

## CERTIFICATION TRAINING – 5-DAY TRAINING PACKAGE

**Duration:** 5 days – 18 hours of hands-on training & 18 hours of classroom theory  
**Level:** Beginner & Advanced  
**Attendees:** Technicians and Engineers working in Services Stations  
**Locations:** Oskarsham (Sweden), North Haven (US) and Singapore (Asia)  
(Intra-company training)  
**Specifications:** Certificate delivered upon successful completion of the training course

### Learning objectives

This training leads to the certification of technicians and engineers and ensures the knowledge transfer required to install a Ni-Cd battery in a stationary application and ensure maintenance for maximum performance and reliability from power systems.

- To learn the basics of Ni-Cd stationary batteries,
- To acquire maximum autonomy to install a battery,
- To assure maintenance for maximum performance and reliability from power systems,
- To resolve battery problems
- To obtain Alcad certification for service stations.

### Who should attend

This training is dedicated to beginners and advanced people, i.e. Technicians and Engineers in charge of the installation and maintenance of batteries onsite and working as members of Alcad certified service stations. Each participant will receive a training certificate after successful completion of the written test (minimum score of 60%required).

### Requirements

This training requires working knowledge of the basics of electricity and power electronics.

### Content Outlines

#### Day 1

Battery history  
Battery fundamentals  
Battery technologies generals

- Pocket plate
- Sintered PBE
- ULM

Factory tour (Oskarshamn)

Reliability inside

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Sintered PBE manufacturing  
AC/DC/AC systems  
Questions & Answers

## **Day 2**

Battery safety rules  
Electrolyte preparation  
Electrolyte preparation practice  
Electrical characteristics  
Charging principles  
Constant current  
Constant voltage  
Charge efficiency  
Discharge properties  
Questions & Answers

## **Day 3**

Water consumption & ventilation  
Battery commissioning charge principles  
Battery installation  
Battery commissioning  
Practice  
Battery capacity & service test  
Questions & Answers

## **Day 4**

Battery maintenance & Troubleshooting  
Battery sizing  
Battery capacity & service test practice  
Troubleshooting  
Questions & Answers

## **Day 5**

Battery service test  
Final evolution test  
Questions & Answers

## **Registration**

You can register online, or download a registration form to mail or fax to us, or contact us to register over the telephone. If you have any questions or need additional information, please don't hesitate to contact us.

Reliability inside

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