

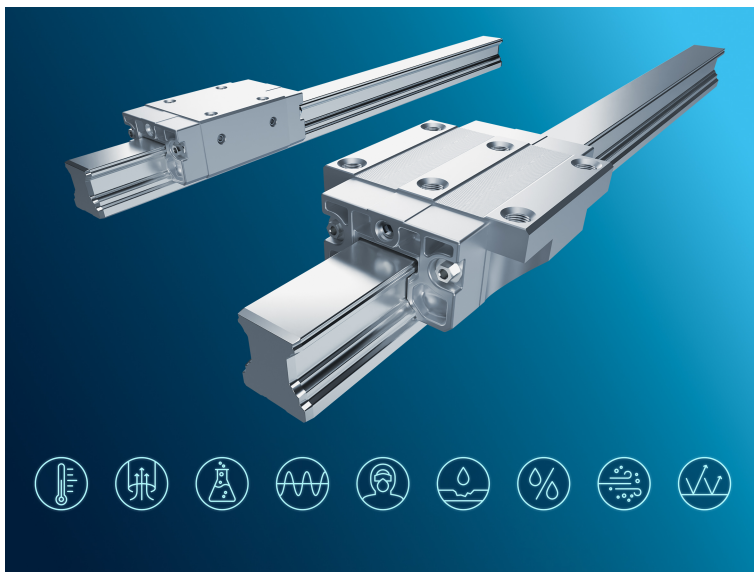
PRESS INFORMATION

Linear guide for extreme conditions

Manuela Kessler | 22.06.2026 | Lohr am Mainb / Germany | PI 025/26

New runner block for vacuum, high and low temperatures, harsh environments, and contact with aggressive media

- Corrosion-resistant runner block in size 25
- Extremely versatile, with additional attachment elements also available
- Suitable for operating temperatures from -30 to 200 °C



Catalog product for extreme conditions of use: The new NRTVG runner block from Bosch Rexroth can withstand extreme environmental influences. (Image source: Bosch Rexroth AG)

Bosch Rexroth is expanding its portfolio of linear guides with a solution for extreme operating conditions. The new NRTVG runner block (NR11 Temperature Vacuum Graded) for BSHP ball rail systems in size 25 is made entirely of metal and is therefore suitable for motion tasks performed in a vacuum as well as for harsh environments, or temperatures ranging from -30 to 200 °C. The runner block made of corrosion resistant steel withstands a variety of aggressive media. Various wipers made from metal or resistant plastics are available as optional attachment elements.

Typical application scenarios for the new NRTVG runner block are found in the semiconductor and electronics industry, for example in display manufacturing and other vacuum-based production processes with atmospheres of up to 10⁻⁷ mbar. Two vent holes on each side allow air pockets resulting from installation quickly to escape, ensuring that the vacuum remains unaffected. Other areas of application include deep-freeze areas, open warehouses, and environments with particularly high temperatures, such as those found in foundries or in glass production.

With a ball guide manufactured using the latest MIM (metal injection molding) processes, the NRTVG runner block is also suitable for applications that do not allow plastic parts in or on the linear guide. A fluororubber (FKM) seal is available as an optional attachment element for contact with aggressive media and to ensure optimal sealing action. It can withstand constant temperatures of up to 150 °C and is resistant to chemicals and oils. A cover plate wiper, which can be pre-fitted as an option and is also made of corrosion-resistant steel protects against coarse contamination, such as chips.

Depending on the requirements, the new runner block can be combined with a standard or an NR11 rail. The special design of the runner block with a patented entry zone yields further

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benefits. The low-pulsation BSHP ball rail system achieves high precision and a long service life with a travel life of 12 million km or more. When it comes to replacement, the guide rail and runner block can be replaced separately, minimizing the necessary resources and maintenance costs.

The new runner block can be designed and configured quickly and simply using the Rexroth runner block configurator or the online selector for linear motion technology. By entering just a few information, the most suitable product for the application is selected and ready to order – including accessories and CAD data.

Basic Information Bosch Rexroth

As one of the world's leading suppliers of drive and control technologies, Bosch Rexroth ensures efficient, powerful and safe movement in machines and systems of any size. The company bundles global application experience in the market segments of Mobile and Industrial Applications as well as Factory Automation. With its intelligent components, customized system solutions, engineering and services, Bosch Rexroth is creating the necessary environment for fully connected applications. Bosch Rexroth offers its customers hydraulics, electric drive and control technology, gear technology and linear motion and assembly technology, including software and interfaces to the Internet of Things. With locations in over 80 countries, around 31,900 associates generated sales revenue of 6.5 billion euros in 2025.

Basic Information Bosch

The Bosch Group is a leading global supplier of technology and services. It employs roughly 413,000 associates worldwide (as of December 31, 2025). The company generated sales of 91 billion euros in 2025. Its operations are divided into four business sectors: Mobility, Industrial Technology, Consumer Goods, and Energy and Building Technology. With its business activities, the company aims to use technology to help shape universal trends such as automation, digitalization, electrification, and artificial intelligence. In this context, Bosch's broad diversification across regions and industries strengthens its innovativeness and robustness. Bosch uses its proven expertise in hardware, software, and services to offer customers cross-domain solutions from a single source. It also applies its expertise in connectivity and artificial intelligence in order to develop and manufacture intelligent, user-friendly, and sustainable products. With technology that is "Invented for life," Bosch wants to help improve quality of life and conserve natural resources. The Bosch Group comprises Robert Bosch GmbH and its roughly 500 subsidiary and regional companies in over 60 countries. Including sales and service partners, Bosch's global manufacturing, engineering, and sales network covers nearly every country in the world. Bosch's innovative strength is key to the company's further development. Bosch employs some 82,000 associates in research and development.

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