

Press release

Knorr-Bremse to equip Alstom high-speed trains with next-gen brake control systems

- Alstom's high-speed trains for Sweden will use innovative technologies from Knorr-Bremse, including the latest generation of CubeControl brake control systems
- CubeControl's many functions help maximize safety and make rail operations more available, punctual and efficient
- CubeControl is already the world's most popular brake control system, with more than 100,000 units from previous generations in daily use

Munich, September 04, 2023 – Alstom has commissioned Knorr-Bremse to equip new Swedish high-speed trains with braking systems, which will be managed by the latest evolution of the CubeControl brake control system. Previous generations of the technology are already installed in metro, regional and high-speed trains built by Alstom; now the next generation will be part of another major project. Deliveries will start in 2024 and are scheduled to continue through to 2028. For Knorr-Bremse, the order value is in the lower double-digit million-euro range.

Dr. Jürgen Wilder, Member of the Executive Board of Knorr-Bremse AG and responsible for the Rail Vehicle Systems division, says: "As a key supplier, our mission is to offer innovative, market-leading solutions to the rail industry. With our new CubeControl, we've developed another high-quality technology that will help our customers to make rail mobility even safer, more efficient and more reliable. For us, Alstom's order is an important milestone in bringing this next-generation product to market."

"After intensive development, with our new CubeControl we're launching a platform that interconnects key elements of train braking systems even more intelligently," adds Dr. Nicolas Lange, Chairman of the Management Board of Knorr-Bremse Rail Vehicle Systems. "The CubeControl's high quality, flexibility and ease of maintenance, coupled with the fact that it is scalable to fit all types of passenger trains, make it a highly attractive solution for our customers. As the shift to rail mobility gains traction, CubeControl can help to optimize traffic flows and further improve uptime, efficiency and punctuality on rail networks."

How CubeControl's many benefits support efficient, reliable rail operations

CubeControl now integrates the components in train braking systems even more intelligently. The complex interactions between, for example, electropneumatics, mechatronics, smart software and data have all been enhanced and optimized. This makes it possible to further improve braking performance and braking dynamics and, for example, avoid delays more proactively. The new CubeControl will also help to enable innovations such as Reproducible Braking Distance (RBD), which Knorr-Bremse is aiming to launch in 2024. RBD will make braking distances even more predictable and reliable, helping to reduce train headways so that more trains can travel on existing tracks – yet another increase in transportation capacity.

Already today, CubeControl is the most popular brake control system in the world, with more than 100,000 units from previous generations in daily use. These systems have been helping to keep rail operations safe, stable and reliable since the first generation was released. Knorr-Bremse first presented the new CubeControl concept at InnoTrans 2018, the world's largest trade fair for the rail industry. In 2022, the pilot product was showcased as part of the company's innovation portfolio for train braking systems. Knorr-Bremse is currently investing in the ramp-up for the new CubeControl's series production.



The Alstom order, placed with Knorr-Bremse in the second quarter of 2023, includes not just CubeControl, but also bogie equipment and compressed-air supply units for the braking systems. Knorr-Bremse will also be supplying highly efficient wiper-wash systems for the driver's cab windshields, power electronics for efficient onboard energy management, and high-quality entrance systems manufactured by Group brand IFE.

Caption 1: Alstom has opted for the latest generation of the CubeControl brake control system and other technologies from Knorr-Bremse. | © Knorr-Bremse

Caption 2: Having undergone intensive testing as part of the development process of new braking technologies, CubeControl's many functions help maximize safety and make rail operations more available, punctual and efficient. | © Knorr-Bremse

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 greater 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.

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