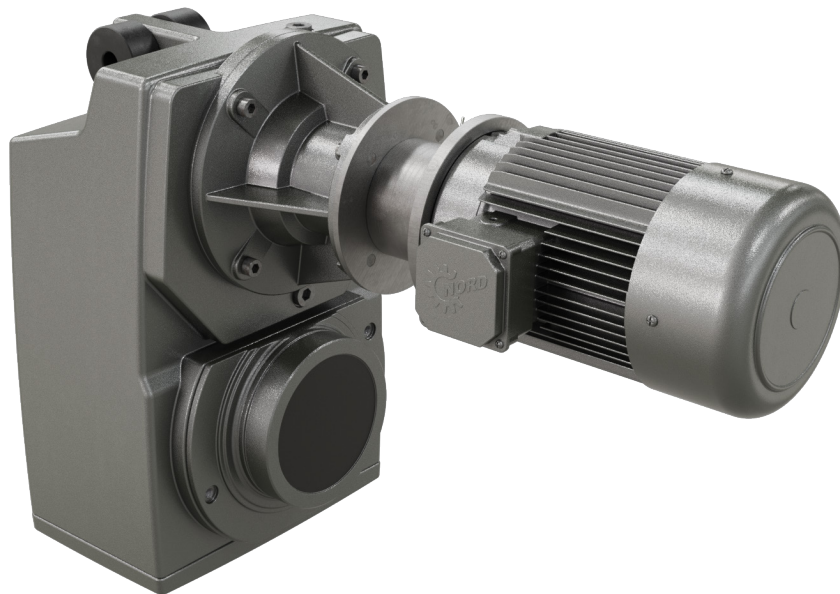


REPLACEMENT & AFTERMARKET

PARALLEL SHAFT DRIVES



Collaborate / Create / Convey

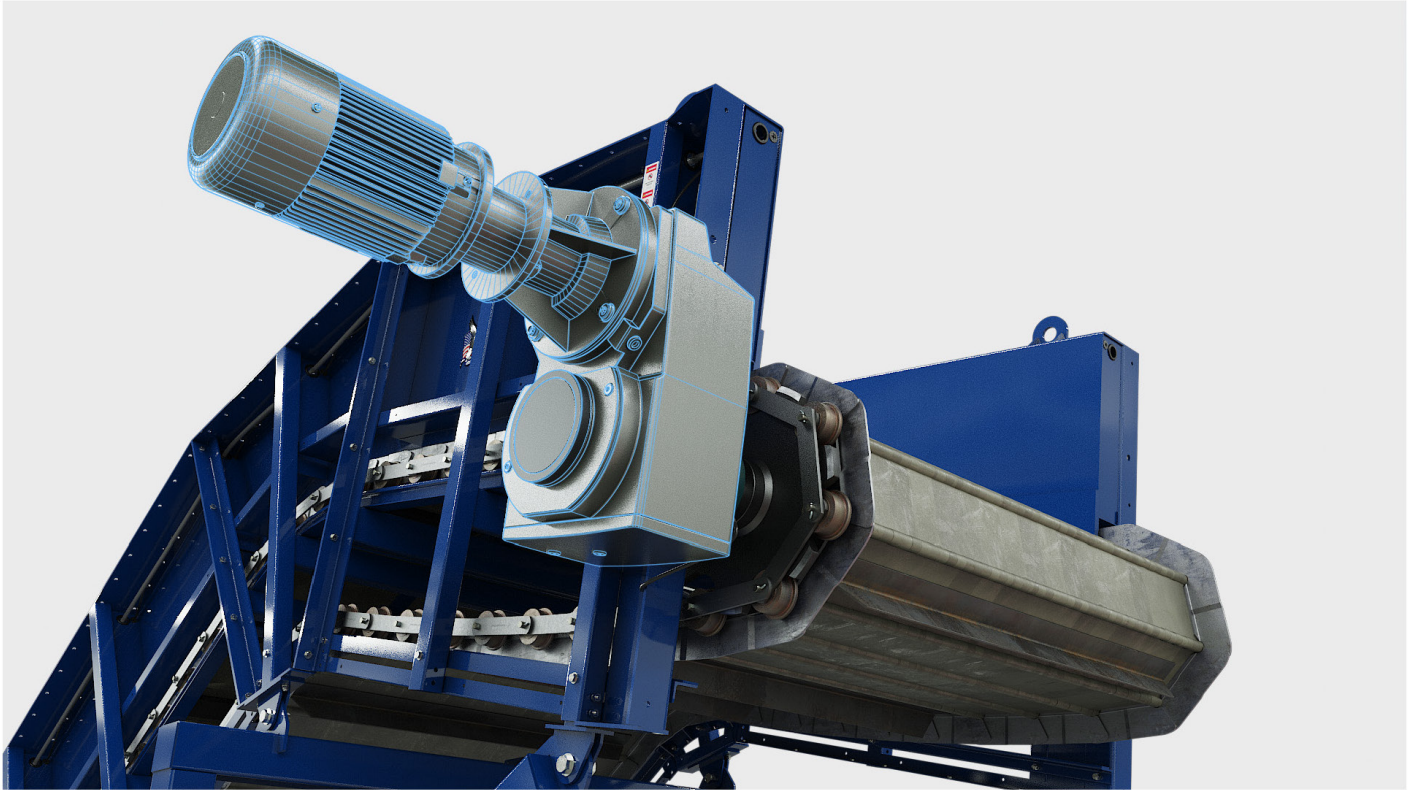
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PARALLEL SHAFT DRIVES



Parallel Shaft Drives

Parallel shaft drives are speed-reducing gearboxes built for belt and roller chain conveyors where installation height and footprint are restricted. Conveyor drive positions inside sortation lines, transfer towers, and mezzanine structures rarely leave room for a right-angle drive, and forcing an oversized unit into that envelope strains couplings, misaligns shafts, and shortens bearing life. A failed drive gearbox stops the entire conveyor, so the reducer must match the space, the torque demand, and the duty cycle from the start.

The parallel shaft design places offset input and output shafts in parallel, producing a flat, compact profile that positions the motor horizontally alongside the gearbox. Helical gears mesh progressively across the tooth face, transmitting torque smoothly and quietly at high efficiency, with a one-piece cast housing holding gear and bearing bores in rigid alignment. Units mount by foot, flange, or torque arm and drive the conveyor through a solid output shaft or a hollow shaft with shrink disc. Replacement units are matched on gear ratio, output torque, and mounting footprint so belt speed and load capacity carry over unchanged.

APPLICATIONS



Recycling & Material Recovery

Recycling and MRF sortation conveyors run continuous duty under heavy, abrasive, contamination-laden material streams, in structures where drive clearance is measured in inches. Parallel shaft drives deliver output torque up to 680,200 lb-in in a flat profile that fits between sort decks and support steel, with IP55-rated housings resisting the dust load of shredded scrap and mixed recyclables.



Aggregate Processing

Crushed stone, sand, and gravel conveyors impose high starting loads and constant vibration on the drive train. High-torque parallel shaft configurations absorb these loads through rigid one-piece housings and helical gearing rated for continuous heavy-duty service.



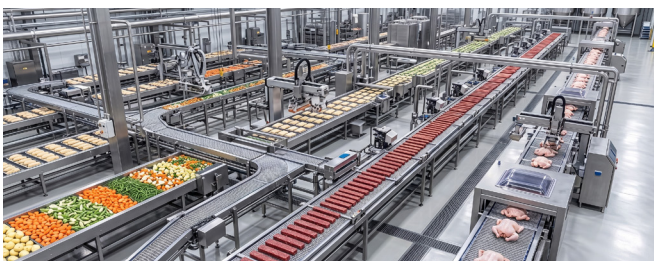
Waste Management

Transfer stations and processing floors expose drive components to moderate dust, moisture, and around-the-clock operation. Standard IP55-rated units seal the gear case against airborne solids while maintaining the efficiency continuous-duty operation demands.



Package Handling & Intralogistics

Distribution centers move goods across long conveyor runs where drive energy consumption compounds across hundreds of units. High-efficiency helical gearing cuts operating cost per drive while the compact flat design tucks under low-clearance conveyor frames.



Food & Beverage Processing

Washdown lines require drives that survive daily high-pressure cleaning without corrosion or water ingress. IP66 and IP69K-rated units combine smooth crevice-free housing surfaces, sealed terminal boxes, and NSF H1 food-grade synthetic lubricants for incidental contact zones.



Manufacturing

Production conveyors integrate drives into OEM equipment where mounting orientation varies station to station. Flange-mounted B14 and B5 configurations bolt directly to equipment housings, supporting vertical and angular installation without a separate drive base.

KEY FEATURES

01

Offset Parallel Shaft Configuration:

Arranges input and output shafts in parallel to produce a flat, compact drive profile that positions the motor horizontally alongside the gearbox for height-restricted installations.

02

Helical Gear Set:

Mesher teeth progressively across the tooth face to transmit torque smoothly and quietly at high efficiency under continuous conveyor duty.

03

One-Piece Cast Housing:

Machines all gear and bearing bores into a single cast iron or aluminum casting, holding shaft alignment rigid under output torque up to 680,200 lb-in.

04

Hollow Output Shaft with Shrink Disc:

Clamps directly onto the conveyor drive shaft through a keyless friction connection, eliminating the external coupling required by solid-shaft arrangements.

06

Integral Motor Brake:

Mounts a spring-set brake at the motor rear, factory-installed or field-added, sized to drive torque and duty cycle for load holding and controlled stops.

05

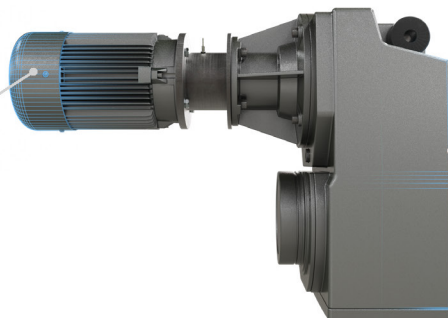
Sealed Terminal Box:

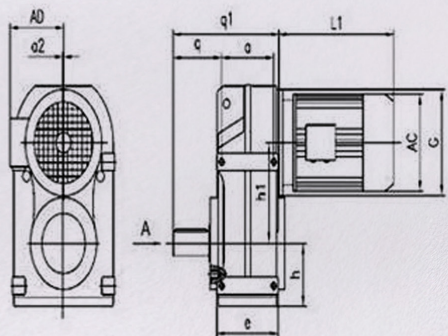
Encloses motor wiring connections behind gasketed covers rated for washdown and high-moisture environments.

07

Foot and Flange Mounting Interfaces:

Provides machined foot pads and B14 or B5 flange faces on the housing, supporting base-mounted, equipment-mounted, and torque arm installation from one gear case.





PARALLEL SHAFT DRIVES SPECIFICATIONS

Parameter	Standard Specification
Torque range	974 – 680,200 lb-in
Power range	0.16 – 200 HP
Gear ratio range	Wide range available, specified per application
Motor voltage	230/460V three-phase standard; 575V and others available
Environmental rating	IP55 standard; IP66 and IP69K available
Housing material	Cast iron or aluminum
Mounting options	Foot mount, flange mount (B14/B5), torque arm
Output shaft	Solid shaft or hollow shaft with shrink disc
Operating temperature	Standard range; extended -40°F – 150°F with synthetic lubricants
Motor efficiency classes	IE1, IE2, IE3, IE4, IE5+
Special options	Washdown duty, explosion-proof, motor brake, encoder, backstop, sealed terminal box, thermostat, VFD-ready

Note: Contact engineering for replacement parts outside the listed specifications or for application-specific configurations.

PARALLEL SHAFT DRIVES SPECIFICATIONS

Environmental Rating Selection

Rating	Protection Level	Best For
IP55	Dust protection and low-pressure water jets	Indoor conveyors with moderate dust: waste management, manufacturing, material handling
IP66	Complete dust sealing and powerful water jet protection	Outdoor installations, washdown environments, food processing, weather-exposed conveyors
IP69K	High-pressure, high-temperature steam cleaning	Sanitary pharmaceutical and food processing with pressure washing above 1,000 PSI

Note: Corrosion-resistant epoxy or polyurethane coatings and stainless steel fasteners are available for outdoor, marine, and chemical processing environments.

THE ENGINEERING ADVANTAGE

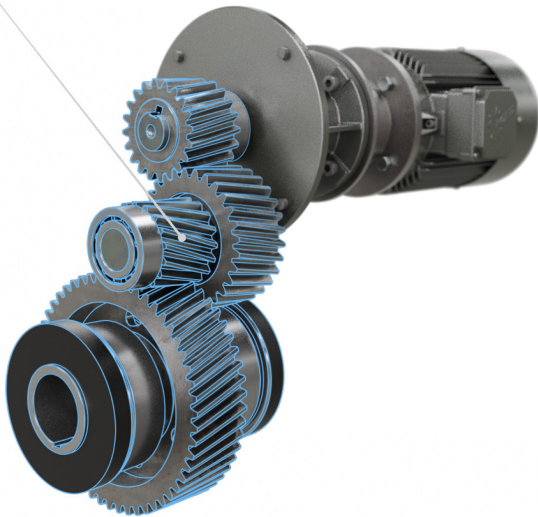
This section outlines the housing, lubrication, coating, and drive-matching methodology behind Fluent Conveyors parallel shaft drives, covering casting, formulation, and assembly verification practices that secure fit and service life in continuous conveyor duty.

One-Piece Housing Casting:

Casts the complete gear case as a single structure so bearing seats and gear bores are machined in one setup, locking gear mesh alignment against deflection under full load.

Synthetic Lubricant Formulation:

Extends the operating temperature range to -40°F – 150°F and stretches oil change intervals to 8,000 – 15,000 operating hours, with NSF H1 food-grade formulations for incidental contact applications.



Factory-Matched Gearmotor Assembly:

Verifies power rating, thermal capacity, gear ratio, and mounting compatibility before shipment, delivering the motor and gearbox aligned as one unit with no field coupling work.

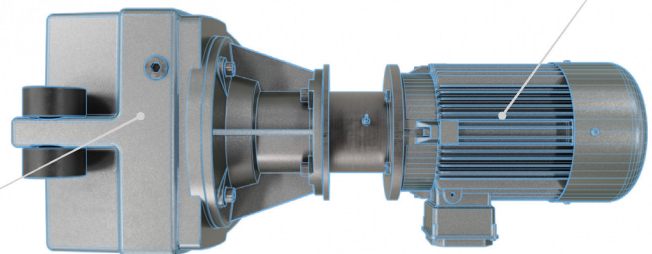


Epoxy and Polyurethane Coating System:

Applies corrosion-resistant coatings over cast iron housings for outdoor and chemically aggressive installations, supplemented by stainless steel fasteners where washdown chemistry demands them.

Inverter-Duty Winding Insulation:

Rates paired motors per NEMA MG1 Part 31 to withstand VFD voltage spikes, supporting variable-speed conveyor operation without insulation breakdown.



CONTACT INFORMATION

OUR ENGINEERS WILL SPEC THE EXACT PART FOR YOUR SYSTEM

For product specifications, engineering support, or order inquiries, please contact our team using the information provided below. Our specialists are available to ensure accurate recommendations and efficient service for your application requirements.

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