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Hollow taper interface with flange contact surface —

Part 1: Shanks of types A, AB, C, CB and EB

Interfaces à cône creux-face —

Partie 1: Queues de type A, AB, C, CB et EB

Reference number
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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by the Technical Committee ISO/TC 29, *Small tools*, Subcommittee SC 9, *Tools with defined cutting edges, holding tools, cutting items, adaptive items and interfaces*.

This second edition cancels and replaces the first edition (ISO 12164-1:2001), which has been technically revised.

The main changes are as follows:

— new hollow taper shank types added;

— new hollow taper shank of type AB has a peripherally grooved flange collar for automatic tool change, dynamically balanced;

— new hollow taper shank of type CB for manual tool change, dynamically balanced;

— new hollow taper shank of type EB has a peripherally grooved flange collar for automatic tool change, symmetrically designed;

— the balancing quality has been improved.

A list of all parts of the ISO 12164 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user’s national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Hollow taper interface with flange contact surface —

Part 1:
Shanks of types A, AB, C, CB and EB

1 Scope

This document specifies the dimensions of hollow taper shanks with flange contact surface (HSK). These shanks are the male part of the interface to the machine tools (e. g. milling/drilling, turning and grinding machines).

This document specifies five types of shanks:

— types A, AB and EB have a peripherally grooved flange for automatic tool change;

— types C and CB have a flange without peripheral groove and can only be changed manually.

HSK types A and AB can also be changed manually via radial access bore holes in the hollow shank tapers.

This document provides information for dynamically balanced HSK-AB and HSK-CB shanks balancing according to ISO 16084.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 2768-1, *General tolerances — Part 1: Tolerances for linear and angular dimensions without individual tolerance indications*

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

4 Hollow taper shanks, types and dimensions

4.1 General

Dimensions for all parameters of all types and sizes of HSK hollow taper shanks are provided in 4.5.

Parameters of the types C, CB and EB, not specified in 4.3 and 4.4, shall be taken from 4.5. Details not specified in 4.5 shall be chosen expediently.

Only the HSK types AB and CB have balancing recesses inside the low HSK taper groove and left and right of it (see Figures 1 and 11). They lead, together with the corresponding balancing measures of

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