

Ameridrives

Bauer Gear Motor

Bibby Turboflex

Delroyd Worm Gear

Formsprag Clutch

Marland Clutch

Nuttall Gear

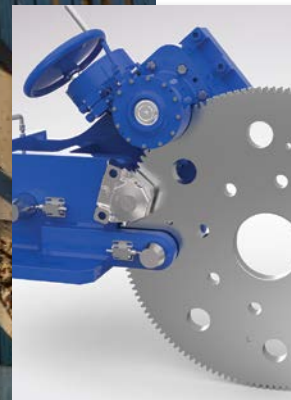
Stieber

Svendborg Brakes

TB Wood's

Twiflex

Power Transmission Solutions for the Metal Shredder Market



ALTRA INDUSTRIAL MOTION PROVIDES POWER TRANSMISSION SOLUTIONS FOR METAL SHREDDERS

As industry leaders in electromechanical power transmission products, the companies of Altra Industrial Motion have been helping metal shredder equipment manufacturers and metal recycling companies worldwide achieve great success by increasing their efficiency, reducing their costs and downtime while improving the safety of their operations. Altra engineered power transmission products are installed in a wide array of shredder applications including primary shredders, feeding apron conveyors, dust conveyors and magnetic material separator conveyors.

Altra companies provide a comprehensive offering of couplings, U-joints, geared motors, backstops, brakes, speed reducers, belted drives, shaft locking devices, torque-limiting devices, and turning, locking & braking systems to meet the specific needs of the metal shredder industry. Altra products are designed to withstand harsh metal shredder environments including dirt, dust and high temperatures, while providing exceptional personnel safety and equipment protection.



Altra Brands Deliver Value Throughout the Drivetrain

With industry-leading brand names, including Ameridrives, TB Wood's, Marland Clutch, Twiflex, Stieber, Formsprag Clutch, Nuttall Gear, Bibby Turboflex, Svendborg Brakes, Bauer Gear Motor, and Delroyd Worm Gear, Altra Industrial Motion is positioned to provide exceptional drivetrain value by ensuring component compatibility and optimized performance combined with time-saving, single-source convenience.

To help shredder operators control inventories, Altra teams work hard to achieve short lead times, on-time deliveries and fast-turnaround rebuild services. Our products are designed to reduce downtime by meeting the requirements for long service intervals, easy maintenance and quick interchanges.

Extensive Technical Experience in Metal Shredder Applications

Major OEMs routinely rely on the vast shredder application knowledge of Altra's engineering teams that collaborate to 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.

For more information about application-specific power transmission solutions for metal shredders from Altra Industrial Motion, including case studies and literature, visit:

www.AltraMetalShredders.com



ALTRA OFFERS FULL DRIVETRAIN SOLUTIONS TO KEEP METAL SHREDDERS RUNNING EFFICIENTLY... WORLDWIDE.



Couplings and Shaft Locking Devices

Altra U-joints feature swing diameters up to 1200 mm provide exceptional endurance and reduced vibration on all types of metal shredders. Durable shaft locking devices and gear couplings are used on a variety of metal recycling equipment. Altra elastomeric couplings are often found on conveyor drivetrain applications due to their superior environmental performance.

Ameridrives • TB Wood's • Bibby Turboflex



Gear Motors and Enclosed Gearing

As the leading innovator of worm and helical gear technologies, Altra continues to improve product performance by developing features, designs and custom-engineered solutions to meet the demands of the metal recycling market. Altra offers a full range of geared motor solutions and custom-designed speed reducers for various drive applications throughout metal recycling operations.

Bauer Gear Motor • Delroyd Worm Gear • Nuttall Gear



Overload Devices

Bibby Torque Limiters, with up to 95% torque setting accuracy, are found in many metal recycling applications including shredders and feeder conveyors. Shear pin, shear groove and SafeSet models from Ameridrives are also available. All devices are preset to release at a specific torque value to prevent drive damage and downtime.

Ameridrives • Bibby Turboflex



Backstops

Stieber, Marland and Formsprag backstops are utilized to prevent backward rotation during power-off situations on inclined feeder, transport, and separator conveyors. These Altra brands offer a wide range of backstopping designs including internal to the gear reducer models, externally mounted high speed models, and externally mounted low speed models. Stieber also offers models that are releasable under load.

Marland Clutch • Formsprag Clutch • Stieber



Belted Drives

TB Wood's sheaves and V-belts are utilized on certain types of large metal shredder designs and conveyors. TB Wood's provides unmatched made-to-order capabilities accommodating special drive requirements. Ductile iron for high impact or high speed applications or flywheels for extra inertia on whole car shredders, our engineers have the experience to design the solution for any shredder application.

TB Wood's



Brakes and Turning, Locking & Braking Systems

Caliper braking systems from Svendborg Brakes provide additional safety while reducing coasting time. A Turning, Locking & Braking (TLB) system from Twiflex can be installed on a shredder rotor drivetrain to help meet expanding OSHA standards requiring additional safety measures on shredding machines. .

Twiflex • Svendborg Brakes

Auto Shredders



Auto (ELV) Shredders

Ameridrives provides state-of-the-art universal joint technologies including innovative torque overload designs and integrated shaft locking devices used on rotary metal shredder applications. Ameridrives locking devices are often used on these heavy-duty driveshafts that connect the electric drive motor(s) to the main shredder rotor (drum).

A custom-configured Twiflex Turning, Locking & Braking system can be installed on the rotor drivetrain to provide locking functionality as well as allowing controlled incremental creep rotation for tooth replacement and jam clearing. Svendborg brakes are often installed by operators to stop the shredder quickly, reducing long coasting times and for parking functionality during maintenance.

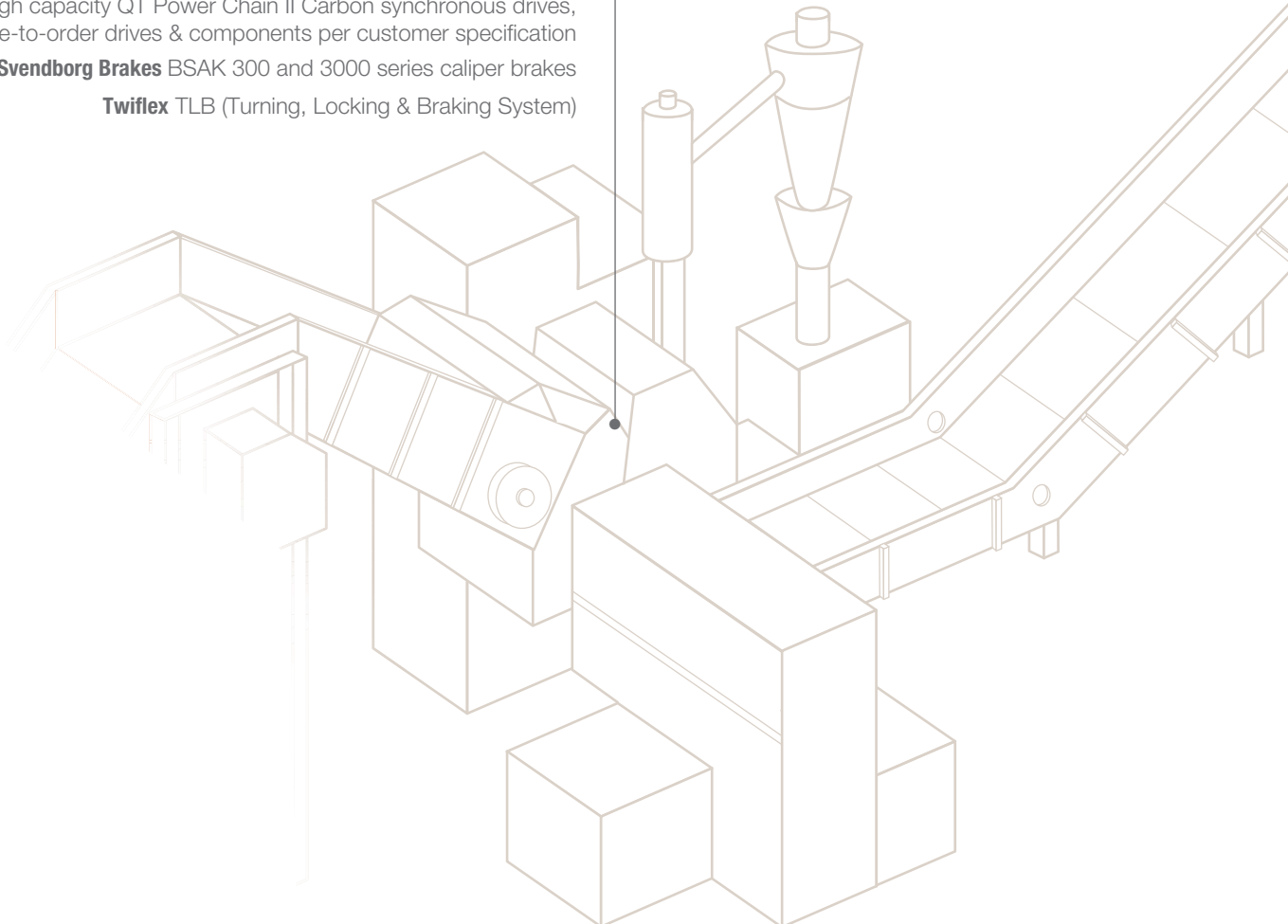
Ameridrives Americardan 5000 & 3000 series universal joints, Amerigear® couplings, Ameriloc® shaft locking devices and Overload devices

Bibby Turboflex Modular torque limiters

TB Wood's Standard V-belt and synchronous drives, high capacity Premium V-belt and high capacity QT Power Chain II Carbon synchronous drives, made-to-order drives & components per customer specification

Svendborg Brakes BSAK 300 and 3000 series caliper brakes

Twiflex TLB (Turning, Locking & Braking System)



AMERICARDAN 5000 & 3000 SERIES UNIVERSAL JOINTS ARE IDEAL FOR USE IN METAL SHREDDER APPLICATIONS

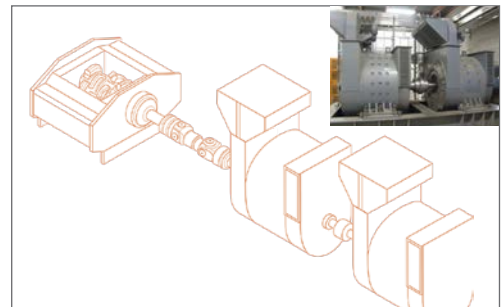
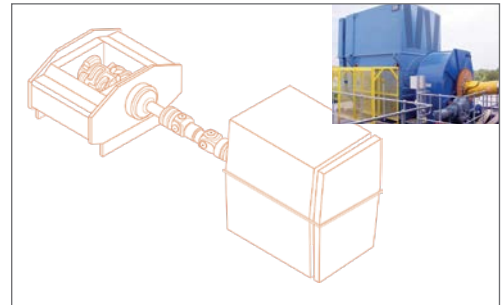
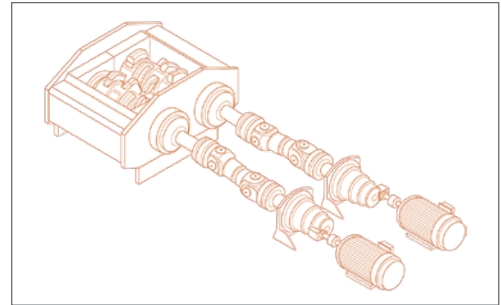
Ameridrives engineers have worked closely with many shredder manufacturers (OEM's) and recycling yards in the design, installation, and repair of heavy-duty driveshaft assemblies.

Typical application of Ameridrives heavy-duty driveshaft assemblies is a direct connection between an electric prime mover and shredder rotor. Electric motor power ranges are 2,000–10,000 horsepower (1490 – 7460 kW) operating at 500 to 650 rpm. Heavy-duty driveshafts are excellent choices for shredder applications for a number of reasons:

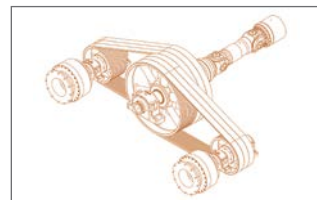
- Driveshafts allow for larger misalignment angles than other types of couplings
- Axial travel section compensates for movement of the shredder rotor and variations within the installation
- Units provide high torque capacity versus rotational diameter
- Universal driveshafts are easier to maintain
- Units provide long service life 7–10 years (when properly selected)

Additional Advantages

- Domestic manufacture and design
- Proven designs and decades of experience in heavy steel rolling and shredding applications
- High torque capacity
- High operating angle capacity
- One piece yoke reduces the number of extra bolted connections and serrations to wear and maintain
- Heat treated alloy steel components
- Nitrided splined travel sections available upon request for improved durability
- Ideal loading across entire bearing surface as a result of FEA analysis insuring balanced deflection between the yoke and cross
- Modular bearing assemblies with inner races allows for repeated reuse of the cross body saving on repair costs (sizes 3440 and greater)
- Factory repair facility

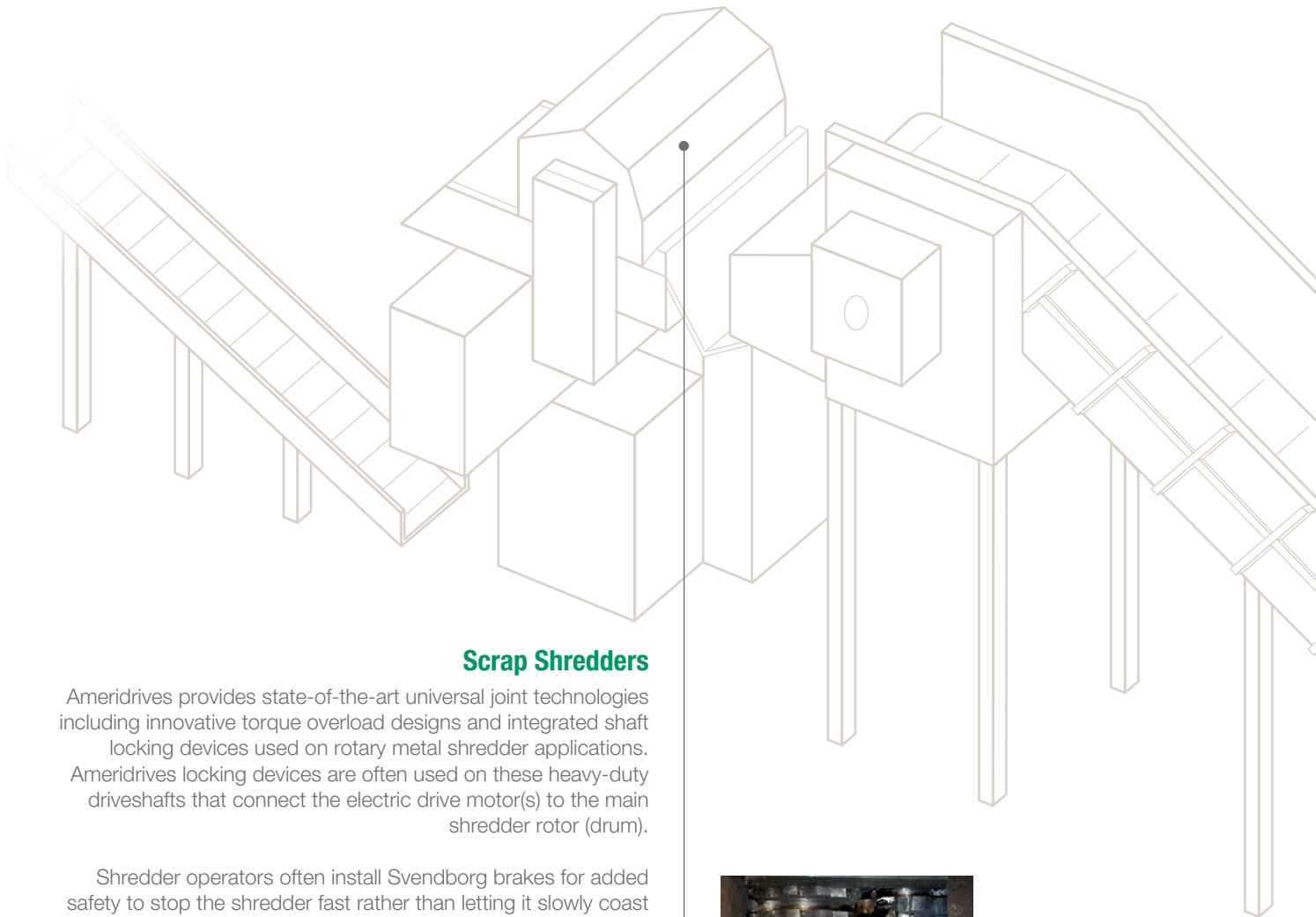


Americardan 5000 & 3000 series universal joints are designed for any shredder drive configuration including dual rotor/motor, single rotor/motor and single rotor with twin inline motors.



Complete Altra drivetrains are also available for use with natural gas engines.

Scrap Shredders



Scrap Shredders

Ameridrives provides state-of-the-art universal joint technologies including innovative torque overload designs and integrated shaft locking devices used on rotary metal shredder applications. Ameridrives locking devices are often used on these heavy-duty driveshafts that connect the electric drive motor(s) to the main shredder rotor (drum).

Shredder operators often install Svendborg brakes for added safety to stop the shredder fast rather than letting it slowly coast to a stop. A custom-configured Twiflex Turning, Locking & Braking system can be installed on the rotor drivetrain to provide locking functionality as well as allowing controlled incremental creep rotation for tooth replacement and jam clearing.



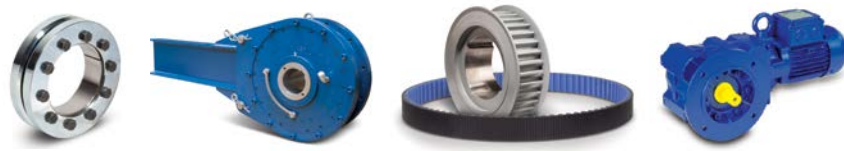
Ameridrives Americardan 5000 & 3000 series universal joints, Amerigear® couplings, overload devices, and Ameriloc® shaft locking devices

Bibby Turboflex Modular torque limiters

Svendborg Brakes BSAK 300 and 3000 series caliper brakes

Twiflex TLB (Turning, Locking & Braking System)





Feeding Conveyors

Formsprag, Stieber, and Marland high speed and low speed backstops prevent reverse rotation on incline conveyors that feed scrap material into the shredder. Stieber also offers models that are designed to allow the tension of a jammed belt to be carefully released on large inclined conveyors. Heavy duty Nuttall reducers, Bauer geared motors and Ameridrive couplings are often utilized on conveyor drivetrains.

Marland Clutch BCMA backstops

Formsprag Clutch Backstops

Nuttall Gear Helical speed reducers

Ameridrive Amerigear® couplings and Ameriloc® shaft locking devices

Stieber RDBK, RDBR-E and RSCI Backstops

Bibby Turboflex Modular torque limiters

Bauer Gear Motor BK series bevel geared motors

TB Wood's Standard synchronous drives and high capacity
QT Power Chain II Carbon synchronous drives



Transport and Separator Conveyors

Transport Conveyors

Formsprag, Marland and Stieber backstops prevent reverse rotation on conveyors that feed shredded material into various separators. Stieber RDBK and RDBR-E models are specifically designed to allow the tension of a jammed belt to be carefully released on large inclined conveyors. Heavy duty Nuttall and Delroyd speed reducers, Bauer geared motors and Ameridrives are often utilized on these conveyor drivetrains.

Nuttall Gear Helical speed reducers

Delroyd Worm Gear Speed reducers

Bauer Gear Motor BK series bevel geared motors

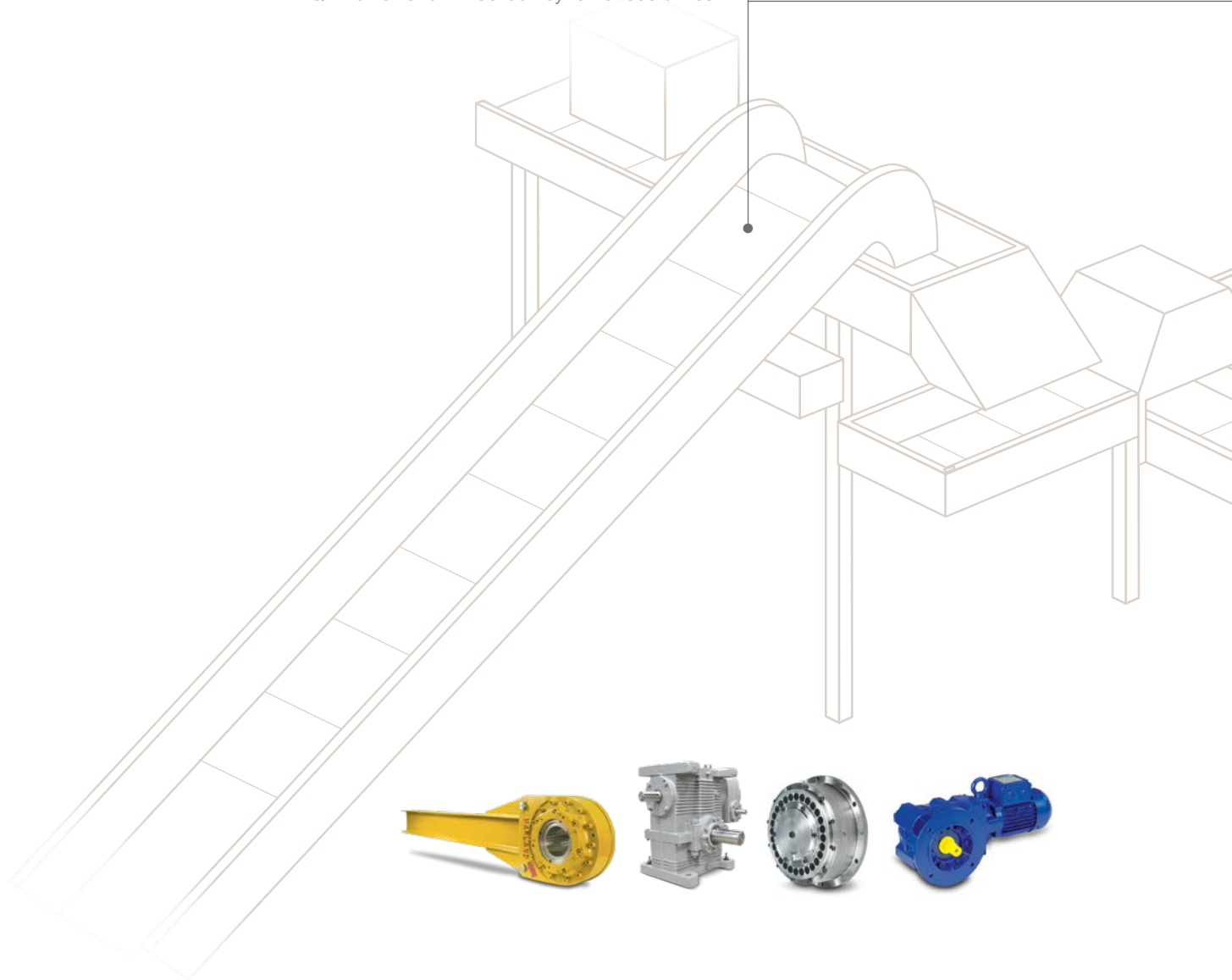
Marland Clutch Backstops

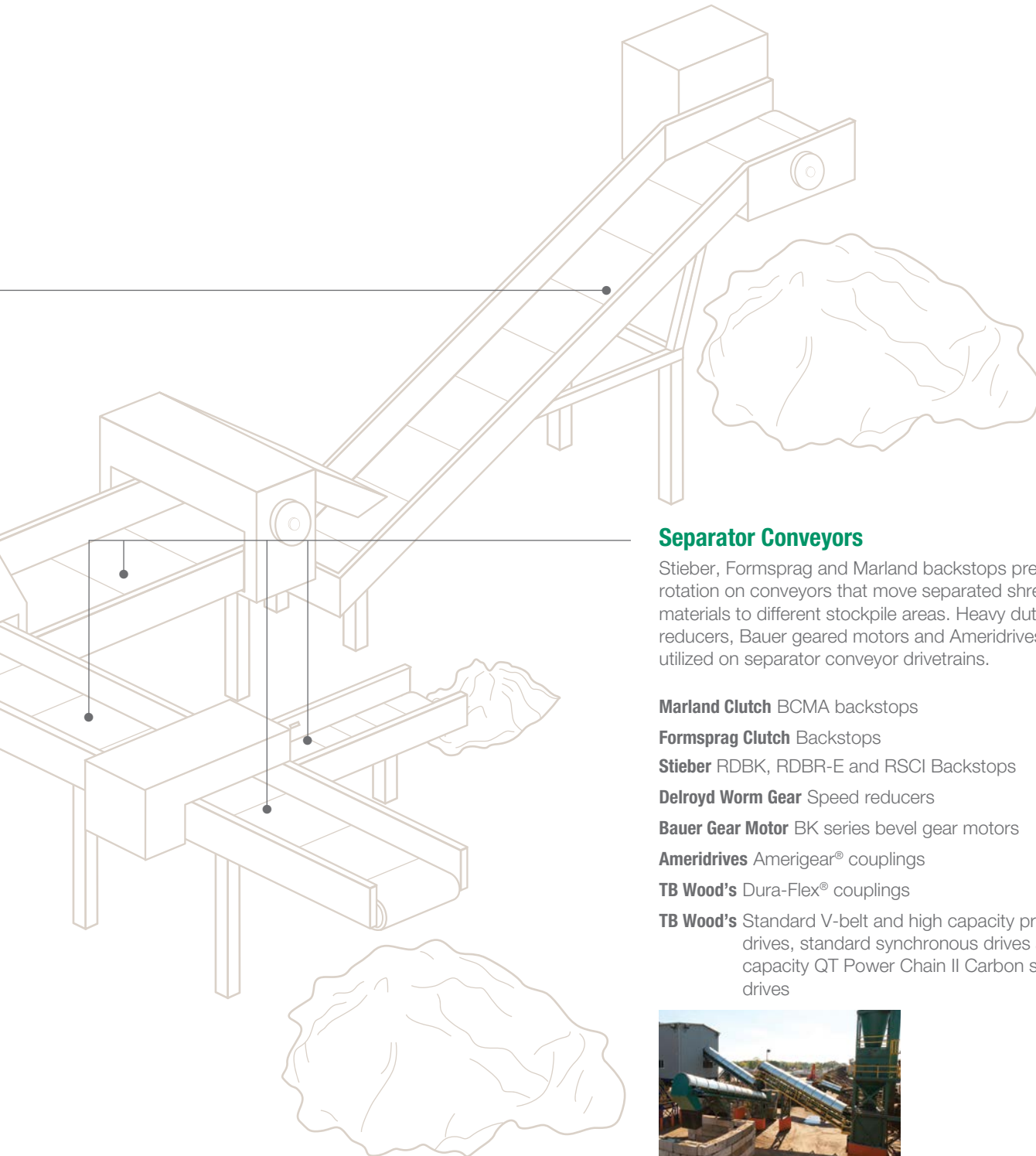
Stieber RDBK, RDBR-E and RSCI Backstops

Formsprag Clutch Backstops

Ameridrives Amerigear® couplings

TB Wood's Standard synchronous drives and high capacity QT Power Chain II Carbon synchronous drives





Separator Conveyors

Stieber, Formsprag and Marland backstops prevent reverse rotation on conveyors that move separated shredded materials to different stockpile areas. Heavy duty Nuttall reducers, Bauer geared motors and Ameridrives are often utilized on separator conveyor drivetrains.

Marland Clutch BCMA backstops

Formsprag Clutch Backstops

Stieber RDBK, RDBR-E and RSCI Backstops

Delroyd Worm Gear Speed reducers

Bauer Gear Motor BK series bevel gear motors

Ameridrives Amerigear® couplings

TB Wood's Dura-Flex® couplings

TB Wood's Standard V-belt and high capacity premium V-belt drives, standard synchronous drives and high capacity QT Power Chain II Carbon synchronous drives



UNIVERSAL JOINTS

Ameridrives

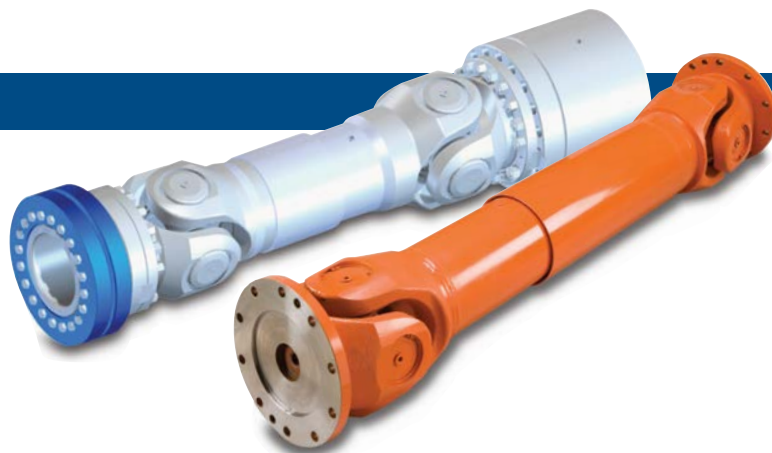
Americardan 5000 & 3000 Series

Designed for operation at high misalignment angles up to 15°. Bearing and seal design resists lubrication loss and contamination. Ideal for use in severe atmospheric conditions. Superior materials and tight tolerances have proven to reduce vibration levels.

5000 Series are high torque designs ideal for applications with diameter restrictions. Catalog sizes range from 225 mm to 860 mm swing diameters and peak torque capacities up to 5647 kNm. Higher torque, custom designs are available in excess of 1200 mm swing diameter.

3000 Series are rated for high misalignment angles and are available in catalog sizes from 55 mm to 860 mm swing diameters and peak torque capacities up to 3153 kNm. Higher torque, custom designs are available in excess of 1000 mm swing diameter. Sizes 3440 and larger incorporate a unique inner race design within the bearing package to reduce routine repair costs by approximately 50%.

- One-piece yoke delivers a high degree of strength with minimum distortion under load
- One-piece bearing housing reduces the number of bolted connections improving reliability
- Zero clearance bearing housing retention provides extended service life
- Multiple rows of precision roller bearings reduce bearing end loading extending service life



Universal Joint Selection

Selection of the heavy-duty cardan shaft is done with consideration of multiple application specifics and customer requirements. B10 life is defined as the minimum bearing life expectancy for 90% probability of survival. Precision machining and superior grades of steel typically extend the average actual operating life of the bearings by five times the calculated B10 life.

The second key part in proper shaft selection is assuring that the shaft does not see a sudden failure from normal torque loads and/or excessive shock loads. A review of the normal torque expected, adjusted by the proper service factors, assures shaft integrity through the bearing lifespan and beyond.

One final aspect of selection is the potential for torsional vibration as a result of system harmonics. System data from the application should be analyzed to ensure that the system's natural frequency does not coincide with the rotational speed of the universal joint.

Fast product availability combined with comprehensive engineering support

Ameridrives components are manufactured in several locations around the world which allows us to offer quick service on complete assemblies and spare parts. Ameridrives application engineers can work directly with your engineering and design personnel to develop a final design that can be supplied usually within standard lead times. When retrofitting or replacement of existing drivelines is required, complete design control allows Ameridrives to offer other major manufacturers connection types to ensure interchangeability. Repair work is also made easier as factory parts are available globally.

Americardan Universal Joint Sizes

(All dimensions in mm unless noted)

DC Motor

Power*		HP	1500	2000	2500	3000		3500		4000		5000	6000
Ameridrives Size*			U3315	U3315	U3350	U3350	U3390	U5350	U3390	U5390	U3440	U3440	U3440
Tdw	Nm		74,800	74,800	110,700	110,700	158,200	190,000	158,200	246,000	269,000	269,000	269,000
Tk	Nm		152,300	152,300	233,600	233,600	310,700	374,000	310,700	486,000	553,000	553,000	553,000
Standard Length			N/A	N/A	N/A	96"	96"	96"	96"	96"	96"	96"	96"
Flange	A	mm	350	350	390	390	435	390	435	435	435	435	435
Type			Friction	Friction	Friction	Friction	Friction	Friction	Friction	Key	Key	Key	Key
Slip	S	mm	+/-70	+/-70	+/-75	+/-85	+/-95	+/-85	+/-95	+/-95	+/-95	+/-95	+/-95
Swing	C	mm	315	315	350	350	390	350	390	390	440	440	440
Pilot	B	mm	220	220	250	250	280	250	280	190	190	190	190
Flange Thickness	G	mm	25	25	32	32	40	32	40	42	42	42	42
Bolt Circle	DBC	mm	310	310	345	345	385	345	385	385	385	385	385
Bolt Holes	H	mm	22	22	24	24	27	24	27	28	28	28	28
# of Bolts	I	mm	10	10	10	10	10	10	10	16	16	16	16
Key Width	X	mm	N/A	N/A	N/A	N/A	N/A	N/A	N/A	80	80	80	80

AC Motor

Power*		HP	3000		3500		4000		5000	6000	7000	8000	10000
Ameridrives Size*			U5350	U3390	U5390	U3440	U5390	U3440	U3490	U3490	U3550	U3550	U5550
Tdw	Nm		190,000	158,200	246,000	269,000	246,000	269,000	358,000	358,000	594,000	594,000	747,000
Tk	Nm		374,000	310,700	486,000	553,000	486,000	553,000	811,000	811,000	1,243,000	1,243,000	1,474,000
Standard Length			96"	96"	96"	96"	96"	96"	96"	96"	96"	96"	96"
Flange	A	mm	390	435	435	435	435	435	480	480	550	550	550
Type			Friction	Friction	Key	Key	Key	Key	Key	Key	Key/Hirth	Key/Hirth	Key/Hirth
Slip	S	mm	+/-85	+/-95	+/-95	+/-95	+/-95	+/-95	+/-95	+/-95	+/-95	+/-95	+/-95
Swing	C	mm	350	390	390	440	390	440	490	490	550	550	550
Pilot	B	mm	250	280	190	190	190	190	205	205	250	250	250
Flange Thickness	G	mm	32	40	42	42	42	42	47	47	50	51	51
Bolt Circle	DBC	mm	345	385	385	385	385	385	425	425	492	492	492
Bolt Holes	H	mm	24	27	28	28	28	28	31	31	31	31	31
# of Bolts	I	mm	10	10	16	16	16	16	16	16	16	16	16
Key Width	X	mm	N/A	N/A	80	80	80	80	90	90	100	100	100

*Values are guidelines only. Selection is based on normal torque @ 500 RPM. Please contact an Ameridrives application engineer to confirm driveshaft size is appropriate for your specific application.

Tdw = Normal rating for fully reversing torque

Tk = Functional limit torque

Tow = (1.5 x Tdw) Pulsating one way torque

UNIVERSAL JOINT REBUILD SERVICE



The difference is not just cosmetic.



REMANUFACTURED UNIVERSAL JOINTS LOOK LIKE NEW, WARRANTIED LIKE NEW.

- *Rebuilt universal joints expedited in 24–48 hours*
- *Complete universal joints in as little as 1–2 weeks*
(Standard bearing assembly or cross and bearing replacement)

Ameridrives Rebuild Service Department can refurbish your universal joints. We take your worn, scaled, seized, scored, or rough running U-joints and make them like new...for substantially less than the replacement cost.

As a major manufacturer of universal joints, we have the people, facilities, and experience to rebuild and replace all components as needed. The same standards of excellence that exist in the manufacture of original equipment U-joints are closely adhered to in the overhaul procedure of every rebuilt universal joint.

The Rebuild Service Department will inspect, refurbish or replace your universal joint to original specifications with a new warranty.



Consider these advantages:

The Rebuild Service Department will perform the following procedures to restore your universal joint to original specifications with a new warranty.

- Price – A savings of approximately 30% (compared to list price for a new unit)
- Speed – Universal joints are received, inspected and rebuilt in the shortest possible time frame
- Warranty – 1 Year on labor and materials, same as new universal joints
- Emergency Breakdown Program – All products that are expedited into the Ameridrives plant are processed immediately and, in many cases, are able to be rebuilt within a 24-hour period.

Contact your Altra representative for details on our cost-saving program.

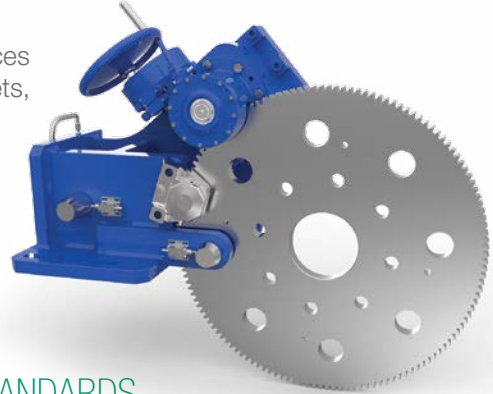
TURNING, LOCKING AND BRAKING SYSTEM

Twiflex

TLB (Turning, Locking & Braking) System

The compact, modular TLB consolidates three usually separate interfaces and functions into one package, including brakes and mounting brackets, turning device and gearwheel, and locking mechanism.

- High-torque, high-energy braking
- Infinite position turning in both directions
- Integral locking device for improved safety
- Split brake disc for simplified retrofit
- Fully scalable for all sizes and power ratings



HELPS MEET INCREASINGLY STRINGENT OSHA SAFETY STANDARDS

A Turning, Locking & Braking (TLB) system from Twiflex can be installed on new equipment or retrofitted on an existing shredder rotor drivetrain to help meet expanding OSHA standards requiring additional safety measures on shredding machines. When power to the shredder is shut off, the large grinding rotors can still rotate, creating a dangerous condition for operators and maintenance crews. The TLB provides dynamic braking and locking functionality as well as allowing controlled incremental creep rotation for tooth replacement and jam clearing.

COUPLINGS



Ameridrive

Amerigear® Gear Couplings

Fully-crowned gear teeth provide operational benefits including maximum load-carrying capacity with minimum size, maximum reliability and long life.

- Both "O" ring and metal seal models are available
- Strong, rigid floating sleeve
- Precision-machined identical hubs
- Positive dust-tight seals
- Conforms to AGMA standards
- 3/4° to 1-1/2° operating angle



TB Wood's

Dura-Flex® Couplings

Dura-Flex couplings "split-in-half" element design allows for easy element installation/replacement without moving connected equipment or disturbing the shaft connection. Spacer design can accommodate a large range of shaft spacing with few parts.

- Easy to assemble/replace
- High misalignment ratings
- No maintenance/lubrication
- Part-for-part interchangeable with industry standard design
- In-stock versatile spacer design can accommodate many configurations with few parts
- UV radiation resistant

LOCKING DEVICES



Ameridrive

Ameriloc® Locking Devices

Ameridrive Ameriloc external locking devices are custom-engineered, manufactured, and tested to precise tolerances to meet specific customer requirements. Features include:

- Reduced shaft stress
- High contact pressure provides greater torque
- Easy installation and removal using standard tools
- Torque range from 13 to 2,227,434 ft.lbs. (18 to 3,020,000 Nm)
- Shaft diameters from .39 to 20.49 in. (10 to 680 mm)

BACKSTOPS



Marland Clutch BC Model Backstops

Low-speed holdback for conveyor head shaft mounting. Provides positive protection against reverse torque runaways of inclined conveyors and elevators.

- Long service life
- Taconite seals
- Removable torque arm
- Superior roller design
- Bore ranges up to 600 mm
- Torque ratings up to 2,100,000 lb.ft. (2847 kNm)



Formsprag Clutch Backstops

Formsprag offers a wide range of backstopping designs including internal to the gear reducer models FS-50 & RSCI: externally mounted high speed models FSO, FHB, FRB & HSB and externally mounted low speed models LLH.

- Bore range 0.5 to 20.0 in. (12 to 500 mm)
- Torque ranges up to 700,000 lb.ft. (949 kNm)
- Centrifugal throwout design for low maintenance



Stieber Backstops

Stieber high speed RDBK and low speed RDBR-E models are specifically designed to allow the tension of a jammed belt to be carefully released on large inclined conveyors.

The Type RSCI unit is a centrifugal lift off sprag type freewheel with the inner race rotating, only the inner race is designed for freewheeling.

OVERLOAD DEVICES

Altra overload devices can save you money – their initial cost is frequently more than covered by the saving in downtime... even on the first overload.



Bibby Turboflex Torque Limiters

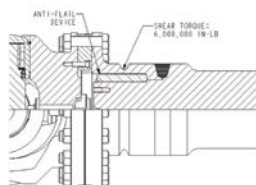
Torque limiters from Bibby Turboflex provide economical overload protection on all types of shredders and feeder conveyors.

- Accurate release torque repeatability
- Simple, fast manual re-engagement, no replacement parts required
- Low-cost maintenance
- Versatile mounting capability



Ameridrives Shear Pin Device

Units feature replaceable torque limiting shear pins. Pins are preset to desired torque limit. Pin count based on torque requirements.



Ameridrives Shear Groove Device

Device features a machined groove which is designed to shear at a pre-determined torque limit (based on drivetrain).

BRAKES



Svendborg Brakes BSAK Series Brakes

The BSAK Series hydraulic-applied, spring-released, multi-piston active brake family includes single and dual action models to meet specific customer performance and footprint requirements.

- Large brake pad area reduces wear and lowers the brake disc temperatures and stress
- Available with standard casting or steel construction

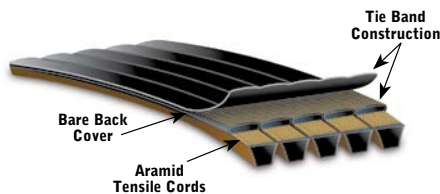
BELTED DRIVES, GEARED MOTORS, AND ENCLOSED GEARING



TB Wood's Classical and Narrow V-Belt Sheaves

TB Wood's sheaves are constructed of fine grain, high tensile cast iron, and have been engineered to assure maximum performance over a long life span.

- Max safe operating speed, in RPM, is cast or stamped on sheaves
- Convenient Sure-Grip QD type bushings are available
- All models are designed to the industry standards
- Standard and deep groove models available



TB Wood's Premium V-Belts

Premium belts have the highest power density of any V-belt, and stretch dramatically less than standard cross sections.

- Ideal for use on problem drives requiring high-impact strength and load-carrying power
- "Clutching" non-rubber surfaced cover allows momentary slippage due to excessive overloads without burning belts up
- KEVLAR® or aramid tensile cords give extraordinary strength, durability and virtually zero stretch
- Virtually zero stretch eliminates the need for constant belt re-tensioning
- Chloroprene rubber compounds provide superb oil and heat resistance
- Specially-treated extra tough cover withstands slip and shear forces at peak loads without generating excessive heat

* KEVLAR® is a registered trademark of Dupont™



TB Wood's QT Power Chain® II Carbon Belt Drive System

The QT Power Chain II Carbon Belt Drive System, when compared with standard roller chain, provides a powerful belt drive system with significantly reduced overall costs. The new sizes of belts and sprockets offer a compact drive with increased power ratings (up to 46% higher than its predecessor)

- Heavy duty belts
- Compact taper-lock bushing design, ideal for conveyor applications
- .31 in. (8mm) pitch, horsepower from 1 to 425, drive combinations: 66,600+, speed ratios: 462
- .55 in. (14mm) pitch, horsepower from 10 to 1400, drive combinations: 51,500+, speed ratios: 391



Bauer Gear Motor BK Series Bevel Geared Motor

Power-dense, right-angle, bevel-gearred motors ensure the highest efficiency especially when used with frequency inverters.

- The right angle gearbox with universal attachment possibilities
- Motor power from 0.03 kW to 75 kW
- 10 gearbox sizes for torques from 796 in.lb. to 163,738 in.lbs. (90 Nm to 18,500 Nm)
- High efficiency through 2-stage base design
- Enclosure IP 65 as standard



TB Wood's MTO Capability (made-to-order)

TB Wood's made-to-order products are designed and manufactured to the precise application specifications to provide the most efficient and cost effective Shredder drive.

- High tensile strength materials
- Ductile iron 10,000 FPM (3,048 MPM)
- Dynamic balance capabilities for reduced vibration
- Molding and machine capability up to 108 in. (274 cm) in diameter
- Shredder sheaves often have additional material added to the rim ID for extra inertia to power through shock generated by heavy impact loads
- Our Engineering team can design drive components around Ameridrives Ameriloc locking devices for the ultimate Shredder drive



Delroyd Worm Gear Speed Reducers

Delroyd worm gear reducers are used on shredders, feeding apron conveyors and separator conveyors.

- Ratio's from 5:1 up to 175,000:1
- Single, double, triple and helical worm
- Output torques up to 3,500,000 in. lbs. (395,446 Nm)
- 2" thru 48" center distance
- Standard cast iron or custom fabricated steel constructed
- Shafted or hollow bore designs
- Vertical or horizontal configurations

A Global Footprint to Support Customers Around the World

- ★ Altra Headquarters
- Altra Manufacturing Facilities
- Light Manufacturing, Assembly, Regional Warehouse
- ▲ Altra Shared Services and ECB Technology Center

The Brands of Altra Industrial Motion

Couplings

Ameridrives
www.ameridrives.com

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Guardian Couplings
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Huco
www.huco.com

Lamiflex Couplings
www.lamiflexcouplings.com

Stromag
www.stromag.com

TB Wood's
www.tbwoods.com

Geared Cam Limit Switches

Stromag
www.stromag.com

Electric Clutches & Brakes

Inertia Dynamics
www.idicb.com

Matrix
www.matrix-international.com

Stromag
www.stromag.com

Warner Electric
www.warnerelectric.com

Linear Products

Warner Linear
www.warnerlinear.com

Engineered Bearing Assemblies

Kilian
www.kilianbearings.com

Heavy Duty Clutches & Brakes

Industrial Clutch
www.indclutch.com

Twiflex
www.twiflex.com

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Svendborg Brakes
www.svendborg-brakes.com

Wichita Clutch
www.wichitaclutch.com

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Gearing

Bauer Gear Motor
www.bauergears.com

Boston Gear
www.bostongear.com

Delroyd Worm Gear
www.delroyd.com

Nuttall Gear
www.nuttallgear.com

Overrunning Clutches

Formsprag Clutch
www.formsprag.com

Marland Clutch
www.marland.com

Stieber
www.stieberclutch.com



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