INTERNATIONAL STANDARD

ISO 7934

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AMENDMENT 1
1998-07-01

Stationary source emissions — Determination of the mass concentration of sulfur dioxide — Hydrogen peroxide/barium perchlorate/Thorin method

AMENDMENT 1

Émissions de sources fixes — Détermination de la concentration en masse de dioxyde de soufre — Méthode au peroxyde d'hydrogène/perchlorate de baryum/Thorin

AMENDEMENT 1

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.

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.

Amendment 1 to International Standard ISO 7934:1989 was prepared by Technical Committee ISO/TC 146, *Air quality*, Subcommittee SC 1, *Stationary source emissions*.

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Introduction

Comparative measurements of the mass concentration of sulfur dioxide (both in laboratory and under field conditions) using ISO 7934, the method described in ISO 11632 and the UV-instrumental method in ISO 7935 have shown that significantly lower values in the range of 5 % to 10 % are obtained with the method in ISO 7934.

Investigations have revealed that the difference disappears when using potassium hydroxide instead of sodium hydroxide to adjust the pH of the absorption solution before analysis. Therefore new subclauses 4.4 and 6.7 replace those of ISO 7934:1989. Also, for practical reasons, the male and female cones in the particle filter shown in figure 1 have been changed.

Stationary source emissions — Determination of the mass concentration of sulfur dioxide — Hydrogen peroxide/barium perchlorate/Thorin method

AMENDMENT 1

Page 2

Replace existing subclause 4.4 with the following:

4.4 Potassium hydroxide, standard volumetric solution *c*(KOH) = 0,1 mol/l.

Page 3

Replace existing subclause 6.7 with the following:

6.7 Adjust the pH of the combined sample solution, using the pH meter (5.2), to pH 3,5 by adding the appropriate volume of the standard volumetric potassium hydroxide solution (4.4) or the standard volumetric perchloric acid solution (4.5) as required to the combined sample solution. Transfer the resultant combined sample solution into a one-mark volumetric flask of suitable nominal capacity (see table 1)

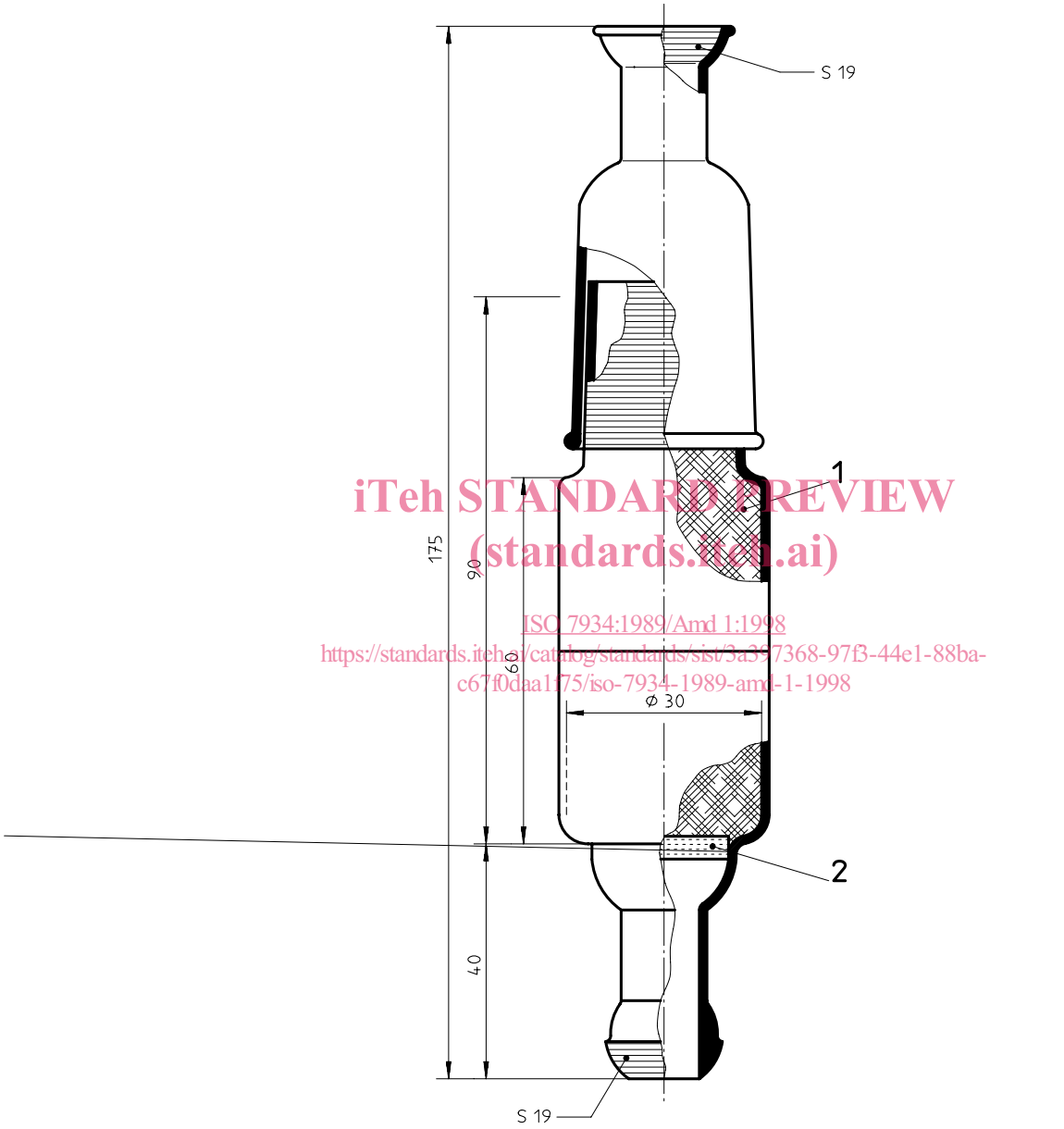
NOTE — The volumes of the treated joint sample solutions in table 1 may be exceeded in cases with waste gases containing high moisture contents. In such cases, a larger volumetric flask will be needed.

Make up to the mark with water and mix well.

Page 6

Replace existing figure 1 with the following new figure 1.

Dimensions in millimetres



Key

1 Quartz wool,
about 0,5 g to 0,8 g,
packed progressively

2 Perforated plate
or sintered filter

Figure 1 — Example of a particle filter

ICS 13.040.40

Descriptors: air, quality, air pollution, exhaust emissions, chemical analysis, determination of content, sulphur dioxide.

Price based on 2 pages