

Power Transmission Solutions for the Metal Processing Market

Ameridrives

Bauer Gear Motor

Bibby Turboflex

Delroyd Worm Gear

Formsprag Clutch

Nuttall Gear

Stieber

Stromag

TB Wood's

Twiflex

Wichita Clutch



The industry-leading brand names of Altra Motion offer power transmission solutions for a wide variety of metal processing applications

As industry leaders in electromechanical power transmission products, the companies of Altra Motion have been helping metal processing equipment manufacturers and mills worldwide achieve great success by increasing their efficiency while at the same time reducing their costs and downtime.

Altra engineered power transmission products are installed in a wide array of mill applications including annealing, pickling and coating lines, levelers, temper mills, slitters, accumulators, cold forming mills, chain conveyors, coilers and uncoilers.

Altra companies provide a comprehensive offering of mill spindles, couplings, U-joints, gear motors, speed reducers, torque-limiting devices, caliper brakes and backstopping clutches to meet the specific needs of the metal processing industry. Altra products are designed to withstand tough mill environments while providing exceptional personnel safety and equipment protection.

The companies of Altra Motion offer advanced technologies together with exceptional engineering capability. Our experienced mill application engineers analyze every application challenge in order to provide the optimal power transmission solutions for our customers.

Annealing Lines

Bauer BG Series gear motors are a popular choice for use on annealing furnace lines. The units feature grey cast iron gearbox and motor housings, a reinforced fan, high temperature seals, and a heavy duty fan cover. TB Wood's Dura-Flex elastomeric couplings are often mounted between the drive motors and table rollers. The couplings provide superior fatigue resistance in tough steel mill environments. Heavy-duty Delroyd Worm Gear speed reducers provide exceptional performance when installed on annealing line drivetrains.



Bauer Gear Motor BG Series gear motors

Ameridrives Americardan 2000 & 3000 Series universal joints

Ameridrives Amerigear® couplings (AGMA) and SL & SF Series mill spindles

TB Wood's Dura-Flex® couplings

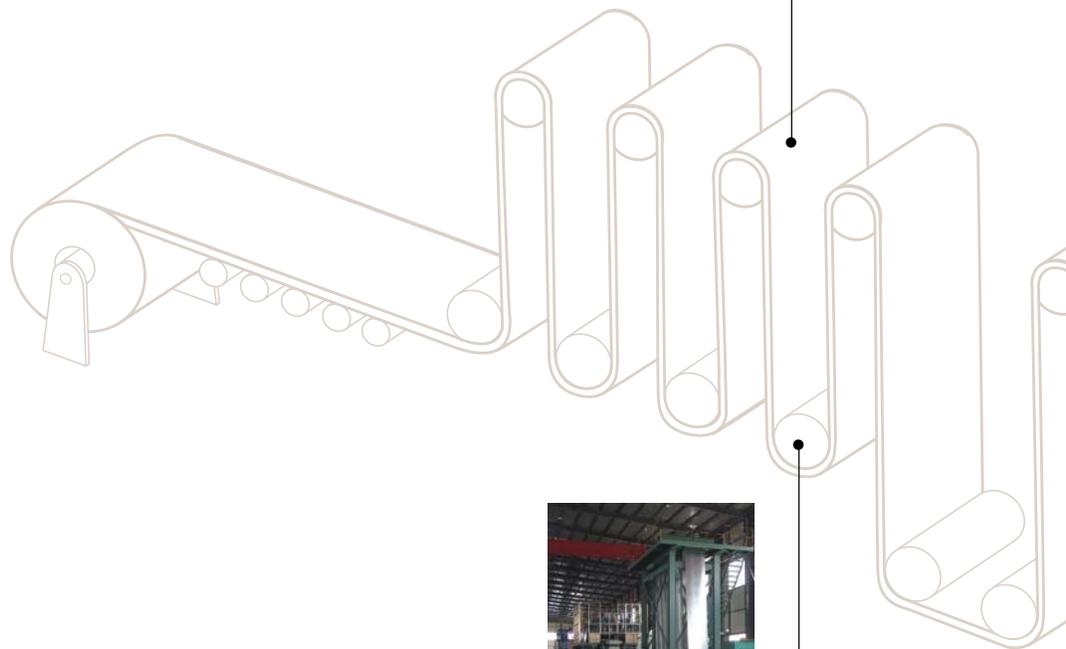
Bibby Turboflex Series III couplings and modular torque limiters

Wichita Clutch AquaMaKks™ clutches and brakes

Delroyd Worm Gear Speed reducers

Nuttall Gear TDS/HPD parallel shaft and Moduline® concentric shaft speed reducers

Twiflex MX pneumatic caliper disc brakes



Accumulators

Nuttall Gear provides custom-designed drive solutions to meet high tension conditions in accumulator applications including annealing and coating lines.

Nuttall Gear Accumulator drives

Ameridrives Amerigear® couplings (AGMA)

Bibby Turboflex Series III couplings

TB Wood's Dura-Flex® couplings



Levelers

Nuttall Gear custom designs multi-shaft leveler drives to meet our customer's specific roll separation requirements. Ameridrives mill spindles can handle high misalignment due to changes in material thickness.

Ameridrives Americardan 2000 & 3000 Series universal joints

Ameridrives Amerigear® couplings (AGMA) and SL Series mill spindles

Nuttall Gear Leveler drives

Twiflex MX Pneumatic caliper disc brakes

Bibby Turboflex Series III couplings and modular torque limiters



Slitters

Heavy-duty AquaMaKKs water cooled clutches and brakes are utilized to control tension on coil slitters and unwinders. Nuttall "zero backlash" slitter drives are custom-designed to accommodate specific slitter performance requirements. Formsprag overrunning clutches are used in threading drives to protect the low speed drives from over speeding when the process is run at full production speeds. Stromag couplings and wet clutches are also utilized.

Nuttall Gear Slitter drives

Delroyd Worm Gear Speed reducers

Wichita Clutch AquaMaKKs™ clutches and brakes

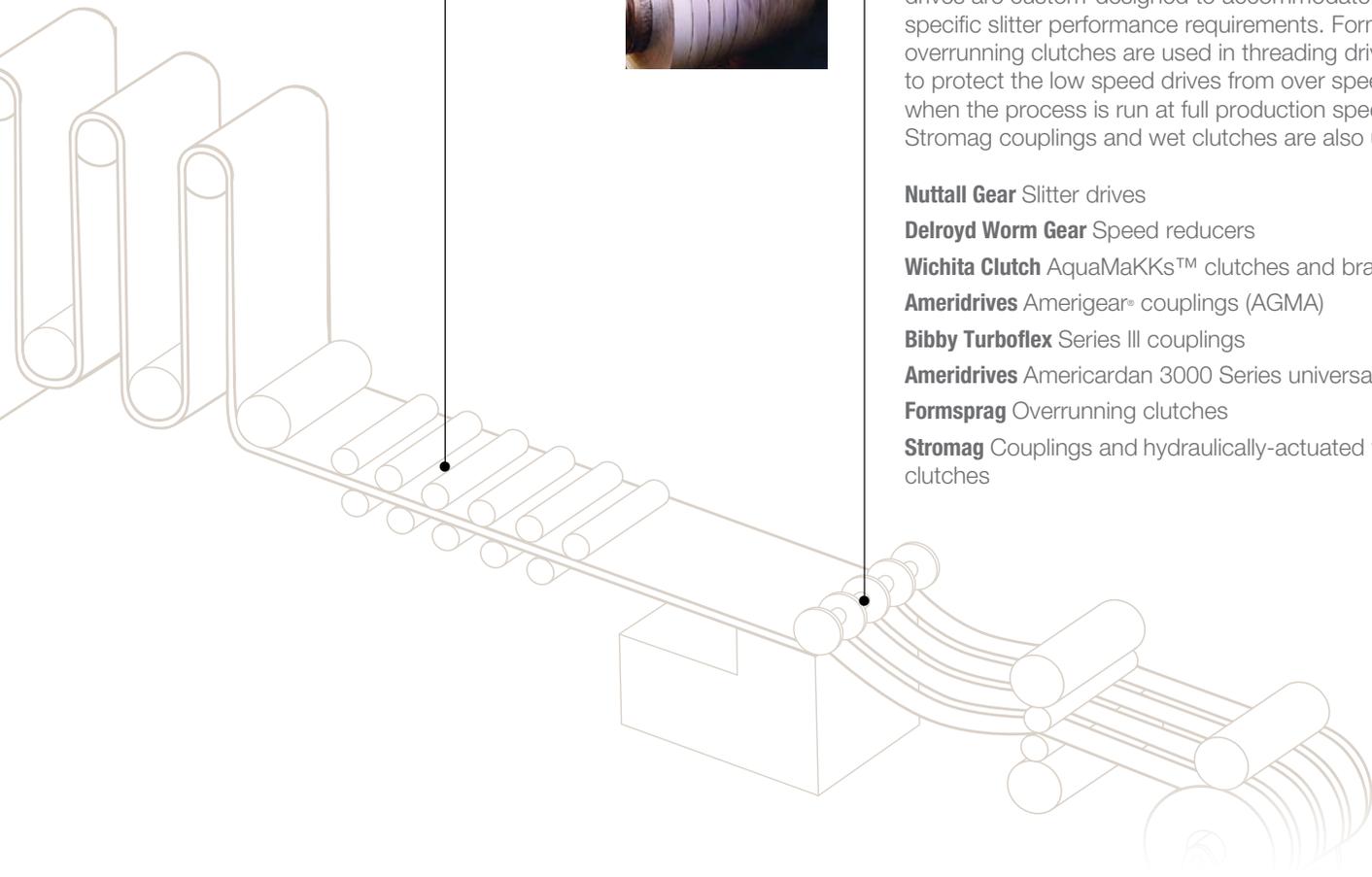
Ameridrives Amerigear® couplings (AGMA)

Bibby Turboflex Series III couplings

Ameridrives Americardan 3000 Series universal joints

Formsprag Overrunning clutches

Stromag Couplings and hydraulically-actuated wet clutches



Pickling Lines

TB Wood's Dura-Flex elastomeric couplings are often mounted between the drive motors and table rollers. These couplings provide superior fatigue resistance in tough steel mill environments. Units are easy to assemble, have a high operating temperature and are moisture and chemical resistant. Bauer gear motors are designed for the heavy shock loads of mill pickling line applications. The units feature grey cast iron gearbox and motor housings, a reinforced fan, high temperature seals, and a heavy-duty fan cover. Formsprag overrunning clutches are used in threading drives to protect the low speed drives from over speeding when the process is run at full production speeds.



Bauer Gear Motor BF Series shaft-mounted gear motors

Ameridrives Americardan 2000 & 3000 Series universal joints

Ameridrives Amerigear® couplings (AGMA) and SL & SF Series mill spindles

TB Wood's Dura-Flex® couplings

Nuttall Gear TDS/HPD parallel shaft and Moduline® concentric shaft speed reducers

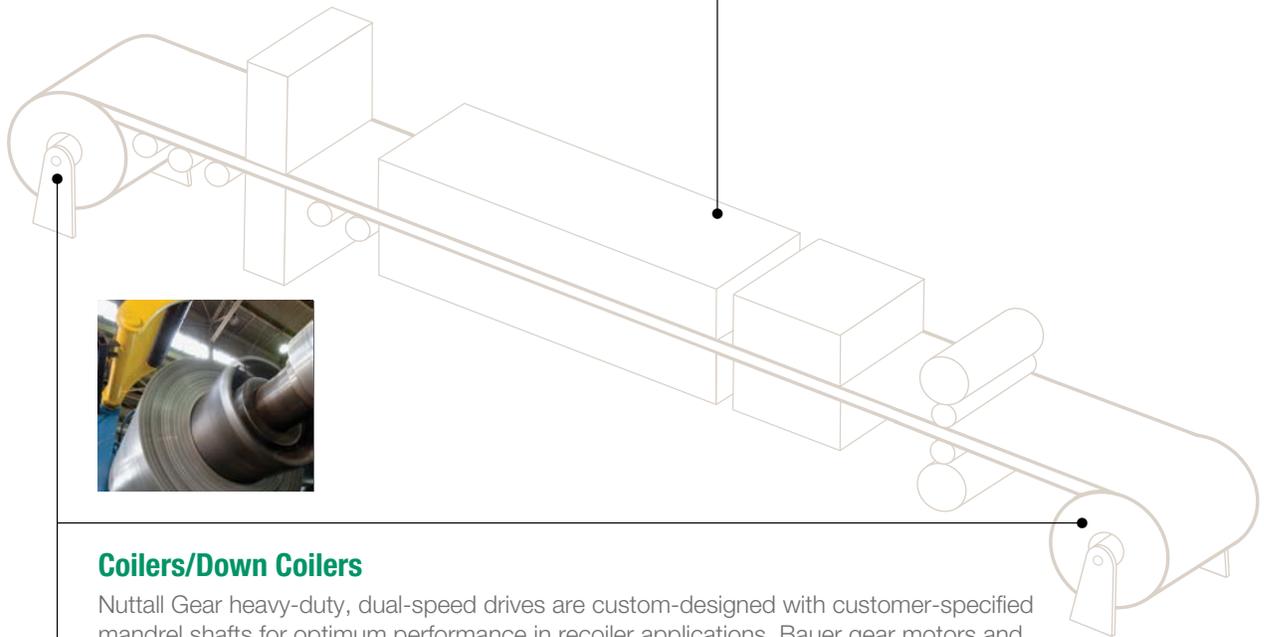
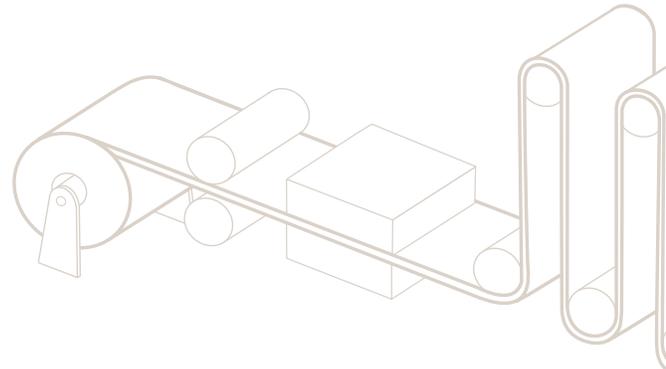
Wichita Clutch AquaMaKKs™ clutches and brakes

Bibby Turboflex Series III couplings and modular torque limiters

Delroyd Worm Gear Speed reducers

Twiflex MX pneumatic caliper disc brakes

Stromag Flexible couplings



Coilers/Down Coilers

Nuttall Gear heavy-duty, dual-speed drives are custom-designed with customer-specified mandrel shafts for optimum performance in recoiler applications. Bauer gear motors and Bibby torque limiters are also utilized in coiler drive trains.

Ameridrives Americardan 3000 Series universal joints

Bauer Gear Motor BF Series shaft-mounted gear motors and BG Series helical in-line gear motors

Nuttall Gear Two-speed recoiler drive

Ameridrives Amerigear® Couplings (AGMA)

Wichita Clutch AquaMaKKs™ Clutches and brakes

Delroyd Worm Gear Speed reducers

Bibby Turboflex Series III couplings and modular torque limiters

Twiflex MX pneumatic caliper disc brakes



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Coating/Galvanizing Lines

Formsprag overrunning clutches and TB Wood's elastomeric chemical-resistant couplings are found on a variety of coating and galvanizing lines. Formsprag overrunning clutches are used in threading drives to protect the low speed drives from over speeding when the process is run at full production speeds. In steel processing, low speed drives are used to power the drive rollers when threading the leading edge of a new roll through the process, or after a problem in the line and it has to be restarted. The overrunning clutch will transmit the low speed torque from the threading drive and automatically disconnect or overrun when the line is driven at full production speeds.

Bauer Gear Motor BF Series shaft-mounted gear motors

Nuttall Gear TDS/HPD parallel shaft and Moduline® concentric shaft speed reducers

TB Wood's Dura-Flex® elastomeric couplings

Ameridrives Americardan 2000 & 3000 Series universal joints

Ameridrives Amerigear® couplings (AGMA) and SL & SF Series mill spindles

Delroyd Worm Gear Speed reducers

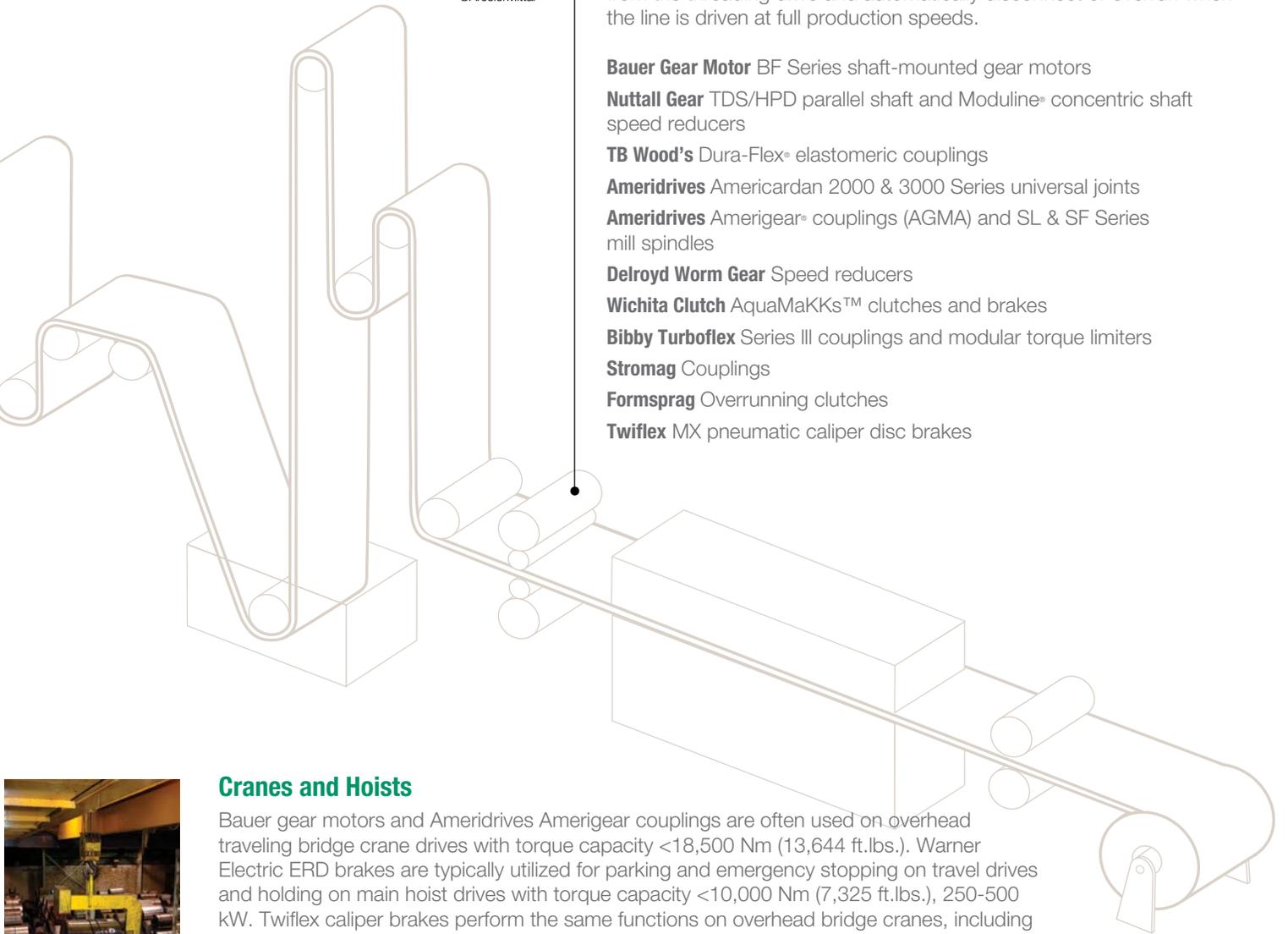
Wichita Clutch AquaMaKKs™ clutches and brakes

Bibby Turboflex Series III couplings and modular torque limiters

Stromag Couplings

Formsprag Overrunning clutches

Twiflex MX pneumatic caliper disc brakes



Cranes and Hoists

Bauer gear motors and Ameridrives Amerigear couplings are often used on overhead traveling bridge crane drives with torque capacity <math><18,500 \text{ Nm}</math> (13,644 ft.lbs.). Warner Electric ERD brakes are typically utilized for parking and emergency stopping on travel drives and holding on main hoist drives with torque capacity <math><10,000 \text{ Nm}</math> (7,325 ft.lbs.), 250-500 kW. Twiflex caliper brakes perform the same functions on overhead bridge cranes, including ladle hood winches, with a capacity >10 tons. TB Wood's sheaves are used in upper and lower blocks. Stromag geared cam limit switches are widely used on mill cranes.

Bauer Gear Motor BF Series shaft-mounted gear motors

Ameridrives Amerigear® couplings (AGMA)

Bibby Turboflex Series III couplings

Twiflex Spring applied Type VCS caliper brakes, MXEA electric disc brakes

Warner Electric ERD/ERDD VAR and ERD/ERDD Gen2 Spring-operated, electromagnetically released brakes

Stromag Caliper brakes, electromagnetic motor brakes and geared cam limit switches

Delroyd Worm Gear Speed reducers

TB Wood's V-belt sheaves

Ameridrives Americardan C Series wing bearing style universal joints





Cold Forming

Delroyd Worm Gear pinch roll drives stand up to severe shock loads and potential damage in mill environments. The drives feature fabricated steel housings with up to 48" center distances which allow for higher horsepower ratings when compared to cast iron housings. Durable Ameridrives universal joints provide a high degree of strength with minimum distortion under load. Units feature one-piece yolk and bearing housing construction.

Bauer BF Series gear motors feature grey cast iron gearbox and motor housings, a reinforced fan, high temperature seals, and a heavy duty fan cover. TB Wood's Dura-Flex elastomeric couplings are often utilized in cold forming applications. The couplings are easy to assemble and provide superior fatigue resistance in tough steel mill environments.

Ameridrives Americardan 3000 Series universal joints

TB Wood's Dura-Flex® couplings

Ameridrives Amerigear® couplings (AGMA) and SL & SF Series mill spindles

Bauer Gear Motor BF Series shaft-mounted geared motors

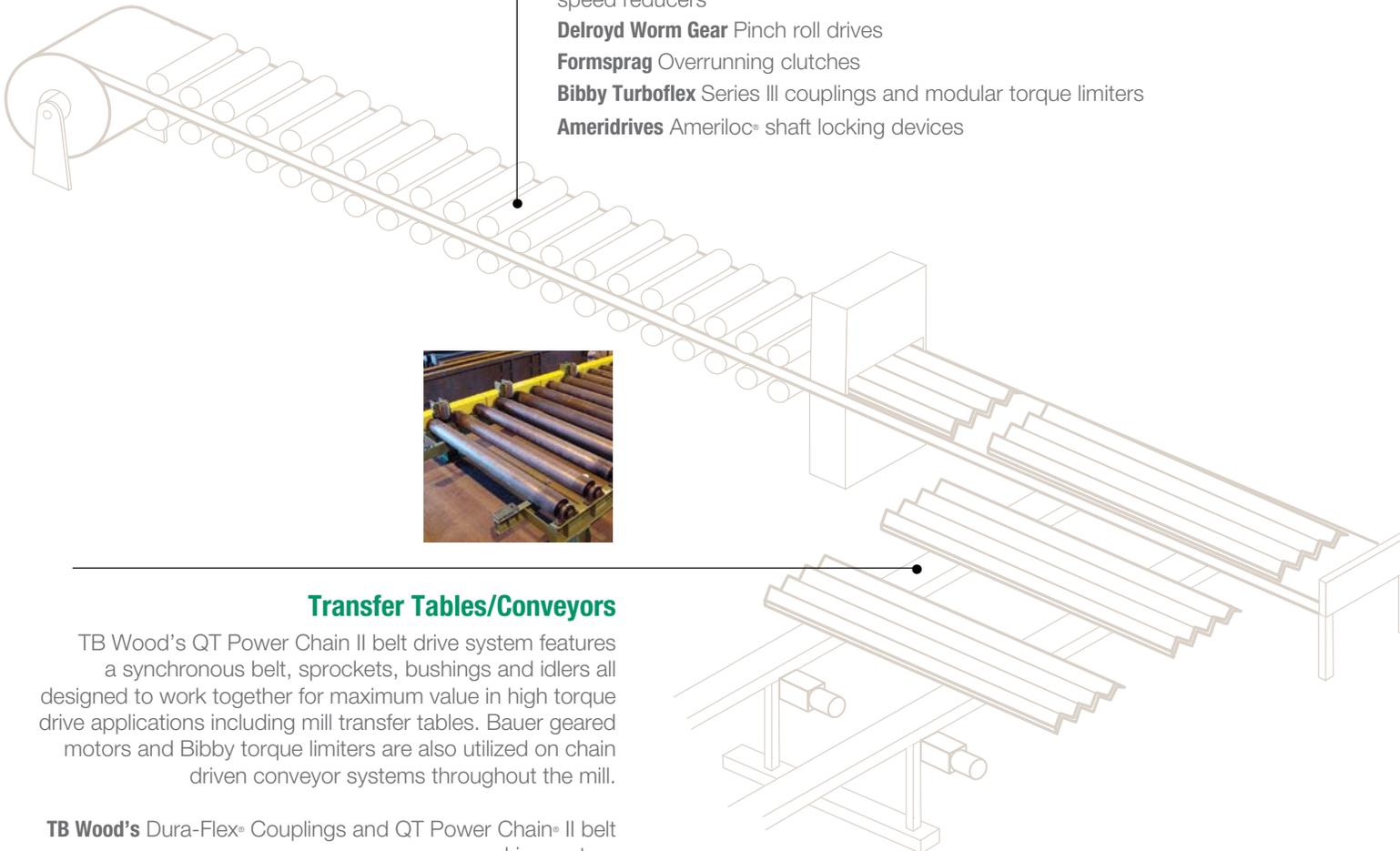
Nuttall Gear TDS/HPD parallel shaft and Moduline® concentric shaft speed reducers

Delroyd Worm Gear Pinch roll drives

Formsprag Overrunning clutches

Bibby Turboflex Series III couplings and modular torque limiters

Ameridrives Ameriloc® shaft locking devices



Transfer Tables/Conveyors

TB Wood's QT Power Chain II belt drive system features a synchronous belt, sprockets, bushings and idlers all designed to work together for maximum value in high torque drive applications including mill transfer tables. Bauer geared motors and Bibby torque limiters are also utilized on chain driven conveyor systems throughout the mill.

TB Wood's Dura-Flex® Couplings and QT Power Chain® II belt drive system

Bauer Gear Motor BF Series shaft-mounted gear motors and BG Series helical in-line gear motors

Twiflex MX pneumatic caliper disc brakes

Stromag Periflex® couplings

Bibby Turboflex Bibbigard torque limiters

Wichita Clutch AquaMaKKs™ clutches and brakes

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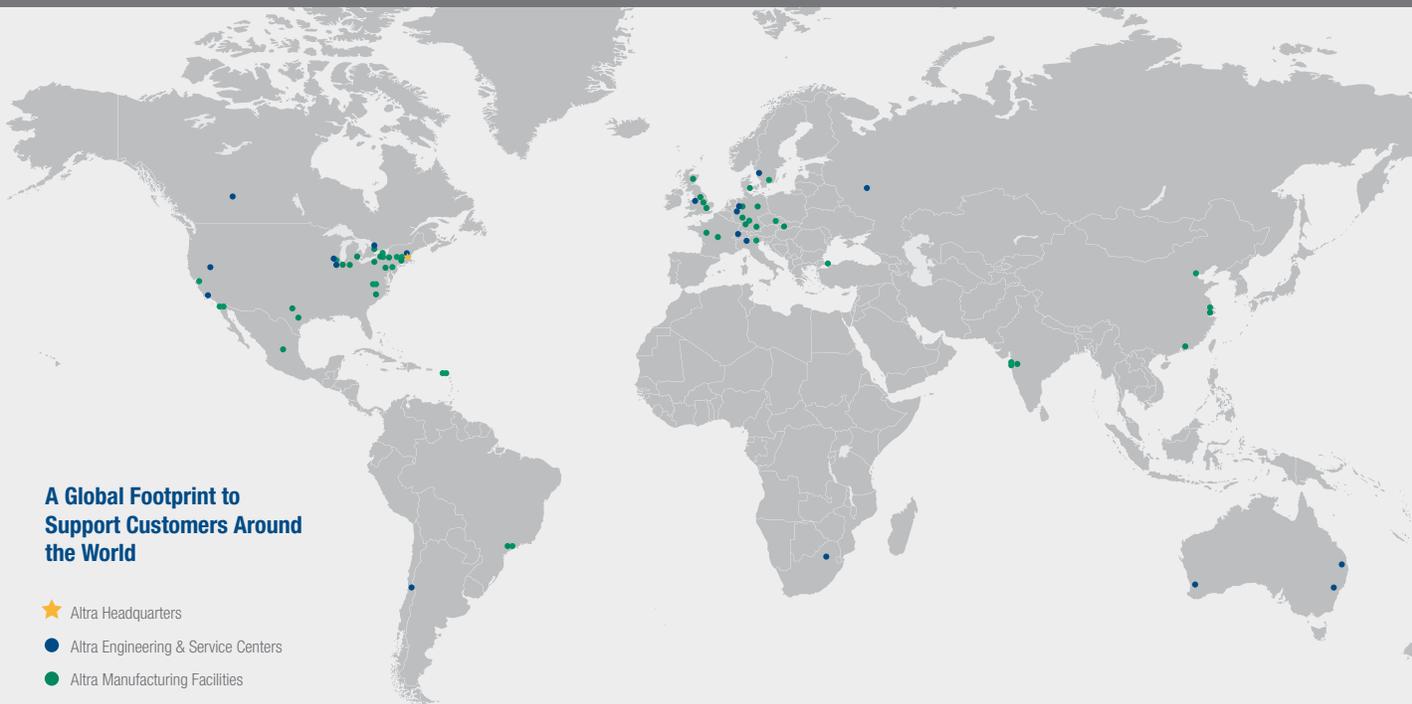


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The Brands of Altra Motion

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www.huco.com
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www.tbwoods.com

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www.thomsonlinear.com

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www.stromag.com

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www.kilianbearings.com

Electric Clutches & Brakes

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www.stromag.com
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www.warnerelectric.com

Belted Drives

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www.tbwoods.com

Heavy Duty Clutches & Brakes

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www.twiflex.com
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www.stromag.com
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www.svendborg-brakes.com
- Wichita Clutch**
www.wichitaclutch.com

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