



**eLONGO**

# TRAINING Curriculum

*Here are Longo "Road Courses," designed to maximize information and time. These courses are the ideal solution when it is difficult to have a group off premise for a day. Contact your Longo representative to find out more about these courses, scheduling, and fees.*

## LTS 01 Fundamentals of Centrifugal Pumps

**4 Hours**

Audience: Maintenance Technicians and Managers, Application Engineers

Begin by learning the fundamentals of how these pumps work, as well as essential terminology such as product flow, cavitation and recirculation. What is NPSH and why it is important. Find out the various applications for pumps and what you can expect in lifecycle costs compared to other types of pumps.

## LTS 02 Switchgear and Protective Relay Maintenance

**8 Hours**

Audience: Electrical Technicians, Reliability Engineers and Technicians, Maintenance Managers, Application Engineers

An ineffective maintenance program for these units can spell disaster, literally. New and aging switchgear must be checked and tested since their defects are often unseen. Learn what procedures should be included in normal maintenance and how often they should be performed. When and how to incorporate effective technologies, such as thermography, to track down potential problems

## LTS 03 Fundamentals of AC Drives

**4 Hours**

Audience: Electrical Technicians, Maintenance Managers, Application Engineers

Concentrating on theory, operation, maintenance and troubleshooting of modern AC digital drives. This practical course covers the benefits of applying VFD's, as well as the key elements of a Predictive Maintenance (PdM) program

## LTS 04 Electric Motor Maintenance & Alignment

**4 Hours**

Audience: Maintenance Technicians and Managers, Machine Operators

This training program covers AC and DC machines. Maintenance procedures are reviewed along with those specific tests that focus on pointing out alignment issues. From manual to hi-tech, you will learn how apply the various testing techniques. All aspects of alignment correction are explained to resolve any deficiencies discovered during testing.

## LTS 05 Fundamentals of Electric Motors & Maintaining Efficiency

**4 Hours**

Audience: Electrical Technicians, Maintenance Managers, Application Engineers

You will go through the various types of motors and detail the specific components, their functions and how they interact. Formulas, such as the relationship of horsepower, voltage and RPM are explained and how they dictate motor application and usage. Learn why misapplied motors can burn significant dollars in wasted energy.

## LTS 06 Predictive Maintenance on Rotating Apparatus

**4 Hours**

Audience: Maintenance Technicians and Managers, Reliability Engineers and Technicians, Facility Engineers

Vibration and improper alignment are two of the leading causes of motor failures. Learn why vibration is damaging and how to measure, diagnose and correct vibration issues. Motor electrical testing is covered in detail, as well as bearing selection. Alignment considerations, alignment calculations, coupling and specifications are all covered in detail. Field test and alignment equipment will be explained to ensure testing is done accurately

## LTS 07 Electrical and Mechanical Considerations on Medium Voltage Motors

**8 Hours**

Audience: Maintenance Technicians and Managers, Machine Operators

This course covers 2300V AC and 4160V AC machines. Motor theory is discussed as it applies to maintenance and testing of these units. You will learn what tests to perform, how to do them and how to interpret the results. Oil labyrinth seals, sleeve bearings, Kingsbury bearings, airgaps, alignment and overall inspection procedures are covered in detail.

## LTS 08 Onsite Maintenance of Fans and Blowers

**4 Hours**

Audience: Maintenance Technicians and Facility Engineers

Fans and blowers can often be overlooked when it comes to normal maintenance schedules. Although they are built to run "forever," there are things that can and should be done to make sure that "forever" is a long time off. Specific topics such as bearing maintenance, dynamic balancing, vibration analysis and aerodynamic issues are covered.

## LTS 09 Using An Asset Management System to Compliment Your Existing CMMS or SAP System

**4 Hours**

Audience: Maintenance Managers, Plant Managers and Engineers

Advanced Equipment Management, a program that allows maintenance managers to organize and analyze data on varied equipment from numerous inputs, whether it is vibration, infrared, service reports or repair reports, and draw conclusions on the equipments' performance. Focus will be on the lifecycle cost and condition of equipment, specifically reliability with the analysis of time to failure, cost of failure and the cause of those failures.

**Your resource for**

**MOTORS DRIVES FANS SWITCHGEAR  
TRANSFORMERS CIRCUIT BREAKERS PUMPS  
SEALS FIELD SERVICE  
PREDICTIVE/PREVENTATIVE MAINTENANCE**

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**Visit us at  
our website**

## SPORTS TRIVIA

1. How many players have appeared in the World Series with 3 different teams?
2. What was Babe Ruth's ERA in World Series play?
3. How many years was Joe Louis the Heavyweight Champion?
4. What was the first school to capture the NCAA basketball championship with an undefeated team?
5. Who was the first pitcher to surrender 50 homeruns in a season?

**5. Granddand Rice  
4. San Francisco  
3. 13  
2. 87  
1. 25**

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**"WE ADDRESS  
THE CAUSE  
AS WELL AS  
THE EFFECT."**®

# *“Service Through Knowledge” for us and our customers.*



*Joseph J. Longo welcomes seminar participants, as he has done for some time. Mr. Longo's technical capabilities are only exceeded by his humorous opening remarks, including the telling of the "executive golfer and the hobo..." The informal atmosphere combined with solid information gets the wheels turning and results in enthusiastic discussions.*

*Most seminars include a tour of our 75,000 sq. ft. facility. Seeing first hand the work on motors, pumps, switchgear, etc reinforces the essence of the classroom work.*



## *On different not*

in the last couple of years we have experienced great success marketing Siemens Energy products from Switchgear to Medium Voltage Motors. Our innovative products, coupled with our responsive customer culture, have proved to be a winning combination. These successes have forced us to make a very difficult decision. To capitalize on the full potential of this global organization we have decided to discontinue our long-standing relationship with Reliance Electric. Effectively June 1, 2003 we will no longer represent Reliance. That is the bad news. The good news going forward is we will have over \$200,000 in NEMA Frame Siemens motor inventory to service your ever-changing needs.

This decision is an important element of our overall strategic mission to become your solutions provider, not just an electric motor distributor. Our sales force will be distributing Siemens literature in the near future.

