

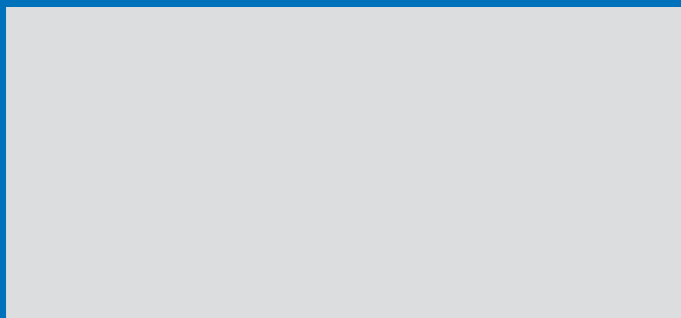


Machining Spindles For High-Speed Internal Grinding UHS Style

GMN Paul Müller Industrie GmbH & Co. KG
Äußere Bayreuther Str. 230 · D-90411 Nürnberg
Phone: +49 911-5691-0 · Fax: +49 911-5691-221
Mail: info@gmn.de
www.gmn.de

Spindle technology:
Phone: +49 911-5691-576 · Fax: +49 911-5691-699
Mail: vertrieb.spi@gmn.de

Official GMN Representative:



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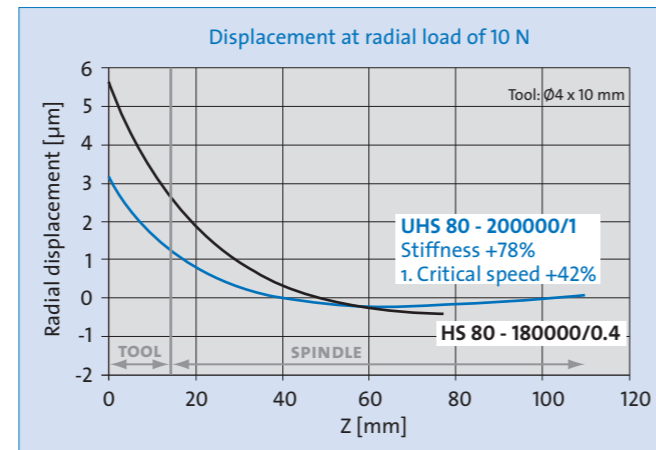
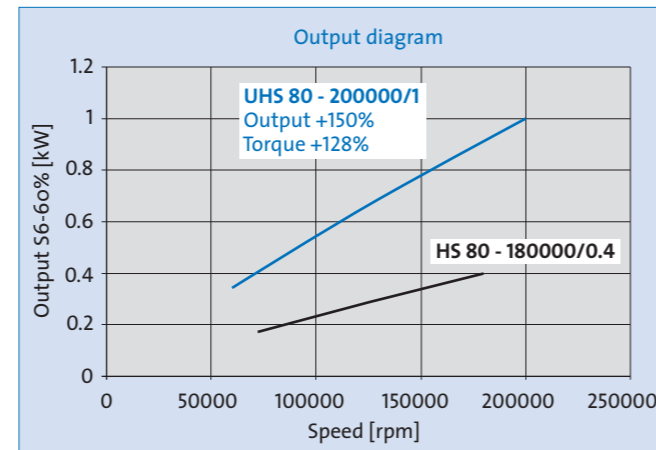
The UHS (Ultra High Speed) spindle series is used in high-speed internal grinding with speeds up to 250,000 rpm.

When designing this spindle type, the demand to offer a product with which our customers can achieve maximum quality and optimum productivity was taken as the basis.

This was realized particularly by the following features of the UHS spindles:

- Higher rigidity and larger grinding quill holder due to larger bore diameter of the front bearing
- Higher cutting speeds and thus higher efficiency due to higher speeds, larger grinding quill holders and larger tools
- Higher output with the same sleeve diameters and analogous speeds
- Synchronous motor instead of asynchronous motor
- Very high speed values $n \times d_m$ due to higher speeds and larger bearing diameters

Here the comparison between a conventional spindle HS 80 - 180000/0.4 and the new spindle type UHS 80 - 200000/1.

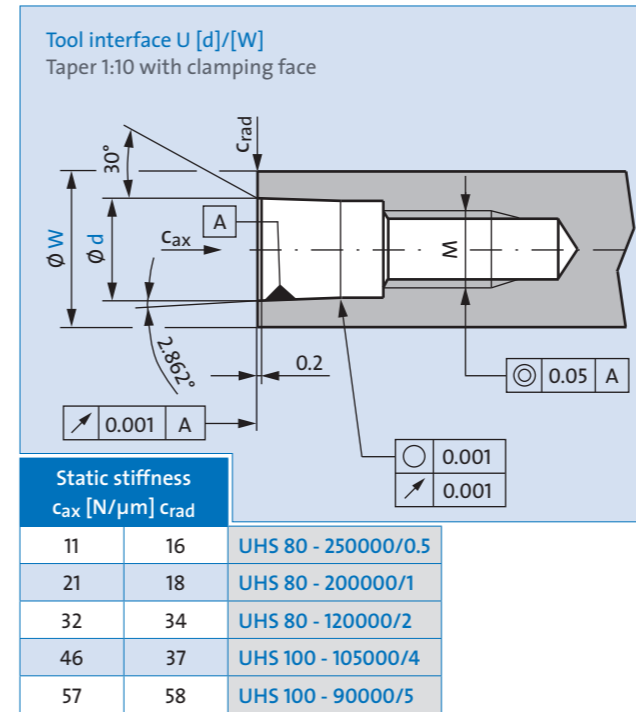


GMN quality management – tested and approved



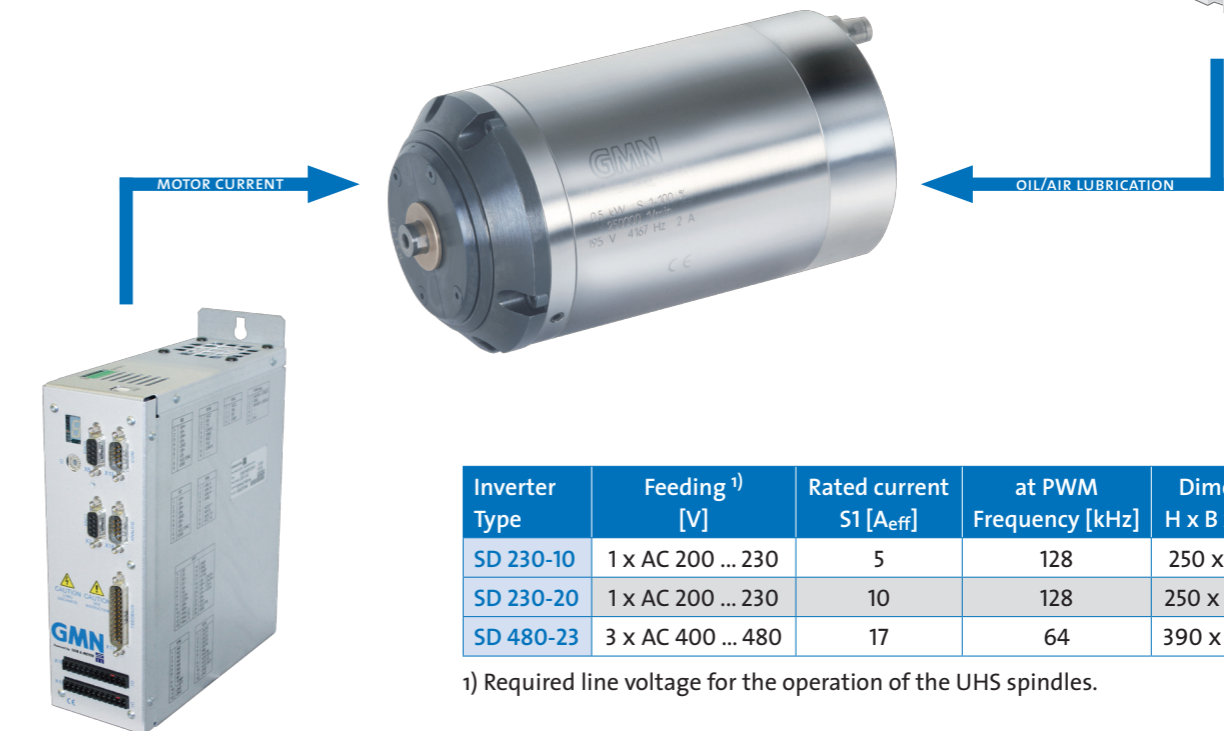
As a matter of course, we guarantee highest quality on the basis of long-term reliability also for the products of the UHS spindle series.

Designation	Speed n_{max} [rpm]	Output $P_{56-60\%}$ [kW]	Frequency f_{max} [Hz]	Current I_{S6} [A]	Inverter Rated voltage [V]	Bearing- ϕ W_1 [mm]	Tool interface	Inverter Type
UHS 80 - 250000/0.5	250,000	0.5	4167	3.5	230	10	U 6.5/10	SD 230-10
UHS 80 - 200000/1	200,000	1	3333	8.5	230	10	U 6.5/10	SD 230-20
UHS 80 - 120000/2	120,000	2	2000	8.5	230	17	U 9/16	SD 230-20
UHS 100 - 105000/4	105,000	4	1750	9	400	20	U 12/18	SD 480-23
UHS 100 - 90000/5	90,000	5	1500	11	400	25	U 16/23	SD 480-23



Periphery

The SD inverter matched optimally to the operation of the UHS spindle and the appropriate lubricator PRELUB PP can be obtained from us. The connection cables and lubricant pipes required for this belong to the standard scope of delivery.



¹⁾ Required line voltage for the operation of the UHS spindles.