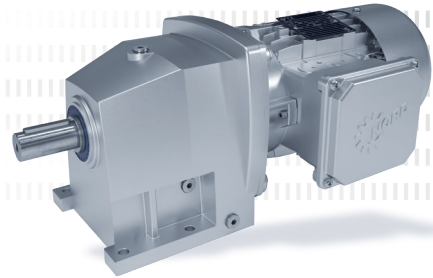


# Direct Drives - Efficient, Powerful, Reliable

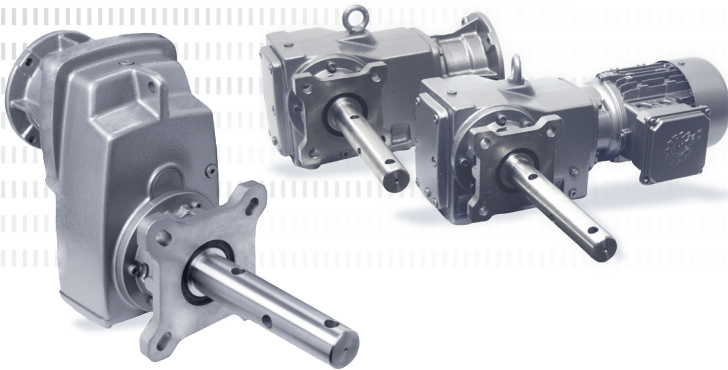
## Innovative

- ▶ More compact solution than traditional drive packages
- ▶ Parallel shaft and right-angle mounted drives available
- ▶ Ample output speed range available per drive size
- ▶ Whole speed range covered with use of a VFD
- ▶ Speed control via VFD (direct mount or cabinet)



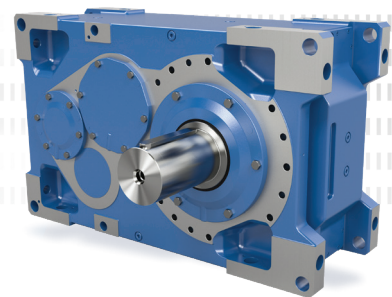
## Reliable

- ▶ Heavy-duty, one-piece housings with internal reinforcement
- ▶ All bearings and seal seats are contained within the housing
- ▶ No radial loads on motor shaft and gearbox input shaft resulting in longer bearing lifetime
- ▶ Bores and mounting faces are machined in one step, producing extremely precise tolerances
- ▶ QUADRILIP™ output sealing provides added protection against leaks and external contaminants
- ▶ Keyless shaft designs with Shrink Disc and GRIPMAXX™ accommodate a wide range of solid shaft sizes while ensuring a high capacity, zero-backlash fit



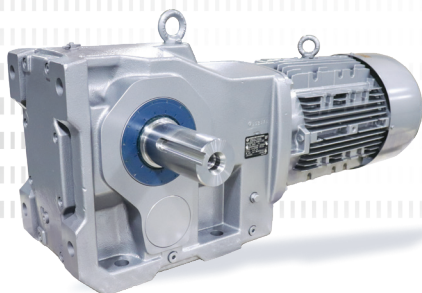
## Safe

- ▶ Minimizes interaction with equipment
- ▶ Enclosed solution reduces chance of injury
- ▶ Belt drive systems require additional measurements and resources for safeguarding
- ▶ Reduced maintenance, fewer wear parts
- ▶ Less downtime



## Efficient

- ▶ More efficient drive system achieved with reduced mechanical friction, no belt tension reduction (no need to re-tension belt)
- ▶ Less energy consumption to operate
- ▶ Alignment with ESG rules and Corporate Social Responsibility (CSR) guidelines



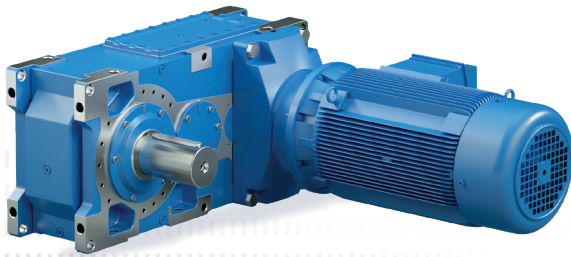
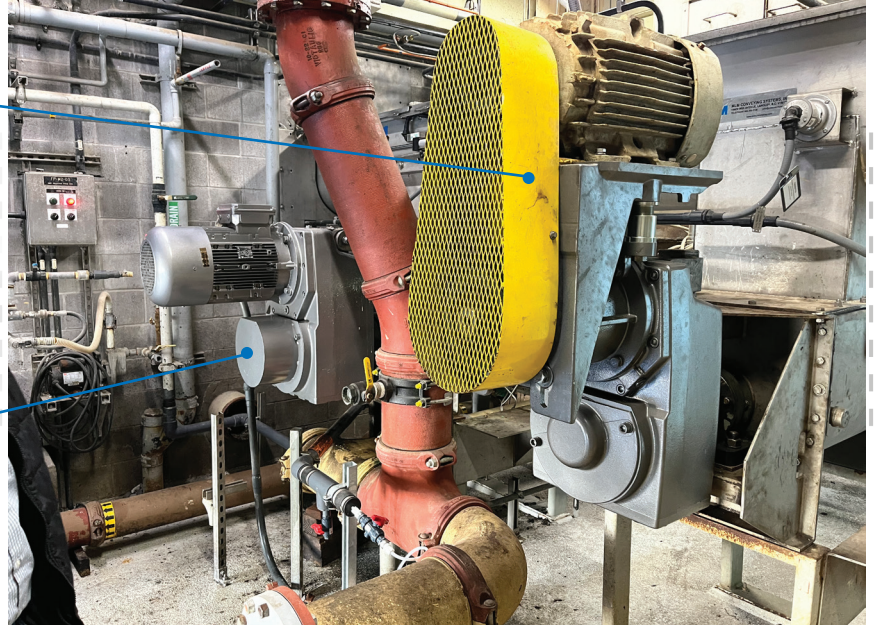
# Direct Drives - Efficient, Powerful, Reliable



## Traditional Belt Drive Package vs. NORD Direct Drive Package

Old Solution  
Belt Drive Package

NORD Solution  
Direct Drive Package



Traditional Belt Drive Package	NORD Direct Drive Package
Foot-Mounted Motor	Motor
Top-Mount Platform	Not Needed
Belt Drive Connecting Motor to Gearbox	Not Needed
Motor Sheave	Not Needed
Motor Sheave Bushing	Not Needed
Reducer Sheave	Not Needed
Reducer Sheave Bushing	Not Needed
Belts	Not Needed
Belt Guard for Safety	Not Needed
Labor to Assemble Kit Parts	Not Needed
Ongoing Maintenance for Belt Drive	Not Needed
Inventory of Replacement Wear Parts	Not Needed
Purchase Order for 9 Pieces	Purchase Order for 1 Piece

**NORD Delivers up to 2,495,900 lb-in of torque with a wide range of configuration options.**