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Alliance for Batteries Technology, Training and Skills

2019-2023

Quality Technician



Co-funded by the Erasmus+ Programme of the European Union





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Quality Technician

A battery quality technician is responsible for ensuring the quality of batteries and battery systems during the development and production phases. They work with a team of engineers and scientists to establish and maintain quality standards and procedures for the design, development, and production of batteries and battery systems. They are responsible for identifying, analyzing, and preventing defects in the batteries and systems, and for implementing quality control measures to ensure that the products meet the required specifications.

ESCO Occupations - ESCO - Occupations - European Commission (europa.eu)

ID	NAME	Concept URI
7543.3	battery test technician	battery test technician Esco (europa.eu)
7543.3	battery test technician	http://data.europa.eu/esco/occupation/43eb6228-8241- 47d6-875e-7ccc214291d5
2151.1	electrical engineer	electrical engineer Esco (europa.eu)
3113.1.1	calibration technician	calibration technician Esco (europa.eu)

Context

Minimum EQF	4/5/6
Value Chain	Raw Materials and Processing
	Cell and Components Manufacturing
	Modules and Packs
	Battery Integration
	Operation, Repair & Maintenance
	Second Life
	Recycling
Departments	Production and Maintenance
	Quality
Specialisations	quality technician
	Technician - specialist
	Technician - generalist
	Sr. Quality Technician (Receiving/Final Inspection)
	Battery Test Technician
	Calibration Technician



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Cell	Inspection	Technician

Technician for Battery Analysis

Electronic Motor Bench Test Technician

Development Engineer / Technician - Battery System Testing

Reliability Technician

Cross-sectoral Specific Competence

Name	Туре	Description/Context	Level	ESCO
	(S/K)			
Audits	S	- support to cell manufacturing process auditing on	expert	conduct
		materials to assure production quality		workplace
		- execute product audits as part of the quality plan		audits
Inspect Quality	S	- Conduct inspection work for incoming materials incl. cell	expert	inspect
of Product /		parts, battery active materials, chemical materials for		quality of product
Sampling		battery safety and performance.		
		- Perform inspections and tests on completed product		
		- Conduct and implement quality control system for		
		battery manufacturing processes and perform calibration		
		and material control		
		- Use the relevant quality tools/systems to analyse data		
		and deal with non-conformances		
		- Alert production management, machine operators, and		
		supervisors about quality problems, discovered in the		
		analysis of batteries or product audits		
Analysis	К	- analysis and evaluation of materials input/output data		analysis
Methods		- Create analyses on quality issues of batteries.	expert	methods
		- define test data capture protocols		
		- Train staff to use test equipment and methods.		
Remove	S	- Conducting incoming materials quality control and	Expert	remove
Defective		inspection work		defective
Product		- Analyse HV batteries with defects out of a battery		product
		assembly process		
Data	К	- Helping analysis and evaluation of materials	Expert	gather data;
Analysis/Science		input/output data		inspect data process data
		- Create analyses and report to management on quality		
		issues and root causes of batteries		
		- Conducts disassembly analysis of rejected Li-ion cells		
		while adhering to safety regulation in manufacturing and		
		laboratory environment		
		- Conducting inspection work for incoming materials		
		including cell parts, battery active materials, and		

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Sector Specific Competence

Name	Туре	Description/Context		ESCO
	(S/K)			
Battery	К	- Battery test technicians use positive and negative wired plugs to	expert	battery
Testers		test battery's resistance capacity. They also test rejected batteries		testers
		to determine their flaws.		
		- Perform all required inspections and tests on completed product in		
		a timely manner.		



Soft Competence

Name	Туре (S/K)	Description/Context	Level	ESCO
Problem Solving/Troubleshooting	S	 Lead root cause analysis, defining measures for failure avoiding Create analyses and report to management on quality issues and root causes Perform inspections and troubleshoot cause of physical testing failures 	Practitioner	problem solving & troubleshoot
Teamwork	К	 Works as part of a team and/or in consultation with all staff Exchange experiences with other teams and departments 	Practitioner	teamwork principles

General Transversal Competence

Name	Туре	Description/Context	Level	ESCO
	(S/K)			
Reporting	S	 Create analyzes and report to management on quality issues and root causes Analyze customer returns and report findings Report accomplishments and roadblocks to appropriate teams Carry out the tests, analyse and check the results and draw up the intermediate reports 	Practitioner	follow reporting procedures
Documentation	S	 Read and understand assigned documentation Correctly fill in the documents provided Create documentation on assigned tasks 	Practitioner	use technical documentation; observe documents

Academic Competence (can be taken from University programme)

Name	Туре (S/K)	Description/Context	Level	ESCO
Engineering	К	-	Practitioner	Engineering principles



