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# International Standard



# 6414

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INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

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## Technical drawings for glassware

*Dessins techniques de verrerie*

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**Descriptors :** technical drawings, glassware, laboratory glassware, generalities, graphic methods.

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up 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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 6414 was developed by Technical Committee ISO/TC 10, *Technical drawings*, and was circulated to the member bodies in January 1980.

It has been approved by the member bodies of the following countries:

Australia	Germany, F. R.	Philippines
Austria	Hungary	Poland
Belgium	India	Romania
Brazil	Italy	South Africa, Rep. of
Canada	Japan	Spain
Czechoslovakia	Korea, Rep. of	Switzerland
Denmark	Mexico	United Kingdom
Finland	Netherlands	USA
France	Norway	USSR

No member body expressed disapproval of the document.

# Technical drawings for glassware

## 0 Introduction

In this International Standard the figures merely illustrate the text and should not be considered as design examples. For this reason the figures are simplified and are not to scale.

For uniformity all figures in this International Standard are in first angle projection. It should be understood that alternative projection methods could have been used without prejudice to the principles established.

## 1 Scope and field of application

This International Standard establishes rules and conventions for particular use with drawings for technical glassware, for example laboratory glassware or glassware used in other technical fields.

Optical parts are not however, included herein.

## 2 References

ISO 128, *Technical drawings — General principles of presentation*.

ISO 129, *Technical drawings — Dimensioning*.<sup>1)</sup>

ISO 383, *Laboratory glassware — Interchangeable conical ground joints*.

ISO 641, *Laboratory glassware — Interchangeable spherical ground joints*.

ISO 1302, *Technical drawings — Method of indicating surface texture on drawings*.

ISO 4793, *Laboratory sintered (fritted) filters — Porosity grading, classification and designation*.

For additional information, see the annex.

## 3 General

**3.1** As a general principle, all glassware shall be drawn as if it were non-transparent (opaque), see ISO 128.

**3.2** In order to meet particular requirements for the design and manufacture of glassware, additional rules and conventions are specified in the following clauses.

## 4 Sections

**4.1** Small sections may be blackened, provided that the distance between their outlines on the actual drawing is not larger than 3 mm. If larger, the section shall be hatched. For thin-walled parts, see 6.1.

**4.2** Parts of different materials such as glass-metal seals which are fused together and shown in section, shall be hatched differently (see figure 1).

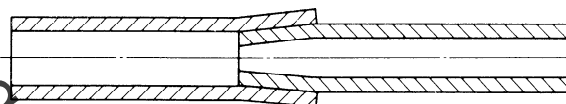


Figure 1

## 5 Treated parts

**5.1** Treated surfaces (for example ground, silver-plated, etched) shall be indicated in accordance with ISO 128, ISO 129 and ISO 1302 (see figure 2).

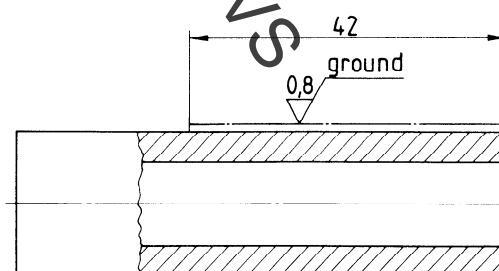


Figure 2

1) At present at the stage of draft. (Revision of ISO/R 129-1959.)