

# Vacuum Pressure Impregnation

## Motor Facts

For every 10 degrees a motor runs over its rated temperature, the life of the insulation in that motor will be cut in half. A motor's ability to dissipate generated heat into the atmosphere is a part of its calculated efficiency, as well as its effective life span. When a motor is dipped in varnish and baked air can get trapped in the windings. Air is a very poor conductor of heat as opposed to a solid mass. Vacuum Pressure Impregnation provides maximum protection of the winding with minimum coverage. Too often many coats or multi-dipping of varnish creates a heat jacket around the winding which restricts heat dissipation.

## The VPI Process

- 1 - In the Imprex VPI chamber the vacuum process removes all air and moisture from the windings.
- 2 - The regulated vacuum draws the P.D. George solvent less resin through out the windings from an adjoining vessel.
- 3 - A calculated and timed pressure is applied and forces this resin into the copper windings, tape and any empty air pockets or voids.
- 4 - The final process is achieved by curing the stator or armature in our temperature controlled oven creating a solid mass which is an excellent conductor of heat.

## Use Vacuum Pressure Impregnation in All:

- Medium and High voltage equipment.
- Direct current field coils and armatures.
- Motors with inverters as power source.
- Problem motor applications.



## Magneto Electric's High Performance VPI Resin Provides Many Advantages:

- VPI not only improves the mechanical bond of the winding insulation system, it also improves the electrical characteristics of the winding to 5300 volts per mil dielectric strength and a 220% C temperature rating.
- Improved inter turn insulation.
- Improved resistance to chemicals and moisture.



- Copper windings expand and contract depending on the temperature. Most varnishes expand with the winding as it gets warmer and larger but do not contract to their original configuration when cool. This creates voids in the winding. The P.D George high performance resin breathes with the windings. It expands and contracts with the winding leaving zero, cracks, contamination or degradation to the insulation system.

Want to extend the life  
of your  
motor rewinds ?  
Specify  
Vacuum Pressure  
Impregnation !

## VACUUM PRESSURE IMPREGNATION



- The High Performance VPI Resin Advantage
- Motors Run Cooler
- Provides Quicker Heat Dissipation
- Improved Resistance To Chemicals And Moisture



**Magneto Electric**  
Service Company Limited - Since 1946

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