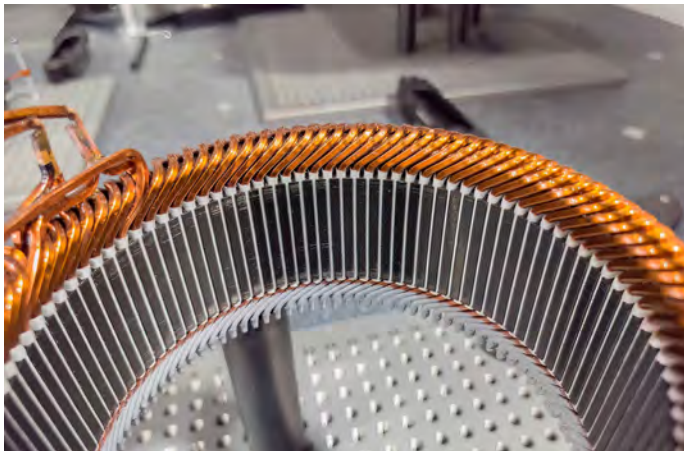


TRACTION MOTOR STATOR ASSEMBLY PROCESS

eLearning courses designed to increase productivity and profits



Learning made Simple, Visual, and Interactive

The THORS *Traction Motor Stator Assembly Process* course explains the various processes in front end assembly and the back end assembly of a stator that is used in a traction motor. The course progresses through the processes beginning with basic copper wire forming and bending before being inserted into the stator laminates. Then, the wires are welded, receive a varnish application and epoxy bath, and the final components are added to the stator. Finally, the learner is introduced to the electrical testing methods that are completed before the stator can be shipped out of the assembly plant.

Credit Hours **2**

Learning Objectives

- Understand the wire straightening, stripping, and cut-to-length processes.
- Learn how a wire is bent into a specific shape that is used in the stator.
- Develop knowledge of the slot liner forming and various wire insertion methods.
- Recall the steps taken during the end turn preparation.
- Visualize how the strain relief bracket, connection ring, and neutral bar are installed.
- Understand how epoxy and varnish is applied to the stator windings.
- Differentiate between the various electrical tests.

Table of Contents

I. Stator Front End Assembly

- Wire Forming
- Wire Bending
- Stator Stack Fabrication
- Slot Liner Forming
- Wire Sorting
- Wire Insertion
- End Turn Preparation
- Phase Paper Installation

II. Stator Back End Assembly

- Trimming
- Welding
- Strain Relief Bracket Installation
- Varnish Application
- End Turn Epoxy Application
- Connection Ring and Neutral Bar Assembly
- Final Curing
- Electrical Testing
- Final Inspection and Packaging

