



PROCESS AND CHEMICAL ENGINEERING

Flow Measurement for Industry

5 day course

Classroom, online or in-house

Course overview

Flow is the measurement most often used for control, allocation and billing, and the one most sensitive to installation. This course covers getting it right. Delegates work through the measurement principles in industrial use, differential pressure, turbine, positive displacement, electromagnetic, ultrasonic and Coriolis, and what each requires of the fluid and the pipework. Installation effects receive detailed treatment, since straight lengths, swirl and flow profile account for most unexplained error. Calibration, proving and traceability follow, along with uncertainty in a flow measurement. The course closes on selecting a meter for a duty and on diagnosing a meter that disagrees with a mass balance.

What you will learn

- Compare industrial flow measurement principles and their requirements
- Select a meter for a fluid, a range and an accuracy requirement
- Assess installation effects including straight lengths and swirl
- Calibrate and prove a meter with traceability
- Estimate the uncertainty of a flow measurement
- Diagnose a meter that disagrees with a mass balance
- Maintain meters so accuracy does not drift unnoticed

Who should attend

- Instrumentation and control engineers and technicians
- Process engineers using flow data
- Metering and allocation staff
- Maintenance and calibration technicians
- Laboratory and metrology personnel

Course outline

- 01 What flow measurement is used for, and the accuracy each use needs
- 02 Differential pressure measurement
- 03 Turbine and positive displacement meters
- 04 Electromagnetic and ultrasonic meters
- 05 Coriolis and mass measurement
- 06 Installation effects and flow profile
- 07 Calibration, proving and traceability
- 08 Uncertainty and mass balance disagreements

Upcoming dates

Dates	Venue	Format	Fee per delegate
14 to 18 December 2026	Nairobi, Kenya	Classroom	USD 1,325
18 to 22 January 2027	Pretoria, South Africa	Classroom	R19,950
8 to 12 March 2027	Online	Online	R8,500

Fees and how to register

This 5 day course is **R8,500** per delegate online, **R19,950** in the classroom in South Africa, Botswana, Namibia, Lesotho and Eswatini, and **USD 1,325** in the classroom elsewhere in Africa. In-house training is quotation on request.



Book 2 or more delegates on this course and save 10%.

To register or request an in-house proposal, visit www.afrisciencegroup.com, email info@afriscience.co.za, or WhatsApp us on **+27 63 479 1136**.

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