



Cleaning Solutions: Electric Motor Windings

Note: Is there a correct method for cleaning windings of electric motors in place? The quick answer is Yes. The problem is, many times on-site cleaning is attempted when it shouldn't. Electric motors are complex rotating machines. We strongly recommend that the disassembly and reassembly should be handled by trained technicians. Otherwise, damage to components may occur, resulting in loss of production and unexpected cost overruns.

Three Methods for Cleaning in Place

1. Pressure washing and/or steam cleaning

- ◆ This method can be successful in thoroughly cleaning electric motor windings in place.
- ◆ This method requires a fairly time consuming process to dry the windings sufficiently.
- ◆ Depending on the size of the windings, it can take days or weeks to thoroughly dry the windings.
- ◆ Care must be taken to not exceed 200 Deg. F when drying out.
- ◆ If the windings are not thoroughly rinsed, the soap residue can serve as a contaminant and cause premature loss of insulation integrity.
- ◆ The washing solution must be disposed of properly.

2. Solvent based cleaning

- ◆ This method also can be successful in thoroughly cleaning electric motor windings in place.
- ◆ The drying time is considerably quicker than the pressure washing method. Sometimes hours.
- ◆ Care must be taken that the person applying the solvent not be overcome by fumes.
- ◆ Care must be taken that others in the vicinity are not adversely effected by solvent fumes.
- ◆ Care must be exercised around rubber products, especially rubber based lead wires.
- ◆ The solvent solution must be disposed of properly. Improper disposal can result in significant environmental consequences.

3. Dry Ice blast cleaning - The Best Cleaning Solution

- ◆ This method is very successful in thoroughly cleaning electric motor windings in place.
- ◆ This method uses pelletized dry ice that is accelerated by a specially designed machine to very high velocity. The dry ice instantly freezes the contaminant and breaks the bond with the substrate. The hyper velocity air removes the dirt and the dry ice instantly sublimates into a gas.
- ◆ There is no drying process required.
- ◆ There are no disposal issues.
- ◆ There is no potential damage to any components.
- ◆ In short, this method is quicker and safer than either of the previous methods.

Dry Ice Blasting
Before



After



ICEsonic Dry Ice Blasters

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