

CONTENT

Introduction

- Flow Measurement Principles Liquid
- Flow Measurement Principles
- Gas Calibration and traceability

Overview of the different measuring principles

- Types of lowmeters for liquid and gas
- Coriolis, PD, thermal flowmeters, MID, vortex, LFE, ultrasonic, turbine, VA, orifice, venturi....
- Selection procedure for the different flowmeters
- Applications for the different measuring technologies
- Flowmeter specification and analysis
- Uncertainty of measurement and variables influencing the measurement

Practical aspects of flow measurement

- Installation conditions, effects of flow profile and prior disturbances
- Viscosity, moisture and density effects
- Pressure, temperature, compressibility
- Consideration of the influence of the response time of flow meters

Practical aspects of flow calibration

- Calibration methodology
- Calibration methods for liquid and gas flowmeters Volumetric, gravimetric, master method, critical nozzles, high pressure gas calibration....
- Uncertainty of measurement, traceability to national Standard
- Calibration of gas flowmeters for hydrogen refueling stations

Uncertainty of measurement

- Statistical methods – GUM
- Traceability, certification, accreditation, ISO17025, calibration protocol

The technical speakers in this seminar are specialists from the R&D and application departments of various market leaders in the field of flow measurement technology.

ABOUT US

TrigasFI GmbH

We are the first measurement laboratory in Europe to be accredited by the German accreditation DAkkS for both liquid and gas calibrations.

The competence of our manufacturer-independent team of specialists results from more than 30 years of experience of flow measurement and calibration.

We are continuously expanding our accredited scope and our range of services according to DIN EN ISO/IEC 17025, for example with mobile on-site calibrations.

We are currently a pioneer and technology leader in the field of custody transfer measurement of hydrogen and the calibration of hydrogen filling stations and H2 delivery systems.

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TrigasFI Seminar

Flow Measurement and Calibration

Liquids and Gases

SEMINAR

Flow How

Every year at TrigasFI we calibrate, adjust and program **thousands of flowmeters**. Through this experience we have gained a deep knowledge about the specifics of the various flow measurement principles. We know how they are best to **calibrate, install and operate** for the highest possible accuracy and reliability.

We love to share this knowledge with our customers through our training courses, seminars and on-site consultations.

This seminar is designed for those interested in purchasing, calibration, engineering, and all users of flowmeters.

It is designed to be an **objective, neutral, manufacturer-independent seminar**. The focus is on the physical fundamentals, the functionalities of modern flow measurement techniques, the theory and technology of calibration as well as metrological traceability.



GENERAL INFORMATION

Schedule

Day 1: morning and afternoon seminar
Day 2: morning seminar, afternoon Oktoberfest
Day 3: morning guided tour through the calibration laboratory, discussion

Number of Participants

The number of participants for each seminar is limited to a maximum of 15 participants. The minimum number of participants is five persons. Registrations will be considered in the order in which they are received (first-come, first-serve basis).

Confirmation of registration

You will receive a confirmation after your seminar registration. All further documents, such as the detailed seminar agenda and travelling information and hotel address will be sent to you in due time before the beginning of the seminar.

Certificate of attendance

At the end of the seminar each participant will receive a certificate of attendance indicating the topics covered.

Participation fee

1.750,- € + VAT(*) per participant for the seminar

The participation fee includes seminar documentation (on USB stick), lunch and drinks / snacks during the time of the seminar.

Please only transfer the seminar fees to our account after receipt of the invoice.

* According to EU tax law, VAT must also be charged to non-German EU citizens.

Cancellation

Free of charge until 30th of June 2023. In case of cancellation up to and including 31st of August 2023 we have to charge a handling fee of 50% of the seminar costs plus the hotel reservation costs. In case of an even later cancellation, we are unfortunately unable to credit costs and the full amount of the participation fee and hotel reservation will be charged. Alternatively, you can nominate a substitute participant of your company for the seminar.

If the minimum number of participants is not reached by August 2023, we reserve the right to cancel the seminar or to name an alternative date. In case of cancellation on our part, all costs for the booking will of course be refunded.

REGISTRATION FORM

TrigasFI Seminar

Flow Measurement and Calibration

1.750 € (exc.I. VAT) per seminar and participant

English 19th—21st of September 2023

German 26th—28th of September 2023

Participant First & Last Name* (1 participant only)

Company* _

Postal Code City

Street

Country

Phone _____ Fax _____

E-Mail _____

** Information is required for the certificate
Please fill in in block letters..*

Date _____ Signature _____

For the period of the seminar we have reserved a contingent of hotel rooms for you. You will receive the details after your registration.

Please fill out completely and return to:

Per Fax: +49 8165 6472-29
Per E-Mail: sales@trigasfi.com

In case of any questions, please do not hesitate to contact us at 0+49 165 6472-0.