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Measurement of fluid flow in closed conduits — Velocity area method using Pitot static tubes

Mesurage du débit des fluides dans les conduites fermées — Méthode d'exploration du champ des vitesses au moyen de tubes de Pitot doubles



Reference number ISO 3966:2008(E)

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Foreword

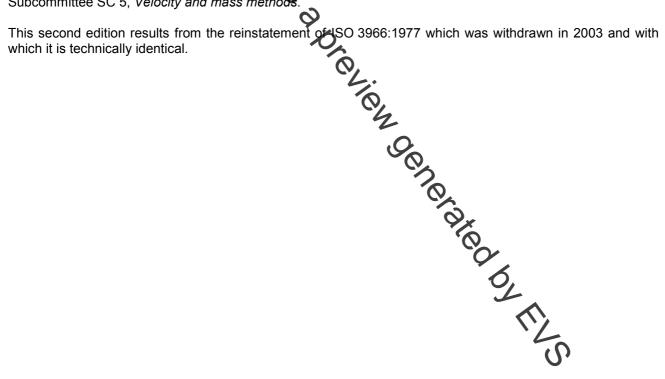
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ISO 3966 was prepared by Technical Committee ISO/TC 30, *Measurement of fluid flow in closed conduits*, Subcommittee SC 5, *Velocity and mass methods*.



Measurement of fluid flow in closed conduits — Velocity area method using Pitot static tubes

1 Scope

This International Standard specifies a method for the determination in a closed conduit of the volume rate of flow of a regular flow:

- a) of a fluid of substantially constant density or corresponding to a Mach number not exceeding 0,25;
- b) with substantially uniform stagnation temperature across the measuring cross-section;
- c) running full in the conduit;
- d) under steady flow conditions.

In particular, it deals with the technology and maintenance of Pitot static tubes, with the calculation of local velocities from measured differential pressures and with the computation of the flow rate by velocity integration.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 2186, Fluid flow in closed conduits — Connections for plassure signal transmissions between primary and secondary elements

ISO 7194, Measurement of fluid flow in closed conduits — Velocity area methods of flow measurement in swirling or asymmetric flow conditions in circular ducts by means of curler meters or Pitot static tubes

