

## Vacuum Pressure Impregnation



### What is it?

- Removes Air, Gas & Moisture from the System
- Complete Penetration of Turns, Coils, Slots & Insulation

### How does it Work?

- Coil Preparation
- Evacuation
- Saturation
- Pressure
- Cure

### What are the Advantages of a fully Impregnated System?

- Better Heat Dissipation
- Longer Insulation Life
- Less Susceptible to Cracking and Corona
- Improved Resistance to Moisture and Chemicals
- Reduction of Coil Movement
- Improved Quality
- Lower Cost

### Typical Treatment Cycle for Vacuum Pressure Impregnation

1. Preheat for 3 Hours at 250 degrees F.
2. De-aerate Resin in Reservoir: 1mm.
3. Cool Stator: 70-100 degrees F.
4. Place Stator in Chamber and pull Vacuum: 1mm.
5. Impregnate and hold Vacuum: 1 hour.
6. Pressure Chamber: 80-100 psi for 1 hour.
7. Depressurize and drain.
8. Cure: 5 hours at 300 degrees F.
9. Repeat Process

One of the high longevity contributors to the electric motor is the method of encapsulation. The highest industry standards for electric motor encapsulation is through a process called VPI; (Vacuum Pressure Impregnation)

This state of the art method is only used in less than 10% of world's standard electric motor production and is primarily applied on extreme heavy duty applications.

Van der Graaf has adopted the VPI method as standard to all of our products.

This process has helped the end user to reduce electric motor failures substantially.