

Press release

## **Busworld 2023: Knorr-Bremse presents trailblazing new products for bus fleets**

- **New Global Scalable Brake Control (GSBC) system celebrates successful market launch**
- **Modular SYNACT® disc brake family for city buses**
- **Innovative systems enhance ergonomics, efficiency and safety**

**Munich/Brussels, October 6, 2023 – At Busworld 2023, Knorr-Bremse will be presenting safe, efficient and reliable solutions for bus fleets. Busworld is regarded as one of the world’s most important bus-related trade fairs and will be held in Brussels on October 7–12, 2023. The Knorr-Bremse stand is in Hall 11 (Stand 1161).**

“Knorr-Bremse has been developing smart system solutions for a very long time; they play a major role in enabling safe, efficient and sustainable urban and intercity transit services. At this year’s Busworld, we’ll be presenting our trailblazing portfolio of products for reliable, high-performance bus fleets. With our innovative solutions, we’re helping to define tomorrow’s mobility landscape and focusing ever more intensively on our ‘Zero Emission’ vision,” explains Bernd Spies, Member of the Executive Board of Knorr-Bremse AG and responsible for the Commercial Vehicle Systems division.

### **New GSBC brake control system following successful market launch**

Among this year’s trade-fair highlights is the modular **Global Scalable Brake Control** system, which recently enjoyed a successful European launch. GSBC uses a modular architecture to reduce what was previously a very wide variety of brake components and deliver a future-ready brake control platform. This makes it possible to simplify system layouts, saving on components, weight and installation costs. The system supports brake control functions such as ABS and ESP, and interfaces with cutting-edge driver assistance systems. A simple, cost-optimized upgrade turns it into a high-redundancy system suitable for highly automated driving (HAD). This broad range of functions also includes automatic brake actuation when the bus doors open at a bus stop. With GSBC, e-buses in particular benefit from the integration of drive motors into the vehicle dynamics control loop, which extends vehicle range and reduces brake pad wear. And with **eVMC** (electric Vehicle Motion Control), Knorr-Bremse will also be presenting a software update for GSBC systems in electrically powered commercial vehicles which optimizes energy recovery during deceleration and braking.

### **Modular SYNACT® disc brake family: for buses now and in the future**

Knorr-Bremse will also showcase the modular **SYNACT** family of disc brakes in Brussels. Based on experience of the global bus market stretching back more than 30 years, the company’s SYNACT® family of axial and radial brakes includes optimized solutions for all bus applications anywhere in the world, whether powered by IC engines or electric drivetrains. The system cuts bus weights by as much as 48 kilograms, and when fitted with Active Caliper Release (ACR), can also reduce fuel consumption by up to one percent. This makes SYNACT one of the most energy-efficient compressed-air disc brake systems currently available on the market. SYNACT is also prepared for the challenges of future generations of electrically powered vehicles – the family’s Noise, Vibration and Harshness (NVH) Toolbox ensures that brakes behave in such a way as to minimize noise in city centers.

### **Innovative systems enhance safety, efficiency and ergonomics**

Knorr-Bremse will be presenting a host of innovative systems at Busworld. These include – for the first time – the new **iTPMS** (tire pressure monitoring system), which checks tire pressures and alerts drivers to any discrepancies; the system complies with the requirements of the UN ECE R141 standard. Trade-fair visitors can also expect to find the retrofittable **ProFleet Assist+ Gen 2** turning assistant on the Knorr-Bremse stand. The system helps to minimize accidents when turning right, as well as accidents caused by traveling too close to the vehicle in front. It also detects vulnerable road users such as cyclists and pedestrians with outstanding speed and accuracy. Knorr-Bremse's **ELC** (electronic leveling control) uses an electronic control unit to provide key functions for coaches and buses with pneumatic suspension, including leveling compensation, leveling adjustment, and load distribution. The kneeling function, for example, can be used to lower one side of the bus, making it easier for passengers to enter and exit the vehicle.

### **Cutting-edge steering portfolio for buses**

Knorr-Bremse's steering systems enhance road safety and comfort with numerous driver assistance functions. As well as providing an outstanding steering experience that can be flexibly adjusted to driver preferences, the portfolio includes speed-dependent power steering, active lane-keeping assistance, and active steering-wheel recentering. Because city buses in particular tend to travel at comparatively low speeds, these functions make the driver's job substantially easier and more comfortable. At Busworld, Knorr-Bremse will also be showcasing **electrohydraulic AHPS (Advanced Hybrid Power Steering)**. By using torque overlay to enhance manual steering, AHPS can amplify, attenuate or entirely replace the driver's steering input. By combining these different assistance systems, a broad range of driver assistance functions can be implemented, further enhancing driver comfort and significantly improving vehicle safety. Knorr-Bremse's product portfolio includes steering systems for all bus applications, including models for all-electric drivetrains. All Knorr-Bremse steering systems benefit from core components that have been field-tested many millions of times and meet all the relevant safety and cybersecurity standards.

### **E-compressors: high energy efficiency, low noise emissions**

Knorr-Bremse's compressors are ideally equipped to handle continuous vibration, as well as high temperature and humidity differentials. At Busworld, Knorr-Bremse will be showcasing the exceptionally reliable and efficient **Electric Screw Module** (a screw-type compressor combined with an electric motor) – an ideal solution for vehicles with medium to high compressed-air requirements, such as city buses, that also minimizes noise and vibration levels. The company will also introduce the **iAPU** (intelligent Air Processing Unit) which, in addition to saving fuel by intelligently managing various vehicle functions, also controls the electric motor in the screw-type compressor.

**Knorr-Bremse (ISIN: DE000KBX1006, ticker symbol: KBX)** is the global market leader for braking systems and a leading provider of other systems for rail and commercial vehicles. Knorr-Bremse's products make a decisive contribution to improving safety and energy efficiency on rail tracks and roads around the world. Some 32,600 employees at over 100 sites in more than 30 countries use their competence and motivation to satisfy customers worldwide with products and services. In 2022, Knorr-Bremse's two divisions together generated global revenues of EUR 7.1 billion. For more than 115 years, the company has been the industry innovator, driving developments in mobility and transportation technologies with an edge in connected system solutions. Knorr-Bremse is one of Germany's most successful industrial companies and profits from the key global megatrends: Urbanization, Sustainability, Digitalization and Mobility.

#### **Media contact:**

Simon Basler | Spokesperson Truck Mobility | Knorr-Bremse AG

T +49 (0)89 3547 1498; E [simon.basler@knorr-bremse.com](mailto:simon.basler@knorr-bremse.com)