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BSI Standards Publication

Medium-transfer units for tool interfaces

Part 1: Transfer units for hollow taper shanks in accordance with the ISO 12164 series

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National foreword

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INTERNATIONAL STANDARD

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Medium-transfer units for tool interfaces —

Part 1: Transfer units for hollow taper shanks in accordance with the ISO 12164 series

Unités de transfert de fluide pour les interfaces d'outils —

Partie 1: Unités de transfert pour queues à cône creux-face conformes à la série ISO 12164

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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.

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 documents 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 Technical Committee ISO/TC 29, *Small tools*, Subcommittee SC 9, *Tools with defined cutting edges, holding tools, cutting items, adaptive items and interfaces*.

A list of all parts in the ISO 22402 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.

This corrected version of ISO 22402-1:2021 incorporates the following corrections:

— in Table 3, values for d_2 have been corrected;

— in Tables 1 to 4, the headers have been corrected;

— in Table 4, a separate line has been added for l_1, transfer unit type I.

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INTERNATIONAL STANDARD ISO 22402-1:2021

Medium-transfer units for tool interfaces —

Part 1: Transfer units for hollow taper shanks in accordance with the ISO 12164 series

1 Scope

This document specifies the dimensions of medium-transfer units for wet processing and interfaces machine tool with insert nuts, which are used in hollow taper shanks taper in accordance with the ISO 12164 series.

2 Normative references

There are no normative references in this document.

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 Transfer units for wet machining, types and dimensions

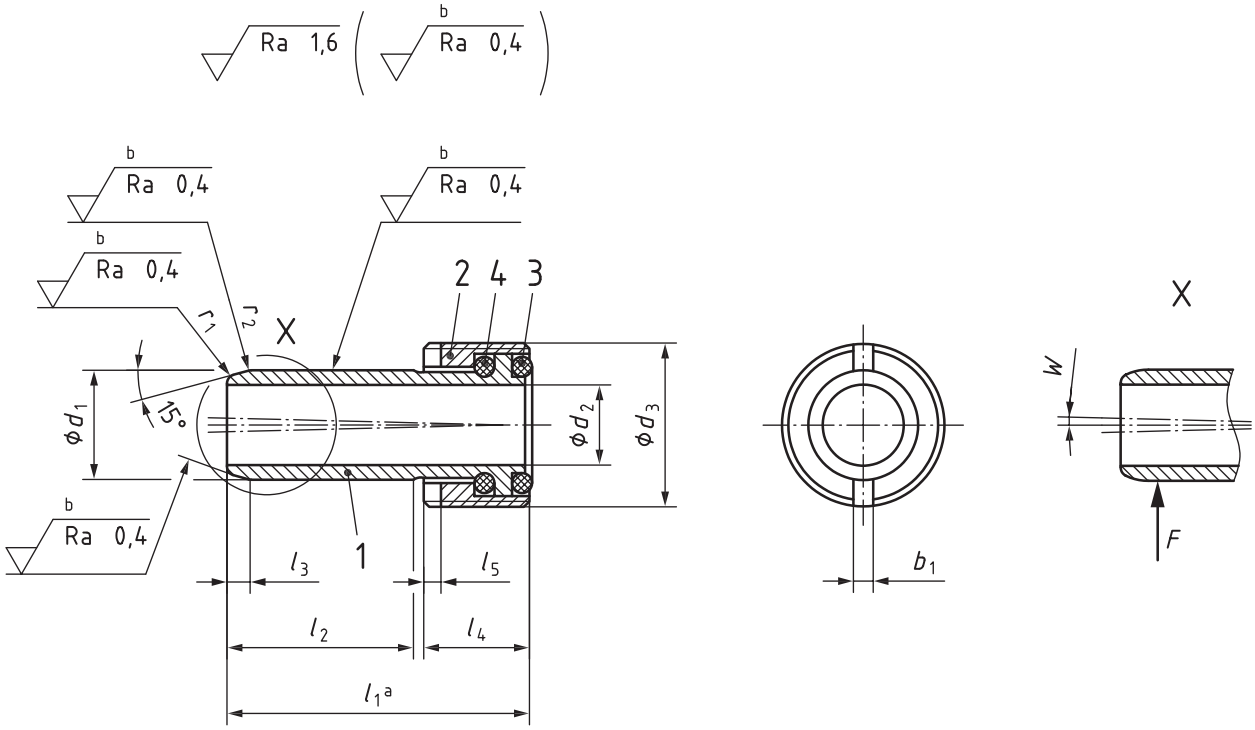
4.1 Transfer unit for automatic tool change, type A

The transfer unit of the form A shall be carried out according to Figure 1 and Table 1.

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Key

1 transfer tube
2 threaded bush
3 O-ring 1
4 O-ring 2
a In installed condition.
b Polished.

Figure 1 — Transfer unit, type A, dimensions

Table 1 — Transfer unit, type A, dimensions

Nominal size					**20**	**25**	**32**	**40**	**50**	**63**	**80**	**100**	**125**	**160**
Suitable for HSK-type					**Size per type**									
A	**AB**	**EB**	**T**	**TA**	**20**	**25**	**32**	**40**	**50**	**63**	**80**	**100**	**125**	**160**
AS		**ES**	**—**		**25**	**32**	**40**	**50**	**63**	**80**	**100**	**125**	**160**	**—**
b_1		+0,2 0	[mm]		1,5	1,5	1,5	2	2	2,5	2,5	3	4	5
d_1		f8	[mm]		3	5	6	8	10	12	14	16	18	20
d_2			[mm]		1,8	3	3,5	5	6,4	8	10	12	14	16
d_3			[mm]		M6 × 0,75	M8 × 1	M10 × 1	M12 × 1	M16 × 1	M18 × 1	M20 × 1,5	M24 × 1,5	M30 × 1,5	M35× 1,5
l_1		0 −0,5	[mm]		14	17	26	29,5	33	36,5	40	44	48	52
l_2		min	[mm]		9	11	16	16	19	20	20	23	25	25
l_3			[mm]		1	2	2,5	2,5	3	3	3	3	3,5	3,5
l_4		0 −0,2	[mm]		3,85	4,5	5,5	7,5	9,5	11,5	13,5	15,5	17,5	19,4
l_5		+0,2 0	[mm]		1,4	1,5	1,5	2	2	2,5	2,5	3	3,5	3,5
r_1			[mm]		0,3	0,4	1	1	1	1,5	1,5	1,5	1,5	1,5
r_2			[mm]		1,6	1,6	2	2	2	3	3	3	3	3

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