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Australian Standard 1109—1981

GRAPHICAL SYMBOLS FOR PROCESS FLOW DIAGRAMS FOR THE FOOD INDUSTRY

STANDARDS ASSOCIATION OF AUSTRALIA
Incorporated by Royal Charter

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THE FOLLOWING SCIENTIFIC, INDUSTRIAL AND GOVERNMENTAL ORGANIZATIONS and departments were officially represented on the committee entrusted with the preparation of this standard:

Australian Institute of Dairy Factory Managers and Secretaries

Australian Society of Dairy Technology Incorporated

Confederation of Australian Industry

Dairy Equipment Manufacturers Association

Dairy Industry Authority of N.S.W.

Departments of Agriculture

Department of Primary Industry

Food Equipment Manufacturers Association of Australia

Manufacturers of tubes

Market Milk Federation of Australia

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AUSTRALIAN STANDARD

GRAPHICAL SYMBOLS FOR PROCESS FLOW DIAGRAMS FOR THE FOOD INDUSTRY

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PREFACE

This standard, prepared by the Association's Committee on Dairy Factory Equipment under the direction of the Dairying Standards Board, stemmed from a request from the Food Equipment Manufacturers Association of Australia for standard symbols commonly used in drawings prepared for the food industry. The obejct was the saving of time and cost in drawing preparation and interpretation.

Although the prior intention is to provide symbols for the benefit of those preparing process flow diagrams, alignment with symbols proposed by ISO* has been pursued as far as practicable to facilitate the decoding of overseas drawings. At the same time, optimum alignment with Australian standards has been sought.

This standard was derived from document ISO/TC 5/SC 9 123, Graphical Symbols for Process Flow Diagrams for the Food Industry, but during its preparation reference was made to the following Australian and ISO standards and ISO draft standard:

AS 1100	Drawing Practice
AS 1101	Graphical Symbols for General Engineering
AS 1102	Graphical Symbols for Electrotechnology
AS 1103	Diagrams, Charts and Tables for Electrotechnology
ISO 1219	Fluid Power Systems and Components—Graphic Symbols
ISO 3511/1	Process Measurement Control Functions and Instrumentation—Symbolic Representation—Part 1: Basic Requirements
ISO/DIS 3957	Graphic Symbols—Index, Survey and Compilation of the Single Sheets

*ISO standards in course of preparation may need to be used for describing detailed, complex symbols in drawings from other countries.

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STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard
for
GRAPHICAL SYMBOLS FOR PROCESS FLOW DIAGRAMS FOR THE FOOD INDUSTRY

SECTION 1. SCOPE AND GENERAL

1.1 SCOPE. This standard sets out symbols for use in process flow diagrams in the food industry. Basic symbols are illustrated together with some composite symbols. The symbols are not intended to replace the graphic symbols for electrical equipment given in AS 1102 and AS 1103.

NOTES:

1. The way has been left open for the use of general symbols amplified by legend rather than by the presentation of complex symbols.
2. The use of symbols is illustrated in ISO 3511/1.

1.2 DEFINITIONS. For the purpose of this standard, the following definitions apply:

Symbol—marks, characters, letters or combinations of these for indicating an object, idea, process or function.

Diagram—a figure showing the manner in which the various parts of a network, an installation, equipment or components are interrelated and interconnected.

1.3 SYMBOL RULES.

1.3.1 General. The general symbols indicate flow ways, connection and function, while the construction is emphasized by the carriers. However, the real location of the items symbolized may be other than shown in the diagram.

The performance and detailing of a flow diagram should be appropriate to its purpose. To simplify the reading of the diagrams, machines, valves etc should be placed on the diagram in relation to their function rather than their real location. Symbols should also be oriented either vertically or horizontally and the line of the processed fluid should be drawn with as few bends as possible and avoiding, as far as practicable, all crossing lines.

1.3.2 Size of Symbols. When choosing sizes and line widths for the symbols, consideration should be given to the readability of reproductions.

In a given diagram, thick lines shall symbolize pipelines for processed fluid and thin lines shall symbolize pipelines for other matters.

1.3.3 New Symbols. Composite symbols for machines, apparatuses, etc with several functions can be devised by combining the symbols in this standard, and text may also be added where required. The symbols of machines and apparatuses may be replaced by more realistic pictorial symbols, e.g. where it is desired to make items of a company's own contract more outstanding.

1.3.4 Symbol Orientation. Most symbols may be rotated or reversed in relation to the position shown in this standard without altering their meaning. Excepted are symbols indicating a direction, e.g. symbol numbers 2110.10 to 2110.13, or a directional dependent function. In symbols containing letters or figures, these shall be placed so that they can be read from the bottom or from the right of the diagram.