

SLOVENSKI STANDARD

SIST EN ISO 772:2002/A1:2004

01-september-2004

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Hydrometric determinations - Vocabulary and symbols (ISO 772:1996/Amd1:2002)

Hydrometrische Festlegungen - Begriffe und Zeichen (ISO 772:1996/Amd1:2002)

Déterminations hydrométriques - Vocabulaire et symboles (ISO 772:1996/Amd1:2002)

Ta slovenski standard je istoveten z: EN ISO 772:2000/A1:2003

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ICS:

01.040.17	Meroslovje in merjenje. Fizikalni pojavi (Slovarji)	Metrology and measurement. Physical phenomena (Vocabularies)
17.120.20	Pretok v odprtih kanalih	Flow in open channels

SIST EN ISO 772:2002/A1:2004

en

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 772:2000/A1

December 2003

ICS 01.040.17; 17.120.20

English version

**Hydrometric determinations - Vocabulary and symbols (ISO
772:1996/Amd1:2002)**

Déterminations hydrométriques - Vocabulaire et symboles
(ISO 772:1996/Amd1:2002)

Hydrometrische Festlegungen - Begriffe und Zeichen (ISO
772:1996/Amd1:2002)

This amendment A1 modifies the European Standard EN ISO 772:2000; it was approved by CEN on 21 November 2003.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Management Centre or to any CEN member.

This amendment exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36 B-1050 Brussels

EN ISO 772:2000/A1:2003 (E)**Foreword**

The text of ISO 772:1996/Amd 1:2002 has been prepared by Technical Committee ISO/TC 113 "Hydrometric determinations" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 772:2000/A1:2003 by Technical Committee CEN/TC 318 "Hydrometry", 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, at the latest by June 2004, and conflicting national standards shall be withdrawn at the latest by June 2004.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.

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Endorsement notice

The text of ISO 772:1996/Amd 1:2002 has been approved by CEN as EN ISO 772:2000/A1:2003 without any modifications.

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INTERNATIONAL STANDARD

**ISO
772**

Fourth edition
1996-04-15

AMENDMENT 1
2002-11-15

Hydrometric determinations — Vocabulary and symbols

AMENDMENT 1: Additional terms and definitions

iTeh STANDARD PREVIEW
Déterminations hydrométriques — Vocabulaire et symboles
AMENDEMENT 1 Termes et définitions supplémentaires
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Reference number
ISO 772:1996/Amd.1:2002(E)

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ISO 772:1996/Amd.1:2002(E)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this Amendment may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

Amendment 1 to ISO 772:1996 was prepared by Technical Committee ISO/TC 113, *Hydrometric determinations*, Subcommittee SC 3, *Terminology and symbols*.

Amendment 1 to ISO 772:1996 gives additional English terms and definitions, used in the field of hydrometric determinations, to the terms and definitions included in ISO 772:1996.

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Hydrometric determinations — Vocabulary and symbols

AMENDMENT 1: Additional terms and definitions

1 General terms

Page 22, clause 1

At the end of clause 1, General terms, add the following terms and definitions.

1.146

hydrometry

science of the measurement of water including the methods, techniques and instrumentation used

NOTE The adjective is “hydrometric”.

1.147

hydrological cycle

constant movement of water above, on and below the earth's surface

1.148

hydrogeology

study of subsurface water in its geological context

1.149

hydraulic gradient

change in static head per unit distance in a given direction

1.150

static head

height, relative to an arbitrary reference level, of a column of water that can be supported by the static pressure at a given point

1.151

creek

⟨river⟩ small river, often a tributary to a larger river

1.152

creek

⟨sea coast⟩ recessed inlet on a sea coast or estuary

1.153

hydrograph

relation in graphical, equational or tabular form between time and flow variables such as depth, discharge, stage and velocity

NOTE Typically, stage and discharge hydrographs are used for open channel flows.

1.154

gradually-varied unsteady flow

generally nonuniform flow in which there are no abrupt changes in depth along the longitudinal axis of a channel and in which depth, together with discharge and velocity, changes with time

ISO 772:1996/Amd.1:2002(E)

1.155**live storage**

reservoir storage which can be drawn off for users downstream

1.156**total storage**

reservoir storage between the lowest bed level and the top water level

1.157**flood storage**

volume of water temporarily held above the top water level of a reservoir during a flood event

NOTE Flood storage is not retained in the reservoir but is discharged through an overflow until the normal top water level is reached.

1.158**boundary condition**

condition to be satisfied by a dependent variable of a differential equation along the boundary of a model domain

NOTE Boundary conditions for the dependent variables are specified at the physical extremities of the modelled region for the duration of the model application.

1.159**Courant condition**

condition for the numerical stability of the explicit formulation of a numerical scheme which requires that the ratio (C_r) of the propagation speed of a physical disturbance to that of a numerical signal should not exceed unity, i.e. $C_r \leq 1$

NOTE The condition is a requirement for an explicit finite difference formulation applied to a hyperbolic partial differential equation.

1.160**explicit finite-difference numerical scheme**

scheme which converts either the characteristic equation or the governing equation into an equation from which any unknown may be evaluated directly (explicitly) without an iterative computation

NOTE 1 Dependent variables on the advanced time level are determined one point at a time from known values and conditions at the present or previous time levels.

NOTE 2 The stability of an explicit scheme is conditional upon an error being a function of the time and distance finite-difference step sizes which may result in an error growing as the solution progresses.

NOTE 3 When the Courant condition is met, resulting in limitations in the maximum time and distance steps which can be used, generally an explicit scheme is stable, but there can be instances of instability.

NOTE 4 If the converted equation is linear and algebraic, an iterative computation is not needed.

1.161**implicit finite-difference numerical scheme**

scheme which converts either the characteristic equation or the governing equation into a nonlinear algebraic equation from which an unknown may be evaluated iteratively

NOTE 1 All of the unknowns within the model domain are determined simultaneously.

NOTE 2 Generally an implicit scheme is stable.

NOTE 3 Although complex algorithms are required, generally an implicit scheme is computationally sufficient.

1.162**initial condition**

description of the discharge, depth of flow or other dynamic condition at the beginning of a simulation period for unsteady flow models

NOTE For subsequent times, the state of the system is described by the governing equations and the boundary conditions.

1.163**method of characteristics**

mathematical approach for solving boundary values by transforming the original partial differential equations representing the physical system into corresponding characteristic equations

NOTE Characteristic equations are ordinary differential equations and, generally, are more amenable to numerical solution than are the partial differential equations.

1.164**momentum coefficient****Boussinesq coefficient**

quantification of the deviation of the velocity at any point in a cross-section from a uniform velocity distribution in the same cross-section

NOTE Values of the coefficient:

- a) unity indicates that a uniform velocity distribution is present in the cross-section;
- b) 1,01 to 1,12 indicates a fairly straight prismatic channel;
- c) < 1,0 indicates a large or deep channel.

1.165**standing wave****stationary wave**

curved symmetrically-shaped wave on the water surface, and on the channel bed, that is virtually stationary

NOTE When standing waves form, the water surface and the bed surfaces are roughly parallel and in phase.

1.166**isotropic**

having the same properties in all directions

1.167**photomultiplier**

electronic device for amplifying and converting light pulses into measurable electrical signals

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2 Velocity-area methods

Page 32, clause 2

At the end of clause 2, Velocity-area methods, add the following terms and definitions.

2.57**large river**

river in which measurements are difficult because of its large discharge or its large physical parameters

2.58**flood flow**

flow corresponding to or exceeding natural bankfull stage

NOTE It may or may not be confined within banks.

2.59**bankfull stage**

stage at which an open watercourse just overflows its natural banks

2.60**rating curve**

graphical representation of a stage-discharge relation or rating