Proficiency testing flow velocity

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Provider of the proficiency testing

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1 Programme & objective

A proficiency test is carried out for the measurand flow velocity according to the methodology of DIN EN ISO/IEC 17043:2010. A **Prandtl's Pitot Static Tube with a differential pressure probe is sent as the calibration item**.

The proficiency testing serves as proof to confirm the competence of the participating laboratories for the reported measurement uncertainties.

1.1 Confidentiality

The participants undertake to maintain confidentiality with regard to the information and results obtained during the proficiency testing. Any subcontractors involved are contractually bound to the same confidentiality.

All participants are named in the technical protocol and final report, but the results are only presented in anonymised form.

1.2 Schedule / Procedure

Planned start: December 2024

The proficiency testing takes place in a ring, whereby a calibration is carried out in the pilot laboratory before and after the calibrations at the participants. If necessary, an intermediate examination is carried out in the pilot laboratory.

Each participant has two calendar weeks to carry out the calibration and forward the calibration items. If this is not possible, the coordination must be informed, if possible even before the start of the round.

The participants are responsible for **insured and immediate forwarding** of the calibration items to the next participant or to Testo Industrial Services.

2 Realisation

2.1 Calibration object

Designation	**Measuring instrument testo 400**	**Prandtl pitot tube**
Type	0560 0400	0635 2045
Manufacturer	TESTO SE & Co. KGaA	TESTO SE & Co. KGaA
Serial no.	63146024	---
Accessories	2 hoses	

Figure 1: Calibration item: Prandtl pitot tube with measuring instrument (testo 400)

2.2 Procedure & measuring points

The **deviation** must be determined at the following measuring points, if these can be displayed:

2 m/s, 5 m/s, 10 m/s, 15 m/s, 20 m/s, 30 m/s, 50 m/s and 65 m/s.

The measurement uncertainty must be specified as an expanded measurement uncertainty in accordance with **EA-4/02 M:2022** .

2.3 Assigned values

The assigned reference values are determined as reference values measured in the pilot laboratory.

2.4 Evaluation

The results are evaluated using the **$E_n$value for the assigned value**. A satisfactory result is achieved if $|E_n| \leq 1.0$.

3 Participation

3.1 Participants

This proficiency test is aimed at all calibration laboratories that have or are seeking accreditation for the specified measurand.

3.2 Registration procedure

If interested, the laboratory will be sent an offer with the participation fees. Participation is considered binding as soon as the offer has been accepted and the order confirmation has been sent to the laboratory.

The registration deadline is enclosed with the offer.

Note: A minimum number of 8 participants is required for the organisation of this ring comparison.

4 Further information

At the end of the proficiency test, a draft of the final report is sent to the participants to review the results and their performance evaluation.

It is planned to present the results in anonymised form to the DKD Technical Committee.