

## Schneeberger MONORAIL profiled guideway press release

### High-performance profiled guideways

*When the heaviest loads in milling, turning, drilling or grinding machines need to be moved in an accurate manner, reliable linear bearings are one of the elements required for this. Schneeberger has the right solution in the form of its MONORAIL MR series, which is intended for various types of application and weight class. As such, workpieces weighing up to 150 tons can be moved in an extremely precise manner.*

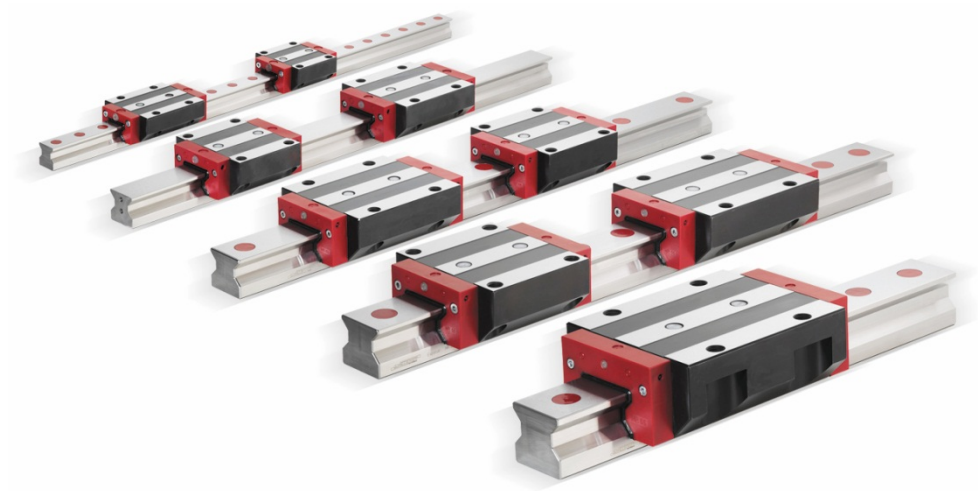
Whether the work involved relates to industrial engine production, power plant construction, aerospace engineering or other forms of heavy machinery construction, the components to be moved onto the machining centres are frequently extremely heavy. Of course, they still have to be produced in a highly precise manner, and it is the linear bearings utilised which determine the degree of precision. Engineers and technicians at Schneeberger have developed the MONORAIL MR series of profiled guideways with this fact firmly in mind; as such, this series is intended specifically for these heavy-duty activities and is available in five different sizes. They can accelerate to up to 50 m/s<sup>2</sup> as standard during normal operation and are designed for speeds of up to 3 m/s.

As the premier model in the series, the MONORAIL MR 100 has a load-carrying capacity of 1.5 meganewtons (150 tons), which is designed for extremely heavy loads. Schneeberger can also adjust and supply every size in the series with an accuracy class specific to the application - from G3 (standard) to G2 and G1 and even the highly accurate G0. Furthermore, the AMS distance measuring system can be integrated as a highly useful addition to the guideway.

The fundamental technical design is the same for the entire MONORAIL MR series. The body of the carriage and the rails are made of high-quality hardened steel, thereby providing the components with a long service life. Specially formed rollers are used as rolling elements. This is of key importance for the extreme rigidity and high dynamic and static load-carrying capacity of the systems.

In order to prevent the onset of contamination and lubricant from leaking out, the developers have fitted double lip cross wipers on the front ends. If the system is intended to be used in extreme outdoor conditions, Schneeberger can provide additional wipers if desired. These wipers are placed directly over the rails, so that they can even be easily replaced or added to between the carriages.

The carriages in the MR series have up to 20 different lubrication connections which are utilised depending on the application. Special lubrication connections for short-stroke applications, separate lubrication for the tracks and oil-air minimum-volume lubrication are all available as well. The maximum one-piece rail length which can be supplied is 6000 mm for the sizes 25, 35, 45, 55 and 65. The large MR 100 is built to up to 3000 mm in length. Greater lengths can be easily achieved by precisely abutting several rail parts.



*Caption*

*C01: The MONORAIL MR series is suitable for use in numerous different types of tool machines equipped with particularly heavy workpieces. As the premier model in the series, the MONORAIL MR 100 has a load-carrying capacity of 1.5 meganewtons (150 tons).*

SCHNEEBERGER group

SCHNEEBERGER® operates worldwide as an established OEM supplier in a wide variety of sectors – from the solar, semiconductor and electrical industries to the machine tool and medical devices sectors, and beyond. The product and manufacturing program includes linear bearings and profiled linear guideways as well as measuring systems, gear racks, slides, positioning systems and mineral casting. A.MANNESMANN, headquartered in Remscheid, Germany, has been part of the SCHNEEBERGER Group since October 2017. werotec ag, headquartered in Reigoldswil, Switzerland, has also been part of the SCHNEEBERGER Group since early 2018. werotec ag's core competence lies in precision grinding technology and in the complete production of anti-friction bearing rollers.

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