

Measurement of liquid flow in open channels - Velocity-area methods

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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| <p>Käesolev Eesti standard EVS-EN ISO 748:2000 sisaldab Euroopa standardi EN ISO 748:2000 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 17.07.2000 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p> | <p>This Estonian standard EVS-EN ISO 748:2000 consists of the English text of the European standard EN ISO 748:2000.</p> <p>This document is endorsed on 17.07.2000 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p> |
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| <p>Käsitlusala:</p> <p>This International Standard specifies methods for determining the velocity and cross-sectional area of water flowing in open channels without ice cover, and for computing the discharge therefrom.</p> | <p>Scope:</p> <p>This International Standard specifies methods for determining the velocity and cross-sectional area of water flowing in open channels without ice cover, and for computing the discharge therefrom.</p> |
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ICS 17.120.20

Võtmesõnad:

ICS 17.120.20

English version

Measurement of liquid flow in open channels

Velocity-area methods
(ISO 748 : 1997)

Mesure de débit des liquides dans
les canaux découverts – Méthodes
d'exploration du champ des vitesses
(ISO 748 : 1997)

Durchflussmessung in offenen
Gerinnen – Geschwindigkeitsflächen-
Verfahren (ISO 748 : 1997)

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Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart 36, B-1050 Brussels

Foreword

International Standard

ISO 748 : 1997 Measurement of liquid flow in open channels – Velocity-area methods, which was prepared by ISO/TC 113 'Hydrometric determinations' of the International Organization for Standardization, has been adopted as a European Standard by Technical Committee CEN/TC 318 'Hydrometrie', the Secretariat of which is held by BSI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, and conflicting national standards withdrawn, by July 2000 at the latest.

In accordance with the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard:

Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

Endorsement notice

The text of the International Standard ISO 748 : 1997 was approved by CEN as a European Standard without any modification.

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1 Scope

This International Standard specifies methods for determining the velocity and cross-sectional area of water flowing in open channels without ice cover, and for computing the discharge therefrom.

It covers methods of employing current-meters and floats to measure the velocities. Although, in most cases, these measurements are intended to determine the stage-discharge relation of a gauging station, this International Standard deals only with single measurements of the discharge; the continuous recording of discharges over a period of time is covered in ISO 1100-1 and ISO 1100-2.

NOTE The methods for determining the velocity and cross-sectional area of water flowing in open channels with ice cover are specified in ISO 9196.

2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the edition indicated was valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent edition of the standard indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 772:1996, *Hydrometric determinations — Vocabulary and symbols*.

3 Definitions

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

3.1 unit-width discharge

discharge through a unit width of a section at a given vertical

4 Principle of the methods of measurements

4.1 The principle of these methods consists of measuring velocity and cross-sectional area. A measuring site is chosen conforming to the specified requirements; the width, depending on its magnitude, is measured either by means of steel tape or by some other surveying method, and the depth is measured at a number of points across the width, sufficient to determine the shape and area of the cross-section.

Velocity observations are made at each vertical preferably at the same time as measurement of depth, especially in the case of unstable beds. They are made by any one of the standard methods using current-meters. If unit width discharge is required, it is generally computed from the individual observations.

In the integration method, the mean velocity is obtained directly.