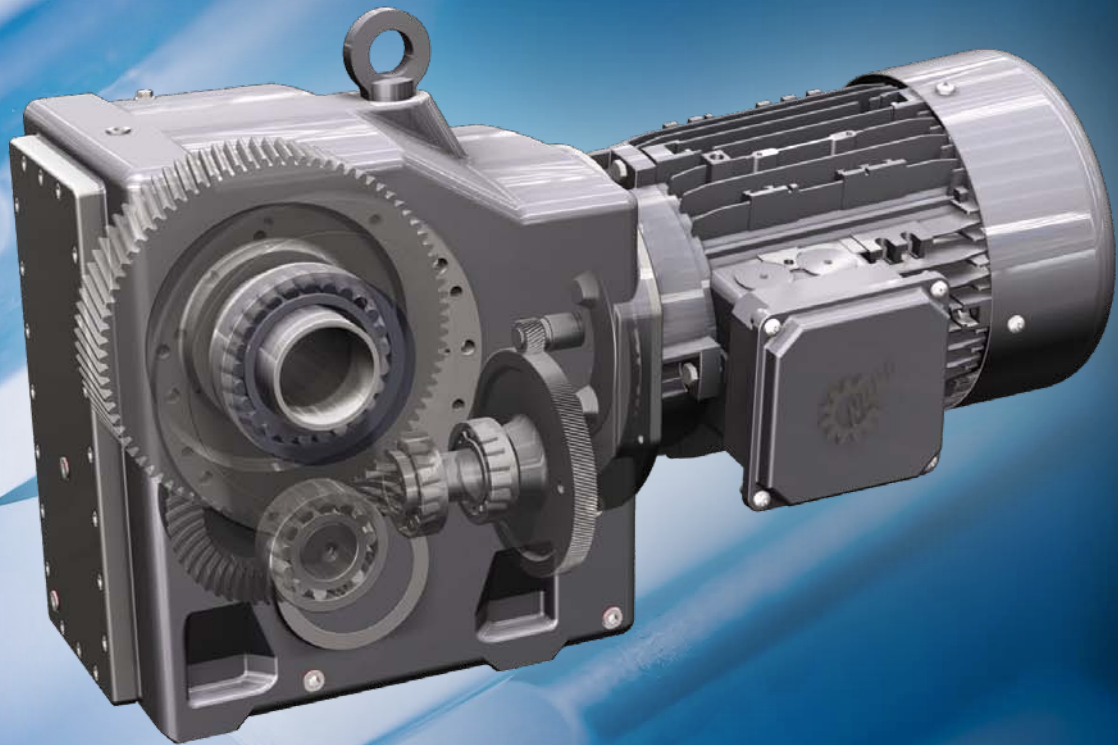


Right-Angle Helical-Bevel

NORD Right-Angle Helical-Bevel reducers and gearmotors feature a UNICASE® cast iron housing, infinite-life gears, high permissible radial forces and minimum backlash in a space saving design. Our combination of high quality helical and spiral bevel gears have an industry leading ratio range and deliver trouble free and quiet transmission of power to the output shaft. Helical-bevel gear units can also offer operational cost savings compared to less efficient worm gearing.

The Right-Angle Helical-Bevel is offered as a foot, shaft or flange-mounted unit. Modular design allows many input options including an integral motor, NEMA or IEC adapter, or a solid input shaft.

Helical-Bevel Drives are also offered in a spread bearing/flange-mount design with either an oil safe dry cavity or an optional drywell design. NORD Helical-Bevel reducers can also be combined with a top-side Clincher™ or bevel gear unit and a bottom-side bevel gear unit to produce counter-rotating mixer drive assemblies.



Torque Capacity : Up to 442,500 lb-in

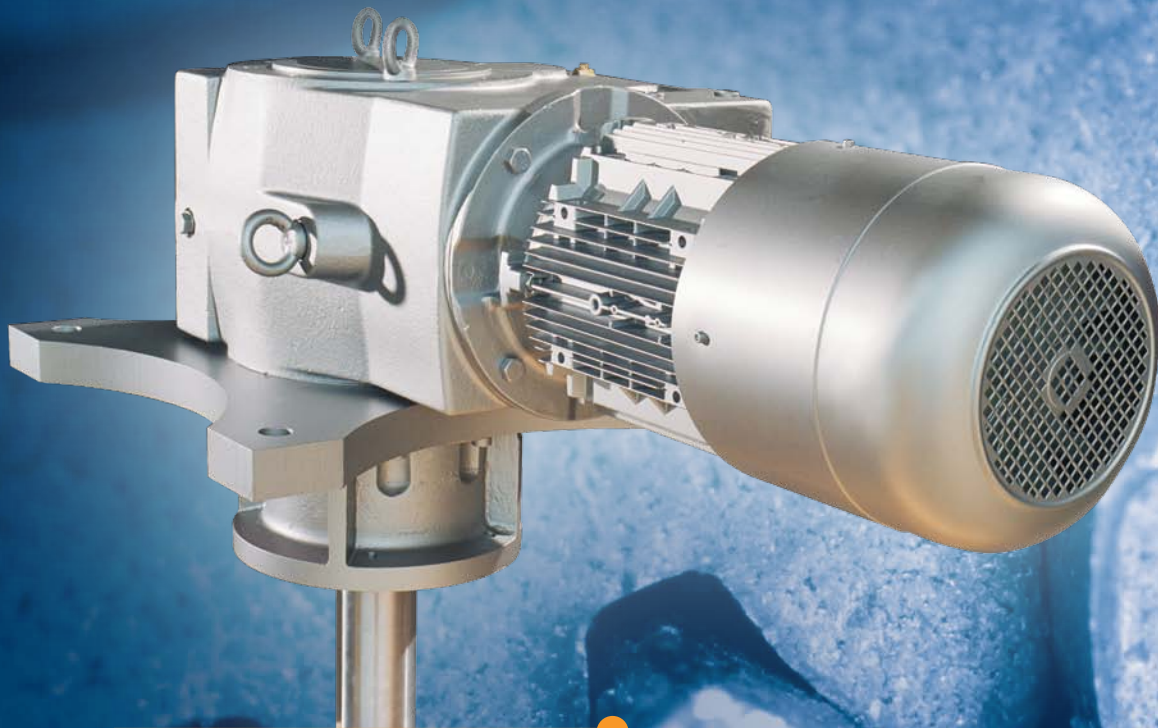
Power Range : 0.16 HP - 200 HP

Ratio Range : 8.04:1 - 300,000:1

Output Speed : 0.1 rpm - 218 rpm

Efficiency : Up to 95% Efficient





Torque Capacity : 12,390 lb-in to 75,225 lb-in

Power Range : 0.16 HP - 60 HP

Ratio Range : 8.83:1 - 4,512:1

Output Speed : 0.39 rpm - 198 rpm

Efficiency : Up to 95% Efficient





Helical-Bevel Conveyor Drives

The NORD Conveyor Drive reducers are right-angle helical-bevel gear units designed to be a mounting flange and output shaft "drop-in" for existing "industry-standard" conveyor drives.

NORD Conveyor Drives feature the proven UNICASE™ main gear housing, high quality gearing, a large ratio selection, Quadrlip™ sealing, and a spread bearing design with dry cavity to offer a versatile and dependable conveyor drive package.

The bottom bearing is a spherical roller bearing that was selected for its high overhung (radial) load capacity. The bottom bearing is re-greasable and protected by a double lip seal. In the rare event an oil leak occurs at the main reducer shaft seals, the oil is redirected into the dry cavity (VL3) where it can be detected by an oil sight glass or an optional oil proximity sensor. Primarily used in overhead conveyor drive applications with the output shaft in a vertical down position, it is possible to apply NORD conveyor drives in other mounting positions as well.



Right-Angle Helical-Worm

NORD Right-Angle Helical-Worm Gear reducers and gearmotors feature our UNICASE® cast iron housing, a hardened steel worm gear, and a bronze alloy worm wheel to provide long life and durability. The combination of high quality helical and worm gears have an industry leading ratio range and deliver trouble free quiet transmission of power to the output shaft, while providing modest efficiency gains and reduced operating costs compared to traditional worm gearing.

The Helical-Worm offering is available as a foot, shaft or flange-mounted unit. Modular design allows many input options including an integral motor, NEMA or IEC adapter, or a solid input shaft.



Torque Capacity: 407 lb-in-27,350 lb-in

Power Range: 0.16 HP - 20 HP

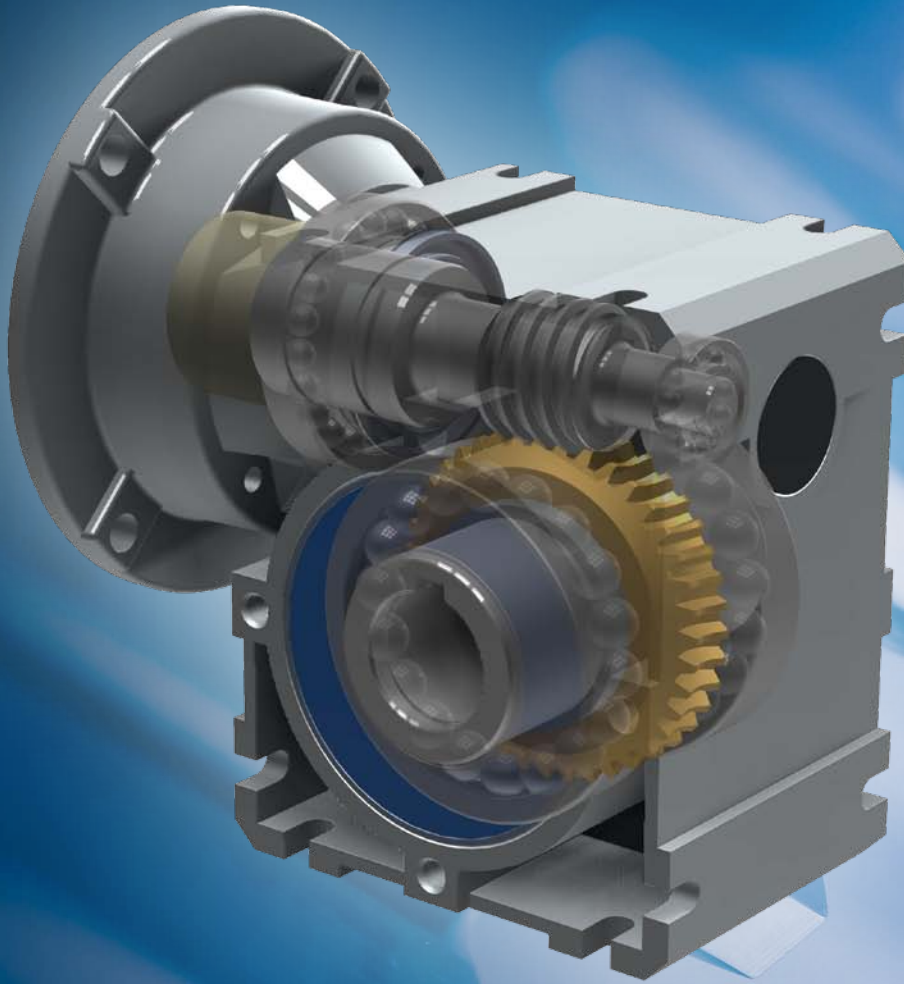
Ratio Range: 4.40:1 - 7095.12:1

Reductions: 2 to 3

Output Speed: 0.25 rpm - 400 rpm

Efficiency: Up to 94% Efficient





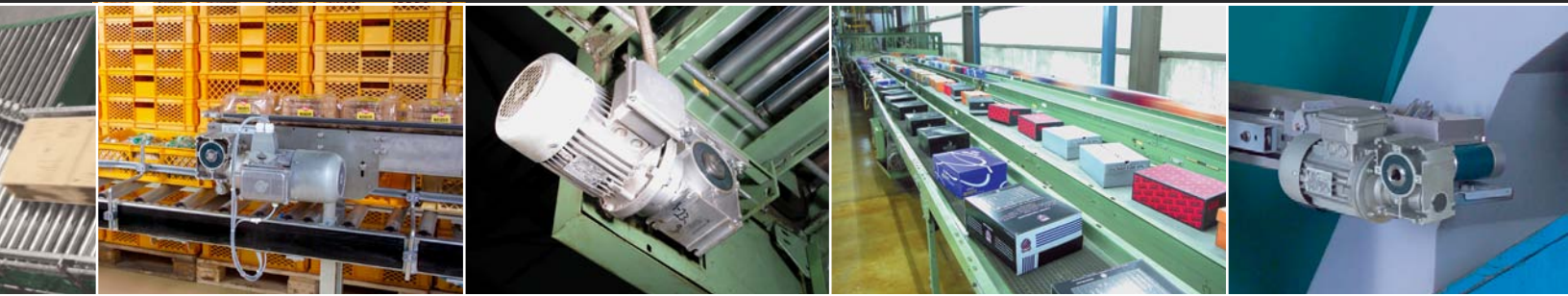
Torque Capacity: 186 lb-in - 4,683 lb-in

Power Range: 0.16 HP - 5.0 HP

Ratio Range: 5:1 - 10,000:1

Output Speed: 0.18 rpm - 350 rpm





FLEXBLOC™ Worm

The FLEXBLOC™ Right-Angle Worm (SI/SID series) is a compact worm gear characterized by its universal foot and flange-mount (B14) housing. Bolt-on flange kits (B5), bolt-on torque-arms and plug-in solid shafts that can extend out either side or both sides, provide maximum flexibility and various mounting possibilities. Helical gear stage modules with a 10:1 reduction and compound worm assemblies become simple bolt-together options.

FLEXBLOC™ housings are a one-piece UNICASE® design made from a die-cast aluminum alloy. This housing provides a higher strength-to-weight ratio than cast iron and is also inherently corrosion resistant in many applications making paint optional for this product line.

All FLEXBLOC™ worm modules and accessory kits are stocked at the factory to guarantee quick shipment upon order. Motorized units are commonly supplied with both a NEMA or IEC input and NORD motor or brake motor. Special provisions may be made to provide integral motor assemblies.

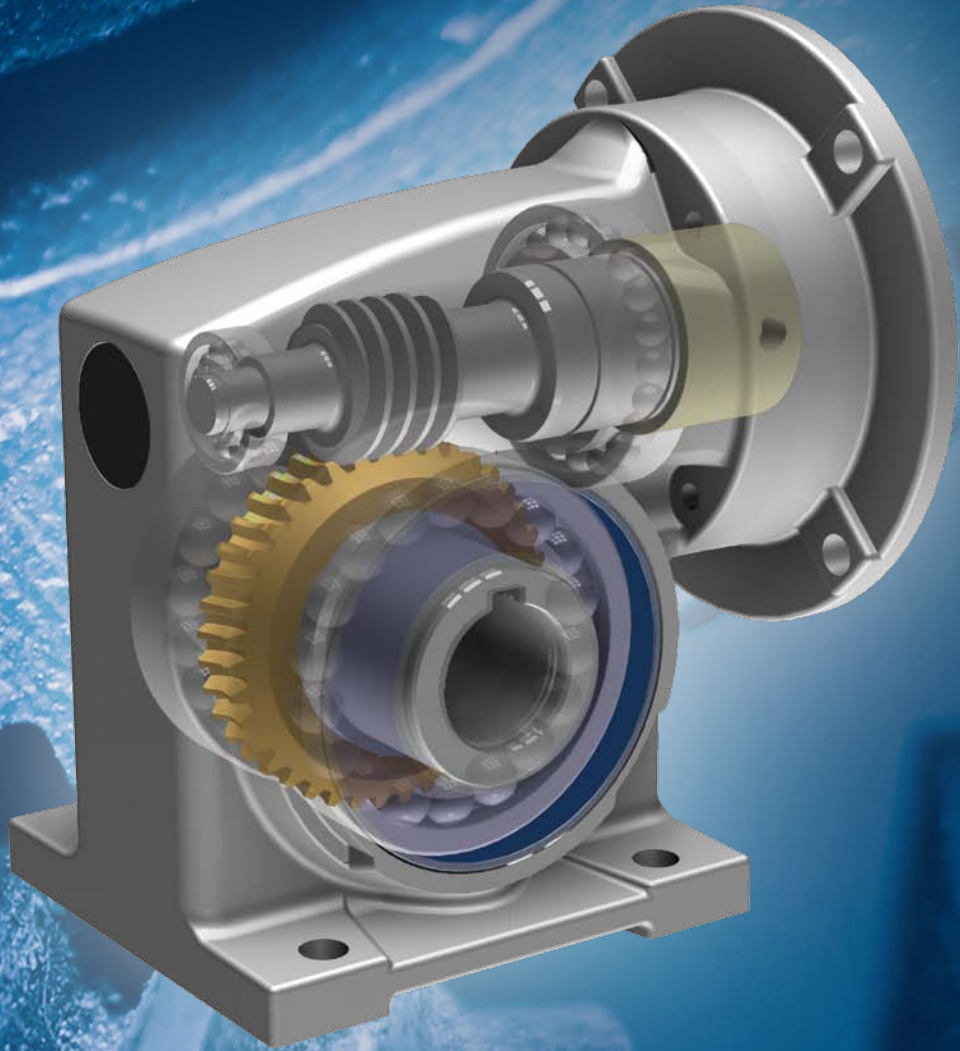


MINICASE® Right-Angle Worm

The NEW MINICASE® Right-Angle Worm (or SMI/SMID series) is a compact worm gear that is characterized by its smooth surface housing suitable for wet applications or hygienic areas. Two housing designs are available, to provide maximum flexibility and various mounting possibilities. Helical gear stage modules with a 10:1 reduction as well as compound worm assemblies become simple bolt-together options. The flexible design shares common modular input/output accessories and options with the FLEXBLOC™ Right-Angle Worm gear units.

MINICASE® housings are a one-piece UNICASE® design made from cast aluminum alloy that provides a much higher strength-to-weight ratio than cast iron. The aluminum alloy housing is also corrosion resistant in many applications making paint optional for this product line. The MINICASE® worm gear units are optionally available with a variety of protective paint options and are ideal candidates for NSD^{tuPH}.

MINICASE® garmotors and reducers are available with very short lead-times and are assembled from stocked parts. Motorized units are commonly supplied integrally or with a NEMA or IEC input paired with a NORD motor or brake motor.



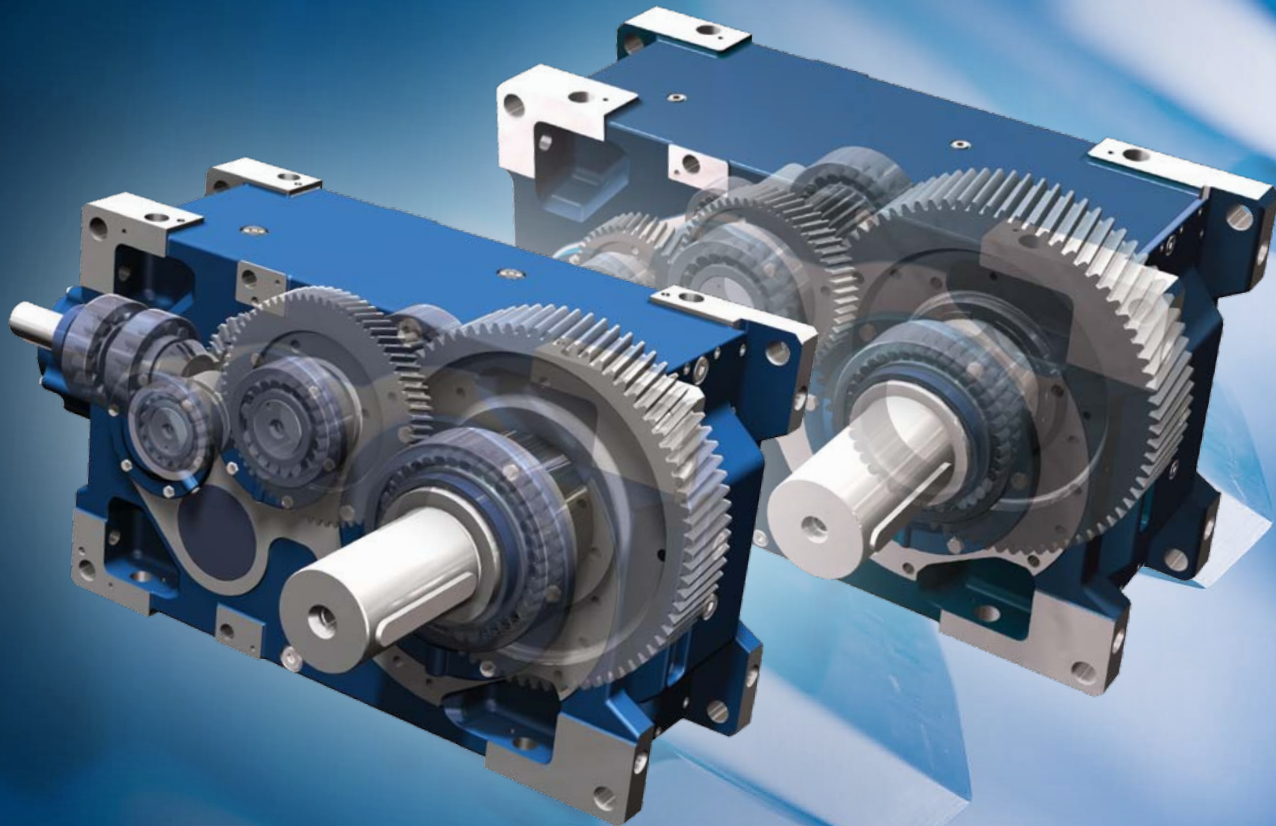
Torque Capacity : 186 lb-in - 4,683 lb-in

Power Range : 0.16 HP - 5.0 HP

Ratio Range : 5:1 - 10,000:1

Output Speed : 0.18 rpm - 350 rpm





Torque Capacity : 224,000 lb-in - 2,196,000 lb-in

Power Range : 3 HP - 1,300 HP

Ratio Range : 5.54:1 - 400:1 (Parallel Shaft)
12.5:1 - 630:1 (Right-Angle)
>1600:1 (Compound Assemblies)

Output Speed : 1.0 rpm - 316 rpm





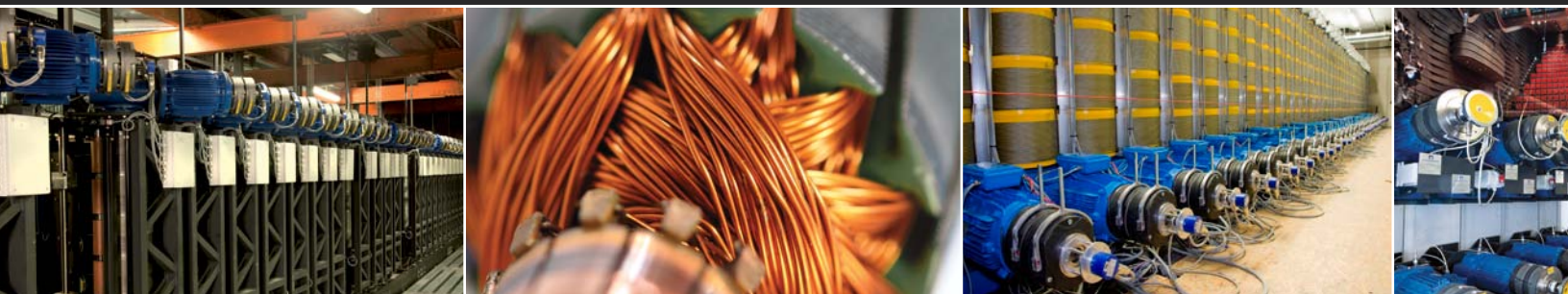
MAXXDRIVE™

Large Industrial Gearbox

The MAXXDRIVE™ large industrial gear units offer a unique combination of flexibility and durability for the most demanding high-torque applications. MAXXDRIVE™ is available in both a parallel-shaft design and right-angle design with a spiral-bevel input. Very high ratios are possible in the form of a compound unit by combining MAXXDRIVE™ with NORD's Clincher™ or Helical-Bevel series.

Gearing and shafting are designed in accordance to international standards and the case carburized and hard finished gears are manufactured to the highest quality. Only industry recognized anti-friction roller bearings are used to provide exceptional bearing life. MAXXDRIVE™ also offers flexible design alternatives by providing a full complement of input, mounting, output shaft, output shaft sealing, and thermal control options.

The universal housing provides for a variety of mounting options on all six sides. MAXXDRIVE™ utilizes the well-proven UNICASE™ housing design in which all bearings and seals are contained within a single casting to offer a compact unit with optimized strength and rigidity by eliminating housing splits and bolt on carriers with built in reinforcements and ribbed construction features. Optimized geometries and precise shaft alignment provide excellent load-bearing capacity, long operating life, insignificant operating noise as well as lubrication system integrity.

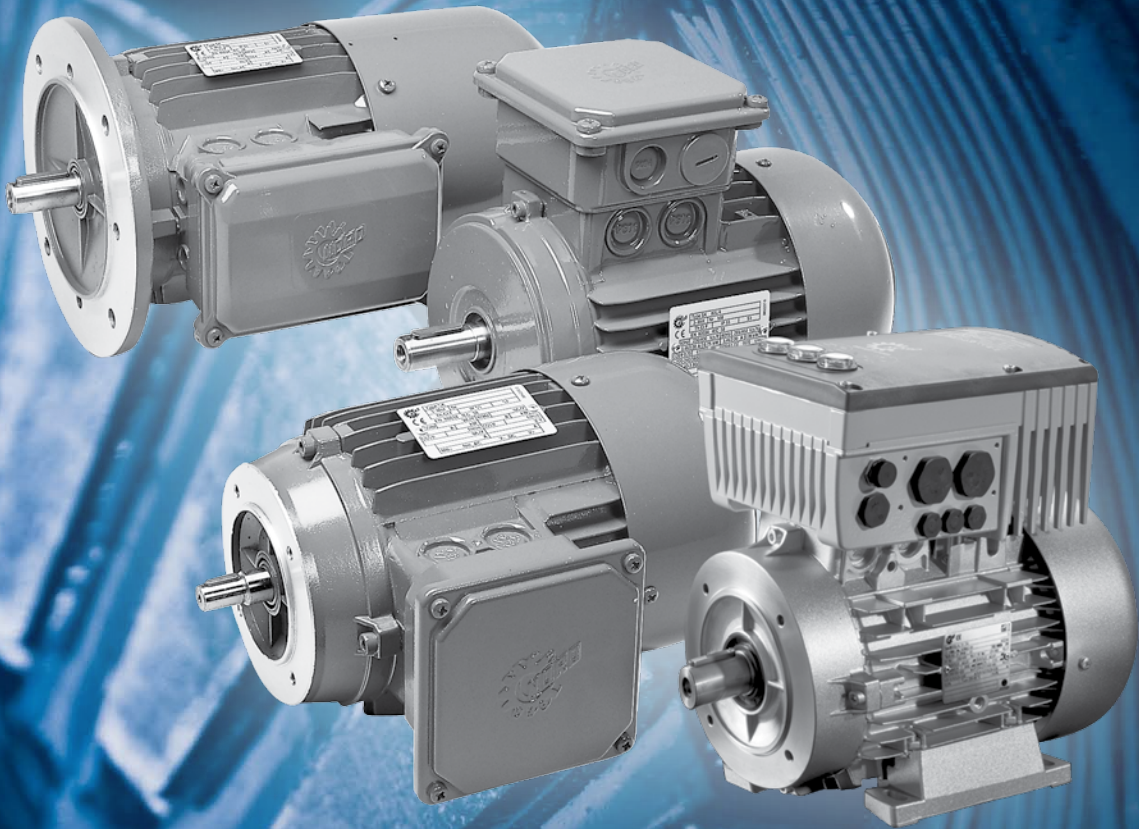


High Performance Motors & Brakemotors

NORD motors are an important part of our ability to provide a high quality, competitive, and complete drive system. NORD motors are designed for across the-line or inverter/vector duty operation. NORD motors are constructed with superior insulating methods to provide excellent moisture protection, low temperature rise, and voltage spike resistance in accordance with NEMA MG1. Low rotor inertia and high starting torque allow peak performance in difficult applications involving high start/stop cycling rates or rapid acceleration/deceleration. Standard motors offer protection from the elements with many standard and optional design features. Some of these features include brakes, thermal protection, space heaters, encoders and cooling fans.

NORD additionally offers High and Premium Efficient motors that are designed to meet the latest global energy requirements. By using active core materials, high quality laminated steel, large conductor cross-sections, flux-optimized windings, and smaller winding heads; we assure that the latest efficiency requirements are satisfied while core losses are minimized. NORD's high and premium efficient motors offer less slip under load, a steeper torque curve, lower operating temperature's and an increased operating life. High and Premium Efficient motors can be applied to a wide range of constant torque speed and smaller inverter driven motors are possible for periodic or intermittent duty applications.





Power Range : 0.16 HP - 250 HP

Voltage : 115V, 200V, 230V, 380V, 400V, 415V, 460V, 575V

Frequency : 50Hz or 60Hz

Pole Configurations : 4 (standard), 2, 6, 4-2, and 8-2 (optional)

Efficiency : Standard, High or Premium efficiency options

Approvals :   





Decentralized High Performance Ratings

380-480V: 3-phase to 30 HP

200-240V: 3 phase to 15 HP

200-240V: 1-phase to 1.5 HP

100-120V: 1-phase to 1HP (2X5E series Only)





SK200E Family AC Vector Drives

The SK200E AC Vector Drives are designed to be used in a distributed control topology. It can be directly motor mounted or mounted close to the motor. When the drive is motor mounted it replaces the motor's terminal box to create a combined, fully integrated Motor/Drive. The SK 200E drives offer high torque, rapid response and a wide speed range. These drives are designed with exceptional over temperature, short circuit, ground fault, over/under voltage and overload protection. The SK200E series offers the largest HP range of any product in its class.

The SK200E distributed control design provides many advantages. Eliminating the need for expensive central control cabinets and costly wiring runs, distributed control VFD's offer a substantial cost savings. These units also decrease installation time and keep the labor costs associated to a minimum. The distributed system allows for inexpensive system modifications and upgrades as the needs arise.

The SK 200E AC Vector drives come in two different class types. The component class models (SK200E, SK210E, SK220E, and SK230E) are engineered to be used as stand-alone drives. The System class models (SK205E, SK215E, SK225E, and SK235E) are engineered with multi-drive coordinated system packages in mind, where many drives share common communications and power buss. Our SK200E's also come with free operating software used for the controlling, programming and diagnosis of all NORD AC vector drives.

The SK200E family has a wide variety of customizable choices with customer interface units. The drives have been remarkably successful in a multitude of applications where conventional methods of VFD control are too cumbersome or expensive. In typical applications throughout the material handling, pumping, and packaging industries, the SK200E has been so successful that it overshadows it's competition



SK500E Family AC Vector Drives

The NORDAC SK 500E AC variable frequency drives offer high torque, rapid response and a wide speed range. These drives are designed with exceptional over temperature, short circuit, ground fault, over/under voltage and overload protection to provide the best reliability when used in the toughest applications.

Many available features and options are configurable within the same SK500E housing. Engineered technology units are easily plugged into the face of the unit. These modules are available to suit all common field buses, so that the inverters can be seamlessly integrated into automation architectures. Technology boxes are also used as plug-in units for programming and machine control.

There are many options that come standard or may be integrated into NORD's SK 500E housings. The SK500E comes with the ability to accept a wide variety of encoder interfaces. These may be used for speed control as well as POSICON position control. The SK500E drive family can be used in different control methods, linear V/F control, sensor less current vector control (ISD) and closed loop flux-vector control. When in vector mode the drives provide superior speed regulation and dynamic control.

The SK500E drives also provide very sophisticated motor bake control and management. This product line also includes a "Safe Stop" safety function, as well as integrated PLC functionality. The NORDCON software used for controlling, programming and diagnosis of all NORD AC vector drive models is available for free.



Compact High Performance Ratings

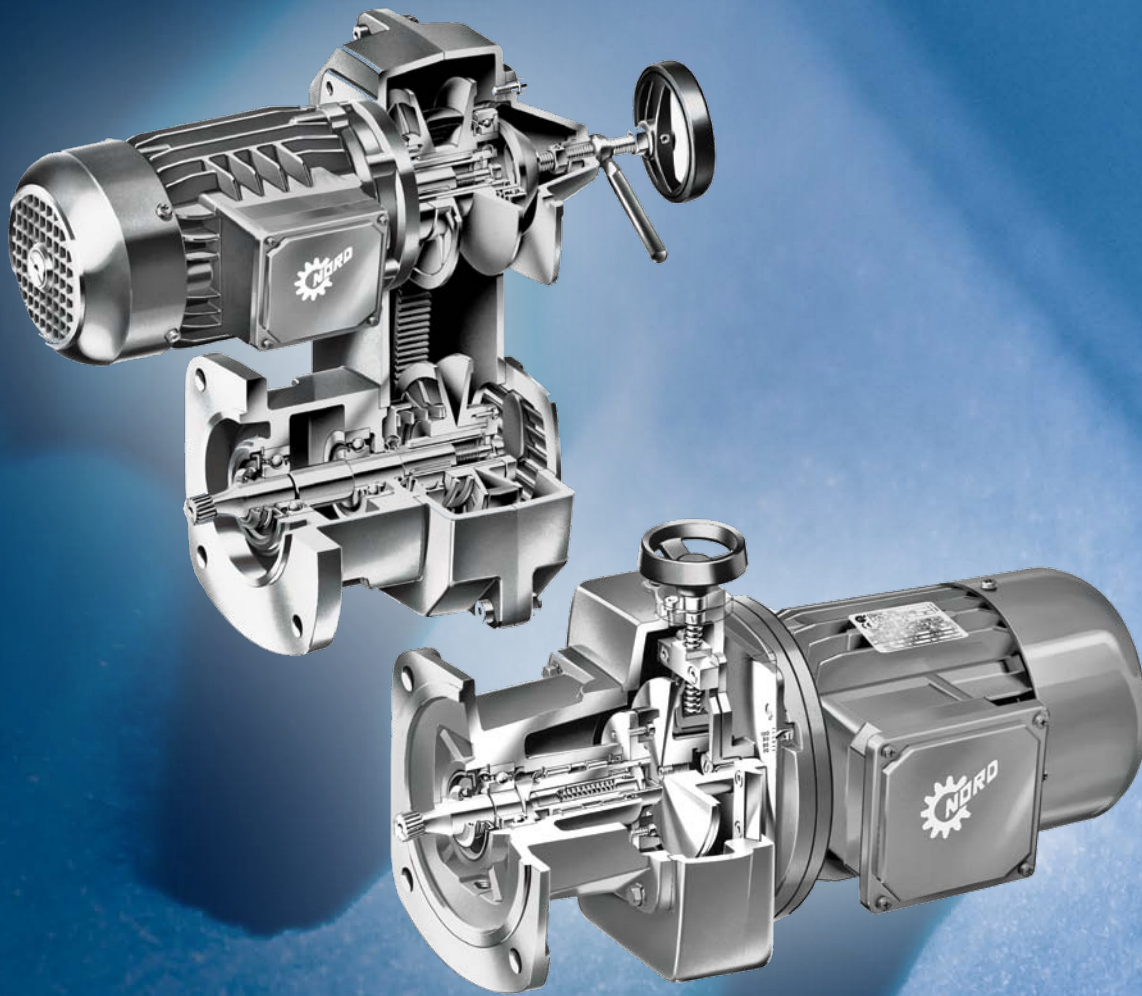
380-480V: 3-phase to 120 HP

200-240V: 3 phase to 15 HP

200-240V: 1-phase to 3 HP

100-120V: 1-phase to 1.5HP





TITAN™ VARIABLE SPEED BELT DRIVE

Power Range : 0.16 HP - 150 HP

Ratio Range : 6:1 Max

NORDISC™ VARIABLE SPEED FRICTION DRIVE

Power Range : 0.16 HP - 7.5 HP

Ratio Range : 7:1





Mechanical Variable Speed Drives

NORD mechanical variable speed drives offer simple and cost effective drive options that allow varying output speeds when coupled with NORD Helical In-Line, Clincher™, Helical-Bevel or Helical-Worm gear units.

The NORDISC™ Variable Speed Friction Drive and TITAN™ Variable Speed Belt Drive are proven technologies that have been available from NORD for a number of years. These products offer infinitely variable speed, are easy to repair, and require no lubrication. NORD's mechanical variable speed drives have been used in many applications including agitating, dewatering or thickening, pumping, filling, and roll winding.

TITAN™ Features:

- U-flow and Z-flow configurations.
- Easy to operate speed changing hand wheel.
- Handwheel locking mechanism - will not vibrate from the set position.
- Optional electric remote speed control
- Analog & digital speed indicators.
- Corrosion resistant, light weight aluminum alloy Housing

NORDISC™ Features:

- Easy to operate speed changing hand wheel.
- Handwheel locking mechanism - will not vibrate from the set position.
- Special cam mechanism that only transmits the required torque, minimizing wear.
- Corrosion resistant stainless steel lead screw with brass guides.
- Analog & digital speed indicators.
- Rugged Cast Iron Housing
- Ground & polished driving disc for minimum wear.
- Asbestos-free, non-hygroscopic, driving disc for long & safe working life.

Dependable Service For Increased Satisfaction

With close cooperation between our designers, planners, and engineers, we create the most efficient and cost effective solution for our individual customer. Our development and marketing engineers ensure our product works successfully in your application.

Quality

Quality is assured at NORD assembly and manufacturing facilities, based on ISO 9000 standards — from careful inspection of incoming materials to closely monitored machining operations including gear cutting, turning, hardening and grinding as well as finishing and assembly.



NORD 911

Trouble? Just call 715-NORD-911 (in Canada, 905-796-3606). Emergency service is available 24 hours a day, 7 days a week. We'll answer your call, ship the parts, or build a unit and have it shipped directly to you to provide what you need, when you need it.



Worldwide Standards


NORD products are designed and manufactured based on the latest North American and global standards.



Online Tools

NORD offers comprehensive, searchable product information online. The Internet makes it possible for our customers to reach us anytime, anywhere — 365 days a year, 24 hours a day.

- Online order tracking
- Parts list and maintenance schedules
- Online drive selection software
- DXF scale drawing

The image features a blue-tinted background of a city skyline with several tall skyscrapers. In the foreground, the silhouettes of three business professionals are visible. One person on the left is holding a tablet, another in the center is talking on a mobile phone, and a third on the right is gesturing with their hand. A large, dark, curved shape is on the left side of the page. A yellow line with circular endpoints frames the text box on the right.

NORD Gear will strive to meet or exceed our customers expectations through continuous improvement. It is the responsibility of each employee to ensure that this goal becomes a reality.



DRIVESYSTEMS

www.nord.com

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