

## **For Immediate Release**

### **A RELEASE FOR:**

Zero-Max AS.  
Haarup Tværvvej 1  
8600 Silkeborg  
Denmark  
+45 8681 2288  
Website: [www.zero-max.dk](http://www.zero-max.dk)  
Email: [sale@zero-max.dk](mailto:sale@zero-max.dk)



## **Zero-Max Motion Control Products are Assisting Can and Bottle Manufacturers to Scale Speeds of Their Machines to Meet Higher Demands— --Applications Include Systems Producing 2400 Cans per Minute**

High-volume bottle and can manufacturing necessitates precise, repeatable, and accurate equipment to meet industry demands for smooth, consistent, and high-volume production. Zero-Max stands as a premier supplier of custom and standard Composite Disc (CD®) Couplings, ETP Keyless Shaft Bushings, and additional motion control components meticulously designed to cater to the most demanding production cycles. Zero-Max components are engineered to seamlessly integrate into existing systems, requiring only a turn of a screw to minimize changeout downtime and enhance accuracy. Whether your manufacturing expertise encompasses can manufacturing, printing, stamping, bottle forming, filling, or any other specialized process, Zero-Max offers tailored solutions to optimize your processes.

### **Components For 2-Piece & 3-Piece Can Manufacturing**

ETP Keyless Shaft Bushings are hydraulic-based keyless bushings widely used in the can industry for their rapid and effortless installation, exceptional precision, zero-backlash operation, and remarkable accuracy. ETP bushings ensure the highest level of concentricity for connected components, with some models offering as low as 0.0002" Total Indicated Runout (TIR), or even less for the component-to-shaft connection. These bushings are perfect for manufacturing processes that demand high-speed operations, requiring quick and easy mounting of shaft components, the ability to execute frequent change-overs or rapid re-adjustments, and where precision is paramount. They are employed daily in various can manufacturing systems, and those with manufacturing speeds of up to 2400 cans per minute or faster for Necker Lines and various other can manufacturing processes.

Zero-Max also offers a specialized ETP-KN Knife Holder Bushing for trimming the steel used for the sidewalls of 3-piece cans. These bushings are securely attached to the slitter knives and utilize a single actuation screw to lock the Knife Holder Bushing to the shaft. The operator can effortlessly slide the ETP-KN into position and swiftly lock it in place with a single turn of a screw. This saves valuable time and money by enabling quick and easy positioning and re-positioning while ensuring precise control over the can profiles. The ETP-KN design exhibits less than 0.0004" axial runout of the slitter knife, providing an accurate trim length and minimizing wear on the slitter knife. Additionally, they offer fast and easy removal for re-sharpening the slitter knives as required. These ETP-KN Bushings are ideal for high-volume, highly repeatable can manufacturing processes.

CD Couplings are also used in precision processes that are often servo-driven and position sensitive. Just one example is on a servo-driven Denester, which separates a single can lid from a stack of lids and then delivers it to a pocket in a conveyor belt. Precision and accuracy are necessary to allow the servomotor to deliver the single can lid at the proper time within the machine cycle, relative to the conveyor belt position. The high torsional stiffness and zero-backlash operation of the Zero-Max CD Coupling makes it ideal for this precise application.

### **ETP Keyless Shaft Bushings Offer A Range Of Additional Benefits**

- Mount or Dismount in Seconds
- Hundreds or Thousands of Mounting Cycles
- Quick Adjustment or Repositioning – Saving Costly Downtime
- No Special Tools Required
- Single-Screw Actuation Designs Available
- Zero-Backlash Operation
- Superior Concentricity
- Stainless-Steel Models Available

### **ETP Keyless Shaft Bushings Are Also Ideal For Can Printing And Decorating Applications**

Multiple changeouts in can printing processes can lead to lost production time and revenue. Zero-Max ETP-Keyless Shaft Bushings offer a quick, easy, and precise solution to reduce costly downtime. These keyless bushings are designed for easy installation and withstand the printing registration requirements of high-speed production. ETP Connections ensure precise concentricity on the registered print zone, resulting in accurate and repeatable production.

In can stamping operations, timing is crucial. Zero-Max ETP-TECHNO Keyless Shaft Bushings simplify the process by allowing a user to loosen a single screw and set the desired rotary position. This adjustment method is significantly faster than standard mechanical bushings, which typically require the actuation of multiple screws for dismantling and reassembly. ETP keyless shaft bushings maintain the phasing and timing in stamping operations, preventing other costly issues from arising throughout the production line. They provide a robust solution to handle demanding high indexing cycle rates and the associated high acceleration and shock loads at various stages of the can stamping process.

### **Zero-Max CD Couplings Ideal For Can Assembly Systems**

CD Couplings are designed for 2-piece and 3-piece can manufacturing and assembly. They offer a reliable and efficient solution for connecting can components, ensuring smooth and reliable operation at high speeds and in demanding environments.

Flexible Shaft Couplings for Can Manufacturing often demand zero-backlash and high torsional stiffness, enduring repetitive reversing, stopping, indexing, and high cycle rates. Zero-Max Composite Disc Couplings, including Single-Flex, Double-Flex, and Floating Shaft configurations, excel in these demanding conditions while also offering vibration-damping capabilities. CD Couplings are field-proven in various can printing applications, such as operating large diameter carousels with multiple printing cylinders.

### **Key Features Of CD Couplings**

- Zero Backlash Operation
- Exceptional Performance and Precision
- Ideal for High-Speed Applications
- High Torsional Stiffness
- High Misalignment Capacity / Low Reaction Loads
- Perfect for Reversing and Indexing Motion Profiles
- Maintenance-Free Operation
- Long Operational Life

## **ETP Keyless Shaft Bushing For Bottle Manufacturing**

Zero-Max ETP Keyless Shaft Bushings are employed to open and close rotary molds in injection blow molders used for manufacturing plastic or PET bottles. In case of a jam, the ETP connection can be designed to “slip” and function as an overload protector. This overload prevention safeguards costly molding equipment from errors, minimizing damage and downtime. These custom-built ETP bushings interface with a linkage for the rotary mold, are available with an axial pressure screw for easy access and are easy to adjust. The ETP Solution requires only a single screw adjustment to re-synchronize the mold position for appropriate timing when the mold opens/closes.

See complete information on Zero-Max products for can and bottle manufacturing at: [www.zero-max.dk](http://www.zero-max.dk)  
Or call Zero-Max for more information, +45 8681 2288. Email: [Sale@zero-max.dk](mailto:Sale@zero-max.dk). Zero-Max AS. is located at Haarup Tværvej 1, 8600 Silkeborg, Denmark.

###