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ISO 772: 1988

Australian Standard®

Measurement of water flow in open channels

Part 1: Vocabulary and symbols

This Australian Standard was prepared by Committee CE/24, Measurement of Water Flow in Open Channels and Closed Conduits. It was approved on behalf of the Council of Standards Australia on 18 May 1990 and published on 10 December 1990.

The following interests are represented on Committee CE/24:

Association of Consulting Engineers of Australia

Australian Water and Wastewater Association

Board of Works, Melbourne

Department of Water Resources, NSW

Engineering and Water Supply Department of South Australia

Forestry Commission, NSW

Institute of Instrumentation and Control

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PREFACE

This Standard was prepared by the Standards Australia Committee on Measurement of Water Flow in Open Channels and Closed Conduits. It is identical with and has been reproduced from ISO 772—1988, *Liquid flow measurement in open channels—Vocabulary and symbols.*

This Standard is one of a series which deals with methods of measurement of water flow in open channels. The series when complete will consist of the following parts:

Part 1:	Vocabulary and symbols (this Standard)
Part 2.1:	General—Guidelines for the selection of methods of measurement
Part 2.2:	General—Establishment and operation of a gauging station
Part 2.3:	General—Determination of the stage-discharge relation
Part 2.4:	General—Estimation of uncertainty of a flow-rate measurement
Part 2.5:	General—Guidelines for the selection of flow gauging structures
Part 3:	Velocity-area methods—
Method 3.1:	Measurement by current-meters and floats
Method 3.2:	Measurement by moving-boat method
Method 3.3:	Measurement by slope-area method
Method 3.4:	Collection and processing of data for determination of error in measurement
Method 3.5:	Investigation of total error
Method 3.6:	Measurement of flow in tidal channels
Method 3.7:	Measurement by ultrasonic (acoustic) method
Method 3.8:	Electromagnetic method using a full-channel-width coil
Part 4:	Measurement using flow gauging structures—
Method 4.1:	Thin-plate weirs
Method 4.2:	Rectangular broad-crested weirs
Method 4.3:	Round-nose horizontal broad-crested weirs
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Method 4.7:	Rectangular; trapezoidal and U-shaped flumes
Method 4.8:	Trapezoidal profile weirs
Method 4.9:	Parshall and Saniiri flumes
Method 4.10:	End-depth method for estimation of flow in rectangular channels with a free overfall
Method 4.11:	End-depth method for estimation of flow in non-rectangular channels with a free overfall (approximate method)
Part 5:	Dilution methods—
Method 5.1:	Constant-rate injection method for the measurement of steady flow
Method 5.2:	Integration method for the measurement of steady flow
Part 6.1:	Measuring devices, instruments and equipment—Rotating element current-meters
Part 6.2:	Measuring devices, instruments and equipment—Direct depth sounding and suspension equipment
Part 6.3:	Measuring devices, instruments and equipment—Calibration of rotating element current-meters in straight open tanks
Part 6.4:	Measuring devices, instruments and equipment—Echo sounders for water depth measurements
Part 6.5:	Measuring devices, instruments and equipment—Water level measuring devices
Part 6.6:	Measuring devices, instruments and equipment—Cableway system for stream gauging
Part 6.7:	Measuring devices, instruments and equipment—Ultrasonic (acoustic) velocity meters
Part 6.8:	Measuring devices, instruments and equipment—Position fixing equipment for hydrometric boats

For the purposes of this Australian Standard, the ISO text should be modified as follows:

(a) Wherever the words 'International Standard' appear; referring to this Standard, they should be read as 'Australian Standard'.

(b) Wherever the word 'fluid' appears, it should be read as 'water'.

Measurement of water flow in open channels—Vocabulary and symbols

0 Introduction

When preparing this International Standard, the following three principles were adopted wherever possible:

a) to standardize suitable terms and symbols without perpetuating unsuitable ones;

b) to discard any term or symbol which has been used with different meanings in different countries, or by different people, or by the same person at different times, and to replace that term or symbol by one which has an unequivocal meaning;

c) to exclude terms which are self-evident.

However, it is recognized that it is not possible to produce a complete set of definitions which will be universally acceptable, but it is hoped that the definitions provided and the symbols used will find widespread acceptance and that their use will lead to better understanding among practitioners of the measurement of liquid flow in open channels.

Throughout this International Standard there are instances of synonymous terms and of preferred terms or alternative spellings. Translations of terms which have no exact equivalent are given in parentheses.