



SLOVENSKI STANDARD SIST EN ISO 772:2022

01-maj-2022

Nadomešča:
SIST EN ISO 772:2011

Hidrometrija - Slovar in simboli (ISO 772:2022)

Hydrometry - Vocabulary and symbols (ISO 772:2022)

Hydrometrie - Begriffe und Symbole (ISO 772:2022)

Hydrométrie - Vocabulaire et symboles (ISO 772:2022)

Ta slovenski standard je istoveten z: EN ISO 772:2022

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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

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en

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EUROPEAN STANDARD

EN ISO 772

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Supersedes EN ISO 772:2011

English Version

Hydrometry - Vocabulary and symbols (ISO 772:2022)

Hydrométrie - Vocabulaire et symboles (ISO 772:2022)

Hydrometrie - Begriffe und Symbole (ISO 772:2022)

This European Standard was approved by CEN on 5 February 2022.

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

This European Standard 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 CEN-CENELEC 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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Contents	Page
European foreword.....	3

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European foreword

This document (EN ISO 772:2022) has been prepared by Technical Committee ISO/TC 113 "Hydrometry" in collaboration with 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of an identical text or by endorsement, at the latest by September 2022, and conflicting national standards shall be withdrawn at the latest by September 2022.

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

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INTERNATIONAL
STANDARD

ISO
772

Sixth edition
2022-02

**Hydrometry — Vocabulary and
symbols**

Hydrométrie — Vocabulaire et symboles

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Contents		Page
Foreword		iv
Introduction		v
1 Scope		1
2 Normative references		1
3 Terms and definitions		1
4 Terms related to velocity-area methods		13
5 Terms related to flow measurement structures		17
6 Terms related to dilution method		30
7 Terms related to instruments and equipment		32
8 Terms related to sediment transport		38
9 Terms related to precipitation		44
10 Terms related to snow		45
11 Terms related to groundwater		51
12 Terms related to uncertainties in hydrometric determinations		61
Annex A (informative) Symbols used in hydrometry		70
Bibliography		73
Index		74

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PREVIEW
(standards.iteh.ai)

[SIST EN ISO 772:2022](https://standards.iteh.ai/catalog/standards/sist/d6a6ed00-cef4-418b-aaff-25a7fde52a4e/sist-en-iso-772-2022)
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ISO 772:2022(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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 113, *Hydrometry*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 318, *Hydrometry*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This sixth edition cancels and replaces the fifth edition (ISO 772:2011) which has been technically revised. The main changes compared with the previous edition are as follows:

- terms related to precipitation have been added in a new [Clause 9](#);
- additional terms have been added in [Clause 10](#);
- [Figures 1, 3, 4, 5, 6, 9, 11](#) and [12](#) have been modified and updated.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

In the preparation of this document, the following principles were adopted wherever possible:

- a) to standardize suitable terms and symbols without perpetuating unsuitable ones;
- b) to discard any term or symbol with differing meanings in different countries, or for different people, or for 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.

Terms in existing International Standards have been included as much as possible; however, these terms can be subject to future amendments.

NOTE Similar or identical terms can have separate definitions under the different categories.

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 a better understanding of hydrometric practices.

The terminology entries are presented in systematic order, grouped into sections according to particular methods of determination or in relation to particular subjects. [Annex A](#) lists the symbols used in this document.

The structure of each entry is in accordance with the ISO 10241 series. Country codes are in accordance with ISO 3166-1.

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Hydrometry — Vocabulary and symbols

1 Scope

This document defines terms and symbols used in standards in the field of hydrometry.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

3.1 hydrometry

science and practice of measuring the components of the *hydrological cycle* (3.92), including *rainfall* (9.10), *water level* (3.64), flow and *sediment-transport* (8.2) of surface waters, and *groundwater* (11.1) characteristics

3.2 hydrology

science that deals with the waters above and below the land surfaces of the Earth, their occurrence, circulation and distribution, their properties and their reaction with the environment

3.3 flow

water flowing on or below the land surface under gravitational influence

3.4 runoff

volume of water flowing through a given channel cross-section related to a given *drainage basin* (3.103) in a defined period of time

3.5 discharge

Q

volume of water flowing through a given channel cross-section in unit time

3.6 current

directed movement of water

3.7 steady flow

flow (3.3) in which parameters [such as *velocity* (3.113), pressure, density and temperature] are constant with respect to time

ISO 772:2022(E)

3.8

unsteady flow

flow (3.3) in which one or more parameters [such as *velocity* (3.113), pressure, density and temperature] change with respect to time

3.9

uniform flow

flow (3.3) in which the magnitude and direction of flow at a given moment are constant with respect to distance

Note 1 to entry: For uniform flow, the velocity vector is constant along every stream line. Uniform flow is possible only in an *open channel* (3.19) of constant slope and cross-section.

3.10

non-uniform flow

flow (3.3) in which the magnitude and direction of flow at a given moment are changing with respect to distance

3.11

critical flow

<open channel flow> *flow* (3.3) in an *open channel* (3.19) in which the specific energy is a minimum for a given *discharge* (3.5)

Note 1 to entry: Under this condition, the *Froude number* (3.89) is equal to unity and small surface disturbances cannot travel upstream.

3.12

subcritical flow

flow (3.3) in an *open channel* (3.19) at less than *critical velocity* (3.17), which has a *Froude number* (3.89) of less than unity and in which small surface disturbances can travel upstream

3.13

supercritical flow

flow (3.3) in an *open channel* (3.19) at more than *critical velocity* (3.17), which has a *Froude number* (3.89) of greater than unity and in which small surface disturbances cannot travel upstream

3.14

transverse flow

lateral flow

flow (3.3) horizontally perpendicular to the main direction of flow

Note 1 to entry: Transverse (lateral) flow is frequently associated with secondary flow.

Note 2 to entry: Transverse (lateral) flow in *open channels* (3.19) with a curved plan form causes superelevation of the water surface at the outside of the bend.

3.15

stratification

state of a water body that consists of two or more layers arranged according to their density, the lightest layer being on top and the heaviest at the bottom

3.16

critical depth

depth (3.78) of *flow* (3.3) at which *critical flow* (3.11) occurs

3.17

critical velocity

velocity (3.113) of *flow* (3.3) that has minimum specific energy for a given *discharge* (3.5) or has unit *Froude number* (3.89)

3.18**channel**

course of a *river* (3.27), *stream* (3.26) or other watercourse

3.19**open channel**

longitudinal boundary surface consisting of the bed and banks or sides within which water flows with a free surface

3.20**canal**

man-made *channel* (3.18), usually of regular cross-sectional shape

3.21**stable channel**

open channel (3.19) in which the bed and the sides remain essentially stable over a substantial period of time in the *reach* (3.34) under consideration, and in which the scour and *deposition* (10.5) during the rising and falling stages are negligible

3.22**unstable channel**

open channel (3.19) that changes frequently and significantly in its plan form and/or cross-sectional form for the *reach* (3.34) under consideration

3.23**tidal channel**

open channel (3.19) in which the *flow* (3.3) is subject to tidal influence

3.24**tide**

periodic rise and fall of water due principally to the gravitational attraction of the sun and the moon

3.25**estuary**

lower tidal *reaches* (3.34) of a *river* (3.27) that is freely connected with the sea which receives fresh water supplies from upland drainage areas

3.26**stream**

water course, water flowing in an *open channel* (3.19)

3.27**river**

large natural water course

3.28**large river**

major river

large natural water course that generally flows into the sea

3.29**creek**

brook

small natural water course

3.30**torrent**

small natural water course that is characterized by steep slopes and significant rapid changes in *discharge* (3.5) and that can transport considerable volumes of solid material