

## CLEANING OF ELECTRIC MOTORS

### REQUIREMENTS

The cleaning of electric motors requires fast, damage-free and complete cleaning, often for inspection or repair. Oily windings, dirty end shields, rotors, bearing covers, etc. are cleaned.

In precision mechanics, in summer or at high outside temperatures, care must be taken to ensure that the cooling fins of the electric motors (and, if applicable, the heat exchangers) on the machine tools are dust-free and properly cleaned. Otherwise, the cooling system will not be effective, the bath temperature cannot be kept constant, and trouble-free operation cannot be ascertained.



Electric motor: Rotor



Electric motor: Stator coil

### OUR SOLUTION

For the cleaning of electric motors - typically from 1 to 100 KW - our low-pressure hot cleaning devices provide an ideal alternative to the common methods, especially the frequently used A1 brake cleaners, cold wash tables or bio-wash tables.

Due to the high temperatures - the devices operate at up to 95°C - the typical oily soiling is ideally removed, and due to the low pressure it is transported away without causing any damage.

This solution is also considerably more cost-effective than the alternatives, as cleaning is much faster and more thorough. This saves a considerable amount of expensive working time - our customers regularly need 80-90% less time.

Expensive chemicals are also saved, as our cleaning equipment usually does not require the use of chemicals. If chemicals are used, they are diluted to a high degree and can be reused several times thanks to our patented recycling process, which reduces costs even further.

Obviously, not using chemicals also protects the environment and employee health, and it increases occupational safety for employees.

Finally, the ease of handling the devices is also much appreciated: Since the hot cleaning devices are mobile, motors – as well as any other engines or parts - can be cleaned directly on site, without disassembly and without travel time. If disassembly is nevertheless necessary, the motors can be cleaned quickly, thoroughly and effortlessly in the parts cleaning collectors of the SR devices.

## YOUR ADVANTAGES

- Efficiency/quality: Fast and thorough cleaning, especially of greasy and oily contaminations. No damage to the motor or winding of the slot insulations, as work is carried out at low pressure.
- Optimum accessibility thanks to diverse nozzles, even in cooling fins and bores.
- Working time: Considerable time savings - usually 80-90% - compared to conventional methods, especially cold wash table or bio-wash table.
- Chemicals: No/low use of cleaning agents, especially no hydrocarbons. This results in significantly lower costs for chemicals.
- Recycling of the cleaning medium reduces costs by a further factor of 5-20, depending on the degree of contamination.
- Mobility: Cleaning on site – devices are mobile and largely self-sufficient.
- No special environmental conditions are required as with high pressure - thus significantly lower investment and much simpler handling.
- Occupational safety and environmental protection: No or very few solvents or chemicals are required; this protects the environment, increases occupational safety and reduces costs.
- Universal application of hot cleaning equipment: Devices can be used for multitude of maintenance and servicing jobs, or for cleaning machine tools and parts.
- Overall: Comparatively low investment and hardly any running costs, but high efficiency and top quality results.



Cleaning electric motors for cooling lubricants:  
Cleaning is done with cooling lubricant when machine tool is in operation, or with water and low-dose alkaline cleaner.