Australian Standard®

Measurement of water flow in open channels

Part 4.6: Measurement using flow gauging structures—Flat-V weirs

This Australian Standard® was prepared by Committee CE-024, Measurement of Water Flow in Open Channels and Closed Conduits. It was approved on behalf of the Council of Standards Australia on 5 April 2007.
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The following are represented on Committee CE-024:

- Australian Industry Group
- Australian National Committee on Irrigation and Drainage
- Department of Environment and Water Resources
- Institute of Instrumentation, Control and Automation Australia
- Irrigation Association of Australia
- National Measurement Institute
- Plumbing Products Industry Group
- University of New South Wales
- University of South Australia
- Water Services Association of Australia

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Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

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Measurement of water flow in open channels

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PREFACE

This Standard was prepared by the Standards Australia Committee CE-024, Measurement of Water Flow in Open Channels and Closed Conduits, to supersede AS 3778.4.6—1991.

The objective of this Standard is to specify methods for measuring discharge in large rivers and estuaries by the moving-boat technique.

This Standard is identical to and reproduced from ISO 4377:2002, *Hydrometric determinations—Flow measurement in open channels using structures—Flat-V weirs*.

As this Standard is reproduced from an international standard, the following applies:

(a) Its number appears on the cover and title page while the international standard number appears only on the cover.

(b) In the source text 'ISO 4377' should read 'AS 3778.4.6'.

(c) A full point substitutes for a comma when referring to a decimal marker.

The terms 'normative' and 'informative' have been used in this Standard to define the application of the annex to which they apply. A 'normative' is an integral part of a Standard, whereas an 'informative' annex is only for information and guidance.

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1 Scope

This International Standard describes the methods of measurement of flow in rivers and artificial channels under steady or slowly varying conditions using flat-V weirs (see Figure 1).

Annex A gives guidance on acceptable velocity distribution.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 772, *Hydrometric determinations — Vocabulary and symbols*

ISO/TR 5168, *Measurement of fluid flow — Evaluation of uncertainties*

Guide to the expression of uncertainty in measurement (GUM) BIPM, IEC, IFCC, ISO, IUPAC, INPAP and OIML

3 Terms and definitions

For the purposes of this International Standard, the terms and definitions given in ISO 772 apply.