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Second edition  
2005-05-01

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## Laboratory glassware — Graduated measuring cylinders

*Verrerie de laboratoire — Éprouvettes graduées cylindriques*



Reference number  
ISO 4788:2005(E)

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## Foreword

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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 4788 was prepared by Technical Committee ISO/TC 48, *Laboratory glassware and related apparatus*, Subcommittee SC 6, *Laboratory and volumetric ware*.

This second edition cancels and replaces the first edition (ISO 4788:1980), which has been technically revised to incorporate the following changes:

- a) three types of graduated measuring cylinders have been specified;
- b) two classes of accuracy have been introduced;
- c) cylinders of squat form have been added;
- d) marking of cylinders has been changed;
- e) capacity at lowest graduation line for 5 ml and 10 ml cylinders has been increased.

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## Introduction

The first edition of this International Standard (ISO 4788:1980) was originally written when the use of measuring cylinders was largely limited to the approximate dispensing of reagents in wet chemical analytical procedures; only one grade of accuracy was specified.

More recently, with the increasing demand for accreditation and changing uses to which measuring cylinders are put, a significant demand has emerged worldwide for a more accurate class to complement the originally specified range.

Also, with more work being carried out in laminar-flow cabinets, glove boxes and fume extraction hoods, in which working heights are restricted, a need for short (squat) measuring cylinders has emerged.

This International Standard addresses these two needs, and has been prepared to meet the requirements of ISO 384. This International Standard includes

- a) spouted measuring cylinders of traditional (tall) form, accuracy classes A and B,
- b) stoppered measuring cylinders of traditional (tall) form, accuracy classes A and B, and
- c) spouted measuring cylinders of squat form, accuracy class B.

Class A has been considered for the third type (squat cylinders) but discounted because ISO 384 requirements would only be met by cylinders having manufacturing specifications which would be virtually impossible to satisfy.