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

## Selection of tolerance zones for general purposes

Sélection de zones de tolérances pour usages généraux

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### **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.

Prior to 1972, the results of the work of the Technical Committees were published as ISO Recommendations; these documents are now in the process of being transformed into International Standards. As part of this process, Technical Committee ISO/TC 3 has reviewed ISO Recommendation R 1829 and found it technically suitable for transformation. International Standard ISO 1829 therefore replaces ISO Recommendation R 1829-1970 to which it is technically identical.

ISO Recommendation R 1829 was approved by the Member Bodies of the following countries :

Austria India Romania Brazil Israel Spain

ChileJapanSouth Africa, Rep. oCzechoslovakiaNetherlandsSwedenEgypt, Arab Rep. ofNew ZealandSwitzerland

Germany Norway Turkey
Greece Peru United Kingdom

Hungary Poland U.S.S.R.

The Member Bodies of the following countries expressed disapproval of the Recommendation on technical grounds:

Belgium Canada France Portugal

The Member Body of the following country disapproved the transformation of ISO/R 1829 into an International Standard:

Australia

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### 0 INTRODUCTION

ISO/R 286, ISO System of limits and fits — Part I: General, tolerances and deviations, gives the possibility of a very wide choice among the various symbols for tolerance zones that it contains, even if this choice is limited only to those shown in its appendix as corresponding to commonly used shafts and holes for general purposes.

#### 1 SCOPE AND FIELD OF APPLICATION

The purpose of this International Standard is to avoid an unnecessary multiplicity of tools and gauges by restricting selection still further and guiding the user towards preferred tolerance zones for shafts and holes to be used in constituting fits.

It applies only to "general purposes" of ISO/R 286 (excluding therefore fine mechanisms and horology) and covers only the constitution of common use fits which do not require a more specific selection of tolerance zones (for example: keyways according to ISO/R 773 and ISO/R 774).

It also gives some practical recommendations concerning the choice of such fits.