

Power Transmission Solutions for the Mobile Power Equipment Market

Bibby Turboflex

Boston Gear

Guardian Couplings

Huco

Kilian

Stieber

Stromag

Thomson

Twiflex

Warner Electric

Wichita Clutch



RegalRexnord™

REGAL REXNORD PROVIDES ADVANCED POWER TRANSMISSION SOLUTIONS FOR THE MOBILE POWER EQUIPMENT MARKET

The well recognized brands of Regal Rexnord supply technically advanced clutches and brakes, couplings, linear actuators, speed reducers, and bearing assemblies for a wide range of mobile power equipment, including agriculture, construction/off-highway, forestry, specialty vehicle, and portable power unit applications.



Regal Rexnord Brands Deliver Value Throughout the Drivetrain

With industry-leading brand names, including Stromag, Thomson, Guardian Couplings, Warner Electric, Stieber, Wichita Clutch and Twiflex, Regal Rexnord 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 Mobile Power Equipment Applications

Major OEMs routinely rely on the vast mobile power equipment 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, Regal Rexnord provides complete sales and engineering support to customers around the world from the very first concept to the detailed planning, design phase and commissioning.

For more information about power transmission solutions for mobile power equipment applications from Regal Rexnord including case studies, literature, and service manuals, visit:

www.AltraMobilePowerEquip.com

REGAL REXNORD PRODUCTS HELP KEEP MOBILE POWER EQUIPMENT RUNNING SMOOTHLY



Clutches and Brakes

Many types of Stromag and Warner Electric clutches and brakes provide reliable engagement/disengagement and stopping functionality on a wide range of mobile equipment drive applications. Stieber freewheel overrunning clutches are utilized on planters, spreaders and balers. Wichita Clutch PTOs are incorporated on pavers.

Stromag • Warner Electric • Twiflex • Stieber • Wichita Clutch



Couplings

Guardian and Stromag offer a variety of engine flywheel and gearbox couplings for all types of mobile equipment. Bibby Torsiflex couplings can be found on mobile, container-housed UPSs. Huco's multi-beam couplings are utilized on tractor transmissions.

Stromag • Guardian Couplings • Huco • Bibby Turboflex



Linear Actuators

Rugged-duty Thomson actuators are used for a broad range of mobile power equipment applications, including combines, forage harvesters, balers, ag sprayers, street sweepers, front loaders, snow plows, salt spreaders, and mobile baggage conveyors. Electrak® HD and Throttle, B-Track, H-Track and M-Track actuators provide years of dependable service in these challenging applications.

Thomson



Gearing

Reliable custom and standard gearing solutions from Boston Gear can be found on ag seeders and other mobile power equipment.

Boston Gear



Discs

High-performance, precision steel discs along with mated paper/sintered friction discs from Stromag are widely used on mobile power equipment drives.

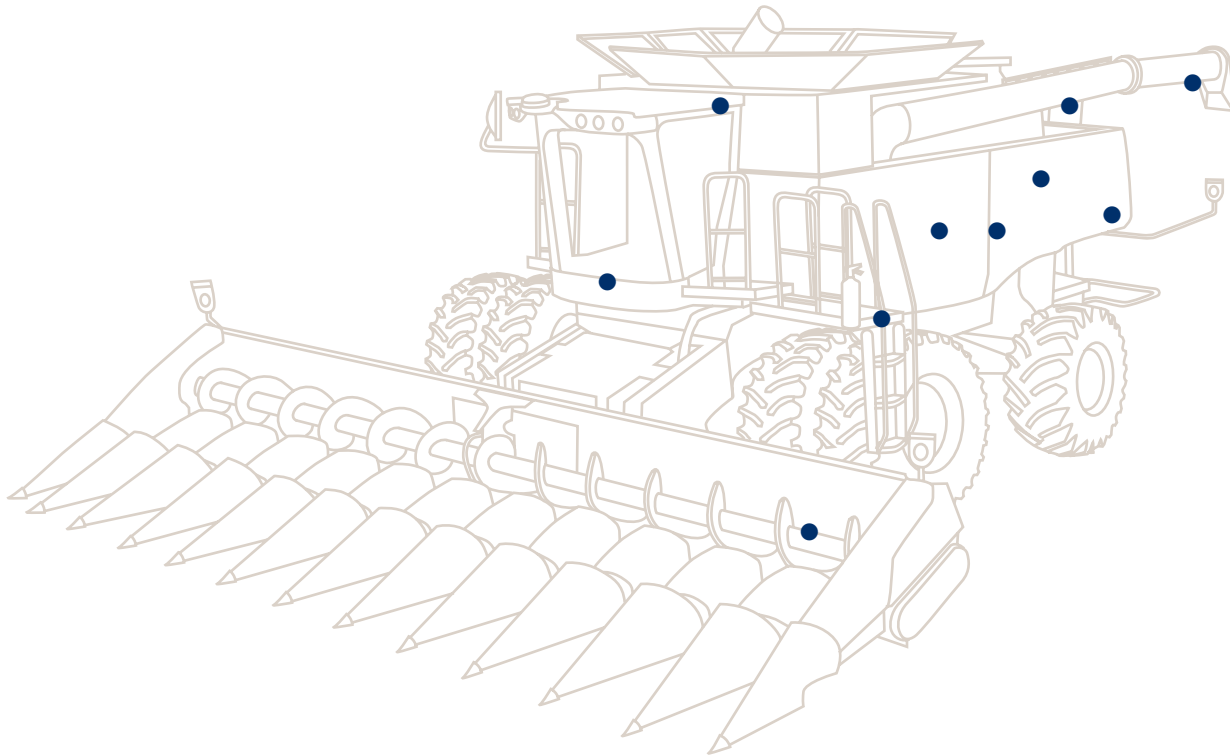
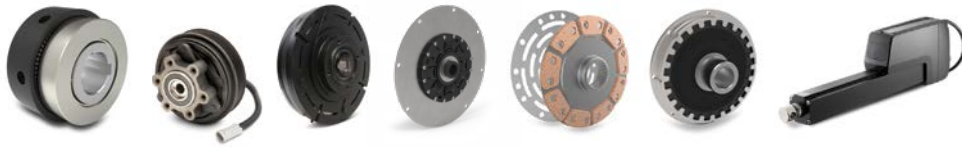
Stromag



Bearing Assemblies

Kilian is one of the world's largest producers of precision-machined bearings and value-added assemblies. Kilian provides unique, cost-effective bearing solutions for mobile power equipment applications including skid steer loaders and excavators.

Kilian



Combine Harvesters

Thomson's heavy-duty electric actuators are used for many combine functions including spout position, cabin tilt, ladder lift, auger fold, grain tank cover, chopper shift, straw chopper deflectors, and sieve and concave adjustment. Electric actuators can also be used for throttle control and spout adjustment.

A range of clutch solutions and sinter/steel discs from Stromag and Warner Electric can be used on combine splitter gearboxes, straw chopper, auger and header drives. Electromagnetic, on-off fan clutches from Warner Electric are installed on combine fan drives.

Guardian Guard-Flex couplings, as well as the Stromag SSC and Periflex® VN Disc Couplings, mount directly to the combine's engine flywheel to connect to the gearbox.

Warner Electric

- Fan Drive Clutches
- PC Series Clutches
- SF Series Clutches

Stromag

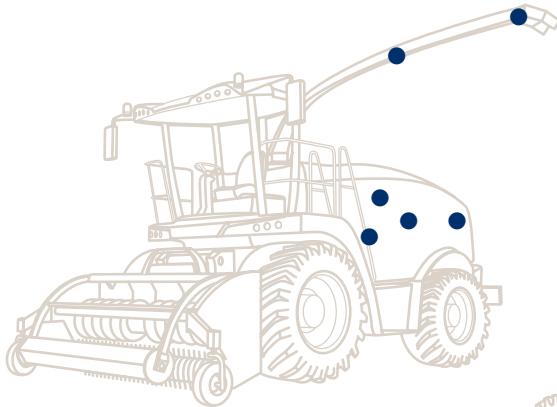
- MWU Single-Disc Clutches
- KMK Multi-Disc Clutches
- KHM Diaphragm Clutches
- KHE Diaphragm Clutches
- SSC Steel Spring Couplings
- Periflex® VN Disc Couplings
- Sinter/Steel Friction Discs

Guardian Couplings

- Guard-Flex® Flywheel Couplings

Thomson

- Electrak HD
- Electrak Throttle
- B-Track Electric Actuators
- M-Track Electric Actuators



Forage Harvesters

Stromag sinter/steel discs and various clutch models, including the KHM and KHE Hydraulically engaged clutches, can be used to engage and disengage the cutter head/mower at engine running speed. Stromag clutches are also used for reverse sharpening function. The clutches are weather-resistant, have high heat dissipation capacity and generate low-noise.

Guardian couplings, as well as the Stromag SSC and Periflex® VN Disc Couplings, connect the engine flywheel to the gearbox.

Thomson electric actuators are used for auger folding and spout adjustment.

Thomson

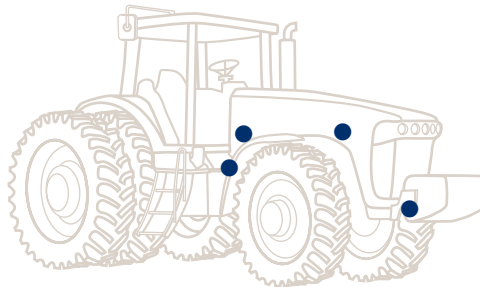
- Electrak HD
- Electrak Throttle
- B-Track Electric Actuators
- M-Track Electric Actuators

Stromag

- KHM Diaphragm Clutches
- KHE Diaphragm Clutches
- SSC Steel Spring Couplings
- Periflex® VN Disc Couplings
- Sinter/Steel Friction Discs

Guardian Couplings

- Guard-Flex® Flywheel Couplings



Tractors

Stromag KMK Multi-Disc Clutches and sinter/steel friction discs are widely used on tractor PTOs and gearboxes.

Heavy-duty Thomson Electrak HD and B-Track electric actuators are used to raise and lower engine compartment covers.

Multi-Beam couplings from Huco are incorporated on tractor transmissions.

Stromag SSC couplings mount directly to the engine flywheel to connect to the gearbox.

Thomson

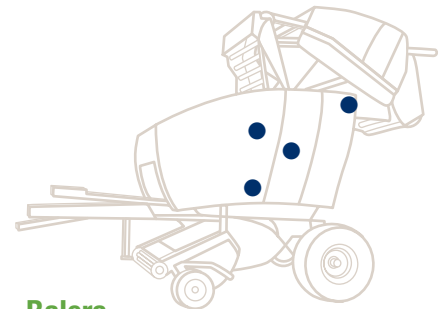
- Electrak HD
- B-Track Electric Actuators

Stromag

- KMK Multi-Disc Clutches
- Sinter/Steel Friction Discs
- SSC Steel Spring Couplings

Huco

- Multi-Beam Couplings



Balers

Tension control brakes from Warner Electric are used on netwrap drives.

Warner combination clutch/brakes provide dual functionality on balers. When a bale is fully formed sensors engage the clutch to start feeding the tensioned netwrap. Once the wrap is completed, the clutch is disengaged and the brake is engaged, slowing the netwrap roller, which breaks the wrap at a designated splice.

These clutch/brakes are also used to automatically disengage the hay pickup drives when the desired bale size is reached.

Stieber CSK overrunning clutches are also popular choices for various baler drive applications.

Thomson Electrak HD and B-Track electric actuators are used to raise and lower the baler tailgates.

Warner Electric

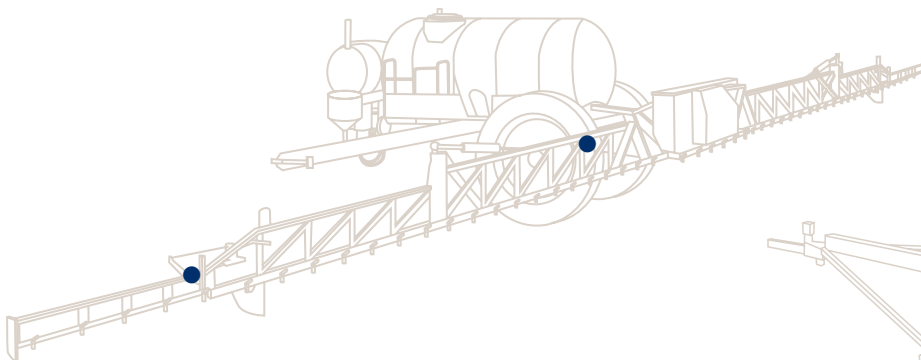
- TB Series Tension Brakes
- TG 2000 MagStop Clutch/Brakes
- Custom Clutch/Brakes

Thomson

- Electrak HD
- B-Track Electric Actuators

Stieber

- CSK Overrunning/Backstopping Clutches



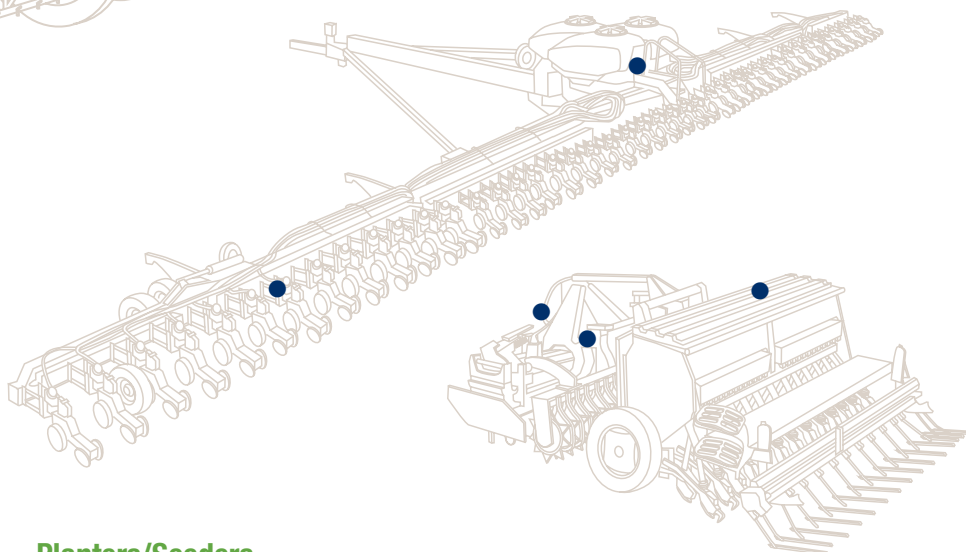
Sprayers

Larger agricultural sprayers, with ever-increasing boom lengths have become very popular due to their efficiency. Rugged, power-dense Thomson Electrak® HD, and H-Track actuators are used on these larger capacity sprayers to fold the sprayer booms into a stowed position for transport and extend them for spraying.

The patented H-Track electric actuator, with self-contained hydraulic actuation, can accommodate the increasing moment force acting on the actuators due to the bouncing of the booms during operation.

Thomson

- Electrak HD
- Electrak Throttle
- B-Track Electric Actuators
- H-Track Electric Actuators



Planters/Seeders

Warner Electric engineers design custom clutches for ag planter/seeder applications. The electric clutches are positioned on each seed row drivetrain and can be engaged and disengaged to provide precise row-by-row seed distribution control during planting.

Custom Warner Electric clutches can incorporate different levels of torque output under low RPMs (based on different crop seeds being planted). The units are designed to perform consistently and reliably under harsh field conditions in remote locations.

CB Series wrap spring clutches from Warner are also utilized to engage and disengage the machine half width on large ag seeders.

Boston Gear custom geared motors are incorporated into electric planter/meter drives along the hex drive shaft.

Thomson rugged duty electric actuators and Stieber CSK clutches are also found on various types of ag planters.

Warner Electric

- CB Series Wrap Spring Clutches
- Custom Single Row Clutches

Thomson

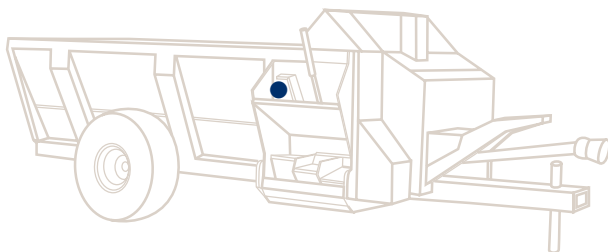
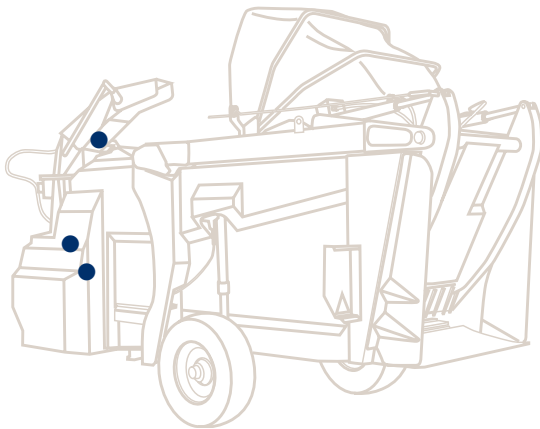
- Electrak HD
- Electrak Throttle
- M-Track Electric Actuators
- B-Track Electric Actuators

Boston Gear

- Custom Geared Motors

Stieber

- CSK Overrunning/Backstopping Clutches



Straw and Manure Spreaders

Thomson electric actuators are widely used to position the spout on straw spreaders.

Electrak HD and B-Track actuators allow the operator to remotely open and close the hatch door as needed during field manure application on side-discharge manure spreaders. Units can be customized to include mounting brackets for positioning directly onto the outside of the manure box.

Power-applied Warner Electric SF clutches and Stromag MWU clutches are also utilized on various types of straw spreaders.

Warner Electric

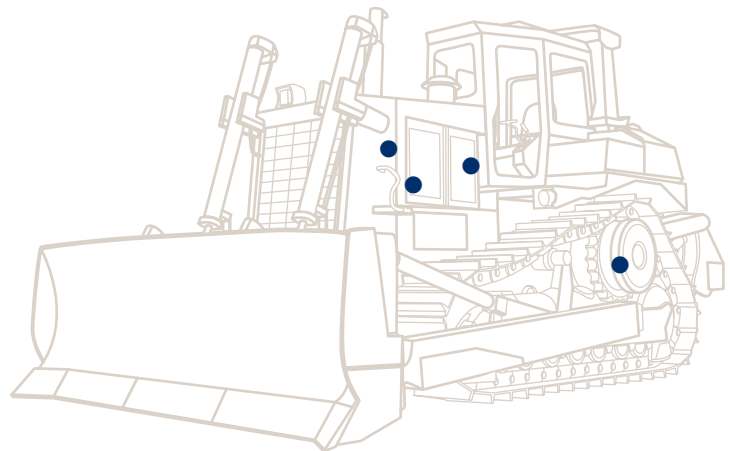
- SF Series Clutches

Thomson

- Electrak HD
- M-Track Electric Actuators
- B-Track Electric Actuators

Stromag

- MWU Pole-Face Friction Clutches



Bulldozers

Stromag SSC and Periflex® VN Disc Couplings connect the main diesel engine to the hydraulic pump that powers the hydrostatic drive propulsion tracks and all the hydraulic cylinders that provide blade lift, angle and tilt functionality on bulldozers. Guard-Flex flywheel couplings from Guardian can also be used.

Compact, electromagnetic on-off fan clutches from Warner Electric as well as Twiflex S Series clutches are used for dozer diesel engine cooling fans.

Thomson Electrak HD and B-Track actuators are used to raise and lower the engine compartment cover. KMB brakes and sinter/steel discs from Stromag are often installed on dozer final drives.

Warner Electric

- Cooling Fan Drive Clutches

Thomson

- Electrak HD
- B-Track Electric Actuators

Stromag

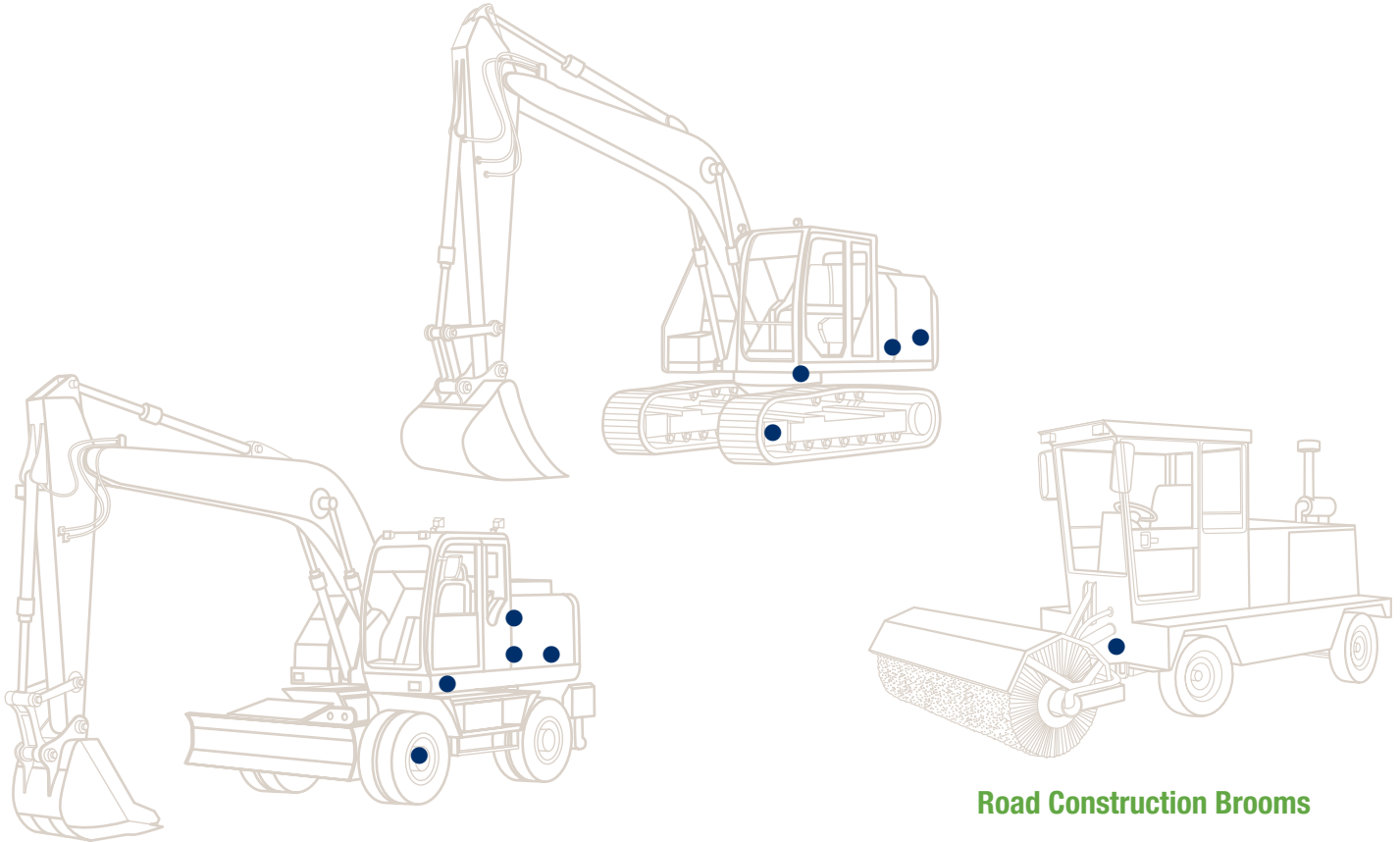
- SSC Steel Spring Couplings
- Periflex® VN Disc Couplings
- KMB Multi-Disc Brakes
- Sinter/Steel Friction Discs

Guardian Couplings

- Guard-Flex® Flywheel Couplings

Twiflex

- S Series Fan Drive Clutches



Tracked and Wheeled Excavators

Stromag KMB Multi-Disc Brakes are utilized for slewing drives on all types of excavators. KMB brakes are also installed on excavator track drives and axle or hydrostatic wheel drives.

Electrak® Throttle and M-Track electric actuators from Thomson are used for throttle control. These units are compact, completely self-contained and sealed to allow for use in small spaces without sacrificing power or capability.

Guardian couplings, as well as the Stromag SSC and Periflex® VN Disc Couplings, connect the excavator engine flywheel to the hydraulic pumps. Custom unitized excavator tensioner pulley bearing assemblies from Kilian are also utilized.

Thomson

- Electrak Throttle
- M-Track Electric Actuators

Stromag

- KMB Multi-Disc Brakes
- SSC Steel Spring Couplings
- Periflex® VN Disc Couplings

Guardian Couplings

- Guard-Flex® Flywheel Couplings

Kilian

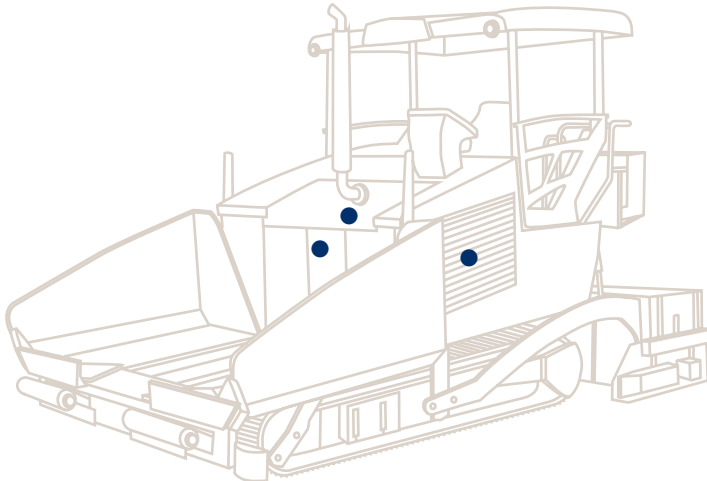
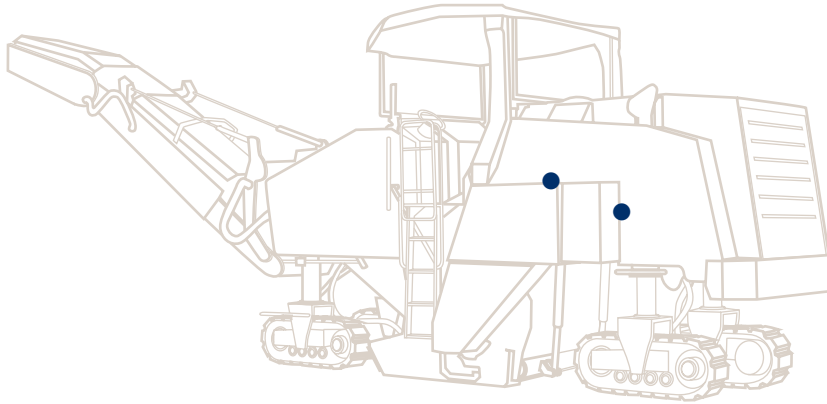
- Bearing Assemblies

Road Construction Brooms

Guardian Couplings can configure economical combination FBA flywheel coupling and mount kits that install easily onto diesel engines on road construction sweepers. The couplings connect hydraulic pumps that drive the propulsion of the machines and control the operation and speed of the broom and various other components.

Guardian Couplings

- FBA Series Flywheel Couplings
- Mount Kits



Planers and Pavers

A range of clutch solutions and sinter/steel discs from Stromag and Warner Electric can be used on paver and planer PTOs, auxiliary units and pump drives.

Stromag 2-in-1 Clutch/Couplings, featuring a hydraulic multi-disc clutch or electromagnetic clutch combined with a flexible coupling, provide high torque in a small plug-and-play assembly. Units connect the vehicle's diesel engine to either a cardan shaft or a belt drive.

Mechanical and Pneumatic power take-offs from Wichita Clutch are also utilized on various types of pavers. These light-duty units are compact, completely self-contained and sealed to allow for use in small spaces without sacrificing power or capability.

Warner Electric

- SF Series Clutches

Stromag

- MWU Pole-Face Friction Clutches
- KMK Multi-Disc Clutches
- Sinter/Steel Friction Discs
- 2-in-1 Clutch/Couplings

Wichita Clutch

- Mechanical Power Take-Offs
- Pneumatic Power Take-Offs



Skid Steer Loaders

Warner Electric PK brakes are utilized as traction motor brakes on electrically-driven machines.

Kilian single-piece custom foot pedal bearing assemblies minimize play, reduce inventory and costs for skid steer OEMs. Extensive application expertise and value-engineering capability allows Kilian to provide unique, cost-effective bearing solutions that meet specific mobile power equipment customer needs around the globe.

Thomson actuators can be used for quick-attach applications on skid steer loaders to handle their robust requirements.

Warner Electric

- PK Brakes

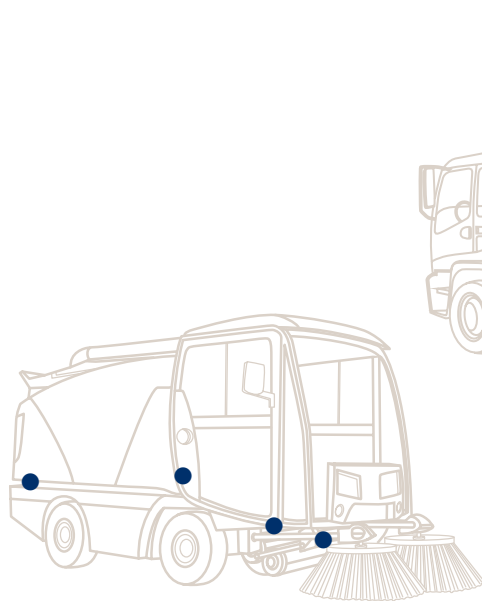
Kilian

- Bearing Assemblies

Thomson

- Electrak HD Electric Actuators

Specialty Vehicles



Street Sweepers

Thomson electric linear actuators are widely used on various types of street sweepers to raise and lower rotating steel wire side and main brooms. They are also used for cab tipping and hopper dumping.

Guard-Flex flywheel couplings from Guardian, as well as the Stromag SSC and Periflex® VN Disc Couplings, connect the vehicle's engine flywheel to hydraulic pumps.

Thomson

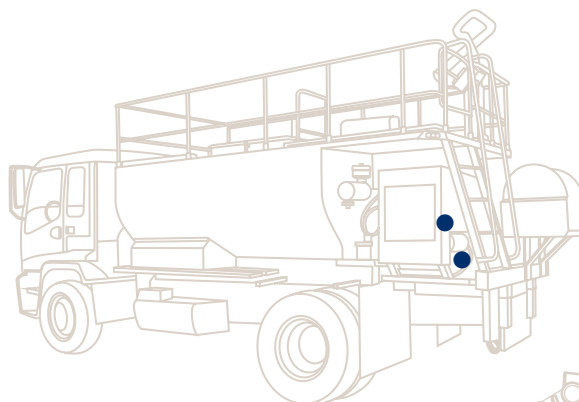
- Electrak® HD
- M-Track Electric Actuators
- B-Track Electric Actuators

Stromag

- SSC Steel Spring Couplings
- Periflex® VN Disc Couplings

Guardian Couplings

- Guard-Flex® Flywheel Couplings



Hydro Seeders

Modified Warner Electric SF Series clutches allow equipment operators to remotely engage/disengage either of two clutches (for the mixer and ejection pumps) as needed. Unique input and output hubs accommodate the two slightly different clutch applications often incorporated on these vehicles.

Mixer clutches need to handle breaking up mulch bales and mixing the material with seed, fertilizer and water.

Stromag clutch solutions are also a popular choice for these vehicles.

Warner Electric

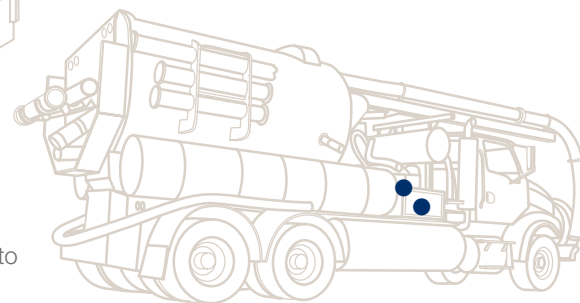
- SF Series Clutches

Stromag

- MWU Pole-Face Friction Clutches
- KMK Multi-Disc Clutches

Guardian Couplings

- Gear Grip Couplings



Sewer Vacuums

Reliable clutches from Stromag and Warner Electric are utilized on sewer vacuum trucks for primary vacuum pump drives and auxiliary hydraulic pumps. These clutches can be installed on direct drive, parallel shaft or belt drive applications.

Warner Electric

- SF Series Clutches

Stromag

- MWU Pole-Face Friction Clutches
- KMK Multi-Disc Clutches



Snow Plow/Salters

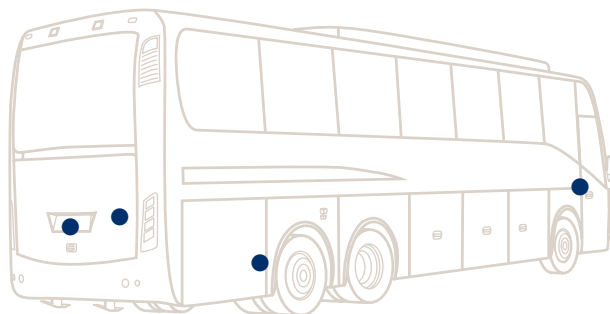
Thomson electric linear actuators allow operators to adjust the flow/spread rate and spin speed of the salt spreader wheel from the cab. They also remotely control plow blade positioning.

B-Track K2RA rotary actuators are often selected for salt spreader applications due to their robust design and ability to provide superior performance in harsh outdoor environments.

Patented H-Track electric actuators, with self-contained hydraulic actuation, can withstand the constant bouncing of the plow blade during operation, maintaining its position while accommodating varying snow loads. Units can also absorb impacts from objects hidden in the plow's path.

Thomson

- Electrak HD
- B-Track Electric Actuators
- H-Track Electric Actuators
- M-Track Electric Actuators



Buses

Warner Electric's durable, compact diesel engine cooling fan clutch is a popular choice for bus OEMs around the world.

Warner also provides highly reliable compressor clutches for use on air conditioning comfort systems designed for various transit and coach bus types and sizes. The custom-designed clutches mount directly to the air conditioning compressor shaft and meet the rigorous, continuous-duty demands of the vehicle operation.

Electromagnetic parking and e-stop brakes from Warner Electric are also used on bus applications.

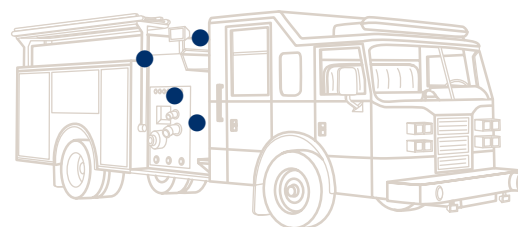
Thomson Electrak HD, B-Track and I-Track electric linear actuators are often utilized to open and close the vehicle's bi-fold or single panel doors. These rugged electric actuators are designed to fit in very tight bus space envelopes and meet the vigorous high-cycle service requirements.

Warner Electric

- AC Compressor Clutches
- Cooling Fan Drive Clutches
- PK Brakes
- ERD Brakes

Thomson

- Electrak HD
- B-Track Electric Actuators
- I-Track Electric Actuators



Fire Apparatus

Stromag and Warner Electric clutches are often installed on apparatus pump drives.

Rugged-duty Thomson Electrak HD and B-Track electric actuators are used on fire engine ladder and portable tank lift devices. The lifts automatically lower the on-board, side-mounted ladders and tanks to a more accessible height for easier removal.

These actuators are also used on fire tanker dump valves that allow firefighters to be positioned away from the dangerous chute area during water dumping operations.

Additionally, Thomson actuators are utilized to raise and lower light masts positioned on the top of the vehicles.

Warner Electric

- SF Series Clutches

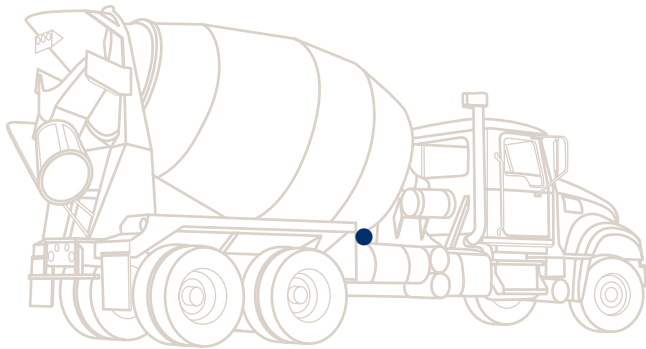
Stromag

- MWU Pole-Face Friction Clutches

Thomson

- Electrak HD
- B-Track Electric Actuators

Specialty Vehicles & Portable Power

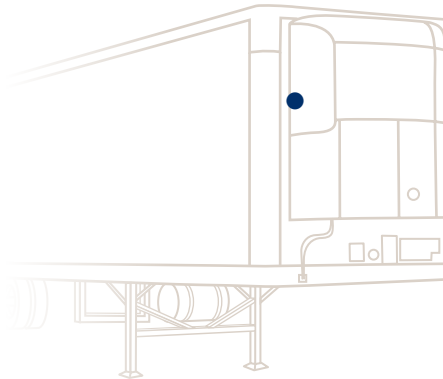


Cement Trucks

Stromag's KMK Multi-Disc Clutch and friction discs are used on cement mixer truck PTOs to engage/disengage the main drum rotation drive.

Stromag

- KMK Multi-Disc Clutches
- Friction Discs

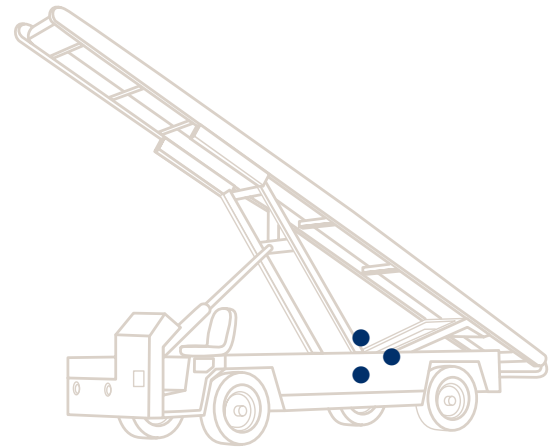


Truck Trailer Refrigeration Units

Warner Electric's durable, compact cooling fan clutch is often used in truck trailer refrigeration units. These efficient fan drives are easily controlled using sensors and on-board controls.

Warner Electric

- Cooling Fan Drive Clutches



Airport Trucks & Mobile Baggage Conveyors

A variety of braking solutions from Warner Electric and Stromag provide parking and emergency stopping functionality on aircraft tow trucks and mobile baggage conveyors.

Thomson electric actuators are often installed to raise and lower the conveyor for baggage loading and unloading.

Guardian Gear Grip couplings are also used on these vehicles.

Warner Electric

- PK Brakes
- ERD Series Brakes
- H420 Series Hydraulic Brakes

Thomson

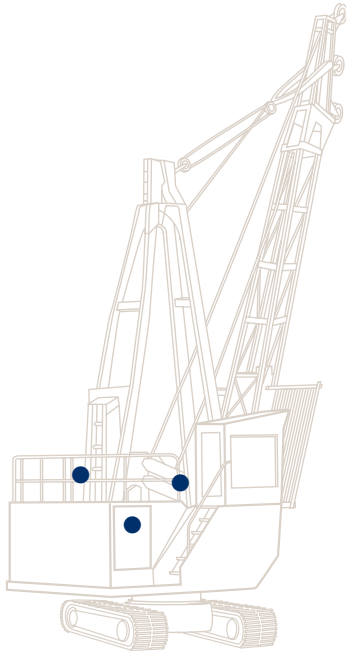
- Electrak HD
- B-Track Electric Actuators
- H-Track Electric Actuators

Stromag

- KMB Multi-Disc Brakes

Guardian Couplings

- Gear Grip Couplings

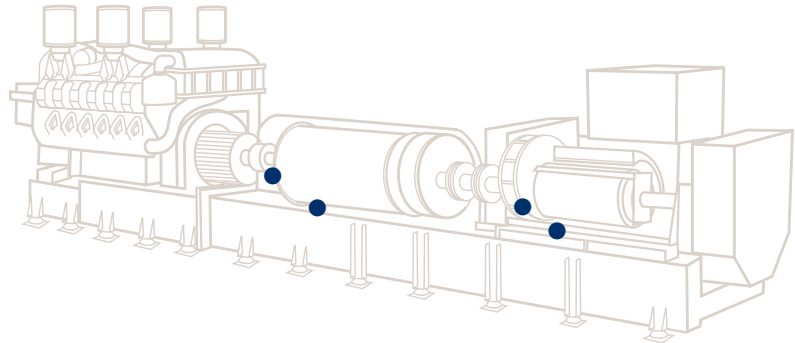


Forestry Yarders

AquaMaKKs water cooled brakes from Wichita Clutch provide precise tension control on winch drives for mobile forestry equipment, including yarders. These lighter weight units are compatible with tension control systems utilized on yarder main line and skyline drums. An open case design enables easy wear inspection and serviceability in the field.

Wichita Clutch

- AquaMaKKs Water Cooled Brakes



Mobile Air Compressors

Warner Electric and Stromag electromagnetic clutches are often installed on large mobile air compressors used at remote construction sites.

Stromag SSC and Periflex® VN Disc Couplings, as well as Guard-Flex flywheel couplings, from Guardian connect the diesel engine flywheel to the compressor.

Warner Electric

- SF Series Clutches

Stromag

- ERD Clutch
- MWU Pole-Face Friction Clutches
- SSC Steel Spring Couplings
- Periflex® VN Disc Couplings

Guardian Couplings

- Guard-Flex® Flywheel Couplings

UPSs

Reliable Regal Rexnord products can be found on trailer-mounted UPS systems that provide backup power at hospitals, airports, data centers and other facilities that require an uninterrupted power supply.

Stieber freewheel clutches, Stromag and Warner Electric electromagnetic clutches along with flexible couplings from Stromag are often installed between the diesel engine and the accumulator.

Stromag flexible couplings and Bibby disc couplings are utilized to connect the accumulator and generator.

Bibby Turboflex

- Torsiflex Couplings

Stromag

- Periflex® VN Disc Couplings
- PVP Dual-Disc Couplings
- MEA Single Disc Clutches

Warner Electric

- E220 Series Clutches

Stieber

- ALG Overrunning Clutches

Product Solutions

Clutches and Brakes



Warner Electric *SF Series Clutches*

The SF design consists of a bearing mounted magnet assembly, or field, a rotor assembly, and an armature assembly. The bearing mounted field does not rotate which eliminates the need for a brush-holder.



Warner Electric *TG 2000 MagStop Clutch/Brakes*

MagStop clutch/brakes combine an electric friction clutch with a permanent magnet brake. These maintenance-free, one-piece units are pre-assembled for quick installation.



Warner Electric *Cooling Fan Drives*

Warner routinely develops custom electromagnetic on-off fan clutches with various torque ratings to meet the specific application requirements. The compact fan clutch design provides the highest possible torque in a small package.



Stromag *KMK Multi-Disc Clutches*

Hydraulically-actuated KMK models operate with the medium oil and so can transmit higher torques than magnetic clutches in the same mounting space. Units feature precise and sensitive controllability.



Stromag *KMB Multi-Disc Brakes*

These hydraulically released, spring-applied multi-disc brakes can be used in a diverse range of stationary and mobile applications, also in conjunction with hydraulic motors. Can be an add-on brake or integrated into a customer's application.



Stromag *KHM Diaphragm Clutches*

The dry-running "Smart Clutch" KHM is a robust and reliable element for engaging belt drives in off-road vehicles. Their compact design transmits high torque and exhibits a high heat capacity for accelerating large mass inertias.



Stromag *MEA Single Disc Clutches*

MEA electromagnetic single-disc clutches are the "workhorses" among clutches. With their high work capacity, they can accelerate large flywheel masses free from backlash, making them ideal for diesel drives.



Stromag *MWU Pole-Face Friction Clutches*

MWU electromagnetic pole-face friction clutches are ideal for activating auxiliary units in agricultural machinery, municipal vehicles, and more. Units feature four-pole technology for high power density.



Warner Electric *PK Brakes*

Pancake (PK) Series electromagnetic spring-applied on/off motor brakes are pre-assembled to provide failsafe parking and emergency stopping functionality.



Warner Electric *CB Series Wrap Spring Clutch/Brakes*

CB Series units are completely self-contained, packaged clutch/brake assemblies designed to start and stop a load rapidly and accurately without any cumulative error.



Stieber *CSK Overrunning Clutches*

CSK models feature a sprag type freewheel integrated into a 62 series ball bearing (except sizes 8 and 40). All models are equipped with "formchromed" sprags. This process increases the overrunning lifetime.



Stromag *Sintered/Steel Friction Discs*

High-performance, precision steel discs along with mated paper/sintered friction discs are available for mobile power equipment applications.

Actuators



Thomson B-Track Electric Actuators

B-Track K2, K2x and K4x models are designed for severe duty applications. 115/230 volt AC or 12/24 volt DC motors. Load ratings to 4,000 lb. (17760 N). Stroke lengths to 24 inch standard.



Thomson M-Track Electric Actuators

Units are compact, completely self-contained and sealed to allow for use in small spaces without sacrificing power or capability. The Acme screw drive delivers up to 165 pounds (75 kilograms) of force.



Thomson H-Track Electric Actuators

Models incorporate a patented fluid power design which provides high load capability for extreme duty use, a more compact pin-to-pin than other actuators of the same load capability, excellent ingress protection and corrosion resistance.



Thomson Electrak® HD Electric Actuators

These models feature high load capacity (up to 16 kN) and onboard electronics that can eliminate the need for standalone controls, while meeting the most extreme OEM component environmental acceptance tests, including IP69K.



Thomson Electrak Throttle Electric Actuators

Ideal for applications where throttle control is required, these models feature a space-saving design and electromechanical interface, allowing engine speed controls to be placed in ergonomic positions.

Couplings



Stromag Periflex® VN Disc Couplings

A highly flexible elastomer coupling with linear spring characteristic ideal for diesel engine drives. The new compound has been developed for higher temperature stability and is suitable up to 120 °C ambient temperature.



Stromag SSC - Steel Spring Coupling

The new spring-loaded coupling, which takes the shock loading out of drive transmission, offers a robust solution that can be tailored to suit any application in the off-highway and construction sectors.



Guardian Couplings Guard Flex® Flywheel Couplings

The Guard-Flex is a torsionally soft, vibration dampening coupling that has an in-shear design. Along with excellent vibration dampening the coupling provides protection to both the engine and driven equipment when higher inertias are present.



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