INDUSTRY GUIDE

Ovens for Electric Motor & Transformer Makers

Transformer drying ovens, motor coil dryers, varnish baking ovens and vacuum chambers for electrical makers.

Transformer and motor makers must get moisture out of insulation and cure the varnish that holds windings together. Paper and pressboard in a transformer pick up water during winding, which lowers dielectric strength. Motor windings need pre-heating before dipping, and then a full varnish bake. Good drying ovens give even heat across large, heavy active parts, carry the moisture away, and keep a record of each cycle.

Heating processes in this industry

Transformer hot-air drying	AHS ovens work from ambient to 200°C, for example 180°C operating with a 200°C design temperature
Vapour-phase drying	solvent vapour under vacuum at about 110–120°C, faster for large units
Stator pre-heating	warming windings before varnish dipping so varnish penetrates the slots
Varnish baking	typically about 120–180°C, per varnish data sheet
VPI post-curing	baking vacuum-pressure-impregnated windings to cure the resin
Vacuum drying	removing moisture from insulation and parts at lower temperature under vacuum

Equipment AHS builds for this industry

- Transformer Core Dryer
- Motor Coil Dryer
- Coil Drying Oven
- Varnish Drying Oven
- Vacuum Chamber
- Hot Air Oven

Why AHS

- Transformer coil ovens supplied to transformer makers in India and the Gulf (Oman and Qatar)
- A 132 kW transformer oven with redundant master/slave controllers and K-type thermocouples
- About 50 documents for transformer and coil drying ovens in our files
- Trolley-on-rail loading, moisture exhaust blowers and recorders
- Electric as standard, with LPG/PNG/CNG for large chambers
- Building ovens in Delhi since 1991