

# Schaeffler

STRENGTHENS STANDARD BEARING BUSINESS WITH DEEP GROOVE BALL BEARINGS

Schaeffler is significantly expanding its standard rolling bearing business with FAG Generation C deep groove ball bearings through substantial investments in new production and logistics capacities as well as improved product characteristics. In March, the first new high-volume production line was put into operation at the Schaeffler location in Yinchuan/China.

“Our investments will help us satisfy the high level of demand for standard deep groove ball bearings, especially from China and the Asia/Pacific region, and help us meet the specific requirements of this high-volume business in an optimum way,” explains Dr. Stefan Spindler, CEO Industrial at Schaeffler. Electric motors, household appliances, pumps and fans, electric power tools, and two-wheel vehicles are the fields of application in which FAG Generation C deep groove ball bearings are most commonly used.

## More durable, less noise, low friction and cost-effective

Ever since FAG Generation C deep groove ball bearings were established in 2008, their product characteristics have been subject to continuous improvement.

“We looked at the product, production, and logistics, and developed solutions in all areas that fulfill the highest requirements in the market,” explains Thomas Kreis, project manager for the deep groove ball bearing high-volume business at Schaeffler.

The new Z-type dust shield with its labyrinth seal helps to reduce the egress of grease by 20 percent, and prevents contamination by 30 percent in comparison with the previous design. The patented ELS lip seal, which is optionally available, provides maximum sealing action at low friction and is particularly suitable for alternating axial loads, such as in wheel bearings

in motorcycles. The improved sealing action, without any additional friction loss, is due to the innovative lip shape that is perfectly matched to the ring recess.

The high-quality of the balls and the noise-optimized cage mean that FAG Generation C deep groove ball bearings run significantly more quietly than conventional offerrings. In addition, optimized osculation reduces friction. These characteristics can be attributed to the numerous optimizations to raceway parameters with regard to roundness, waviness, roughness and tighter manufacturing tolerances. Reduced friction also means lower energy costs during operation.

## For more information:

Schaeffler Group USA, Inc.  
Phone: (803) 548-8500  
[www.schaeffler.us](http://www.schaeffler.us)



The first new high-volume production line was put into operation at the Schaeffler location in Yinchuan/China (All photos courtesy of Schaeffler).



## Bonfiglioli

LAUNCHES PLANETARY GEAR 300M SERIES FOR INDUSTRIAL APPLICATIONS

Bonfiglioli recently launched the new planetary gear 300M series for industrial applications. The 300M series offers a higher torque density for the same compact dimensions and is available in 20 sizes with an output torque of 1.3 to 1,300 kNm. The planetary drives of the 300M series are equipped with newly designed planet bearings, which grant up to 50 percent more torque at a high numbers of cycles. The 300M series is fully interchangeable with the well-known planetary gear 300 series and is suitable for integrated geared motors, IEC and NEMA electric and hydraulic motors.

Optionally, Bonfiglioli offers a compact self-cooling system for the entire planetary gear series, which increases the thermal performance by three times. The self-cooling system is robust and connects directly to the motor in a reliable way, allowing use of the full mechanical power without needing further external cooling circuits.

The 300M series, thanks to the enhancement of the planet bearings arrangements, ensures compactness, cost savings as well as up to 20 percent more lifetime and reliability. With the optional integrated self-cooling system, the new 300M series allows either a saving of at least one size or is an outstanding alternative to helical gearboxes. In addition, this integrated option is environmentally-friendly as no external cooling system is needed. Typical industries for the application are material handling, cranes and winches, mining, recycling, water and waste water, food and beverages, as well as numerous other industries where it comes down to a high torque density with an optimized space requirement.

### For more information:

Bonfiglioli  
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## R+W

### ADDS LPZ SHORT SPACER INTO DISC COUPLING LINE

In its effort to fill in and complete its flexible disc coupling offering, R+W has added a standard coupling adapter which provides customers with more configuration and connection options when selecting couplings for industrial applications.

The LPZ spacer accompanies a quickly expanding product line and offers lateral misalignment capabilities in a very small package. It is available in six sizes ranging from 500 Nm to 12,000 Nm and is able to mate with any LP coupling hub R+W has to offer within the corresponding size. Both ends of this spacer connect via a pre-

cision machined stainless steel disc pack, which transfers torque through a pure friction-drive design. This ensures that shear force on the fastening bolts is eliminated and the assembly is completely backlash-free.

While this spacer is made entirely of steel, all R+W coupling components can be made from special materials and balanced for higher speeds if the applications demands it.

#### For more information:

R+W America  
Phone: (630) 521-9911  
[www.rw-america.com/products/industrial-drive-couplings/disc-pack-couplings/lpz.html](http://www.rw-america.com/products/industrial-drive-couplings/disc-pack-couplings/lpz.html)



## Maxon Motors

### INTRODUCES STERILIZABLE DRIVE SYSTEM

Maxon Motor's NEW ENX EASY is a sterilizable encoder for use with Maxon's brushless DC motors. This opens up a range of new possibilities in medical technology. It is available in an incremental (1,024 counts) and absolute version (4,096 steps), both designed for 1,000 autoclave cycles.

As of now, the ENX EASY can be combined with matching BLDC motors and planetary gearheads. The encoder can be integrated into the brushless drives ECX 13 and ECX 16 SPEED (up to 120,000 rpm and 104 W) without any increase in length. When the gearheads GPX 13 and GPX 16 SPEED (0.2 Nm max. continuous torque) are added to the combination, customers receive a fully sterilizable positioning system. This opens up an entire new range of possibilities.

#### For more information:

Maxon Precision Motors  
Phone: (508) 677-0520  
[www.maxonmotorusa.com](http://www.maxonmotorusa.com)



## Force Control

POSITORQ BRAKES PROVIDE TORQUE CONTROL

A full line of Positorq oil shear tension control brakes from Force Control Industries provide simple, precise torque control over the entire speed range, even down to 0 rpm. Operational speeds are precisely controlled without chatter, stick slip or torque variation — thus eliminating marking during leveling, polishing and coating. Torque is controlled by pneumatic or hydraulic actuation pressure and is independent of speed. Sizes range from 53 lb. ft. up to 300,000 lb. ft., with continuous heat absorption capability up to 3000 thermal horsepower. Positorq Oil Shear brakes are ideal for tension control applications such as unwind stands in steel mills, where very high torque is required at very low speed.

Oil Shear technology eliminates normal maintenance and adjustment, allows smooth operation, and lasts up to 10-times longer than standard dry friction brakes, making them ideal for many industrial applications. Totally enclosed housings make these brakes a trouble-free solution for steel mills because the enclosed housing reduces wear and torque changes due to moisture, scale and chips in the friction material.

In addition to transmitting torque, a patented fluid recirculation system assures the fluid is continually flowing through the friction area and carrying the heat to the housing for dissipation. This eliminates the major problem of heat buildup in the friction area of traditional dry brakes. The fluid also serves to continually lubricate all components of the oil shear brake, including bearings and splines, increasing service life of all the internal components.

### For more information:

Force Control Industries  
Phone: (513) 868-0900  
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# SKF

## INSOCOAT BEARINGS PREVENT PASSAGE OF HARMFUL ELECTRICAL CURRENTS

SKF's INSOCOAT bearings range comprises bearings with an electrically insulating coating on the external surfaces of its inner or outer ring, plasma-sprayed with an aluminium oxide coating. The coating, which is naturally hygroscopic, is sealed with a resin to protect against the conductive effects of high humidity and moisture ingress. These bearings are specially designed and manufactured for use in rotating electrical machines, such as industrial electric motors, traction motors and generators. They prevent the passage of harmful electrical currents from the rotor to the machine frame via the bearings, which causes progressive electrical erosion of the bearings' rolling contact surfaces and ultimately premature failure.

Following the introduction of an improved plasma spray coating process and optimised ceramic layer, SKF can provide this insulating coating as standard and off-the-shelf across its entire INSOCOAT range.

INSOCOAT bearings are now able to withstand voltages of 3,000 V DC sufficient to cope with the vast majority of stray bearing current problems in electrical machines.

In addition, the upgraded moisture-resistant coating provides greater protection against humidity storage environments which can compromise a bearing's insulating properties before it is even placed in service, making

INSOCOAT bearings highly robust during transport and handling.

Combining both bearing and insulation in a single solution, INSOCOAT protects against electrical erosion at significantly lower total cost of ownership compared with other techniques such as shaft or housing insulation.

### For more information:

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# Miki Pulley

## EXPANDS BX BRAKE SERIES

Electromagnetic Miki Pulley BX series brakes are a power-off, engaged type brake. When the stator is energized, the brake is disengaged allowing free rotation. When no current is applied, compression springs halt the brake rotor thereby stopping the input shaft rotation. This is an ideal feature to prevent power failure events.

Of the BX series, the BXR-LE has expanded to three additional sizes. (Six total size configurations to choose from.) These brakes boast advantages including a slim design and high holding torque in a compact package. They provide quiet operation with long service life. This brake was designed for smaller machine and robotic applications, where cantilevered loads can negatively impact operation. The brake's unique compact and light-weight design optimizes machine design efficiency. With accompanying voltage controller, power consumption is stepped down to 7VDC after a split second of 24VDC for brake actuation.

When compared to the other BX brakes in the Miki lineup, this BXR-LE design provides just one-third power consumption and heat generation in one-half the overall size thickness.

Specifications include a maximum rpm of 6,000; static friction torque range between 0.06 Nm–3.20 Nm (0.044 ft-lbs–2.36 ft-lbs) and an ambient operating temperature of -20°C–60°C (-4°F–140°F).

Applications include robotic arm joints, Z-axis ball screw brake on CNC machine centers, internal brake for direct drive servo motors, pan/tilt brake for security cameras, brakes for locking sensor alignment and Z-axis brake.

### For more information:

Miki Pulley US  
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[www.mikipulley-us.com](http://www.mikipulley-us.com)



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## SICK

### INTRODUCES KTS AND KTX SENSORS

With its KTS and KTX product families, SICK is presenting new, powerful contrast sensors from a forward-looking, innovative platform. The patented TwinEye technology for improved contrast detection and sensing distance tolerance ( $\pm 5$  mm), the specially developed three-color LED with its high-precision, color-mixed light spot, and the jitter that has been minimized to a level never before seen, coupled with absolute high-speed switching frequencies, open up a world of new possibilities when it comes to detecting contrasts and—for the first time in a sensor—colors too.

IO-Link and additional integrated functions such as recipe management ensure maximum versatility, while the innovative, multifunctional 7-segment display guarantees simple yet customized sensor setup, operation, and visualization.

Familiar applications such as the detection of print marks or the control of industrial labeling processes benefit from even greater process stability and performance. The sensors detect high-gloss materials and complex contrasts, even on heavily jittering materials. The integrated color mode also enables reliable detection of even the most minor contrast differences and color features.

The KTX product family offers compatibility without compromise: Both the hole pattern for mounting the sensors and the electrical connectiv-

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# Festo Motion Terminal

OFFERS PROGRAMMABLE PLATFORM FOR AUTOMATION AND PNEUMATICS

The machinery and plant construction industry is faced with the challenge of catering to the increasing consumer demand for individually adaptable products at affordable prices. Along with the continuing need for mass-produced goods for the world's population, which will soon reach the eight-billion mark, demand is also growing for small-series production down to lot size 1.

Digitalization in the course of Industry 4.0 is providing the necessary key technologies. Festo has developed a universal, programmable platform for highly flexible and adaptive automation with digitalized pneumatics.

With the Festo Motion Terminal, the company has merged hardware and

software to produce a digital valve. Over a three-year development period not only an intelligent pneumatic automation platform for Industry 4.0 was created, but in fact an entirely new solution for the manufacture of products for the future.

## For more information:

Festo  
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[www.festo.com](http://www.festo.com)



ity facilitate a 1:1 migration from the SICK product families that are already proven and widespread on the market to the new technology platform. In its space-saving compact housing, the KTS meets all requirements of modern machine concepts.

The KTS contrast sensors come in "CORE" and "PRIME" configurations; these offer different levels of functionality, enabling a variety of different automation needs to be met individually and cost-effectively. The even more finely granular grayscale resolution of the KTS and KTX, the integrated color mode, and the large number of other technical innovations in both product families are setting a new standard in the market for contrast sensor technology — and opening up additional areas of application at the same time, such as the detection of wafers, the management of reel changes, or quality control.

## For more information:

SICK, Inc.  
Phone: (800) 325-7425  
[www.sickusa.com](http://www.sickusa.com)

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# Rexnord

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Rexnord announces DiRXN (pronounced "Direction"), its new digital productivity platform based on the integration of innovative Industrial Internet of Things (IIoT) and e-commerce technologies with its leading portfolio of tools, products and services. DiRXN directly connects customers to data and information that allows them to optimize productivity across all stages of

their lifecycles. This digital unification of product and customer processes will create a true ecosystem of enhanced value over time as Rexnord further innovates deep learning into solutions and partnerships to reshape and enhance Rexnord service levels and business models.

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bottom line. "From the procurement of new equipment, through its installation, use and asset management, customers can expect a return on mission-critical investments," said Rick Morse, vice president, digital solutions, of Rexnord's process and motion platform. "The DiRXN platform delivers on operational savings and metric-driven goals, including mean time between failure (MTBF) and mean time to replace (MTTR), as well as overall equipment effectiveness. These are key performance indicators that DiRXN can positively impact for global customers."

"Rexnord has been a vital part of industrial infrastructure for more than 125 years," said Kevin Zaba, president of Rexnord's process and motion control platform. "We're digitizing over a century of application expertise and applying it to traditional tasks and problems allowing customers to solve them in smarter, more efficient ways, while giving Rexnord more visibility to customer and product behaviors that will further improve our portfolio of industry solutions."

### For more information:

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