

Rexnord Centrik-Lok Collar

ACCOMMODATES 32 BALL BEARING SIZES

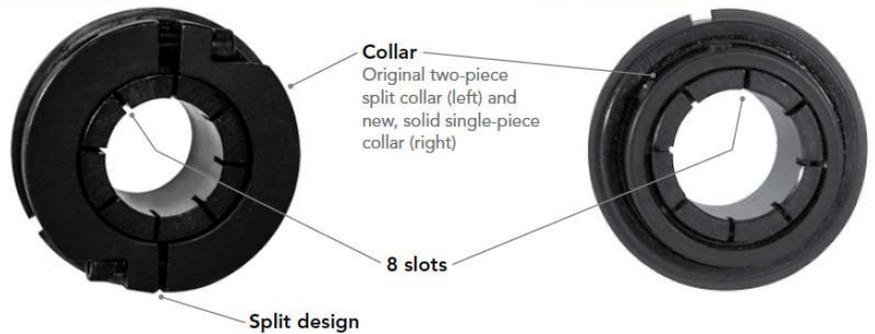
Rexnord recently released a newly-designed, single-piece Centrik-Lok Collar (ER-K) for all 32 sizes of its Link-Belt ER Style Ball Bearings, which will now accommodate an even broader customer base and expand its use in hundreds of applications.

This smaller, versatile single-piece collar will fit into even more applications that utilize ER style bearings, allowing the product to be available to a larger market. With eight slots, it maintains the same clamping force from Rexnord Link-Belt Ball Bearings, while fitting more easily into additional processes and applications. Common applications requiring the Centrik-Lok Collar have included farming, road construction, lumber, printing, and general conveying applications.

“To our customers’ delight, the new, single-piece collar is completely interchangeable with the original, two-piece collar design on all ER bearings,” says Dan Gengler, ball bearing product specialist at Rexnord. “All ER bearings can be ordered with the single-piece

Original two-piece

New single-piece



design, and customers can simply replace the previous collar without a problem.”

The new single-piece Centrik-Lok Collar allows the collar’s outer diameter to be smaller by 0.55–0.85 inches and eliminate interference issues with installation. Except for the collar, the rest of the Rexnord ER-K bearing and its dimensions remain the same, including the unique eight-slot inner rings and the length through bore.

“Most importantly, we are not taking away or substituting something that Rexnord customers have been buying,” says Gengler. “Rather, we are adding an additional option for a wider range of customers and applications. We can still accommodate the two-piece collar if customers would like to continue ordering them. Aside from the new Rexnord ER-K bearings, all other

mounted Centrik-Lok Ball Bearings will feature the two-piece design and will remain unchanged.”

Rexnord first introduced the original Centrik-Lok Collar in 2011, with a design that featured a unique eight-slot design and a two-piece locking collar. According to Gengler, this product not only allowed for easier installation, but with eight slots instead of six, ranks among the highest shaft clamping force in the industry. The positive reception this product received from the industry spurred the rollout of the Centrik-Lok Collar on all Rexnord Bearing products, including pillow block, flange ball blocks, and ER bearings.

For more information:

Rexnord Corporation
Phone: (414) 643-3000
www.rexnord.com

Siemens Sinamics Drives

OFFER HIGH POWER DENSITY IN SMALLER FOOTPRINT

Siemens recently announced the availability of its Sinamics G120C drive in AA size, which replaces the previous G120C frame size A in power ratings up to 2.2kW(3 hp), including communication variants for USS, Profibus, Profinet and EtherNet/IP. Offering high power density in a smaller footprint, the new “tiny drive” offers fully compatible replacement for the equivalent power ratings on the previous version.

On new control cabinet designs, the G120C FSAA has significant size advantages, up to 32 percent less overall volume, for the OEM or integrator, but requires no re-engineering, when migrating from the G120C FSA on current jobs. Overall dimensions on the

smaller unit, designed for use with Profibus and USS variants are only 173 mm high x 73 mm wide x 155 mm deep (6.8" x 2.8" x 6.1").

Other benefits of the new G120C FSAA include use with increased motor cable lengths, up to 50 m (165 ft) for shielded and 150 m (495 ft) for unshielded, plus identical voltage ratings, current ratings, load cycles and compatibility with all standard Siemens options such as operator panels, input and output chokes, as well as external Class B EMC filters.

The G120C FSAA offers UL open type, IP20 protection in the 0.55–2.2 kW (0.75–3 hp) range.

Through the introduction of this



new tiny drive, Siemens can now offer machine builders another economical, space-saving and easy-to-operate standard AC drive with a wide range of functions, according to Robert Soré, product marketing manager for general purpose drives at Siemens. Typical applications for this product span a broad machine and equipment range,

Portescap Surgical Motors

OFFER THE ROBUSTNESS TO WITHSTAND STERILIZATION

Portescap has launched application specific motors for surgical powered hand tools, arthroscopic shavers, ENT microdebridors and large bone drills. Prototypes will be available to ship within three weeks of order placement. Based on 20 years of experience in surgical motor design, application specific motors are designed to the precise performance requirements of surgical hand tools. Products are designed using Portescap's standard autoclavable motor design and have the robustness to withstand sterilization. Portescap motor technology has demonstrated autoclavability up to 1,000 cycles.

Arthroscopic shaver brushless DC mini motor solutions have been designed to drive powered surgical hand tools used in minimally invasive joint surgery; surgical procedures that are responsible for repairing joints such as hip, knee and shoulder joints. No-load speed of the arthroscopic shaver motors range from 4,000 to 7,000 rpm, while maximum continuous torque is 117 mNm and 119 mNm.

Portescap's large bone drill brushless DC mini motor solutions offer a cannulated gearbox and motor combination to allow for in-line pin and k-wire driving and provide high torque at operating speed. These battery powered solutions can meet extreme torque demands without stalling during joint replacement surgeries such as those of the knee, hip, and shoulder.



including smaller test stands, mixers, conveyors, fans, pumps, compressors and basic production machinery.

For more information:

Siemens Industry, Inc.
Phone: (847) 640-1595
www.usa.siemens.com

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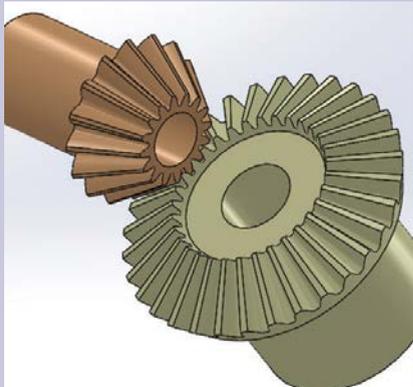
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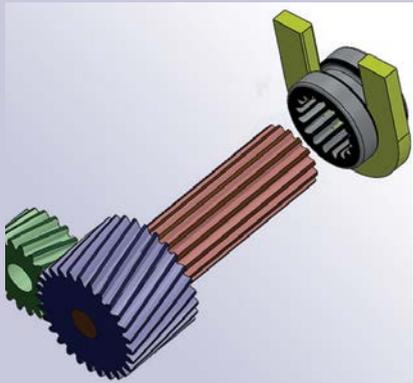
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The large bone drill motor offers a no-load speed of 950 rpm with maximum continuous torque of 818 mNm.

Ear, nose, and throat (ENT) brushless DC mini motor solutions provide the high speed and high torque required by powered surgical hand tools used in minimally invasive surgical procedures of the ear, nose, and throat as well as arthroscopic surgeries of small joints. With no-load speeds of 11,800 rpm and a maximum continu-

ous torque of 39 mNm, these solutions are designed to perform precise cutting of tissue and clean burring of bone. For high-speed drilling in spine, cranial, maxillofacial and otologic (ear) surgery, Portescap's spine drill motion solution will provide 90,500 rpm of no-load speed and 9.2 mNm maximum continuous torque.

For more information:

Portescap
Phone: (610) 235-5499
www.portescap.com

Brevini

EXPANDS GEARMOTOR CAPABILITIES WITHIN SMALL- TO MEDIUM-DUTY APPLICATIONS

Brevini has launched a new range of gearmotors, which will expand its capabilities within small- to medium-duty applications across a wide range of industries and sectors.

Brevini's heavy duty gear systems offer new products, available in the range of 50 Nm to 18 kNm output torque. The range includes parallel shaft helical gearboxes, foot and flange mounted inline helical gearboxes, bevel helical gearboxes and special gearboxes for hoisting applications. The gearmotors are suitable for use in material handling, lifting, winching, steel and metal fabrication, rubber and plastics, water and wastewater as well as food and beverage production.

"The introduction of the new gearmotors expands the breadth of our product range and enables our customers to single-source all their power transmission requirements from Brevini," said Gonzalo Salvatierra, Brevini's business development manager, who is based in Scunthorpe, North Lincolnshire, England. "The quality and support service

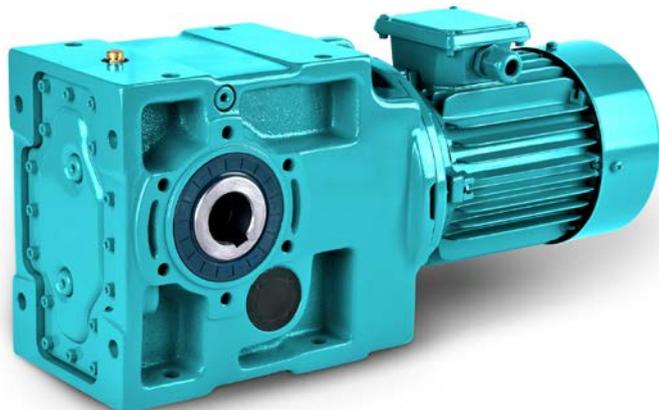
for the new product range meets the same high standards delivered for our large scale gear systems."

As unpowered units, the new gearboxes can be specified with male or female input shafts with IEC or other mounting flange. Both the gearboxes and the gearmotors can be provided with a range of special output shafts such as shrink disc, flanged, extruder or agitator. Other options, including brakes and encoders are also available with the range.

"Brevini's excellence in engineering is meticulous, from materials selection, design and construction to installation, commissioning and ongoing service. The new range of gearmotors enables us to extend this philosophy across a wider spectrum of power transmission requirements," Salvatierra said.

For more information:

Brevini USA, Inc.
Phone: (888) 273-8464
www.breviniusa.com



Celera Motion Agility Series Motors

DELIVER SMOOTH VELOCITY CONTROL

Suited for scanning, pointing, measuring and cutting applications that require extremely smooth velocity control and highly accurate positioning, the Agility Series delivers suitable torque ripple and zero cogging. Engineered with ZeroCog slotless motor technology from Applimotion, the effects of cogging torque, magnetic forces, flux harmonics and phase balance and alignment are minimized to counteract the causes of torque ripple. Agility magnetic designs and construction techniques can achieve less than two percent torque ripple.



The Agility Series is offered in a wide range of low-profile form factors with a large through hole for convenient routing of cables, optics, sensing technologies and other system elements. Models are available in diameters from 12 mm to 300 mm, and with peak torques up to 41 Nm.

Frameless direct drive kit construction, high torque density and low mass enable the Agility Series to be tightly integrated into compact, lightweight precision assemblies. All models are compatible with a wide range of controllers and drives. Windings and form factors can be customized to meet application requirements.

For more information:

Celera Motion
Phone: (781) 266-5200
www.celeramotion.com

DDC Motor Controller

PROVIDES SPEED, TORQUE AND POSITION CONTROL

Data Device Corporation (DDC) has introduced a new, low-cost BLDC motor controller for speed, torque and position control. The MC-5000 series BLDC motor controller provides a turnkey, plug-and-play solution that is available in configurations to support motors that utilize Hall sensor or sensorless commutation



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for torque and speed control, or encoder feedback for position control or commutation. The device can be programmed, via an easy-to-use Graphical User Interface (GUI), enabling it to deliver optimal motor performance with a wide variety of brushless DC motors and loads. Additionally, ease of programmability reduces time-to-market costs and in-house development efforts by enabling key system parameters to be tuned to optimize performance during development, and then, if needed, reprogrammed for use with additional applications and motors. Beyond these cost and time saving benefits, the MC-5000's compact, highly-efficient single-module design provides size, weight, power and cost savings, while ensuring precision motor control, making it a suitable solution for single axis, point-of-load industrial applications, including: pumps, fans, valve actuators, compressors, autonomous guided vehicles, industrial robotics and underwater ROV thrusters and fin controls.

For more information:

Data Device Corporation
Phone: (800) 332-5757
www.ddc-web.com

Timken

EXPANDS DRIVES LEAF CHAIN LINE

The Timken Company has introduced a new line of drives leaf chain to address global demand for heavy-duty large pitch leaf chain. The company now offers a complete series of drives large pitch leaf chain in sizes BL12 through BL20. Large pitch leaf chains are used in saddle cranes and front-end loaders found in rail yards and ports throughout the world. "The in-house, state-of-the-art designed tooling we use in manufacturing helps enhance our leaf chain performance, improving pitch tolerance and hole quality for better fatigue strength and pin retention," said Tom Young, director



of the drives business at Timken. "We specifically designed our wide-waist link plates to resist bending for higher fatigue strength." Timken manufactures drives leaf chain using high quality steel at its drives chain facility in Fulton, Illinois.

For more information:

The Timken Company
Phone: (234) 262-3000
www.timken.com

Torotrak Drive Technologies

BOOST APPEAL OF VARIABLE-SPEED SUPERCHARGING AND AUXILIARY DRIVES

Torotrak Group recently introduced two new proprietary technologies called PitchSteer and DriveDisconnect. PitchSteer is a low-cost method of control that reduces the actuation power requirement of the Torotrak variable drive for devices such as superchargers; use of a 10 W actuator means that cost, weight and losses are minimized.

DriveDisconnect provides a zero output speed capability within the variator itself to provide the functionality of a disconnect clutch without the cost or weight penalty. Torotrak will continue to develop both technologies to further advance its V-Charge variable speed supercharger system.

"In a main-drive transmission application we typically control variator



torque by modulating hydraulic pressure to give exceptional functionality and driveability. Most likely there are other devices requiring hydraulics in the transmission, such as clutches, and so this is no problem. However, for a small auxiliary drive this is not the case and we need to strip out all the cost we can" explained Chris Gaskell,

design engineer at Torotrak. "PitchSteer enables the use of a single, low cost mechanical actuator with very low power consumption. The actuator draws only 10 W whilst changing ratio and negligible actuation power is required to maintain a constant ratio."

Torotrak has validated PitchSteer in one of its V-Charge supercharger units

Curtiss-Wright

OFFERS NON-CONTACT, ROTARY POSITION SENSOR

Curtiss-Wright's industrial division recently announced that it has launched a new non-contact, rotary position sensor from its brand family of Williams Controls.

The WM-830 is a cost-effective, non-contact rotary position sensor that uses proven Hall-effect technology to provide accurate and reliable measurement of angular position. Its mechanical, ruggedized design offers exceptional levels of performance against water, dust, shock, vibration and temperature.

Benefits of the WM-830 rotary position sensor include non-contact sensing technology, standard 48.5 degree measurement angle—common for many electronic throttle pedal designs, interchangeable with the existing WM-810 rotary position sensor, available with optional PWM outputs and 15- to 360-degree measurement angle and connects via industry-standard Packard Electric 'Metri-Pack' 150 connectors.

The WM-830 operates from a 5 Vdc supply and has dual integrated cir-

cuits that are electrically isolated to provide two truly independent voltage signals, allowing the host electronics to detect output errors.

For more information:
Curtiss-Wright
Phone: +(44) 1425 271444
www.cw-industrialgroup.com



with a variator ratio range of 10, achieving a rapid rate of ratio change of just 300ms for a full sweep. In addition to minimizing the actuation power, the wide ratio range capability allows the driven device to be reduced to a very low speed relative to the input whenever its function is not required, and therefore parasitic losses are greatly reduced.

The second new technology, Drive-Disconnect, provides the function of a disconnect clutch, further reducing parasitic losses by disconnecting the variator output when the driven device is not required. As an integral function of the variator, DriveDisconnect does not add weight or cost, markedly differentiating it from a typical electromagnetic clutch, which can add 3kg to the mass and around 30 euros to the cost of an auxiliary drive, even in high volume automotive production.

For more information:

Torotrak Group
Phone: +44 (0) 1772 900900
www.torotrak.com



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