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Diagrams for the chemical and petrochemical industry —

Part 1: Specification of diagrams

Schémas de procédé pour l'industrie chimique et pétrochimique —

Partie 1: Spécification des schémas de procédé

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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.

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 on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 10, *Technical product documentation*, Subcommittee SC 10, *Process plant documentation*.

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

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

— *Part 1: Specifications of diagrams*

— *Part 2: Graphical symbols*

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Diagrams for the chemical and petrochemical industry —

Part 1:
Specification of diagrams

1 Scope

This part of ISO 10628 specifies the classification, content, and representation of flow diagrams. In addition, it lays down drafting rules for flow diagrams for chemical and petrochemical industry.

This International Standard does not apply to electrical engineering diagrams. This part of ISO 10628 is a collective application standard of ISO 15519.

2 Normative references

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

ISO 128 (all parts), *Technical drawings — General principles of presentation*

ISO 7200, *Technical product documentation — Data fields in title blocks and document headers*

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 (all parts), *Specification for diagrams for process industry*

ISO 80000-1, *Quantities and units — Part 1: General*

IEC 62424:2008, *Representation of process control engineering requests in P&I diagrams and data exchange between P&ID tools and PCE-CAE tools*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 10209, ISO 14617 (all parts), ISO 15519 (all parts), and IEC 62424 apply.

4 Classification, information content, and presentation of flow diagrams

4.1 General

Flow diagrams show the structure and function of the process plants and are part of the entire set of technical documents which are required for planning, assembly, construction, management, commissioning, operation, maintenance, shutdown, and decommissioning of a plant.

Flow diagrams are a means by which information is exchanged between parties involved in the construction, assembly, operation, and maintenance of such process plants. General rules and recommendations for preparation of flow diagrams are given in ISO 15519.

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