

SLOVENSKI STANDARD

SIST EN ISO 10628-2:2013

01-februar-2013

Nadomešča:
SIST EN ISO 10628:2002

Sheme za kemično in petrokemično industrijo - 2. del: Grafični simboli (ISO 10628-2:2012)

Diagrams for the chemical and petrochemical industry - Part 2: Graphical symbols (ISO 10628-2:2012)

Schemata für die chemische und petrochemische Industrie - Teil 2: Graphische Symbole (ISO 10628-2:2012)

Schémas de procédé pour l'industrie chimique et pétrochimique - Partie 2: Symboles graphiques (ISO 10628-2:2012)

Ta slovenski standard je istoveten z: EN ISO 10628-2:2012

ICS:

01.080.30	Grafični simboli za uporabo v risbah, diagramih, načrtih, zemljevidih v strojništvu in gradbeništvu ter v ustrezni tehnični proizvodni dokumentaciji	Graphical symbols for use on mechanical engineering and construction drawings, diagrams, plans, maps and in relevant technical product documentation
71.020	Proizvodnja v kemijski industriji	Production in the chemical industry
75.020	Pridobivanje in predelava nafte in zemeljskega plina	Extraction and processing of petroleum and natural gas

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en

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 10628-2

December 2012

ICS 75.020; 01.080.30; 71.020

Supersedes EN ISO 10628:2000

English Version

Diagrams for the chemical and petrochemical industry - Part 2: Graphical symbols (ISO 10628-2:2012)

Schémas de procédé pour l'industrie chimique et
pétrochimique - Partie 2: Symboles graphiques (ISO
10628-2:2012)

Schemata für die chemische und petrochemische Industrie
- Teil 2: Graphische Symbole (ISO 10628-2:2012)

This European Standard was approved by CEN on 10 November 2012.

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.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

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

Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents	Page
Foreword.....	3

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[SIST EN ISO 10628-2:2013](https://standards.iteh.ai/catalog/standards/sist/450099b7-6e15-48f2-821e-f122ea88af3c/sist-en-iso-10628-2-2013)
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Foreword

This document (EN ISO 10628-2:2012) has been prepared by Technical Committee ISO/TC 10 "Technical product documentation".

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 2013, and conflicting national standards shall be withdrawn at the latest by June 2013.

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

This document supersedes EN ISO 10628:2000.

According to the CEN/CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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Endorsement notice
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The text of ISO 10628-2:2012 has been approved by CEN as a EN ISO 10628-2:2012 without any modification.

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INTERNATIONAL STANDARD

ISO
10628-2

First edition
2012-12-01

Diagrams for the chemical and petrochemical industry —

Part 2: Graphical symbols

Schémas de procédé pour l'industrie chimique et pétrochimique —

Partie 2: Symboles graphiques

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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 2.

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 document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 10628-2 was prepared by Technical Committee ISO/TC 10, *Technical product documentation*, Subcommittee SC 10, *Process plant documentation*.

This first edition of ISO 10628-2, along with ISO 10628-1 (under preparation), cancels and replaces ISO 10628:1997, which has been technically revised.

ISO 10628 consists of the following parts, under the general title *Diagrams for the chemical and petrochemical industry*:

- Part 2: *Graphical symbols* (standards.iteh.ai)

The following part is under preparation:

- Part 1: *Specification of diagrams* [SIST EN ISO 10628-2:2013](http://standards.iteh.ai/catalog/standards/sist/450099b7-6e15-48f2-821e-f122ea88af3c/sist-en-iso-10628-2-2013)

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Diagrams for the chemical and petrochemical industry —

Part 2: Graphical symbols

1 Scope

This part of ISO 10628 defines graphical symbols for the preparation of diagrams for the chemical and petrochemical industry. It is a collective application standard of the ISO 14617 series.

This part of ISO 10628 does not apply to graphical symbols for electrotechnical diagrams; for these, see IEC 60617.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 10209, *Technical product documentation — Vocabulary — Terms relating to technical drawings, product definition and related documentation*

ISO 14617 (all parts), *Graphical symbols for diagrams*

ISO 15519-1, *Specification for diagrams for process industry — Part 1: General rules*

ISO 81714 (all parts), *Design of graphical symbols for use in the technical documentation of products*

IEC 81714 (all parts), *Design of graphical symbols for use in the technical documentation of products*

3 Terms and definitions

For the purposes of this document, the definitions given in the ISO 14617 series and ISO 10209 apply.

4 Structure of graphical symbols

The graphical symbols are grouped according to functional and/or design features. See Table 1.

Table 1 — Subject groups

Group number	Subject group
1	Vessels and tanks
2	Columns with internals
3	Heat exchangers
4	Steam generators, furnaces, recooling device
5	Cooling tower
6	Filters, liquid filters, gas filters
7	Screening devices, sieves and rakes
8	Separators
9	Centrifuges
10	Drier

Table 1 (continued)

Group number	Subject group
11	Crushing/Grinding machines
12	Mixers/Kneaders
13	Shaping machines – processing in vertical direction
14	Shaping machines – processing in horizontal direction
15	Liquid pumps
16	Compressors, vacuum pumps
17	Blowers, fans
18	Lifting, conveying and transport equipment
19	Proportioners, feeders and distribution facilities
20	Engines
21	Valves
22	Check valves
23	Valves and fittings with safety function
24	Fittings
25	Graphical symbols for piping
26	Apparatus elements
27	Internals
28	Agitators, stirrers
29	Internal characteristics and built-in-components

5 Graphical symbols

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Graphical symbols for diagrams used in chemical and petrochemical industry are presented in Table 2, which is divided into four columns, as follows:

1	Item no.	Consecutive numbering within each subject group according to Table 1
2	Reg. no.	Registration numbers structured as follows: nnn Registration number for ISO 14617 graphical symbols. Cnnnn Preliminary registration number for a new graphical symbol, which will be implemented in ISO 14617. The preliminary registration number will be replaced with the final ISO 14617 registration number at first periodical review of ISO 10628-2. X2nnn Registration number for ISO 14617 symbol examples. X8nnn Registration number for ISO 10628-2 symbol examples.
3	Graphical symbol	Graphical symbols shown with a 2,5 mm dotted grid behind. Preferred locations of connections at graphical symbols are indicated by “—”. This is not a part of the graphical symbol.
4	Description	The preferred descriptors for the graphical symbol.

Rules for modification of proportions and orientation of graphical symbols are given in ISO 81714 and IEC 81714.

If a graphical symbol is not accessible in ISO 10628-2, then ISO 14617 should be consulted for the needed graphical symbol.

If the needed graphical symbol is not available in ISO 14617, then the symbol shall be created by combining ISO 14617 symbols of basic nature with symbols given supplementary information according to rules given in ISO 14617, ISO 81714 and IEC 81714.

Table 2 — Graphical symbols for diagrams

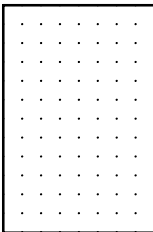
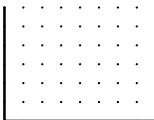
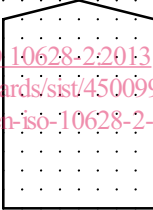
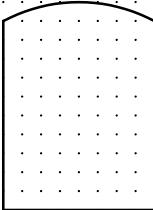
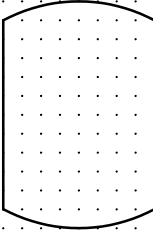
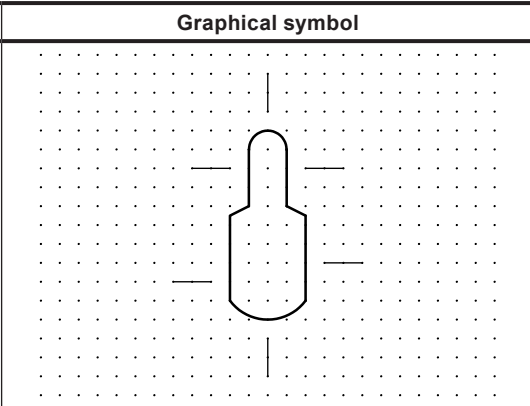
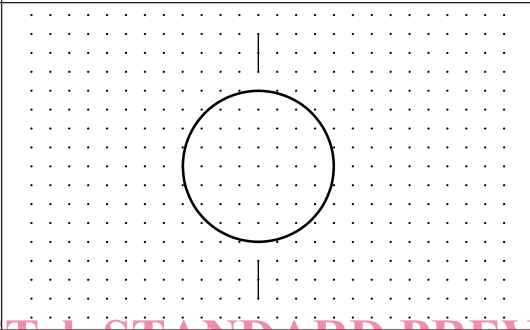
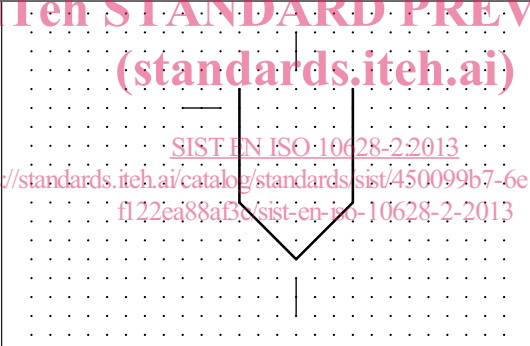
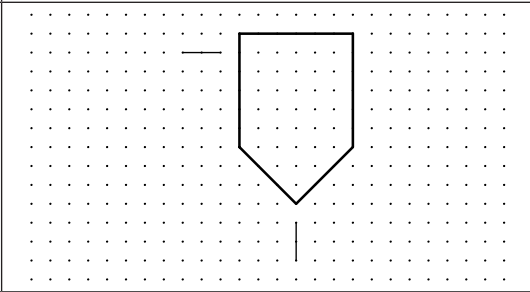
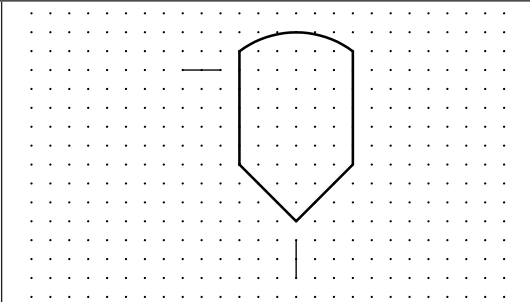
Item no.	Reg. no.	Graphical symbol	Description
1		VESSELS AND TANKS	
1.1	301		Tank, vessel
1.2	2061		Container, tank, cistern
1.3	X2063		Tank with conical roof and flat bottom
1.4	X8200		Tank with dished roof
1.5	2062		Tank, vessel with dished ends

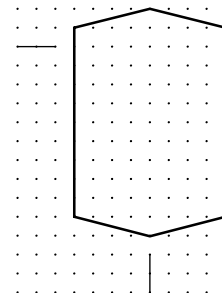
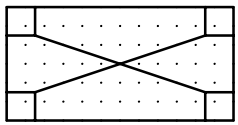



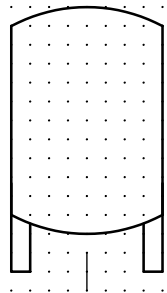
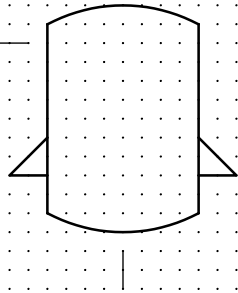
Table 2 (continued)

Item no.	Reg. no.	Graphical symbol	Description
1.6	X8201		Vessel with two different diameters
1.7	2063		Spherical vessel
1.8	2064		Bunker with conical bottom
1.9	X2062		Closed tank with conical bottom
1.10	X8008		Vessel with dished roof and conical bottom

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Table 2 (continued)

Item no.	Reg. no.	Graphical symbol	Description
1.11	X8009		Vessel with conical roof and bottom
1.12	C0001		Container for solids, liquids, gases
1.13	2067		Barrel, drum
1.14	C0002		Gas cylinder
1.15	2068		Bag
1.16	X8002		Vessel with dished ends and support legs
1.17	X8003		Vessel with dished ends and support brackets