Ameridrives
Bauer Gear Motor
Bibby Turboflex
Boston Gear
Delroyd Worm Gear
Formsprag Clutch
Guardian Couplings
Huco
Industrial Clutch
Lamiflex Couplings
Marland Clutch
Nuttall Gear
Stieber
Stromag
Svendborg Brakes
TB Wood’s
Twiflex
Warner Electric
Wichita Clutch

Power Transmission Solutions for the Oil & Gas Market

Altra Motion
ALTRA MOTION PROVIDES ADVANCED POWER TRANSMISSION SOLUTIONS FOR THE OIL AND GAS INDUSTRY

The well recognized brands of Altra Motion supply technically advanced clutches and brakes, speed reducers, couplings, sheaves, geared motors, controls and sensors for a wide range of oil and gas applications including drawworks, topdrives, winches, pump jacks, cranes, and mud pumps utilized on offshore and onshore E&P, FPSO, LNG and specialized support vessels, compressors and vehicles.

Oil and gas market OEMs and end users rely on the companies of Altra for premier power transmission products that feature extraordinary performance and reliability, long life and outstanding value.

Altra Brands Deliver Value Throughout the Drivetrain

With industry-leading brand names including, Ameridrives, Industrial Clutch, Lamiflex Couplings, Marland Clutch, Nuttall Gear, Stromag, Svendborg Brakes, Twiflex, and Wichita Clutch, Altra Motion is positioned to provide OEMs with exceptional drivetrain value by ensuring component compatibility and optimized performance combined with time-saving, single-source convenience.

Extensive Technical Experience in Oil and Gas Applications

Major OEMs routinely rely on the vast oil and gas application knowledge of Altra’s engineering teams that collaborate to thoroughly analyze specific customer applications and then apply the latest technologies in design, materials and manufacturing. Whether a modified standard product or a custom solution is required, Altra provides complete sales and engineering support to customers around the world from the very first concept to the detailed planning, design variation phase and commissioning.

For more information about power transmission solutions for oil and gas applications from Altra Motion including case studies, literature, and service manuals, visit

www.AltraOilandGas.com
ALTRA PRODUCTS ARE HARD AT WORK IN THOUSANDS OF OIL AND GAS APPLICATIONS... WORLDWIDE

Clutches and Brakes
Altra brands offer a wide range of proven caliper and plate braking solutions ideally suited for many types of oil and gas applications including winches, topdrives, cranes and drawworks. Designed to withstand the rigors of oil and gas operating environments, heavy duty brakes and clutches from Wichita, Svendborg, Twiflex, Stromag and Industrial Clutch are preferred by leading oil and gas OEMs. Marland, Formsprag and Stieber backstopping/overrunning clutches provide superior performance on lifeboat davit winch drives, pumps, and other applications. Electrically released brakes and clutches from Warner Electric can be found on pump jacks and specialized vehicle applications.

Formsprag Clutch • Industrial Clutch • Marland Clutch • Stieber • Stromag
Svendborg Brakes • Twiflex • Warner Electric • Wichita Clutch

Couplings and Drive Shafts
Pioneering many technological innovations to keep in step with demanding industry requirements, Altra couplings (gear, elastomeric and disc types), and universal joints (drive shafts) have become preferred solutions in countless oil and gas applications including pump jacks, drawworks, top drives, mud pumps, various types of cranes, winches, hydraulic fracturing pumps, and compressor sets.

Ameridrives • Bibby Turboflex • Guardian Couplings • Huco • Lamiflex Couplings
Stromag • TB Wood’s

Controls and Sensors
Reliable Stromag geared cam limit switches are widely used on cranes, and winches. Typically attached directly to the rope drum, limit switches provide protection for equipment and machinery by limiting drum rotation at the rope top and bottom cutoff points.

Stromag

Enclosed Gearing and Geared Motors
Custom Nuttall Gear and Delroyd gearboxes provide years of service on drawworks, pump jacks, gas compressors, mud pumps, mud agitators, and jack up climbing pinion drivetrains. Various speed reducers and drives from Boston Gear along with energy efficient Bauer geared motors provide unmatched reliability and versatility on a variety of oil and gas applications including cranes, winches, and agitators.

Bauer Gear Motor • Boston Gear • Delroyd Worm Gear • Nuttall Gear

Sheaves/Belted Drives
TB Wood’s sheaves are found on a wide range of onshore and offshore applications. TB Wood’s combines the widest range of belted drives, V-belt or synchronous, with unmatched made-to-order (MTO) capabilities to accommodate the oil and gas industry. Wood’s belted drives are commonly used on pump jacks, progressive cavity pumps, mud pumps, charging pumps, blowers and more.

TB Wood’s
Altra brands supply a wide range of products used on all types of offshore exploration and production drilling platforms including floater/semi-submersible and jack-ups. All Altra power transmission components are designed to provide years of dependable service in the harsh, corrosive conditions on offshore rigs. Svendborg Brakes, Wichita Clutch, Stromag, and Industrial Clutch can supply products that meet the following drilling and lifting equipment standards and specifications:

- ABS Lifting Appliances; ABS-CDS
- DNV 2.22 Lifting Appliances; DNV-OS-E101 DP
- API Spec 2C; API-7K SR2
- EN 13852-1, AOPS and MOPS

**Cranes**

Altra brands supply a wide range of products used on offshore rig kingpost/pedestal, knuckle boom, and BOP winches, overhead cranes. Stromag thruster brakes, Svendborg hydraulic disc caliper brakes and hydraulic power units (HPUs) and Wichita and Industrial Clutch plate brakes are ideal for use in this harsh environment.

Guardian motor mounts and L-jaw couplings, along with Ameridrives and Bibby gear couplings, are also found on these cranes. A variety of Stromag limit switches provide protection for equipment and machinery by limiting drum rotation at the cable top and bottom cutoff points.

Warner Electric brakes, TB Wood’s sheaves and Stieber backstopping/overrunning clutches along with Bauer geared motors provide years of reliable service on these types of applications.

- **Ameridrives** Amerigear Gear Couplings
- **Bauer Gear Motors** BF Series and BK Series Geared Motors
- **Bibby Turboflex** Series III Gear Couplings
- **Guardian Couplings** JF K45 Series Brake Disc Couplings
- **Industrial Clutch** HBS Plate Brakes
- **Stieber** DC and RSCI Clutches
- **Stromag** TDXB Thruster Disc Brakes; SHD Hydraulic Disc Brakes; Drum Brakes; NFF & HPB Series Motor Brakes; Brake Discs; CSH Hydraulic Power Units; Limit Switches
- **Svendborg Brakes** Hydraulic Disc Brakes and HPUs
- **TB Wood’s** Sheaves
- **Twiflex** Hydraulic Disc Brakes
- **Warner Electric** ERD/ERDD VAR and ERD/ERDD Gen2 Electrically Released Brakes

A wide range of Altra power transmission products are utilized on drawworks applications. See page 6 for more information.
Top Drives

Twiflex and Svendborg caliper brakes along with Wichita, Industrial Clutch and Stromag top drive plate brakes are designed to provide dynamic emergency stopping and static holding of the top drive during drilling operations. Ameridrives couplings along with gearing solutions from Nuttall are also used on these applications.

Ameridrives Amerigear Gear Couplings
Guardian Couplings JF K45 Series Brake Disc Couplings
Industrial Clutch LKB Brake; VMS Brake
Nuttall Gear Open Gearing and Parallel Shaft Gearboxes
Stromag Plate Clutch/Brake
Svendborg Brakes BSAB Series Caliper Brakes
Twiflex T Series Top Drive Caliper Brakes

Winches

Heavy-duty AquaMaKKs™ water cooled clutches and brakes are popular choices for use on offshore platform mooring winches and anchor winches. Stromag and Svendborg caliper brakes are also widely used on these types of winches as well as umbilical hose reels. Twiflex calipers are often fitted to traction and storage winches. Ameridrives gear couplings and Stromag limit switches are used on all types of platform deck winch applications.

Formsprag and Stieber clutches, used on lifeboat davit winch drives are specially-designed to withstand the corrosive effects of salt water environments in temperatures down to -40°F. Nuttall Moduline gearboxes are utilized on jack-up climbing pinions that raise and lower the platform. Huco air motors control tension on platform cable and hose reel sets.

Ameridrives Amerigear Gear Couplings
Bauer Gear Motors BF Series and BK Series Geared Motors
Formsprag Clutch FSO Clutches
Guardian Couplings JF K45 Series Brake Disc Couplings
Huco Air Motors
Nuttall Gear Moduline® gearboxes
Stieber DC, GFR, AL and RSCI Clutches
Stromag SH Caliper Brakes; Brake Discs; Limit Switches
Svendborg Brakes Caliper Brakes; HPUs
Twiflex GMX and GMR Caliper Brakes
Warner Electric ERD Electrically Released Brakes
Wichita Clutch AquaMakks Water Cooled Clutches & Brakes; Vent Clutches
**ONSHORE E&P**

---

**Drawworks**

Heavy-duty, reliable Wichita Clutch products are preferred by many major drawworks OEMs. Units are designed to handle the extreme heat typically generated during an e-stop. They provide operational efficiency with less weight, a compact footprint and reduced noise and vibration. Industrial Clutch HC Clutches and Stromag eddy current brakes are also utilized on drawworks applications.

Svendborg caliper brakes, and Wichita LI-SSB and AirMakks plate brakes are popular solutions for AC-drawworks emergency stopping, standard parking, and controlled load transfer modes. Nuttall gearboxes are widely utilized on AC drawworks. Couplings from Ameridrives, Stromag, TB Wood’s and Guardian can also be found on all types of drawworks worldwide. Svendborg, Stromag and Wichita Clutch products feature anti-corrosion protection and as an option, can meet API-7K and API-7K SR2 specifications.

**Ameridrives** Amerigear Gear Couplings  
**Guardian Couplings** JF K45 Series Brake Disc Couplings; Shaft Couplings  
**Industrial Clutch** HC Clutch  
**Marland Clutch** HBG Series Clutches  
**Nuttall Gear** Custom Parallel Shaft Gearboxes  
**Stromag** Caliper Brakes; Eddy Current Brakes; Brake Discs  
**Svendborg Brakes** Caliper Brakes; HPUs  
**TB Wood’s** Form-Flex® Couplings  
**Wichita Clutch** Kopper Kool Spring Set Clutches & Brakes; wcbAM Brakes; LI-SSB Low Inertia Brakes; AirMakks SSB Brakes
**Pump Jacks**

Warner Electric CMS clutches reduce excessive wear by allowing operators to restart pump jack engines without the load after maintenance is completed. Warner SF Series bell housing clutches allow pump jack PTOs to be engaged and disengaged remotely saving time and money.

Reliable TB Wood’s V-Belt sheaves and belts are commonly found hard at work on pump jacks worldwide. Nuttall custom parallel shaft gearboxes are also utilized on pump jack drivetrains.

- **Guardian Couplings** Cast Engine Housings; Couplings
- **Nuttall Gear** Custom Parallel Shaft Gearboxes
- **Stromag** Couplings
- **TB Wood’s** V-Belt Sheaves; Premium V-Belts; Sure-Grip® Bushings
- **Warner Electric** CMS Clutch; SF Series Bell Housing Clutch

**Mud Pumps**

Various belted drive solutions including Offset Series MTO sheaves, bushings and belts, as well as couplings from TB Wood’s and Ameridrives are widely used on mud pump drivetrains. Wichita PO and SV clutches, along with Stromag limit switches and couplings are also incorporated.

Boston Gear Series 2000 helical bevel gear drives and Bauer BG Series geared motors allow for fast and easy installation on mud pump agitators that are used to maintain uniform fluid/solid consistency.

- **Ameridrives** Amerigear Gear Couplings
- **Bauer Gear Motor** BG Series Geared Motors
- **Boston Gear** Series CCC Centric Centrifugal Overload Clutches; Series 2000 Helical Bevel Gear Drives; 800 Series Reducers;
- **Guardian Couplings** Shaft and Flywheel Couplings
- **Marland Clutch** CECON Clutches
- **Nuttall Gear** Open Gearing
- **Stromag** Couplings; Limit Switches
- **TB Wood’s** MTO and V-Belt Sheaves; Premium V-Belts; Sure-Grip® Bushings; Dura-Flex®, Sure-Flex Plus®, G-Flex Grid, L-Jaw, and TurboFlex GC Couplings
- **Wichita Clutch** Standard Vent Clutches; PO Clutches
VESSELS

OSV, PSV & AHTS Vessels

Wichita Clutch Kopper Kool clutches are used on large winch drives onboard (AHTS) anchor handling tug supply vessels that tow and anchor semi-submersible drilling platforms. Svendborg disc brakes calipers are also utilized for e-stop and parking brake functionality.

Winches

Altra products are utilized on all types of deck-mounted winches found on a wide variety of oil and gas vessels. Heavy-duty Wichita clutches and brakes are popular choices for use on mooring and anchor winches. Stromag, Twiflex, and Svendborg caliper brakes are also widely used on deck winches as well as seismic winches. Bibby and Ameridrives gear couplings, Stromag limit switches and Stieber backstopping/overrunning clutches are used on all types of platform deck winch applications.

- Ameridrives Amerigear Gear Couplings
- Bauer Gear Motors BF Series and BK Series Geared Motors
- Bibby Turboflex Series III Gear Couplings
- Guardian Couplings JF K45 Series Brake Disc Couplings
- Stieber RSCI, GFR and AL Clutches
- Stromag Caliper Brakes; Brake Discs; Limit Switches
- Svendborg Brakes Caliper Brakes; HPUs
- Twiflex Caliper Brakes
- Warner Electric ERD Electrically Released Brakes
- Wichita Clutch Kopper Kool Spring Set Clutches & Brakes; Standard Vent Clutch

Propulsion Shafts

The Twiflex (TLB) Turning, Locking, Braking System is used to set and lock a ship’s propulsion shaft to prevent undesired rotation when a ship is underway or moored for an extended period of time. Industrial Clutch oil-immersed clutches are also used on a wide range of propulsion drivetrains. Stromag clutches and couplings along with Svendborg caliper brakes are also utilized on propulsion shafts.

- Industrial Clutch Model HC Oil-immersed Clutches
- Stromag KMS Hydraulic Disc Clutches; Brake Discs; TRI-R Couplings
- Svendborg Brakes Caliper Brakes
- Twiflex TLB Turning, Locking, Braking System
Knuckle Boom Cranes

Many types of specialized oil and gas vessels feature compact, deck-mounted knuckle boom cranes. The cranes lift equipment on the deck as well as over the side of the vessel. Stromag hydraulic disc caliper brakes along with Warner Electric electromagnetic brakes provide reliable stopping and holding functionality on knuckle boom crane luffing and hoisting winches. Ameridrives and Bibby gear couplings, as well as Guardian couplings and motor mounts are also utilized on these drivetrains. Stromag limit switches are often installed to monitor hook position. Crane OEMs often incorporate popular Bauer geared motors for enhanced performance.

- **Ameridrives** Amerigear Gear Couplings
- **Bauer Gear Motors** BF Series and BK Series Geared Motors
- **Bibby Turboflex** Series III Gear Couplings
- **Guardian Couplings** Curved Jaw Couplings; E Series & G Series Mounts
- **Stieber** DC and RSCI Clutches
- **Stromag** TDXB Thruster Disc and Drum Brakes; SHD5A Hydraulic Disc Brakes; Brake Discs; CSH Hydraulic Power Units; Limit Switches; NFF & HPB Series Motor Brakes
- **TB Wood’s** Sheaves
- **Warner Electric** ERD/ERDD VAR and ERD/ERDD Gen2 Electrically Released Brakes

Diving Support Vessels

Wichita Clutch AquaMaKKs LI-SSB brakes are used on 4-point mooring winches that hold the ship in position during inspection and maintenance dives. Svendborg and Twiflex caliper disc brakes are used on the ship’s ROV (Remote Operating Vehicles) winches.
Truck-Mounted Hydraulic Fracturing Pumps

Ameridrives’ unique J-Series universal joints (drive shafts) were developed specifically for pump drives on fracking trucks. Models are available with either a DIN flange or a fitting yoke. All units feature a strong, torque-dense wing bearing design that allows for fast and easy drop-in replacement in the event of a failure.

TB Wood’s and Stromag elastomeric couplings are used on the cooling fan drive for the diesel engine that powers the high pressure pumps. Amerigear gear couplings are utilized on truck-mounted pumps that are driven by energy efficient electric motors instead of traditional diesel engines. The coupling is installed between the motor and the pump allowing the pump to be disconnected from the drive motor to prevent drivetrain damage during vehicle transport.

Hydraulic pump mounts from Guardian can also be incorporated into these pump drivetrains.

Logging/Wireline Trucks

Geophysical logging (or wireline) trucks carry a sophisticated scanner tool which is lowered into oil and gas bore holes. Warner Electric tooth clutches are positioned between a slow-moving gear motor and the vehicle’s winch drive. The clutch allows for controlled movement and positioning of the scanner tool/probe inside the bore holes during the measurement of bore characteristics. Twiflex caliper disc brakes also provide accurate control on these winches.

Twiflex Caliper Disc Brakes
Warner Electric E320 VAR-04 Tooth Clutch

Refineries

Marland CECON clutches, with a disconnect design that meets OSHA lockout/tagout requirements, are widely used on cracking process cooling fans that have dual drives such as a steam turbine and an electric motor. Lamiflex supplies bearing isolators and coupling guards for refinery applications. TB Wood’s elastomeric couplings are often used on low speed ANSI pumps. Stromag also provides reliable coupling solutions for refinery use.

Marland Clutch CECON Clutches
Lamiflex Couplings Bearing Isolators; Coupling Guards
Stieber ALG Clutches
Stromag Periflex® VN Couplings
TB Wood’s Sure-Flex Plus®, Dura-Flex® G-Flex Grid, L-Jaw and Torsiflex-i Couplings

Gas Compressors

Altra engineered elastomeric and flexible disc couplings along with V-belt sheaves are used on rotary, reciprocating and screw compressors as well as generator sets and cooling drives for compressor sets.

Lamiflex Couplings PWH Series Couplings
Stromag Periflex® VN Couplings
TB Wood’s Torsiflex-i and Form-Flex Couplings; V-Belt Sheaves; Premium V-Belts

Visit AltraEnergyOilandGas.com for information about additional Altra high performance coupling solutions designed for use on compressor and pump applications.
ALTRA MARKET WEBSITES
See how the brands of Altra Motion are dedicated to providing better ways to solve power transmission applications.
A Global Footprint to Support Customers Around the World

🌟 Altra Headquarters
● Altra Engineering & Service Centers
● Altra Manufacturing Facilities

The Brands of Altra Motion

Couplings
- Ameridrives
  www.ameridrives.com
- Bibby Turboflex
  www.bibbyturboflex.com
- Guardian Couplings
  www.guardiancouplings.com
- Huco
  www.huco.com
- Lamiflex Couplings
  www.lamiflexcouplings.com
- Stromag
  www.stromag.com
- TB Wood’s
  www.tbwoods.com

Linear Systems
- Thomson
  www.thomsonlinear.com
- Warner Linear
  www.warnerlinear.com

Geared Cam Limit Switches
- Stromag
  www.stromag.com

Engineered Bearing Assemblies
- Killan
  www.killanbearings.com

Electric Clutches & Brakes
- Matrix
  www.matrix-international.com
- Stromag
  www.stromag.com
- Warner Electric
  www.warnerelectric.com
- Deltran
  www.thomsonlinear.com

Belted Drives
- TB Wood’s
  www.tbwoods.com

Heavy Duty Clutches & Brakes
- Twiflex
  www.twiflex.com
- Stromag
  www.stromag.com
- Svendborg Brakes
  www.svendborg-brakes.com
- Wichita Clutch
  www.wichitACLUTCH.com

Gearing & Specialty Components
- Bauer Gear Motor
  www.bauergear.com
- Boston Gear
  www.bostongear.com
- Delevan
  www.delvan.com
- Delroyd Worm Gear
  www.delroyd.com
- Nuttall Gear
  www.nuttallgear.com

Engine Braking Systems
- Jacobs Vehicle Systems
  www.jacobsvehiclesystems.com

Precision Motors & Automation
- Kollmorgen
  www.kollmorgen.com

Miniature Motors
- Portescap
  www.portescap.com

Overrunning Clutches
- Formsprag Clutch
  www.formsprag.com
- Marland Clutch
  www.marland.com
- Stieber
  www.stieberclutch.com

www.altramotion.com