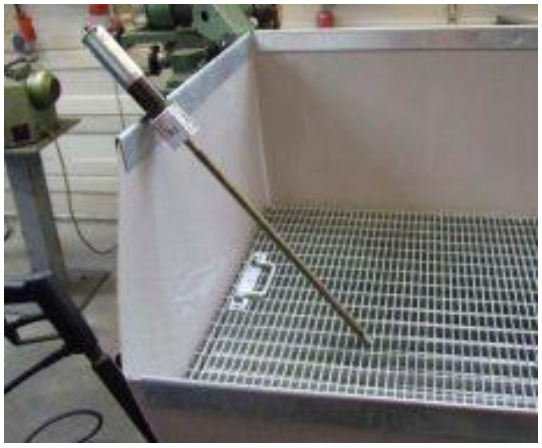
METAL WORKING INDUSTRY

CLEANING SPINDELS

REQUIREMENTS

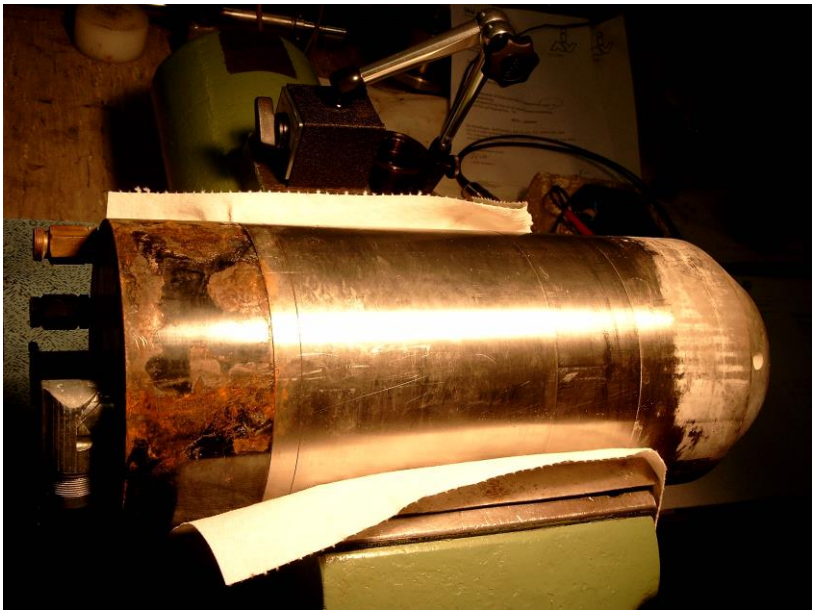
Due to their special geometry and partly already mounted electric motors or driving elements, spindles place very special demands on the cleaning technology.



Spindle for smoke warning system in parts cleaning level of a 1000 SR

Spindles with electric motors normally require disassembly and separate coding

The spindles shown above are used to open and close smoke warning systems. The same applies to drive spindles (machine tool spindles, work spindles) in machine tools and to spindles for positioning workpiece carriers during machining.



Machine tool spindle, uncleaned,
courtesy UKF Universal-Kugellager-Fabrik, Berlin

PREVIOUS TECHNIQUE

Conventional cleaning methods such as ultrasonic baths or washing machines require disassembly of the electric motor and coding of the spindle and electric motor as associated parts.

The necessary cleanliness of both the spindles and the spindle counter-bearings is often not achieved, and even with manual (re)cleaning, the required degree of cleanliness is only achieved with difficulty, and generally requires several attempts.

OUR SOLUTION

With the low-pressure hot cleaning method, in practice excellent results are achieved when cleaning spindles, spindle counter-bearings and spindle flights. These are cleaned effortlessly and perfectly in a fraction of the time otherwise required. Lengthy disassembly and coding procedures of the electric motors are no longer necessary.

Spindles can be cleaned in the parts cleaning level of the machines of our SR family, without having to disassemble the parts. Despite the difficult accessibility, spindle gears and spindle bearings can be reached easily with the help of the lances, and cleaned directly on the machine tool. The bearings are not washed out.

This makes low-pressure hot cleaning the much more efficient and faster process compared to ultra-sonic baths or washing machines, and it is also significantly more cost-effective.

Thanks to their tank and their mobility, the units can be used directly in the production hall; travel and reloading times to the washroom are thus considerably reduced or eliminated; even the spindle aisles can be reached and cleaned.

If required, alkaline cleaners with corrosion protection can be used.

Spindle in a machine tool spindle. Cleaning can be accomplished easily, without lengthy dismantling

YOUR ADVANTAGES

- Efficiency/quality: Excellent results on spindles, spindle counter bearings and spindle aisles - the former are cleaned in parts cleaning level, the latter in situ and with the help of lances, both with devices such as the 1000 SR or the 1500 SR.
- Working time: Fast cleaning of the spindle itself, no disassembly necessary.
- Mobility and flexibility: Devices can be moved up to the machine tool, so that cleaning of the parts can take place directly on site - no walking and reloading times, no lengthy dismantling.
- Process reliability: No damage to spindles thanks to low pressure, no washing out of bearings.
- Alkaline cleaners: Can be added if required, with corrosion protection if necessary.
- Environment and health: All in all, no/very few chemicals, therefore environment- and health-friendly, as well as cost-effective.
- Universal use of the devices nits: Also for cleaning the entire machine tool or other parts.
- Economic efficiency: Low investment, hardly any operating costs, high efficiency and quality.

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