

Freudenberg

HELPS MANUFACTURERS OPTIMIZE HYDRAULIC CYLINDER SEALING SYSTEMS

With the goal of helping customers reduce the manufactured cost of hydraulic cylinders while optimizing performance and lifespan of their production equipment, Freudenberg-NOK Sealing Technologies has announced its new Freudenberg Perfect Cylinder program, a collaborative engineering and design approach with customers. Freudenberg-NOK runs the business operations for Freudenberg Sealing Technologies in the Americas.

Large-scale manufacturers, such as those found in the agriculture and construction industries, often find themselves faced with the daunting task of upgrading entire pieces of expensive equipment to keep production running smoothly. With the Freudenberg Perfect Cylinder program, the experts at Freudenberg-NOK work with cylinder distributors to re-engineer cylinder components for hydraulic systems and pair them with the appropriate sealing solutions to maximize system efficiency on existing machines while eliminating the need for costly equipment replacement.

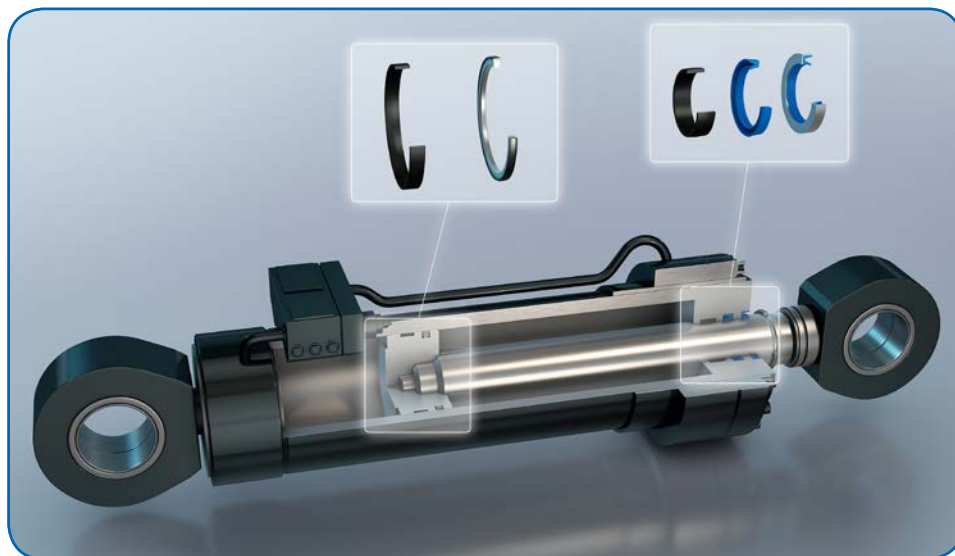
“We’re known for our sealing products but our expertise can reach beyond that to assist our customers in new ways,” said John Plut, director, fluid power partners, North America, Freudenberg-NOK. “With the Freudenberg Perfect Cylinder program, we can substantially reduce cylinder costs by collaborating at the engineering level to help create an enhanced system of cylinders and seals.”

Once cylinders are re-engineered, they are paired with sealing products from Freudenberg’s vast catalog of industry leading solutions, resulting in an optimized sealing solution that uses premium, high performance seals while still saving customers as much as 40 percent on total material and production expenditures, Plut explained. In addition, Freudenberg’s portfolio of sealing options continues to grow.

One of the company’s latest sealing innovations in this area, for example, is the newly launched imperial-sized Guivex series guide bands, which are profiled piston and rod guide bands made with a new carbon-fiber filled polyamide material. The Guivex bands can be used in Perfect Cylinder-optimized sealing systems and in long-stroke cylinder, short stroke, short guiding distance, and high-side-load applications.

The size of the Guivex bands allows manufacturers to use them in radial load capacities that are 40 percent higher than standard guide bands, and they can be utilized in all fluids normally found in hydraulic systems, replacing standard 1/8" cross section piston guide bands in current housings.

“The new Guivex bands can enable the reduction of cylinder gland widths and lengths, reducing costs and increasing design flexibility,” said Jay White, product marketing manager, fluid power, Freudenberg-NOK. “They are less abrasive to sliding surfaces as well, resulting in no jamming and quieter operation.”



Other sealing technologies that can be used in the Perfect Cylinder program include the HDP 330 high-pressure piston seal, plus seals made from the new 94 AU 30000 polyurethane material.

The HDP 330 is a special polyamide seal that can withstand extreme pressure (up to 800 bar) and allows for use of rougher cylinder liner surfaces, which can also cut cylinder production costs.

Seals made from the 94 AU 30000 material last longer than current, standard seal solutions and have high resistance to hydrolysis, even in temperatures ranging from -35°C to 120°C and can remain stable in operating pressures up to 50 MPa/7,250 psi.

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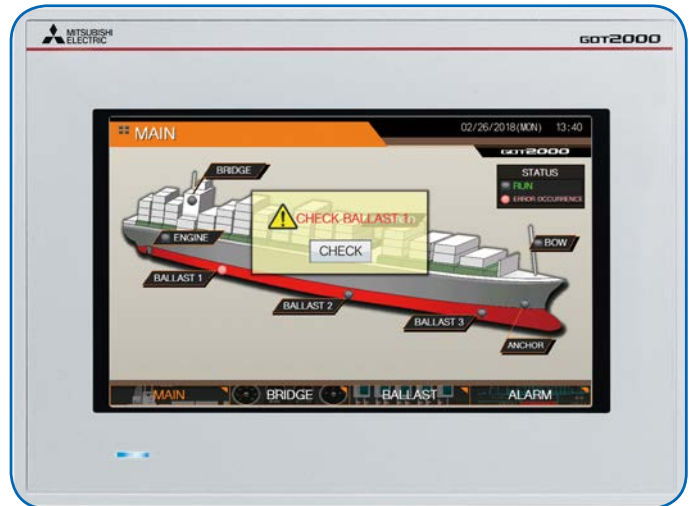
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Mitsubishi Electric

OFFERS HMI TO WITHSTAND EXTREME CONDITIONS

The GT25 Rugged Series HMI is suited for outdoor use where equipment damage is a significant risk.

Machine designers and end-users in outdoor industries or where exposure to harsh elements is inevitable will be interested in the new GT25 Rugged human machine interface (HMI) from Mitsubishi Electric Automation, Inc. Reinforced with metal housing and equipped with an extra bright screen visible under direct sunlight, this interface is engineered for environments that would damage or destroy more vulnerable HMIs.



The GT25 Rugged can function at temperatures between -5 and 150°F (-20 to 65°C) and is resistant to vibration and shock. The metal housing also protects the internal components from direct blasts from high-pressure water jets and UV rays. This makes it an ideal choice as a monitor screen or control panel for applications that require outside installation, or risk exposure to harsh environments and procedures, such as automated parking systems, power conditioners, electric car charging stations, heavy machinery and food processing systems that use pressurized jets to clean equipment.

The sturdy hardware offers the same functions and capabilities found on the broader GT25 Series of HMIs, such as a flexible configuration, a convenient maintenance platform, remote connectivity, expanded memory (32 MB ROM for storage; 128 MB RAM for operation) and device monitoring functions.

“Most HMIs are not viable in outdoor, exposed environments,” said Lee Cheung, product marketing engineer at Mitsubishi Electric Automation, Inc. “The GT25 Rugged presents an opportunity to improve machines and systems that typically do not have a specialized HMI built for them.”

For more information:

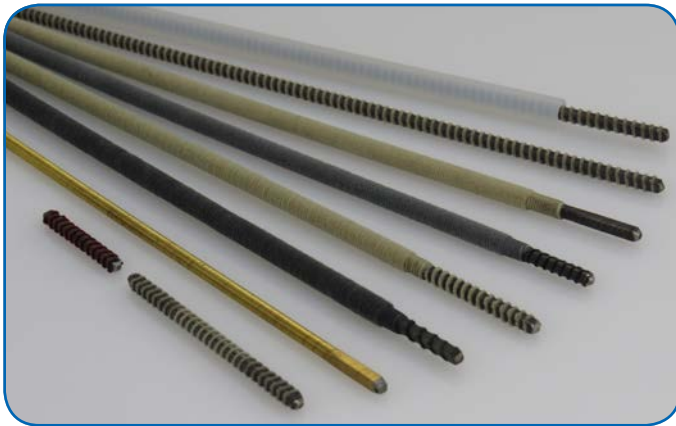
Mitsubishi Electric Automation
Phone: (847) 478-2415
us.mitsubishielectric.com/fa/en

S.S. White Technologies

ANNOUNCES FLEXIBLE SHAFTS FOR AUTOMOTIVE APPLICATIONS

S.S. White Technologies recently announced their flexible shaft solutions for automotive industry applications. Flexible shafts are a technology that transmit rotary motion much like a solid shaft, but can be routed over, under, and around obstacles that would make using a solid shaft impractical. Flexible shafts are used in a variety of automotive applications, including in power seats, power sliding doors, pedal adjuster systems, and power rear lift gates, among others.

Among the many automotive applications for which S.S. White flexible shafts are used is to transmit rotary motion generated by electric motors in various “powered” amenities in vehicles. The most common application of flexible shafts in this area is in power seats. This is one example of how flexible shafts can be widely customized to fit their application, as the shafts in this application are specialized “flocked” shafts, which are coated in flocked yarn to dampen the noise created during operation—a critical feature in the automotive industry. In addition, compared to the use of rigid shafts, flexible shafts used in power seats feature a number of advantages. The assembly process is easier with flexible shafts, and, due to their flexibility, flexible shafts give the movement of the power seats a greater degree of smoothness compared to rigid shafts.



Flexible shafts are the preferred rotary motion technology in many automotive applications because they help eliminate alignment problems, are less costly in terms of installation and needed parts, and they provide greater design freedom than rigid shaft technologies.

S.S. White provides flexible shaft assemblies as part of a custom solution. Every application in which a flexible shaft would be beneficial is different, and S.S. White not only manufactures the flexible shaft technologies, but also provides the technical expertise to create solutions to engineering challenges.

For more information:

S.S. White Technologies
Phone: (732) 474-1700
www.sswwhite.net



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SKF

DEVELOPS PORTABLE SENSOR FOR MACHINE MONITORING

SKF Pulse combines an easy-to-use handheld sensor with a new mobile app, allowing users to quickly monitor rotating equipment and machine health to predict issues and improve reliability before operations are impacted.

For more advanced analysis, users can request an SKF Pulse Check directly via the app. The request goes to an SKF diagnostics center where experts remotely analyze the machine data and respond with recommended corrective

actions to improve equipment performance, if required.

SKF Pulse has an intuitive visual interface that guides users through the data collection process. Users enter asset information that automatically configures alarm thresholds based on ISO standards. Thresholds can also be customized if desired.

The durable SKF Pulse sensor features: Velocity, acceleration and temperature measurement of rotating equipment; Bluetooth communication with iOS mobile devices; rugged industrial design — drop test of six feet and water- and dust-resistant (IP65) and a rechargeable lithium battery (with eight hours normal usage)

Designed for MRO managers and staff in a wide range of industries — including food and beverage, cement, marine, oil and gas, pulp and paper, steel, mining, chemical processing and other industries — SKF Pulse provides a cost-effective entry point for a do-it-yourself, preventive maintenance program.

Unlimited assets can be monitored with one sensor. For extra scalability, more sensors can be added as part of a broader vibration analysis program. Data and asset information can be shared throughout the facility.

“Customers wanted an easier way to conduct routine vibration checks with the ability to quickly get expert help if they need it,” said Josh Flemming, strategic marketing, SKF USA Inc. “SKF Pulse offers a combination of features that our competitors don’t, including easy setup, portability,



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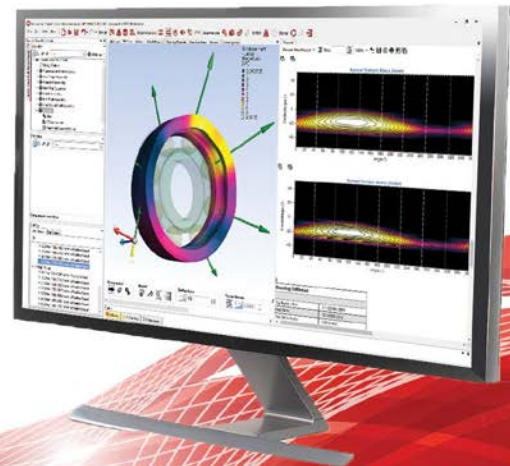


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KTR Corporation

INTRODUCES TORSIONALLY-RIGID, CURVED-TOOTH FLANGE COUPLING

With hydrostatic drives in construction and agricultural machines, I.C.-engines and hydraulic pumps are directly coupled. Both units are connected by a flange coupling. This connection has to meet a number of requirements — though primarily it has to transmit the power reliably enabling the machine to perform the pending operations as requested.

BoWex FLE-PAC is a torsionally rigid curved-tooth flange coupling. Its hub is made of steel and the flange toothing of carbon fiber reinforced nylon. This material combination provides the coupling with high dimensional stability even with temperatures up to 130°C allowing for a long and maintenance-free permanent operation thanks to optimized coefficients of friction in the tooth combination.

“Years of experience with applications at customer sites and extensive test series in the KTR test field in Rheine enabled us to determine potentials with this type allowing for an increase of torques of up to 25 percent,” said Andreas Hücker, product manager for flange couplings. “Especially the low wear of contacts and the excellent dimensional accuracy of the coupling were decisive for the torque increase. The increased coupling torques result in a bigger performance range with drives up to 800 kW. Thus the customers will be in a position to use smaller coupling sizes in their machines in the future.”

For more information:

KTR Corporation
Phone: (219) 872-9100
www.ktr.com/us



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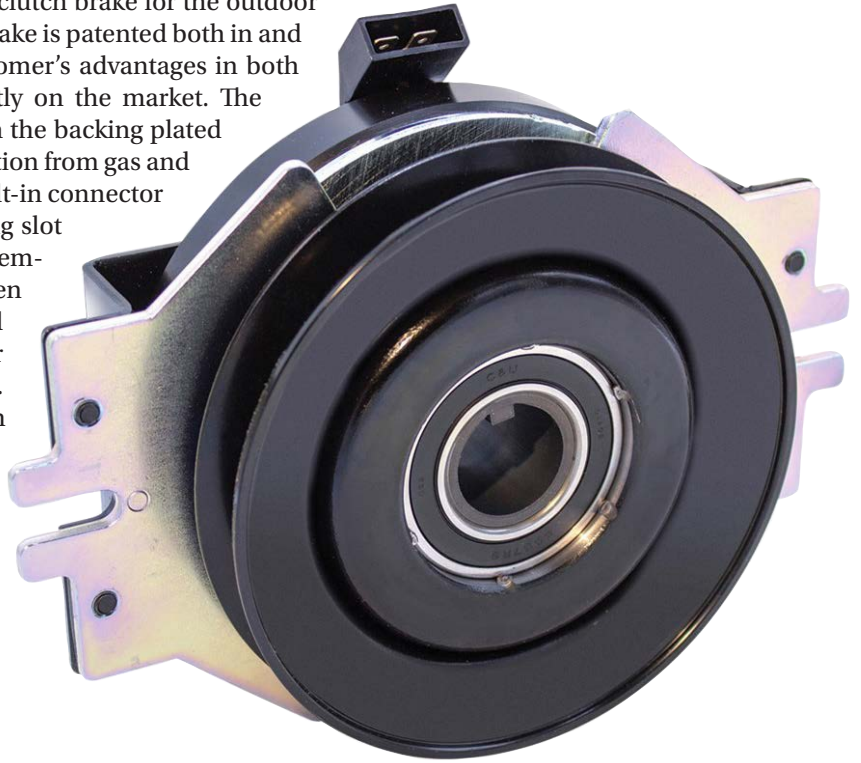
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Ogura

PTO CLUTCH BRAKE OFFERS PERFORMANCE ADVANTAGES FOR OUTDOOR POWER EQUIPMENT

Ogura has developed a new model, GT2.75, clutch brake for the outdoor power equipment market. This new clutch brake is patented both in and outside of the United States and offers customer's advantages in both design and cost over older designs currently on the market. The clutch incorporates a six hard rivet design in the backing plated field shell that resists separation due to vibration from gas and diesel engines. The new design also has a built-in connector for easy wire attachment. A simple mounting slot on both sides of the clutch makes for easy assembly. The big advantage for the end user is when the brake plate wears, the plate can be flipped and the end user can gain additional wear cycles without having to replace the clutch. All units come with an integral key and high strength roll formed low inertia pulleys. To handle high inertia loads, a six-spring, 12 rivet design was used between the pulley and armature.



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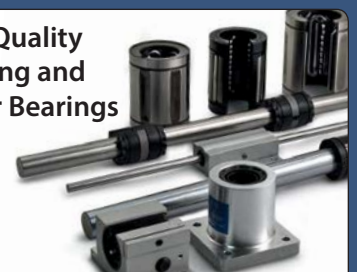
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Bonfiglioli

INTRODUCES ELECTRIC SLEW AND TRACK DRIVE FOR MINI-EXCAVATORS

These two new products by the Italian drive specialist Bonfiglioli allow customers to get a complete drive solution for 2-3 ton mini-excavators. Bonfiglioli offers a fully electric alternative to the conventional



axial piston hydraulic unit, allowing the machine to reduce noise levels and CO₂ emissions to zero.

The complete electric powertrain dramatically improves the efficiency of the machine and extends the maintenance interval providing a significant reduction of the total cost of ownership. While the gear units benefit from over 65 years of experience by Bonfiglioli in the field of conventional hydraulic applications,



the electric motors have been specifically designed and developed to match the demanding requirements of the market in terms of energy efficiency, compact dimensions and high power density.

Each motor has been designed to perfectly fit the space available for the slew and the track system minimizing the requirements and modifications to the frame and the

entire system. Its rugged and compact design is guaranteed thanks to the stator's

technology design, made with concentrated winding and IPM (Internal Permanent Magnet) technology.

For more information:

Bonfiglioli
Phone: (859) 334-3333
www.bonfiglioli.com

Gates

OFFERS HIGH-TORQUE SYNCHRONOUS BELT FOR INDUSTRIAL APPLICATIONS

Gates, a global provider of application-specific fluid power and power transmission solutions, introduces the PowerGrip GT4 belt, a newly designed ethylene elastomer (EE) high-torque synchronous belt for industrial markets.

The PowerGrip GT4 reflects Gates' dedication to innovation in materials science and process engineering. Many of the elastomer synchronous belts in the market today are made using chloroprene, a material that has performance limitations. The new Gates PowerGrip GT4 belt construction replaces chloroprene with a special EE formulation that delivers much higher performance. The company pioneered ethylene elastomer technology with its line of Micro-V belts



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in automotive markets and applied that materials science technology to PowerGrip GT4 for industrial markets.

PowerGrip GT4 has the highest power-carrying capacity in the segment, a larger temperature range and improved chemical resistance. This allows for narrower drives and a broader range of applications to be served. For machine builders, this creates design flexibility and improves the ability to fit a belt drive into smaller spaces or to utilize more torque. Distributors can differentiate with a higher-performance



offering and end-users running industrial drives as part of their operations experience a lower total cost of ownership. The improved performance characteristics also support additional market opportunities with the conversion of roller chain to belt drive solutions, enabling a transformation from a high-maintenance chain to a high-performance belt.

“PowerGrip GT4 extends the success we’ve had with the PowerGrip family of industrial belts over many years by upping the performance bar,” said Tom Pitstick, CMO and senior vice president of Product Line Management for Gates. “It’s right at home in heavy-duty industrial environments driving pumps, conveyor systems and other machinery where efficiency, reliability and high quality are required. PowerGrip GT4 belts eliminate the need for lubrication and maintenance, run quietly and reduce contamination risks, further extending our ability to replace traditional chain drives in key end markets.”

Gates will offer a full portfolio of PowerGrip GT4 belts in 8mm and 14mm tooth pitches, and lengths exceeding 6.5 meters. Samples are available now with full-scale production beginning in North America and Europe in Q2 2019, with Asia to follow later in the year.

For more information:

Gates Corporation
Phone: (303) 744-5800
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spiral bevel gearboxes



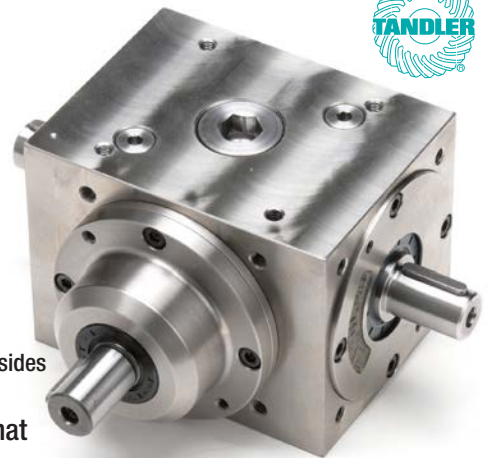
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