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Self-centring chucks for machine tools with two-piece jaws (tongue and groove type) — Sizes for interchangeability and acceptance test specifications

Mandrins pour machines-outils, à serrage concentrique et à mors rapportés (assemblage cruciforme par tenon et languette) — Dimensions d'interchangeabilité et conditions de réception

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FOREWORD

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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 3442 was drawn up by Technical Committee ISO/TC 39, *Machine tools*, and circulated to the Member Bodies in May 1974.

It has been approved by the Member Bodies of the following countries :

Australia	Hungary	Spain
Austria	India	Sweden
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The Member Bodies of the following countries expressed disapproval of the document on technical grounds :

Germany
United Kingdom

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0 INTRODUCTION

This International Standard is the first of a series relating to self-centring chucks with two-piece jaws; however, only types in common use are considered.

Because of its wide usage, the type called "tongue and groove" has been made the subject of this International Standard.

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies the sizes for interchangeability, and describes, with reference to ISO/R 230, *Machine tool test code*, the geometrical tests on self-centring chucks with two-piece jaws and the corresponding permissible deviations which apply.

Sizes for interchangeability

Though the internal mounting parts and the fixing screws are not respectively interchangeable, depending whether they are manufactured in conformity with the metric sizes or the inch sizes, there is direct interchangeability for the same type between the base or master jaws in metric sizes and top jaws in inches, or vice versa.

Acceptance test specifications

According to the type of chuck considered, i.e. wrench- or drawbar-operated, the main purpose of these tests is to allow either a top jaw mounting compatible with the machining accuracy of the chuck or a precise setting for top jaws on the chuck after carrying out preliminary centring, straightening or locking operations on a jig out of the machine.

This International Standard deals only with the inspection of rotational accuracy of the chuck and the positioning of the assembling elements of top jaws. It does not apply to other dynamic qualities, such as measurement of lack of balance during rotation, balancing or measurement of gripping powers.

2 PRECISION CLASSES

Two precision classes are specified, namely :

- Class I, corresponding to precision chucks;
- Class II, corresponding to normal accuracy chucks.

For purposes of information, and particularly concerning Class I drawbar-operated chucks, it should be noted that these can be provided, if necessary, with specially adjusted base or master jaws which are not interchangeable with other base or master jaws.