AS 3778.2.1—2001
ISO/TR 8363:1997

Australian Standard™

Measurement of water flow in open channels

Part 2.1: General—Guidelines for the selection of methods

[ISO title: Measurement of liquid flow in open channels—General guidelines for selection of method]

Standards Australia

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 25 September 2000 and published on 12 March 2001.

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Australian Water and Wastewater Association

Department of Natural Resources, Qld

Institute of Instrumentation and Control Australia

Department of Land and Water Conservation, New South Wales

Department of Public Works and Services, New South Wales

South Australian Water Corporation

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Australian Standard™

Measurement of water flow in open channels

Part 2.1: General—Guidelines for the selection of methods

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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.

This Standard is identical to and is reproduced from, ISO/TR 8363:1997, *Liquid flow measurement in open channels—Guidelines for the selection of methods*.

This Standard is a Part 2.1 of AS 3778, *Measurement of water flow in closed conduits*, which is published in parts as follows:

AS		
3778		Measurement of water flow in open channels
3778.1	Part 1:	Vocabulary and symbols
3778.2	Part 2:	General
3778.2.1	Part 2.1:	Guidelines for the selection of methods of measurement (this Standard)
3778.2.2	Part 2.2:	Establishment and operation of a gauging station
3778.2.3	Part 2.3:	Determination of the stage-discharge relation
3778.2.4	Part 2.4:	Estimation of uncertainty of a flow-rate measurement
3778.2.5	Part 2.5:	Guidelines for the selection of flow gauging structures
3778.3	Part 3:	Velocity-area method
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3778.3.2	Part 3.2:	Measurement by moving boat method
3778.3.3	Part 3.3:	Measurement by slope-area method
3778.3.4	Part 3.4:	Collection and processing of data for determination of errors in measurement
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3778.6.8	Part 6.8:	Position fixing equipment for hydrometric boats

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NOTES

AUSTRALIAN STANDARD

Measurement of water flow in open channels

Part 2.1:
General—Guidelines for the selection of methods

1 Scope

This Technical Report gives general guidelines for the selection of a suitable method for measurements of liquid flow in open channels. More specific guidelines are contained in International Standards relevant to each method.

2 Methods of measurement

Methods which are suitable for measurements of liquid flow in open channels and which form the subjects of International Standards[1)] are as follows:

1) Velocity-area method by wading.

2) Velocity-area method from a bridge.

3) Velocity-area method using a cableway.

4) Velocity-area method using a static boat.

5) Velocity-area method using a moving boat.

6) Velocity-area method using floats.

7) Slope-area method.

8) Ultrasonic method.

9) Electromagnetic method.

10) Dilution method with a chemical tracer.

11) Dilution method with a radioactive tracer.

12) Dilution method with a fluorescent tracer.

13) Cubature method.

14) Thin-plate weirs (sharp crest, V-notch).

15) Thin-plate weirs (sharp crest, rectangular, with suppressed side contractions).

16) Thin-plate weirs (sharp crest, rectangular, with side contractions).

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1) See annex A for a list of these International Standards.