



Schaeffler High-Speed Spindle Bearings

The New Benchmark

With our new M-, HCM- and VCM-series of high-speed bearings in X-life quality, Schaeffler now offers the industry's most advanced lineup of high-performance spindle bearings. Available with ceramic balls and bearing rings made from proprietary Vacrodur™ steel, Schaeffler's new generation of precision spindle bearings will help your machine tools work harder, faster and at higher temperatures than ever before.

Take your machine tool productivity to the next level – with the new benchmark in spindle bearings.

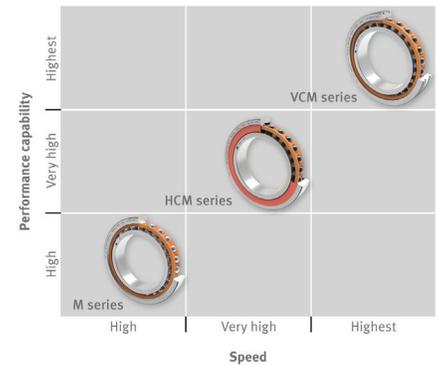
Only from Schaeffler.

SCHAEFFLER

The New Benchmark: Schaeffler High-Speed Spindle Bearings

Looking to increase the load-carrying capacity of your motor spindles with respect to maximum speed, high machining forces and high temperatures? Look no further. With our new lineup of spindle bearings in X-life quality, Schaeffler has optimally combined the high-speed capability of small ball bearings with the robustness and load-carrying capacity of large ball bearings by precisely matching ball size, osculation and radial internal clearance.

The result: Three new high-speed spindle bearing options from Schaeffler that are designed to meet your individual budget and performance requirements.



Schaeffler M-series spindle bearings: Cost-effective and robust

Featuring balls and rings made from proven 100Cr6 rolling bearing steel, Schaeffler's M-series high-speed spindle bearings in X-life quality are the cost-effective solution for durability and high-performance.

Technical advantages

- Combines robustness with high performance
- Reduced bearing preload
- Delivers high operating and limiting speeds
- Available in open and sealed designs

Customer benefits

- Advanced Schaeffler engineering in a cost-effective bearing solution
- Longer machine running times
- Lower maintenance and unit costs



Schaeffler HCM-series spindle bearings: Exceptional productivity

Equipped with temperature-resistant ceramic balls and rings made from durable 100Cr6 rolling bearing steel, Schaeffler's HCM-series high-speed spindle bearings in X-life quality can take the performance of your motor spindles to the next level.

Technical advantages

- Combines robustness with high performance
- Reduced bearing preload
- Delivers very high operating and limiting speeds
- Available in open and sealed designs

Customer benefits

- Even higher performance than our M-series bearings
- Longer machine running times
- Ensures very high productivity
- Lower maintenance and unit costs



Schaeffler VCM-series spindle bearings: State-of-the-art materials, performance and design possibilities

In addition to temperature-resistant ceramic balls, Schaeffler's VCM-series high-speed spindle bearings in X-life quality feature bearing rings made from our proprietary high-performance Vacrodur steel. By combining the advantages of X-life internal construction (which include optimized friction behavior and outstanding thermal robustness) with the benefits of Vacrodur (such as exceptionally high load-carrying capacity as well as wear and temperature resistance), Schaeffler's VCM-series spindle bearings enable significantly higher machining forces. Accordingly, VCM-series spindle bearings from Schaeffler offer entirely new design possibilities for main spindles.

Technical advantages

- Resistant to temperatures as high as 400 °C
- 13x longer nominal rating life with EHD lubrication
- 25x longer nominal rating life under mixed friction conditions
- Highest operating and limiting speeds
- Available in open and sealed designs

Customer benefits

- Superior performance
- Significantly longer machining times
- Exceptional productivity
- Highest-possible machine availability

Please refer to our SSD 40 and SSD 41 publications for specifications and a complete overview of Schaeffler's high-speed spindle bearings.

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