

Transformed

ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION
R 299

T SLOTS FOR MACHINE TOOLS

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BRIEF HISTORY

The ISO Recommendation R 299, *T Slots for Machine Tools*, was drawn up by Technical Committee ISO/TC 39, *Machine Tools*, the Secretariat of which is held by the Association Française de Normalisation (AFNOR).

Work on this question by the Technical Committee began in 1950, taking into account the studies which had been made by the former International Federation of the National Standardizing Associations (ISA), and led, in 1958, to the adoption of a Draft ISO Recommendation.

In April 1961, this Draft ISO Recommendation (No. 452) was circulated to all the ISO Member Bodies for enquiry. It was approved by the following Member Bodies:

Austria	Greece	Poland
Belgium	Hungary	Portugal
Bulgaria	India	Romania
Chile	Iran	Sweden
Colombia	Italy	Switzerland
Czechoslovakia	Japan	United Kingdom
Denmark	Mexico	U.S.A.
France	Netherlands	U.S.S.R.
Germany	New Zealand	

No Member Body opposed the approval of the Draft.

The Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided, in March 1963, to accept it as an ISO RECOMMENDATION.

T SLOTS FOR MACHINE TOOLS

1. SCOPE

This ISO Recommendation deals with sizes for T slots for machine tools, as well as sizes for square head bolts to be used in these slots.

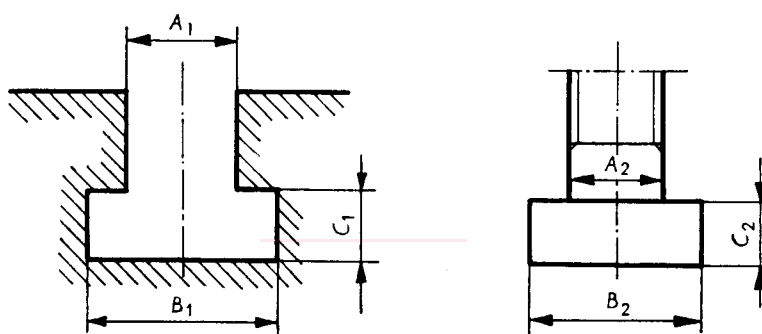
2. SIZES

Sizes for slots indicated in the table below are valid, if not for series of machine tools now in course of manufacture, at least for new ones to be designed after the date of application of this ISO Recommendation.

These sizes, as well as those for the corresponding bolts, either in millimetres or in inches, ensure practical interchangeability between machines made in either of the two systems of measurement, as well as, in many cases, interchangeability with existing machines.

The depth of the slot in relation to the machine table has not been given, as it does not affect interchangeability; it is left to the manufacturers' responsibility according to the dimensions of the table, its size, the grade of steel, etc.

For tenon slots, there is no interchangeability from one system of measurement to the other, since the nominal dimension A_1 is not identically the same in millimetres and in inches.



Values in millimetres						Values in inches					
Slot			Bolt			Slot			Bolt		
A_1	B_1 min.	C_1 min.	A_2	B_2	C_2	A_1	B_1 min.	C_1 min.	A_2	B_2	C_2
10	16	7	8	15	6	11/32	41/64	1/4	5/16	19/32	15/64
12	19	8	10	18	7	7/16	3/4	19/64	3/8	11/16	9/32
14	23	9	12	22	8	9/16	29/32	23/64	1/2	7/8	5/16
18	30	12	16	28	10	11/16	1 3/16	29/64	5/8	1 1/8	13/32
22	37	16	20	34	14	13/16	1 7/16	19/32	3/4	1 5/16	17/32
28	46	20	24	43	18	1 1/16	1 13/16	25/32	1	1 11/16	11/16
36	56	25	30	53	23	1 5/16	2 3/16	1	1 1/4	2 1/16	15/16
42	68	32	36	64	28	1 9/16	2 11/16	1 1/4	1 1/2	2 1/2	1 3/16

Slots: Tolerances on A_1 : H12 for fixing slots,
H8 for tenon slots.

Bolts: Tolerances on A_2 , B_2 and C_2 : usual tolerances for bolts and nuts.

Screw threads: screw threads for bolts and nuts according to the relevant ISO Recommendations.

Though the assembly by bolts is the only one shown in this ISO Recommendation, any other device complying with the same interchangeability conditions may be regarded as in agreement with this ISO Recommendation.