





# Course: Water Meter Calibration & Assembly

Code	City	Hotel	Start	End	Price	Language - Hours
MA-844	Frankfurt (Germany)	Hotel Meeting	2026-04-06	2026-04-10	5950 €	En - 25

## Introduction

Water meters play a crucial role in accurately measuring water consumption, ensuring precise billing, and efficiently managing resources. The installation and calibration of water meters require a high level of accuracy to ensure optimal performance. This course aims to equip participants with the necessary knowledge and practical skills to assemble and calibrate water meters in accordance with international standards and best technical practices.

## General Objective

To enable participants to understand the fundamental principles of water meter operation, assembly, inspection, calibration, and maintenance, contributing to improved operational efficiency and reduced water losses in distribution networks.

## Detailed Objectives

By the end of this course, participants will be able to:

- Identify different types of water meters and understand their mechanisms.
- Comprehend international and national standards for water meter calibration.
- Master the procedures for assembling and installing water meters according to technical specifications.
- Perform inspections and verify meter accuracy using various calibration techniques.



- Apply preventive maintenance procedures and troubleshoot common issues.
- Detect and resolve common errors affecting meter accuracy.
- Utilize data collected from meters to enhance water management.

## Target Audience

- Technicians and engineers working in water and wastewater companies.
- Operations and maintenance personnel in the water sector.
- Professionals involved in metrology and calibration in laboratories and regulatory agencies.
- Manufacturers and suppliers of water meters.

## Training out line

### Day 1: Introduction to Water Meters and Technical Standards

- Overview of water meters: types, components, and operational mechanisms.
- The importance of accurate water measurement and its impact on resource sustainability.
- International and national standards for water meters (ISO, AWWA, MID).
- Workshop: Identifying and analyzing water meter components through disassembly.

### Day 2: Water Meter Assembly and Installation Procedures

- Step-by-step process for installing water meters according to technical standards.
- Ensuring proper connections and minimizing installation errors.
- Correct mounting techniques to prevent leaks and future malfunctions.
- Practical Workshop: Hands-on assembly and installation of a water meter with quality verification.

### Day 3: Water Meter Testing and Calibration



- Methods for verifying meter accuracy using different testing tools.
- Flow testing procedures to ensure reading precision.
- Modern calibration techniques and troubleshooting operational errors.
- Practical Workshop: Calibrating a water meter using advanced testing equipment.

## **Day 4: Maintenance and Common Fault Repairs**

- Preventive maintenance strategies for optimal meter performance.
- Diagnosing and troubleshooting accuracy issues in meters.
- Solutions for problems such as low accuracy or meter blockages.
- Practical Workshop: Identifying faults and repairing defective water meters.

## **Day 5: Data Analysis and Meter Management**

- Utilizing meter-generated data for improved water management.
- Techniques for reading smart and digital water meters.
- Case studies on error analysis and measurement accuracy enhancement.
- Final Assessment & Practical Application: Evaluation of acquired skills and practical application.



The Scandinavian Academy for Training and Development adopts the latest scientific and professional methodologies in training and human resource development, aiming to enhance the efficiency of individuals and organizations. Training programs are delivered through a comprehensive approach that includes:

- Theoretical lectures supported by PowerPoint presentations and visual materials (videos and short films).
- Scientific evaluation of participants before and after the program to measure progress and knowledge acquisition.
- Brainstorming sessions and practical role-playing to simulate real-life scenarios.
- Case studies tailored to align with the training content and participants work nature.
- Assessment tests conducted at the end of the program to evaluate the achievement of training objectives.

Each participant receives the training material (both theoretical and practical) in printed form and saved on a CD or flash drive. Detailed reports, including attendance records, final results, and overall program evaluations, are also provided.

Training materials are prepared professionally by a team of experts and specialists in various fields. At the end of the program, participants are awarded a professional attendance certificate, signed and accredited by the Scandinavian Academy for Training and Development.

## **Program Timings:**

- 9:00 AM to 2:00 PM in Arab cities.
- 10:00 AM to 3:00 PM in European and Asian cities.

## **The program includes:**

- A daily buffet provided during the sessions to ensure participants comfort.