Power REVIEW

Europe

THE POWER BRANDS IN POWER TRANSMISSION

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Bibby Turboflex SE55 Torque Limiter

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NEW

NEW SE55 Torque Limiter Module

The largest force capacity from a single module on the market

Bibby SE55 Torque Limiter Module Delivers the Largest Capacity on the Market

Bibby Turboflex has launched its all-new SE55 Torque Limiter Module, offering the largest force capacity from a single module, on the market. Ideal for heavy duty applications in metals processing and mining, the SE55 features a spring-loaded ball detent design that allows for exceptional performance and usability in the field.

The SE55 offers a maximum tangential force rating of 480 kN (almost three times the rating of Bibby's own SE30 module), with full disengagement on overload. It is designed to protect the drive train from power spikes, jams and short circuits in high-torque applications such as high-pressure grinding rolls (HPGRs), ball and SAG (Semi-Autogenous Grinding) mills. The SE55's greatly enhanced overload capacity provides a host of packaging and operational benefits to customers in the metal and mining sectors.

Fewer modules are now required to achieve high break-out torques, minimising space claim, simplifying installation and reducing future maintenance burden.

The proven, dis-connectable design means the break-out torque of a limiter assembly may easily be set to suit different load conditions.

For more information, download P-8861-BB from www.AltraLiterature.com

Bibby Turboflex®
Altra Industrial Motion

The Original CSK - Combined Bearing/Freewheel: Often Copied...Never Reached

In the 1970s, Stieber developed the CSK series, which combines the function of a sprag type freewheel with a deep groove ball bearing of the size 62.

In the following decades, this Stieber type has become the market standard.

The CSK features a compact design well balanced between torque capacity and bearing load. The treatment of the clamping elements in the "Formchrome®" method guarantees a long lifetime.

Today, the CSK can be found in a variety of applications such as automation technology, energy generation, medical technology and many more.

Special requirements - special solutions.
In recent decades, Stieber and its customers have implemented thousands of special solutions. It is always exciting to develop new solutions based on a proven and sophisticated technology.

For safe torque transmission, a press fit on the inner and outer race is required for the CSK type. If this is not possible in a constructive way, variants with keyway on the inner race or on the inner and outer race are available: CSK..P / CSK..PP.

Improved protection needed?
The CSK freewheel is also available with lip seals: CSK..2RS (similar to ball bearings, slightly enlarged width).

All CSK by default are delivered with a NSF H2 classified grease for lifetime lubrication.

Stieber®
Altra Industrial Motion

For more information, download P-8859-SC from www.AltraLiterature.com

Warner Electric Introduces the CBTB Brake for Counter Balance Truck Applications

High Dissipating Motor Brakes For Dual-Drive E-Vehicles

The CBTB family of electomagnetic axle brakes are specifically for use on electric-powered, dual-drive vehicles with capacities generally up to 8 tons (17,900 lbs.). These advanced high-speed, high-torque brakes provide reliable emergency and parking brake functionality and allow for increased maximum vehicle speed and improved productivity.

The integration of proprietary non-stick friction material within a superior brake design ensures very high energy dissipation and low wear throughout the life of the vehicle.

The CBTB is designed for vehicles that require the narrowest footprint. It is installed between both wheel motors on the load bearing axle. When engaged, its double-disc arrangement allows the brake to act on both motors simultaneously.

An optional dual-stage functionality is available to provide better control of the torque by applying 50% or 100% of the brake torque capacity. It also prevents flat surface damage to tires that often occurs when wheels lock up during an abrupt emergency stop.

- High-torque, high-speed within a compact space envelope
- Proprietary dry friction material enables implementation of electromagnetic brakes versus hydraulically actuated and wet brake technologies, removing then the risk of oil leaks.
- Optional camshaft hand release lever is available

Scan to view the Altra Expert's CBTB Webinar

Warner Electric®
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For more information, download P-7637-C from www.AltraLiterature.com

MEA Clutches & Periflex® VN Couplings for Uninterruptible Power Supply Systems

A leading designer and manufacturer of dynamic uninterruptible power supply (UPS) systems needed a reliable clutch solution for its line of UPS systems. The systems range in size up to (18 kNm) 3300 kVA, to provide backup power in the case of main supply fluctuations or failures in a variety of critical applications including hospitals and data centers.

When a power interruption or failure is detected, the system's diesel engine automatically starts. Once the engine reaches 1500 RPM, the clutch engages/connects the engine to a flywheel which takes over to supply power to the generator. In an emergency, the clutch is also used to start the engine if the starter is not functioning.

The Stromag team worked closely with the OEM's engineers to ensure that the clutch shaft connection could transmit the full amount of torque required. The level of magnetic flux that passes through the drivetrain components (including bearings) was also analyzed.

Ultimately, custom MEA electromagnetic single-disc, dry running friction clutches were supplied. The clutches featured a modified flange on the engine side to align with the customer's interface. The clutches were also modified to allow the friction linings to be removed/replaced without removing the entire clutch.

Stromag®
Altra Industrial Motion

For more information, download P-8522-SG from www.AltraLiterature.com

Convenient Precision Coupling Customisation from Huco

Customised precision couplings are vital for builders of specialist equipment. Precise machines must operate with high efficiency and reliability within a compact footprint. Not only must a coupling be of an optimal design to promote uptime, but also sympathetic to overall device packaging. An off-the-shelf coupling will not offer the specialisation required, so a customised component is often the best option. These customised precision couplings may be required for the machine prototyping process or for low to medium volume production runs. Product development deadlines or manufacturing schedules must be met, which means precision couplings must be delivered swiftly.

Huco, a leading brand of Altra Industrial Motion Corp., is a regular supplier of customised couplings and cardan shafts to the precision automation, motion transfer, medical and laboratory sectors. Typical applications include pick & place machines, assembly machines, transfer machines, printing equipment, sorting, medical devices and testing equipment.

Offering an in-house design and manufacturing capability, the business has built a reputation for being able to provide customised couplings with a wide range of specifications on short lead times. Huco can complete the design process in days, with average sized orders manufactured and delivered in a couple of weeks.

For the full article, visit Huco's Newsroom at www.Huco.com/Newsroom

Huco®
Altra Industrial Motion

Bauer Gear Motor IP68 Solutions: Energy Efficient Technology for the Wastewater Industry

IP68 geared motors are most suitable where it is required to convey or transport foul, waste, river or rainwater, and all types of sludge-containing waters in communal or industrial areas. They are frequently used in agitators for mixing, homogenising, etc. or in extremely wet areas or completely submersed under water.

Features:

- Special housing and motor design for continuous submersible operation
- M+D5aximum leakage protection
- Special output shaft seals available
- Electronic leakage detection is available as an option for early recognition of errors
- Energy-saving asynchronous and permanent magnet motors up to IE5
- IP68 motors also available with brake
- Gear motor can be operated at constant power in air or in a medium
- Fully cast cable to ensure maximum level of sealing
- Usable down to water depths of 5 m (greater depths on request)
- Special coating allows extreme underwater conditions
- Power classes: 0.37 – 11 kW (Explosion protection versions on request)
- Use in potentially explosive atmospheres possible (e.g. Atex Zone 1)

Bauer Gear Motor®
Altra Industrial Motion

For more information, download P-7184-BGM from www.AltraLiterature.com

Scan to visit
IP68 Solutions

A Wind of Change in Braking Systems for Power Generation

Airborne Wind Energy Systems (AWES) that produce energy as they soar through the sky are the latest innovation in wind power generation. These ground-breaking solutions require equally innovative brakes, as their needs greatly differ from conventional wind turbines. AWES use tethered aircraft, or other flying objects, to harvest high-altitude winds that blow at heights above 300m. By exploiting the fast, persistent, and less turbulent speeds of high-altitude winds, AWES can generate power at unprecedented levels.

When a leading AWES developer needed suitable braking systems for its products, it contacted Altra Renewables, a division of Altra Industrial Motion Corp. The company was particularly attracted by the Svendborg Brakes and Stromag brands. These have extensive experience in providing intelligent braking solutions and power transmission components to the wind energy sector.

The AWES manufacturer was looking for an innovative braking system with an extremely compact footprint which could operate without an external power supply. This would allow the energy converters to maximise the benefits offered in terms of cost, environmental impact and flexibility. In addition, it was crucial for the components to be able to withstand harsh offshore operating conditions.

In order to address these requirements and design an optimum braking system, the brands within Altra Renewables established a close collaboration with the AWES manufacturer. Together, they were able to develop a solution based on Stromag's compact active, hydraulically actuated CB90-R ultra-energy rotor brakes designed for high-energy braking installations.

Small hydraulic power units (HPUs) from Svendborg Brakes, allowed the entire system to fit into the AWES body. Thanks to the brake system design, the AWES OEM was able to produce a setup that uses 90% less material than conventional wind converters, such as wind turbines, while doubling the amount of energy produced.

For more information, download P-8862-C from www.AltraLiterature.com

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The power of united brands

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- Key Steps to Getting the Most from your Synchronous Belt Drive Installation
- Proper Torque Arm Use
- Two Ways to Reduce Backstop Maintenance, Time and Expense
- Altra Wastewater Solutions
- Helping Us Help You: Product Identification
- High Capacity Gearboxes and Overrunning Clutches
- Precision Torque: Warner Electric Smooth Torque Capping Clutch Technology
- Open Gearing Capabilities: Standard & Custom
- New TB Wood's Sure-Flex Plus® Savings Calculator
- Bauer Gear Motor Solutions in Metal Mill Applications

Fast Facts Webinars:

- Clutch/Brakes: Heavy Duty or Normal Duty
  Explains the differences in Normal Duty and Heavy Duty product configuration
- Power Supplies: AC or DC Side Switching
  A review of why an application will most easily use either switching on the AC or the DC side of the power supply.
- Magnetic Particle Clutches and Brakes
  A review of magnetic particle design considerations and constraints.
- Electromagnetic Clutches/Brakes: Why DC?
  An explanation of why electro-magnetic friction clutches and brakes use DC power to operate.
- Warner Electric Clutches and Brakes: Why not below 100 RPM?
  This presentation explains why Warner Electric clutches and brakes operate best at speeds above 100 RPM.
- Burnishing Electromagnetic Clutches and Brakes
  An explanation of burnishing and why it is important to proper operation of clutches and brakes.